

# TBM Spoil Waste Categorisation Report

<b>TBM Spoil Waste Cat Report No:</b>	C03.0120220407132213_05	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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## 1. Motherhub Summary

Source TBM/Bin at Pivot	1	Source Geological Domain	3
Approx. Source Tunnel Chainage From	258	Approx. Source Tunnel Chainage To	273
Approx. Rings From	109	Approx. Rings To	115
Foaming Agent	TamSoil 287AC	Water Source	Potable (City West Water)
For BSF Holding Bay No:	C03.01	Start of Filling From (Time / date)	23/03/2022
Tonnes Put in Holding Bay No:	6916.76	Finish of Filling (Time / Date)	24/03/2022
Classified Volume (LCM)	4000	Spoil Classification Decision	NPIW Containment
Sampling Ratio (samples per LCM)	1 : 181.82	Approx. Bank Cubic Meters (BCM)	2868.17

## 2. Agon Spoil Classification Decision

Spoil Categorisation Decision (State Yes or No in each Row)	
NPIW Containment - 2020/476 (SO 9042848)	Yes
NPIW Landfill - 2019/404 (SO 9038429)	Yes
PIW-Category C - 2019/405 (SO 9038560)	No
PIW-Category B - 2019/406 (SO 9038561)	No
PIW-Category A	No

## 3. Agon Spoil Classification Assessment

### 3.1 Applicable Samples

Table 3.1 - 1 lists the applicable sample numbers for this spoil. These have been determined from:

- The date / time bay filling was started
- The date / time bay filling was finished
- The ID of the first truck that deposited spoil in the bay and the date / time that it was filled at Pivot
- The ID of the last truck that deposited spoil in the bay and the date / time it was filled at Pivot
- The sample ID that was associated with the first truck – noting that a time window to be associated with each sample is half the time interval between its sampling time and the time of the preceding and the following samples. For example, if samples were collected at 8am, noon and 4 pm, the time window for the noon sample is between 10 am and 2 pm. That is this sample “belongs” to all truck loaded in this time window

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Table 3.1 - Applicable Sample ID's

*Table 3.1 - 1 Applicable Sample ID's*

Applicable Spoil Sample ID's		
SX_OB_20220324_12_27_SS_Primary_EUF	SX_OB_20220324_03_56_SS_Primary_EUF	SX_OB_20220323_16_01_SS_Primary_EUF
SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_00_04_SS_Primary_ALS	SX_OB_20220323_12_23_SS_Primary_EUF
SX_OB_20220324_08_18_SS_Primary_EUF	SX_OB_20220323_23_59_SS_Primary_EUF	SX_OB_20220323_12_17_SS_Primary_ALS
SX_OB_20220324_08_13_SS_Triplicate_EUF	SX_OB_20220323_20_07_SS_Primary_ALS	SX_OB_20220323_08_21_SS_Triplicate_EUF
SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220323_19_59_SS_Primary_EUF	SX_OB_20220323_08_19_SS_Duplicate_ALS
SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220323_16_11_SS_Primary_ALS	SX_OB_20220323_08_17_SS_Primary_ALS
SX_OB_20220324_04_00_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_08_12_SS_Primary_EUF
SX_OB_20220323_16_02_SS_Duplicate_EUF		
Total Sample Numbers	22	Ratio Acceptable
Primary Sample Numbers	16	Yes
Classified Volume (LCM)	4000 m <sup>3</sup>	
Volume: Sample Number Ratio (Samples per LCM)	1 : 181.82	

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<b>TBM Spoil Waste Cat Report No:</b>	<b>C03.0120220407132213_05</b>	<b>This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u></b>
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## 3.2 Data Quality Compliance with SAQP

Table 3.2-1 evaluates the compliance of the data quality for this spoil – by reference to the criteria in the SAQP (Yes / No).

*Table 3.2 - 1 Evaluation of Quality of Data for this Spoil*

DQI	Field Consideration	Laboratory Consideration	Overall Data Quality Acceptability
Precision	Yes	Yes	Yes
Accuracy	Yes	Yes	Yes
Representativeness	Yes	Yes	Yes
Completeness	Yes	Yes	Yes
Comparability	Yes	Yes	Yes

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## 3.3 Selection of the Spoil Sample Testing Regime

Table 3.3 - 1 Selection of the Spoil Sample Testing Regime

	(State Yes or No in each Row)
<p>A. Is testing all spoil samples taken required for spoil in this Holding Bay, because prior to this Holding Bay, less than 10 Holding Bays of spoil have been tested from this Domain</p> <p>If the answer is Yes, go to E. If the answer is No, go to B.</p>	<b>Yes</b>
<p>B. If the answer to A is No (i.e., 10 or more Holding Bays of spoil have been tested from this Domain), do trends in the maximum data values from the previous 10 bays indicate that results are trending at &lt;75% of the containment criteria?</p> <p>If the answer is Yes, go to C. If the answer is No, go to D.</p>	<b>NA</b>
<p>C. If the answer to B is Yes, then was <b>testing</b> of spoil for this Holding Bay reduced to two primary samples per bay plus QC samples (Minimum Testing Regime) as allowed by the SAQP (See SAQP Section 6.2.7)?</p>	<b>NA</b>
<p>D. If the answer to B is No, then was the default testing regime implemented for all samples collected for the spoil in this Holding Bay (as required by the SAQP)?</p>	<b>NA</b>
<p>E. Based on the answers to Questions A to D above, was the default testing regime (as defined in the SAQP) applied to the spoil in this Holding Bay?</p>	<b>Yes</b>
<p>F. Based on the answers to Questions A to D above, was the Minimum testing Regime (as defined in the SAQP) applied to the spoil in this Holding Bay?</p>	<b>No</b>

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## 3.4 Spoil Compliance with SAQP Criteria for Containment Cell

Table 3.4 - 1 Spoil Compliance with SAQP Criteria for Containment Cell

<b>Need for IWRG 621.1 or 655.1 Testing</b>	
A. Is Spoil in this Holding Bay from a Zone of Exception or Anomalous and required testing for IWRG 621.1?	<b>No</b>
B. Is IWRG 621.1 testing required for spoil in this Holding Bay, because prior to this Holding Bay, less than 10 Holding Bays of spoil have been tested from this Domain?	<b>Yes</b>
C. Is IWRG 621.1 testing required for spoil in this Holding Bay, because the moving 95% UCL values for the previous 10 consecutive Holding Bays of spoil from this Domain are not below TCO ?	<b>No</b>
D. Is testing pursuant to IWRG 655.1 required for spoil in this Holding Bay, because the spoil comes from Exception Zone 3 (See SAQP Section 5.4)?	<b>No</b>
E. Has spoil testing for IWRG 621.1 Parameters been triggered by results of spoil water tests for previous Holding Bays of spoil from this geological domain?	<b>No</b>
<b>Outcome from IWRG 621.1 testing (if needed)</b>	
F. If Yes to one or more Questions A, B, C or E, (and not NOC< applicable background concentrations) then do test results for IWRG 621.1 (see Table 3.4-2) prohibit NPIW Containment as a spoil Classification Outcome? If no to all of Questions A, B, C and E, then respond NA to this question.	<b>No</b>
<b>Outcome from IWRG 655.1 testing (if needed)</b>	
G. If Yes to Questions D, then do test results for IWRG 655.1 (see Table 3.4-3) permit NPIW Containment as a spoil Classification Outcome? If no to Question D, respond NA to this question	<b>NA</b>
<b>Outcome from PFAS Testing</b>	
H. Do test results for PFAS (see Table 3.4-4 below) permit NPIW Containment as a spoil Classification Outcome?	<b>Yes</b>
<b><i>If Yes to either or both of Question E or F, then Spoil is Not Suitable for Containment; Go to Section 3.5. Otherwise, it is Suitable for Containment</i></b>	
<b>Notes:</b>	
1. Criteria taken from EPA Grandfathered Classifications for TBM Spoil (2020/476 (SO 9042848)), and from the EPA approved EMP for Hi Quality's Containment Cell	

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Table 3.4 - 2 IWRG 621.1 Parameter Concentration Statistics & Spoil Suitability for Containment

IWRG 621.1 Exceedance Test Results												
Chemical	Unit	LOR	No. of samples	No. of primary samples	Sample: LCM Ratio	No > LOR	Min	Mean	95% UCL on Mean	Max	Limiting Criteria for NPIW Containment	Comment
Arsenic	mg/kg	2	22*	16	1 : 181.82	22	17	29.45	32.3	55	20	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Chromium (Hexavalent)	mg/kg	1	22*	16	1 : 181.82	5	<1.0	1.26	NA	1.5	1	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Nickel	mg/kg	5	22*	16	1 : 181.82	22	110	173.5	185.4	240	60	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Fluoride	mg/kg	100	22*	16	1 : 181.82	11	<100	334	NA	880	450	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)

“\*” - Ratio used for categorisation of spoil is samples to LCM due to spoil not being from a zone of exception. (See Section 4)

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Table 3.4 – 3 IWRG 655.1 (WASS) Parameter Concentration Statistics & Spoil Suitability for Containment

IWRG 655.1 Test Results											
Chemical	Unit	LOR	No. of primary samples	Sample: LCM Ratio	No > LOR	Min	Mean	95% UCL on Mean	Max	Limiting Criteria for NPIW Containment	Comment
pHF	pH									5	
pHFox	pH									5	
Delta pH										2	
%S	%									0.03%	
Mol H+ /tonne	Mol/tonne									18	

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Table 3.4 - 4 PFAS Parameter Concentrations & Spoil Suitability for Containment

PFAS Test Results											
Chemical	Unit	LOR	No. of samples	No. of primary samples	No > LOR	Min	Mean	95% UCL on Mean	Max	Upper Limiting Criteria for NPIW Containment	Spoil Category for PFAS
Total PFAS Concentrations											
Total PFOS	ug/kg	5	22*	16	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFOA	ug/kg	5	22*	16	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFHxS	ug/kg	5	22*	16	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
ASLP (pH= 5) PFAS Concentrations											
PFOA	ug/L	0.01	22*	16	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	22*	16	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment
ASLP (pH= 7) PFAS Concentrations											
PFOA	ug/L	0.01	22*	16	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	22*	16	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment

“\*” - Ratio used for categorisation of spoil is Total samples to LCM due to spoil not being from a zone of exception. (See Section 4)



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## 3.5 Waste Classification for Spoil Not Suitable for Containment Cell

This Section 3.5 and the Tables 3.5-1 to 3.5-3 only apply if the spoil is classified in Section 3.4 as not suitable for the Containment Cell. If the spoil is classified in Section 3.4 as not suitable for the Containment Cell, then Tables 3.5-1 and 3.5-2 contain no data and no assessment.

Table 3.5 - 1 below contains the statistics for IWRG 621.1 Parameter concentrations, and Agon's assessment of their implications for the spoil waste category

Table 3.5 - 2 below contains the statistics for IWRG 655.1 Parameter concentrations, and Agon's assessment of their implications for the spoil waste category

Table 3.5 - 3 below contains the statistics for PFAS concentration, and Agon's assessment of their implications for the spoil waste category

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Table 3.5 - 1 IWRG 621.1 Parameter Concentration Statistics & Waste Classifications

IWRG 621.1 Exceedance Test Results													
Chemical	Unit	LOR	No. of primary samples	Sample: LCM Ratio	No > LOR	Min	Mean	95% UCL on Mean	Max	Limiting Criteria for NPIW	Limiting Criteria for Cat C	Limiting Criteria for Cat B	Comment
Arsenic	mg/kg												
Copper	mg/kg												
Chromium (Hexavalent)	mg/kg												
Nickel	mg/kg												
Fluoride	mg/kg												

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<b>TBM Spoil Waste Cat Report No:</b>	<b>C03.0120220407132213_05</b>	<b>This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u></b>
---------------------------------------	--------------------------------	---

Table 3.5 – 2 IWRG 655.1 (WASS) Parameter Concentration Statistics & Waste Classification

IWRG 655.1 Test Results											
Chemical	Unit	LOR	No. of primary samples	Sample: LCM Ratio	No > LOR	Min	Mean	95% UCL on Mean	Max	Limiting Criteria for NPIW Containment	Comment
pHF	pH									5	
pHFox	pH									5	
Delta pH										2	
%S	%									0.03%	
Mol H+ /tonne	Mol/tonne									18	

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Table 3.5 - 3 PFAS Parameter Concentrations and Waste Classifications

PFAS Test Results													
Chemical	Unit	LOR	No. of primary samples	No > LOR	Min	Mean	95% UCL on Mean	Max	Upper Limiting Criteria for NPIW Containment	Upper Limiting Criteria for NPIW Landfill	Upper Limiting Criteria for PIW Cat C	Upper Limiting Criteria for PIW Cat B	Spoil Category for PFAS
Total PFAS Concentrations													
Total PFOS	ug/kg												
Total PFOA	ug/kg												
Total PFHxS	ug/kg												
ASLP (pH= 5) PFAS Concentrations													
PFOA	ug/L												
PFOS+PFHxS	ug/L												
ASLP (pH= 7) PFAS Concentrations													
PFOA	ug/L												
PFOS+PFHxS	ug/L												

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--------------------------------	-------------------------	---

## 4. Comments and Limitations

Comments and Limitations	
1.	<p>Naturally Occurring Chemicals listed in IWRG 621.1 that are within the Background range despite being reported at concentrations that would otherwise categorise the material as PIW:</p> <ol style="list-style-type: none"> <li>1. Technical discussion around the naturally occurring metal concentrations found in soils beneath the WGTP is detailed in <i>Golder (2017b) – Technical Report B, Appendix E – Environmental characterisation of spoil (natural soil and rock)</i>. The report indicates that elevated metals (including arsenic, nickel, copper, chromium (CrVI), zinc and mercury) were considered to be associated with natural enrichment instead of anthropogenic contamination.               <ol style="list-style-type: none"> <li>a. <b>Arsenic</b> – <i>Golder (2017b) – Technical Report B, Appendix E</i> section 6.2 <i>Arsenic enrichment in the residual soil of the upper Older Volcanics (Tvo1)</i> found that while the soil of the upper Older Volcanics sub-unit contains arsenic, the arsenic is not characteristic of the wider sub unit (i.e the rock) or the lower sub-unit (soil or rock). The concentration of arsenic therefore appears to be related to the chemical and biological weather of the unit over time. This is further supported by:                   <ol style="list-style-type: none"> <li>i. The residual soil of the sub-unit being characterised by iron-oxide staining and containing goethite. Goethite is an iron oxyhydroxide mineral, which can contain elevated concentrations of arsenic.</li> </ol> <p>Golder therefore concluded that based on the broad vertical distribution of arsenic and the presence of arsenic throughout the greater project area, arsenic results in Upper Older Volcanics soil are not likely to be associated with anthropogenic contamination.</p> </li> <li>b. <b>Nickel</b> – <i>Golder (2017b) – Technical Report B, Appendix E</i> section 6.3 <i>Nickel enrichment within the upper Older Volcanics</i> found that                   <ol style="list-style-type: none"> <li>i. Nickel is known to be enriched within olivine and pyroxene basalt minerals, leading to nickel enrichment of soils weathered from basalt (Martini and Chesworth, 2013).</li> <li>ii. The reported mean nickel concentrations within the Older Volcanics were comparable to results reported within soils derived from basalt in Auckland and basalt rock of Finland (ARC, 2001; Koljonen, 1992), Older Volcanics observed in the Melbourne Metro Project (Golder, 1026a) and Newer Volcanics basalt of the Westenra Plains (Birch, 2003).</li> <li>iii. Enriched nickel concentrations corresponded with enriched cobalt (all units) and iron (except Tvo2 soil) indicating that the nickel is likely associated with geochemical enrichment rather than added contamination.</li> <li>iv. Enriched nickel concentrations also corresponded with enriched copper (Tvo2 soil and rock) and zinc (all units) indicating that the nickel is likely associated with geochemical enrichment rather than added contamination.</li> </ol> </li> </ol> </li> </ol>

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Golder therefore concluded that the nickel is likely associated with geochemical enrichment rather than added contamination.

The Golder study found that based on review of the depth, site history and the geochemical association of elements, the reported elevated concentrations of arsenic and nickel are considered representative of geogenic conditions and are not expected to be associated with contamination.

2. Previous reviews of the presence of hexavalent chromium (CrVI) in soil data outlined on the SAQP (Rev 5) were undertaken by Golders (2017) and later consolidated with data compiled by Mikkonen by AJJV (2019). The AJJV review of the consolidated data set identified:

- Samples reported to contain hexavalent chromium above the IWRG621 Table 2 Fill Material Upper Limit of 1mg/kg, were not collected in areas considered to be where anthropogenic sources of CrVI were present
- The ratio of tests reported above the laboratory LOR of 0.5 mg/kg was 15 out of 84 tests
- The ratio of tests where CrVI was above 1mg/kg was 3 in 84 samples
- The maximum reported concentration was 2.8mg/kg
- The 95%UCLave was 0.439

The AJJV data review was to assess whether the spoil derived from the tunnelling operations would contain chemicals that would result in the spoil being classified as something other than Fill Material. AJJV concluded the CrVI was present due to natural enrichment. Refer extract from the AJJV report below:

*In summary, the reported CrVI concentration reported in the Older Volcanics are considered to be naturally occurring / enriched based on the following:*

- *No potential CrVI sources have been identified in the vicinity of the sampling locations that reported the CrVI concentrations.*
- *Similar concentrations of CrVI were reported in the Older Volcanics on the MMRP, that were deemed to be naturally occurring.*
- *The 2017 Golder report concluded that enriched arsenic concentrations in the Older Volcanics on WGT*
- *Corresponded with enriched vanadium indicating that the arsenic is likely associated with geochemical enrichment rather than added contamination. The elevated CrVI is also found through this area deemed to be geochemically enriched.*
- *There were limited exceedances of CrVI in the groundwater, which suggested no evidence of an anthropogenic source or Potential pathway from the surface*

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---------------------------------------	--------------------------------	--

*Given the large volume of ground to be tunnelled, the 95% UCL's in Table E.2 and the likely naturally enriched nature of the reported CrVI, AJJV consider that the CrVI impacts will not alter the spoil classification within Domain 5. AJJV note that the material will undergo ongoing sampling as the TBM spoil is produced – sampling will be outlined within the SAQP. If any contaminated material is encountered beyond the extent of the nominated potentially contaminated domains, this will trigger management of the material in accordance with Tunnel Spoil Disposal Framework.*

Agon notes that Table E1: Summary of elevated concentration within Natural materials concludes the presence of hexavalent chromium may “Potentially” classify the spoil as PIW.

Unit	Element Exceeding Criteria	Count	Detects	Min	Max	Mean	Median	Standard Deviation	Count of Exceedance	95% UCL	Fill Material Upper Limit	Victorian Background Soil Database Soil greater than 0.6 m below surface				Findings		Classification as PIW
												Count	Min#	Max	Mean	95% UCL Statistical Assessment	Victorian Soil Database Assessment	
Older Volcanics	Fluoride	84	1	50	600	204	185	109	2	225.1	450	92	<100	790	283	Not Exceeding	Natural Origin	No Affect
	Arsenic	101	84	<4	860	33	7	116	25	84.6	20	994	≤10	1200	18	Exceeding	Natural Origin	No Affect
	Cadmium	103	6	<0.1	3	0.52	0.5	0.41	2	NA	3	-	-	-	-	NA	No Data	No Affect
	Chromium (VI)	84	15	<0.5	2.8	0.927	0.7	0.592	3	0.439	1	-	-	-	-	NA	No Data	Potentially
	Copper	101	98	<5	326	63	55	44	15	82.4	100	799	<25	87	<25	Not Exceeding	No Data	No Affect
	Mercury	101	7	<0.1	1.7	0.077	0.05	0.17	1	NA	1	-	-	-	-	NA	No Data	No Affect
	Nickel	101	99	<2	451	127	115	73	88	140.6	60	830	<25	170	28	Exceeding	Natural Origin	No Affect
	Zinc	101	99	<5	483	84	63	79	6	98.7	200	819	<25	190	<25	Not Exceeding	No Data	No Affect

A review of the Agon data for spoil reported in data set B.05 shows:

- A similar ratio of test results >1mg/kg compared to the overall data set;
- If a ½ LOR is substituted for results reported as <LOR (of 1mg/kg), then like the AJJV 95% UCL, the calculation is <1mg/kg

The results also show that there are no synthetic compounds reported above the laboratory LOR, another indication that anthropogenic contamination is not present

3. Previous reviews of the presence of **Fluoride** in soil data outlined on the SAQP (Rev 5) were undertaken by AJJV (2019). The AJJV review of the consolidated data set identified:

Samples which reported elevated fluoride concentrations were found to be within the range the ambient background from the parent or similar material in the Victorian Soil Database:

- i. Newer Volcanics Group – Maximum 820 mg/kg
- ii. Older Volcanics – Maximum 600 mg/kg
- iii. Sub-Basaltic Alluvium – Maximum 240 mg/kg

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---------------------------------------	-------------------------	--

	<p>In addition, the 95% UCLs calculated for Newer Volcanics Group and Older Volcanics, found to be 322.7 mg/kg and 225.1 mg/kg respectively, both of these values are below the 450mg/kg upper limit for spoil to be disposed of to the containment cell.</p> <p>A review of the Agon data for spoil reported in this data set shows:</p> <ul style="list-style-type: none"> <li>• A similar ratio of test results &gt; LOR compared to the overall data set;</li> <li>• If a ½ LOR is substituted for results reported as &lt;LOR (of 100mg/kg), then like the AJJV 95% UCL, the calculation is less than the 450mg/kg upper limit for spoil to be disposed of to the containment cell.</li> </ul> <p>The results also show that there are no synthetic compounds reported above the laboratory LOR, another indication that anthropogenic contamination is not present.</p>
2.	Test result outcomes can lead to two classification possibilities, however the classification decision follows the preference of the waste management hierarchy.
3.	Spoil is not from a “Zone of Exception” therefore sampling ratio of only Primary Samples to LCM has been applied for spoil categorisation as per the SAQP revision 5. Sample to categorised volume ratio in zones of exception is to be as per IWRG702 with 1 primary spoil sample categorising a maximum 250 m3 of spoil.
4.	Loose Cubic metres (LCM) to mass (tonnes) conversion ratio used is 1 LCM:1.6 tonnes
5.	This report has been prepared in accordance with industry recognised standards and procedures current at the time of the work. The report presents the results of the assessment based on the quoted scope of works (unless otherwise agreed in writing) for the specific purposes of the engagement by the Client. No warranties expressed or implied, are offered to any third parties and no liability will be accepted for use of this report by third parties.
6.	All information provided by third parties has been assumed to be correct and complete. Agon does not assume any liability for misrepresentation of information by third parties or for matters not visible, accessible or present on the subject site.
7.	Opinions and judgements expressed herein are based on Agon’s understanding of current regulatory standards and should not be construed as legal opinions. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties other than those listed above.
8.	This report should be read in full.



# TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C03.0120220407132213_05	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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## 5. Attachments

ATTACHMENT A: TABULATED RESULTS

ATTACHMENT B: 95% UCL AVE CALCULATIONS

ATTACHMENT C: LABORATORY CERTIFICATES

# TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C03.0120220407132213_05	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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ATTACHMENT A: TABULATED RESULTS

Metals										
Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
2	0.4	5	5	1	5	0.1	5	5	2	2
2,000	400	20,000		2,000	6,000	300	4,000	12,000	200	720
500	100	5,000		500	1,500	75	1,000	3,000	50	180
20	3	100		1	300	1	40	60	10	10

EQL										
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold										
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold										
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold										
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold										
EPA Victoria IWRG621 Category B Leached Upper Limits										
EPA Victoria IWRG621 Category B Upper Limits										
EPA Victoria IWRG621 Category C Leached Upper Limits										
EPA Victoria IWRG621 Category C Upper Limits										
EPA Victoria IWRG621 Fill Upper Limits										

Location Code	Field ID	Sample Code	Date	Lab Report Number	Lab Name	Sample Type	Parent Sample	Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver
C03.01	SX_OB_20220323_08_12_SS_Pr	M22-Ma50296	23/03/2022	873973	MGT	Normal		33	<0.4	79	160	<1	5.6	<0.1	<5	240	<2	<2
C03.01	SX_OB_20220323_08_12_SS_Pr	M22-Ma50306	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220323_08_12_SS_Pr	M22-Ma50314	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220323_08_17_SS_Pr	EM2205177001	23/03/2022	EM2205177	ALSE-Melbourne	Normal		20	<1	49	103	1.4	<5	<0.1	<5	178	<5	<2
C03.01	SX_OB_20220323_08_17_SS_Pr	EM2205177009	23/03/2022	EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_19_SS_Di	EM2205177002	23/03/2022	EM2205177	ALSE-Melbourne	Field_D	EM2205177001	22	<1	53	104	<1.0	<5	<0.1	<5	162	<5	<2
C03.01	SX_OB_20220323_08_19_SS_Di	EM2205177010	23/03/2022	EM2205177	ALSE-Melbourne	Field_D	EM2205177009											
C03.01	SX_OB_20220323_08_21_SS_Tr	M22-Ma50297	23/03/2022	873973	MGT	Interlab_D	EM2205177001	17	<0.4	43	62	<1	<5	<0.1	<5	120	<2	<2
C03.01	SX_OB_20220323_08_21_SS_Tr	M22-Ma50307	23/03/2022	873973	MGT	Interlab_D	EM2205177001											
C03.01	SX_OB_20220323_08_21_SS_Tr	M22-Ma50315	23/03/2022	873973	MGT	Interlab_D	EM2205177009											
C03.01	SX_OB_20220323_12_17_SS_Pr	EM2205177003	23/03/2022	EM2205177	ALSE-Melbourne	Normal		30	<1	57	116	1.0	<5	<0.1	<5	179	<5	<2
C03.01	SX_OB_20220323_12_17_SS_Pr	EM2205177011	23/03/2022	EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_12_23_SS_Pr	M22-Ma50298	23/03/2022	873973	MGT	Normal		28	<0.4	62	140	<1	<5	<0.1	<5	190	<2	<2
C03.01	SX_OB_20220323_12_23_SS_Pr	M22-Ma50308	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220323_12_23_SS_Pr	M22-Ma50316	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220323_16_01_SS_Pr	M22-Ma50301	23/03/2022	873973	MGT	Normal		30	<0.4	60	120	<1	<5	<0.1	<5	200	<2	<2
C03.01	SX_OB_20220323_16_01_SS_Pr	M22-Ma50309	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220323_16_01_SS_Pr	M22-Ma50317	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	M22-Ma50302	23/03/2022	873973	MGT	Field_D	M22-Ma50301	31	<0.4	61	140	<1	<5	<0.1	<5	220	<2	<2
C03.01	SX_OB_20220323_16_02_SS_Di	M22-Ma50310	23/03/2022	873973	MGT	Field_D	M22-Ma50309											
C03.01	SX_OB_20220323_16_02_SS_Di	M22-Ma50318	23/03/2022	873973	MGT	Field_D	M22-Ma50317											
C03.01	SX_OB_20220323_16_04_SS_Tr	EM2205177004	23/03/2022	EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	32	<1	56	111	<1.0	<5	<0.1	<5	177	<5	<2
C03.01	SX_OB_20220323_16_04_SS_Tr	EM2205177012	23/03/2022	EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301											
C03.01	SX_OB_20220323_16_11_SS_Pr	EM2205177005	23/03/2022	EM2205177	ALSE-Melbourne	Normal		26	<1	52	119	<1.0	<5	<0.1	<5	164	<5	<2
C03.01	SX_OB_20220323_16_11_SS_Pr	EM2205177013	23/03/2022	EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_19_59_SS_Pr	M22-Ma50303	23/03/2022	873973	MGT	Normal		29	<0.4	41	49	<1	<5	<0.1	<5	110	<2	<2
C03.01	SX_OB_20220323_19_59_SS_Pr	M22-Ma50311	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220323_19_59_SS_Pr	M22-Ma50319	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220323_20_07_SS_Pr	EM2205177006	23/03/2022	EM2205177	ALSE-Melbourne	Normal		32	<1	53	103	1.0	<5	<0.1	<5	179	<5	<2
C03.01	SX_OB_20220323_20_07_SS_Pr	EM2205177014	23/03/2022	EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_23_59_SS_Pr	M22-Ma50304	23/03/2022	873973	MGT	Normal		19	<0.4	41	52	<1	<5	<0.1	<5	120	<2	<2
C03.01	SX_OB_20220323_23_59_SS_Pr	M22-Ma50312	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220323_23_59_SS_Pr	M22-Ma50320	23/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220324_00_04_SS_Pr	EM2205177007	24/03/2022	EM2205177	ALSE-Melbourne	Normal		31	<1	55	112	1.5	<5	<0.1	<5	168	<5	<2
C03.01	SX_OB_20220324_00_04_SS_Pr	EM2205177015	24/03/2022	EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_03_56_SS_Pr	M22-Ma50305	24/03/2022	873973	MGT	Normal		55	<0.4	54	140	<1	6.0	<0.1	<5	160	<2	<2
C03.01	SX_OB_20220324_03_56_SS_Pr	M22-Ma50313	24/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220324_03_56_SS_Pr	M22-Ma50321	24/03/2022	873973	MGT	Normal												
C03.01	SX_OB_20220324_04_00_SS_Pr	EM2205177008	24/03/2022	EM2205177	ALSE-Melbourne	Normal		32	<1	58	107	1.3	<5	<0.1	<5	167	<5	<2
C03.01	SX_OB_20220324_04_00_SS_Pr	EM2205177016	24/03/2022	EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_07_SS_Pr	EM2205361001	24/03/2022	EM2205361	ALSE-Melbourne	Normal		24	<1	54	96	1.4	<5	<0.1	<5	163	<5	<2
C03.01	SX_OB_20220324_08_07_SS_Pr	EM2205361011	24/03/2022	EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_11_SS_Di	EM2205361002	24/03/2022	EM2205361	ALSE-Melbourne	Field_D	EM2205361001	27	<1	57	102	<1.0	<5	<0.1	<5	169	<5	<2
C03.01	SX_OB_20220324_08_11_SS_Di	EM2205361012	24/03/2022	EM2205361	ALSE-Melbourne	Field_D	EM2205361011											
C03.01	SX_OB_20220324_08_13_SS_Tr	M22-Ma53715	24/03/2022	874462	MGT	Interlab_D	EM2205361001	36	<0.4	65	130	<1	<5	<0.1	<5	210	<2	<2
C03.01	SX_OB_20220324_08_13_SS_Tr	M22-Ma53723	24/03/2022	874462	MGT	Interlab_D	EM2205361001											
C03.01	SX_OB_20220324_08_13_SS_Tr	M22-Ma53731	24/03/2022	874462	MGT	Interlab_D	EM2205361011											
C03.01	SX_OB_20220324_08_18_SS_Pr	M22-Ma53714	24/03/2022	874462	MGT	Normal		25	<0.4	57	120	<1	<5	<0.1	<5	170	<2	<2
C03.01	SX_OB_20220324_08_18_SS_Pr	M22-Ma53722	24/03/2022	874462	MGT	Normal												
C03.01	SX_OB_20220324_08_18_SS_Pr	M22-Ma53730	24/03/2022	874462	MGT	Normal												
C03.01	SX_OB_20220324_12_18_SS_Pr	EM2205361005	24/03/2022	EM2205361	ALSE-Melbourne	Normal		34	<1	56	102	1.2	<5	<0.1	<5	151	<5	<2
C03.01	SX_OB_20220324_12_18_SS_Pr	EM2205361013	24/03/2022	EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_12_27_SS_Pr	M22-Ma53713	24/03/2022	874462	MGT	Normal		35	<0.4	71	140	<1	<5	<0.1	<5	220	<2	<2
C03.01	SX_OB_20220324_12_27_SS_Pr	M22-Ma53721	24/03/2022	874462	MGT	Normal												
C03.01	SX_OB_20220324_12_27_SS_Pr	M22-Ma53729	24/03/2022	874462	MGT	Normal												



	BTEX						TRH							TPH										
	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Aldrin	Dieldrin	Aldrin + Dieldrin	DDD	DDT	4,4-DDE
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.2	0.3	20	20	50	50	100	100	50	20	20	50	50	50	0.05	0.05	0.05	0.05	0.05	0.05
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9																								
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9																								
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9																								
EPA PFAS Classification - Tunnel Zone - No option for c																								
EPA Victoria IWRG621 Category B Leached Upper Limi																								
EPA Victoria IWRG621 Category B Upper Limits	16												2,600				40,000			4.8				
EPA Victoria IWRG621 Category C Leached Upper Limi																								
EPA Victoria IWRG621 Category C Upper Limits	4												650				10,000			1.2				
EPA Victoria IWRG621 Fill Upper Limits	1												100				1,000							

Location Code	Field ID	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Aldrin	Dieldrin	Aldrin + Dieldrin	DDD	DDT	4,4-DDE
C03.01	SX_OB_20220323_08_12_SS_Pr	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_12_SS_Pr																								
C03.01	SX_OB_20220323_08_12_SS_Pr																								
C03.01	SX_OB_20220323_08_17_SS_Pr	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_17_SS_Pr																								
C03.01	SX_OB_20220323_08_19_SS_Di	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_19_SS_Di																								
C03.01	SX_OB_20220323_08_21_SS_Tr	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_21_SS_Tr																								
C03.01	SX_OB_20220323_08_21_SS_Tr																								
C03.01	SX_OB_20220323_12_17_SS_Pr	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_12_17_SS_Pr																								
C03.01	SX_OB_20220323_12_23_SS_Pr	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_12_23_SS_Pr																								
C03.01	SX_OB_20220323_12_23_SS_Pr																								
C03.01	SX_OB_20220323_16_01_SS_Pr	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_16_01_SS_Pr																								
C03.01	SX_OB_20220323_16_01_SS_Pr																								
C03.01	SX_OB_20220323_16_02_SS_Di	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_16_02_SS_Di																								
C03.01	SX_OB_20220323_16_02_SS_Di																								
C03.01	SX_OB_20220323_16_04_SS_Tr	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_16_04_SS_Tr																								
C03.01	SX_OB_20220323_16_11_SS_Pr	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_16_11_SS_Pr																								
C03.01	SX_OB_20220323_19_59_SS_Pr	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_19_59_SS_Pr																								
C03.01	SX_OB_20220323_19_59_SS_Pr																								
C03.01	SX_OB_20220323_20_07_SS_Pr	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_20_07_SS_Pr																								
C03.01	SX_OB_20220323_23_59_SS_Pr	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_23_59_SS_Pr																								
C03.01	SX_OB_20220323_23_59_SS_Pr																								
C03.01	SX_OB_20220324_00_04_SS_Pr	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_00_04_SS_Pr																								
C03.01	SX_OB_20220324_03_56_SS_Pr	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_03_56_SS_Pr																								
C03.01	SX_OB_20220324_03_56_SS_Pr																								
C03.01	SX_OB_20220324_04_00_SS_Pr	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_04_00_SS_Pr																								
C03.01	SX_OB_20220324_08_07_SS_Pr	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_07_SS_Pr																								
C03.01	SX_OB_20220324_08_11_SS_Di	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_11_SS_Di																								
C03.01	SX_OB_20220324_08_13_SS_Tr	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_13_SS_Tr																								
C03.01	SX_OB_20220324_08_13_SS_Tr																								
C03.01	SX_OB_20220324_08_18_SS_Pr	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_18_SS_Pr																								
C03.01	SX_OB_20220324_08_18_SS_Pr																								
C03.01	SX_OB_20220324_12_18_SS_Pr	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<																



	Organochlorine Pesticides																				2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol		
	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	Chlordane	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPAVic				Other organochlorine pesticides EPAVic	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5	0.1	0.03	0.5	0.5	1	
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9)																									
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9)																									
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9)																									
EPA PFAS Classification - Tunnel Zone - No option for d																									
EPA Victoria IWRG621 Category B Leached Upper Limi																									
EPA Victoria IWRG621 Category B Upper Limits	50							16				4.8									50				
EPA Victoria IWRG621 Category C Leached Upper Limi																									
EPA Victoria IWRG621 Category C Upper Limits	50							4				1.2									10				
EPA Victoria IWRG621 Fill Upper Limits																				1					

Location Code	Field ID	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	Chlordane	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	
C03.01	SX_OB_20220323_08_12_SS_Pr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	
C03.01	SX_OB_20220323_08_12_SS_Pr																									
C03.01	SX_OB_20220323_08_12_SS_Pr																									
C03.01	SX_OB_20220323_08_17_SS_Pr	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220323_08_17_SS_Pr																									
C03.01	SX_OB_20220323_08_19_SS_Di	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220323_08_19_SS_Di																									
C03.01	SX_OB_20220323_08_21_SS_Tr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	
C03.01	SX_OB_20220323_08_21_SS_Tr																									
C03.01	SX_OB_20220323_08_21_SS_Tr																									
C03.01	SX_OB_20220323_12_17_SS_Pr	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220323_12_17_SS_Pr																									
C03.01	SX_OB_20220323_12_23_SS_Pr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	
C03.01	SX_OB_20220323_12_23_SS_Pr																									
C03.01	SX_OB_20220323_12_23_SS_Pr																									
C03.01	SX_OB_20220323_16_01_SS_Pr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	
C03.01	SX_OB_20220323_16_01_SS_Pr																									
C03.01	SX_OB_20220323_16_01_SS_Pr																									
C03.01	SX_OB_20220323_16_02_SS_Di	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	
C03.01	SX_OB_20220323_16_02_SS_Di																									
C03.01	SX_OB_20220323_16_02_SS_Di																									
C03.01	SX_OB_20220323_16_04_SS_Tr	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220323_16_04_SS_Tr																									
C03.01	SX_OB_20220323_16_11_SS_Pr	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220323_16_11_SS_Pr																									
C03.01	SX_OB_20220323_19_59_SS_Pr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	
C03.01	SX_OB_20220323_19_59_SS_Pr																									
C03.01	SX_OB_20220323_19_59_SS_Pr																									
C03.01	SX_OB_20220323_20_07_SS_Pr	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220323_20_07_SS_Pr																									
C03.01	SX_OB_20220323_23_59_SS_Pr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	
C03.01	SX_OB_20220323_23_59_SS_Pr																									
C03.01	SX_OB_20220323_23_59_SS_Pr																									
C03.01	SX_OB_20220324_00_04_SS_Pr	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220324_00_04_SS_Pr																									
C03.01	SX_OB_20220324_03_56_SS_Pr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	
C03.01	SX_OB_20220324_03_56_SS_Pr																									
C03.01	SX_OB_20220324_03_56_SS_Pr																									
C03.01	SX_OB_20220324_04_00_SS_Pr	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220324_04_00_SS_Pr																									
C03.01	SX_OB_20220324_08_07_SS_Pr	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220324_08_07_SS_Pr																									
C03.01	SX_OB_20220324_08_11_SS_Di	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<0.50	<0.50	<1.00	
C03.01	SX_OB_20220324_08_11_SS_Di																									
C03.01	SX_OB_20220324_08_13_SS_Tr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	
C03.01	SX_OB_20220324_08_13_SS_Tr																									
C03.01	SX_OB_20220324_08_13_SS_Tr																									
C03.01	SX_OB_20220324_08_18_SS_Pr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.		

















	Halogenated Hydrocarbons						MAH						Solvents					SPOCAS	
	4-chlorotoluene	Chlorobenzene	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPA/C	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9																			
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9																			
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9																			
EPA PFAS Classification - Tunnel Zone - No option for d																			
EPA Victoria IWRG621 Category B Leached Upper Limi																			
EPA Victoria IWRG621 Category B Upper Limits									240										
EPA Victoria IWRG621 Category C Leached Upper Limi																			
EPA Victoria IWRG621 Category C Upper Limits									70										
EPA Victoria IWRG621 Fill Upper Limits									7										

Location Code	Field ID	4-chlorotoluene	Chlorobenzene	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPA/C	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)	
C03.01	SX_OB_20220323_08_12_SS_Pr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220323_08_12_SS_Pr																				
C03.01	SX_OB_20220323_08_12_SS_Pr																				
C03.01	SX_OB_20220323_08_17_SS_Pr		<0.50							<0.5		<0.5									7.6
C03.01	SX_OB_20220323_08_17_SS_Pr																				
C03.01	SX_OB_20220323_08_19_SS_Di		<0.50							<0.5		<0.5									7.6
C03.01	SX_OB_20220323_08_19_SS_Di																				
C03.01	SX_OB_20220323_08_21_SS_Tr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220323_08_21_SS_Tr																				
C03.01	SX_OB_20220323_08_21_SS_Tr																				
C03.01	SX_OB_20220323_12_17_SS_Pr		<0.50							<0.5		<0.5									7.6
C03.01	SX_OB_20220323_12_17_SS_Pr																				
C03.01	SX_OB_20220323_12_23_SS_Pr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220323_12_23_SS_Pr																				
C03.01	SX_OB_20220323_12_23_SS_Pr																				
C03.01	SX_OB_20220323_16_01_SS_Pr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220323_16_01_SS_Pr																				
C03.01	SX_OB_20220323_16_01_SS_Pr																				
C03.01	SX_OB_20220323_16_02_SS_Di	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220323_16_02_SS_Di																				
C03.01	SX_OB_20220323_16_02_SS_Di																				
C03.01	SX_OB_20220323_16_04_SS_Tr		<0.50							<0.5		<0.5									7.7
C03.01	SX_OB_20220323_16_04_SS_Tr																				
C03.01	SX_OB_20220323_16_11_SS_Pr		<0.50							<0.5		<0.5									7.7
C03.01	SX_OB_20220323_16_11_SS_Pr																				
C03.01	SX_OB_20220323_19_59_SS_Pr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220323_19_59_SS_Pr																				
C03.01	SX_OB_20220323_19_59_SS_Pr																				
C03.01	SX_OB_20220323_20_07_SS_Pr		<0.50							<0.5		<0.5									7.7
C03.01	SX_OB_20220323_20_07_SS_Pr																				
C03.01	SX_OB_20220323_23_59_SS_Pr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220323_23_59_SS_Pr																				
C03.01	SX_OB_20220323_23_59_SS_Pr																				
C03.01	SX_OB_20220324_00_04_SS_Pr		<0.50							<0.5		<0.5									7.8
C03.01	SX_OB_20220324_00_04_SS_Pr																				
C03.01	SX_OB_20220324_03_56_SS_Pr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220324_03_56_SS_Pr																				
C03.01	SX_OB_20220324_03_56_SS_Pr																				
C03.01	SX_OB_20220324_04_00_SS_Pr		<0.50							<0.5		<0.5									7.6
C03.01	SX_OB_20220324_04_00_SS_Pr																				
C03.01	SX_OB_20220324_04_00_SS_Pr																				
C03.01	SX_OB_20220324_08_07_SS_Pr		<0.50							<0.5		<0.5									8.0
C03.01	SX_OB_20220324_08_07_SS_Pr																				
C03.01	SX_OB_20220324_08_11_SS_Di		<0.50							<0.5		<0.5									8.2
C03.01	SX_OB_20220324_08_11_SS_Di																				
C03.01	SX_OB_20220324_08_13_SS_Tr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220324_08_13_SS_Tr																				
C03.01	SX_OB_20220324_08_13_SS_Tr																				
C03.01	SX_OB_20220324_08_18_SS_Pr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220324_08_18_SS_Pr																				
C03.01	SX_OB_20220324_08_18_SS_Pr																				
C03.01	SX_OB_20220324_12_18_SS_Pr		<0.50							<0.5		<0.5									7.7
C03.01	SX_OB_20220324_12_18_SS_Pr																				
C03.01	SX_OB_20220324_12_27_SS_Pr	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
C03.01	SX_OB_20220324_12_27_SS_Pr																				
C03.01	SX_OB_20220324_12_27_SS_Pr																				

							Metals											
							Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL							2	0.4	5	5	1	5	0.1	5	5	2	2	
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		30	<0.4	60	120	<1	<5	<0.1	<5	200	<2	<2
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	31	<0.4	61	140	<1	<5	<0.1	<5	220	<2	<2
RPD							3	0	2	15	0	0	0	0	10	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		30	<0.4	60	120	<1	<5	<0.1	<5	200	<2	<2
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	32	<1	56	111	<1.0	<5	<0.1	<5	177	<5	<2
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		20	<1	49	103	1.4	<5	<0.1	<5	178	<5	<2
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	22	<1	53	104	<1.0	<5	<0.1	<5	162	<5	<2
RPD							10	0	8	1	33	0	0	0	9	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		20	<1	49	103	1.4	<5	<0.1	<5	178	<5	<2
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	17	<0.4	43	62	<1	<5	<0.1	<5	120	<2	<2
RPD							16	0	13	50	33	0	0	0	39	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		20	<1	49	103	1.4	<5	<0.1	<5	178	<5	<2
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		31	<0.4	70	140	1.0	5.1	<0.1	<5	250	<2	<2
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	29	<0.4	61	130	<1	<5	<0.1	<5	210	<2	<2
RPD							7	0	14	7	0	2	0	0	17	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		31	<0.4	70	140	1.0	5.1	<0.1	<5	250	<2	<2
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	19	<1	52	102	1.6	<5	<0.1	<5	164	<5	<2
RPD							48	0	30	31	46	2	0	0	42	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		24	<1	54	96	1.4	<5	<0.1	<5	163	<5	<2
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	27	<1	57	102	<1.0	<5	<0.1	<5	169	<5	<2
RPD							12	0	5	6	33	0	0	0	4	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		24	<1	54	96	1.4	<5	<0.1	<5	163	<5	<2
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	36	<0.4	65	130	<1	<5	<0.1	<5	210	<2	<2
RPD							40	0	18	30	33	0	0	0	25	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		24	<1	54	96	1.4	<5	<0.1	<5	163	<5	<2
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011											
RPD																		

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory



							Tin	Zinc	PAHs (Vic EPA List)	Benzo(b+h)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)		
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
EQL							10	5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample												
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<10	110			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<10	160			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
RPD							0	37			0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<10	110			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301												
RPD																			
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal													
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309												
RPD																			
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal													
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317												
RPD																			
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<10	95	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317												
RPD																			
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<10	82	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<10	85	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
RPD							0	4	0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<10	82	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<10	69	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
RPD							0	17			0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<10	82	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001												
RPD																			
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal													
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009												
RPD																			
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal													
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009												
RPD																			
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<10	120			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<10	120			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
RPD							0	0			0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<10	120			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<10	78	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
RPD							0	42			0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal													
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720												
RPD																			
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal													
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728												
RPD																			
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal													
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728												
RPD																			
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<10	86	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<10	90	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
RPD							0	5	0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<10	86	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<10	130			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
RPD							0	41			0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<10	86	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001												
RPD																			
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal													
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011												
RPD																			
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal													
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011												
RPD																			

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

								PAH										
								Benzo(a) pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene
								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL								0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0	0	0	0	0	0	0	0	0		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0	0	0	0	0	0	0	0	0		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0	0	0	0	0	0	0	0	0		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0	0	0	0	0	0	0	0	0		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011											
RPD																		

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory



								BTEX										
								Pyrene	PAHs (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16
								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL								0.5	0.5	0.1	0.1	0.1	0.1	0.2	0.3	20	20	50
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50
RPD								0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
RPD								0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50
RPD								0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50
RPD								0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
RPD								0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
RPD								0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50
RPD								0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011											
RPD																		

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

								TRH				TPH						
								C10-C16 (Σ minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	ΣC10-C36 (Sum of total)	Aldrin	Dieldrin
								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL								50	100	100	50	20	20	50	50	50	0.05	0.05
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05
RPD								0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
RPD								0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05
RPD								0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05
RPD								0	0	0	0	0	0	0	0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
RPD								0	0	0	0	0	0	0	0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
RPD								0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05
RPD								0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05	<0.05
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011											
RPD																		

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

							Orga										
							Aldrin + Dieldrin	DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample										
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001										
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009										
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD							0	0	0	0	0	0	0	0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD							0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011										
RPD																	

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory



Inorganic Pesticides										
Chlordane	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	α-BHC	β-BHC	δ-BHC	γ-BHC (Lindane)	Methoxychlor
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0.1	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05

Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample	Chlordane	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	α-BHC	β-BHC	δ-BHC	γ-BHC (Lindane)	Methoxychlor
EQL								0.1	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD								0			0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD								0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD								0			0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD								0			0	0	0	0	0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD								0			0	0	0	0	0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD								0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD								0			0	0	0	0	0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011											
RPD																		

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

							Toxaphene	Organochlorine pesticides EPA/Vic	Other organochlorine pesticides EPA/Vic	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-chloro-3-methylphenol	Pentachlorophenol	2,3,4,5 & 2,3,4,6-Tetrachlorophenol	
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							0.5	0.1	0.03	0.5	0.5	1	1	0.5	1	1	1	0.05
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
RPD							0	0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317											
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal												
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
RPD							0	0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<0.05
RPD							0	0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009											
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
RPD							0	0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
RPD							0	0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720											
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal												
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
RPD							0	0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<0.05
RPD							0	0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011											
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal												
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011											
RPD																		

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

							Phenols										
							4,6-Dinitro-2-methylphenol	Tetrachlorophenols	2,3,5,6-Tetrachlorophenol	Cresol Total	4,6-Dinitro-o-cyclohexylphenol	Phenols (halogenated) EPAVIC	Phenols (non-halogenated) EPAVIC	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	2,4-Dinitrophenol
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							5	10	0.03	0.5	20	1	20	0.5	0.2	1	5
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample										
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<5	<10		<0.5	<20		<0.5	<0.2	<1	<5
RPD							0	0		0	0			0	0	0	0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<5		<0.03		<20	<1.00	<20	<1	<1	<1
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<5		<0.03		<20	<1.00	<20	<1	<1	<1
RPD							0		0		0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<5	<10		<0.5	<20	<1.00	<20	<0.5	<0.2	<1
RPD							0				0			0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<5		<0.03		<20	<1.00	<20	<1	<1	<1
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009										
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<5	<10		<0.5	<20		<0.5	<0.2	<1	<5
RPD							0	0		0	0			0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<5		<0.03		<20	<1.00	<20	<1	<1	<1
RPD							0				0			0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<5		<0.03		<20	<1.00	<20	<1	<1	<1
RPD							0		0		0	0	0	0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<5	<10		<0.5	<20	<1.00	<20	<0.5	<0.2	<1
RPD							0				0			0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011										
RPD																	

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory



							3&4-Methylphenol (m&g-p-cresol)	4-Nitrophenol	Dinoseb	Phenol	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	6:2 Fluorotelomer sulfonic acid		
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L	mg/L	
EQL							0.4	5	20	0.5	1	20	0.00001	0.005	0.00001	0.005	0.00005
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample										
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005		
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005		
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005		
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301							<0.00005	<0.00005	<0.00005	
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00001						<0.00001	<0.00001	<0.00005	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309	<0.00001						<0.00001	<0.00001	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00001						<0.00001	<0.00001	<0.00005	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317	<0.00001						<0.00001	<0.00001	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00001						<0.00001	<0.00001	<0.00005	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.00001						<0.00001	<0.00001	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00005						<0.00005	<0.00005	<0.00005	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009	<0.00005						<0.00005	<0.00005	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00005						<0.00005	<0.00005	<0.00005	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009	<0.00001						<0.00001	<0.00001	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005		
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005		
RPD							0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005		
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00001						<0.00001	<0.00001	<0.00005	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720	<0.00001						<0.00001	<0.00001	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00001						<0.00001	<0.00001	<0.00005	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728	<0.00001						<0.00001	<0.00001	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00001						<0.00001	<0.00001	<0.00005	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728	<0.00005						<0.00005	<0.00005	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005		
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.00001						<0.00001	<0.00001	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00005						<0.00005	<0.00005	<0.00005	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011	<0.00005						<0.00005	<0.00005	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00005						<0.00005	<0.00005	<0.00005	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011	<0.00001						<0.00001	<0.00001	<0.00005	
RPD							0	0	0	0	0	0	0	0	0	0	

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

							acid (6:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	N-Ethyl perfluorooctane sulfonamide (NEFOSA)	N-ethyl-perfluorooctanesulfonamide doacetic acid (NEFOSA)	N-ethylperfluorooctanesulfonamide (NEFOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)						
							mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg					
EQL							0.01	0.00001	0.005	0.00005	0.005	0.00005	0.01	0.00005	0.005	0.00005	0.005	
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.01		<0.005		<0.005		<0.01		<0.005	<0.005	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.01		<0.005		<0.005		<0.01		<0.005	<0.005	
RPD							0		0		0		0		0		0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.01		<0.005		<0.005		<0.01		<0.005	<0.005	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.01	<0.00005	<0.005	<0.00005	<0.005	<0.01	<0.00005	<0.005	<0.00005	<0.005	
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.01		<0.005		<0.005		<0.01		<0.005	<0.005	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.01		<0.005		<0.005		<0.01		<0.005	<0.005	
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.01		<0.005		<0.005		<0.01		<0.005	<0.005	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.01		<0.005		<0.005		<0.01		<0.005	<0.005	
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005	
RPD																		

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory



								N-methylperfluorooctane sulfonamideacetic acid (NMeFOSAA)	N-methylperfluorooctanesulfonamideethanoic acid (NMeFOSE)	Perfluorobutanoic acid (PFBA)	Perfluorobutane sulfonic acid (PFBS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid				
								mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg		
EQL								0.00005	0.01	0.00005	0.005	0.00005	0.005	0.00001	0.005	0.00001	0.00001
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample										
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.01		<0.005		<0.005		<0.005		<0.005	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.01		<0.005		<0.005		<0.005		<0.005	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.01		<0.005		<0.005		<0.005		<0.005	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301	<0.00005		<0.00005		<0.0001		<0.00002		<0.00002	
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309	<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317	<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.00005	<0.01	<0.00005	<0.005	<0.0001	<0.005	<0.00002	<0.005	<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009	<0.00005	<0.01	<0.00005	<0.005	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.01		<0.005		<0.005		<0.005		<0.005	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.01		<0.005		<0.005		<0.005		<0.005	
RPD								0		0		0		0		0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.01		<0.005		<0.005		<0.005		<0.005	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720	<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD								0		0		0		0		0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728	<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD								0		0		0		0		0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728	<0.00005		<0.00005		<0.0001		<0.00002		<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.00005	<0.01	<0.00005	<0.005	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	
RPD								0		0		0		0		0	

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

							PFOS/PFOA								
							PFDoDA	Perfluorodecanesulfonic acid (PFDS)	Perfluorooctanoic acid (PFHpA)	Perfluorohexane sulfonic acid (PFHpS)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)			
							mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg		
EQL							0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample								
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.005		<0.005		<0.005		<0.005	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.005		<0.005		<0.005		<0.005	
RPD							0		0		0		0		0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.005		<0.005		<0.005		<0.005	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301		<0.00002		<0.00002		<0.00002		<0.00002
RPD															
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.00001		<0.00001		<0.00001		<0.00001
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309		<0.00001		<0.00001		<0.00001		<0.00001
RPD															
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.00001		<0.00001		<0.00001		<0.00001
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317		<0.00001		<0.00001		<0.00001		<0.00001
RPD															
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.00001		<0.00001		<0.00001		<0.00001
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
RPD															
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
RPD															
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.00001
RPD															
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001		<0.00001		<0.00001		<0.00001		<0.00001
RPD															
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00002		<0.00002		<0.00002		<0.00002
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009		<0.00002		<0.00002		<0.00002		<0.00002
RPD															
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00002		<0.00002		<0.00002		<0.00002
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009		<0.00001		<0.00001		<0.00001		<0.00001
RPD															
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.005		<0.005		<0.005		<0.005	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.005		<0.005		<0.005		<0.005	
RPD															
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.005		<0.005		<0.005		<0.005	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
RPD															
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.00001		<0.00001		<0.00001		<0.00001
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720		<0.00001		<0.00001		<0.00001		<0.00001
RPD															
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.00001		<0.00001		<0.00001		<0.00001
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728		<0.00001		<0.00001		<0.00001		<0.00001
RPD															
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.00001		<0.00001		<0.00001		<0.00001
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728		<0.00002		<0.00002		<0.00002		<0.00002
RPD															
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
RPD															
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.005		<0.005		<0.005		<0.005	
RPD															
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001		<0.00001		<0.00001		<0.00001		<0.00001
RPD															
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00002		<0.00002		<0.00002		<0.00002
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011		<0.00002		<0.00002		<0.00002		<0.00002
RPD															
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00002		<0.00002		<0.00002		<0.00002
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011		<0.00001		<0.00001		<0.00001		<0.00001
RPD															

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

								Perfluorononanesulfonic acid (PFNS)(trace)	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonamide (PFOSA)	Perfluoropentanoic acid (PFPeA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropropanesulfonic acid					
								mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg			
EQL								0.00001	0.005	0.00001	0.005	0.00005	0.005	0.00001	0.005	0.00001	0.005	0.00001
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.005		<0.005		<0.005		<0.005		<0.005		
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.005		<0.005		<0.005		<0.005		<0.005		
RPD								0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.005		<0.005		<0.005		<0.005		<0.005		
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301		<0.00001	<0.00005		<0.00002		<0.00002				
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
RPD								0	0	0	0	0	0	0	0	0		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
RPD								0	0	0	0	0	0	0	0	0		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317		<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001		<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.005		<0.005		<0.005		<0.005		<0.005		
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00001	<0.00005		<0.00002		<0.00002		<0.00002		
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009		<0.00001	<0.00005		<0.00002		<0.00002		<0.00002		
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00001	<0.00005		<0.00002		<0.00002		<0.00002		
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.005		<0.005		<0.005		<0.005		<0.005		
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.005		<0.005		<0.005		<0.005		<0.005		
RPD								0	0	0	0	0	0	0	0	0		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.005		<0.005		<0.005		<0.005		<0.005		
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712		<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
RPD								0	0	0	0	0	0	0	0	0		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
RPD								0	0	0	0	0	0	0	0	0		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728		<0.00001	<0.00005		<0.00002		<0.00002		<0.00002		
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001		<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.005		<0.005		<0.005		<0.005		<0.005		
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00001	<0.00005		<0.00002		<0.00002		<0.00002		
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011		<0.00001	<0.00005		<0.00002		<0.00002		<0.00002		
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00001	<0.00005		<0.00002		<0.00002		<0.00002		
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		
RPD																		

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory



								acid (PFPrs)	Perfluorotetradecanoic acid (PFTrDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	
								mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
EQL								0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample							
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.005		<0.005		<0.005		<0.005
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.005		<0.005		<0.005		<0.005
RPD								0		0		0		0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.005		<0.005		<0.005		<0.005
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301		<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	
RPD														
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
RPD														
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
RPD														
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317		<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
RPD														
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001		<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
RPD														
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.005		<0.005	<0.00002	<0.005	<0.00001	<0.005
RPD														
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
RPD														
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009		<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	
RPD														
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
RPD														
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.005		<0.005		<0.005		<0.005
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.005		<0.005		<0.005		<0.005
RPD														
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.005		<0.005		<0.005		<0.005
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712		<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
RPD														
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
RPD														
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
RPD														
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728		<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	
RPD														
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001		<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
RPD														
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.005		<0.005	<0.00002	<0.005	<0.00001	<0.005
RPD														
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00005	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
RPD														
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011		<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	
RPD														
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
RPD														

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

								Sum of PFHx and PFOS		Sum of US EPA PFAS (PFOS + PFOA)*		Sum of enHealth PFAS (PFHx + PFOS + PFOA)*		Sum of PFAS		1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichloropropane
								mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg
EQL								0.00001	0.005	0.00001	0.005	0.00001	0.005	0.0001	0.05	0.5	0.5	0.5
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal			<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301	<0.00001					<0.00010					
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00001		<0.00001		<0.00001		<0.0001				
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309	<0.00001		<0.00001		<0.00001		<0.0001				
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00001		<0.00001		<0.00001		<0.0001				
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317	<0.00001		<0.00001		<0.00001		<0.0001				
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.00001		<0.00001		<0.00001		<0.0001				
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.00001	<0.005		<0.005		<0.00010	<0.05	<0.5	<0.5	<0.5	
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.00001		<0.00001		<0.00001		<0.0001				
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00001					<0.00010					
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009	<0.00001					<0.00010					
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.00001					<0.00010					
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009	<0.00001		<0.00001		<0.00001		<0.0001				
RPD								0		0		0		0		0		0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5
RPD								0		0		0		0		0		0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal			<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
RPD								0		0		0		0		0		0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00001		<0.00001		<0.00001		<0.0001				
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720	<0.00001		<0.00001		<0.00001		<0.0001				
RPD								0		0		0		0		0		0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00001		<0.00001		<0.00001		<0.0001				
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728	<0.00001		<0.00001		<0.00001		<0.0001				
RPD								0		0		0		0		0		0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.00001		<0.00001		<0.00001		<0.0001				
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728	<0.00001					<0.00010					
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00001	<0.0050				<0.00010	<0.0500		<0.50		
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.00001		<0.00001		<0.00001		<0.0001				
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00001					<0.00010					
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011	<0.00001					<0.00010					
RPD								0		0		0		0		0		0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.00001					<0.00010					
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011	<0.00001		<0.00001		<0.00001		<0.0001				
RPD								0		0		0		0		0		0

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

								1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	1,1,1,2-tetrachloroethane	Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,1,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene	
								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL								0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample												
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0	0	0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301												
RPD																			
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal													
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309												
RPD																			
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal													
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317												
RPD																			
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal													
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<0.50				<0.50		<0.50	<0.50	<0.50			
RPD																			
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.50				<0.50		<0.50	<0.50	<0.50			
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.50				<0.50		<0.50	<0.50	<0.50			
RPD								0				0	0	0					
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.50				<0.50		<0.50	<0.50	<0.50			
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0				0	0	0					
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.50				<0.50		<0.50	<0.50	<0.50			
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001												
RPD																			
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal													
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009												
RPD																			
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal													
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009												
RPD																			
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0	0	0	0	0	0	0	0	0	0		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.50				<0.50		<0.50	<0.50	<0.50			
RPD								0				0	0	0					
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal													
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720												
RPD																			
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal													
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728												
RPD																			
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal													
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728												
RPD																			
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.50				<0.50		<0.50	<0.50	<0.50			
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.50				<0.50		<0.50	<0.50	<0.50			
RPD								0				0	0	0					
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.50				<0.50		<0.50	<0.50	<0.50			
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD								0				0	0	0					
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.50				<0.50		<0.50	<0.50	<0.50			
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001												
RPD																			
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal													
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011												
RPD																			
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal													
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011												
RPD																			

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory



							Chlorinated Hydrocarbons										
							Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVIC	Trichloroethene	Chlorinated hydrocarbons EPAVIC	cis-1,2-dichloroethene	1,1,2-trichloroethane	trans-1,3-dichloropropene	Vinyl chloride	Bromoform
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample										
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001										
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009										
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD							0	0	0	0	0	0	0	0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
RPD							0	0	0	0	0	0	0	0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011										
RPD																	

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

											NA							
								Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	Sum of WA DWER PFAS (n=10)*	Moisture Content	Arochlor 1232	Arochlor 1242	Arochlor 1248	
								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	UG/KG	µg/L	%	mg/kg	mg/kg	mg/kg
EQL								0.5	0.5	0.5	0.5	0.5	0.05		1	0.1	0.1	0.1
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	
RPD								0	0	0	0	0		0	0	0		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301						<0.05					
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal							<0.05					
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309						<0.05					
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal							<0.05					
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317						<0.05					
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal							<0.05					
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317	<0.50			<0.50	<0.50	<10.0	<0.05	28.6			
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.50			<0.50	<0.50	<10.0	<0.05	27.2			
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001	<0.50			<0.50	<0.50	<10.0	<0.05	28.0			
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.50			<0.50	<0.50	<10.0	<0.05	27.2			
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal		<0.50			<0.50	<0.50	<10.0	<0.05	27.2			
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001						<0.05					
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal							<0.05					
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009						<0.05					
RPD																		
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal							<0.05					
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009						<0.05					
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712	<0.50			<0.50	<0.50	<10.0	<0.05	25.3			
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal							<0.05					
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720						<0.05					
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal							<0.05					
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728						<0.05					
RPD																		
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal							<0.05					
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728						<0.05					
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.50			<0.50	<0.50	<10.0	<0.05	25.8			
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001	<0.50			<0.50	<0.50	<10.0	<0.05	28.0			
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.50			<0.50	<0.50	<10.0	<0.05	25.8			
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal		<0.50			<0.50	<0.50	<10.0	<0.05	25.8			
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001						<0.05					
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal							<0.05					
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011						<0.05					
RPD																		
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal							<0.05					
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011						<0.05					
RPD																		

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory



							PCBs					Inorganics						
							Arochlor 1254	Arochlor 1221	Arochlor 1260	Arochlor 1016	PCBs (Sum of total)	pH (after HCL)	pH (Final)	pH (Initial)	pH of Leaching Fluid	pH (aqueous extract)	Fluoride	
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-	mg/kg	
EQL							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100	
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.1	<0.1	<0.1	<0.1	<0.1				8.5	<100	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.1	<0.1	<0.1	<0.1	<0.1				8.4	<100	
RPD							0	0	0	0	0					1	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.1	<0.1	<0.1	<0.1	<0.1				8.5	<100	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301						9.5					
RPD																		
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal							5.1		5.0			
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309						5.1		5.0			
RPD													0		0			
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal							9.0		6.1			
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317						9.0		6.1			
RPD													0		0			
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal							9.0		6.1			
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317				<0.1	1.6	5.0	9.1	5.0		190	
RPD													57		20			
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					<0.1	1.5	5.0	8.8	5.0		290	
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001				<0.1	1.5	4.9	9.0	5.0		190	
RPD												0	2	2	0		42	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					<0.1	1.5	5.0	8.8	5.0		290	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.1	<0.1	<0.1	<0.1	<0.1				8.6	<100	
RPD													0				97	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					<0.1	1.5	5.0	8.8	5.0		290	
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001						5.1		5.0			
RPD													2		0			
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal							9.5					
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009						9.5					
RPD													0					
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal							9.5					
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009						8.9		6.1			
RPD													7					
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.1	<0.1	<0.1	<0.1	<0.1				7.4	<100	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.1	<0.1	<0.1	<0.1	<0.1				7.4	<100	
RPD							0	0	0	0	0					0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.1	<0.1	<0.1	<0.1	<0.1				7.4	<100	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712				<0.1	1.4	5.1	9.5	5.0		540	
RPD													0				138	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal							5.1		5.0			
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720						5.1		5.0			
RPD													0		0			
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal							8.9		6.9			
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728						9.1		6.9			
RPD													2		0			
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal							8.9		6.9			
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728						9.7					
RPD													9					
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					<0.1	1.4	5.1	9.2	5.0		880	
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001				<0.1	1.4	5.1	9.3	5.0		550	
RPD												0	0	0	1	0	46	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					<0.1	1.4	5.1	9.2	5.0		880	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.1	<0.1	<0.1	<0.1	<0.1				9.1	<100	
RPD													0				159	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					<0.1	1.4	5.1	9.2	5.0		880	
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001						5.2		5.0			
RPD													2		0			
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal							9.7					
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011						10.1					
RPD													4					
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal							9.7					
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011						9.3		6.9			
RPD													4					

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

							Halogenated Benzenes										
							Moisture Content (dried @ 103°C)	Cyanide Total	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	4-chlorotoluene	Chlorobenzene	Iodomethane	Bromomethane
							%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							1	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample										
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		25	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	27	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD							8	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		25	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317		<5	<0.50	<0.50		<0.50		<0.50		
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<5	<0.50	<0.50		<0.50		<0.50		
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001		<5	<0.50	<0.50		<0.50		<0.50		
RPD								0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<5	<0.50	<0.50		<0.50		<0.50		
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	26	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD								0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal			<5	<0.50	<0.50		<0.50		<0.50		
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001										
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177009										
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		24	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	25	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD							4	0	0	0	0	0	0	0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		24	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712		<5	<0.50	<0.50		<0.50		<0.50		
RPD								0	0	0	0	0	0	0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<5	<0.50	<0.50		<0.50		<0.50		
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001		<5	<0.50	<0.50		<0.50		<0.50		
RPD								0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<5	<0.50	<0.50		<0.50		<0.50		
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	28	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD								0	0	0	0	0	0	0	0	0	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal			<5	<0.50	<0.50		<0.50		<0.50		
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011										
RPD																	

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

							Saturated Hydrocarbons			MAH							
							1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample										
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD							0	0	0	0	0	0	0	0	0	0	0
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317										
RPD																	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal											
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317				<0.5	<0.5					
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					<0.5	<0.5					
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001				<0.5	<0.5					
RPD											0	0					
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					<0.5	<0.5					
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD												0					
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					<0.5	<0.5					
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001										
RPD																	
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD							0	0	0	0	0	0	0	0	0	0	0
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712				<0.5	<0.5					
RPD												0					
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720										
RPD																	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal											
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					<0.5	<0.5					
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001				<0.5	<0.5					
RPD											0	0					
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					<0.5	<0.5					
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD												0					
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					<0.5	<0.5					
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011										
RPD																	
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal											
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011										
RPD																	

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

								Solvents			SPOCAS
								Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
								mg/kg	mg/kg	mg/kg	-
EQL								0.5	0.5	0.5	0.1
Location Code	Field ID	Date	Depth	Lab Report Number	Lab Name	Sample Type	Parent Sample				
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50301	<0.5	<0.5	<0.5	
RPD								0	0	0	
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal		<0.5	<0.5	<0.5	
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50301				
RPD											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal					
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50309				
RPD											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal					
C03.01	SX_OB_20220323_16_02_SS_Di	23/03/2022		873973	MGT	Field_D	M22-Ma50317				
RPD											
C03.01	SX_OB_20220323_16_01_SS_Pr	23/03/2022		873973	MGT	Normal					
C03.01	SX_OB_20220323_16_04_SS_Tr	23/03/2022		EM2205177	ALSE-Melbourne	Interlab_D	M22-Ma50317				7.7
RPD											
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					7.6
C03.01	SX_OB_20220323_08_19_SS_Di	23/03/2022		EM2205177	ALSE-Melbourne	Field_D	EM2205177001				7.6
RPD											0
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					7.6
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001	<0.5	<0.5	<0.5	
RPD											
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					7.6
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177001				
RPD											
C03.01	SX_OB_20220323_08_17_SS_Pr	23/03/2022		EM2205177	ALSE-Melbourne	Normal					
C03.01	SX_OB_20220323_08_21_SS_Tr	23/03/2022		873973	MGT	Interlab_D	EM2205177009				
RPD											
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53712	<0.5	<0.5	<0.5	
RPD								0	0	0	
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal		<0.5	<0.5	<0.5	
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53712				7.8
RPD											
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal					
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53720				
RPD											
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal					
C04.01	SX_OB_20220324_16_25_SS_Di	24/03/2022		874462	MGT	Field_D	M22-Ma53728				
RPD											
C04.01	SX_OB_20220324_16_24_SS_Pr	24/03/2022		874462	MGT	Normal					
C04.01	SX_OB_20220324_16_27_SS_Tr	24/03/2022		EM2205361	ALSE-Melbourne	Interlab_D	M22-Ma53728				
RPD											
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					8.0
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361001				8.2
RPD											2
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					8.0
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001	<0.5	<0.5	<0.5	
RPD											
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					8.0
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361001				
RPD											
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					
C03.01	SX_OB_20220324_08_11_SS_Di	24/03/2022		EM2205361	ALSE-Melbourne	Field_D	EM2205361011				
RPD											
C03.01	SX_OB_20220324_08_07_SS_Pr	24/03/2022		EM2205361	ALSE-Melbourne	Normal					
C03.01	SX_OB_20220324_08_13_SS_Tr	24/03/2022		874462	MGT	Interlab_D	EM2205361011				
RPD											

\*RPDs have only been considered where a concentration is greater than 1 times the EQL.

\*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL) )

\*\*\*Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory



# TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C03.0120220407132213_05	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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ATTACHMENT B: 95% UCL AVE CALCULATIONS



	A	B	C	D	E	F	G	H	I	J	K	L
1	<b>UCL Statistics for Data Sets with Non-Detects</b>											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.112/04/2022 1:22:37 PM									
5	From File		WorkSheet.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Number of Bootstrap Operations		2000									
9												
10												
11	<b>Arsenic</b>											
12												
13	<b>General Statistics</b>											
14	Total Number of Observations				22		Number of Distinct Observations				18	
15							Number of Missing Observations				0	
16	Minimum				17		Mean				29.45	
17	Maximum				55		Median				30	
18	SD				7.757		Std. Error of Mean				1.654	
19	Coefficient of Variation				0.263		Skewness				1.422	
20												
21	<b>Normal GOF Test</b>											
22	Shapiro Wilk Test Statistic				0.873		<b>Shapiro Wilk GOF Test</b>					
23	5% Shapiro Wilk Critical Value				0.911		Data Not Normal at 5% Significance Level					
24	Lilliefors Test Statistic				0.154		<b>Lilliefors GOF Test</b>					
25	5% Lilliefors Critical Value				0.184		Data appear Normal at 5% Significance Level					
26	<b>Data appear Approximate Normal at 5% Significance Level</b>											
27												
28	<b>Assuming Normal Distribution</b>											
29	<b>95% Normal UCL</b>						<b>95% UCLs (Adjusted for Skewness)</b>					
30	95% Student's-t UCL				32.3		95% Adjusted-CLT UCL (Chen-1995)				32.71	
31							95% Modified-t UCL (Johnson-1978)				32.38	
32												
33	<b>Gamma GOF Test</b>											
34	A-D Test Statistic				0.544		<b>Anderson-Darling Gamma GOF Test</b>					
35	5% A-D Critical Value				0.741		Detected data appear Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic				0.132		<b>Kolmogorov-Smirnov Gamma GOF Test</b>					
37	5% K-S Critical Value				0.185		Detected data appear Gamma Distributed at 5% Significance Level					
38	<b>Detected data appear Gamma Distributed at 5% Significance Level</b>											
39												
40	<b>Gamma Statistics</b>											
41	k hat (MLE)				16.55		k star (bias corrected MLE)				14.33	
42	Theta hat (MLE)				1.779		Theta star (bias corrected MLE)				2.056	
43	nu hat (MLE)				728.3		nu star (bias corrected)				630.3	
44	MLE Mean (bias corrected)				29.45		MLE Sd (bias corrected)				7.782	
45							Approximate Chi Square Value (0.05)				573.1	
46	Adjusted Level of Significance				0.0386		Adjusted Chi Square Value				569	
47												
48	<b>Assuming Gamma Distribution</b>											
49	95% Approximate Gamma UCL (use when n>=50))				32.4		95% Adjusted Gamma UCL (use when n<50)				32.63	
50												
51	<b>Lognormal GOF Test</b>											
52	Shapiro Wilk Test Statistic				0.942		<b>Shapiro Wilk Lognormal GOF Test</b>					

	A	B	C	D	E	F	G	H	I	J	K	L
53	5% Shapiro Wilk Critical Value					0.911	Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic					0.133	<b>Lilliefors Lognormal GOF Test</b>					
55	5% Lilliefors Critical Value					0.184	Data appear Lognormal at 5% Significance Level					
56	<b>Data appear Lognormal at 5% Significance Level</b>											
57												
58	<b>Lognormal Statistics</b>											
59	Minimum of Logged Data					2.833	Mean of logged Data					3.352
60	Maximum of Logged Data					4.007	SD of logged Data					0.251
61												
62	<b>Assuming Lognormal Distribution</b>											
63	95% H-UCL					32.55	90% Chebyshev (MVUE) UCL					34.22
64	95% Chebyshev (MVUE) UCL					36.38	97.5% Chebyshev (MVUE) UCL					39.38
65	99% Chebyshev (MVUE) UCL					45.28						
66												
67	<b>Nonparametric Distribution Free UCL Statistics</b>											
68	<b>Data appear to follow a Discernible Distribution at 5% Significance Level</b>											
69												
70	<b>Nonparametric Distribution Free UCLs</b>											
71	95% CLT UCL					32.17	95% Jackknife UCL					32.3
72	95% Standard Bootstrap UCL					32.07	95% Bootstrap-t UCL					32.81
73	95% Hall's Bootstrap UCL					35	95% Percentile Bootstrap UCL					32.14
74	95% BCA Bootstrap UCL					32.5						
75	90% Chebyshev(Mean, Sd) UCL					34.42	95% Chebyshev(Mean, Sd) UCL					36.66
76	97.5% Chebyshev(Mean, Sd) UCL					39.78	99% Chebyshev(Mean, Sd) UCL					45.91
77												
78	<b>Suggested UCL to Use</b>											
79	95% Student's-t UCL					32.3						
80												
81	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
82	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
83												
84	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
85	Recommendations are based upon data size, data distribution, and skewness.											
86	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
87	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
88												
89												
90	<b>Nickel</b>											
91												
92	<b>General Statistics</b>											
93	Total Number of Observations					22	Number of Distinct Observations					19
94							Number of Missing Observations					0
95	Minimum					110	Mean					173.5
96	Maximum					240	Median					169.5
97	SD					32.39	Std. Error of Mean					6.905
98	Coefficient of Variation					0.187	Skewness					-0.0199
99												
100	<b>Normal GOF Test</b>											
101	Shapiro Wilk Test Statistic					0.952	<b>Shapiro Wilk GOF Test</b>					
102	5% Shapiro Wilk Critical Value					0.911	Data appear Normal at 5% Significance Level					
103	Lilliefors Test Statistic					0.16	<b>Lilliefors GOF Test</b>					
104	5% Lilliefors Critical Value					0.184	Data appear Normal at 5% Significance Level					

	A	B	C	D	E	F	G	H	I	J	K	L
105	<b>Data appear Normal at 5% Significance Level</b>											
106												
107	<b>Assuming Normal Distribution</b>											
108	<b>95% Normal UCL</b>						<b>95% UCLs (Adjusted for Skewness)</b>					
109	95% Student's-t UCL			185.4			95% Adjusted-CLT UCL (Chen-1995)			184.8		
110							95% Modified-t UCL (Johnson-1978)			185.4		
111												
112	<b>Gamma GOF Test</b>											
113	A-D Test Statistic			0.615			<b>Anderson-Darling Gamma GOF Test</b>					
114	5% A-D Critical Value			0.741			Detected data appear Gamma Distributed at 5% Significance Level					
115	K-S Test Statistic			0.176			<b>Kolmogorov-Smirnov Gamma GOF Test</b>					
116	5% K-S Critical Value			0.185			Detected data appear Gamma Distributed at 5% Significance Level					
117	<b>Detected data appear Gamma Distributed at 5% Significance Level</b>											
118												
119	<b>Gamma Statistics</b>											
120	k hat (MLE)			28.66			k star (bias corrected MLE)			24.78		
121	Theta hat (MLE)			6.054			Theta star (bias corrected MLE)			7.002		
122	nu hat (MLE)			1261			nu star (bias corrected)			1090		
123	MLE Mean (bias corrected)			173.5			MLE Sd (bias corrected)			34.85		
124							Approximate Chi Square Value (0.05)			1015		
125	Adjusted Level of Significance			0.0386			Adjusted Chi Square Value			1009		
126												
127	<b>Assuming Gamma Distribution</b>											
128	95% Approximate Gamma UCL (use when n>=50))			186.4			95% Adjusted Gamma UCL (use when n<50)			187.4		
129												
130	<b>Lognormal GOF Test</b>											
131	Shapiro Wilk Test Statistic			0.929			<b>Shapiro Wilk Lognormal GOF Test</b>					
132	5% Shapiro Wilk Critical Value			0.911			Data appear Lognormal at 5% Significance Level					
133	Lilliefors Test Statistic			0.191			<b>Lilliefors Lognormal GOF Test</b>					
134	5% Lilliefors Critical Value			0.184			Data Not Lognormal at 5% Significance Level					
135	<b>Data appear Approximate Lognormal at 5% Significance Level</b>											
136												
137	<b>Lognormal Statistics</b>											
138	Minimum of Logged Data			4.7			Mean of logged Data			5.139		
139	Maximum of Logged Data			5.481			SD of logged Data			0.195		
140												
141	<b>Assuming Lognormal Distribution</b>											
142	95% H-UCL			187.4			90% Chebyshev (MVUE) UCL			195.4		
143	95% Chebyshev (MVUE) UCL			205.3			97.5% Chebyshev (MVUE) UCL			219		
144	99% Chebyshev (MVUE) UCL			245.9								
145												
146	<b>Nonparametric Distribution Free UCL Statistics</b>											
147	<b>Data appear to follow a Discernible Distribution at 5% Significance Level</b>											
148												
149	<b>Nonparametric Distribution Free UCLs</b>											
150	95% CLT UCL			184.9			95% Jackknife UCL			185.4		
151	95% Standard Bootstrap UCL			184.8			95% Bootstrap-t UCL			185		
152	95% Hall's Bootstrap UCL			185.4			95% Percentile Bootstrap UCL			184.4		
153	95% BCA Bootstrap UCL			184.2								
154	90% Chebyshev(Mean, Sd) UCL			194.2			95% Chebyshev(Mean, Sd) UCL			203.6		
155	97.5% Chebyshev(Mean, Sd) UCL			216.6			99% Chebyshev(Mean, Sd) UCL			242.2		
156												

	A	B	C	D	E	F	G	H	I	J	K	L
157	<b>Suggested UCL to Use</b>											
158	95% Student's-t UCL					185.4						
159												
160	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
161	Recommendations are based upon data size, data distribution, and skewness.											
162	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
163	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
164												
165	<b>Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be</b>											
166	<b>reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.</b>											
167												

# TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C03.0120220407132213_05	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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ATTACHMENT C: LABORATORY CERTIFICATES





# CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing | ABN 50 005 085 521

Sydney Laboratory  
Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066  
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory  
Unit 1 21 Smallwood Place Murarie QLD 4172  
07 3902 4800 EnviroSampleQLD@eurofins.com

Perth Laboratory  
Unit 2 91 Leach Highway Kewdale WA 6105  
08 9251 9600 EnviroSampleWA@eurofins.com

Melbourne Laboratory  
6 Monlery Road Dandenong South VIC 3175  
03 8564 5000 EnviroSampleVic@eurofins.com

Company		AGON Environmental - Tunnel Spoil Testing		Project No	JC0927			Project Manager	Craig Trimbur		Sampler(s)	Emma.S - EP Risk & Toby.B - Agon						
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		Project Name	WGTP-Tunnel Ref:20220324045208-Eurofin-12			EDD Format	ESdet EQuiS etc		Esdat	Handed over by						
Contact Name		Craig Trimbur David Lawson		Analyses <small>Where metals are requested, please specify 'Total' or 'Filtered'. SUITE code must be used to attract SUITE pricing</small>	Spoil Sample Preparation	Suite WGTP-R1-TRM/PAH/Phenols/COPI/PCB/VOC/Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn)/Cr6+/CIV Total Fluoride/ pH	PFAS Extended Suite - 0.1 - 5ug/kg	ASLP PH 5 - PFAS 0.01-0.05 ug/l	ASLP Reagent - PFAS 0.01-0.05ug/l	Containers		Required Turnaround Time (TAT)						
Phone No		+61 400 826 907 (Craig) +61 490 411 004 (David)								Change container type & size if necessary		Default will be 5 days if not ticked						
Special Directions		Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with oter sample receipt documentation.								500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS5604, WA Guidelines)	*Surcharge will apply
Purchase Order										<input type="checkbox"/> Overnight (reporting by 9am)♦	<input type="checkbox"/> Same day ♦	<input type="checkbox"/> 1 day ♦	<input type="checkbox"/> 2 days ♦	<input type="checkbox"/> 3 days ♦	<input checked="" type="checkbox"/> 5 days (Standard)	<input type="checkbox"/> Other ( )		
Quote ID No		Agon WGTP TST		Matrix		Solid (S) Water (W)		Sample Comments / Dangerous Goods Hazard Warning										
No	Client Sample ID	Sampled Date/Time dd/mm/yyyy hh:mm	Matrix															
1	SX_OB_20220323_08_12_SS_Primary_EUF	23/03/22	S	X	X	X	X	X				1						
2	SX_OB_20220323_08_21_SS_Triplicate_EUF	23/03/22	S	X	X	X	X	X				1						
3	SX_OB_20220323_12_23_SS_Primary_EUF	23/03/22	S	X	X	X	X	X				1						
4	SX_OB_20220323_15_38_SR_Rinsate_EUF	23/03/22	W			X						1						
5	SX_OB_20220323_15_40_SB_Blank_EUF	23/03/22	W			X						1						
6	SX_OB_20220323_16_01_SS_Primary_EUF	23/03/22	S	X	X	X	X	X				1						
7	SX_OB_20220323_16_02_SS_Duplicate_EUF	23/03/22	S	X	X	X	X	X				1						
8	SX_OB_20220323_19_59_SS_Primary_EUF	23/03/22	S	X	X	X	X	X				1						
9	SX_OB_20220323_23_59_SS_Primary_EUF	23/03/22	S	X	X	X	X	X				1						
10	SX_OB_20220324_03_56_SS_Primary_EUF	24/03/22	S	X	X	X	X	X				1						
11																		
12																		
13																		
Total Counts				8	8	10	8	8				10						
Method of Shipment		<input checked="" type="checkbox"/> Courier # 1779		<input type="checkbox"/> Hand Delivered		<input type="checkbox"/> Postal		Name	LUKE BORGAN	Signature	[Signature]	Date	24/3/22	Time	9:16			
Laboratory Use Only		Received By TARUN		SYD   BNE   MEL   PER   ADL   NTL   DRW		Signature [Signature]		Date	24/3/22	Time	12:12 PM	Temperature		Report No				
		Received By		SYD   BNE   MEL   PER   ADL   NTL   DRW		Signature		Date		Time		Temperature		Report No				

Date/Time: \_\_\_\_\_  
 Chilled:  Yes  No  
 Temp: \_\_\_\_\_  
 Condition: \_\_\_\_\_  
 Final Temp: \_\_\_\_\_

873973  
Jake

Agon Environmental Pty Ltd - VIC  
3/224 Glen Osmond Road  
Fullarton  
SA 5063



NATA Accredited  
Accreditation Number 1261  
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing  
NATA is a signatory to the ILAC Mutual Recognition  
Arrangement for the mutual recognition of the  
equivalence of testing, medical testing, calibration,  
inspection, proficiency testing scheme providers and  
reference materials producers reports and certificates.

Attention: **David Lawson**

Report **873973-L**  
Project name **20220324045208-Eurofin-12**  
Project ID **JC0927**  
Received Date **Mar 24, 2022**

Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _Triplicate_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0
Eurofins Sample No.			M22-Ma50306	M22-Ma50307	M22-Ma50308	M22-Ma50309
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.1	5.1	5.1	5.1
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	119	110	107	118
13C5-PFPeA (surr.)	1	%	97	83	87	85
13C5-PFHxA (surr.)	1	%	106	93	90	103
13C4-PFHpA (surr.)	1	%	86	82	76	86
13C8-PFOA (surr.)	1	%	53	56	51	76
13C5-PFNA (surr.)	1	%	87	96	78	80
13C6-PFDA (surr.)	1	%	83	106	67	68
13C2-PFUnDA (surr.)	1	%	85	136	74	81
13C2-PFDoDA (surr.)	1	%	86	163	80	85
13C2-PFTeDA (surr.)	1	%	76	155	92	65
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _Triplicate_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0
Eurofins Sample No.			M22-Ma50306	M22-Ma50307	M22-Ma50308	M22-Ma50309
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonamido substances</b>						
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	79	106	67	71
D3-N-MeFOSA (surr.)	1	%	146	149	104	94
D5-N-EtFOSA (surr.)	1	%	153	152	96	91
D7-N-MeFOSE (surr.)	1	%	145	136	71	119
D9-N-EtFOSE (surr.)	1	%	150	147	76	116
D5-N-EtFOSAA (surr.)	1	%	104	142	103	94
D3-N-MeFOSAA (surr.)	1	%	85	111	84	82
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	96	89	84	112
18O2-PFHxS (surr.)	1	%	96	105	94	101
13C8-PFOS (surr.)	1	%	83	92	71	66
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	80	72	76	79
13C2-6:2 FTSA (surr.)	1	%	138	140	116	96
13C2-8:2 FTSA (surr.)	1	%	100	135	78	72
13C2-10:2 FTSA (surr.)	1	%	114	103	109	119
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 323_16_02_SS Duplicate_EU F	SX_OB_20220 323_19_59_SS Primary_EUF	SX_OB_20220 323_23_59_SS Primary_EUF	SX_OB_20220 324_03_56_SS Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0
Eurofins Sample No.			M22-Ma50310	M22-Ma50311	M22-Ma50312	M22-Ma50313
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.1	5.1	5.1	5.2
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	114	110	117	116
13C5-PFPeA (surr.)	1	%	85	88	91	97
13C5-PFHxA (surr.)	1	%	96	95	105	103
13C4-PFHpA (surr.)	1	%	80	79	89	78
13C8-PFOA (surr.)	1	%	79	68	73	112
13C5-PFNA (surr.)	1	%	76	75	84	74
13C6-PFDA (surr.)	1	%	68	67	83	65
13C2-PFUnDA (surr.)	1	%	58	84	104	68
13C2-PFDoDA (surr.)	1	%	59	78	99	69
13C2-PFTeDA (surr.)	1	%	42	61	60	33
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	58	78	87	75
D3-N-MeFOSA (surr.)	1	%	68	100	87	74
D5-N-EtFOSA (surr.)	1	%	61	96	84	67
D7-N-MeFOSE (surr.)	1	%	68	125	102	84
D9-N-EtFOSE (surr.)	1	%	66	128	108	84
D5-N-EtFOSAA (surr.)	1	%	94	78	97	98
D3-N-MeFOSAA (surr.)	1	%	64	85	93	60



Client Sample ID			SX_OB_20220 323_16_02_SS Duplicate_EU F	SX_OB_20220 323_19_59_SS Primary_EUF	SX_OB_20220 323_23_59_SS Primary_EUF	SX_OB_20220 324_03_56_SS Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0
Eurofins Sample No.			M22-Ma50310	M22-Ma50311	M22-Ma50312	M22-Ma50313
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	100	101	107	112
18O2-PFHxS (surr.)	1	%	99	99	104	102
13C8-PFOS (surr.)	1	%	62	75	86	68
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	74	71	78	71
13C2-6:2 FTSA (surr.)	1	%	88	94	91	75
13C2-8:2 FTSA (surr.)	1	%	42	64	74	55
13C2-10:2 FTSA (surr.)	1	%	73	117	131	78
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 323_08_12_SS Primary_EUF	SX_OB_20220 323_08_21_SS TriPLICATE_EU F	SX_OB_20220 323_12_23_SS Primary_EUF	SX_OB_20220 323_16_01_SS Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma50314	M22-Ma50315	M22-Ma50316	M22-Ma50317
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	6.1	6.1	6.1	6.1
pH (off)	0.1	pH Units	8.7	8.9	9.0	9.0



Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _TriPLICATE_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma50314	M22-Ma50315	M22-Ma50316	M22-Ma50317
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	114	93	98	116
13C5-PFPeA (surr.)	1	%	83	70	63	75
13C5-PFHxA (surr.)	1	%	97	59	94	111
13C4-PFHpA (surr.)	1	%	82	76	84	91
13C8-PFOA (surr.)	1	%	54	93	90	100
13C5-PFNA (surr.)	1	%	84	83	91	103
13C6-PFDA (surr.)	1	%	97	85	97	109
13C2-PFUnDA (surr.)	1	%	112	151	137	164
13C2-PFDoDA (surr.)	1	%	116	185	166	193
13C2-PFTeDA (surr.)	1	%	78	176	123	127
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	90	90	100	112
D3-N-MeFOSA (surr.)	1	%	82	83	88	46
D5-N-EtFOSA (surr.)	1	%	69	78	73	40
D7-N-MeFOSE (surr.)	1	%	63	117	114	117
D9-N-EtFOSE (surr.)	1	%	66	124	117	126
D5-N-EtFOSAA (surr.)	1	%	184	107	123	109
D3-N-MeFOSAA (surr.)	1	%	135	125	161	140
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _TriPLICATE_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma50314	M22-Ma50315	M22-Ma50316	M22-Ma50317
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	<sup>NO9</sup> < 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	97	57	59	73
18O2-PFHxS (surr.)	1	%	99	74	109	111
13C8-PFOS (surr.)	1	%	88	87	97	107
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	73	120	99	107
13C2-6:2 FTSA (surr.)	1	%	136	109	80	71
13C2-8:2 FTSA (surr.)	1	%	130	83	106	196
13C2-10:2 FTSA (surr.)	1	%	147	135	116	126
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 323_16_02_SS _Duplicate_EU F	SX_OB_20220 323_19_59_SS _Primary_EUF	SX_OB_20220 323_23_59_SS _Primary_EUF	SX_OB_20220 324_03_56_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma50318	M22-Ma50319	M22-Ma50320	M22-Ma50321
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	6.1	6.1	6.1	6.1
pH (off)	0.1	pH Units	9.0	9.2	9.1	9.2
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 323_16_02_SS Duplicate_EU F	SX_OB_20220 323_19_59_SS Primary_EUF	SX_OB_20220 323_23_59_SS Primary_EUF	SX_OB_20220 324_03_56_SS Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma50318	M22-Ma50319	M22-Ma50320	M22-Ma50321
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	109	84	98	90
13C5-PFPeA (surr.)	1	%	75	61	76	66
13C5-PFHxA (surr.)	1	%	102	84	92	89
13C4-PFHpA (surr.)	1	%	80	67	70	69
13C8-PFOA (surr.)	1	%	96	75	68	111
13C5-PFNA (surr.)	1	%	83	67	69	71
13C6-PFDA (surr.)	1	%	86	74	69	68
13C2-PFUnDA (surr.)	1	%	132	99	90	90
13C2-PFDoDA (surr.)	1	%	145	106	104	86
13C2-PFTeDA (surr.)	1	%	93	67	62	55
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	95	83	75	80
D3-N-MeFOSA (surr.)	1	%	115	95	55	54
D5-N-EtFOSA (surr.)	1	%	97	78	48	40
D7-N-MeFOSE (surr.)	1	%	99	75	65	46
D9-N-EtFOSE (surr.)	1	%	101	76	69	44
D5-N-EtFOSAA (surr.)	1	%	99	92	85	95
D3-N-MeFOSAA (surr.)	1	%	122	115	125	138
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	96	86	81	98
18O2-PFHxS (surr.)	1	%	103	92	92	90
13C8-PFOS (surr.)	1	%	81	73	69	66

Client Sample ID			SX_OB_20220 323_16_02_SS _Duplicate_EU F	SX_OB_20220 323_19_59_SS _Primary_EUF	SX_OB_20220 323_23_59_SS _Primary_EUF	SX_OB_20220 324_03_56_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma50318	M22-Ma50319	M22-Ma50320	M22-Ma50321
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	93	73	81	74
13C2-6:2 FTSA (surr.)	1	%	64	52	59	53
13C2-8:2 FTSA (surr.)	1	%	134	97	85	33
13C2-10:2 FTSA (surr.)	1	%	102	135	142	102
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

**Sample History**

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 25, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 25, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 25, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 24, 2022	



<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 24, 2022 12:12 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	873973	<b>Due:</b>	Mar 31, 2022
<b>Project Name:</b>	20220324045208-Eurofin-12	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFAS)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_OB_20220323_08_12_S_S_Primary_EU F	Mar 23, 2022	8:12AM	Soil	M22-Ma50296		X	X	X
2	SX_OB_20220323_08_21_S_S_Triplicate_EU F	Mar 23, 2022	8:21AM	Soil	M22-Ma50297		X	X	X
3	SX_OB_20220323_12_23_S_S_Primary_EU F	Mar 23, 2022	12:23PM	Soil	M22-Ma50298		X	X	X

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220324045208-Eurofin-12  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 873973  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** Mar 24, 2022 12:12 PM  
**Due:** Mar 31, 2022  
**Priority:** 5 Day  
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
4	SX_OB_20220323_15_38_S_R_Rinsate_EU_F	Mar 23, 2022	3:38PM	Water	M22-Ma50299			X	
5	SX_OB_20220323_15_40_S_B_Blank_EUF	Mar 23, 2022	3:40PM	Water	M22-Ma50300			X	
6	SX_OB_20220323_16_01_S_S_Primary_EU_F	Mar 23, 2022	4:01PM	Soil	M22-Ma50301		X	X	X
7	SX_OB_20220323_16_02_S_S_Duplicate_E	Mar 23, 2022	4:02PM	Soil	M22-Ma50302		X	X	X

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220324045208-Eurofin-12  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 873973  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** Mar 24, 2022 12:12 PM  
**Due:** Mar 31, 2022  
**Priority:** 5 Day  
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	UF								
8	SX_OB_20220323_19_59_S_S_Primary_EU_F	Mar 23, 2022	7:59PM	Soil	M22-Ma50303		X	X	X
9	SX_OB_20220323_23_59_S_S_Primary_EU_F	Mar 23, 2022	11:59PM	Soil	M22-Ma50304		X	X	X
10	SX_OB_20220324_03_56_S_S_Primary_EU_F	Mar 24, 2022	3:56AM	Soil	M22-Ma50305		X	X	X
11	SX_OB_20220	Mar 23, 2022	8:12AM	AUS Leachate	M22-Ma50306	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220324045208-Eurofin-12  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 873973  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** Mar 24, 2022 12:12 PM  
**Due:** Mar 31, 2022  
**Priority:** 5 Day  
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	323_08_12_S S_Primary_EU F			- pH 5.0					
12	SX_OB_20220 323_08_21_S S_Triplicate_E UF	Mar 23, 2022	8:21AM	AUS Leachate - pH 5.0	M22-Ma50307	X		X	
13	SX_OB_20220 323_12_23_S S_Primary_EU F	Mar 23, 2022	12:23PM	AUS Leachate - pH 5.0	M22-Ma50308	X		X	
14	SX_OB_20220 323_16_01_S S_Primary_EU	Mar 23, 2022	4:01PM	AUS Leachate - pH 5.0	M22-Ma50309	X		X	

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<b>Project Name:</b>	20220324045208-Eurofin-12	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	F								
15	SX_OB_20220323_16_02_S_S_Duplicate_EUF	Mar 23, 2022	4:02PM	AUS Leachate - pH 5.0	M22-Ma50310	X		X	
16	SX_OB_20220323_19_59_S_S_Primary_EUF	Mar 23, 2022	7:59PM	AUS Leachate - pH 5.0	M22-Ma50311	X		X	
17	SX_OB_20220323_23_59_S_S_Primary_EUF	Mar 23, 2022	11:59PM	AUS Leachate - pH 5.0	M22-Ma50312	X		X	
18	SX_OB_20220	Mar 24, 2022	3:56AM	AUS Leachate	M22-Ma50313	X		X	



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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFAS)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	324_03_56_S S_Primary_EU F			- pH 5.0					
19	SX_OB_20220 323_08_12_S S_Primary_EU F	Mar 23, 2022	8:12AM	AUS Leachate - Reagent Water	M22-Ma50314	X		X	
20	SX_OB_20220 323_08_21_S S_Triplicate_E UF	Mar 23, 2022	8:21AM	AUS Leachate - Reagent Water	M22-Ma50315	X		X	
21	SX_OB_20220 323_12_23_S S_Primary_EU	Mar 23, 2022	12:23PM	AUS Leachate - Reagent Water	M22-Ma50316	X		X	

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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	F								
22	SX_OB_20220323_16_01_S_S_Primary_EU_F	Mar 23, 2022	4:01PM	AUS Leachate - Reagent Water	M22-Ma50317	X		X	
23	SX_OB_20220323_16_02_S_S_Duplicate_EUF	Mar 23, 2022	4:02PM	AUS Leachate - Reagent Water	M22-Ma50318	X		X	
24	SX_OB_20220323_19_59_S_S_Primary_EU_F	Mar 23, 2022	7:59PM	AUS Leachate - Reagent Water	M22-Ma50319	X		X	
25	SX_OB_20220	Mar 23, 2022	11:59PM	AUS Leachate	M22-Ma50320	X		X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 24, 2022 12:12 PM
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<b>Project Name:</b>	20220324045208-Eurofin-12	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	323_23_59_S S_Primary_EU F			- Reagent Water					
26	SX_OB_20220 324_03_56_S S_Primary_EU F	Mar 24, 2022	3:56AM	AUS Leachate - Reagent Water	M22-Ma50321	X		X	
<b>Test Counts</b>						16	8	26	8

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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.

### Units

<b>mg/kg:</b> milligrams per kilogram	<b>mg/L:</b> milligrams per litre	<b>µg/L:</b> micrograms per litre
<b>ppm:</b> parts per million	<b>ppb:</b> parts per billion	<b>%:</b> Percentage
<b>org/100 mL:</b> Organisms per 100 millilitres	<b>NTU:</b> Nephelometric Turbidity Units	<b>MPN/100 mL:</b> Most Probable Number of organisms per 100 millilitres

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

### QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

### QC Data General Comments

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05		0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01		0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01		0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01		0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotridecanoic acid (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05		0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05		0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05		0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05		0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05		0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05		0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05		0.05	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01		0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01		0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01		0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05		0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01		0.01	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	57		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	94		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	95		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	91		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	91		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	94		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	92		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	80		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	81		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	92		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	88		50-150	Pass	



Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonamido substances</b>								
Perfluorooctane sulfonamide (FOSA)	%	89			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	89			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	77			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	90			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	96			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	92			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	73			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>								
Perfluorobutanesulfonic acid (PFBS)	%	89			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	73			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	110			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	103			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	91			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	93			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	96			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	55			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	88			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	105			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	80			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	109			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>								
				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma50306	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>								
				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma50306	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma50306	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma50306	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma50306	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma50306	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma50306	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma50306	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma50306	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma50306	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma50316	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma50316	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma50316	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma50316	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma50316	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma50316	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma50316	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma50316	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma50316	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma50316	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

**Comments**
**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
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
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other
N09	Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

**Authorised by:**

Michael Cassidy	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS (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](#).

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Agon Environmental Pty Ltd - VIC  
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Site Number 1254

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Arrangement for the mutual recognition of the  
equivalence of testing, medical testing, calibration,  
inspection, proficiency testing scheme providers and  
reference materials producers reports and certificates.

Attention: **David Lawson**

Report **873973-S**  
Project name **20220324045208-Eurofin-12**  
Project ID **JC0927**  
Received Date **Mar 24, 2022**

Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _Triplicate_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50296	M22-Ma50297	M22-Ma50298	M22-Ma50301
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
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	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5



Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _Triplicate_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50296	M22-Ma50297	M22-Ma50298	M22-Ma50301
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	59	73	54	76
Toluene-d8 (surr.)	1	%	52	62	59	69
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _Triplicate_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50296	M22-Ma50297	M22-Ma50298	M22-Ma50301
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>Polycyclic Aromatic Hydrocarbons</b>						
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	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
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	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	77	67	61	83
p-Terphenyl-d14 (surr.)	1	%	90	88	90	96
<b>Organochlorine Pesticides</b>						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	84	99	100	103
Tetrachloro-m-xylene (surr.)	1	%	121	119	124	134

Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _Triplicate_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50296	M22-Ma50297	M22-Ma50298	M22-Ma50301
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>Polychlorinated Biphenyls</b>						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	84	99	100	103
Tetrachloro-m-xylene (surr.)	1	%	121	119	124	134
<b>Phenols (Halogenated)</b>						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
<b>Phenols (non-Halogenated)</b>						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	67	81	73	88
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.7	8.6	8.7	8.5
% Moisture	1	%	27	26	27	25
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	33	17	28	30
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	160	62	140	120
Copper	5	mg/kg	79	43	62	60
Lead	5	mg/kg	5.6	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _Triplicate_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50296	M22-Ma50297	M22-Ma50298	M22-Ma50301
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>Heavy Metals</b>						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	240	120	190	200
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	140	69	120	110
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTeDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	77	77	78	78
13C5-PFPeA (surr.)	1	%	76	79	86	87
13C5-PFHxA (surr.)	1	%	64	63	69	73
13C4-PFHpA (surr.)	1	%	71	70	70	73
13C8-PFOA (surr.)	1	%	53	52	56	66
13C5-PFNA (surr.)	1	%	88	76	76	83
13C6-PFDA (surr.)	1	%	64	61	67	63
13C2-PFUnDA (surr.)	1	%	71	79	79	75
13C2-PFDoDA (surr.)	1	%	89	87	86	85
13C2-PFTeDA (surr.)	1	%	71	79	81	80
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	80	85	81	77
D3-N-MeFOSA (surr.)	1	%	90	103	101	98
D5-N-EtFOSA (surr.)	1	%	107	110	113	110
D7-N-MeFOSE (surr.)	1	%	76	77	74	74
D9-N-EtFOSE (surr.)	1	%	75	78	81	79
D5-N-EtFOSAA (surr.)	1	%	144	94	142	86
D3-N-MeFOSAA (surr.)	1	%	141	90	139	145

Client Sample ID			SX_OB_20220 323_08_12_SS _Primary_EUF	SX_OB_20220 323_08_21_SS _Triuplicate_EU F	SX_OB_20220 323_12_23_SS _Primary_EUF	SX_OB_20220 323_16_01_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50296	M22-Ma50297	M22-Ma50298	M22-Ma50301
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	67	66	64	68
18O2-PFHxS (surr.)	1	%	74	78	87	76
13C8-PFOS (surr.)	1	%	55	93	51	72
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	70	71	77	76
13C2-6:2 FTSA (surr.)	1	%	99	56	55	55
13C2-8:2 FTSA (surr.)	1	%	79	71	82	83
13C2-10:2 FTSA (surr.)	1	%	96	93	92	98
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

Client Sample ID			SX_OB_20220 323_16_02_SS _Duplicate_EU F	SX_OB_20220 323_19_59_SS _Primary_EUF	SX_OB_20220 323_23_59_SS _Primary_EUF	SX_OB_20220 324_03_56_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50302	M22-Ma50303	M22-Ma50304	M22-Ma50305
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
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	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20



Client Sample ID			SX_OB_20220 323_16_02_SS Duplicate_EU F	SX_OB_20220 323_19_59_SS Primary_EUF	SX_OB_20220 323_23_59_SS Primary_EUF	SX_OB_20220 324_03_56_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50302	M22-Ma50303	M22-Ma50304	M22-Ma50305
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 323_16_02_SS Duplicate_EU F	SX_OB_20220 323_19_59_SS Primary_EUF	SX_OB_20220 323_23_59_SS Primary_EUF	SX_OB_20220 324_03_56_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50302	M22-Ma50303	M22-Ma50304	M22-Ma50305
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	78	51	57	80
Toluene-d8 (surr.)	1	%	69	53	61	71
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
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	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
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	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	79	52	62	84
p-Terphenyl-d14 (surr.)	1	%	98	79	89	104

Client Sample ID			SX_OB_20220 323_16_02_SS Duplicate_EU F	SX_OB_20220 323_19_59_SS Primary_EUF	SX_OB_20220 323_23_59_SS Primary_EUF	SX_OB_20220 324_03_56_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50302	M22-Ma50303	M22-Ma50304	M22-Ma50305
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Organochlorine Pesticides</b>						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	98	82	94	110
Tetrachloro-m-xylene (surr.)	1	%	122	111	127	123
<b>Polychlorinated Biphenyls</b>						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	98	82	94	110
Tetrachloro-m-xylene (surr.)	1	%	122	111	127	123
<b>Phenols (Halogenated)</b>						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			SX_OB_20220 323_16_02_SS Duplicate_EU F	SX_OB_20220 323_19_59_SS Primary_EUF	SX_OB_20220 323_23_59_SS Primary_EUF	SX_OB_20220 324_03_56_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50302	M22-Ma50303	M22-Ma50304	M22-Ma50305
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Phenols (non-Halogenated)</b>						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	66	71	76	97
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
<b>Cyanide (total)</b>						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
<b>Fluoride (Total)</b>						
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
<b>pH (1:5 Aqueous extract at 25°C as rec.)</b>						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.4	8.9	8.7	8.9
<b>% Moisture</b>						
% Moisture	1	%	27	27	29	29
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	31	29	19	55
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	140	49	52	140
Copper	5	mg/kg	61	41	41	54
Lead	5	mg/kg	< 5	< 5	< 5	6.0
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	220	110	120	160
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	160	67	67	100
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	150	79	77	78
13C5-PFPeA (surr.)	1	%	82	90	76	83
13C5-PFHxA (surr.)	1	%	65	79	70	78

Client Sample ID			SX_OB_20220 323_16_02_SS Duplicate_EU F	SX_OB_20220 323_19_59_SS Primary_EUF	SX_OB_20220 323_23_59_SS Primary_EUF	SX_OB_20220 324_03_56_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50302	M22-Ma50303	M22-Ma50304	M22-Ma50305
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
13C4-PFHpA (surr.)	1	%	66	69	68	71
13C8-PFOA (surr.)	1	%	71	76	73	75
13C5-PFNA (surr.)	1	%	76	84	78	73
13C6-PFDA (surr.)	1	%	61	57	54	51
13C2-PFUnDA (surr.)	1	%	66	78	73	77
13C2-PFDoDA (surr.)	1	%	92	88	83	83
13C2-PFTeDA (surr.)	1	%	76	77	81	77
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	74	82	83	81
D3-N-MeFOSA (surr.)	1	%	99	95	101	96
D5-N-EtFOSA (surr.)	1	%	106	110	109	108
D7-N-MeFOSE (surr.)	1	%	74	73	75	73
D9-N-EtFOSE (surr.)	1	%	76	76	77	78
D5-N-EtFOSAA (surr.)	1	%	127	87	145	85
D3-N-MeFOSAA (surr.)	1	%	76	77	147	143
<b>Perfluoroalkyl sulfonic acids (PFsAs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	69	74	67	76
18O2-PFHxS (surr.)	1	%	72	79	73	71
13C8-PFOS (surr.)	1	%	94	53	64	50
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTsAs)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	72	73	75	64
13C2-6:2 FTSA (surr.)	1	%	57	55	51	97



Client Sample ID			SX_OB_20220 323_16_02_SS _Duplicate_EU F	SX_OB_20220 323_19_59_SS _Primary_EUF	SX_OB_20220 323_23_59_SS _Primary_EUF	SX_OB_20220 324_03_56_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma50302	M22-Ma50303	M22-Ma50304	M22-Ma50305
Date Sampled			Mar 23, 2022	Mar 23, 2022	Mar 23, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
13C2-8:2 FTSA (surr.)	1	%	76	78	86	78
13C2-10:2 FTSA (surr.)	1	%	93	104	110	96
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

**Sample History**

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
IWRG 621 WGTP Suite			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 25, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 25, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 25, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Mar 25, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Mar 25, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 25, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Mar 25, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Mar 25, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 25, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 25, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	Mar 25, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Mar 28, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	Mar 26, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Mar 25, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Mar 25, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Mar 24, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 24, 2022	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 24, 2022 12:12 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	873973	<b>Due:</b>	Mar 31, 2022
<b>Project Name:</b>	20220324045208-Eurofin-12	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFAS)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_OB_20220323_08_12_S_S_Primary_EU F	Mar 23, 2022	8:12AM	Soil	M22-Ma50296		X	X	X
2	SX_OB_20220323_08_21_S_S_Triplicate_EUF	Mar 23, 2022	8:21AM	Soil	M22-Ma50297		X	X	X
3	SX_OB_20220323_12_23_S_S_Primary_EU F	Mar 23, 2022	12:23PM	Soil	M22-Ma50298		X	X	X

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 24, 2022 12:12 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	873973	<b>Due:</b>	Mar 31, 2022
<b>Project Name:</b>	20220324045208-Eurofin-12	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
4	SX_OB_20220323_15_38_S R_Rinsate_EU F	Mar 23, 2022	3:38PM	Water	M22-Ma50299			X	
5	SX_OB_20220323_15_40_S B_Blank_EUF	Mar 23, 2022	3:40PM	Water	M22-Ma50300			X	
6	SX_OB_20220323_16_01_S S_Primary_EU F	Mar 23, 2022	4:01PM	Soil	M22-Ma50301		X	X	X
7	SX_OB_20220323_16_02_S S_Duplicate_E	Mar 23, 2022	4:02PM	Soil	M22-Ma50302		X	X	X

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 24, 2022 12:12 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	873973	<b>Due:</b>	Mar 31, 2022
<b>Project Name:</b>	20220324045208-Eurofin-12	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	UF								
8	SX_OB_20220323_19_59_S_S_Primary_EU_F	Mar 23, 2022	7:59PM	Soil	M22-Ma50303		X	X	X
9	SX_OB_20220323_23_59_S_S_Primary_EU_F	Mar 23, 2022	11:59PM	Soil	M22-Ma50304		X	X	X
10	SX_OB_20220324_03_56_S_S_Primary_EU_F	Mar 24, 2022	3:56AM	Soil	M22-Ma50305		X	X	X
11	SX_OB_20220	Mar 23, 2022	8:12AM	AUS Leachate	M22-Ma50306	X		X	



<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 24, 2022 12:12 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	873973	<b>Due:</b>	Mar 31, 2022
<b>Project Name:</b>	20220324045208-Eurofin-12	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFAS)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	323_08_12_S S_Primary_EU F			- pH 5.0					
12	SX_OB_20220 323_08_21_S S_Triplicate_E UF	Mar 23, 2022	8:21AM	AUS Leachate - pH 5.0	M22-Ma50307	X		X	
13	SX_OB_20220 323_12_23_S S_Primary_EU F	Mar 23, 2022	12:23PM	AUS Leachate - pH 5.0	M22-Ma50308	X		X	
14	SX_OB_20220 323_16_01_S S_Primary_EU	Mar 23, 2022	4:01PM	AUS Leachate - pH 5.0	M22-Ma50309	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
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SA 5063  
**Project Name:** 20220324045208-Eurofin-12  
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**Order No.:**  
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**Received:** Mar 24, 2022 12:12 PM  
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**Priority:** 5 Day  
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	F								
15	SX_OB_20220323_16_02_S_S_Duplicate_EUF	Mar 23, 2022	4:02PM	AUS Leachate - pH 5.0	M22-Ma50310	X		X	
16	SX_OB_20220323_19_59_S_S_Primary_EUF	Mar 23, 2022	7:59PM	AUS Leachate - pH 5.0	M22-Ma50311	X		X	
17	SX_OB_20220323_23_59_S_S_Primary_EUF	Mar 23, 2022	11:59PM	AUS Leachate - pH 5.0	M22-Ma50312	X		X	
18	SX_OB_20220	Mar 24, 2022	3:56AM	AUS Leachate	M22-Ma50313	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
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**Order No.:**  
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**Received:** Mar 24, 2022 12:12 PM  
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**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFAS)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	324_03_56_S S_Primary_EU F			- pH 5.0					
19	SX_OB_20220 323_08_12_S S_Primary_EU F	Mar 23, 2022	8:12AM	AUS Leachate - Reagent Water	M22-Ma50314	X		X	
20	SX_OB_20220 323_08_21_S S_Triplicate_E UF	Mar 23, 2022	8:21AM	AUS Leachate - Reagent Water	M22-Ma50315	X		X	
21	SX_OB_20220 323_12_23_S S_Primary_EU	Mar 23, 2022	12:23PM	AUS Leachate - Reagent Water	M22-Ma50316	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
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**Received:** Mar 24, 2022 12:12 PM  
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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	F								
22	SX_OB_20220323_16_01_S_S_Primary_EU_F	Mar 23, 2022	4:01PM	AUS Leachate - Reagent Water	M22-Ma50317	X		X	
23	SX_OB_20220323_16_02_S_S_Duplicate_EU_F	Mar 23, 2022	4:02PM	AUS Leachate - Reagent Water	M22-Ma50318	X		X	
24	SX_OB_20220323_19_59_S_S_Primary_EU_F	Mar 23, 2022	7:59PM	AUS Leachate - Reagent Water	M22-Ma50319	X		X	
25	SX_OB_20220323_19_59_S_S_Primary_EU_F	Mar 23, 2022	11:59PM	AUS Leachate	M22-Ma50320	X		X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 24, 2022 12:12 PM
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<b>Project Name:</b>	20220324045208-Eurofin-12	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	323_23_59_S S_Primary_EU F			- Reagent Water					
26	SX_OB_20220 324_03_56_S S_Primary_EU F	Mar 24, 2022	3:56AM	AUS Leachate - Reagent Water	M22-Ma50321	X		X	
<b>Test Counts</b>						16	8	26	8

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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.

### Units

<b>mg/kg:</b> milligrams per kilogram	<b>mg/L:</b> milligrams per litre	<b>µg/L:</b> micrograms per litre
<b>ppm:</b> parts per million	<b>ppb:</b> parts per billion	<b>%:</b> Percentage
<b>org/100 mL:</b> Organisms per 100 millilitres	<b>NTU:</b> Nephelometric Turbidity Units	<b>MPN/100 mL:</b> Most Probable Number of organisms per 100 millilitres

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

### QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

### QC Data General Comments

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>							
<b>Total Recoverable Hydrocarbons</b>							
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	
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	
<b>Method Blank</b>							
<b>Volatile Organics</b>							
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
<b>Method Blank</b>							
<b>Volatile Organics</b>							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
<b>Method Blank</b>							
<b>Polycyclic Aromatic Hydrocarbons</b>							
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	
<b>Method Blank</b>							
<b>Organochlorine Pesticides</b>							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
<b>Method Blank</b>							
<b>Polychlorinated Biphenyls</b>							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
<b>Method Blank</b>							
<b>Phenols (Halogenated)</b>							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 1			1	Pass	
2,4,6-Trichlorophenol	mg/kg	< 1			1	Pass	
2,6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
<b>Method Blank</b>							
<b>Phenols (non-Halogenated)</b>							
2-Cyclohexyl-4,6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4,6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2,4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
<b>Method Blank</b>							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
<b>Method Blank</b>							
<b>Heavy Metals</b>							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5		5	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	ug/kg	< 5		5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5		5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5		5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5		5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5		5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5		5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5		5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5		5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5		5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5		5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5		5	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5		5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5		5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5		5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/kg	< 5		5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/kg	< 5		5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10		10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10		10	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5		5	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/kg	< 5		5	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/kg	< 5		5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5		5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5		5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5		5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5		5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5		5	Pass	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5		5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/kg	< 10		10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5		5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5		5	Pass	
<b>LCS - % Recovery</b>						
<b>Total Recoverable Hydrocarbons</b>						
TRH C6-C9	%	114		70-130	Pass	
TRH C10-C14	%	85		70-130	Pass	
Naphthalene	%	124		70-130	Pass	
TRH C6-C10	%	100		70-130	Pass	
TRH >C10-C16	%	80		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Volatile Organics</b>						
1.1-Dichloroethene	%	78		70-130	Pass	
1.1.1-Trichloroethane	%	115		70-130	Pass	
1.2-Dichlorobenzene	%	105		70-130	Pass	
1.2-Dichloroethane	%	115		70-130	Pass	
Benzene	%	114		70-130	Pass	
Ethylbenzene	%	115		70-130	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	123		70-130	Pass	
Toluene	%	122		70-130	Pass	
Trichloroethene	%	109		70-130	Pass	
Xylenes - Total*	%	118		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Polycyclic Aromatic Hydrocarbons</b>						
Acenaphthene	%	101		70-130	Pass	
Acenaphthylene	%	112		70-130	Pass	
Anthracene	%	104		70-130	Pass	
Benz(a)anthracene	%	89		70-130	Pass	
Benzo(a)pyrene	%	101		70-130	Pass	
Benzo(b&i)fluoranthene	%	88		70-130	Pass	
Benzo(g,h,i)perylene	%	94		70-130	Pass	
Benzo(k)fluoranthene	%	98		70-130	Pass	
Chrysene	%	96		70-130	Pass	
Dibenz(a,h)anthracene	%	96		70-130	Pass	
Fluoranthene	%	106		70-130	Pass	
Fluorene	%	109		70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	97		70-130	Pass	
Naphthalene	%	95		70-130	Pass	
Phenanthrene	%	96		70-130	Pass	
Pyrene	%	108		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Organochlorine Pesticides</b>						
Chlordanes - Total	%	78		70-130	Pass	
4,4'-DDD	%	120		70-130	Pass	
4,4'-DDE	%	84		70-130	Pass	
4,4'-DDT	%	87		70-130	Pass	
a-HCH	%	85		70-130	Pass	
Aldrin	%	78		70-130	Pass	
b-HCH	%	77		70-130	Pass	
d-HCH	%	85		70-130	Pass	
Dieldrin	%	91		70-130	Pass	
Endosulfan I	%	78		70-130	Pass	
Endosulfan II	%	76		70-130	Pass	
Endosulfan sulphate	%	73		70-130	Pass	
Endrin	%	77		70-130	Pass	
Endrin aldehyde	%	84		70-130	Pass	
Endrin ketone	%	85		70-130	Pass	
g-HCH (Lindane)	%	77		70-130	Pass	
Heptachlor	%	73		70-130	Pass	
Heptachlor epoxide	%	77		70-130	Pass	
Hexachlorobenzene	%	81		70-130	Pass	
Methoxychlor	%	120		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Polychlorinated Biphenyls</b>						
Aroclor-1260	%	97		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Phenols (Halogenated)</b>						
2-Chlorophenol	%	94		25-140	Pass	
2,4-Dichlorophenol	%	99		25-140	Pass	
2,4,5-Trichlorophenol	%	101		25-140	Pass	
2,4,6-Trichlorophenol	%	93		25-140	Pass	
2,6-Dichlorophenol	%	97		25-140	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	96		25-140	Pass	
Pentachlorophenol	%	92		25-140	Pass	
Tetrachlorophenols - Total	%	83		25-140	Pass	
<b>LCS - % Recovery</b>						
<b>Phenols (non-Halogenated)</b>						
2-Cyclohexyl-4,6-dinitrophenol	%	37		25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	59		25-140	Pass	
2-Nitrophenol	%	102		25-140	Pass	
2,4-Dimethylphenol	%	98		25-140	Pass	
2,4-Dinitrophenol	%	52		25-140	Pass	
2-Methylphenol (o-Cresol)	%	78		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	101		25-140	Pass	
4-Nitrophenol	%	102		25-140	Pass	
Dinoseb	%	72		25-140	Pass	
Phenol	%	88		25-140	Pass	
<b>LCS - % Recovery</b>						
Chromium (hexavalent)	%	103		70-130	Pass	
Cyanide (total)	%	112		70-130	Pass	
Fluoride (Total)	%	80		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Heavy Metals</b>						
Arsenic	%	108		80-120	Pass	
Cadmium	%	100		80-120	Pass	
Chromium	%	111		80-120	Pass	
Copper	%	108		80-120	Pass	
Lead	%	113		80-120	Pass	
Mercury	%	108		80-120	Pass	
Molybdenum	%	107		80-120	Pass	
Nickel	%	107		80-120	Pass	
Selenium	%	104		80-120	Pass	
Silver	%	106		80-120	Pass	
Tin	%	105		80-120	Pass	
Zinc	%	108		80-120	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	104		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	89		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	87		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	91		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	99		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	100		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	121		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	98		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	108		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	96		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	97		50-150	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	%	106		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	102		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	100		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	96		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	102		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	81		50-150	Pass	



Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	83			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>								
Perfluorobutanesulfonic acid (PFBS)	%	95			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	126			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	53			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	93			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	103			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	123			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	97			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	121			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	107			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	107			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	95			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	89			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>Spike - % Recovery</b>								
<b>Organochlorine Pesticides</b>								
				Result 1				
Chlordanes - Total	M22-Ma57287	NCP	%	107		70-130	Pass	
4.4'-DDD	M22-Ma57287	NCP	%	106		70-130	Pass	
4.4'-DDE	M22-Ma57287	NCP	%	104		70-130	Pass	
4.4'-DDT	M22-Ma57287	NCP	%	85		70-130	Pass	
a-HCH	M22-Ma57287	NCP	%	120		70-130	Pass	
Aldrin	M22-Ma57287	NCP	%	97		70-130	Pass	
b-HCH	M22-Ma57287	NCP	%	75		70-130	Pass	
d-HCH	M22-Ma57287	NCP	%	95		70-130	Pass	
Dieldrin	M22-Ma57287	NCP	%	115		70-130	Pass	
Endosulfan I	M22-Ma57287	NCP	%	115		70-130	Pass	
Endosulfan II	M22-Ma57287	NCP	%	85		70-130	Pass	
Endosulfan sulphate	M22-Ma57287	NCP	%	90		70-130	Pass	
Endrin	M22-Ma57287	NCP	%	124		70-130	Pass	
Endrin aldehyde	M22-Ma57287	NCP	%	112		70-130	Pass	
Endrin ketone	M22-Ma57287	NCP	%	78		70-130	Pass	
g-HCH (Lindane)	M22-Ma57287	NCP	%	114		70-130	Pass	
Heptachlor	M22-Ma57287	NCP	%	115		70-130	Pass	
Heptachlor epoxide	M22-Ma57287	NCP	%	115		70-130	Pass	
Hexachlorobenzene	M22-Ma57287	NCP	%	113		70-130	Pass	
Methoxychlor	M22-Ma57287	NCP	%	88		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Polychlorinated Biphenyls</b>								
				Result 1				
Aroclor-1016	M22-Ma42822	NCP	%	101		70-130	Pass	
Aroclor-1260	M22-Ma42822	NCP	%	108		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Heavy Metals</b>								
				Result 1				
Chromium	M22-Ma53260	NCP	%	112		75-125	Pass	
Copper	M22-Ma53260	NCP	%	108		75-125	Pass	
Nickel	M22-Ma53260	NCP	%	92		75-125	Pass	
Zinc	M22-Ma53260	NCP	%	110		75-125	Pass	
<b>Spike - % Recovery</b>								
<b>Total Recoverable Hydrocarbons</b>								
				Result 1				
TRH C6-C9	M22-Ma50297	CP	%	72		70-130	Pass	
TRH C10-C14	M22-Ma50297	CP	%	97		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	M22-Ma50297	CP	%	95		70-130	Pass	
TRH C6-C10	M22-Ma50297	CP	%	70		70-130	Pass	
TRH >C10-C16	M22-Ma50297	CP	%	94		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Volatile Organics</b>				Result 1				
1.1-Dichloroethene	M22-Ma50297	CP	%	104		70-130	Pass	
1.1.1-Trichloroethane	M22-Ma50297	CP	%	88		70-130	Pass	
1.2-Dichlorobenzene	M22-Ma50297	CP	%	82		70-130	Pass	
1.2-Dichloroethane	M22-Ma50297	CP	%	97		70-130	Pass	
Benzene	M22-Ma50297	CP	%	76		70-130	Pass	
Ethylbenzene	M22-Ma50297	CP	%	90		70-130	Pass	
m&p-Xylenes	M22-Ma50297	CP	%	87		70-130	Pass	
o-Xylene	M22-Ma50297	CP	%	91		70-130	Pass	
Toluene	M22-Ma50297	CP	%	77		70-130	Pass	
Trichloroethene	M22-Ma50297	CP	%	90		70-130	Pass	
Xylenes - Total*	M22-Ma50297	CP	%	88		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Polycyclic Aromatic Hydrocarbons</b>				Result 1				
Acenaphthene	M22-Ma50297	CP	%	94		70-130	Pass	
Acenaphthylene	M22-Ma50297	CP	%	104		70-130	Pass	
Anthracene	M22-Ma50297	CP	%	98		70-130	Pass	
Benz(a)anthracene	M22-Ma50297	CP	%	86		70-130	Pass	
Benzo(a)pyrene	M22-Ma50297	CP	%	98		70-130	Pass	
Benzo(b&j)fluoranthene	M22-Ma50297	CP	%	84		70-130	Pass	
Benzo(g,h,i)perylene	M22-Ma50297	CP	%	93		70-130	Pass	
Benzo(k)fluoranthene	M22-Ma50297	CP	%	91		70-130	Pass	
Chrysene	M22-Ma50297	CP	%	92		70-130	Pass	
Dibenz(a,h)anthracene	M22-Ma50297	CP	%	93		70-130	Pass	
Fluoranthene	M22-Ma50297	CP	%	98		70-130	Pass	
Fluorene	M22-Ma50297	CP	%	102		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M22-Ma50297	CP	%	93		70-130	Pass	
Naphthalene	M22-Ma50297	CP	%	86		70-130	Pass	
Phenanthrene	M22-Ma50297	CP	%	88		70-130	Pass	
Pyrene	M22-Ma50297	CP	%	100		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Phenols (Halogenated)</b>				Result 1				
2-Chlorophenol	M22-Ma50297	CP	%	88		30-130	Pass	
2,4-Dichlorophenol	M22-Ma50297	CP	%	95		30-130	Pass	
2,4,5-Trichlorophenol	M22-Ma50297	CP	%	104		30-130	Pass	
2,4,6-Trichlorophenol	M22-Ma50297	CP	%	94		30-130	Pass	
2,6-Dichlorophenol	M22-Ma50297	CP	%	94		30-130	Pass	
4-Chloro-3-methylphenol	M22-Ma50297	CP	%	96		30-130	Pass	
Pentachlorophenol	M22-Ma50297	CP	%	98		30-130	Pass	
Tetrachlorophenols - Total	M22-Ma50297	CP	%	81		30-130	Pass	
<b>Spike - % Recovery</b>								
<b>Phenols (non-Halogenated)</b>				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-Ma50297	CP	%	33		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-Ma50297	CP	%	50		30-130	Pass	
2-Nitrophenol	M22-Ma50297	CP	%	99		30-130	Pass	
2,4-Dimethylphenol	M22-Ma50297	CP	%	103		30-130	Pass	
2,4-Dinitrophenol	M22-Ma50297	CP	%	53		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Ma50297	CP	%	77		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Ma50297	CP	%	99		30-130	Pass	
4-Nitrophenol	M22-Ma50297	CP	%	98		30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Dinoseb	M22-Ma50297	CP	%	65		30-130	Pass	
Phenol	M22-Ma50297	CP	%	85		30-130	Pass	
<b>Spike - % Recovery</b>								
				Result 1				
Chromium (hexavalent)	M22-Ma49882	NCP	%	101		70-130	Pass	
Cyanide (total)	M22-Ma50297	CP	%	82		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Heavy Metals</b>				Result 1				
Arsenic	M22-Ma50297	CP	%	126		75-125	Fail	Q08
Cadmium	M22-Ma50297	CP	%	112		75-125	Pass	
Lead	M22-Ma50297	CP	%	123		75-125	Pass	
Mercury	M22-Ma50297	CP	%	116		75-125	Pass	
Molybdenum	M22-Ma50297	CP	%	125		75-125	Pass	
Selenium	M22-Ma50297	CP	%	103		75-125	Pass	
Silver	M22-Ma50297	CP	%	117		75-125	Pass	
Tin	M22-Ma50297	CP	%	120		75-125	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Ma50297	CP	%	98		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ma50297	CP	%	84		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ma50297	CP	%	88		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ma50297	CP	%	93		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ma50297	CP	%	104		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ma50297	CP	%	104		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ma50297	CP	%	112		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ma50297	CP	%	107		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ma50297	CP	%	102		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ma50297	CP	%	94		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma50297	CP	%	98		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Ma50297	CP	%	105		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma50297	CP	%	97		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma50297	CP	%	91		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma50297	CP	%	102		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma50297	CP	%	105		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma50297	CP	%	88		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma50297	CP	%	96		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Ma50297	CP	%	97		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ma50297	CP	%	120		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma50297	CP	%	106		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma50297	CP	%	84			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma50297	CP	%	101			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma50297	CP	%	115			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ma50297	CP	%	89			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ma50297	CP	%	119			50-150	Pass	
<b>Spike - % Recovery</b>									
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma50297	CP	%	106			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma50297	CP	%	108			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma50297	CP	%	88			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma50297	CP	%	98			50-150	Pass	
<b>Spike - % Recovery</b>									
				Result 1					
Fluoride (Total)	M22-Ma50305	CP	%	96			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Total Recoverable Hydrocarbons</b>				Result 1	Result 2	RPD			
TRH C6-C9	M22-Ma50296	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M22-Ma50296	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-Ma50296	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-Ma50296	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-Ma50296	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M22-Ma50296	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-Ma50296	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-Ma50296	CP	mg/kg	< 100	< 100	<1	30%	Pass	
<b>Duplicate</b>									
<b>Volatile Organics</b>				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
<b>Duplicate</b>									
<b>Volatile Organics</b>				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.3-Dichloropropane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-Ma50296	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-Ma50296	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-Ma50296	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-Ma50296	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-Ma50296	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1.2-Dichloroethene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-Ma50296	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-Ma50296	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass



Duplicate								
<b>Polycyclic Aromatic Hydrocarbons</b>				Result 1	Result 2	RPD		
Indeno(1.2.3-cd)pyrene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
<b>Organochlorine Pesticides</b>				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ma49882	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ma49882	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
<b>Polychlorinated Biphenyls</b>				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ma49882	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ma49882	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ma49882	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ma49882	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ma49882	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ma49882	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ma49882	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ma49882	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
<b>Phenols (Halogenated)</b>				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dichlorophenol	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4.5-Trichlorophenol	M22-Ma49882	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4.6-Trichlorophenol	M22-Ma49882	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.6-Dichlorophenol	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ma49882	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ma49882	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ma49882	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
<b>Phenols (non-Halogenated)</b>				Result 1	Result 2	RPD		
2-Cyclohexyl-4.6-dinitrophenol	M22-Ma49882	NCP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4.6-dinitrophenol	M22-Ma49882	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ma49882	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4-Dimethylphenol	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dinitrophenol	M22-Ma49882	NCP	mg/kg	< 5	< 5	<1	30%	Pass



<b>Duplicate</b>								
<b>Phenols (non-Halogenated)</b>				Result 1	Result 2	RPD		
2-Methylphenol (o-Cresol)	M22-Ma49882	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ma49882	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Ma49882	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ma49882	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ma49882	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
<b>Duplicate</b>								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-Ma50296	CP	mg/kg	< 5	< 5	<1	30%	Pass
Fluoride (Total)	M22-Ma61554	NCP	mg/kg	< 100	< 100	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Ma52992	NCP	pH Units	9.7	9.8	pass	30%	Pass
% Moisture	M22-Ma49906	NCP	%	17	17	2.0	30%	Pass
<b>Duplicate</b>								
<b>Heavy Metals</b>				Result 1	Result 2	RPD		
Arsenic	M22-Ma50296	CP	mg/kg	33	28	16	30%	Pass
Cadmium	M22-Ma50296	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-Ma50296	CP	mg/kg	160	130	20	30%	Pass
Copper	M22-Ma50296	CP	mg/kg	79	61	26	30%	Pass
Lead	M22-Ma50296	CP	mg/kg	5.6	< 5	18	30%	Pass
Mercury	M22-Ma50296	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-Ma50296	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-Ma50296	CP	mg/kg	240	190	21	30%	Pass
Selenium	M22-Ma50296	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-Ma50296	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-Ma50296	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-Ma50296	CP	mg/kg	140	110	23	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma50296	CP	ug/kg	< 5	< 5	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma51018	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma51018	NCP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma51018	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma51018	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-Ma50297	CP	mg/kg	17	18	5.0	30%	Pass
Cadmium	M22-Ma50297	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-Ma50297	CP	mg/kg	62	67	7.0	30%	Pass
Copper	M22-Ma50297	CP	mg/kg	43	48	9.0	30%	Pass
Lead	M22-Ma50297	CP	mg/kg	< 5	< 5	<1	30%	Pass
Mercury	M22-Ma50297	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-Ma50297	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-Ma50297	CP	mg/kg	120	140	10	30%	Pass
Selenium	M22-Ma50297	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-Ma50297	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-Ma50297	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-Ma50297	CP	mg/kg	69	75	9.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ma50302	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ma50303	CP	mg/kg	< 1	< 1	<1	30%	Pass

**Comments**
**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
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
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
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:**

Michael Cassidy	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Joseph Edouard	Senior Analyst-PFAS (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)
Vivian Wang	Senior Analyst-Volatile (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](#).

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Agon Environmental Pty Ltd - VIC  
3/224 Glen Osmond Road  
Fullarton  
SA 5063



NATA Accredited  
Accreditation Number 1261  
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing  
NATA is a signatory to the ILAC Mutual Recognition  
Arrangement for the mutual recognition of the  
equivalence of testing, medical testing, calibration,  
inspection, proficiency testing scheme providers and  
reference materials producers reports and certificates.

Attention: **David Lawson**

Report **873973-W**  
Project name **20220324045208-Eurofin-12**  
Project ID **JC0927**  
Received Date **Mar 24, 2022**

Client Sample ID			SX_OB_20220 323_15_38_SR _Rinsate_EUF	SX_OB_20220 323_15_40_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22-Ma50299	M22-Ma50300
Date Sampled			Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit		
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	74	101
13C5-PFPeA (surr.)	1	%	91	108
13C5-PFHxA (surr.)	1	%	74	102
13C4-PFHpA (surr.)	1	%	72	101
13C8-PFOA (surr.)	1	%	69	108
13C5-PFNA (surr.)	1	%	38	72
13C6-PFDA (surr.)	1	%	30	64
13C2-PFUnDA (surr.)	1	%	34	95
13C2-PFDoDA (surr.)	1	%	22	98
13C2-PFTeDA (surr.)	1	%	11	92
<b>Perfluoroalkyl sulfonamido substances</b>				
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	22	105
D3-N-MeFOSA (surr.)	1	%	27	72

Client Sample ID			SX_OB_20220 323_15_38_SR _Rinsate_EUF	SX_OB_20220 323_15_40_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22-Ma50299	M22-Ma50300
Date Sampled			Mar 23, 2022	Mar 23, 2022
Test/Reference	LOR	Unit		
<b>Perfluoroalkyl sulfonamido substances</b>				
D5-N-EtFOSA (surr.)	1	%	16	71
D7-N-MeFOSE (surr.)	1	%	11	80
D9-N-EtFOSE (surr.)	1	%	12	75
D5-N-EtFOSAA (surr.)	1	%	28	102
D3-N-MeFOSAA (surr.)	1	%	39	80
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>				
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	80	102
18O2-PFHxS (surr.)	1	%	67	96
13C8-PFOS (surr.)	1	%	55	104
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	65	106
13C2-6:2 FTSA (surr.)	1	%	54	108
13C2-8:2 FTSA (surr.)	1	%	40	96
13C2-10:2 FTSA (surr.)	1	%	21	87
<b>PFASs Summations</b>				
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1

**Sample History**

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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.

<b>Description</b>	<b>Testing Site</b>	<b>Extracted</b>	<b>Holding Time</b>
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 24, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 24, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 24, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 24, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 24, 2022	



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Fullarton  
SA 5063  
**Project Name:** 20220324045208-Eurofin-12  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 873973  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** Mar 24, 2022 12:12 PM  
**Due:** Mar 31, 2022  
**Priority:** 5 Day  
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFAS)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_OB_20220323_08_12_S_S_Primary_EU F	Mar 23, 2022	8:12AM	Soil	M22-Ma50296		X	X	X
2	SX_OB_20220323_08_21_S_S_Triplicate_EUF	Mar 23, 2022	8:21AM	Soil	M22-Ma50297		X	X	X
3	SX_OB_20220323_12_23_S_S_Primary_EU F	Mar 23, 2022	12:23PM	Soil	M22-Ma50298		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
4	SX_OB_20220323_15_38_S R_Rinsate_EU F	Mar 23, 2022	3:38PM	Water	M22-Ma50299			X	
5	SX_OB_20220323_15_40_S B_Blank_EUF	Mar 23, 2022	3:40PM	Water	M22-Ma50300			X	
6	SX_OB_20220323_16_01_S S_Primary_EU F	Mar 23, 2022	4:01PM	Soil	M22-Ma50301		X	X	X
7	SX_OB_20220323_16_02_S S_Duplicate_E	Mar 23, 2022	4:02PM	Soil	M22-Ma50302		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	UF								
8	SX_OB_20220323_19_59_S_S_Primary_EU_F	Mar 23, 2022	7:59PM	Soil	M22-Ma50303		X	X	X
9	SX_OB_20220323_23_59_S_S_Primary_EU_F	Mar 23, 2022	11:59PM	Soil	M22-Ma50304		X	X	X
10	SX_OB_20220324_03_56_S_S_Primary_EU_F	Mar 24, 2022	3:56AM	Soil	M22-Ma50305		X	X	X
11	SX_OB_20220	Mar 23, 2022	8:12AM	AUS Leachate	M22-Ma50306	X		X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 24, 2022 12:12 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	873973	<b>Due:</b>	Mar 31, 2022
<b>Project Name:</b>	20220324045208-Eurofin-12	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	323_08_12_S S_Primary_EU F			- pH 5.0					
12	SX_OB_20220 323_08_21_S S_Triplicate_E UF	Mar 23, 2022	8:21AM	AUS Leachate - pH 5.0	M22-Ma50307	X		X	
13	SX_OB_20220 323_12_23_S S_Primary_EU F	Mar 23, 2022	12:23PM	AUS Leachate - pH 5.0	M22-Ma50308	X		X	
14	SX_OB_20220 323_16_01_S S_Primary_EU	Mar 23, 2022	4:01PM	AUS Leachate - pH 5.0	M22-Ma50309	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	F								
15	SX_OB_20220323_16_02_S_S_Duplicate_EUF	Mar 23, 2022	4:02PM	AUS Leachate - pH 5.0	M22-Ma50310	X		X	
16	SX_OB_20220323_19_59_S_S_Primary_EUF	Mar 23, 2022	7:59PM	AUS Leachate - pH 5.0	M22-Ma50311	X		X	
17	SX_OB_20220323_23_59_S_S_Primary_EUF	Mar 23, 2022	11:59PM	AUS Leachate - pH 5.0	M22-Ma50312	X		X	
18	SX_OB_20220	Mar 24, 2022	3:56AM	AUS Leachate	M22-Ma50313	X		X	

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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	324_03_56_S S_Primary_EU F			- pH 5.0					
19	SX_OB_20220 323_08_12_S S_Primary_EU F	Mar 23, 2022	8:12AM	AUS Leachate - Reagent Water	M22-Ma50314	X		X	
20	SX_OB_20220 323_08_21_S S_Triplicate_E UF	Mar 23, 2022	8:21AM	AUS Leachate - Reagent Water	M22-Ma50315	X		X	
21	SX_OB_20220 323_12_23_S S_Primary_EU	Mar 23, 2022	12:23PM	AUS Leachate - Reagent Water	M22-Ma50316	X		X	



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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	F								
22	SX_OB_20220323_16_01_S_S_Primary_EU_F	Mar 23, 2022	4:01PM	AUS Leachate - Reagent Water	M22-Ma50317	X		X	
23	SX_OB_20220323_16_02_S_S_Duplicate_EU_F	Mar 23, 2022	4:02PM	AUS Leachate - Reagent Water	M22-Ma50318	X		X	
24	SX_OB_20220323_19_59_S_S_Primary_EU_F	Mar 23, 2022	7:59PM	AUS Leachate - Reagent Water	M22-Ma50319	X		X	
25	SX_OB_20220323_19_59_S_S_Primary_EU_F	Mar 23, 2022	11:59PM	AUS Leachate	M22-Ma50320	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220324045208-Eurofin-12  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 873973  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** Mar 24, 2022 12:12 PM  
**Due:** Mar 31, 2022  
**Priority:** 5 Day  
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	323_23_59_S S_Primary_EU F			- Reagent Water					
26	SX_OB_20220 324_03_56_S S_Primary_EU F	Mar 24, 2022	3:56AM	AUS Leachate - Reagent Water	M22-Ma50321	X		X	
<b>Test Counts</b>						16	8	26	8

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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.

### Units

<b>mg/kg:</b> milligrams per kilogram	<b>mg/L:</b> milligrams per litre	<b>µg/L:</b> micrograms per litre
<b>ppm:</b> parts per million	<b>ppb:</b> parts per billion	<b>%:</b> Percentage
<b>org/100 mL:</b> Organisms per 100 millilitres	<b>NTU:</b> Nephelometric Turbidity Units	<b>MPN/100 mL:</b> Most Probable Number of organisms per 100 millilitres

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

### QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

### QC Data General Comments

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05		0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01		0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01		0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01		0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotridecanoic acid (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05		0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05		0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05		0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05		0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05		0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05		0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05		0.05	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01		0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01		0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01		0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05		0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01		0.01	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	94		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	92		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	100		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	97		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	94		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	104		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	97		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	113		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	109		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	122		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	119		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonamido substances</b>								
Perfluorooctane sulfonamide (FOSA)	%	102			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	121			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	94			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	96			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	101			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	106			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	106			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA's)</b>								
Perfluorobutanesulfonic acid (PFBS)	%	91			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	90			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	117			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	94			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	87			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	96			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	99			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	74			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)</b>								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	111			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	114			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	88			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	124			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>								
Perfluoropentanoic acid (PFPeA)	M22-Ma45565	NCP	%	78		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ma45565	NCP	%	94		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ma45565	NCP	%	96		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ma45565	NCP	%	99		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ma45565	NCP	%	100		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ma45565	NCP	%	94		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ma45565	NCP	%	113		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ma45565	NCP	%	120		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ma45565	NCP	%	122		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma45565	NCP	%	119		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl sulfonamido substances</b>								
Perfluorooctane sulfonamide (FOSA)	M22-Ma45565	NCP	%	105		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma45565	NCP	%	112		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma45565	NCP	%	106		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma45565	NCP	%	103		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma45565	NCP	%	116		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma45565	NCP	%	112			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma45565	NCP	%	101			50-150	Pass	
<b>Spike - % Recovery</b>									
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-Ma45565	NCP	%	93			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ma45565	NCP	%	82			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma45565	NCP	%	120			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma45565	NCP	%	108			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma45565	NCP	%	100			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma45565	NCP	%	98			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ma45565	NCP	%	97			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ma45565	NCP	%	65			50-150	Pass	
<b>Spike - % Recovery</b>									
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma45565	NCP	%	112			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma45565	NCP	%	103			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma45565	NCP	%	105			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma45565	NCP	%	107			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-Ma49890	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTEDA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	



Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma49890	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma49890	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma49890	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma49890	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma49890	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma49890	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma49890	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma49890	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma49890	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass

**Comments**
**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
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
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

**Authorised by:**

Michael Cassidy	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS (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](#).

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# CHAIN OF CUSTODY RECORD

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Company		AGON Environmental - Tunnel Spoil Testing		Project No	JC0927			Project Manager	Craig Trimbur		Sampler(s)	Luke D - EP Risk / Tina B - Agon									
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		Project Name	WGTP-Tunnel Ref: 20220325043216-Eurofin-13			EDD Format ESdat, EQulS etc	Esdat		Handed over by	Emma S.									
Contact Name		Craig Trimbur David Lawson		Analyses Where metals are requested, please specify 'Total' or 'Filtered'. SUITE code must be used to attract SUITE pricing.	Spoil Sample Preparation	Suite WGTP-R1-TRH/PAH/Phenols/OCPI/PCBI/VOC/Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn)/C6#-CN/ Total Fluoride/ pH	PFAS Extended Suite - 0.1 - 5ug/kg	ASLP PH 5 - PFAS 0.01-0.05 ug/l	ASLP Reagent - PFAS 0.01-0.05ug/l	Email for Invoice		finance@agonenviro.com.au LabReports.TST@agonenviro.com.au									
Phone No		+61 400 826 907 (Craig) +61 490 411 004 (David)								Email for Results		LabReports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au Amrit.Kaur@agile-analytics.com.au									
Special Directions		Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt.  Please provide eSRN along with other sample receipt documentation.								Containers Change container type & size if necessary		Required Turnaround Time (TAT) Default will be 5 days if not ticked.									
Purchase Order										500mL Plastic		250mL Plastic		125mL Plastic		200mL Amber Glass		40mL VOA Vial		500mL PFAS Bottle	
Quote ID No		Agon WGTP TST		Matrix Solid (S) Water (W)														Sample Comments / Dangerous Goods Hazard Warning			
No	Client Sample ID	Sampled Date/Time <small>(dd/mm/yyyy hh:mm)</small>	Matrix Solid (S) Water (W)																		
1	SX_OB_20220324_16_24_SS_Primary_EUF	24.03.2022/16:24	S	X	X	X	X	X													
2	SX_OB_20220324_12_27_SS_Primary_EUF	24.03.2022/12:27	S	X	X	X	X	X													
3	SX_OB_20220324_08_18_SS_Primary_EUF	24.03.2022/08:18	S	X	X	X	X	X													
4	SX_OB_20220324_08_13_SS_Triplicate_EUF	24.03.2022/08:13	S	X	X	X	X	X													
5	SX_OB_20220324_16_25_SS_Duplicate_EUF	24.03.2022/16:25	S	X	X	X	X	X													
6	SX_OB_20220324_20_06_SS_Primary_EUF	24.03.2022/20:06	S	X	X	X	X	X													
7	SX_OB_20220325_00_16_SS_Primary_EUF	25.03.2022/00:16	S	X	X	X	X	X													
8	SX_OB_20220325_04_07_SS_Primary_EUF	25.03.2022/04:07	S	X	X	X	X	X													
9																					
10																					
11																					
12																					
13																					
Total Counts																					
Method of Shipment		<input checked="" type="checkbox"/> Courier (# ) <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal		Name		Emma Strong		Signature		Date		25/03/22		Time		10:22am					
Laboratory Use Only		Received By		SYD   BNE   MEL   PER   ADL   NTL   DRW		Signature		Date		25/03		Time		2:30pm		Temperature		19.2°C			
		Received By		SYD   BNE   MEL   PER   ADL   NTL   DRW		Signature		Date				Time				Report No					

*Handwritten:* dulbonah 874462

*Handwritten:* C  
19.4-0.2  
19.2°C



Agon Environmental Pty Ltd - VIC  
3/224 Glen Osmond Road  
Fullarton  
SA 5063



NATA Accredited  
Accreditation Number 1261  
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing  
NATA is a signatory to the ILAC Mutual Recognition  
Arrangement for the mutual recognition of the  
equivalence of testing, medical testing, calibration,  
inspection, proficiency testing scheme providers and  
reference materials producers reports and certificates.

Attention: **David Lawson**

Report **874462-L**  
Project name **20220325043216-Eurofin-13**  
Project ID **JC0927**  
Received Date **Mar 25, 2022**

Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triplicate_EU F
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0
Eurofins Sample No.			M22-Ma53720	M22-Ma53721	M22-Ma53722	M22-Ma53723
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.1	5.1	5.2	5.2
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	112	148	128	122
13C5-PFPeA (surr.)	1	%	87	119	112	106
13C5-PFHxA (surr.)	1	%	103	139	128	116
13C4-PFHpA (surr.)	1	%	107	147	120	116
13C8-PFOA (surr.)	1	%	97	90	126	131
13C5-PFNA (surr.)	1	%	91	133	100	110
13C6-PFDA (surr.)	1	%	69	102	83	83
13C2-PFUnDA (surr.)	1	%	50	79	75	70
13C2-PFDoDA (surr.)	1	%	36	66	53	63
13C2-PFTeDA (surr.)	1	%	57	116	77	121
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triuplicate_EU F
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0
Eurofins Sample No.			M22-Ma53720	M22-Ma53721	M22-Ma53722	M22-Ma53723
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonamido substances</b>						
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	97	116	126	129
D3-N-MeFOSA (surr.)	1	%	57	84	57	87
D5-N-EtFOSA (surr.)	1	%	53	81	53	85
D7-N-MeFOSE (surr.)	1	%	72	110	91	98
D9-N-EtFOSE (surr.)	1	%	70	103	88	95
D5-N-EtFOSAA (surr.)	1	%	36	44	41	35
D3-N-MeFOSAA (surr.)	1	%	39	60	54	58
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	62	29	127	88
18O2-PFHxS (surr.)	1	%	92	124	117	110
13C8-PFOS (surr.)	1	%	93	126	113	117
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	80	141	138	141
13C2-6:2 FTSA (surr.)	1	%	95	103	110	109
13C2-8:2 FTSA (surr.)	1	%	145	139	97	77
13C2-10:2 FTSA (surr.)	1	%	77	120	107	128
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1



Client Sample ID			SX_OB_20220 324_16_25_SS Duplicate_EU F	SX_OB_20220 324_20_06_SS Primary_EUF	SX_OB_20220 325_00_16_SS Primary_EUF	SX_OB_20220 325_04_07_SS Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0
Eurofins Sample No.			M22-Ma53724	M22-Ma53725	M22-Ma53726	M22-Ma53727
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.1	5.1	5.2	5.1
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	119	116	116	90
13C5-PFPeA (surr.)	1	%	109	99	101	102
13C5-PFHxA (surr.)	1	%	111	104	113	82
13C4-PFHpA (surr.)	1	%	110	109	100	95
13C8-PFOA (surr.)	1	%	100	90	109	64
13C5-PFNA (surr.)	1	%	106	103	97	104
13C6-PFDA (surr.)	1	%	76	76	83	78
13C2-PFUnDA (surr.)	1	%	65	58	62	70
13C2-PFDoDA (surr.)	1	%	55	50	54	58
13C2-PFTeDA (surr.)	1	%	118	86	92	20
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	114	112	114	87
D3-N-MeFOSA (surr.)	1	%	74	74	74	66
D5-N-EtFOSA (surr.)	1	%	73	74	74	63
D7-N-MeFOSE (surr.)	1	%	91	87	83	70
D9-N-EtFOSE (surr.)	1	%	87	84	80	69
D5-N-EtFOSAA (surr.)	1	%	39	44	37	36
D3-N-MeFOSAA (surr.)	1	%	47	55	41	40



Client Sample ID			SX_OB_20220 324_16_25_SS Duplicate_EU F	SX_OB_20220 324_20_06_SS Primary_EUF	SX_OB_20220 325_00_16_SS Primary_EUF	SX_OB_20220 325_04_07_SS Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0
Eurofins Sample No.			M22-Ma53724	M22-Ma53725	M22-Ma53726	M22-Ma53727
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	67	36	114	27
18O2-PFHxS (surr.)	1	%	116	96	114	90
13C8-PFOS (surr.)	1	%	107	100	113	83
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	83	96	136	117
13C2-6:2 FTSA (surr.)	1	%	134	111	90	75
13C2-8:2 FTSA (surr.)	1	%	126	120	136	130
13C2-10:2 FTSA (surr.)	1	%	111	91	101	85
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 324_16_24_SS Primary_EUF	SX_OB_20220 324_12_27_SS Primary_EUF	SX_OB_20220 324_08_18_SS Primary_EUF	SX_OB_20220 324_08_13_SS Triplicate_EU F
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma53728	M22-Ma53729	M22-Ma53730	M22-Ma53731
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	6.9	6.9	6.9	6.9
pH (off)	0.1	pH Units	8.9	9.0	9.0	9.3

Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triplicate_EU F
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma53728	M22-Ma53729	M22-Ma53730	M22-Ma53731
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	88	89	90	127
13C5-PFPeA (surr.)	1	%	95	100	110	106
13C5-PFHxA (surr.)	1	%	84	82	89	134
13C4-PFHpA (surr.)	1	%	86	92	87	139
13C8-PFOA (surr.)	1	%	68	59	91	140
13C5-PFNA (surr.)	1	%	101	106	91	114
13C6-PFDA (surr.)	1	%	77	95	72	106
13C2-PFUnDA (surr.)	1	%	70	88	74	87
13C2-PFDoDA (surr.)	1	%	66	69	62	78
13C2-PFTeDA (surr.)	1	%	20	17	20	129
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	83	84	78	134
D3-N-MeFOSA (surr.)	1	%	46	42	52	78
D5-N-EtFOSA (surr.)	1	%	40	36	45	63
D7-N-MeFOSE (surr.)	1	%	55	54	56	87
D9-N-EtFOSE (surr.)	1	%	54	54	55	85
D5-N-EtFOSAA (surr.)	1	%	40	53	43	67
D3-N-MeFOSAA (surr.)	1	%	40	49	41	94
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triplicate_EU F
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma53728	M22-Ma53729	M22-Ma53730	M22-Ma53731
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	53	25	101	123
18O2-PFHxS (surr.)	1	%	87	89	91	126
13C8-PFOS (surr.)	1	%	92	102	82	129
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	107	122	77	99
13C2-6:2 FTSA (surr.)	1	%	59	100	55	130
13C2-8:2 FTSA (surr.)	1	%	82	91	144	107
13C2-10:2 FTSA (surr.)	1	%	71	95	71	150
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 324_16_25_SS _Duplicate_EU F	SX_OB_20220 324_20_06_SS _Primary_EUF	SX_OB_20220 325_00_16_SS _Primary_EUF	SX_OB_20220 325_04_07_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma53732	M22-Ma53733	M22-Ma53734	M22-Ma53735
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	6.9	6.9	6.9	6.9
pH (off)	0.1	pH Units	9.1	9.0	9.2	9.2
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 324_16_25_SS Duplicate_EU F	SX_OB_20220 324_20_06_SS Primary_EUF	SX_OB_20220 325_00_16_SS Primary_EUF	SX_OB_20220 325_04_07_SS Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma53732	M22-Ma53733	M22-Ma53734	M22-Ma53735
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	143	126	111	87
13C5-PFPeA (surr.)	1	%	118	100	90	85
13C5-PFHxA (surr.)	1	%	138	119	88	79
13C4-PFHpA (surr.)	1	%	139	133	84	89
13C8-PFOA (surr.)	1	%	108	89	76	59
13C5-PFNA (surr.)	1	%	128	120	69	94
13C6-PFDA (surr.)	1	%	109	110	64	77
13C2-PFUnDA (surr.)	1	%	96	97	71	66
13C2-PFDoDA (surr.)	1	%	77	78	72	55
13C2-PFTeDA (surr.)	1	%	107	147	55	16
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	142	132	68	80
D3-N-MeFOSA (surr.)	1	%	69	76	81	39
D5-N-EtFOSA (surr.)	1	%	59	73	73	34
D7-N-MeFOSE (surr.)	1	%	83	89	141	48
D9-N-EtFOSE (surr.)	1	%	81	90	141	45
D5-N-EtFOSAA (surr.)	1	%	75	80	30	45
D3-N-MeFOSAA (surr.)	1	%	93	108	29	43
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	75	32	92	28
18O2-PFHxS (surr.)	1	%	121	114	94	86
13C8-PFOS (surr.)	1	%	137	134	67	83

Client Sample ID			SX_OB_20220 324_16_25_SS _Duplicate_EU F	SX_OB_20220 324_20_06_SS _Primary_EUF	SX_OB_20220 325_00_16_SS _Primary_EUF	SX_OB_20220 325_04_07_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma53732	M22-Ma53733	M22-Ma53734	M22-Ma53735
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	105	108	104	116
13C2-6:2 FTSA (surr.)	1	%	127	140	64	70
13C2-8:2 FTSA (surr.)	1	%	135	131	99	149
13C2-10:2 FTSA (surr.)	1	%	121	148	71	82
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

**Sample History**

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 28, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 28, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 28, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 28, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 28, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 28, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 28, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	



<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 25, 2022 2:30 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	874462	<b>Due:</b>	Apr 1, 2022
<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_OB_20220324_16_24_S_S_Primary_EU_F	Mar 24, 2022	4:24PM	Soil	M22-Ma53712		X	X	X
2	SX_OB_20220324_12_27_S_S_Primary_EU_F	Mar 24, 2022	12:27PM	Soil	M22-Ma53713		X	X	X
3	SX_OB_20220324_08_18_S_S_Primary_EU_F	Mar 24, 2022	8:18AM	Soil	M22-Ma53714		X	X	X

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 25, 2022 2:30 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	874462	<b>Due:</b>	Apr 1, 2022
<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
4	SX_OB_20220324_08_13_S_S_Triplicate_EUF	Mar 24, 2022	8:13AM	Soil	M22-Ma53715		X	X	X
5	SX_OB_20220324_16_25_S_S_Duplicate_EUF	Mar 24, 2022	4:25PM	Soil	M22-Ma53716		X	X	X
6	SX_OB_20220324_20_06_S_S_Primary_EUF	Mar 24, 2022	8:05PM	Soil	M22-Ma53717		X	X	X
7	SX_OB_20220325_00_16_S	Mar 25, 2022	12:16AM	Soil	M22-Ma53718		X	X	X

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220325043216-Eurofin-13  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 874462  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** Mar 25, 2022 2:30 PM  
**Due:** Apr 1, 2022  
**Priority:** 5 Day  
**Contact Name:** David Lawson

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
8	SX_OB_20220 325_04_07_S S_Primary_EU F	Mar 25, 2022	4:07PM	Soil	M22-Ma53719		X	X	X
9	SX_OB_20220 324_16_24_S S_Primary_EU F	Mar 24, 2022	4:24PM	AUS Leachate - pH 5.0	M22-Ma53720	X		X	
10	SX_OB_20220 324_12_27_S S_Primary_EU F	Mar 24, 2022	12:27PM	AUS Leachate - pH 5.0	M22-Ma53721	X		X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 25, 2022 2:30 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	874462	<b>Due:</b>	Apr 1, 2022
<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
11	SX_OB_20220324_08_18_S_S_Primary_EU_F	Mar 24, 2022	8:18AM	AUS Leachate - pH 5.0	M22-Ma53722	X		X	
12	SX_OB_20220324_08_13_S_S_Triplicate_EUF	Mar 24, 2022	8:13AM	AUS Leachate - pH 5.0	M22-Ma53723	X		X	
13	SX_OB_20220324_16_25_S_S_Duplicate_EUF	Mar 24, 2022	4:25PM	AUS Leachate - pH 5.0	M22-Ma53724	X		X	
14	SX_OB_20220324_20_06_S	Mar 24, 2022	8:05PM	AUS Leachate - pH 5.0	M22-Ma53725	X		X	

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**Project Name:** 20220325043216-Eurofin-13  
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**Order No.:**  
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**Received:** Mar 25, 2022 2:30 PM  
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**Contact Name:** David Lawson

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
15	SX_OB_20220 325_00_16_S S_Primary_EU F	Mar 25, 2022	12:16AM	AUS Leachate - pH 5.0	M22-Ma53726	X		X	
16	SX_OB_20220 325_04_07_S S_Primary_EU F	Mar 25, 2022	4:07PM	AUS Leachate - pH 5.0	M22-Ma53727	X		X	
17	SX_OB_20220 324_16_24_S S_Primary_EU F	Mar 24, 2022	4:24PM	AUS Leachate - Reagent Water	M22-Ma53728	X		X	

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<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
18	SX_OB_20220324_12_27_S_S_Primary_EU_F	Mar 24, 2022	12:27PM	AUS Leachate - Reagent Water	M22-Ma53729	X		X	
19	SX_OB_20220324_08_18_S_S_Primary_EU_F	Mar 24, 2022	8:18AM	AUS Leachate - Reagent Water	M22-Ma53730	X		X	
20	SX_OB_20220324_08_13_S_S_Triplicate_EUF	Mar 24, 2022	8:13AM	AUS Leachate - Reagent Water	M22-Ma53731	X		X	
21	SX_OB_20220324_16_25_S	Mar 24, 2022	4:25PM	AUS Leachate - Reagent	M22-Ma53732	X		X	



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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Duplicate_EUF			Water					
22	SX_OB_20220324_20_06_S_S_Primary_EUF	Mar 24, 2022	8:05PM	AUS Leachate - Reagent Water	M22-Ma53733	X		X	
23	SX_OB_20220325_00_16_S_S_Primary_EUF	Mar 25, 2022	12:16AM	AUS Leachate - Reagent Water	M22-Ma53734	X		X	
24	SX_OB_20220325_04_07_S_S_Primary_EUF	Mar 25, 2022	4:07PM	AUS Leachate - Reagent Water	M22-Ma53735	X		X	

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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IMRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217				
Brisbane Laboratory - NATA # 1261 Site # 20794				
Mayfield Laboratory - NATA # 1261 Site # 25079				
Perth Laboratory - NATA # 2377 Site # 2370				
External Laboratory				
<b>Test Counts</b>	16	8	24	8

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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.

### Units

<b>mg/kg:</b> milligrams per kilogram	<b>mg/L:</b> milligrams per litre	<b>µg/L:</b> micrograms per litre
<b>ppm:</b> parts per million	<b>ppb:</b> parts per billion	<b>%:</b> Percentage
<b>org/100 mL:</b> Organisms per 100 millilitres	<b>NTU:</b> Nephelometric Turbidity Units	<b>MPN/100 mL:</b> Most Probable Number of organisms per 100 millilitres

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

### QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

### QC Data General Comments

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05		0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01		0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01		0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01		0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotridecanoic acid (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05		0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05		0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05		0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05		0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05		0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05		0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05		0.05	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01		0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01		0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01		0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05		0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01		0.01	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	96		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	115		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	96		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	94		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	94		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	92		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	116		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	95		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	101		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	94		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	104		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonamido substances</b>								
Perfluorooctane sulfonamide (FOSA)	%	97			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	108			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	100			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	99			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	100			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	115			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	80			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>								
Perfluorobutanesulfonic acid (PFBS)	%	83			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	87			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	107			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	101			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	100			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	105			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	96			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	88			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	102			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	86			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	104			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	90			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>								
				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma53725	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTTeDA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>								
				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma53725	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma53725	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma53725	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma53725	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma53725	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass

<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1	Result 2	RPD		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma53725	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma53725	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma53725	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma53725	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma53729	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma53729	CP	ug/L	< 0.01	0.01	30	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass



<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma53729	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma53729	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma53729	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma53729	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma53729	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma53729	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma53729	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma53729	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma53729	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

**Comments**
**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
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
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

**Authorised by:**

Michael Cassidy	Analytical Services Manager
Mary Makarios	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (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](#).

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Agon Environmental Pty Ltd - VIC  
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SA 5063



NATA Accredited  
Accreditation Number 1261  
Site Number 1254

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NATA is a signatory to the ILAC Mutual Recognition  
Arrangement for the mutual recognition of the  
equivalence of testing, medical testing, calibration,  
inspection, proficiency testing scheme providers and  
reference materials producers reports and certificates.

Attention: **David Lawson**

Report **874462-S**  
Project name **20220325043216-Eurofin-13**  
Project ID **JC0927**  
Received Date **Mar 25, 2022**

Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53712	M22-Ma53713	M22-Ma53714	M22-Ma53715
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
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	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53712	M22-Ma53713	M22-Ma53714	M22-Ma53715
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	68	64	68	66
Toluene-d8 (surr.)	1	%	57	64	69	69
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53712	M22-Ma53713	M22-Ma53714	M22-Ma53715
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Polycyclic Aromatic Hydrocarbons</b>						
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
Benzo(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
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	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	133	139	135	127
p-Terphenyl-d14 (surr.)	1	%	72	68	70	68
<b>Organochlorine Pesticides</b>						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	135	111	116	99
Tetrachloro-m-xylene (surr.)	1	%	65	67	71	65

Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53712	M22-Ma53713	M22-Ma53714	M22-Ma53715
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Polychlorinated Biphenyls</b>						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	135	111	116	99
Tetrachloro-m-xylene (surr.)	1	%	65	67	71	65
<b>Phenols (Halogenated)</b>						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
<b>Phenols (non-Halogenated)</b>						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	40	44	38	34
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	1.0	< 1	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.4	8.7	8.3	9.1
% Moisture	1	%	24	27	28	28
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	31	35	25	36
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	140	140	120	130
Copper	5	mg/kg	70	71	57	65
Lead	5	mg/kg	5.1	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1



Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53712	M22-Ma53713	M22-Ma53714	M22-Ma53715
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Heavy Metals</b>						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	250	220	170	210
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	130	120	130
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	119	119	119	118
13C5-PFPeA (surr.)	1	%	77	63	75	74
13C5-PFHxA (surr.)	1	%	77	70	82	78
13C4-PFHpA (surr.)	1	%	72	74	78	73
13C8-PFOA (surr.)	1	%	77	72	76	65
13C5-PFNA (surr.)	1	%	81	81	74	71
13C6-PFDA (surr.)	1	%	62	66	63	58
13C2-PFUnDA (surr.)	1	%	89	86	89	86
13C2-PFDoDA (surr.)	1	%	89	85	84	84
13C2-PFTeDA (surr.)	1	%	97	91	91	82
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	98	92	92	93
D3-N-MeFOSA (surr.)	1	%	74	80	83	77
D5-N-EtFOSA (surr.)	1	%	86	85	81	81
D7-N-MeFOSE (surr.)	1	%	74	75	72	71
D9-N-EtFOSE (surr.)	1	%	62	63	60	59
D5-N-EtFOSAA (surr.)	1	%	91	97	89	96
D3-N-MeFOSAA (surr.)	1	%	71	99	81	90

Client Sample ID			SX_OB_20220 324_16_24_SS _Primary_EUF	SX_OB_20220 324_12_27_SS _Primary_EUF	SX_OB_20220 324_08_18_SS _Primary_EUF	SX_OB_20220 324_08_13_SS _Triuplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53712	M22-Ma53713	M22-Ma53714	M22-Ma53715
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 24, 2022	Mar 24, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	89	75	94	85
18O2-PFHxS (surr.)	1	%	91	84	82	85
13C8-PFOS (surr.)	1	%	62	76	78	55
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	130	133	90	114
13C2-6:2 FTSA (surr.)	1	%	66	75	85	78
13C2-8:2 FTSA (surr.)	1	%	102	94	98	84
13C2-10:2 FTSA (surr.)	1	%	102	95	93	86
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

Client Sample ID			SX_OB_20220 324_16_25_SS _Duplicate_EU F	SX_OB_20220 324_20_06_SS _Primary_EUF	SX_OB_20220 325_00_16_SS _Primary_EUF	SX_OB_20220 325_04_07_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53716	M22-Ma53717	M22-Ma53718	M22-Ma53719
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
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	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			SX_OB_20220 324_16_25_SS Duplicate_EU F	SX_OB_20220 324_20_06_SS Primary_EUF	SX_OB_20220 325_00_16_SS Primary_EUF	SX_OB_20220 325_04_07_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53716	M22-Ma53717	M22-Ma53718	M22-Ma53719
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 324_16_25_SS Duplicate_EU F	SX_OB_20220 324_20_06_SS Primary_EUF	SX_OB_20220 325_00_16_SS Primary_EUF	SX_OB_20220 325_04_07_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53716	M22-Ma53717	M22-Ma53718	M22-Ma53719
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	73	62	67	69
Toluene-d8 (surr.)	1	%	72	62	64	70
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
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	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
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	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	136	111	83	85
p-Terphenyl-d14 (surr.)	1	%	71	61	63	62

Client Sample ID			SX_OB_20220 324_16_25_SS Duplicate_EU F	SX_OB_20220 324_20_06_SS Primary_EUF	SX_OB_20220 325_00_16_SS Primary_EUF	SX_OB_20220 325_04_07_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53716	M22-Ma53717	M22-Ma53718	M22-Ma53719
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>Organochlorine Pesticides</b>						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	102	76	94	110
Tetrachloro-m-xylene (surr.)	1	%	68	93	55	60
<b>Polychlorinated Biphenyls</b>						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	102	76	94	110
Tetrachloro-m-xylene (surr.)	1	%	68	93	55	60
<b>Phenols (Halogenated)</b>						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			SX_OB_20220 324_16_25_SS Duplicate_EU F	SX_OB_20220 324_20_06_SS Primary_EUF	SX_OB_20220 325_00_16_SS Primary_EUF	SX_OB_20220 325_04_07_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53716	M22-Ma53717	M22-Ma53718	M22-Ma53719
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>Phenols (non-Halogenated)</b>						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	35	42	36	46
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
<b>Cyanide (total)</b>						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
<b>Fluoride (Total)</b>						
Fluoride (Total)	100	mg/kg	< 100	< 100	530	< 100
<b>pH (1:5 Aqueous extract at 25°C as rec.)</b>						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.4	8.3	8.7	8.2
<b>% Moisture</b>						
% Moisture	1	%	25	31	28	27
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	29	62	46	32
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	130	140	140	120
Copper	5	mg/kg	61	85	61	59
Lead	5	mg/kg	< 5	6.0	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	210	240	180	190
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	150	130	110
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	119	119	121	122
13C5-PFPeA (surr.)	1	%	70	74	78	73
13C5-PFHxA (surr.)	1	%	72	72	80	72



Client Sample ID			SX_OB_20220 324_16_25_SS Duplicate_EU F	SX_OB_20220 324_20_06_SS Primary_EUF	SX_OB_20220 325_00_16_SS Primary_EUF	SX_OB_20220 325_04_07_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53716	M22-Ma53717	M22-Ma53718	M22-Ma53719
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
13C4-PFHpA (surr.)	1	%	73	76	82	76
13C8-PFOA (surr.)	1	%	75	65	78	70
13C5-PFNA (surr.)	1	%	69	69	75	71
13C6-PFDA (surr.)	1	%	69	64	59	54
13C2-PFUnDA (surr.)	1	%	88	90	82	88
13C2-PFDoDA (surr.)	1	%	81	74	82	83
13C2-PFTeDA (surr.)	1	%	88	88	81	85
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	97	92	98	95
D3-N-MeFOSA (surr.)	1	%	81	79	79	76
D5-N-EtFOSA (surr.)	1	%	83	83	85	83
D7-N-MeFOSE (surr.)	1	%	76	76	71	70
D9-N-EtFOSE (surr.)	1	%	59	59	59	62
D5-N-EtFOSAA (surr.)	1	%	83	81	89	95
D3-N-MeFOSAA (surr.)	1	%	88	79	90	85
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	89	83	91	82
18O2-PFHxS (surr.)	1	%	90	91	84	104
13C8-PFOS (surr.)	1	%	71	71	55	74
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	126	124	118	126
13C2-6:2 FTSA (surr.)	1	%	70	78	76	81

Client Sample ID			SX_OB_20220 324_16_25_SS _Duplicate_EU F	SX_OB_20220 324_20_06_SS _Primary_EUF	SX_OB_20220 325_00_16_SS _Primary_EUF	SX_OB_20220 325_04_07_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma53716	M22-Ma53717	M22-Ma53718	M22-Ma53719
Date Sampled			Mar 24, 2022	Mar 24, 2022	Mar 25, 2022	Mar 25, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
13C2-8:2 FTSA (surr.)	1	%	89	103	96	98
13C2-10:2 FTSA (surr.)	1	%	108	96	101	99
<b>PFASs Summations</b>						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

**Sample History**

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
IWRG 621 WGTP Suite			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 28, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 28, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 28, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Mar 28, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Mar 28, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 28, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Mar 28, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Mar 28, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 28, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 28, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	Mar 28, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Mar 29, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	Mar 29, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Mar 28, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS - Method:	Melbourne	Mar 28, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Mar 25, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 28, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 28, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 28, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 28, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 25, 2022	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 25, 2022 2:30 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	874462	<b>Due:</b>	Apr 1, 2022
<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_OB_20220324_16_24_S_S_Primary_EU_F	Mar 24, 2022	4:24PM	Soil	M22-Ma53712		X	X	X
2	SX_OB_20220324_12_27_S_S_Primary_EU_F	Mar 24, 2022	12:27PM	Soil	M22-Ma53713		X	X	X
3	SX_OB_20220324_08_18_S_S_Primary_EU_F	Mar 24, 2022	8:18AM	Soil	M22-Ma53714		X	X	X

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 25, 2022 2:30 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	874462	<b>Due:</b>	Apr 1, 2022
<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
4	SX_OB_20220324_08_13_S_S_Triplicate_EUF	Mar 24, 2022	8:13AM	Soil	M22-Ma53715		X	X	X
5	SX_OB_20220324_16_25_S_S_Duplicate_EUF	Mar 24, 2022	4:25PM	Soil	M22-Ma53716		X	X	X
6	SX_OB_20220324_20_06_S_S_Primary_EUF	Mar 24, 2022	8:05PM	Soil	M22-Ma53717		X	X	X
7	SX_OB_20220325_00_16_S	Mar 25, 2022	12:16AM	Soil	M22-Ma53718		X	X	X

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220325043216-Eurofin-13  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 874462  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** Mar 25, 2022 2:30 PM  
**Due:** Apr 1, 2022  
**Priority:** 5 Day  
**Contact Name:** David Lawson

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
8	SX_OB_20220 325_04_07_S S_Primary_EU F	Mar 25, 2022	4:07PM	Soil	M22-Ma53719		X	X	X
9	SX_OB_20220 324_16_24_S S_Primary_EU F	Mar 24, 2022	4:24PM	AUS Leachate - pH 5.0	M22-Ma53720	X		X	
10	SX_OB_20220 324_12_27_S S_Primary_EU F	Mar 24, 2022	12:27PM	AUS Leachate - pH 5.0	M22-Ma53721	X		X	



<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 25, 2022 2:30 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	874462	<b>Due:</b>	Apr 1, 2022
<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
11	SX_OB_20220324_08_18_S_S_Primary_EU_F	Mar 24, 2022	8:18AM	AUS Leachate - pH 5.0	M22-Ma53722	X		X	
12	SX_OB_20220324_08_13_S_S_Triplicate_EUF	Mar 24, 2022	8:13AM	AUS Leachate - pH 5.0	M22-Ma53723	X		X	
13	SX_OB_20220324_16_25_S_S_Duplicate_EUF	Mar 24, 2022	4:25PM	AUS Leachate - pH 5.0	M22-Ma53724	X		X	
14	SX_OB_20220324_20_06_S	Mar 24, 2022	8:05PM	AUS Leachate - pH 5.0	M22-Ma53725	X		X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 25, 2022 2:30 PM
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<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
15	SX_OB_20220 325_00_16_S S_Primary_EU F	Mar 25, 2022	12:16AM	AUS Leachate - pH 5.0	M22-Ma53726	X		X	
16	SX_OB_20220 325_04_07_S S_Primary_EU F	Mar 25, 2022	4:07PM	AUS Leachate - pH 5.0	M22-Ma53727	X		X	
17	SX_OB_20220 324_16_24_S S_Primary_EU F	Mar 24, 2022	4:24PM	AUS Leachate - Reagent Water	M22-Ma53728	X		X	

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<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
18	SX_OB_20220324_12_27_S_S_Primary_EU_F	Mar 24, 2022	12:27PM	AUS Leachate - Reagent Water	M22-Ma53729	X		X	
19	SX_OB_20220324_08_18_S_S_Primary_EU_F	Mar 24, 2022	8:18AM	AUS Leachate - Reagent Water	M22-Ma53730	X		X	
20	SX_OB_20220324_08_13_S_S_Triplicate_EUF	Mar 24, 2022	8:13AM	AUS Leachate - Reagent Water	M22-Ma53731	X		X	
21	SX_OB_20220324_16_25_S	Mar 24, 2022	4:25PM	AUS Leachate - Reagent	M22-Ma53732	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220325043216-Eurofin-13  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 874462  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** Mar 25, 2022 2:30 PM  
**Due:** Apr 1, 2022  
**Priority:** 5 Day  
**Contact Name:** David Lawson

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Duplicate_EUF			Water					
22	SX_OB_20220324_20_06_S_S_Primary_EUF	Mar 24, 2022	8:05PM	AUS Leachate - Reagent Water	M22-Ma53733	X		X	
23	SX_OB_20220325_00_16_S_S_Primary_EUF	Mar 25, 2022	12:16AM	AUS Leachate - Reagent Water	M22-Ma53734	X		X	
24	SX_OB_20220325_04_07_S_S_Primary_EUF	Mar 25, 2022	4:07PM	AUS Leachate - Reagent Water	M22-Ma53735	X		X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	Mar 25, 2022 2:30 PM
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<b>Project Name:</b>	20220325043216-Eurofin-13	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	David Lawson

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IMRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217				
Brisbane Laboratory - NATA # 1261 Site # 20794				
Mayfield Laboratory - NATA # 1261 Site # 25079				
Perth Laboratory - NATA # 2377 Site # 2370				
External Laboratory				
<b>Test Counts</b>	16	8	24	8

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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.

### Units

<b>mg/kg:</b> milligrams per kilogram	<b>mg/L:</b> milligrams per litre	<b>µg/L:</b> micrograms per litre
<b>ppm:</b> parts per million	<b>ppb:</b> parts per billion	<b>%:</b> Percentage
<b>org/100 mL:</b> Organisms per 100 millilitres	<b>NTU:</b> Nephelometric Turbidity Units	<b>MPN/100 mL:</b> Most Probable Number of organisms per 100 millilitres

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

### QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

### QC Data General Comments

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>							
<b>Total Recoverable Hydrocarbons</b>							
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	
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	
<b>Method Blank</b>							
<b>Volatile Organics</b>							
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
<b>Method Blank</b>							
<b>Volatile Organics</b>							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
<b>Method Blank</b>							
<b>Polycyclic Aromatic Hydrocarbons</b>							
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	
<b>Method Blank</b>							
<b>Organochlorine Pesticides</b>							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
<b>Method Blank</b>							
<b>Polychlorinated Biphenyls</b>							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
<b>Method Blank</b>							
<b>Phenols (Halogenated)</b>							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 1			1	Pass	
2,4,6-Trichlorophenol	mg/kg	< 1			1	Pass	
2,6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
<b>Method Blank</b>							
<b>Phenols (non-Halogenated)</b>							
2-Cyclohexyl-4,6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4,6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2,4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
<b>Method Blank</b>							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
<b>Method Blank</b>							
<b>Heavy Metals</b>							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5		5	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	ug/kg	< 5		5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5		5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5		5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5		5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5		5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5		5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5		5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5		5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5		5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5		5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5		5	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5		5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5		5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5		5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/kg	< 5		5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/kg	< 5		5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10		10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10		10	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5		5	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/kg	< 5		5	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/kg	< 5		5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5		5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5		5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5		5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5		5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5		5	Pass	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5		5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/kg	< 10		10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5		5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5		5	Pass	
<b>LCS - % Recovery</b>						
<b>Total Recoverable Hydrocarbons</b>						
TRH C6-C9	%	97		70-130	Pass	
TRH C10-C14	%	125		70-130	Pass	
Naphthalene	%	119		70-130	Pass	
TRH C6-C10	%	96		70-130	Pass	
TRH >C10-C16	%	130		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Volatile Organics</b>						
1.1-Dichloroethene	%	84		70-130	Pass	
1.1.1-Trichloroethane	%	90		70-130	Pass	
1.2-Dichloroethane	%	96		70-130	Pass	
Benzene	%	103		70-130	Pass	
Ethylbenzene	%	123		70-130	Pass	
m&p-Xylenes	%	115		70-130	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Toluene	%	112		70-130	Pass	
Trichloroethene	%	98		70-130	Pass	
Xylenes - Total*	%	115		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Polycyclic Aromatic Hydrocarbons</b>						
Acenaphthene	%	89		70-130	Pass	
Acenaphthylene	%	112		70-130	Pass	
Anthracene	%	98		70-130	Pass	
Benz(a)anthracene	%	83		70-130	Pass	
Benzo(a)pyrene	%	88		70-130	Pass	
Benzo(b&i)fluoranthene	%	89		70-130	Pass	
Benzo(g,h,i)perylene	%	87		70-130	Pass	
Benzo(k)fluoranthene	%	93		70-130	Pass	
Chrysene	%	91		70-130	Pass	
Dibenz(a,h)anthracene	%	80		70-130	Pass	
Fluoranthene	%	83		70-130	Pass	
Fluorene	%	105		70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	86		70-130	Pass	
Naphthalene	%	91		70-130	Pass	
Phenanthrene	%	95		70-130	Pass	
Pyrene	%	84		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Organochlorine Pesticides</b>						
Chlordanes - Total	%	88		70-130	Pass	
4,4'-DDD	%	99		70-130	Pass	
4,4'-DDE	%	89		70-130	Pass	
4,4'-DDT	%	99		70-130	Pass	
a-HCH	%	127		70-130	Pass	
Aldrin	%	84		70-130	Pass	
b-HCH	%	99		70-130	Pass	
d-HCH	%	99		70-130	Pass	
Dieldrin	%	86		70-130	Pass	
Endosulfan I	%	92		70-130	Pass	
Endosulfan II	%	87		70-130	Pass	
Endosulfan sulphate	%	95		70-130	Pass	
Endrin	%	88		70-130	Pass	
Endrin aldehyde	%	123		70-130	Pass	
Endrin ketone	%	84		70-130	Pass	
g-HCH (Lindane)	%	110		70-130	Pass	
Heptachlor	%	105		70-130	Pass	
Heptachlor epoxide	%	91		70-130	Pass	
Hexachlorobenzene	%	101		70-130	Pass	
Methoxychlor	%	109		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Polychlorinated Biphenyls</b>						
Aroclor-1260	%	123		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Phenols (Halogenated)</b>						
2-Chlorophenol	%	72		25-140	Pass	
2,4-Dichlorophenol	%	106		25-140	Pass	
2,4,5-Trichlorophenol	%	97		25-140	Pass	
2,4,6-Trichlorophenol	%	88		25-140	Pass	
2,6-Dichlorophenol	%	49		25-140	Pass	
4-Chloro-3-methylphenol	%	87		25-140	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Pentachlorophenol	%	77		25-140	Pass	
Tetrachlorophenols - Total	%	48		25-140	Pass	
<b>LCS - % Recovery</b>						
<b>Phenols (non-Halogenated)</b>						
2-Cyclohexyl-4,6-dinitrophenol	%	88		25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	90		25-140	Pass	
2-Nitrophenol	%	101		25-140	Pass	
2,4-Dimethylphenol	%	70		25-140	Pass	
2,4-Dinitrophenol	%	127		25-140	Pass	
2-Methylphenol (o-Cresol)	%	100		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	105		25-140	Pass	
4-Nitrophenol	%	83		25-140	Pass	
Dinoseb	%	101		25-140	Pass	
Phenol	%	98		25-140	Pass	
<b>LCS - % Recovery</b>						
Chromium (hexavalent)	%	102		70-130	Pass	
Cyanide (total)	%	102		70-130	Pass	
Fluoride (Total)	%	82		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Heavy Metals</b>						
Arsenic	%	87		80-120	Pass	
Cadmium	%	99		80-120	Pass	
Chromium	%	86		80-120	Pass	
Copper	%	89		80-120	Pass	
Lead	%	101		80-120	Pass	
Mercury	%	104		80-120	Pass	
Molybdenum	%	87		80-120	Pass	
Nickel	%	80		80-120	Pass	
Selenium	%	90		80-120	Pass	
Silver	%	104		80-120	Pass	
Tin	%	91		80-120	Pass	
Zinc	%	102		80-120	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	97		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	74		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	75		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	74		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	91		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	70		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	67		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	65		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	69		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	64		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	73		50-150	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	%	71		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	68		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	71		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	78		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	79		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	56		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	57		50-150	Pass	



Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA's)</b>								
Perfluorobutanesulfonic acid (PFBS)	%	65			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	97			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	88			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	73			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	66			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	79			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	77			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	103			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)</b>								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	85			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	84			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	84			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	87			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>Spike - % Recovery</b>								
<b>Total Recoverable Hydrocarbons</b>				Result 1				
TRH C10-C14	M22-Ma56394	NCP	%	125		70-130	Pass	
TRH >C10-C16	M22-Ma56394	NCP	%	121		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Volatile Organics</b>				Result 1				
1.1-Dichloroethene	M22-Ma53249	NCP	%	87		70-130	Pass	
1.1.1-Trichloroethane	M22-Ma53249	NCP	%	98		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Polycyclic Aromatic Hydrocarbons</b>				Result 1				
Acenaphthene	M22-Ma53305	NCP	%	72		70-130	Pass	
Acenaphthylene	M22-Ma53305	NCP	%	82		70-130	Pass	
Anthracene	M22-Ma53305	NCP	%	82		70-130	Pass	
Benz(a)anthracene	M22-Ma53305	NCP	%	73		70-130	Pass	
Benzo(a)pyrene	M22-Ma53305	NCP	%	89		70-130	Pass	
Benzo(b&i)fluoranthene	M22-Ma53305	NCP	%	94		70-130	Pass	
Benzo(g,h,i)perylene	M22-Ma53305	NCP	%	83		70-130	Pass	
Benzo(k)fluoranthene	M22-Ma53305	NCP	%	126		70-130	Pass	
Chrysene	M22-Ma53305	NCP	%	76		70-130	Pass	
Dibenz(a,h)anthracene	M22-Ma53305	NCP	%	86		70-130	Pass	
Fluoranthene	M22-Ma53305	NCP	%	97		70-130	Pass	
Fluorene	M22-Ma53305	NCP	%	82		70-130	Pass	
Indeno(1.2.3-cd)pyrene	M22-Ma53305	NCP	%	82		70-130	Pass	
Naphthalene	M22-Ma53305	NCP	%	75		70-130	Pass	
Phenanthrene	M22-Ma53305	NCP	%	86		70-130	Pass	
Pyrene	M22-Ma53305	NCP	%	93		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Phenols (Halogenated)</b>				Result 1				
2-Chlorophenol	M22-Ma52913	NCP	%	127		30-130	Pass	
2.4-Dichlorophenol	M22-Ma53305	NCP	%	65		30-130	Pass	
2.4.5-Trichlorophenol	M22-Ma53305	NCP	%	58		30-130	Pass	
2.4.6-Trichlorophenol	M22-Ma53305	NCP	%	57		30-130	Pass	
2.6-Dichlorophenol	M22-Ma53305	NCP	%	60		30-130	Pass	
4-Chloro-3-methylphenol	M22-Ma52913	NCP	%	54		30-130	Pass	
Pentachlorophenol	M22-Ma52913	NCP	%	63		30-130	Pass	
Tetrachlorophenols - Total	M22-Ma53305	NCP	%	48		30-130	Pass	
<b>Spike - % Recovery</b>								

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>Phenols (non-Halogenated)</b>				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-Ma47802	NCP	%	100		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-Ma47802	NCP	%	66		30-130	Pass	
2-Nitrophenol	M22-Ma53305	NCP	%	64		30-130	Pass	
2,4-Dimethylphenol	M22-Ma53305	NCP	%	74		30-130	Pass	
2,4-Dinitrophenol	M22-Ma47802	NCP	%	57		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Ma53305	NCP	%	53		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Ma53305	NCP	%	66		30-130	Pass	
4-Nitrophenol	M22-Ma52913	NCP	%	34		30-130	Pass	
Dinoseb	M22-Ma53305	NCP	%	30		30-130	Pass	
Phenol	M22-Ma52913	NCP	%	116		30-130	Pass	
<b>Spike - % Recovery</b>								
<b>Heavy Metals</b>				Result 1				
Arsenic	M22-Ma55702	NCP	%	110		75-125	Pass	
Cadmium	M22-Ma55702	NCP	%	104		75-125	Pass	
Chromium	M22-Ma55702	NCP	%	104		75-125	Pass	
Copper	M22-Ma55702	NCP	%	114		75-125	Pass	
Lead	M22-Ma60390	NCP	%	101		75-125	Pass	
Mercury	M22-Ma55702	NCP	%	124		75-125	Pass	
Molybdenum	M22-Ma55702	NCP	%	109		75-125	Pass	
Nickel	M22-Ma55702	NCP	%	104		75-125	Pass	
Selenium	M22-Ma55702	NCP	%	107		75-125	Pass	
Silver	M22-Ma55702	NCP	%	110		75-125	Pass	
Tin	M22-Ma55702	NCP	%	99		75-125	Pass	
Zinc	M22-Ma55702	NCP	%	93		75-125	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Ma53712	CP	%	89		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ma53712	CP	%	95		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ma53712	CP	%	89		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ma53712	CP	%	81		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ma53712	CP	%	102		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ma53712	CP	%	90		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ma53712	CP	%	94		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ma53712	CP	%	100		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ma53712	CP	%	93		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ma53712	CP	%	67		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma53712	CP	%	88		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Ma53712	CP	%	89		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma53712	CP	%	90		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma53712	CP	%	92		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma53712	CP	%	105		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma53712	CP	%	113		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma53712	CP	%	71		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma53712	CP	%	79		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA's)</b>				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Ma53712	CP	%	81		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ma53712	CP	%	123		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma53712	CP	%	117		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma53712	CP	%	100		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma53712	CP	%	93		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma53712	CP	%	83		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ma53712	CP	%	76		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ma53712	CP	%	127		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)</b>				Result 1				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma53712	CP	%	92		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma53712	CP	%	118		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma53712	CP	%	104		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma53712	CP	%	103		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Total Recoverable Hydrocarbons</b>				Result 1				
TRH C6-C9	M22-Ma53713	CP	%	82		70-130	Pass	
Naphthalene	M22-Ma53713	CP	%	101		70-130	Pass	
TRH C6-C10	M22-Ma53713	CP	%	81		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Volatile Organics</b>				Result 1				
1,2-Dichloroethane	M22-Ma53713	CP	%	70		70-130	Pass	
Benzene	M22-Ma53713	CP	%	75		70-130	Pass	
Ethylbenzene	M22-Ma53713	CP	%	95		70-130	Pass	
m&p-Xylenes	M22-Ma53713	CP	%	98		70-130	Pass	
o-Xylene	M22-Ma53713	CP	%	101		70-130	Pass	
Toluene	M22-Ma53713	CP	%	87		70-130	Pass	
Trichloroethene	M22-Ma53713	CP	%	83		70-130	Pass	
Xylenes - Total*	M22-Ma53713	CP	%	99		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Organochlorine Pesticides</b>				Result 1				
Chlordanes - Total	M22-Ma53713	CP	%	97		70-130	Pass	
4,4'-DDD	M22-Ma53713	CP	%	88		70-130	Pass	
4,4'-DDE	M22-Ma53713	CP	%	101		70-130	Pass	
4,4'-DDT	M22-Ma53713	CP	%	76		70-130	Pass	
a-HCH	M22-Ma53713	CP	%	91		70-130	Pass	
Aldrin	M22-Ma53713	CP	%	93		70-130	Pass	
b-HCH	M22-Ma53713	CP	%	123		70-130	Pass	
d-HCH	M22-Ma53713	CP	%	85		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dieldrin	M22-Ma53713	CP	%	97			70-130	Pass	
Endosulfan I	M22-Ma53713	CP	%	103			70-130	Pass	
Endosulfan II	M22-Ma53713	CP	%	89			70-130	Pass	
Endosulfan sulphate	M22-Ma53713	CP	%	88			70-130	Pass	
Endrin	M22-Ma53713	CP	%	96			70-130	Pass	
Endrin aldehyde	M22-Ma53713	CP	%	88			70-130	Pass	
Endrin ketone	M22-Ma53713	CP	%	96			70-130	Pass	
g-HCH (Lindane)	M22-Ma53713	CP	%	107			70-130	Pass	
Heptachlor	M22-Ma53713	CP	%	88			70-130	Pass	
Heptachlor epoxide	M22-Ma53713	CP	%	100			70-130	Pass	
Hexachlorobenzene	M22-Ma53713	CP	%	103			70-130	Pass	
Methoxychlor	M22-Ma53713	CP	%	73			70-130	Pass	
<b>Spike - % Recovery</b>									
<b>Polychlorinated Biphenyls</b>				Result 1					
Aroclor-1016	M22-Ma53713	CP	%	101			70-130	Pass	
Aroclor-1260	M22-Ma53713	CP	%	105			70-130	Pass	
<b>Spike - % Recovery</b>									
				Result 1					
Cyanide (total)	M22-Ma53713	CP	%	120			70-130	Pass	
<b>Spike - % Recovery</b>									
				Result 1					
Fluoride (Total)	M22-Ma53719	CP	%	87			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Total Recoverable Hydrocarbons</b>				Result 1	Result 2	RPD			
TRH C6-C9	M22-Ma53712	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M22-Ma53712	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-Ma53712	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-Ma53712	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-Ma53712	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M22-Ma53712	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-Ma53712	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-Ma53712	CP	mg/kg	< 100	< 100	<1	30%	Pass	
<b>Duplicate</b>									
<b>Volatile Organics</b>				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
<b>Duplicate</b>									
<b>Volatile Organics</b>				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.3.5-Trimethylbenzene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-Ma53712	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1.2-Dichloroethene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-Ma53712	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass



Duplicate								
<b>Polycyclic Aromatic Hydrocarbons</b>				Result 1	Result 2	RPD		
Naphthalene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
<b>Organochlorine Pesticides</b>				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ma53712	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
<b>Polychlorinated Biphenyls</b>				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
<b>Phenols (Halogenated)</b>				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-Ma53712	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-Ma53712	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ma53712	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ma53712	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ma53712	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
<b>Phenols (non-Halogenated)</b>				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-Ma53712	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-Ma53712	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ma53712	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-Ma53712	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Ma53712	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass



Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
3&4-Methylphenol (m&p-Cresol)	M22-Ma53712	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Ma53712	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ma53712	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ma53712	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-Ma53712	CP	mg/kg	< 5	< 5	<1	30%	Pass
Fluoride (Total)	M22-Ma56138	NCP	mg/kg	< 100	< 100	<1	30%	Pass
% Moisture	M22-Ma53712	CP	%	24	26	10	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-Ma53712	CP	mg/kg	31	20	42	30%	Fail Q15
Cadmium	M22-Ma53712	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-Ma53712	CP	mg/kg	140	110	18	30%	Pass
Copper	M22-Ma53712	CP	mg/kg	70	53	27	30%	Pass
Lead	M22-Ma53712	CP	mg/kg	5.1	< 5	32	30%	Fail Q15
Mercury	M22-Ma53712	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-Ma53712	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-Ma53712	CP	mg/kg	250	190	28	30%	Pass
Selenium	M22-Ma53712	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-Ma53712	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-Ma53712	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-Ma53712	CP	mg/kg	120	97	25	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma55405	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma55405	NCP	ug/kg	< 10	< 10	<1	30%	Pass

<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
<b>Duplicate</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma55405	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma55405	NCP	ug/kg	< 5	< 5	<1	30%	Pass
<b>Duplicate</b>								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ma53714	CP	mg/kg	< 1	< 1	<1	30%	Pass
<b>Duplicate</b>								
				Result 1	Result 2	RPD		
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Ma53715	CP	pH Units	9.1	9.1	pass	30%	Pass

**Comments**
**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
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
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
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:**

Michael Cassidy	Analytical Services Manager
Joseph Edouard	Senior Analyst (VIC)
Edward Lee	Senior Analyst (VIC)
Scott Beddoes	Senior Analyst (NSW)
Linda Chourman	Senior Analyst (NSW)
Mary Makarios	Senior Analyst (NSW)
Caitlin Breeze	Senior Analyst (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 shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

**CHAIN OF CUSTODY DOCUMENTATION**

CLIENT: Agon Environmental  
 ADDRESS / OFFICE: Melbourne  
 PROJECT MANAGER (PM): Craig Trimbur  
 PROJECT ID: J08927

SAMPLER: Emma S - EP Risk & Toby G - Agon  
 MOBILE 1: +61 400 828 907 (Craig Trimbur)  
 MOBILE 2: +61 480 411 004 (David Lawson)

EMAIL REPORT TO: Labreports.TST@agonenviro.com.au  
 Email: agonenvironmental@esdcl.com.au  
 motherhublabresults1@wvto.com.au  
 Anril.Kaur@adlie-analitics.com.au



Australian Laboratory Services Pty Ltd

SITE: 20220324M2237-ALS-2  
 RESULTS REQUIRED (Date): 5 days  
 P.O. NO.:  
 QUOTE NO.: ME-156-19 WSTP

EMAIL INVOICE TO: (if different to report)  
 ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

CONTAINER INFORMATION

ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	CONTAINER INFORMATION
1	SX_OB_20220323_08_17_SS_Primary_ALS	S	23/03/2022	08:17	Bucket	1	Spill Sample Prep
2	SX_OB_20220323_08_19_SS_Duplicate_ALS	S	23/03/2022	08:19	Bucket	1	P16 plus Cr
3	SX_OB_20220323_12_17_SS_Primary_ALS	S	23/03/2022	12:17	Bucket	1	PFAS 28 Extended suite
4	SX_OB_20220323_16_04_SS_Tiplicate_ALS	S	23/03/2022	16:04	Bucket	1	ASLP PFAS - Extended Suite (Lab to determine pH)
5	SX_OB_20220323_16_11_SS_Primary_ALS	S	23/03/2022	16:11	Bucket	1	DI Leachate PFAS - Extended Suite
6	SX_OB_20220323_20_07_SS_Primary_ALS	S	23/03/2022	20:07	Bucket	1	
7	SX_OB_20220324_00_04_SS_Primary_ALS	S	24/03/2022	00:04	Bucket	1	
8	SX_OB_20220324_04_00_SS_Primary_ALS	S	24/03/2022	04:00	Bucket	1	

RELINQUISHED BY:  
 Name: LUKE DALCAGO  
 Of: EMASIS/ACOV  
 Date: 24/3/22  
 Time: 9:10


RECEIVED BY:  
 Name: KIM JACKSON  
 Of: CAPITAL  
 Name: MERRIN  
 Date: 24/3/22  
 Time: 9:05

METHOD OF SHIPMENT  
 Cont. Note No.:  
 Transport Co.:

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide Preserved ORC; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved;  
 V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl Preserved Plastic; HS = HCl Preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;  
 Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag

Environmental Division  
 Melbourne  
 Work Order Reference  
**EM2205177**

Telephone - 01-38549 9600

CHAIN OF CUSTODY DOCUMENTATION										 Australian Laboratory Services Pty Ltd														
CLIENT: Agon Environmental					SAMPLER: Emma.S - EP Risk & Toby.G - Agon																			
ADDRESS / OFFICE: Melbourne					MOBILE 1: +61 400 826 907 (Craig Trimbur)																			
PROJECT MANAGER (PM): Craig Trimbur					MOBILE 2: +61 490 411 004 (David Lawson)																			
PROJECT ID: JC0927					EMAIL REPORT TO: Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au Amrit.Kaur@agile-analytics.com.au																			
SITE: 20220324042237-ALS-12 P.O. NO.:					EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au																			
RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP					ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)																			
FOR LABORATORY USE ONLY COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL: SAMPLE TEMPERATURE: CHILLED: Yes No										Notes:														
SAMPLE INFORMATION (note: S = Soil, W=Water)							CONTAINER INFORMATION			Spot Sample Prep	P16 plus Cr	PFAS 28 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	DI Leachate PFAS - Extended Suite										
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles																		
9	1	SX_OB_20220323_08_17_SS_Primary_ALS	S	23/03/2022	08:17	Bucket	1	x	x	x	x	x												
10	2	SX_OB_20220323_08_19_SS_Duplicate_ALS	S	23/03/2022	08:19	Bucket	1	x	x	x	x	x												
11	3	SX_OB_20220323_12_17_SS_Primary_ALS	S	23/03/2022	12:17	Bucket	1	x	x	x	x	x												
12	4	SX_OB_20220323_16_04_SS_Triplicate_ALS	S	23/03/2022	16:04	Bucket	1	x	x	x	x	x												
13	5	SX_OB_20220323_16_11_SS_Primary_ALS	S	23/03/2022	16:11	Bucket	1	x	x	x	x	x												
14	6	SX_OB_20220323_20_07_SS_Primary_ALS	S	23/03/2022	20:07	Bucket	1	x	x	x	x	x												
15	7	SX_OB_20220324_00_04_SS_Primary_ALS	S	24/03/2022	00:04	Bucket	1	x	x	x	x	x												
16	8	SX_OB_20220324_04_00_SS_Primary_ALS	S	24/03/2022	04:00	Bucket	1	x	x	x	x	x												

Environmental Division  
Melbourne  
Work Order Reference  
**EM2205177**



Telephone : - 61-3-8549 9600

RELINQUISHED BY:		RECEIVED BY:		METHOD OF SHIPMENT:	
Name: LUKE DALLAGO	Date: 24/3/22	Name: KIM JACKSON	Date: 24/3/22	Con' Note No:	
Of: EP RISK / AGON	Time: 9:10	Of: CAPITAL	Time: 9:00	Transport Co:	
Name:	Date:	Name: MAMU	Date: 24/3		
Of:	Time:	Of: AM	Time: 1:00		

**Water Container Codes:** P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved;  
 V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;  
 Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

## CERTIFICATE OF ANALYSIS

**Work Order** : **EM2205177**  
**Client** : **AGON ENVIRONMENTAL PTY LTD**  
**Contact** : DAVID LAWSON  
**Address** : D1.1 63-85 TURNER STREET  
 PORT MELBOURNE 3207  
  
**Telephone** : ----  
**Project** : JC0927  
**Order number** : ----  
**C-O-C number** : 20220324042237-ALS-12  
**Sampler** : Emma.S - EP Risk & Toby.G - Agon  
**Site** : 20220324042237-ALS-12  
**Quote number** : EN/150/19 -WGTP -Bulk Sample Quote  
**No. of samples received** : 16  
**No. of samples analysed** : 16

**Page** : 1 of 27  
**Laboratory** : Environmental Division Melbourne  
**Contact** : Bronwyn Sheen  
**Address** : 4 Westall Rd Springvale VIC Australia 3171  
  
**Telephone** : +6138549 9600  
**Date Samples Received** : 24-Mar-2022 10:25  
**Date Analysis Commenced** : 24-Mar-2022  
**Issue Date** : 31-Mar-2022 18:05



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, unless the sampling was conducted by ALS. 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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Andrew Lu	VOC Section Supervisor	Melbourne Inorganics, Springvale, VIC
Andrew Lu	VOC Section Supervisor	Melbourne Organics, Springvale, VIC
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument 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.

- 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.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EP231X: Poor matrix spike recovery for sample EM2204798-006 due to sample matrix interference.
- EG005-T : EM2204785#1 Poor duplicate precision for total metals due to sample matrix. Confirmed by re-digestion and re-analysis.
- EP075-EM: EM2205177\_005 Poor surrogate recovery due to sample matrix.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
Compound	CAS Number	LOR	Unit	EM2205177-001	EM2205177-002	EM2205177-003	EM2205177-004	EM2205177-005
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
Compound	CAS Number	LOR	Unit	EM2205177-001	EM2205177-002	EM2205177-003	EM2205177-004	EM2205177-005
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonylamides - Continued</b>								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	78.9	91.9	82.1	81.9	81.8
13C8-PFOA	----	0.02	%	106	102	104	103	102



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220323_20_07_SS_Primary_ALS	SX_OB_20220324_00_04_SS_Primary_ALS	SX_OB_20220324_04_00_SS_Primary_ALS	----	----
Sampling date / time				23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	----	----
Compound	CAS Number	LOR	Unit	EM2205177-006	EM2205177-007	EM2205177-008	-----	-----
				Result	Result	Result	----	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220323_20_07_SS_Primary_ALS	SX_OB_20220324_00_04_SS_Primary_ALS	SX_OB_20220324_04_00_SS_Primary_ALS	----	----
Sampling date / time				23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	----	----
Compound	CAS Number	LOR	Unit	EM2205177-006	EM2205177-007	EM2205177-008	-----	-----
				Result	Result	Result	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	86.4	83.6	82.5	----	----
13C8-PFOA	----	0.02	%	103	103	100	----	----



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 00:00	23-Mar-2022 00:00	23-Mar-2022 00:00	23-Mar-2022 00:00	23-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-009	EM2205177-010	EM2205177-011	EM2205177-012	EM2205177-013
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05





## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 00:00	23-Mar-2022 00:00	23-Mar-2022 00:00	23-Mar-2022 00:00	23-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-009	EM2205177-010	EM2205177-011	EM2205177-012	EM2205177-013
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	81.0	74.8	78.8	79.8	77.9
13C8-PFOA	----	0.02	%	97.9	96.5	98.6	96.6	97.6



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220323_20_07_SS_Primary_ALS	SX_OB_20220324_00_04_SS_Primary_ALS	SX_OB_20220324_04_00_SS_Primary_ALS	----	----
Sampling date / time				23-Mar-2022 00:00	24-Mar-2022 00:00	24-Mar-2022 00:00	----	----
Compound	CAS Number	LOR	Unit	EM2205177-014	EM2205177-015	EM2205177-016	-----	-----
				Result	Result	Result	----	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220323_20_07_SS_Primary_ALS	SX_OB_20220324_00_04_SS_Primary_ALS	SX_OB_20220324_04_00_SS_Primary_ALS	----	----
Sampling date / time				23-Mar-2022 00:00	24-Mar-2022 00:00	24-Mar-2022 00:00	----	----
Compound	CAS Number	LOR	Unit	EM2205177-014	EM2205177-015	EM2205177-016	-----	-----
				Result	Result	Result	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	76.2	75.9	80.8	----	----
13C8-PFOA	----	0.02	%	96.0	99.6	95.1	----	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
Compound	CAS Number	LOR	Unit	EM2205177-001	EM2205177-002	EM2205177-003	EM2205177-004	EM2205177-005
				Result	Result	Result	Result	Result
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
pH (CaCl <sub>2</sub> )	----	0.1	pH Unit	7.6	7.6	7.6	7.7	7.7
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
Moisture Content	----	1.0	%	27.2	28.0	30.3	28.6	28.1
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
Arsenic	7440-38-2	5	mg/kg	20	22	30	32	26
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	103	104	116	111	119
Copper	7440-50-8	5	mg/kg	49	53	57	56	52
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	178	162	179	177	164
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5
Silver	7440-22-4	2	mg/kg	<2	<2	<2	<2	<2
Tin	7440-31-5	10	mg/kg	<10	<10	<10	<10	<10
Zinc	7440-66-6	5	mg/kg	82	85	95	95	88
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	1.4	<1.0	1.0	<1.0	<1.0
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
<b>EK040T: Fluoride Total</b>								
Fluoride	16984-48-8	100	mg/kg	290	190	240	190	210
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Initial pH	----	0.1	pH Unit	8.8	9.0	9.3	9.1	9.0
After HCl pH	----	0.1	pH Unit	1.5	1.5	1.5	1.6	1.4
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.0	4.9	5.0	5.0	5.0
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
Compound	CAS Number	LOR	Unit	EM2205177-001	EM2205177-002	EM2205177-003	EM2205177-004	EM2205177-005
				Result	Result	Result	Result	Result
<b>EP074A: Monocyclic Aromatic Hydrocarbons - Continued</b>								
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
<b>EP074H: Naphthalene</b>								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
<b>EP074I: Volatile Halogenated Compounds</b>								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
<b>EP075A: Phenolic Compounds (Halogenated)</b>								



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
Compound	CAS Number	LOR	Unit	EM2205177-001	EM2205177-002	EM2205177-003	EM2205177-004	EM2205177-005
				Result	Result	Result	Result	Result
<b>EP075A: Phenolic Compounds (Halogenated) - Continued</b>								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	<1	<1
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	<5	<5
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	<5	<5
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	<5	<5
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	<20	<20
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	<20	<20
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	<20	<20
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
Compound	CAS Number	LOR	Unit	EM2205177-001	EM2205177-002	EM2205177-003	EM2205177-004	EM2205177-005
				Result	Result	Result	Result	Result
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>
<b>EP075I: Organochlorine Pesticides</b>								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
Compound	CAS Number	LOR	Unit	EM2205177-001	EM2205177-002	EM2205177-003	EM2205177-004	EM2205177-005
				Result	Result	Result	Result	Result
<b>EP075I: Organochlorine Pesticides - Continued</b>								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	<20	<20
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	<20	<20
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
Compound	CAS Number	LOR	Unit	EM2205177-001	EM2205177-002	EM2205177-003	EM2205177-004	EM2205177-005
				Result	Result	Result	Result	Result
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	<5	<5
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS	SX_OB_20220323_12_17_SS_Primary_ALS	SX_OB_20220323_16_04_SS_Triplicate_ALS	SX_OB_20220323_16_11_SS_Primary_ALS
Sampling date / time				23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
Compound	CAS Number	LOR	Unit	EM2205177-001	EM2205177-002	EM2205177-003	EM2205177-004	EM2205177-005
				Result	Result	Result	Result	Result
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	<50.0	<50.0
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
<b>EP066S: PCB Surrogate</b>								
Decachlorobiphenyl	2051-24-3	0.1	%	114	116	101	106	97.9
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	97.1	97.0	97.5	96.4	79.5
Toluene-D8	2037-26-5	0.1	%	92.5	97.4	97.1	94.3	79.1
4-Bromofluorobenzene	460-00-4	0.1	%	98.9	104	103	102	91.3
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>								
Phenol-d6	13127-88-3	0.025	%	93.8	96.5	91.4	91.9	82.1
2-Chlorophenol-D4	93951-73-6	0.025	%	90.2	100	86.6	87.8	85.4
2,4,6-Tribromophenol	118-79-6	0.025	%	97.1	98.6	82.6	80.2	81.2
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>								
Nitrobenzene-D5	4165-60-0	0.025	%	99.2	108	83.0	85.9	83.4
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	82.3	90.0	75.1	78.1	70.4
2-Fluorobiphenyl	321-60-8	0.025	%	110	97.2	78.1	78.7	63.2
Anthracene-d10	1719-06-8	0.025	%	97.8	99.6	87.5	81.3	83.5
4-Terphenyl-d14	1718-51-0	0.025	%	92.4	102	87.2	77.8	83.7
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.0002	%	101	92.1	104	86.2	107
13C8-PFOA	----	0.0002	%	101	100.0	104	98.7	110



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_20_07_SS_Primary_ALS	SX_OB_20220324_00_04_SS_Primary_ALS	SX_OB_20220324_04_00_SS_Primary_ALS	SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS
Sampling date / time				23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 00:00	23-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-006	EM2205177-007	EM2205177-008	EM2205177-009	EM2205177-010
				Result	Result	Result	Result	Result
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
pH (CaCl2)	----	0.1	pH Unit	7.7	7.8	7.6	----	----
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
Moisture Content	----	1.0	%	27.5	29.8	30.5	----	----
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
Arsenic	7440-38-2	5	mg/kg	32	31	32	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	----
Chromium	7440-47-3	5	mg/kg	103	112	107	----	----
Copper	7440-50-8	5	mg/kg	53	55	58	----	----
Lead	7439-92-1	5	mg/kg	<5	<5	<5	----	----
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	----	----
Nickel	7440-02-0	5	mg/kg	179	168	167	----	----
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	----	----
Silver	7440-22-4	2	mg/kg	<2	<2	<2	----	----
Tin	7440-31-5	10	mg/kg	<10	<10	<10	----	----
Zinc	7440-66-6	5	mg/kg	88	91	91	----	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	----	----
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	1.0	1.5	1.3	----	----
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	----	----
<b>EK040T: Fluoride Total</b>								
Fluoride	16984-48-8	100	mg/kg	170	440	170	----	----
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Initial pH	----	0.1	pH Unit	8.9	8.9	9.1	----	----
After HCl pH	----	0.1	pH Unit	1.5	1.5	1.5	----	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	----	----
Final pH	----	0.1	pH Unit	5.0	5.0	5.0	----	----
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Final pH	----	0.1	pH Unit	----	----	----	9.5	9.5
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_20_07_SS_Primary_ALS	SX_OB_20220324_00_04_SS_Primary_ALS	SX_OB_20220324_04_00_SS_Primary_ALS	SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS
Sampling date / time				23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 00:00	23-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-006	EM2205177-007	EM2205177-008	EM2205177-009	EM2205177-010
				Result	Result	Result	Result	Result
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
<b>EP074H: Naphthalene</b>								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
<b>EP074I: Volatile Halogenated Compounds</b>								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----





## Analytical Results

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 (Matrix: SOIL)

Sample ID

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Sampling date / time				23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 00:00	23-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-006	EM2205177-007	EM2205177-008	EM2205177-009	EM2205177-010
				Result	Result	Result	Result	Result
<b>EP075A: Phenolic Compounds (Halogenated)</b>								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	----	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	----	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	----	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	----	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	----	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	----	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	----	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	----	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	----	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	----	----
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----



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Sampling date / time				23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 00:00	23-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-006	EM2205177-007	EM2205177-008	EM2205177-009	EM2205177-010
				Result	Result	Result	Result	Result
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	----	----
<b>EP075I: Organochlorine Pesticides</b>								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	----	----



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Sampling date / time				23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 00:00	23-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-006	EM2205177-007	EM2205177-008	EM2205177-009	EM2205177-010
				Result	Result	Result	Result	Result
<b>EP075I: Organochlorine Pesticides - Continued</b>								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	<0.30	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	<0.10	----	----
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	----
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	----	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----



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			Sampling date / time	23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 00:00	23-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-006	EM2205177-007	EM2205177-008	EM2205177-009	EM2205177-010
				Result	Result	Result	Result	Result
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_20_07_SS_Primary_ALS	SX_OB_20220324_00_04_SS_Primary_ALS	SX_OB_20220324_04_00_SS_Primary_ALS	SX_OB_20220323_08_17_SS_Primary_ALS	SX_OB_20220323_08_19_SS_Duplicate_ALS
Sampling date / time				23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 00:00	23-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-006	EM2205177-007	EM2205177-008	EM2205177-009	EM2205177-010
				Result	Result	Result	Result	Result
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
<b>EP066S: PCB Surrogate</b>								
Decachlorobiphenyl	2051-24-3	0.1	%	106	106	115	----	----
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	95.9	98.2	93.5	----	----
Toluene-D8	2037-26-5	0.1	%	94.0	95.9	92.6	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	102	102	102	----	----
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>								
Phenol-d6	13127-88-3	0.025	%	86.2	98.2	99.3	----	----
2-Chlorophenol-D4	93951-73-6	0.025	%	83.6	94.2	98.9	----	----
2,4,6-Tribromophenol	118-79-6	0.025	%	84.3	84.3	98.2	----	----
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>								
Nitrobenzene-D5	4165-60-0	0.025	%	81.8	92.7	93.0	----	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	77.9	83.8	86.8	----	----
2-Fluorobiphenyl	321-60-8	0.025	%	80.7	86.2	77.4	----	----
Anthracene-d10	1719-06-8	0.025	%	90.4	95.2	89.8	----	----
4-Terphenyl-d14	1718-51-0	0.025	%	90.3	113	93.3	----	----
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.0002	%	101	102	93.4	----	----
13C8-PFOA	----	0.0002	%	103	105	101	----	----



**Analytical Results**

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220323_12 _17_SS_Primary_ALS	SX_OB_20220323_16 _04_SS_Triplicate_AL S	SX_OB_20220323_16 _11_SS_Primary_ALS	SX_OB_20220323_20 _07_SS_Primary_ALS	SX_OB_20220324_00 _04_SS_Primary_ALS
Sampling date / time				23-Mar-2022 00:00	23-Mar-2022 00:00	23-Mar-2022 00:00	23-Mar-2022 00:00	24-Mar-2022 00:00
Compound	CAS Number	LOR	Unit	EM2205177-011	EM2205177-012	EM2205177-013	EM2205177-014	EM2205177-015
				Result	Result	Result	Result	Result
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Final pH	----	0.1	pH Unit	9.5	9.5	9.5	9.6	9.4





### Analytical Results

Sub-Matrix: <b>SOIL</b> (Matrix: <b>SOIL</b> )			Sample ID	<b>SX_OB_20220324_04 _00_SS_Primary_ALS</b>	----	----	----	----
			Sampling date / time	24-Mar-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	<b>EM2205177-016</b>	-----	-----	-----	-----
				Result	----	----	----	----
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Final pH</b>	----	0.1	pH Unit	<b>9.4</b>	----	----	----	----



## Surrogate Control Limits

Sub-Matrix: ASLP LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: DI WATER LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP066S: PCB Surrogate</b>			
Decachlorobiphenyl	2051-24-3	41	122
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>			
1,2-Dichloroethane-D4	17060-07-0	59	119
Toluene-D8	2037-26-5	55	117
4-Bromofluorobenzene	460-00-4	59	123
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>			
Phenol-d6	13127-88-3	63	134
2-Chlorophenol-D4	93951-73-6	60	125
2,4,6-Tribromophenol	118-79-6	54	129
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>			
Nitrobenzene-D5	4165-60-0	63	131
1,2-Dichlorobenzene-D4	2199-69-1	61	124
2-Fluorobiphenyl	321-60-8	69	131
Anthracene-d10	1719-06-8	70	133
4-Terphenyl-d14	1718-51-0	59	141
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	68	136
13C8-PFOA	----	69	133

## Automated Guideline Comparison Report

### EPA Victoria Publication IWRG 621 (2009) - Table 2: Soil Hazard Categorisation

<b>Work Order</b>	: <b>EM2205177</b>	Page	: 1 of 27
Client	: <b>AGON ENVIRONMENTAL PTY LTD</b>	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON		
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: david.lawson@agonenviro.com.au	E-mail	: bronwyn.sheen@alsglobal.com
Telephone	: ----	Telephone	: +6138549 9600
Facsimile	: ----	Facsimile	: +61-3-8549 9626
Project	: JC0927	Date Received	: 24-Mar-2022 10:25
Order number	: ----	Date Analysed	: 24-Mar-2022
C-O-C number	: 20220324042237-ALS-12	Date Issued	: 31-Mar-2022 17:43
No. of samples received	: 16		
No. of samples analysed	: 16	Quote number	: EN/150/19 -WGTP -Bulk Sample Quote

#### **General Comments**

This guideline comparison report **only** provides comparison of total concentration data against upper limit thresholds for the 'Fill Material', 'C', 'B' Categories in Table 2 of EPA Publication IWRG621.

This guideline comparison report is **NOT** a soil classification report. Classification of soils as Fill Material, Category C, Category B or Category A requires consideration of a number of other factors including preliminary site investigation, sampling density and statistical calculations, as set out in EPA Publication IWRG 702 and measurement uncertainty.

This guideline comparison report only provides comparison data for parameters, specifically listed within the IWRG621 (2009) guideline, that are analysed by ALS.

Only results in the 'Analytical Results' section have been compared to the guideline.

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



## Summary of Thresholds Reached or Exceeded

EPA Victoria Publication IWRG 621 (2009)

Table 2: Soil Hazard Categorisation Thresholds : Fill Material

Client Sample ID	ALS Sample ID	Compound	Method	LOR	Limits	Result
SX_OB_20220323_08_17 SS_Primary_ALS	EM2205177-001	Arsenic	EG005T	5	< 20 mg/kg	20 mg/kg
SX_OB_20220323_08_17 SS_Primary_ALS	EM2205177-001	Nickel	EG005T	5	< 60 mg/kg	178 mg/kg
SX_OB_20220323_08_17 SS_Primary_ALS	EM2205177-001	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.4 mg/kg
SX_OB_20220323_08_19 SS_Duplicate_ALS	EM2205177-002	Arsenic	EG005T	5	< 20 mg/kg	22 mg/kg
SX_OB_20220323_08_19 SS_Duplicate_ALS	EM2205177-002	Nickel	EG005T	5	< 60 mg/kg	162 mg/kg
SX_OB_20220323_12_17 SS_Primary_ALS	EM2205177-003	Arsenic	EG005T	5	< 20 mg/kg	30 mg/kg
SX_OB_20220323_12_17 SS_Primary_ALS	EM2205177-003	Nickel	EG005T	5	< 60 mg/kg	179 mg/kg
SX_OB_20220323_12_17 SS_Primary_ALS	EM2205177-003	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.0 mg/kg
SX_OB_20220323_16_04 SS_Triplicate_ALS	EM2205177-004	Arsenic	EG005T	5	< 20 mg/kg	32 mg/kg
SX_OB_20220323_16_04 SS_Triplicate_ALS	EM2205177-004	Nickel	EG005T	5	< 60 mg/kg	177 mg/kg
SX_OB_20220323_16_11 SS_Primary_ALS	EM2205177-005	Arsenic	EG005T	5	< 20 mg/kg	26 mg/kg
SX_OB_20220323_16_11 SS_Primary_ALS	EM2205177-005	Nickel	EG005T	5	< 60 mg/kg	164 mg/kg
SX_OB_20220323_20_07 SS_Primary_ALS	EM2205177-006	Arsenic	EG005T	5	< 20 mg/kg	32 mg/kg
SX_OB_20220323_20_07 SS_Primary_ALS	EM2205177-006	Nickel	EG005T	5	< 60 mg/kg	179 mg/kg
SX_OB_20220323_20_07 SS_Primary_ALS	EM2205177-006	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.0 mg/kg
SX_OB_20220324_00_04 SS_Primary_ALS	EM2205177-007	Arsenic	EG005T	5	< 20 mg/kg	31 mg/kg
SX_OB_20220324_00_04 SS_Primary_ALS	EM2205177-007	Nickel	EG005T	5	< 60 mg/kg	168 mg/kg
SX_OB_20220324_00_04 SS_Primary_ALS	EM2205177-007	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.5 mg/kg
SX_OB_20220324_04_00 SS_Primary_ALS	EM2205177-008	Arsenic	EG005T	5	< 20 mg/kg	32 mg/kg



**EPA Victoria Publication IWRG 621 (2009)**

**Table 2: Soil Hazard Categorisation Thresholds : Fill Material**

Client Sample ID	ALS Sample ID	Compound	Method	LOR	Limits	Result
SX_OB_20220324_04_00 SS_Primary_ALS	EM2205177-008	Nickel	EG005T	5	< 60 mg/kg	167 mg/kg
SX_OB_20220324_04_00 SS_Primary_ALS	EM2205177-008	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.3 mg/kg



## Analytical Results

### Soil Hazard Categorisation and Management

**Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220 323_08_17_S S_Primary_AL S	SX_OB_20220 323_08_19_S S_Duplicate_ ALS	SX_OB_20220 323_12_17_S S_Primary_AL S	SX_OB_20220 323_16_04_S S_Triplicate_ ALS	SX_OB_20220 323_16_11_S S_Primary_AL S	
				Sampling date/time	Guideline						Guideline
				Lower Limit	Upper Limit						
						23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11	
						EM2205177-001 MU	EM2205177-002 MU	EM2205177-003 MU	EM2205177-004 MU	EM2205177-005 MU	
<b>EA001: pH in soil using 0.01M CaCl extract</b>											
pH (CaCl2)	EA001	0.1	pH Unit	2	12.5	7.6 ±0.1	7.6 ±0.1	7.6 ±0.1	7.7 ±0.1	7.7 ±0.1	
<b>EG005(ED093)T: Total Metals by ICP-AES</b>											
Arsenic	EG005T	5	mg/kg	----	2000	20 ±3	22 ±3	30 ±4	32 ±4	26 ±4	
Cadmium	EG005T	1	mg/kg	----	400	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..	
Copper	EG005T	5	mg/kg	----	20000	49 ±6	53 ±6	57 ±7	56 ±7	52 ±6	
Lead	EG005T	5	mg/kg	----	6000	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..	
Molybdenum	EG005T	5	mg/kg	----	4000	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..	
Nickel	EG005T	5	mg/kg	----	12000	178 ±17	162 ±16	179 ±18	177 ±17	164 ±16	
Selenium	EG005T	5	mg/kg	----	200	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..	
Silver	EG005T	2	mg/kg	----	720	<2 ..	<2 ..	<2 ..	<2 ..	<2 ..	
Zinc	EG005T	5	mg/kg	----	140000	82 ±9	85 ±10	95 ±11	95 ±11	88 ±10	
<b>EG035T: Total Recoverable Mercury by FIMS</b>											
Mercury	EG035T	0.1	mg/kg	----	300	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>											
Hexavalent Chromium	EG048G	1.0	mg/kg	----	2000	1.4 ±0.3	<1.0 ..	1.0 ±0.2	<1.0 ..	<1.0 ..	
<b>EK026SF: Total CN by Segmented Flow Analyser</b>											
Total Cyanide	EK026SF	5	mg/kg	----	10000	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..	
<b>EK040T: Fluoride Total</b>											
Fluoride	EK040T	100	mg/kg	----	40000	290 ±50	190 ±40	240 ±50	190 ±40	210 ±40	
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>											
Benzene	EP074-UT	0.2	mg/kg	----	16	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..	
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	240	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	
<b>EP074I: Volatile Halogenated Compounds</b>											
Vinyl chloride	EP074-UT	0.50	mg/kg	----	4.8	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	11	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	50	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	
<b>EP075A: Phenolic Compounds (Halogenated)</b>											
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	320	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..	





**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	323_08_17_S	323_08_19_S	323_12_17_S	323_16_04_S	323_16_11_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
						EM2205177-001 MU	EM2205177-002 MU	EM2205177-003 MU	EM2205177-004 MU	EM2205177-005 MU
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	2200	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	400	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
<b>EP075I: Organochlorine Pesticides</b>										
Heptachlor	EP075-EM	0.05	mg/kg	----	4.8	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	4.8	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	16	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	50	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..
<b>EP080/071: Total Petroleum Hydrocarbons</b>										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	2600	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	<50 ..	<50 ..	<50 ..	<50 ..	<50 ..



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220 323_08_17_S S_Primary_AL S	SX_OB_20220 323_08_19_S S_Duplicate_ ALS	SX_OB_20220 323_12_17_S S_Primary_AL S	SX_OB_20220 323_16_04_S S_Triplicate_ ALS	SX_OB_20220 323_16_11_S S_Primary_AL S
				Lower Limit	Upper Limit	23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
						EM2205177-001 MU	EM2205177-002 MU	EM2205177-003 MU	EM2205177-004 MU	EM2205177-005 MU
<b>EA001: pH in soil using 0.01M CaCl extract</b>										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.6 ± 0.1	7.6 ± 0.1	7.6 ± 0.1	7.7 ± 0.1	7.7 ± 0.1
<b>EG005(ED093)T: Total Metals by ICP-AES</b>										
Arsenic	EG005T	5	mg/kg	----	500	20 ± 3	22 ± 3	30 ± 4	32 ± 4	26 ± 4
Cadmium	EG005T	1	mg/kg	----	100	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..
Copper	EG005T	5	mg/kg	----	5000	49 ± 6	53 ± 6	57 ± 7	56 ± 7	52 ± 6
Lead	EG005T	5	mg/kg	----	1500	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Molybdenum	EG005T	5	mg/kg	----	1000	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Nickel	EG005T	5	mg/kg	----	3000	178 ± 17	162 ± 16	179 ± 18	177 ± 17	164 ± 16
Selenium	EG005T	5	mg/kg	----	50	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Silver	EG005T	2	mg/kg	----	180	<2 ..	<2 ..	<2 ..	<2 ..	<2 ..
Tin	EG005T	10	mg/kg	----	500	<10 ..	<10 ..	<10 ..	<10 ..	<10 ..
Zinc	EG005T	5	mg/kg	----	35000	82 ± 9	85 ± 10	95 ± 11	95 ± 11	88 ± 10
<b>EG035T: Total Recoverable Mercury by FIMS</b>										
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	500	1.4 ± 0.3	<1.0 ..	1.0 ± 0.2	<1.0 ..	<1.0 ..
<b>EK026SF: Total CN by Segmented Flow Analyser</b>										
Total Cyanide	EK026SF	5	mg/kg	----	2500	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
<b>EK040T: Fluoride Total</b>										
Fluoride	EK040T	100	mg/kg	----	10000	290 ± 50	190 ± 40	240 ± 50	190 ± 40	210 ± 40
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>										
Benzene	EP074-UT	0.2	mg/kg	----	4	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	70	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
<b>EP074I: Volatile Halogenated Compounds</b>										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	1.2	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	2.8	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	10	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
<b>EP075A: Phenolic Compounds (Halogenated)</b>										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	10	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	323_08_17_S	323_08_19_S	323_12_17_S	323_16_04_S	323_16_11_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
						EM2205177-001 MU	EM2205177-002 MU	EM2205177-003 MU	EM2205177-004 MU	EM2205177-005 MU
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	560	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	5	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	100	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
<b>EP075I: Organochlorine Pesticides</b>										
Heptachlor	EP075-EM	0.05	mg/kg	----	1.2	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	1.2	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	4	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	10	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..
<b>EP080/071: Total Petroleum Hydrocarbons</b>										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	650	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	<50 ..	<50 ..	<50 ..	<50 ..	<50 ..



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220 323_08_17_S S_Primary_AL S	SX_OB_20220 323_08_19_S S_Duplicate_ ALS	SX_OB_20220 323_12_17_S S_Primary_AL S	SX_OB_20220 323_16_04_S S_Triplicate_ ALS	SX_OB_20220 323_16_11_S S_Primary_AL S
				Guideline	Guideline	23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
				Lower Limit	Upper Limit	EM2205177-001 MU	EM2205177-002 MU	EM2205177-003 MU	EM2205177-004 MU	EM2205177-005 MU
<b>EA001: pH in soil using 0.01M CaCl extract</b>										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.6 ±0.1	7.6 ±0.1	7.6 ±0.1	7.7 ±0.1	7.7 ±0.1
<b>EG005(ED093)T: Total Metals by ICP-AES</b>										
Arsenic	EG005T	5	mg/kg	----	20	20 ±3	22 ±3	30 ±4	32 ±4	26 ±4
Cadmium	EG005T	1	mg/kg	----	3	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..
Copper	EG005T	5	mg/kg	----	100	49 ±6	53 ±6	57 ±7	56 ±7	52 ±6
Lead	EG005T	5	mg/kg	----	300	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Molybdenum	EG005T	5	mg/kg	----	40	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Nickel	EG005T	5	mg/kg	----	60	178 ±17	162 ±16	179 ±18	177 ±17	164 ±16
Selenium	EG005T	5	mg/kg	----	10	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Silver	EG005T	2	mg/kg	----	10	<2 ..	<2 ..	<2 ..	<2 ..	<2 ..
Tin	EG005T	10	mg/kg	----	50	<10 ..	<10 ..	<10 ..	<10 ..	<10 ..
Zinc	EG005T	5	mg/kg	----	200	82 ±9	85 ±10	95 ±11	95 ±11	88 ±10
<b>EG035T: Total Recoverable Mercury by FIMS</b>										
Mercury	EG035T	0.1	mg/kg	----	1	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	1	1.4 ±0.3	<1.0 ..	1.0 ±0.2	<1.0 ..	<1.0 ..
<b>EK026SF: Total CN by Segmented Flow Analyser</b>										
Total Cyanide	EK026SF	5	mg/kg	----	50	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
<b>EK040T: Fluoride Total</b>										
Fluoride	EK040T	100	mg/kg	----	450	290 ±50	190 ±40	240 ±50	190 ±40	210 ±40
<b>EP066: Polychlorinated Biphenyls (PCB)</b>										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>										
Benzene	EP074-UT	0.2	mg/kg	----	1	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	7	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
<b>EP074I: Volatile Halogenated Compounds</b>										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	1	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
<b>EP075A: Phenolic Compounds (Halogenated)</b>										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	1	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>										



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	323_08_17_S	323_08_19_S	323_12_17_S	323_16_04_S	323_16_11_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	23-Mar-2022 08:17	23-Mar-2022 08:19	23-Mar-2022 12:17	23-Mar-2022 16:04	23-Mar-2022 16:11
						EM2205177-001 MU	EM2205177-002 MU	EM2205177-003 MU	EM2205177-004 MU	EM2205177-005 MU
<b>EP075A: Phenolic Compounds (Non-halogenated) - Continued</b>										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	60	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	20	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
<b>EP075I: Organochlorine Pesticides</b>										
Sum of organochlorine pesticides	EP075-EM-SUM	0.10	mg/kg	----	1	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..
<b>EP080/071: Total Petroleum Hydrocarbons</b>										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	100	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	<50 ..	<50 ..	<50 ..	<50 ..	<50 ..



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220
				Lower Limit	Upper Limit	323_20_07_S	324_00_04_S	324_04_00_S	323_08_17_S	323_08_19_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Guideline	Guideline	23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 12:15	23-Mar-2022 12:15
						EM2205177-006 MU	EM2205177-007 MU	EM2205177-008 MU	EM2205177-009 MU	EM2205177-010 MU
<b>EA001: pH in soil using 0.01M CaCl extract</b>										
pH (CaCl2)	EA001	0.1	pH Unit	2	12.5	7.7 ± 0.1	7.8 ± 0.1	7.6 ± 0.1	----	----
<b>EG005(ED093T): Total Metals by ICP-AES</b>										
Arsenic	EG005T	5	mg/kg	----	2000	32 ± 4	31 ± 4	32 ± 4	----	----
Cadmium	EG005T	1	mg/kg	----	400	<1 --	<1 --	<1 --	----	----
Copper	EG005T	5	mg/kg	----	20000	53 ± 6	55 ± 7	58 ± 7	----	----
Lead	EG005T	5	mg/kg	----	6000	<5 --	<5 --	<5 --	----	----
Molybdenum	EG005T	5	mg/kg	----	4000	<5 --	<5 --	<5 --	----	----
Nickel	EG005T	5	mg/kg	----	12000	179 ± 18	168 ± 16	167 ± 16	----	----
Selenium	EG005T	5	mg/kg	----	200	<5 --	<5 --	<5 --	----	----
Silver	EG005T	2	mg/kg	----	720	<2 --	<2 --	<2 --	----	----
Zinc	EG005T	5	mg/kg	----	140000	88 ± 10	91 ± 10	91 ± 10	----	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>										
Mercury	EG035T	0.1	mg/kg	----	300	<0.1 --	<0.1 --	<0.1 --	----	----
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	2000	1.0 ± 0.2	1.5 ± 0.3	1.3 ± 0.2	----	----
<b>EK026SF: Total CN by Segmented Flow Analyser</b>										
Total Cyanide	EK026SF	5	mg/kg	----	10000	<5 --	<5 --	<5 --	----	----
<b>EK040T: Fluoride Total</b>										
Fluoride	EK040T	100	mg/kg	----	40000	170 ± 40	440 ± 70	170 ± 40	----	----
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>										
Benzene	EP074-UT	0.2	mg/kg	----	16	<0.2 --	<0.2 --	<0.2 --	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	240	<0.5 --	<0.5 --	<0.5 --	----	----
<b>EP074I: Volatile Halogenated Compounds</b>										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	4.8	<0.50 --	<0.50 --	<0.50 --	----	----
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	11	<0.50 --	<0.50 --	<0.50 --	----	----
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	50	<0.50 --	<0.50 --	<0.50 --	----	----
<b>EP075A: Phenolic Compounds (Halogenated)</b>										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	320	<1.00 --	<1.00 --	<1.00 --	----	----
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	2200	<20 --	<20 --	<20 --	----	----
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>										



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220 323_20_07_S S_Primary_AL S	SX_OB_20220 324_00_04_S S_Primary_AL S	SX_OB_20220 324_04_00_S S_Primary_AL S	SX_OB_20220 323_08_17_S S_Primary_AL S	SX_OB_20220 323_08_19_S S_Duplicate_ ALS
				Guideline	Guideline	23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 12:15	23-Mar-2022 12:15
				Lower Limit	Upper Limit	EM2205177-006 MU	EM2205177-007 MU	EM2205177-008 MU	EM2205177-009 MU	EM2205177-010 MU
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	<0.5	<0.5	<0.5	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	400	<0.5	<0.5	<0.5	----	----
<b>EP075I: Organochlorine Pesticides</b>										
Heptachlor	EP075-EM	0.05	mg/kg	----	4.8	<0.05	<0.05	<0.05	----	----
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	4.8	<0.30	<0.30	<0.30	----	----
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05	<0.05	<0.05	----	----
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	16	<0.10	<0.10	<0.10	----	----
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	50	<0.03	<0.03	<0.03	----	----
<b>EP080/071: Total Petroleum Hydrocarbons</b>										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	2600	<20	<20	<20	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	<50	<50	<50	----	----





**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220 323_20_07_S S_Primary_AL S	SX_OB_20220 324_00_04_S S_Primary_AL S	SX_OB_20220 324_04_00_S S_Primary_AL S	SX_OB_20220 323_08_17_S S_Primary_AL S	SX_OB_20220 323_08_19_S S_Duplicate_ ALS
				Lower Limit	Upper Limit	23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 12:15	23-Mar-2022 12:15
						EM2205177-006 MU	EM2205177-007 MU	EM2205177-008 MU	EM2205177-009 MU	EM2205177-010 MU
<b>EA001: pH in soil using 0.01M CaCl extract</b>										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.7 ± 0.1	7.8 ± 0.1	7.6 ± 0.1	----	----
<b>EG005(ED093T): Total Metals by ICP-AES</b>										
Arsenic	EG005T	5	mg/kg	----	500	32 ± 4	31 ± 4	32 ± 4	----	----
Cadmium	EG005T	1	mg/kg	----	100	<1 --	<1 --	<1 --	----	----
Copper	EG005T	5	mg/kg	----	5000	53 ± 6	55 ± 7	58 ± 7	----	----
Lead	EG005T	5	mg/kg	----	1500	<5 --	<5 --	<5 --	----	----
Molybdenum	EG005T	5	mg/kg	----	1000	<5 --	<5 --	<5 --	----	----
Nickel	EG005T	5	mg/kg	----	3000	179 ± 18	168 ± 16	167 ± 16	----	----
Selenium	EG005T	5	mg/kg	----	50	<5 --	<5 --	<5 --	----	----
Silver	EG005T	2	mg/kg	----	180	<2 --	<2 --	<2 --	----	----
Tin	EG005T	10	mg/kg	----	500	<10 --	<10 --	<10 --	----	----
Zinc	EG005T	5	mg/kg	----	35000	88 ± 10	91 ± 10	91 ± 10	----	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>										
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	----	----
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	500	1.0 ± 0.2	1.5 ± 0.3	1.3 ± 0.2	----	----
<b>EK026SF: Total CN by Segmented Flow Analyser</b>										
Total Cyanide	EK026SF	5	mg/kg	----	2500	<5 --	<5 --	<5 --	----	----
<b>EK040T: Fluoride Total</b>										
Fluoride	EK040T	100	mg/kg	----	10000	170 ± 40	440 ± 70	170 ± 40	----	----
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>										
Benzene	EP074-UT	0.2	mg/kg	----	4	<0.2 --	<0.2 --	<0.2 --	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	70	<0.5 --	<0.5 --	<0.5 --	----	----
<b>EP074I: Volatile Halogenated Compounds</b>										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	1.2	<0.50 --	<0.50 --	<0.50 --	----	----
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	2.8	<0.50 --	<0.50 --	<0.50 --	----	----
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	10	<0.50 --	<0.50 --	<0.50 --	----	----
<b>EP075A: Phenolic Compounds (Halogenated)</b>										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	10	<1.00 --	<1.00 --	<1.00 --	----	----
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	560	<20 --	<20 --	<20 --	----	----



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220 323_20_07_S S_Primary_AL S	SX_OB_20220 324_00_04_S S_Primary_AL S	SX_OB_20220 324_04_00_S S_Primary_AL S	SX_OB_20220 323_08_17_S S_Primary_AL S	SX_OB_20220 323_08_19_S S_Duplicate_ ALS
				Lower Limit	Upper Limit	23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 12:15	23-Mar-2022 12:15
						EM2205177-006 MU	EM2205177-007 MU	EM2205177-008 MU	EM2205177-009 MU	EM2205177-010 MU
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	----	----
<b>EP075I: Organochlorine Pesticides</b>										
Heptachlor	EP075-EM	0.05	mg/kg	----	1.2	<0.05	<0.05	<0.05	----	----
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	1.2	<0.30	<0.30	<0.30	----	----
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05	<0.05	<0.05	----	----
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	4	<0.10	<0.10	<0.10	----	----
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	10	<0.03	<0.03	<0.03	----	----
<b>EP080/071: Total Petroleum Hydrocarbons</b>										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	650	<20	<20	<20	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	<50	<50	<50	----	----



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220 323_20_07_S S_Primary_AL S	SX_OB_20220 324_00_04_S S_Primary_AL S	SX_OB_20220 324_04_00_S S_Primary_AL S	SX_OB_20220 323_08_17_S S_Primary_AL S	SX_OB_20220 323_08_19_S S_Duplicate_ ALS
				Lower Limit	Upper Limit	23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 12:15	23-Mar-2022 12:15
						EM2205177-006 MU	EM2205177-007 MU	EM2205177-008 MU	EM2205177-009 MU	EM2205177-010 MU
<b>EA001: pH in soil using 0.01M CaCl extract</b>										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.7 ± 0.1	7.8 ± 0.1	7.6 ± 0.1	----	----
<b>EG005(ED093T): Total Metals by ICP-AES</b>										
Arsenic	EG005T	5	mg/kg	----	20	32 ± 4	31 ± 4	32 ± 4	----	----
Cadmium	EG005T	1	mg/kg	----	3	<1 --	<1 --	<1 --	----	----
Copper	EG005T	5	mg/kg	----	100	53 ± 6	55 ± 7	58 ± 7	----	----
Lead	EG005T	5	mg/kg	----	300	<5 --	<5 --	<5 --	----	----
Molybdenum	EG005T	5	mg/kg	----	40	<5 --	<5 --	<5 --	----	----
Nickel	EG005T	5	mg/kg	----	60	179 ± 18	168 ± 16	167 ± 16	----	----
Selenium	EG005T	5	mg/kg	----	10	<5 --	<5 --	<5 --	----	----
Silver	EG005T	2	mg/kg	----	10	<2 --	<2 --	<2 --	----	----
Tin	EG005T	10	mg/kg	----	50	<10 --	<10 --	<10 --	----	----
Zinc	EG005T	5	mg/kg	----	200	88 ± 10	91 ± 10	91 ± 10	----	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>										
Mercury	EG035T	0.1	mg/kg	----	1	<0.1 --	<0.1 --	<0.1 --	----	----
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	1	1.0 ± 0.2	1.5 ± 0.3	1.3 ± 0.2	----	----
<b>EK026SF: Total CN by Segmented Flow Analyser</b>										
Total Cyanide	EK026SF	5	mg/kg	----	50	<5 --	<5 --	<5 --	----	----
<b>EK040T: Fluoride Total</b>										
Fluoride	EK040T	100	mg/kg	----	450	170 ± 40	440 ± 70	170 ± 40	----	----
<b>EP066: Polychlorinated Biphenyls (PCB)</b>										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	<0.1 --	<0.1 --	<0.1 --	----	----
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>										
Benzene	EP074-UT	0.2	mg/kg	----	1	<0.2 --	<0.2 --	<0.2 --	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	7	<0.5 --	<0.5 --	<0.5 --	----	----
<b>EP074I: Volatile Halogenated Compounds</b>										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	1	<0.50 --	<0.50 --	<0.50 --	----	----
<b>EP075A: Phenolic Compounds (Halogenated)</b>										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	1	<1.00 --	<1.00 --	<1.00 --	----	----
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	60	<20 --	<20 --	<20 --	----	----



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	323_20_07_S	324_00_04_S	324_04_00_S	323_08_17_S	323_08_19_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	23-Mar-2022 20:07	24-Mar-2022 00:04	24-Mar-2022 04:00	23-Mar-2022 12:15	23-Mar-2022 12:15
						EM2205177-006 MU	EM2205177-007 MU	EM2205177-008 MU	EM2205177-009 MU	EM2205177-010 MU
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	<0.5 ..	<0.5 ..	<0.5 ..	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	20	<0.5 ..	<0.5 ..	<0.5 ..	----	----
<b>EP075I: Organochlorine Pesticides</b>										
Sum of organochlorine pesticides	EP075-EM-SUM	0.10	mg/kg	----	1	<0.10 ..	<0.10 ..	<0.10 ..	----	----
<b>EP080/071: Total Petroleum Hydrocarbons</b>										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	100	<20 ..	<20 ..	<20 ..	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	<50 ..	<50 ..	<50 ..	----	----



**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	323_12_17_S	323_16_04_S	323_16_11_S	323_20_07_S	324_00_04_S
						S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	23-Mar-2022 12:15	23-Mar-2022 12:15	23-Mar-2022 12:15	23-Mar-2022 12:15	24-Mar-2022 12:15
						EM2205177-011 MU	EM2205177-012 MU	EM2205177-013 MU	EM2205177-014 MU	EM2205177-015 MU
<b>EA001: pH in soil using 0.01M CaCl extract</b>										
pH (CaCl2)	EA001	0.1	pH Unit	----	----	----	----	----	----	----
<b>EG005(ED093)T: Total Metals by ICP-AES</b>										
Arsenic	EG005T	5	mg/kg	----	----	----	----	----	----	----
Cadmium	EG005T	1	mg/kg	----	----	----	----	----	----	----
Copper	EG005T	5	mg/kg	----	----	----	----	----	----	----
Lead	EG005T	5	mg/kg	----	----	----	----	----	----	----
Molybdenum	EG005T	5	mg/kg	----	----	----	----	----	----	----
Nickel	EG005T	5	mg/kg	----	----	----	----	----	----	----
Selenium	EG005T	5	mg/kg	----	----	----	----	----	----	----
Silver	EG005T	2	mg/kg	----	----	----	----	----	----	----
Zinc	EG005T	5	mg/kg	----	----	----	----	----	----	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>										
Mercury	EG035T	0.1	mg/kg	----	----	----	----	----	----	----
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	----	----	----	----	----	----
<b>EK026SF: Total CN by Segmented Flow Analyser</b>										
Total Cyanide	EK026SF	5	mg/kg	----	----	----	----	----	----	----
<b>EK040T: Fluoride Total</b>										
Fluoride	EK040T	100	mg/kg	----	----	----	----	----	----	----
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>										
Benzene	EP074-UT	0.2	mg/kg	----	----	----	----	----	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	----	----	----	----	----	----
<b>EP074I: Volatile Halogenated Compounds</b>										
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	----	----	----	----	----	----
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	----	----	----	----	----	----
Vinyl chloride	EP074-UT	0.50	mg/kg	----	----	----	----	----	----	----
<b>EP075A: Phenolic Compounds (Halogenated)</b>										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	----	----	----	----	----	----
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	----	----	----	----	----	----
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>										















**Soil Hazard Categorisation and Management**

**Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B**

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220 324_04_00_S S_Primary_AL S	----	----	----	----
				Guideline	Guideline					
				Lower Limit	Upper Limit	24-Mar-2022 12:15	----	----	----	----
						EM2205177-016 MU				
<b>EA001: pH in soil using 0.01M CaCl extract</b>										
pH (CaCl2)	EA001	0.1	pH Unit	----	----	----	----	----	----	----
<b>EG005(ED093T): Total Metals by ICP-AES</b>										
Arsenic	EG005T	5	mg/kg	----	----	----	----	----	----	----
Cadmium	EG005T	1	mg/kg	----	----	----	----	----	----	----
Copper	EG005T	5	mg/kg	----	----	----	----	----	----	----
Lead	EG005T	5	mg/kg	----	----	----	----	----	----	----
Molybdenum	EG005T	5	mg/kg	----	----	----	----	----	----	----
Nickel	EG005T	5	mg/kg	----	----	----	----	----	----	----
Selenium	EG005T	5	mg/kg	----	----	----	----	----	----	----
Silver	EG005T	2	mg/kg	----	----	----	----	----	----	----
Zinc	EG005T	5	mg/kg	----	----	----	----	----	----	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>										
Mercury	EG035T	0.1	mg/kg	----	----	----	----	----	----	----
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	----	----	----	----	----	----
<b>EK026SF: Total CN by Segmented Flow Analyser</b>										
Total Cyanide	EK026SF	5	mg/kg	----	----	----	----	----	----	----
<b>EK040T: Fluoride Total</b>										
Fluoride	EK040T	100	mg/kg	----	----	----	----	----	----	----
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>										
Benzene	EP074-UT	0.2	mg/kg	----	----	----	----	----	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	----	----	----	----	----	----
<b>EP074I: Volatile Halogenated Compounds</b>										
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	----	----	----	----	----	----
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	----	----	----	----	----	----
Vinyl chloride	EP074-UT	0.50	mg/kg	----	----	----	----	----	----	----
<b>EP075A: Phenolic Compounds (Halogenated)</b>										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	----	----	----	----	----	----
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	----	----	----	----	----	----
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>										













## QUALITY CONTROL REPORT

<b>Work Order</b>	: <b>EM2205177</b>	<b>Page</b>	: 1 of 27
<b>Client</b>	: <b>AGON ENVIRONMENTAL PTY LTD</b>	<b>Laboratory</b>	: Environmental Division Melbourne
<b>Contact</b>	: DAVID LAWSON	<b>Contact</b>	: Bronwyn Sheen
<b>Address</b>	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	<b>Address</b>	: 4 Westall Rd Springvale VIC Australia 3171
<b>Telephone</b>	: ----	<b>Telephone</b>	: +6138549 9600
<b>Project</b>	: JC0927	<b>Date Samples Received</b>	: 24-Mar-2022
<b>Order number</b>	: ----	<b>Date Analysis Commenced</b>	: 24-Mar-2022
<b>C-O-C number</b>	: 20220324042237-ALS-12	<b>Issue Date</b>	: 31-Mar-2022
<b>Sampler</b>	: Emma.S - EP Risk & Toby.G - Agon		
<b>Site</b>	: 20220324042237-ALS-12		
<b>Quote number</b>	: EN/150/19 -WGTP -Bulk Sample Quote		
<b>No. of samples received</b>	: 16		
<b>No. of samples analysed</b>	: 16		



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. 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
Andrew Lu	VOC Section Supervisor	Melbourne Organics, Springvale, VIC
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
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## 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.

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 sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4254481)</b>									
EM2204785-001	Anonymous	EG005T: Nickel	7440-02-0	2	mg/kg	53	# 3	179	0% - 20%
EM2204785-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	17	23	33.7	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	26	36	30.3	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	43	58	30.5	0% - 50%
EM2205063-004	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	32	32	0.0	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	26	29	10.9	0% - 50%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	6	6	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	9	9	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	11	11	0.0	No Limit		
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4254484)</b>									



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4254484) - continued</b>									
EM2205177-007	SX_OB_20220324_00_04_ SS_Primary_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	112	106	5.7	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	168	156	7.9	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	31	28	11.2	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	55	52	6.3	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	91	84	6.9	0% - 50%		
EM2205307-014	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	20	20	0.0	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	5	4	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	13	13	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	26	27	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	52	50	4.1	0% - 50%		
<b>EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4256967)</b>									
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.6	7.6	0.0	0% - 20%
EM2205226-007	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	5.9	5.9	0.0	0% - 20%
<b>EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4257227)</b>									
EM2205168-011	Anonymous	EA055: Moisture Content	----	0.1	%	11.8	11.6	1.8	0% - 50%
EM2205250-002	Anonymous	EA055: Moisture Content	----	0.1	%	11.5	11.6	1.1	0% - 50%
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4254482)</b>									
EM2204785-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2205063-004	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4254483)</b>									
EM2205177-007	SX_OB_20220324_00_04_ SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2205307-014	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4257238)</b>									
EM2205063-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)	
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4257238) - continued</b>										
EM2205177-008	SX_OB_20220324_04_00_ SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	1.3	1.1	10.9	No Limit	
<b>EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4255425)</b>										
EM2205063-002	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit	
EM2205027-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit	
<b>EK040T: Fluoride Total (QC Lot: 4254657)</b>										
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	290	190	41.3	No Limit	
EM2205226-007	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	100	120	15.5	No Limit	
<b>EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4254384)</b>										
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
EM2205260-007	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4250022)</b>										
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit	
		EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
			106-42-3							
		EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
	EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
<b>EP074H: Naphthalene (QC Lot: 4250022)</b>										
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
<b>EP074I: Volatile Halogenated Compounds (QC Lot: 4250022)</b>										
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.50	<0.50	0.0	No Limit	
		EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit	



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)		
<b>EP074I: Volatile Halogenated Compounds (QC Lot: 4250022) - continued</b>											
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit		
		EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit		
		EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit		
		EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit		
		EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.50	<0.50	0.0	No Limit		
		EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.50	<0.50	0.0	No Limit		
		EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.5	<0.5	0.0	No Limit		
<b>EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4254383)</b>											
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.50	<0.50	0.0	No Limit		
		EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.50	<0.50	0.0	No Limit		
		EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.50	<0.50	0.0	No Limit		
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<1.00	<1.00	0.0	No Limit		
		EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit		
		EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<1.00	<1.00	0.0	No Limit		
		EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<1.00	<1.00	0.0	No Limit		
		EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EM2205260-007	Anonymous	EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<1.0	<1.0	0.0	No Limit		
		EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit		
		EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit		
		EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	<0.03	0.0	No Limit		
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit		
		EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit		
		EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
		EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
		<b>EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4254383)</b>									
		EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit		
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit		
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit		
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit		
		EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit		
EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit				
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit				
EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit				





Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4254383) - continued</b>									
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EM2205260-007	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<5	<5	0.0	No Limit
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4254383)</b>									
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit
EM2205260-007	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4254383) - continued</b>									
EM2205260-007	Anonymous	EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit
<b>EP075I: Organochlorine Pesticides (QC Lot: 4254383)</b>									
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4,4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EM2205260-007	Anonymous	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit		



Sub-Matrix: SOIL

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP075I: Organochlorine Pesticides (QC Lot: 4254383) - continued</b>									
EM2205260-007	Anonymous	EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4250022)</b>									
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4254385)</b>									
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EM2205260-007	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4250022)</b>									
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<20	<20	0.0	No Limit
		EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<20	<20	0.0	No Limit
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4254385)</b>									
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EM2205260-007	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4258042)</b>									
EM2205062-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4258042) - continued</b>									
EM2205062-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2205177-002	SX_OB_20220323_08_19_ SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4258042)</b>									
EM2205062-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EM2205177-002	SX_OB_20220323_08_19_ SS_Duplicate_ALS	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<5 µg/kg	<0.005	0.0	No Limit
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4258042)</b>									
EM2205062-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4258042) - continued</b>									
EM2205062-001	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4258042)</b>									
EM2205062-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231P: PFAS Sums (QC Lot: 4258042)</b>									
EM2205062-001	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP231X: Sum of PFAS	----	0.0002	mg/kg	<50.0 µg/kg	<0.0500	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4257773)</b>									
EM2204798-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2205177-001	SX_OB_20220323_08_17_SS_Primary_ALS	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4258025)</b>									
EM2204798-004	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2205177-012	SX_OB_20220323_16_04_SS_Triplicate_ALS	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

**EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4257773)**





Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4257773) - continued</b>									
EM2204798-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4258025)</b>									
EM2204798-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EM2205177-012	SX_OB_20220323_16_04_ SS_Triplicate_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit





Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4258025) - continued</b>									
EM2205177-012	SX_OB_20220323_16_04_ SS_Triplicate_ALS	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4257773)</b>									
EM2204798-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2205177-001	SX_OB_20220323_08_17_ SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4258025)</b>									
EM2204798-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4258025) - continued</b>									
EM2204798-004	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2205177-012	SX_OB_20220323_16_04_SS_Triplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4257773)</b>									
EM2204798-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2205177-001	SX_OB_20220323_08_17_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4258025)</b>									
EM2204798-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2205177-012	SX_OB_20220323_16_04_SS_Triplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231P: PFAS Sums (QC Lot: 4257773)</b>									
EM2204798-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EM2205177-001	SX_OB_20220323_08_17_SS_Primary_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231P: PFAS Sums (QC Lot: 4258025)</b>									
EM2204798-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EM2205177-012	SX_OB_20220323_16_04_SS_Triplicate_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit



## Method Blank (MB) and Laboratory Control Sample (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 Sample (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: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4254481)</b>									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	98.0	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	64.3	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	98.6	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	93.3	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	89.8	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	91.9	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	95.0	70.0	130	
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----	
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	80.0	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	93.4	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	76.2	70.0	130	
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4254484)</b>									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	98.5	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	65.0	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	100	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	94.1	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	90.2	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	82.6	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	97.5	70.0	130	
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----	
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	80.9	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	99.7	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	76.7	70.0	130	
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4255409)</b>									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.2	----	----	----	----	
<b>EA001: pH in soil using 0.01M CaCl extract (QCLot: 4256967)</b>									
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	101	98.8	101	
				----	7 pH Unit	101	99.3	101	
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4254482)</b>									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	99.2	70.0	130	
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4254483)</b>									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	97.6	70.0	130	
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4257238)</b>									
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	84.0	70.0	130	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	High
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4255425)</b>									
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	92.2	70.0	130	
<b>EK040T: Fluoride Total (QCLot: 4254657)</b>									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	105	75.2	110	
<b>EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4254384)</b>									
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	109	67.4	136	
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4250022)</b>									
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	82.3	69.2	116	
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	82.4	67.7	116	
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	80.5	66.6	115	
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	79.0	65.2	112	
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	83.2	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	80.8	68.4	110	
<b>EP074H: Naphthalene (QCLot: 4250022)</b>									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	89.2	72.3	114	
<b>EP074I: Volatile Halogenated Compounds (QCLot: 4250022)</b>									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	83.2	47.0	138	
EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	77.8	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	85.3	72.3	115	
EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	81.8	60.5	122	
EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	81.8	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	82.7	66.6	115	
EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	79.0	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	74.4	58.4	127	
EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	90.3	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	79.0	64.7	115	
EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	88.9	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	79.2	60.0	119	
EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	83.4	71.8	116	
EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	87.0	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	76.0	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	83.8	70.3	113	
EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	82.4	62.6	113	
EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	85.8	70.8	110	
EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	82.8	48.4	120	
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4254383)</b>									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	94.2	74.5	126	
EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	89.2	72.7	126	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4254383) - continued</b>									
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	99.2	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	94.0	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	90.6	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	92.8	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	106	69.4	126	
EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/5 8-90-2	0.05	mg/kg	<0.05	4 mg/kg	104	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	89.8	54.4	135	
<b>EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4254383)</b>									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	90.7	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	92.3	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	84.3	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	95.2	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	92.7	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	95.8	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	116	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	83.5	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	86.5	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	82.5	34.5	137	
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4254383)</b>									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	90.6	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	93.5	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	90.5	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	106	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	90.2	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	94.9	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	84.6	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	97.9	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	98.4	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	98.5	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	93.7	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	91.4	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	85.6	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	84.4	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	88.0	71.3	134	
<b>EP075I: Organochlorine Pesticides (QCLot: 4254383)</b>									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	90.8	71.0	129	





Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP075I: Organochlorine Pesticides (QCLot: 4254383) - continued</b>									
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	80.6	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	93.0	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	89.9	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	100	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	97.5	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	89.2	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	87.3	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	91.6	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	84.2	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	95.7	69.4	134	
EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	94.8	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	86.5	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	78.0	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	110	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	86.5	71.4	135	
EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	83.9	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	90.5	70.2	135	
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	86.1	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	96.7	63.6	135	
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4250022)</b>									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	80.9	61.1	119	
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4254385)</b>									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	760 mg/kg	93.6	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	3270 mg/kg	93.2	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1550 mg/kg	92.2	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	93.0	70.0	130	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4250022)</b>									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	79.6	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTE X	10	mg/kg	<10	----	----	----	----	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4254385)</b>									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1110 mg/kg	93.7	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	4180 mg/kg	93.1	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	290 mg/kg	95.5	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	93.4	70.0	130	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4258042)</b>									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	104	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	92.1	73.0	123	





Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4258042) - continued</b>									
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	71.8	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	105	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	103	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	101	59.0	134	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4258042)</b>									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	85.0	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.0	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.8	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.0	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.8	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.3	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.9	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.0	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.5	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.7	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	70.8	69.0	133	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4258042)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.5	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	82.4	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	87.0	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	106	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.4	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.4	61.0	139	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4258042)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	97.9	62.0	145	
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00119 mg/kg	94.2	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	96.0	65.0	137	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00121 mg/kg	83.5	70.0	130	
<b>EP231P: PFAS Sums (QCLot: 4258042)</b>									
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----	
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----	
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4257773)</b>									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	92.3	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	99.3	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	90.2	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	85.5	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	89.7	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	86.6	53.0	142	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4258025)</b>									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	95.5	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	105	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	99.4	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.9	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	103	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	89.3	53.0	142	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4257773)</b>									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	89.1	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	90.8	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	93.4	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	99.2	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	92.8	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	85.2	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.3	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	92.3	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	90.1	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	94.0	71.0	132	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4258025)</b>									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	94.0	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	98.0	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	99.5	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	99.3	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	88.9	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	109	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	94.2	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	102	71.0	132	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4257773)</b>									



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4257773) - continued</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	89.1	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	88.7	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	101	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	94.0	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	98.7	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	97.5	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	107	61.0	135	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4258025)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	101	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	129	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	117	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	123	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	112	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	93.4	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	93.8	61.0	135	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4257773)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	89.2	63.0	143	
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	98.4	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	94.8	67.0	138	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	72.7	70.0	130	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4258025)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	92.7	63.0	143	
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	86.4	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	107	67.0	138	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	88.8	70.0	130	
<b>EP231P: PFAS Sums (QCLot: 4257773)</b>									
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----	
<b>EP231P: PFAS Sums (QCLot: 4258025)</b>									



Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
<b>EP231P: PFAS Sums (QCLot: 4258025) - continued</b>								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

### 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	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery(%) MS	Low	High
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4254481)</b>							
EM2204785-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	88.0	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	97.8	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	98.3	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	101	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	96.7	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	94.8	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	92.9	80.0	120
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4254484)</b>							
EM2205177-008	SX_OB_20220324_04_00_SS_Primary_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	84.9	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	95.6	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	92.6	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	100	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	93.2	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	109	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	92.8	80.0	120
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4254482)</b>							
EM2204785-002	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	106	76.0	116
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4254483)</b>							
EM2205177-008	SX_OB_20220324_04_00_SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	112	76.0	116
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4257238)</b>							
EM2205063-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	78.2	58.0	114
EM2205063-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	88.8	58.0	114
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4255425)</b>							
EM2205027-002	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	96.6	70.0	130



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
Laboratory sample ID		Sample ID	Method: Compound	CAS Number	Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low High
<b>EK040T: Fluoride Total (QCLot: 4254657)</b>							
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	72.8	70.0	130
<b>EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4254384)</b>							
EM2205177-003	SX_OB_20220323_12_17_SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	109	59.6	152
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4250022)</b>							
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	82.0	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	84.2	55.1	124
<b>EP074I: Volatile Halogenated Compounds (QCLot: 4250022)</b>							
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	71.1	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	73.3	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	78.8	55.5	122
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4254383)</b>							
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	89.9	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	80.3	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	87.0	10.0	144
<b>EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4254383)</b>							
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP075-EM: Phenol	108-95-2	3 mg/kg	87.7	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	75.8	34.2	129
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4254383)</b>							
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	76.6	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	89.4	37.8	152
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4250022)</b>							
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	71.1	42.3	111
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4254385)</b>							
EM2205177-004	SX_OB_20220323_16_04_SS_Triplicate_ALS	EP071-EM: C10 - C14 Fraction	----	760 mg/kg	92.7	71.3	126
		EP071-EM: C15 - C28 Fraction	----	3270 mg/kg	91.5	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1550 mg/kg	90.3	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5580 mg/kg	91.6	70.0	130
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4250022)</b>							
EM2205177-002	SX_OB_20220323_08_19_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	68.9	39.9	109
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4254385)</b>							
EM2205177-004	SX_OB_20220323_16_04_SS_Triplicate_ALS	EP071-EM: >C10 - C16 Fraction	----	1110 mg/kg	92.4	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	4180 mg/kg	91.3	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	290 mg/kg	93.7	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5580 mg/kg	91.8	70.0	130
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4258042)</b>							





Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4258042) - continued</b>							
EM2205062-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	93.8	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	96.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	95.4	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	110	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	103	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	91.2	59.0	134
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4258042)</b>							
EM2205062-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	89.7	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	93.6	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	92.6	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	89.9	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	92.9	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	93.4	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	77.1	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	86.8	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	92.8	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	85.1	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	96.4	69.0	133		
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4258042)</b>							
EM2205062-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	98.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	103	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	94.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	92.2	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	99.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	97.4	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	80.4	61.0	139
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4258042)</b>							
EM2205062-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	100	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	93.5	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	108	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	# 65.8	70.0	130

Sub-Matrix: **WATER**

Matrix Spike (MS) Report		
Spike	SpikeRecovery(%)	Acceptable Limits (%)



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4257773)</b>							
EM2204798-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	108	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	100	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	93.1	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHps)	375-92-8	0.238 µg/L	102	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	87.5	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	95.8	53.0	142
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4258025)</b>							
EM2204798-006	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	93.2	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	95.5	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	92.9	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHps)	375-92-8	0.238 µg/L	85.5	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	80.2	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	79.3	53.0	142
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4257773)</b>							
EM2204798-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	92.9	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	98.2	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	97.5	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	103	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	95.7	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	107	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	89.7	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	106	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	106	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	103	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	105	71.0	132
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4258025)</b>							
EM2204798-006	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	73.7	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	92.0	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	90.7	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	94.2	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	92.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	106	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	86.0	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	89.7	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	75.2	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	# 42.7	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	# 39.9	71.0	132
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4257773)</b>							





Sub-Matrix: WATER

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery(%) MS	Acceptable Limits (%)	
				Low	High		
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4257773) - continued</b>							
EM2204798-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	99.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	110	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	101	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	108	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	103	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	100	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	105	61.0	135
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4258025)</b>							
EM2204798-006	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	86.2	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	# 65.1	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	# 56.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	# 68.2	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	82.9	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	# 60.5	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	62.3	61.0	135
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4257773)</b>							
EM2204798-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	86.3	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	98.0	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	89.2	70.0	130
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4258025)</b>							
EM2204798-006	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	85.6	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	90.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	94.2	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	# 55.4	70.0	130

## QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2205177	Page	: 1 of 13
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Telephone	: +6138549 9600
Project	: JC0927	Date Samples Received	: 24-Mar-2022
Site	: 20220324042237-ALS-12	Issue Date	: 31-Mar-2022
Sampler	: Emma.S - EP Risk & Toby.G - Agon	No. of samples received	: 16
Order number	: ----	No. of samples analysed	: 16

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** Laboratory Control outliers occur.
- Duplicate outliers exist - please see following pages for full details.
- Matrix Spike outliers exist - please see following pages for full details.
- Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.

#### 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
<b>Duplicate (DUP) RPDs</b>							
EG005(ED093)T: Total Metals by ICP-AES	EM2204785--001	Anonymous	Nickel	7440-02-0	179 %	0% - 20%	RPD exceeds LOR based limits
<b>Matrix Spike (MS) Recoveries</b>							
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2205062--002	Anonymous	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	65.8 %	70.0-130%	Recovery less than lower data quality objective

**Matrix: WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
<b>Matrix Spike (MS) Recoveries</b>							
EP231B: Perfluoroalkyl Carboxylic Acids	EM2204798--006	Anonymous	Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	42.7 %	65.0-144%	Recovery less than lower data quality objective
EP231B: Perfluoroalkyl Carboxylic Acids	EM2204798--006	Anonymous	Perfluorotetradecanoic acid (PFTTeDA)	376-06-7	39.9 %	71.0-132%	Recovery less than lower data quality objective
EP231C: Perfluoroalkyl Sulfonamides	EM2204798--006	Anonymous	N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	65.1 %	68.0-141%	Recovery less than lower data quality objective
EP231C: Perfluoroalkyl Sulfonamides	EM2204798--006	Anonymous	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	56.4 %	70.0-130%	Recovery less than lower data quality objective
EP231C: Perfluoroalkyl Sulfonamides	EM2204798--006	Anonymous	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	68.2 %	70.0-130%	Recovery less than lower data quality objective
EP231C: Perfluoroalkyl Sulfonamides	EM2204798--006	Anonymous	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	60.5 %	65.0-136%	Recovery less than lower data quality objective
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2204798--006	Anonymous	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	55.4 %	70.0-130%	Recovery less than lower data quality objective

### Regular Sample Surrogates

**Sub-Matrix: SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
<b>Samples Submitted</b>							
EP075T: Base/Neutral Extractable Surrogates (Waste C	EM2205177-005	SX_OB_20220323_16_11_SS	2-Fluorobiphenyl	321-60-8	63.2 %	68.9-131 %	Recovery less than lower data quality objective



## 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	
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
<b>Soil Glass Jar - Unpreserved (EA001)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	30-Mar-2022	✓	30-Mar-2022	30-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EA001)</b>								
SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	31-Mar-2022	✓	30-Mar-2022	30-Mar-2022	✓
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
<b>Soil Glass Jar - Unpreserved (EA055)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	----	----	----	30-Mar-2022	06-Apr-2022	✓
<b>Soil Glass Jar - Unpreserved (EA055)</b>								
SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	----	----	----	30-Mar-2022	07-Apr-2022	✓
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
<b>Soil Glass Jar - Unpreserved (EG005T)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	19-Sep-2022	✓	30-Mar-2022	19-Sep-2022	✓
<b>Soil Glass Jar - Unpreserved (EG005T)</b>								
SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	20-Sep-2022	✓
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
<b>Soil Glass Jar - Unpreserved (EG035T)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	20-Apr-2022	✓	31-Mar-2022	20-Apr-2022	✓
<b>Soil Glass Jar - Unpreserved (EG035T)</b>								
SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	21-Apr-2022	✓	31-Mar-2022	21-Apr-2022	✓



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	
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
<b>Soil Glass Jar - Unpreserved (EG048G)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	20-Apr-2022	✓	30-Mar-2022	06-Apr-2022	✓
<b>Soil Glass Jar - Unpreserved (EG048G)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	21-Apr-2022	✓	30-Mar-2022	06-Apr-2022	✓
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
<b>Soil Glass Jar - Unpreserved (EK026SF)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	06-Apr-2022	✓	30-Mar-2022	13-Apr-2022	✓
<b>Soil Glass Jar - Unpreserved (EK026SF)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	13-Apr-2022	✓
<b>EK040T: Fluoride Total</b>								
<b>Soil Glass Jar - Unpreserved (EK040T)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	20-Apr-2022	✓	31-Mar-2022	20-Apr-2022	✓
<b>Soil Glass Jar - Unpreserved (EK040T)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	21-Apr-2022	✓	31-Mar-2022	21-Apr-2022	✓
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	29-Mar-2022	19-Sep-2022	✓	----	----	----
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)</b>								
SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	29-Mar-2022	20-Sep-2022	✓	----	----	----
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	29-Mar-2022	19-Sep-2022	✓	----	----	----
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)</b>								
SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	29-Mar-2022	20-Sep-2022	✓	----	----	----
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
<b>Soil Glass Jar - Unpreserved (EP066-EM)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	06-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP066-EM)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓



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	
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	25-Mar-2022	30-Mar-2022	✓	25-Mar-2022	30-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	25-Mar-2022	31-Mar-2022	✓	25-Mar-2022	31-Mar-2022	✓
<b>EP074H: Naphthalene</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	25-Mar-2022	30-Mar-2022	✓	25-Mar-2022	30-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	25-Mar-2022	31-Mar-2022	✓	25-Mar-2022	31-Mar-2022	✓
<b>EP074I: Volatile Halogenated Compounds</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	25-Mar-2022	30-Mar-2022	✓	25-Mar-2022	30-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	25-Mar-2022	31-Mar-2022	✓	25-Mar-2022	31-Mar-2022	✓
<b>EP075A: Phenolic Compounds (Halogenated)</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	06-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	06-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	06-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓





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	
<b>EP075I: Organochlorine Pesticides</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	06-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	25-Mar-2022	30-Mar-2022	✓	25-Mar-2022	30-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	06-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	25-Mar-2022	31-Mar-2022	✓	25-Mar-2022	31-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	25-Mar-2022	30-Mar-2022	✓	25-Mar-2022	30-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	06-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	25-Mar-2022	31-Mar-2022	✓	25-Mar-2022	31-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	19-Sep-2022	✓	30-Mar-2022	09-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	09-May-2022	✓





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	
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	19-Sep-2022	✓	30-Mar-2022	09-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	19-Sep-2022	✓	30-Mar-2022	09-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	19-Sep-2022	✓	30-Mar-2022	09-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP231P: PFAS Sums</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS	23-Mar-2022	30-Mar-2022	19-Sep-2022	✓	30-Mar-2022	09-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220324_04_00_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	09-May-2022	✓

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	
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
<b>HDPE (no PTFE) (EP231X)</b> SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS, SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS, SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS	29-Mar-2022	30-Mar-2022	25-Sep-2022	✓	30-Mar-2022	25-Sep-2022	✓



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	
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
<b>HDPE (no PTFE) (EP231X)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS, SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS, SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS	29-Mar-2022	30-Mar-2022	25-Sep-2022	✓	30-Mar-2022	25-Sep-2022	✓
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
<b>HDPE (no PTFE) (EP231X)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS, SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS, SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS	29-Mar-2022	30-Mar-2022	25-Sep-2022	✓	30-Mar-2022	25-Sep-2022	✓
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
<b>HDPE (no PTFE) (EP231X)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS, SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS, SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS	29-Mar-2022	30-Mar-2022	25-Sep-2022	✓	30-Mar-2022	25-Sep-2022	✓
<b>EP231P: PFAS Sums</b>								
<b>HDPE (no PTFE) (EP231X)</b>								
SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS, SX_OB_20220323_08_17_SS_Primary_ALS, SX_OB_20220323_12_17_SS_Primary_ALS, SX_OB_20220323_16_11_SS_Primary_ALS, SX_OB_20220324_00_04_SS_Primary_ALS,	SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS, SX_OB_20220323_08_19_SS_Duplicate_ALS, SX_OB_20220323_16_04_SS_Triplicate_ALS, SX_OB_20220323_20_07_SS_Primary_ALS, SX_OB_20220324_04_00_SS_Primary_ALS	29-Mar-2022	30-Mar-2022	25-Sep-2022	✓	30-Mar-2022	25-Sep-2022	✓



## 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	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	5	34	14.71	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Laboratory Control Samples (LCS)</b>							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Method Blanks (MB)</b>							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard



Matrix: **SOIL** Evaluation: \* = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Matrix Spikes (MS)</b>							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER** Evaluation: \* = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	30	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Laboratory Control Samples (LCS)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	30	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Method Blanks (MB)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	30	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Matrix Spikes (MS)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	30	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
pH in soil using a 0.01M CaCl <sub>2</sub> extract	EA001	SOIL	In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl <sub>2</sub> and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
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 Schedule B(3).
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 Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl <sub>2</sub> ) (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 SnCl <sub>2</sub> which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	In house: Referenced to USEPA SW846, Method 3060. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3)
Total Cyanide by Segmented Flow Analyser	EK026SF	SOIL	In house: Referenced to APHA 4500-CN C / ASTM D7511 / ISO 14403. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM Schedule B(3).
Total Fluoride	EK040T	SOIL	(In-house) Total fluoride is determined by ion specific electrode (ISE) in a solution obtained after a Sodium Carbonate / Potassium Carbonate fusion dissolution.
PCB - VIC EPA 448.3 Screen	EP066-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071-EM	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.
Volatile Organic Compounds - Ultra-trace	EP074-UT	SOIL	In house: Referenced to USEPA SW 846 - 8260 Extracts are analysed by Purge and Trap, Capillary GC/MS in partial SIM/Scan mode. Quantification is by comparison against an established multi-point calibration curves. This method is compliant with NEPM Schedule B(3).



Analytical Methods	Method	Matrix	Method Descriptions
Volatile Organic Compounds - Ultra-trace - Summations	EP074-UT-SUM	SOIL	Summation of MAHs and VHCs
Semivolatile Organic Compounds - Waste Classification	EP075-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
SVOC - Waste Classification (Sums)	EP075-EM-SUM	SOIL	Summations for EP075 (EM variation)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
pH in soil using a 0.01M CaCl <sub>2</sub> extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl <sub>2</sub> and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
Alkaline digestion for Hexavalent Chromium	EG048PR	SOIL	In house: Referenced to USEPA SW846, Method 3060A.
Total Fluoride	EK040T-PR	SOIL	In house: Samples are fused with Sodium Carbonate / Potassium Carbonate flux.
ASLP for Non & Semivolatile Analytes - Plastic Leaching Vessel	EN60a-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates.
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates
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 Schedule B(3).
Methanolic Extraction of Soils - Ultra-trace.	ORG16-UT	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 - VIC EPA Screen	ORG17-EM	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na <sub>2</sub> SO <sub>4</sub> 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.
QuEChERS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.



Page : 13 of 13  
Work Order : EM2205177  
Client : AGON ENVIRONMENTAL PTY LTD  
Project : JC0927



<i>Preparation Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
Solid Phase Extraction (SPE) for PFAS in water	ORG72	SOIL	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.





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**ANALYSIS REQUIRED INCLUDING SUITES:** (note - suite codes must be listed to attract suite prices)

**P.O. NO.:**  
**QUOTE NO.:** ME-150-19 WGTP

**RESULTS REQUIRED (Date):** 5 days

Environmental Division  
 Melbourne  
 Work Order Reference  
**EM2205361**



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**CHAIN OF CUSTODY DOCUMENTATION**

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**PROJECT MANAGER (PM):** Craig Trimbur  
**PROJECT ID:** JC0927

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**ANALYSIS REQUIRED INCLUDING SUITES:** (note - suite codes must be listed to attract suite prices)

ALS ID	SAMPLE INFORMATION (note: S = Soil, W = Water)		CONTAINER INFORMATION		Spot Sample Prep	P16 plus Cr	FAS 28 Extended suite	ASLP FAS - Extended Suite (Lab to determine pH)	DL Leachate FAS - Extended Suite	Notes:
	SAMPLE ID	MATRIX	DATE	Time						
11	SX_OB_20220324_08_07_SS_Primary_ALS	S	24.03.2022	08:07	Bucket	1	X	X	X	
12	SX_OB_20220324_08_11_SS_Duplicate_ALS	S	24.03.2022	08:11	Bucket	1	X	X	X	
13	SX_OB_20220324_08_36_SS_Blank_ALS	W	24.03.2022	08:36	Bottle	1	X			
14	SX_OB_20220324_08_33_SR_Rinse_ALS	W	24.03.2022	08:33	Bottle	1	X			
15	SX_OB_20220324_12_18_SS_Primary_ALS	S	24.03.2022	12:18	Bucket	1	X	X	X	
16	SX_OB_20220324_16_35_SS_Primary_ALS	S	24.03.2022	16:35	Bucket	1	X	X	X	
17	SX_OB_20220324_16_27_SS_Triplicate_ALS	S	24.03.2022	16:27	Bucket	1	X	X	X	
18	SX_OB_20220324_20_13_SS_Primary_ALS	S	24.03.2022	20:13	Bucket	1	X	X	X	
19	SX_OB_20220325_00_08_SS_Primary_ALS	S	25.03.2022	00:08	Bucket	1	X	X	X	
20	SX_OB_20220325_04_18_SS_Primary_ALS	S	25.03.2022	04:18	Bucket	1	X	X	X	

**RELINQUISHED BY:** Emma Strong  
 Name: Emma Strong  
 Of: E.K.S.12  
 Date: 25/03/2022  
 Time: 10:22am

**RECEIVED BY:** [Signature]  
 Name: [Signature]  
 Of: [Signature]  
 Date: 25/3  
 Time: 13:00  
 Transport Co: [Signature]

**Water Container Codes:** P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved CRC; SH = Sodium Hydroxide/Cu Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl Preserved Plastic; HS = HCl Preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Solids; B = Unpreserved Bag.

## CERTIFICATE OF ANALYSIS

**Work Order** : **EM2205361**  
**Client** : **AGON ENVIRONMENTAL PTY LTD**  
**Contact** : DAVID LAWSON  
**Address** : D1.1 63-85 TURNER STREET  
 PORT MELBOURNE 3207  
  
**Telephone** : ----  
**Project** : JC0927  
**Order number** : ----  
**C-O-C number** : 20220325043559-ALS-13  
**Sampler** : Luke D - EP Risk & Tina B Agon  
**Site** : 20220325043559-ALS-13  
**Quote number** : EN/150/19 -WGTP -Bulk Sample Quote  
**No. of samples received** : 18  
**No. of samples analysed** : 18

**Page** : 1 of 29  
**Laboratory** : Environmental Division Melbourne  
**Contact** : Bronwyn Sheen  
**Address** : 4 Westall Rd Springvale VIC Australia 3171  
  
**Telephone** : +6138549 9600  
**Date Samples Received** : 25-Mar-2022 15:40  
**Date Analysis Commenced** : 28-Mar-2022  
**Issue Date** : 01-Apr-2022 17:57



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, unless the sampling was conducted by ALS. 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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Eric Chau	Metals Team Leader	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	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
Nikki Stepniewski	Senior Inorganic Instrument 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.

- EP231X: Poor matrix spike recovery for sample EM2205510-002 due to sample matrix interference.
- EG048G: EM2205647 #10 poor matrix spike recovery for hexavalent chromium due to matrix effects. Confirmed by re-analysis.
- 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.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EP231X-INJ: The direct injection LCMSMS method may be used where the sample matrix is not suitable for Solid Phase Extraction (e.g. significant particulate load) or where only a single sample container is received.



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-001	EM2205361-002	EM2205361-005	EM2205361-006	EM2205361-007
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-001	EM2205361-002	EM2205361-005	EM2205361-006	EM2205361-007
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	94.8	93.2	90.5	100	85.6
13C8-PFOA	----	0.02	%	101	102	106	104	103



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	----	----
Sampling date / time				24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	----	----
Compound	CAS Number	LOR	Unit	EM2205361-008	EM2205361-009	EM2205361-010	-----	-----
				Result	Result	Result	----	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	----	----
Sampling date / time				24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	----	----
Compound	CAS Number	LOR	Unit	EM2205361-008	EM2205361-009	EM2205361-010	-----	-----
				Result	Result	Result	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	93.8	95.1	93.3	----	----
13C8-PFOA	----	0.02	%	104	109	102	----	----





## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-011	EM2205361-012	EM2205361-013	EM2205361-014	EM2205361-015
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-011	EM2205361-012	EM2205361-013	EM2205361-014	EM2205361-015
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	97.4	90.8	90.4	94.9	94.9
13C8-PFOA	----	0.02	%	98.9	100	104	101	102



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220324_20 _13_SS_Primary_ALS	SX_OB_20220325_00 _08_SS_Primary_ALS	SX_OB_20220325_04 _18_SS_Primary_ALS	----	----
		Sampling date / time		24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	----	----
Compound	CAS Number	LOR	Unit	EM2205361-016	EM2205361-017	EM2205361-018	-----	-----
				Result	Result	Result	----	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	----	----
Sampling date / time				24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	----	----
Compound	CAS Number	LOR	Unit	EM2205361-016	EM2205361-017	EM2205361-018	-----	-----
				Result	Result	Result	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	88.5	92.1	93.0	----	----
13C8-PFOA	----	0.02	%	100	100	101	----	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-001	EM2205361-002	EM2205361-005	EM2205361-006	EM2205361-007
				Result	Result	Result	Result	Result
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
pH (CaCl2)	----	0.1	pH Unit	8.0	8.2	7.7	7.7	7.8
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
Moisture Content	----	1.0	%	25.8	28.0	28.1	28.8	25.3
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
Arsenic	7440-38-2	5	mg/kg	24	27	34	32	19
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	96	102	102	104	102
Copper	7440-50-8	5	mg/kg	54	57	56	59	52
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	163	169	151	180	164
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5
Silver	7440-22-4	2	mg/kg	<2	<2	<2	<2	<2
Tin	7440-31-5	10	mg/kg	<10	<10	<10	<10	<10
Zinc	7440-66-6	5	mg/kg	86	90	110	96	78
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	1.4	<1.0	1.2	1.2	1.6
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
<b>EK040T: Fluoride Total</b>								
Fluoride	16984-48-8	100	mg/kg	880	550	420	420	540
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Initial pH	----	0.1	pH Unit	9.2	9.3	9.0	9.5	9.5
After HCl pH	----	0.1	pH Unit	1.4	1.4	1.3	1.4	1.4
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.1	5.1	5.1	5.1	5.1
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-001	EM2205361-002	EM2205361-005	EM2205361-006	EM2205361-007
				Result	Result	Result	Result	Result
<b>EP074A: Monocyclic Aromatic Hydrocarbons - Continued</b>								
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
<b>EP074H: Naphthalene</b>								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
<b>EP074I: Volatile Halogenated Compounds</b>								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
<b>EP075A: Phenolic Compounds (Halogenated)</b>								



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-001	EM2205361-002	EM2205361-005	EM2205361-006	EM2205361-007
				Result	Result	Result	Result	Result
<b>EP075A: Phenolic Compounds (Halogenated) - Continued</b>								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	<1	<1
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	<5	<5
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	<5	<5
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	<5	<5
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	<20	<20
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	<20	<20
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	<20	<20
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-001	EM2205361-002	EM2205361-005	EM2205361-006	EM2205361-007
				Result	Result	Result	Result	Result
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>
<b>EP075I: Organochlorine Pesticides</b>								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-001	EM2205361-002	EM2205361-005	EM2205361-006	EM2205361-007
				Result	Result	Result	Result	Result
<b>EP075I: Organochlorine Pesticides - Continued</b>								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	<20	<20
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	<20	<20
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-001	EM2205361-002	EM2205361-005	EM2205361-006	EM2205361-007
				Result	Result	Result	Result	Result
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	<5	<5
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS	SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS
Sampling date / time				24-Mar-2022 08:07	24-Mar-2022 08:11	24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27
Compound	CAS Number	LOR	Unit	EM2205361-001	EM2205361-002	EM2205361-005	EM2205361-006	EM2205361-007
				Result	Result	Result	Result	Result
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	<50.0	<50.0
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
<b>EP066S: PCB Surrogate</b>								
Decachlorobiphenyl	2051-24-3	0.1	%	120	120	120	118	120
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	80.9	97.4	83.1	71.0	92.1
Toluene-D8	2037-26-5	0.1	%	88.6	108	95.6	77.1	103
4-Bromofluorobenzene	460-00-4	0.1	%	95.8	107	97.1	84.5	103
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>								
Phenol-d6	13127-88-3	0.025	%	103	113	103	100.0	96.3
2-Chlorophenol-D4	93951-73-6	0.025	%	103	113	97.1	99.6	96.8
2,4,6-Tribromophenol	118-79-6	0.025	%	87.4	90.0	94.4	86.2	87.9
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>								
Nitrobenzene-D5	4165-60-0	0.025	%	93.8	86.6	87.9	91.3	91.7
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	80.8	81.4	80.4	81.9	82.8
2-Fluorobiphenyl	321-60-8	0.025	%	90.7	94.9	94.2	91.7	95.2
Anthracene-d10	1719-06-8	0.025	%	93.4	93.3	96.4	89.9	92.5
4-Terphenyl-d14	1718-51-0	0.025	%	94.2	90.9	94.3	85.2	88.7
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.0002	%	94.8	92.8	96.3	91.4	99.0
13C8-PFOA	----	0.0002	%	102	103	104	104	104



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS
Sampling date / time				24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	24-Mar-2022 08:07	24-Mar-2022 08:11
Compound	CAS Number	LOR	Unit	EM2205361-008	EM2205361-009	EM2205361-010	EM2205361-011	EM2205361-012
				Result	Result	Result	Result	Result
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
pH (CaCl2)	----	0.1	pH Unit	7.7	7.8	7.7	----	----
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
Moisture Content	----	1.0	%	31.2	30.0	29.1	----	----
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
Arsenic	7440-38-2	5	mg/kg	36	38	28	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	----
Chromium	7440-47-3	5	mg/kg	101	103	107	----	----
Copper	7440-50-8	5	mg/kg	61	66	56	----	----
Lead	7439-92-1	5	mg/kg	<5	<5	<5	----	----
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	----	----
Nickel	7440-02-0	5	mg/kg	190	189	170	----	----
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	----	----
Silver	7440-22-4	2	mg/kg	<2	<2	<2	----	----
Tin	7440-31-5	10	mg/kg	<10	<10	<10	----	----
Zinc	7440-66-6	5	mg/kg	102	91	86	----	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	----	----
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	1.5	<1.0	<1.0	----	----
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	----	----
<b>EK040T: Fluoride Total</b>								
Fluoride	16984-48-8	100	mg/kg	350	340	480	----	----
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Initial pH	----	0.1	pH Unit	9.4	9.6	9.4	----	----
After HCl pH	----	0.1	pH Unit	1.4	1.5	1.4	----	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	----	----
Final pH	----	0.1	pH Unit	5.1	5.1	5.0	----	----
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Final pH	----	0.1	pH Unit	----	----	----	9.7	10.1
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS
Sampling date / time				24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	24-Mar-2022 08:07	24-Mar-2022 08:11
Compound	CAS Number	LOR	Unit	EM2205361-008	EM2205361-009	EM2205361-010	EM2205361-011	EM2205361-012
				Result	Result	Result	Result	Result
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
<b>EP074H: Naphthalene</b>								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
<b>EP074I: Volatile Halogenated Compounds</b>								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS
Sampling date / time				24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	24-Mar-2022 08:07	24-Mar-2022 08:11
Compound	CAS Number	LOR	Unit	EM2205361-008	EM2205361-009	EM2205361-010	EM2205361-011	EM2205361-012
				Result	Result	Result	Result	Result
<b>EP075A: Phenolic Compounds (Halogenated)</b>								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	----	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	----	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	----	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	----	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	----	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	----	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	----	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	----	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	----	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	----	----
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS
		Sampling date / time		24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	24-Mar-2022 08:07	24-Mar-2022 08:11
Compound	CAS Number	LOR	Unit	EM2205361-008	EM2205361-009	EM2205361-010	EM2205361-011	EM2205361-012
				Result	Result	Result	Result	Result
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	----	----
<b>EP075I: Organochlorine Pesticides</b>								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	----	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS
Sampling date / time				24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	24-Mar-2022 08:07	24-Mar-2022 08:11
Compound	CAS Number	LOR	Unit	EM2205361-008	EM2205361-009	EM2205361-010	EM2205361-011	EM2205361-012
				Result	Result	Result	Result	Result
<b>EP075I: Organochlorine Pesticides - Continued</b>								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	<0.30	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	<0.10	----	----
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	----
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	----	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS
Sampling date / time				24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	24-Mar-2022 08:07	24-Mar-2022 08:11
Compound	CAS Number	LOR	Unit	EM2205361-008	EM2205361-009	EM2205361-010	EM2205361-011	EM2205361-012
				Result	Result	Result	Result	Result
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS	SX_OB_20220325_04_18_SS_Primary_ALS	SX_OB_20220324_08_07_SS_Primary_ALS	SX_OB_20220324_08_11_SS_Duplicate_ALS
Sampling date / time				24-Mar-2022 20:13	25-Mar-2022 00:08	25-Mar-2022 04:18	24-Mar-2022 08:07	24-Mar-2022 08:11
Compound	CAS Number	LOR	Unit	EM2205361-008	EM2205361-009	EM2205361-010	EM2205361-011	EM2205361-012
				Result	Result	Result	Result	Result
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
<b>EP066S: PCB Surrogate</b>								
Decachlorobiphenyl	2051-24-3	0.1	%	118	119	106	----	----
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	86.4	84.9	59.0	----	----
Toluene-D8	2037-26-5	0.1	%	97.3	101	64.2	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	99.9	99.1	77.4	----	----
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>								
Phenol-d6	13127-88-3	0.025	%	94.4	103	90.8	----	----
2-Chlorophenol-D4	93951-73-6	0.025	%	96.2	105	85.6	----	----
2,4,6-Tribromophenol	118-79-6	0.025	%	85.2	96.5	80.3	----	----
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>								
Nitrobenzene-D5	4165-60-0	0.025	%	91.8	101	79.7	----	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	83.3	88.8	63.9	----	----
2-Fluorobiphenyl	321-60-8	0.025	%	89.2	100	82.5	----	----
Anthracene-d10	1719-06-8	0.025	%	89.4	98.8	82.7	----	----
4-Terphenyl-d14	1718-51-0	0.025	%	85.6	97.6	80.7	----	----
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.0002	%	106	92.0	92.8	----	----
13C8-PFOA	----	0.0002	%	102	99.7	97.4	----	----



**Analytical Results**

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220324_12_18_SS_Primary_ALS	SX_OB_20220324_16_35_SS_Primary_ALS	SX_OB_20220324_16_27_SS_Triplicate_ALS	SX_OB_20220324_20_13_SS_Primary_ALS	SX_OB_20220325_00_08_SS_Primary_ALS
Sampling date / time				24-Mar-2022 12:18	24-Mar-2022 16:35	24-Mar-2022 16:27	24-Mar-2022 20:13	25-Mar-2022 00:08
Compound	CAS Number	LOR	Unit	EM2205361-013	EM2205361-014	EM2205361-015	EM2205361-016	EM2205361-017
				Result	Result	Result	Result	Result
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Final pH	----	0.1	pH Unit	9.7	9.6	9.7	9.5	9.5



**Analytical Results**

Sub-Matrix: <b>SOIL</b> (Matrix: <b>SOIL</b> )			Sample ID	<b>SX_OB_20220325_04 _18_SS_Primary_ALS</b>	----	----	----	----
			Sampling date / time	25-Mar-2022 04:18	----	----	----	----
Compound	CAS Number	LOR	Unit	<b>EM2205361-018</b>	-----	-----	-----	-----
				Result	---	---	---	---
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Final pH</b>	----	0.1	pH Unit	<b>9.5</b>	---	---	---	---



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_OB_20220324_08 _36_SB_Blank_ALS	SX_OB_20220324_08 _33_SR_Rinsate_ALS	----	----	----
Sampling date / time			24-Mar-2022 08:36		24-Mar-2022 08:33		----	----	----
Compound	CAS Number	LOR	Unit	EM2205361-003	EM2205361-004	-----	-----	-----	
				Result	Result	---	---	---	
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----	
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>									
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L	<0.10	<0.10	----	----	----	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----	
<b>EP231C: Perfluoroalkyl Sulfonamides</b>									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	----	----	----	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	----	----	----	





## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_OB_20220324_08 _36_SB_Blank_ALS	SX_OB_20220324_08 _33_SR_Rinsate_ALS	----	----	----
Sampling date / time				24-Mar-2022 08:36	24-Mar-2022 08:33	----	----	----	
Compound	CAS Number	LOR	Unit	EM2205361-003	EM2205361-004	-----	-----	-----	
				Result	Result	---	---	---	
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	----	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	----	----	----	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	----	----	----	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	----	----	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	----	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	----	----	----	
<b>EP231P: PFAS Sums</b>									
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	----	----	----	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	----	----	----	
<b>EP231S: PFAS Surrogate</b>									
13C4-PFOS	----	0.02	%	103	102	----	----	----	
13C8-PFOA	----	0.02	%	102	103	----	----	----	



## Surrogate Control Limits

Sub-Matrix: ASLP LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: DI WATER LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP066S: PCB Surrogate</b>			
Decachlorobiphenyl	2051-24-3	41	122
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>			
1,2-Dichloroethane-D4	17060-07-0	59	119
Toluene-D8	2037-26-5	55	117
4-Bromofluorobenzene	460-00-4	59	123
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>			
Phenol-d6	13127-88-3	63	134
2-Chlorophenol-D4	93951-73-6	60	125
2,4,6-Tribromophenol	118-79-6	54	129
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>			
Nitrobenzene-D5	4165-60-0	63	131
1,2-Dichlorobenzene-D4	2199-69-1	61	124
2-Fluorobiphenyl	321-60-8	69	131
Anthracene-d10	1719-06-8	70	133
4-Terphenyl-d14	1718-51-0	59	141
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	68	136
13C8-PFOA	----	69	133

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

## QUALITY CONTROL REPORT

<b>Work Order</b>	: <b>EM2205361</b>	<b>Page</b>	: 1 of 31
<b>Client</b>	: <b>AGON ENVIRONMENTAL PTY LTD</b>	<b>Laboratory</b>	: Environmental Division Melbourne
<b>Contact</b>	: DAVID LAWSON	<b>Contact</b>	: Bronwyn Sheen
<b>Address</b>	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	<b>Address</b>	: 4 Westall Rd Springvale VIC Australia 3171
<b>Telephone</b>	: ----	<b>Telephone</b>	: +6138549 9600
<b>Project</b>	: JC0927	<b>Date Samples Received</b>	: 25-Mar-2022
<b>Order number</b>	: ----	<b>Date Analysis Commenced</b>	: 28-Mar-2022
<b>C-O-C number</b>	: 20220325043559-ALS-13	<b>Issue Date</b>	: 01-Apr-2022
<b>Sampler</b>	: Luke D - EP Risk & Tina B Agon		
<b>Site</b>	: 20220325043559-ALS-13		
<b>Quote number</b>	: EN/150/19 -WGTP -Bulk Sample Quote		
<b>No. of samples received</b>	: 18		
<b>No. of samples analysed</b>	: 18		



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. 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	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Eric Chau	Metals Team Leader	Melbourne Inorganics, Springvale, VIC
Jarvis Nheu	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
Nikki Stepniewski	Senior Inorganic Instrument 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.

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 sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4257736)</b>									
EM2205308-002	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	7	7	0.0	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	10	8	32.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	11	9	18.6	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	12	37.9	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	33	28	17.8	No Limit		
EM2205308-018	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	15	18	13.2	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	12	13	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	21	24	11.7	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	8	8	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	44	45	0.0	No Limit		
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4257739)</b>									



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4257739) - continued</b>									
EM2205361-008	SX_OB_20220324_20_13_ SS_Primary_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	101	95	6.5	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	190	176	8.2	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	36	34	5.8	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	61	61	0.0	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	102	100	1.8	0% - 20%		
EM2205366-015	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	24	23	0.0	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	3	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	5	6	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	5	5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.0	No Limit		
<b>EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4259356)</b>									
EM2205241-002	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.5	7.6	0.0	0% - 20%
EM2205361-005	SX_OB_20220324_12_18_ SS_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.7	0.0	0% - 20%
<b>EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4258300)</b>									
EM2205308-017	Anonymous	EA055: Moisture Content	----	0.1	%	15.5	16.0	2.6	0% - 20%
EM2205324-004	Anonymous	EA055: Moisture Content	----	0.1	%	15.1	15.2	0.9	0% - 50%
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4257737)</b>									
EM2205308-002	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2205308-018	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.1	<0.1	0.0	No Limit
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4257738)</b>									
EM2205361-008	SX_OB_20220324_20_13_ SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2205366-015	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4256974)</b>									
EM2205241-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4256974) - continued</b>									
EM2205324-004	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
<b>EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4258138)</b>									
EM2205308-014	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2205242-016	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
<b>EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4258140)</b>									
EM2205361-008	SX_OB_20220324_20_13_ SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2205385-004	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
<b>EK040T: Fluoride Total (QC Lot: 4256970)</b>									
EM2205308-014	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	120	130	0.0	No Limit
EM2205361-007	SX_OB_20220324_16_27_ SS_Triplicate_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	540	480	10.7	No Limit
<b>EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4256830)</b>									
EM2205241-002	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2205361-009	SX_OB_20220325_00_08_ SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4252249)</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Styrene	106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: ortho-Xylene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit			
<b>EP074H: Naphthalene (QC Lot: 4252249)</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
<b>EP074I: Volatile Halogenated Compounds (QC Lot: 4252249)</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP074I: Volatile Halogenated Compounds (QC Lot: 4252249) - continued</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.50	<0.50	0.0	No Limit
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.5	<0.5	0.0	No Limit		
<b>EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4256828)</b>									
EM2205241-002	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EM2205361-009	SX_OB_20220325_00_08_ SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<1.0	<1.0	0.0	No Limit
<b>EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4256828)</b>									
EM2205241-002	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit





Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4256828) - continued</b>									
EM2205241-002	Anonymous	EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<5	<5	0.0	No Limit
EM2205361-009	SX_OB_20220325_00_08_ SS_Primary_ALS	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit		
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4256828)</b>									
EM2205241-002	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	1.7	1.2	35.6	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	0.6	0.5	23.9	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	7.1	4.5	45.3	0% - 50%
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	6.8	4.3	45.6	0% - 50%
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	3.8	2.4	45.1	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	2.9	1.8	43.3	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	3.3	2.1	44.7	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	1.2	0.8	38.5	No Limit
		EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	1.1	0.8	35.6	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	5.5	3.5	45.3	No Limit
		EM2205361-009	SX_OB_20220325_00_08_ SS_Primary_ALS	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5
EP075-EM: Acenaphthene	83-32-9			0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075-EM: Acenaphthylene	208-96-8			0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075-EM: Fluorene	86-73-7			0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075-EM: Phenanthrene	85-01-8			0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075-EM: Anthracene	120-12-7			0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4256828) - continued</b>									
EM2205361-009	SX_OB_20220325_00_08_ SS_Primary_ALS	EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit
<b>EP075I: Organochlorine Pesticides (QC Lot: 4256828)</b>									
EM2205241-002	Anonymous	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EM2205361-009	SX_OB_20220325_00_08_ SS_Primary_ALS	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP075J: Organochlorine Pesticides (QC Lot: 4256828) - continued</b>									
EM2205361-009	SX_OB_20220325_00_08_ SS_Primary_ALS	EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4252249)</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4256829)</b>									
EM2205241-002	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	140	29.8	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	140	94.7	No Limit
EM2205361-009	SX_OB_20220325_00_08_ SS_Primary_ALS	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4252249)</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<20	<20	0.0	No Limit
		EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<20	<20	0.0	No Limit
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4256829)</b>									
EM2205241-002	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	140	200	33.5	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	140	200	35.3	No Limit
EM2205361-009	SX_OB_20220325_00_08_ SS_Primary_ALS	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4259525)</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EM2205361-010	SX_OB_20220325_04_18_ SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4259525)</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EM2205361-010	SX_OB_20220325_04_18_ SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<5 µg/kg	<0.005	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<5 µg/kg	<0.005	0.0	No Limit		
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4259525)</b>									



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4259525) - continued</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EM2205361-010	SX_OB_20220325_04_18_ SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4259525)</b>									
EM2205361-001	SX_OB_20220324_08_07_ SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EM2205361-010	SX_OB_20220325_04_18_ SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4259525) - continued</b>									
EM2205361-010	SX_OB_20220325_04_18_SS_Primary_ALS	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
<b>EP231P: PFAS Sums (QC Lot: 4259525)</b>									
EM2205361-001	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: Sum of PFAS	----	0.0002	mg/kg	<50.0 µg/kg	<0.0500	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
EM2205361-010	SX_OB_20220325_04_18_SS_Primary_ALS	EP231X: Sum of PFAS	----	0.0002	mg/kg	<50.0 µg/kg	<0.0500	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
<b>Sub-Matrix: WATER</b>									
Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4258317)</b>									
EM2205510-001	Anonymous	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	1.82	1.96	7.5	0% - 20%
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	2.05	2.09	1.9	0% - 20%
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.31	0.34	8.5	0% - 50%
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.29	0.31	6.8	0% - 50%
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.16	0.09	53.3	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4260789)</b>									
EM2205361-002	SX_OB_20220324_08_11_SS_Duplicate_ALS	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2205464-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit





Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4260789) - continued</b>									
EM2205464-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4260790)</b>									
EM2205361-012	SX OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4258317)</b>									
EM2205510-001	Anonymous	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.46	0.47	2.9	0% - 20%
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.35	0.38	10.0	0% - 50%
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	1.16	1.06	9.0	0% - 20%
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.30	0.32	6.4	0% - 50%
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.17	<0.10	53.3	No Limit
		<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4260789)</b>							
EM2205361-002	SX OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
		EM2205464-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3			0.02	µg/L	<0.02	<0.02	0.0	No Limit





Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4260789) - continued</b>									
EM2205464-001	Anonymous	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit		
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4260790)</b>									
EM2205361-012	SX_OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit		
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4258317)</b>									
EM2205510-001	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4260789)</b>									
EM2205361-002	SX_OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4260789) - continued</b>									
EM2205361-002	SX_OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2205464-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4260790)</b>									
EM2205361-012	SX_OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4258317)</b>									



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4258317) - continued</b>									
EM2205510-001	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	0.71	0.74	3.2	0% - 50%
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4260789)</b>									
EM2205361-002	SX_OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2205464-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4260790)</b>									
EM2205361-012	SX_OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
<b>EP231P: PFAS Sums (QC Lot: 4258317)</b>									
EM2205510-001	Anonymous	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	7.81	7.79	0.3	0% - 20%
		EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	3.87	4.05	4.5	0% - 20%
		EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	7.33	7.36	0.4	0% - 20%
<b>EP231P: PFAS Sums (QC Lot: 4260789)</b>									



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231P: PFAS Sums (QC Lot: 4260789) - continued</b>									
EM2205361-002	SX_OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit
EM2205464-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
<b>EP231P: PFAS Sums (QC Lot: 4260790)</b>									
EM2205361-012	SX_OB_20220324_08_11_ SS_Duplicate_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit



## Method Blank (MB) and Laboratory Control Sample (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 Sample (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: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4257736)</b>									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	83.6	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	53.2	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	90.1	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	80.0	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	78.6	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	86.2	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	84.3	70.0	130	
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----	
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	74.0	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	90.9	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	72.9	70.0	130	
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4257739)</b>									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	94.0	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	60.4	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	102	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	91.9	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	87.2	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	87.4	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	96.9	70.0	130	
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----	
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	78.5	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	99.5	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	77.3	70.0	130	
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4258626)</b>									
EN60-DIa-P: Final pH	----	0.1	pH Unit	6.7	----	----	----	----	
<b>EA001: pH in soil using 0.01M CaCl extract (QCLot: 4259356)</b>									
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	101	98.8	101	
				----	7 pH Unit	101	99.3	101	
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4257737)</b>									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	93.8	70.0	130	
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4257738)</b>									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	89.8	70.0	130	
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4256974)</b>									
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	74.9	70.0	130	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)	Acceptable Limits (%)	
					Concentration	LCS	Low	High
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4258138)</b>								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	81.1	70.0	130
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4258140)</b>								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	84.9	70.0	130
<b>EK040T: Fluoride Total (QCLot: 4256970)</b>								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	108	75.2	110
<b>EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4256830)</b>								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	124	67.4	136
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4252249)</b>								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	90.6	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	88.8	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	89.8	66.6	115
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	88.0	65.2	112
	106-42-3							
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	87.5	69.4	111
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	87.6	68.4	110
<b>EP074H: Naphthalene (QCLot: 4252249)</b>								
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	95.4	72.3	114
<b>EP074I: Volatile Halogenated Compounds (QCLot: 4252249)</b>								
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	88.0	47.0	138
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	93.0	57.6	125
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	90.5	72.3	115
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	92.4	60.5	122
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	90.2	70.3	112
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	94.2	66.6	115
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	93.1	64.4	122
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	92.8	58.4	127
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	97.0	72.9	114
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	91.9	64.7	115
EP074-UT: 1,1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	94.2	72.6	116
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	91.4	60.0	119
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	91.8	71.8	116
EP074-UT: 1,1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	93.6	66.1	116
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	89.2	39.8	128
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	93.1	70.3	113
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	94.4	62.6	113
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	92.5	70.8	110
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	94.4	48.4	120
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4256828)</b>								





Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4256828) - continued</b>									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	93.5	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	89.3	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	89.2	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	87.0	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	91.7	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	89.3	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	90.2	69.4	126	
EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/5 8-90-2	0.05	mg/kg	<0.05	4 mg/kg	94.3	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	83.2	54.4	135	
<b>EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4256828)</b>									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	96.7	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	93.3	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	88.7	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	87.6	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	90.3	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	94.7	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	84.3	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	81.3	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	83.2	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	74.2	34.5	137	
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4256828)</b>									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	90.8	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	88.8	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	89.3	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	93.8	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	89.1	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	89.1	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	86.9	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	87.7	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	96.6	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	97.0	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	88.4	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	87.8	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	88.1	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	88.6	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	87.4	71.3	134	
<b>EP075I: Organochlorine Pesticides (QCLot: 4256828)</b>									





Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP075I: Organochlorine Pesticides (QCLot: 4256828) - continued</b>									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	88.4	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	88.4	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	89.0	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	90.2	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	93.4	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	91.3	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	93.9	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	92.4	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	88.0	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	88.8	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	91.1	69.4	134	
EP075-EM: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	87.9	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	88.7	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	94.0	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	68.9	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	90.4	71.4	135	
EP075-EM: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	91.4	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	93.5	70.2	135	
EP075-EM: 4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	91.4	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	93.2	63.6	135	
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4252249)</b>									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	95.0	61.1	119	
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4256829)</b>									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	760 mg/kg	93.9	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	3270 mg/kg	93.1	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1550 mg/kg	92.6	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	92.8	70.0	130	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4252249)</b>									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	92.5	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4256829)</b>									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1110 mg/kg	97.3	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	4180 mg/kg	92.3	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	290 mg/kg	109	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	94.3	70.0	130	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4259525)</b>									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	104	72.0	128	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4259525) - continued</b>									
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	93.8	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	80.8	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	109	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	99.8	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	94.2	59.0	134	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4259525)</b>									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	90.6	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.5	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.6	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.3	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.3	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.6	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.5	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.0	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.5	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	77.6	69.0	133	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4259525)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	76.8	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	80.5	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	88.7	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.4	61.0	139	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4259525)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	96.5	62.0	145	
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00119 mg/kg	92.6	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	112	65.0	137	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00121 mg/kg	117	70.0	130	
<b>EP231P: PFAS Sums (QCLot: 4259525)</b>									
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----	
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----	
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----	



Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)
Method: Compound	CAS Number	LOR	Unit	Result		LCS	Low	High
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4258317)</b>								
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	95.2	72.0	130
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	96.1	71.0	127
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	96.6	68.0	131
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	99.9	69.0	134
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	102	65.0	140
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	108	53.0	142
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4260789)</b>								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	89.6	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	103	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	104	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	99.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	87.1	53.0	142
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4260790)</b>								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	107	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	93.0	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	95.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	96.3	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	94.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	107	53.0	142
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4258317)</b>								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	101	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	102	72.0	129
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	93.0	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	96.3	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	96.8	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	94.9	69.0	130
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	90.2	71.0	129
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	99.9	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	101	72.0	134
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	97.3	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	98.6	71.0	132
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4260789)</b>								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	92.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	97.3	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.6	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	97.4	71.0	133



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)	Acceptable Limits (%)	
					Concentration	LCS	Low	High
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4260789) - continued</b>								
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	101	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	102	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.5	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	99.5	71.0	132
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4260790)</b>								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	94.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	92.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.5	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	100	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	101	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	83.4	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	105	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	92.4	71.0	132
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4258317)</b>								
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	91.7	67.0	137
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	99.2	68.0	141
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	102	70.0	130
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	96.6	70.0	130
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	103	70.0	130
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	94.3	65.0	136
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	89.2	61.0	135
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4260789)</b>								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	113	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	106	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	90.9	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	107	70.0	130



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4260789) - continued</b>									
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	119	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	106	61.0	135	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4260790)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	111	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	118	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	86.7	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	90.3	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	114	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	122	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	101	61.0	135	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4258317)</b>									
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	100	63.0	143	
EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.476 µg/L	110	64.0	140	
EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.48 µg/L	102	67.0	138	
EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.483 µg/L	88.6	70.0	130	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4260789)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	101	63.0	143	
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	97.7	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	115	67.0	138	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	90.9	70.0	130	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4260790)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	98.0	63.0	143	
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	98.2	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	120	67.0	138	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	124	70.0	130	
<b>EP231P: PFAS Sums (QCLot: 4258317)</b>									
EP231X-INJ: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----	
EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----	
EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----	
<b>EP231P: PFAS Sums (QCLot: 4260789)</b>									
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----	





Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
<b>EP231P: PFAS Sums (QCLot: 4260789) - continued</b>								
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
<b>EP231P: PFAS Sums (QCLot: 4260790)</b>								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

### 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	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%) MS	Acceptable Limits (%)	
				Low	High		
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4257736)</b>							
EM2205308-004	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	85.1	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	82.1	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	79.6	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	96.5	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	81.0	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	79.3	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	98.0	80.0	120
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4257739)</b>							
EM2205361-009	SX_OB_20220325_00_08_SS_Primary_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	79.9	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	96.6	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	84.3	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	98.6	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	96.3	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	94.0	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	92.0	80.0	120
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4257737)</b>							
EM2205308-004	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	100	76.0	116
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4257738)</b>							
EM2205361-009	SX_OB_20220325_00_08_SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	108	76.0	116
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4256974)</b>							



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4256974) - continued</b>							
EM2205241-017	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	76.3	58.0	114
EM2205241-017	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	90.8	58.0	114
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4258138)</b>							
EM2205241-017	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	94.6	70.0	130
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4258140)</b>							
EM2205361-009	SX_OB_20220325_00_08_SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	20 mg/kg	92.9	70.0	130
<b>EK040T: Fluoride Total (QCLot: 4256970)</b>							
EM2205308-021	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	97.9	70.0	130
<b>EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4256830)</b>							
EM2205353-011	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	124	59.6	152
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4252249)</b>							
EM2205361-002	SX_OB_20220324_08_11_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	80.1	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	89.8	55.1	124
<b>EP074I: Volatile Halogenated Compounds (QCLot: 4252249)</b>							
EM2205361-002	SX_OB_20220324_08_11_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	44.1	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	77.1	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	84.5	55.5	122
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4256828)</b>							
EM2205241-017	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	100	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	85.5	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	61.4	10.0	144
<b>EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4256828)</b>							
EM2205241-017	Anonymous	EP075-EM: Phenol	108-95-2	3 mg/kg	88.9	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	77.8	34.2	129
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4256828)</b>							
EM2205241-017	Anonymous	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	68.6	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	80.3	37.8	152
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4252249)</b>							
EM2205361-002	SX_OB_20220324_08_11_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	80.5	42.3	111
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4256829)</b>							
EM2205353-007	Anonymous	EP071-EM: C10 - C14 Fraction	----	760 mg/kg	96.0	71.3	126
		EP071-EM: C15 - C28 Fraction	----	3270 mg/kg	95.0	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1550 mg/kg	94.0	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5580 mg/kg	95.3	70.0	130
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4252249)</b>							





Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4252249) - continued</b>							
EM2205361-002	SX_OB_20220324_08_11_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	78.8	39.9	109
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4256829)</b>							
EM2205353-007	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1110 mg/kg	99.3	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	4180 mg/kg	94.0	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	290 mg/kg	109	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5580 mg/kg	96.4	70.0	130
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4259525)</b>							
EM2205361-002	SX_OB_20220324_08_11_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	90.3	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	84.9	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	97.1	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	105	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	101	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	105	59.0	134
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4259525)</b>							
EM2205361-002	SX_OB_20220324_08_11_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	88.6	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	94.7	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	90.3	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	94.5	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	94.9	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	93.2	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	94.9	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	77.2	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	84.2	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.00125 mg/kg	92.0	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	82.4	69.0	133
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4259525)</b>							
EM2205361-002	SX_OB_20220324_08_11_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	107	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	92.0	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	79.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	80.3	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	109	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	96.1	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	89.0	61.0	139



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4259525)</b>							
EM2205361-002	SX_OB_20220324_08_11_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	88.5	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	94.4	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	115	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	116	70.0	130
<b>Sub-Matrix: WATER</b>							
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4258317)</b>							
EM2205510-002	Anonymous	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	# 63.6	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	# 59.8	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	# Not Determined	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	90.7	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	# Not Determined	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	106	53.0	142
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4260789)</b>							
EM2205361-001	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	95.7	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	96.1	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	101	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	105	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	87.9	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	82.1	53.0	142
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4260790)</b>							
EM2205361-011	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	102	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	90.2	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	94.2	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	99.8	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	98.9	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	105	53.0	142
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4258317)</b>							
EM2205510-002	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	109	73.0	129
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	73.4	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	# Not Determined	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	# 67.8	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	# 59.3	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	95.4	69.0	130



Sub-Matrix: WATER

				Matrix Spike (MS) Report					
				Spike	SpikeRecovery(%)	Acceptable Limits (%)			
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High		
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4258317) - continued</b>									
EM2205510-002	Anonymous	EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	92.7	71.0	129		
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	102	69.0	133		
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	108	72.0	134		
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	92.6	65.0	144		
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	106	71.0	132		
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4260789)</b>									
EM2205361-001	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	88.8	73.0	129		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	106	72.0	129		
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129		
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	96.2	72.0	130		
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	102	71.0	133		
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	106	69.0	130		
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	102	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	93.8	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	95.8	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	85.5	65.0	144		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	102	71.0	132		
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4260790)</b>									
EM2205361-011	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	93.9	73.0	129		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	96.0	72.0	129		
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	93.0	72.0	129		
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	95.3	72.0	130		
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	97.4	71.0	133		
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	99.1	69.0	130		
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	82.5	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	87.5	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	96.1	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	110	65.0	144		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	82.1	71.0	132		
		<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4258317)</b>							
		EM2205510-002	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	101	67.0	137
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8			1.25 µg/L	110	68.0	141		
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2			1.25 µg/L	107	70.0	130		
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7			1.25 µg/L	101	70.0	130		
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2			1.25 µg/L	104	70.0	130		



Sub-Matrix: WATER

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
				Low	High		
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4258317) - continued</b>							
EM2205510-002	Anonymous	EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	110	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	111	61.0	135
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4260789)</b>							
EM2205361-001	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	107	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	123	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	120	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	95.6	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	115	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	96.0	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	104	61.0	135
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4260790)</b>							
EM2205361-011	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	108	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	111	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	96.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	92.2	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	113	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	114	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	107	61.0	135
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4258317)</b>							
EM2205510-002	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	109	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	# 54.3	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	114	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	105	70.0	130
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4260789)</b>							
EM2205361-001	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	98.9	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	106	64.0	140



Sub-Matrix: **WATER**

				<i>Matrix Spike (MS) Report</i>			
				<i>Spike</i>	<i>SpikeRecovery(%)</i>	<i>Acceptable Limits (%)</i>	
<i>Laboratory sample ID</i>	<i>Sample ID</i>	<i>Method: Compound</i>	<i>CAS Number</i>	<i>Concentration</i>	<i>MS</i>	<i>Low</i>	<i>High</i>
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4260789) - continued</b>							
EM2205361-001	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	102	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	74.8	70.0	130
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4260790)</b>							
EM2205361-011	SX_OB_20220324_08_07_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	96.6	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	103	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	110	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	98.3	70.0	130

## QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2205361	Page	: 1 of 13
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Telephone	: +6138549 9600
Project	: JC0927	Date Samples Received	: 25-Mar-2022
Site	: 20220325043559-ALS-13	Issue Date	: 01-Apr-2022
Sampler	: Luke D - EP Risk & Tina B Agon	No. of samples received	: 18
Order number	: ----	No. of samples analysed	: 18

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: WATER

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
<b>Matrix Spike (MS) Recoveries</b>							
EP231A: Perfluoroalkyl Sulfonic Acids	EM2205510--002	Anonymous	Perfluorobutane sulfonic acid (PFBS)	375-73-5	63.6 %	72.0-130%	Recovery less than lower data quality objective
EP231A: Perfluoroalkyl Sulfonic Acids	EM2205510--002	Anonymous	Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	59.8 %	71.0-127%	Recovery less than lower data quality objective
EP231B: Perfluoroalkyl Carboxylic Acids	EM2205510--002	Anonymous	Perfluoroheptanoic acid (PFHpA)	375-85-9	67.8 %	72.0-130%	Recovery less than lower data quality objective
EP231B: Perfluoroalkyl Carboxylic Acids	EM2205510--002	Anonymous	Perfluorooctanoic acid (PFOA)	335-67-1	59.3 %	71.0-133%	Recovery less than lower data quality objective
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2205510--002	Anonymous	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	54.3 %	64.0-140%	Recovery less than lower data quality objective

### 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	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
<b>Soil Glass Jar - Unpreserved (EA001)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	31-Mar-2022	31-Mar-2022	✔	31-Mar-2022	01-Apr-2022	✔
<b>Soil Glass Jar - Unpreserved (EA001)</b>								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	31-Mar-2022	01-Apr-2022	✔	31-Mar-2022	01-Apr-2022	✔
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
<b>Soil Glass Jar - Unpreserved (EA055)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	----	----	----	30-Mar-2022	07-Apr-2022	✔
<b>Soil Glass Jar - Unpreserved (EA055)</b>								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	----	----	----	30-Mar-2022	08-Apr-2022	✔





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	
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
<b>Soil Glass Jar - Unpreserved (EG005T)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	31-Mar-2022	20-Sep-2022	✓	31-Mar-2022	20-Sep-2022	✓
<b>Soil Glass Jar - Unpreserved (EG005T)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	31-Mar-2022	21-Sep-2022	✓	31-Mar-2022	21-Sep-2022	✓
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
<b>Soil Glass Jar - Unpreserved (EG035T)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	31-Mar-2022	21-Apr-2022	✓	31-Mar-2022	21-Apr-2022	✓
<b>Soil Glass Jar - Unpreserved (EG035T)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	31-Mar-2022	22-Apr-2022	✓	31-Mar-2022	22-Apr-2022	✓
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
<b>Soil Glass Jar - Unpreserved (EG048G)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	21-Apr-2022	✓	31-Mar-2022	06-Apr-2022	✓
<b>Soil Glass Jar - Unpreserved (EG048G)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	22-Apr-2022	✓	31-Mar-2022	06-Apr-2022	✓
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
<b>Soil Glass Jar - Unpreserved (EK026SF)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	31-Mar-2022	13-Apr-2022	✓
<b>Soil Glass Jar - Unpreserved (EK026SF)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	08-Apr-2022	✓	31-Mar-2022	13-Apr-2022	✓
<b>EK040T: Fluoride Total</b>								
<b>Soil Glass Jar - Unpreserved (EK040T)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	21-Apr-2022	✓	01-Apr-2022	21-Apr-2022	✓
<b>Soil Glass Jar - Unpreserved (EK040T)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	22-Apr-2022	✓	01-Apr-2022	22-Apr-2022	✓
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	----	----	----
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)</b>								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	21-Sep-2022	✓	----	----	----



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	
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	----	----	----
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)</b>								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	21-Sep-2022	✓	----	----	----
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
<b>Soil Glass Jar - Unpreserved (EP066-EM)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP066-EM)</b>								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	08-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	31-Mar-2022	✓	30-Mar-2022	31-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	01-Apr-2022	✓	30-Mar-2022	01-Apr-2022	✓
<b>EP074H: Naphthalene</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	31-Mar-2022	✓	30-Mar-2022	31-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	01-Apr-2022	✓	30-Mar-2022	01-Apr-2022	✓
<b>EP074I: Volatile Halogenated Compounds</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	31-Mar-2022	✓	30-Mar-2022	31-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	01-Apr-2022	✓	30-Mar-2022	01-Apr-2022	✓
<b>EP075A: Phenolic Compounds (Halogenated)</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b>								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	08-Apr-2022	✓	30-Mar-2022	09-May-2022	✓



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	
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	08-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	08-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP075I: Organochlorine Pesticides</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	07-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	08-Apr-2022	✓	30-Mar-2022	09-May-2022	✓
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	31-Mar-2022	✓	30-Mar-2022	31-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	01-Apr-2022	✓	30-Mar-2022	01-Apr-2022	✓
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	30-Mar-2022	31-Mar-2022	✓	30-Mar-2022	31-Mar-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	30-Mar-2022	01-Apr-2022	✓	30-Mar-2022	01-Apr-2022	✓
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	31-Mar-2022	20-Sep-2022	✓	31-Mar-2022	10-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	31-Mar-2022	21-Sep-2022	✓	31-Mar-2022	10-May-2022	✓



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	
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	31-Mar-2022	20-Sep-2022	✓	31-Mar-2022	10-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	31-Mar-2022	21-Sep-2022	✓	31-Mar-2022	10-May-2022	✓
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	31-Mar-2022	20-Sep-2022	✓	31-Mar-2022	10-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	31-Mar-2022	21-Sep-2022	✓	31-Mar-2022	10-May-2022	✓
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	31-Mar-2022	20-Sep-2022	✓	31-Mar-2022	10-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	31-Mar-2022	21-Sep-2022	✓	31-Mar-2022	10-May-2022	✓
<b>EP231P: PFAS Sums</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220324_08_07_SS_Primary_ALS, SX_OB_20220324_12_18_SS_Primary_ALS, SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS, SX_OB_20220324_16_35_SS_Primary_ALS, SX_OB_20220324_20_13_SS_Primary_ALS	24-Mar-2022	31-Mar-2022	20-Sep-2022	✓	31-Mar-2022	10-May-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS	25-Mar-2022	31-Mar-2022	21-Sep-2022	✓	31-Mar-2022	10-May-2022	✓

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



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		
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>									
<b>HDPE (no PTFE) (EP231X-INJ)</b>									
SX_OB_20220324_08_36_SB_Blank_ALS,	SX_OB_20220324_08_33_SR_Rinsate_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	20-Sep-2022	✓	
<b>HDPE (no PTFE) (EP231X)</b>									
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,	30-Mar-2022	31-Mar-2022	26-Sep-2022	✓	31-Mar-2022	26-Sep-2022	✓	
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,								
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS,								
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,								
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,								
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS								
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>									
<b>HDPE (no PTFE) (EP231X-INJ)</b>									
SX_OB_20220324_08_36_SB_Blank_ALS,	SX_OB_20220324_08_33_SR_Rinsate_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	20-Sep-2022	✓	
<b>HDPE (no PTFE) (EP231X)</b>									
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,	30-Mar-2022	31-Mar-2022	26-Sep-2022	✓	31-Mar-2022	26-Sep-2022	✓	
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,								
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS,								
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,								
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,								
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS								
<b>EP231C: Perfluoroalkyl Sulfonamides</b>									
<b>HDPE (no PTFE) (EP231X-INJ)</b>									
SX_OB_20220324_08_36_SB_Blank_ALS,	SX_OB_20220324_08_33_SR_Rinsate_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	20-Sep-2022	✓	
<b>HDPE (no PTFE) (EP231X)</b>									
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,	30-Mar-2022	31-Mar-2022	26-Sep-2022	✓	31-Mar-2022	26-Sep-2022	✓	
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,								
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS,								
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,								
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,								
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,								
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS								



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	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
<b>HDPE (no PTFE) (EP231X-INJ)</b>								
SX_OB_20220324_08_36_SB_Blank_ALS,	SX_OB_20220324_08_33_SR_Rinsate_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	20-Sep-2022	✓
<b>HDPE (no PTFE) (EP231X)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,	30-Mar-2022	31-Mar-2022	26-Sep-2022	✓	31-Mar-2022	26-Sep-2022	✓
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,							
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,							
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS,							
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,							
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,							
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,							
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS							
<b>EP231P: PFAS Sums</b>								
<b>HDPE (no PTFE) (EP231X-INJ)</b>								
SX_OB_20220324_08_36_SB_Blank_ALS,	SX_OB_20220324_08_33_SR_Rinsate_ALS	24-Mar-2022	30-Mar-2022	20-Sep-2022	✓	30-Mar-2022	20-Sep-2022	✓
<b>HDPE (no PTFE) (EP231X)</b>								
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,	30-Mar-2022	31-Mar-2022	26-Sep-2022	✓	31-Mar-2022	26-Sep-2022	✓
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,							
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,							
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS,							
SX_OB_20220324_08_07_SS_Primary_ALS,	SX_OB_20220324_08_11_SS_Duplicate_ALS,							
SX_OB_20220324_12_18_SS_Primary_ALS,	SX_OB_20220324_16_35_SS_Primary_ALS,							
SX_OB_20220324_16_27_SS_Triplicate_ALS,	SX_OB_20220324_20_13_SS_Primary_ALS,							
SX_OB_20220325_00_08_SS_Primary_ALS,	SX_OB_20220325_04_18_SS_Primary_ALS							





## 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	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Laboratory Control Samples (LCS)</b>							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Method Blanks (MB)</b>							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard





Matrix: **SOIL** Evaluation: \* = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Matrix Spikes (MS)</b>							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER** Evaluation: \* = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	20	15.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Laboratory Control Samples (LCS)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Method Blanks (MB)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Matrix Spikes (MS)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	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
pH in soil using a 0.01M CaCl <sub>2</sub> extract	EA001	SOIL	In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl <sub>2</sub> and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
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 Schedule B(3).
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 Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl <sub>2</sub> ) (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 SnCl <sub>2</sub> which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	In house: Referenced to USEPA SW846, Method 3060. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3)
Total Cyanide by Segmented Flow Analyser	EK026SF	SOIL	In house: Referenced to APHA 4500-CN C / ASTM D7511 / ISO 14403. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM Schedule B(3).
Total Fluoride	EK040T	SOIL	(In-house) Total fluoride is determined by ion specific electrode (ISE) in a solution obtained after a Sodium Carbonate / Potassium Carbonate fusion dissolution.
PCB - VIC EPA 448.3 Screen	EP066-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071-EM	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.
Volatile Organic Compounds - Ultra-trace	EP074-UT	SOIL	In house: Referenced to USEPA SW 846 - 8260 Extracts are analysed by Purge and Trap, Capillary GC/MS in partial SIM/Scan mode. Quantification is by comparison against an established multi-point calibration curves. This method is compliant with NEPM Schedule B(3).



Analytical Methods	Method	Matrix	Method Descriptions
Volatile Organic Compounds - Ultra-trace - Summations	EP074-UT-SUM	SOIL	Summation of MAHs and VHCs
Semivolatile Organic Compounds - Waste Classification	EP075-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
SVOC - Waste Classification (Sums)	EP075-EM-SUM	SOIL	Summations for EP075 (EM variation)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	WATER	In house: Direct injection analysis of fresh waters after dilution (1:1) with mobile phase solvent. Analysis by LC-Electrospray-MS-MS, Negative Mode using MRM. Where commercially available, isotopically labelled analogues of the target analytes are used as internal standards for quantification. Where a labelled analogue is not commercially available, the internal standard with similar chemistry and the closest retention time to the target is used for quantification. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers.

Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
pH in soil using a 0.01M CaCl <sub>2</sub> extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl <sub>2</sub> and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
Alkaline digestion for Hexavalent Chromium	EG048PR	SOIL	In house: Referenced to USEPA SW846, Method 3060A.
Total Fluoride	EK040T-PR	SOIL	In house: Samples are fused with Sodium Carbonate / Potassium Carbonate flux.
ASLP for Non & Semivolatile Analytes - Plastic Leaching Vessel	EN60a-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates.
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates
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 Schedule B(3).
Methanolic Extraction of Soils - Ultra-trace.	ORG16-UT	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 - VIC EPA Screen	ORG17-EM	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na <sub>2</sub> SO <sub>4</sub> 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.



<i>Preparation Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
QuEChERS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	SOIL	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.
Preparation for PFAS in water.	EP231-PR	WATER	Method presumes direct injection without workup. Preparation includes addition of internal standard and surrogate, and filtration prior to analysis.