

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	D01.0220220617120824_01	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	5
Approx. Source Tunnel Chainage From	891	Approx. Source Tunnel Chainage To	912
Approx. Rings From	374	Approx. Rings To	383
Foaming Agent	TamSoil 287AC	Water Source	Potable (City West Water)
For BSF Holding Bay No:	D01.02	Start of Filling From (Time / date)	07/06/2022
Tonnes Put in Holding Bay No:	7723.45	Finish of Filling (Time / Date)	08/06/2022
Classified Volume (LCM)	4000	Spoil Classification Decision	NPIW Containment
Sampling Ratio (samples per LCM)	1 : 210.53	Approx. Bank Cubic Meters (BCM)	4013.82

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_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS	SX_OB_20220607_08_37_SS_Triplicate_EUF
SX_OB_20220608_04_02_SS_Primary_EUF	SX_OB_20220607_16_31_SS_Duplicate_EUF	SX_OB_20220607_08_36_SS_Duplicate_ALS
SX_OB_20220608_01_59_SS_Triplicate_EUF	SX_OB_20220607_16_31_SS_Primary_EUF	SX_OB_20220607_08_35_SS_Primary_ALS
SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_04_14_SS_Primary_EUF
SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_04_01_SS_Primary_ALS
SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220607_11_53_SS_Primary_EUF	
SX_OB_20220607_20_19_SS_Primary_EUF	SX_OB_20220607_08_39_SS_Primary_EUF	
Total Sample Numbers	19	Ratio Acceptable
Primary Sample Numbers	13	Yes
Classified Volume (LCM)	4000 m ³	
Volume: Sample Number Ratio (Samples per LCM)	1 : 210.53	

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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>	No
<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 <75% of the containment criteria?</p> <p>If the answer is Yes, go to C. If the answer is No, go to D.</p>	Yes
<p>C. If the answer to B is Yes, then was testing 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>	No
<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>	N/A
<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>	Yes, see section 4
<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>	No

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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

Need for IWRG 621.1 or 655.1 Testing	
A. Is Spoil in this Holding Bay from a Zone of Exception or Anomalous and required testing for IWRG 621.1?	No
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?	No
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?	Yes
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)?	No
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?	No
Outcome from IWRG 621.1 testing (if needed)	
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.	No
Outcome from IWRG 655.1 testing (if needed)	
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	NA
Outcome from PFAS Testing	
H. Do test results for PFAS (see Table 3.4-4 below) permit NPIW Containment as a spoil Classification Outcome?	Yes
<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>	
Notes:	
<ol style="list-style-type: none"> 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	19*	13	1 : 210.53	19	40	49.16	51.91	67	20	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Nickel	mg/kg	5	19*	13	1 : 210.53	19	73	87.37	91.2	110	60	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)

“*” - 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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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	19*	13	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFOA	ug/kg	5	19*	13	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFHxS	ug/kg	5	19*	13	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
ASLP (pH= 5) PFAS Concentrations											
PFOA	ug/L	0.01	19*	13	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	19*	13	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment
ASLP (pH= 7) PFAS Concentrations											
PFOA	ug/L	0.01	19*	13	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	19*	13	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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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"> 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"> a. Arsenic – <i>Golder (2017b) – Technical Report B, Appendix E section 6.2 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"> 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. <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> b. Nickel – <i>Golder (2017b) – Technical Report B, Appendix E section 6.3 Nickel enrichment within the upper Older Volcanics</i> found that <ol style="list-style-type: none"> 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). ii. The reported mean nickel concentrations within the Older Volcanics (Tvo) 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). iii. Enriched nickel concentrations corresponded with enriched cobalt (all units) and iron (except tertiary volcanics (Tvo2) soil) indicating that the nickel is likely associated with geochemical enrichment rather than added contamination.

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	<p style="text-align: center;">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.</p> <p style="text-align: center;">Golder therefore concluded that the nickel is likely associated with geochemical enrichment rather than added contamination.</p> <p style="text-align: center;">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.</p>
2.	Default testing regime was implemented for all samples collected for the spoil in this holding bay prior to implementation of the reduced sampling scope, as specified within the SAQP.
3.	Test result outcomes can lead to two classification possibilities; however, the classification decision follows the preference of the waste management hierarchy.
4.	Spoil is not from a “Zone of Exception”. Zone of exception applies a sampling ratio of only Primary Samples to LCM to categorise spoil 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.
5.	Loose Cubic metres (LCM) to mass (tonnes) conversion ratio used is 1 LCM:1.6 tonnes
6.	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.
7.	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.
8.	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.
9.	This report should be read in full.

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5. Attachments

ATTACHMENT A: TABULATED RESULTS

ATTACHMENT B: 95% UCL AVE CALCULATIONS

ATTACHMENT C: LABORATORY CERTIFICATES

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ATTACHMENT A: TABULATED RESULTS

	Metals							
	Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	2	1	5	5	1	5	0.1	5
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	2,000	400	20,000		2,000	6,000	300	4,000
EPA Victoria IWRG621 Category C Leached Upper Limits								
EPA Victoria IWRG621 Category C Upper Limits	500	100	5,000		500	1,500	75	1,000
EPA Victoria IWRG621 Fill Upper Limits	20	3	100		1	300	1	40

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
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS	EM2210681012	7/06/2022	EM2210681	ALSE-Melbourne	Normal		55	<1	42	74	<1.0	7	<0.1	<5
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS	EM2210681022	7/06/2022	EM2210681	ALSE-Melbourne	Normal									
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	M22-Jn0013288	7/06/2022	895177	Eurofins Environment ANZ	Normal		54	<1	44	100	<1	7.8	<0.1	<5
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	M22-Jn0013298	7/06/2022	895177	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	M22-Jn0013308	7/06/2022	895177	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	EM2210823001	7/06/2022	EM2210823	ALSE-Melbourne	Normal		44	<1	39	74	<1.0	6	<0.1	<5
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	EM2210823014	7/06/2022	EM2210823	ALSE-Melbourne	Normal									
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	EM2210823002	7/06/2022	EM2210823	ALSE-Melbourne	Field_D	EM2210823001	46	<1	37	70	<1.0	5	<0.1	<5
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	EM2210823015	7/06/2022	EM2210823	ALSE-Melbourne	Field_D	EM2210823014								
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	M22-Jn0016783	7/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823001	45	<1	42	85	<1	6.8	<0.1	<5
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	M22-Jn0016793	7/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823001								
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	M22-Jn0016801	7/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823014								
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	M22-Jn0016784	7/06/2022	895630	Eurofins Environment ANZ	Normal		43	<1	42	78	<1	7.1	<0.1	<5
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	M22-Jn0016794	7/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	M22-Jn0016802	7/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	M22-Jn0016785	7/06/2022	895630	Eurofins Environment ANZ	Normal		40	<1	36	64	<1	6.4	<0.1	<5
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	M22-Jn0016785	7/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	M22-Jn0016795	7/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	M22-Jn0016803	7/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS	EM2210823003	7/06/2022	EM2210823	ALSE-Melbourne	Normal		60	<1	47	72	<1.0	<5	<0.1	<5
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS	EM2210823016	7/06/2022	EM2210823	ALSE-Melbourne	Normal									
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS	EM2210823004	7/06/2022	EM2210823	ALSE-Melbourne	Normal		51	<1	32	51	<1.0	<5	<0.1	<5
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS	EM2210823017	7/06/2022	EM2210823	ALSE-Melbourne	Normal									
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	M22-Jn0016787	7/06/2022	895630	Eurofins Environment ANZ	Field_D	M22-Jn0016786	51	<1	41	65	<1	6.7	<0.1	<5
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	M22-Jn0016797	7/06/2022	895630	Eurofins Environment ANZ	Field_D	M22-Jn0016796								
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	M22-Jn0016805	7/06/2022	895630	Eurofins Environment ANZ	Field_D	M22-Jn0016804								
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	M22-Jn0016786	7/06/2022	895630	Eurofins Environment ANZ	Normal		45	<1	38	58	<1	6.4	<0.1	<5
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	M22-Jn0016796	7/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	M22-Jn0016804	7/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	EM2210823005	7/06/2022	EM2210823	ALSE-Melbourne	Interlab_D	M22-Jn0016786	47	<1	33	52	<1.0	<5	<0.1	<5
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	EM2210823018	7/06/2022	EM2210823	ALSE-Melbourne	Interlab_D	M22-Jn0016804								
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	M22-Jn0016790	7/06/2022	895630	Eurofins Environment ANZ	Normal		67	<1	53	94	<1	9.1	<0.1	<5
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	M22-Jn0016798	7/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	M22-Jn0016806	7/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS	EM2210823008	7/06/2022	EM2210823	ALSE-Melbourne	Normal		56	<1	37	52	<1.0	<5	<0.1	<5
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS	EM2210823019	7/06/2022	EM2210823	ALSE-Melbourne	Normal									
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	EM2210823009	8/06/2022	EM2210823	ALSE-Melbourne	Normal		42	<1	36	50	<1.0	<5	<0.1	<5
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	EM2210823020	8/06/2022	EM2210823	ALSE-Melbourne	Normal									
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	EM2210823010	8/06/2022	EM2210823	ALSE-Melbourne	Field_D	EM2210823009	42	<1	33	52	<1.0	<5	<0.1	<5
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	EM2210823021	8/06/2022	EM2210823	ALSE-Melbourne	Field_D	EM2210823020								
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	M22-Jn0016791	8/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823009	51	<1	45	86	<1	8.6	<0.1	<5
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	M22-Jn0016799	8/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823009								
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	M22-Jn0016807	8/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823020								
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	M22-Jn0016792	8/06/2022	895630	Eurofins Environment ANZ	Normal		49	<1	38	80	<1	7.6	<0.1	<5
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	M22-Jn0016800	8/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	M22-Jn0016808	8/06/2022	895630	Eurofins Environment ANZ	Normal									
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS	EM2210823013	8/06/2022	EM2210823	ALSE-Melbourne	Normal		46	<1	35	50	<1.0	<5	<0.1	<5
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS	EM2210823022	8/06/2022	EM2210823	ALSE-Melbourne	Normal									

	Nickel mg/kg	Selenium mg/kg	Silver mg/kg	Tin mg/kg	Zinc mg/kg	PAHs (Vic EPA List) mg/kg	Benzo(b+j+k)fluoranthene mg/kg	Acenaphthene mg/kg	Acenaphthylene mg/kg	Anthracene mg/kg	Benz(a)anthracene mg/kg	Benzo(a)pyrene TEQ calc (Zero) mg/kg	Benzo(a)pyrene TEQ (LOR) mg/kg	Benzo(a)pyrene TEQ calc (Half) mg/kg	Benzo(a)pyrene mg/kg	PAH				
																Benzo(b+j)fluoranthene mg/kg	Benzo(g,h,i)perylene mg/kg	Benzo(k)fluoranthene mg/kg	Chrysene mg/kg	Dibenz(a,h)anthracene mg/kg
EQL	5	5	2	10	5	0.5	1	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
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	12,000	200	720		140,000	400									20					
EPA Victoria IWRG621 Category C Leached Upper Limits																				
EPA Victoria IWRG621 Category C Upper Limits	3,000	50	180	500	35,000	100									5					
EPA Victoria IWRG621 Fill Upper Limits	60	10	10	50	200	20									1					

Location Code	Field ID	Nickel	Selenium	Silver	Tin	Zinc	PAHs (Vic EPA List)	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS	96	<5	<2	<10	58	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS																					
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	91	<5	<2	<10	63			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																					
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																					
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	95	<5	<2	<10	56	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																					
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	88	<5	<2	<10	53	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																					
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	100	<5	<2	<10	70			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																					
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																					
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	87	<5	<2	<10	64			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																					
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	82	<5	<2	<10	60			0	0	0	0	<0.5	1.2	0.6	<0.5	0	0	0	0	0	
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS	94	<5	<2	<10	62	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS																					
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS	78	<5	<2	<10	43	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS																					
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	88	<5	<2	<10	58			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																					
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																					
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	80	<5	<2	<10	59			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																					
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																					
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	76	<5	<2	<10	44	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																					
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	110	<5	<2	<10	74			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																					
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																					
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS	81	<5	<2	<10	43	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS																					
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	80	<5	<2	<10	46	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																					
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	73	<5	<2	<10	37	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																					
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	98	<5	<2	<10	63			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																					
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																					
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	85	<5	<2	<10	60			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																					
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																					
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS	78	<5	<2	<10	44	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS																					

	PAHs							BTEX						TRH						
	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	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)
	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	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.2	0.3	20	20	50	50	100	100	50
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							400	16												
EPA Victoria IWRG621 Category C Leached Upper Limits																				
EPA Victoria IWRG621 Category C Upper Limits							100	4												
EPA Victoria IWRG621 Fill Upper Limits							20	1												

Location Code	Field ID	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	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)
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS																				
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																				
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																				
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																				
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																				
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																				
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																				
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																				
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																				
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	0	0	0	0	0	0	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF				<0.5																
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																				
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS																				
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS																				
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS																				
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																				
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																				
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																				
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																				
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																				
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																				
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																				
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS																				
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																				
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																				
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																				
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																				
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																				
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																				
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS																				

	TPH					Organochlorine Pesticides														
	C6-C9	C10-C14	C15-C28	C29-C36	+C10-C36 (Sum of total)	Aldrin	Dieldrin	Aldrin + Dieldrin	DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	Chlordane	Chlordane (cis)
EQL	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
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold	20	20	50	50	50	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.03
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	2,600				40,000			4.8				50							16	
EPA Victoria IWRG621 Category C Leached Upper Limits																				
EPA Victoria IWRG621 Category C Upper Limits	650				10,000			1.2				50							4	
EPA Victoria IWRG621 Fill Upper Limits	100				1,000															

Location Code	Field ID	C6-C9	C10-C14	C15-C28	C29-C36	+C10-C36 (Sum of total)	Aldrin	Dieldrin	Aldrin + Dieldrin	DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	Chlordane	Chlordane (cis)	
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS																					
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																					
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																					
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																					
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																					
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																					
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																					
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																					
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	<20	<20	<50	<50	<50	0	0	<0.05	0	0	0	<0.05	0	0	0	0	0	0	0	0	
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS																					
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS																					
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																					
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																					
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																					
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																					
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																					
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																					
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																					
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS																					
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																					
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																					
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																					
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																					
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																					
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																					
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS																					

	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	α-BHC	β-BHC	δ-BHC	γ-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPAVIC	Other organochlorine pesticides EPAVIC	p-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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	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	1	0.5	1	1	0.05
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			4.8									50								
EPA Victoria IWRG621 Category C Leached Upper Limits																				
EPA Victoria IWRG621 Category C Upper Limits			1.2									10								
EPA Victoria IWRG621 Fill Upper Limits											1									

Location Code	Field ID	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	α-BHC	β-BHC	δ-BHC	γ-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPAVIC	Other organochlorine pesticides EPAVIC	p-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	
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS																					
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF		<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	<1	<0.5	<1	<1		
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																					
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																					
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																					
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																					
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF		<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	<1	<0.5	<1	<1		
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																					
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																					
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF		<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	<1	<0.5	<1	<1		
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																					
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF		0	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0		
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS																					
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS																					
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF		<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	<1	<0.5	<1	<1		
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																					
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																					
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF		<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	<1	<0.5	<1	<1		
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																					
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																					
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																					
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF		<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	<1	<0.5	<1	<1		
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																					
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																					
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS																					
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																					
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																					
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF		<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	<1	<0.5	<1	<1		
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																					
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																					
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF		<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	<1	<0.5	<1	<1		
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																					
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																					
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS																					

	Phenols																	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic	
	4,6-Dinitro-2-methylphenol	Tetrachlorophenols	2,3,5,6-Tetrachlorophenol	Cresol Total	4,6-Dinitro-o-cyclohexyl phenol	Phenols (halogenated) EPAVic	Phenols (non-halogenated) EPAVic	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	2,4-Dinitrophenol	3&4-Methylphenol (m&p-cresol)	4-Nitrophenol	Dinoseb	Phenol	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)			mg/L
EQL	5	10	0.03	0.5	20	1	20	0.5	0.2	1	5	0.4	5	20	0.5	1	20	0.00001	0.005	0.00001
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						320	2,200													
EPA Victoria IWRG621 Category C Leached Upper Limits																				
EPA Victoria IWRG621 Category C Upper Limits						10	560													
EPA Victoria IWRG621 Fill Upper Limits						1	60													

Location Code	Field ID	4,6-Dinitro-2-methylphenol	Tetrachlorophenols	2,3,5,6-Tetrachlorophenol	Cresol Total	4,6-Dinitro-o-cyclohexyl phenol	Phenols (halogenated) EPAVic	Phenols (non-halogenated) EPAVic	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	2,4-Dinitrophenol	3&4-Methylphenol (m&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		
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS																			<0.00005		<0.00005
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.00001	<0.00001	
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																			<0.00005		<0.00005
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																			<0.00005		<0.00005
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.00001	<0.00001	
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.00001	<0.00001	
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	0	0		0	0			0	0	0	0	0	0	0	0	<1	<20		<0.00001	<0.00001	
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS																			<0.00005		<0.00005
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS																			<0.00005		<0.00005
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.00001	<0.00001	
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.00001	<0.00001	
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																			<0.00005		<0.00005
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.00001	<0.00001	
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS																			<0.00005		<0.00005
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																			<0.00005		<0.00005
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																			<0.00005		<0.00005
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.00001	<0.00001	
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.00001	<0.00001	
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																			<0.00001		<0.00001
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS																			<0.00005		<0.00005

	+ PFOA)*	mg/kg	mg/L	mg/kg	mg/L	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	Chlorinated I																	
																					Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	Sum of PFAS	Sum of PFAS	1,1-dichloroethane	1,1-dichloroethene	1,1,2-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	1,1,1,2-tetrachloroethane	Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,2,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene	Dibromomethane
																					mg/kg	mg/L	mg/kg	mg/L	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		0.005	0.00001	0.005	0.00001	0.05	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																
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																				
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS				<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS				<0.00010																
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS				<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS				<0.00010																
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS				<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS				<0.00010																
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																				
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS				<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS				<0.00010																
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS				<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS				<0.00010																
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS				<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS				<0.00010																
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS				<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS				<0.00010																
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS				<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS				<0.00010																
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS				<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS				<0.00010																
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF		<0.00001		<0.0001																
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS				<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50			
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS				<0.00010																

	hydrocarbons															NA			Arochlor 1232	Arochlor 1242
	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	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	Sum of WA DWER PFAS (n=10)*	Moisture Content			
	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	UG/KG	µg/L	%	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	0.05		1	0.1	0.1
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		11	50						4.8											
EPA Victoria IWRG621 Category C Leached Upper Limits																				
EPA Victoria IWRG621 Category C Upper Limits		2.8	10						1.2											
EPA Victoria IWRG621 Fill Upper Limits					1															

Location Code	Field ID	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	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	Sum of WA DWER PFAS (n=10)*	Moisture Content	Arochlor 1232	Arochlor 1242
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.05	29.1		
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS																<0.05			
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	<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	<10			<0.1	<0.1
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.01	28.0		
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																<0.05			
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.01	25.2		
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																<0.05			
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<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	<10			<0.1	<0.1
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																<0.05			
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																<0.05			
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	<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	<10			<0.1	<0.1
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	<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	<10			0	0
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.01	23.8		
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS																<0.05			
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.01	23.0		
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS																<0.05			
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<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	<10			<0.1	<0.1
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																<0.05			
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																<0.05			
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<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	<10			<0.1	<0.1
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.01	25.4		
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																<0.05			
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	<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	<10			<0.1	<0.1
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.01	20.4		
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS																<0.05			
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.01	25.2		
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																<0.05			
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.01	21.2		
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																<0.05			
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<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	<10			<0.1	<0.1
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																<0.05			
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																<0.05			
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	<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	<10			<0.1	<0.1
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																<0.05			
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<10.0	<0.01	25.3		
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS																<0.05			

	PCBs						Inorganics							Halogenated Benzenes							
	Arochlor 1248	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	Moisture Content (dried @ 103°C)	Cyanide Total	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	4-chlorotoluene	
	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	0.1	0.1	0.1	0.1	0.1	0.1	100	1	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
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											40,000		10,000								
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limits											10,000		2,500								
EPA Victoria IWRG621 Fill Upper Limits						2					450		50								

Location Code	Field ID	Arochlor 1248	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	Moisture Content (dried @ 103°C)	Cyanide Total	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	4-chlorotoluene	
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS						<0.1	1.1	5.0	8.5	5.0		230		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS								8.8													
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.5	<100	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF								5.1		5.0											
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF								8.3		6.3											
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS						<0.1	1.3	5.1	8.6	5.0		260		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS								8.3													
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS						<0.1	1.2	5.1	9.1	5.0		240		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS								9.4													
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.7	<100	28	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF								5.3		4.9											
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF								8.4		6.1											
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.8	<100	27	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF								5.0		4.9											
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF								8.2		6.1											
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	0	0	0	0	0	0					8.9	<100	26	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																					
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF								5.1		4.9											
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF								8.5		6.1											
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS						<0.1	1.2	5.1	9.8	5.0		280		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS								9.8													
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS						<0.1	1.2	5.2	9.9	5.0		240		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS								10.1													
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.1	<100	25	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF								5.1		4.9											
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF								8.6		6.1											
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.2	<100	24	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF								5.1		4.9											
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF								8.7		6.1											
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS						<0.1	1.2	5.2	9.8	5.0		250		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS								10.0													
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.0	120	21	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF								5.1		4.9											
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF								8.7		6.1											
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS						<0.1	1.3	5.2	9.9	5.0		320		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS								10.0													
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS						<0.1	1.2	5.2	10.1	5.0		260		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS								10.1													
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS						<0.1	1.3	5.2	10.0	5.0		290		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS								10.1													
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.5	<100	22	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF								5.1		4.9											
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF								8.7		6.1											
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.6	<100	21	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF								5.1		4.9											
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF								8.7		6.1											
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS						<0.1	1.3	5.2	10.2	5.0		260		<5	<0.50	<0.50		<0.50			
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS								10.2													

	Halogenated Hydrocarbons						MAH						Solvents				SPOCAS	
	Chlorobenzene	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPA/Vic	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	-
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	0.1
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								240										
EPA Victoria IWRG621 Category C Leached Upper Limits																		
EPA Victoria IWRG621 Category C Upper Limits								70										
EPA Victoria IWRG621 Fill Upper Limits								7										

Location Code	Field ID																		
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS	<0.50						<0.5	<0.5										7.9
D01.02	SX_OB_20220607_04_01_SS_Primary_ALS																		
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF	<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	
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																		
D01.02	SX_OB_20220607_04_14_SS_Primary_EUF																		
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.50						<0.5	<0.5										7.8
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																		
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	<0.50						<0.5	<0.5										7.9
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																		
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<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	
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																		
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																		
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF	<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	
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																		
D01.02	SX_OB_20220607_08_39_SS_Primary_EUF																		
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF	<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	
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																		
D01.02	SX_OB_20220607_11_53_SS_Primary_EUF																		
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS	<0.50						<0.5	<0.5										8.0
D01.02	SX_OB_20220607_11_57_SS_Primary_ALS																		
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS	<0.50						<0.5	<0.5										8.4
D01.02	SX_OB_20220607_16_29_SS_Primary_ALS																		
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<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	
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																		
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																		
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<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	
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																		
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																		
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<0.50						<0.5	<0.5										8.0
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																		
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF	<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	
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																		
D01.02	SX_OB_20220607_20_19_SS_Primary_EUF																		
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS	<0.50						<0.5	<0.5										8.1
D01.02	SX_OB_20220607_20_25_SS_Primary_ALS																		
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.50						<0.5	<0.5										8.2
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																		
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<0.50						<0.5	<0.5										8.2
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																		
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<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	
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																		
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																		
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF	<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	
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																		
D01.02	SX_OB_20220608_04_02_SS_Primary_EUF																		
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS	<0.50						<0.5	<0.5										8.5
D01.02	SX_OB_20220608_04_06_SS_Primary_ALS																		

							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	1	5	5	1	5	0.1	5	5	5	2
Location Code	Field ID	Date	Lab Report Number	Lab Name	Sample Type	Parent Sample											
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal		40	<1	41	83	<1	7.8	<0.1	<5	100	<5	<2
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Field_D	M22-Jn0013283	120	<1	69	100	<1	12	<0.1	<5	110	<5	<2
RPD							100	0	51	19	0	42	0	0	10	0	0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal		40	<1	41	83	<1	7.8	<0.1	<5	100	<5	<2
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Interlab_D	M22-Jn0013283	34	<1	35	61	<1.0	6	<0.1	<5	94	<5	<2
RPD							16	0	16	31	0	26	0	0	6	0	0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal												
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Field_D	M22-Jn0013293											
RPD																	
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal												
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Field_D	M22-Jn0013303											
RPD																	
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal												
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Interlab_D	M22-Jn0013303											
RPD																	
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal		37	<1	36	88	<1	8.1	<0.1	<5	88	<5	<2
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Field_D	M22-Jn0013285	42	<1	40	82	<1	8.0	<0.1	<5	110	<5	<2
RPD							13	0	11	7	0	1	0	0	22	0	0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal		37	<1	36	88	<1	8.1	<0.1	<5	88	<5	<2
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Interlab_D	M22-Jn0013285	39	<1	36	67	<1.0	6	<0.1	<5	96	<5	<2
RPD							5	0	0	27	0	30	0	0	9	0	0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal												
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Field_D	M22-Jn0013295											
RPD																	
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal												
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Field_D	M22-Jn0013305											
RPD																	
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	6/06/2022	895177	Eurofins Environment ANZ	Normal												
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Interlab_D	M22-Jn0013305											
RPD																	
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Normal		32	<1	38	75	<1.0	<5	<0.1	<5	100	<5	<2
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Field_D	EM2210681001	39	<1	52	89	<1.0	<5	<0.1	<5	138	<5	<2
RPD							20	0	31	17	0	0	0	0	32	0	0
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Normal		32	<1	38	75	<1.0	<5	<0.1	<5	100	<5	<2
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Interlab_D	EM2210681001	35	<1	59	130	<1	5.1	<0.1	<5	170	<5	<2
RPD							9	0	43	54	0	2	0	0	52	0	0
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Normal		32	<1	38	75	<1.0	<5	<0.1	<5	100	<5	<2
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Interlab_D	EM2210681001											
RPD																	
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Normal												
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Field_D	EM2210681013											
RPD																	
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Normal												
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Interlab_D	EM2210681013											
RPD																	
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Normal		56	<1	47	82	<1.0	6	0.1	<5	109	<5	<2
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Field_D	EM2210681005	47	<1	41	80	<1.0	6	<0.1	<5	108	<5	<2
RPD							17	0	14	2	0	0	0	0	1	0	0
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Normal		56	<1	47	82	<1.0	6	0.1	<5	109	<5	<2
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Interlab_D	EM2210681005	61	<1	52	110	<1	7.3	<0.1	<5	120	<5	<2
RPD							9	0	10	29	0	20	0	0	10	0	0
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Normal		56	<1	47	82	<1.0	6	0.1	<5	109	<5	<2
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Interlab_D	EM2210681005											
RPD																	
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS	6/06/2022	EM2210681	ALSE-Melbourne	Normal												
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF	6/06/2022	895177	Eurofins Environment ANZ	Interlab_D	EM2210681015											
RPD																	
C05.03	SX_OB_20220607_08_35_SS_Primary_ALS	7/06/2022	EM2210823	ALSE-Melbourne	Normal		44	<1	39	74	<1.0	6	<0.1	<5	95	<5	<2
C05.03	SX_OB_20220607_08_36_SS_Duplicate_ALS	7/06/2022	EM2210823	ALSE-Melbourne	Field_D	EM2210823001	46	<1	37	70	<1.0	5	<0.1	<5	88	<5	<2

							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
RPD							4	0	5	6	0	18	0	0	8	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	7/06/2022	EM2210823	ALSE-Melbourne	Normal		44	<1	39	74	<1.0	6	<0.1	<5	95	<5	<2
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	7/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823001	45	<1	42	85	<1	6.8	<0.1	<5	100	<5	<2
RPD							2	0	7	14	0	12	0	0	5	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	7/06/2022	EM2210823	ALSE-Melbourne	Normal		44	<1	39	74	<1.0	6	<0.1	<5	95	<5	<2
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	7/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823001											
RPD																	
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	7/06/2022	EM2210823	ALSE-Melbourne	Normal												
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	7/06/2022	EM2210823	ALSE-Melbourne	Field_D	EM2210823014											
RPD																	
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	7/06/2022	EM2210823	ALSE-Melbourne	Normal												
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	7/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823014											
RPD																	
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	7/06/2022	895630	Eurofins Environment ANZ	Normal		45	<1	38	58	<1	6.4	<0.1	<5	80	<5	<2
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	7/06/2022	895630	Eurofins Environment ANZ	Field_D	M22-Jn0016786	51	<1	41	65	<1	6.7	<0.1	<5	88	<5	<2
RPD							12	0	8	11	0	5	0	0	10	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	7/06/2022	895630	Eurofins Environment ANZ	Normal		45	<1	38	58	<1	6.4	<0.1	<5	80	<5	<2
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	7/06/2022	EM2210823	ALSE-Melbourne	Interlab_D	M22-Jn0016786	47	<1	33	52	<1.0	<5	<0.1	<5	76	<5	<2
RPD							4	0	14	11	0	25	0	0	5	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	7/06/2022	895630	Eurofins Environment ANZ	Normal												
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	7/06/2022	895630	Eurofins Environment ANZ	Field_D	M22-Jn0016796											
RPD																	
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	7/06/2022	895630	Eurofins Environment ANZ	Normal												
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	7/06/2022	895630	Eurofins Environment ANZ	Field_D	M22-Jn0016804											
RPD																	
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	7/06/2022	895630	Eurofins Environment ANZ	Normal												
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	7/06/2022	EM2210823	ALSE-Melbourne	Interlab_D	M22-Jn0016804											
RPD																	
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	8/06/2022	EM2210823	ALSE-Melbourne	Normal		42	<1	36	50	<1.0	<5	<0.1	<5	80	<5	<2
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	8/06/2022	EM2210823	ALSE-Melbourne	Field_D	EM2210823009	42	<1	33	52	<1.0	<5	<0.1	<5	73	<5	<2
RPD							0	0	9	4	0	0	0	0	9	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	8/06/2022	EM2210823	ALSE-Melbourne	Normal		42	<1	36	50	<1.0	<5	<0.1	<5	80	<5	<2
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	8/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823009	51	<1	45	86	<1	8.6	<0.1	<5	98	<5	<2
RPD							19	0	22	53	0	53	0	0	20	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	8/06/2022	EM2210823	ALSE-Melbourne	Normal		42	<1	36	50	<1.0	<5	<0.1	<5	80	<5	<2
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	8/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823009											
RPD																	
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	8/06/2022	EM2210823	ALSE-Melbourne	Normal												
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	8/06/2022	EM2210823	ALSE-Melbourne	Field_D	EM2210823020											
RPD																	
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	8/06/2022	EM2210823	ALSE-Melbourne	Normal												
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	8/06/2022	895630	Eurofins Environment ANZ	Interlab_D	EM2210823020											
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																					
		Tin	Zinc	PAHs (Vic EPA List)	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c-d)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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
RPD		0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<10	56	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<10	70			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	22			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<10	56	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																						
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																						
RPD																							
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																						
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<10	59			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<10	58			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	2			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<10	59			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<10	44	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	29			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<10	46	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<10	37	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<10	46	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<10	63			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	31			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<10	46	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																						
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																						
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																						
RPD																							

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

		BTEX							TRH							TPH							
		Pyrene	PAHs (Sum of total)	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
		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
RPD		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.5		<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
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.5	<0.5	<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
RPD		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.5		<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
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																						
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																						
RPD																							
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																						
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.5	<0.5	<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
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.5	<0.5	<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
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.5	<0.5	<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
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<0.5		<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
RPD		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.5		<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
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<0.5		<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
RPD		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.5		<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
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.5	<0.5	<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
RPD		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.5		<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
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																						
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																						
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																						
RPD																							

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

		Organochlorine Pesticides																						
		Aldrin + Dieldrin	DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	Chlordane	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	γ -BHC	δ -BHC	ϵ -BHC	β -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	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	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																							
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<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	
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF	<0.05	<0.05	<0.05	<0.05	<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	
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<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	
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	<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	0	0	0	0	0	0	0	0	0	0	0	0

		Organochlorine Pesticides																					
		Aldrin + Dieldrin	DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	chlordan	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	p-BHC	β-BHC	γ-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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.30	<0.05	<0.05	<0.05	<0.05	<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
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.05	<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
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.30	<0.05	<0.05	<0.05	<0.05	<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
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																						
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																						
RPD																							
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																						
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<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
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.05	<0.05	<0.05	<0.05	<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
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<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
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<0.30	<0.05	<0.05	<0.05	<0.05	<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
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.30	<0.05	<0.05	<0.05	<0.05	<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
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<0.30	<0.05	<0.05	<0.05	<0.05	<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
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.30	<0.05	<0.05	<0.05	<0.05	<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
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.05	<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
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.30	<0.05	<0.05	<0.05	<0.05	<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
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																						
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																						
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																						
RPD																							

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

		Phenols																				
	Toxaphene	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	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	4,6-Dinitro-2-methylphenol	Tetrachlorophenols	2,3,5,6-Tetrachlorophenol	Cresol Total	4,6-Dinitro-o-cyclohexyl phenol	Phenols (halogenated) EPAVic	Phenols (non-halogenated) EPAVic	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	2,4-Dinitrophenol
EQL	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
	0.5	0.1	0.03	0.5	0.5	1	1	0.5	1	1	0.05	5	10	0.03	0.5	20	1	20	0.5	0.2	1	5
Location Code	Field ID																					
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																					
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																					
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS																					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																					
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																					
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																					
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF																					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																					
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS																					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																					
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																					
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS																					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS																					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF																					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF																					
RPD																						
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																					
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

		Phenols																					
		Toxaphene	Organochlorine pesticides EPAVIC	Other organochlorine pesticides EPAVIC	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	4,6-Dinitro-2-methylphenol	Tetrachlorophenols	2,3,5,6-Tetrachlorophenol	Cresol Total	4,6-Dinitro-o-cyclohexyl phenol	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2	<1	<5
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																						
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																						
RPD																							
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																						
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2	<1	<5
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2	<1	<5
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2	<1	<5
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																						
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2	<1	<5
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																						
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																						
RPD																							
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																						
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																						
RPD																							

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

EQL	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	10:2 Fluorotelomer sulfonic acid (10:2 FTS)		8:2 Fluorotelomer sulfonic acid (8:2 FTS)		6:2 Fluorotelomer sulfonic acid (6:2 FTS)		4:2 Fluorotelomer sulfonic acid (4:2 FTS)		N-Ethyl perfluorooctane sulfonamide (NEFOSA)		N-ethyl-perfluorooctanesulfonamide acetic acid (NEFOSAA)		N-ethylperfluorooctanesulfonamide ethanol (NEFOSE)		N-Methyl perfluorooctane sulfonamide (NMeFOSA)		
							mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L
0.4	5	20	0.5	1	20	0.00001	0.005	0.00001	0.005	0.00005	0.01	0.00001	0.005	0.00005	0.005	0.00002	0.01	0.00005	0.005	0.00005	0.005	0.00005	0.005
Location Code	Field ID																						
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																						
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																						
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS																						
RPD																							
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																						
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																						
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																						
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS																						
RPD																							
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																						
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																						
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS																						
RPD																							
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																						
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																						
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																						
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS																						
RPD																							
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																						
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS																						
RPD																							
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																						
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																						
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																						
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS																						
RPD																							
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																						
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																						
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS																						
RPD																							
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																						
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF																						
RPD																							
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																						
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS																						
RPD																							
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																						
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF																						
RPD																							
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																						
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																						

		3,4-Methylphenol (m&p-creso)	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 (6:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	N-Ethyl perfluorooctane sulfonamide (NEFOSA)	N-ethyl-perfluorooctanesulfonamid oacetic acid (NEFOSAA)	N-ethylperfluorooctanesulfon amidoethanol (NEFOSE)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
RPD		0	0	0	0			0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00002	<0.0100
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.00001	<0.01
RPD		0	0	0	0			0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0100
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD								0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS							<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS							<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD								0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS							<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD								0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.01	<0.00001	<0.005	<0.00001	<0.01
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.01	<0.00001	<0.005	<0.00001	<0.01
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.01	<0.00001	<0.005	<0.00001	<0.01
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<1	<5	<20	<1	<20		<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0100
RPD		0	0	0	0			0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD								0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD								0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS							<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD								0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0100
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0100
RPD		0	0	0	0			0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0100
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.01	<0.00001	<0.005	<0.00001	<0.01
RPD		0	0	0	0			0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0100
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD								0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS							<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS							<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD								0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS							<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD								0	0	0	0	0	0	0	0

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

		PFOS/PFOA																						
		N-methylperfluorooctane sulfonamideacetic acid (NMeFOSAA)		N-Methylperfluorooctanesulfonamideethanol (N-MeFOSE)		Perfluorobutanoic acid (PFBA)		Perfluorobutane sulfonic acid (PFBS)		Perfluorodecanoic acid (PFDA)		Perfluorododecanoic acid (PFDoDA)		Perfluorodecanesulfonic acid (PFDS)		Perfluoroheptanoic acid (PFHpA)		Perfluoroheptane sulfonic acid (PFHPS)		Perfluorohexanoic acid (PFHxA)		Perfluorononanoic acid (PFNA)		
		mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	
EQL		0.00002	0.01	0.00005	0.005	0.00005	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	
Location Code	Field ID																							
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
RPD			0		0		0		0		0		0		0		0		0		0		0	

		Perfluorononanesulfonic acid (PFNS)(trace)	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonamide (PFOSA)	Perfluoropentanoic acid (PFPeA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropropanesulfonic acid (PFPS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTeDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHS)	
		mg/L	mg/kg	mg/L	mg/kg	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	0.00002	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005
Location Code	Field ID												
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
RPD		0	0		0		0		0		0		0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
RPD		0	0		0		0		0		0		0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS		<0.00001		<0.00005		<0.00002		<0.00002		<0.00002		<0.00001
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
RPD		0	0		0		0		0		0		0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS		<0.00001		<0.00005		<0.00002		<0.00002		<0.00002		<0.00001
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS		<0.00001		<0.00005		<0.00002		<0.00002		<0.00002		<0.00001
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS		<0.00001		<0.00005		<0.00002		<0.00002		<0.00002		<0.00001
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS		<0.00001		<0.00005		<0.00002		<0.00002		<0.00002		<0.00001
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS		<0.00001		<0.0050		<0.00005		<0.0050		<0.00002		<0.0050
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS		<0.00001		<0.00005		<0.00002		<0.00002		<0.00002		<0.00001
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS		<0.00001		<0.00005		<0.00002		<0.00002		<0.00002		<0.00001
RPD			0		0		0		0		0		0
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS		<0.00001		<0.00005		<0.00002		<0.00002		<0.00002		<0.00001
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF	<0.00001	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS		<0.00001		<0.0050		<0.00002		<0.0050		<0.00005		<0.0050
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS		<0.00001		<0.0050		<0.00002		<0.0050		<0.00005		<0.0050

RPD	Sample ID	Perfluorononanesulfonic acid (PFNS)(trace)	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonamide (PFOSA)	Perfluoropentanoic acid (PFPeA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHS)
		mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS		<0.00001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS		<0.00001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS		<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00001	<0.00001
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS		<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00001	<0.00001
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS		<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00001	<0.00001
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS		<0.00001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS		<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00001	<0.00001
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS		<0.00001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS		<0.00001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS		<0.00001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS		<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00001	<0.00001
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS		<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00001	<0.00001
RPD			0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS		<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00001	<0.00001
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
RPD			0	0	0	0	0	0	0	0	0	0

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

EQL	Sum of PFHs and PFOS		Sum of US EPA PFAS (PFOS + PFOA)*		Sum of enHealth PFAS (PFHs + PFOS + PFOA)*		Sum of PFAS		1,1-dichloroethane	1,1-dichloroethene	1,1,2-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	1,1,1,2-tetrachloroethane	Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,2,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene
	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg														
	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.05	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
Location Code	Field ID																					
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																					
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																					
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																					
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																					
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																					
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																					
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																					
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																					
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																					
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																					
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF																					
RPD																						
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS																					
RPD																						
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																					
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF																					
RPD																						
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																					
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																					

		Sum of PFHs and PFOS		Sum of US EPA PFAS (PFOS + PFOA)*		Sum of enHealth PFAS (PFHs + PFOS + PFOA)*		Sum of PFAS	Sum of PFAS	1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	1,1,1,2-tetrachloroethane	Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,2,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene
		mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg																
RPD		0	0					0	0														
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.00001	<0.0050					<0.00001	<0.0500				<0.50				<0.50		<0.50	<0.50	<0.50		
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF		<0.005		<0.005		<0.005		<0.05	<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
RPD			0						0								0		0	0	0		
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.00001	<0.0050					<0.00001	<0.0500				<0.50				<0.50		<0.50	<0.50	<0.50		
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.0001															
RPD			0						0														
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.00001						<0.00010															
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS	<0.00001						<0.00010															
RPD			0						0														
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.00001						<0.00010															
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.0001															
RPD			0						0														
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF		<0.005		<0.005		<0.005		<0.05	<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
RPD			0		0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.05	<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
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<0.00001	<0.0050					<0.00001	<0.0500				<0.50				<0.50		<0.50	<0.50	<0.50		
RPD			0						0								0		0	0	0		
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.0001															
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.00001		<0.00001		<0.00001		<0.0001															
RPD			0		0		0		0														
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.0001															
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.00001		<0.00001		<0.00001		<0.0001															
RPD			0		0		0		0														
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.0001															
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS	<0.00001						<0.00010															
RPD			0						0														
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.00001	<0.0050					<0.00001	<0.0500				<0.50				<0.50		<0.50	<0.50	<0.50		
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<0.00001	<0.0050					<0.00001	<0.0500				<0.50				<0.50		<0.50	<0.50	<0.50		
RPD			0						0														
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.00001	<0.0050					<0.00001	<0.0500				<0.50				<0.50		<0.50	<0.50	<0.50		
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF		<0.005		<0.005		<0.005		<0.05	<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
RPD			0						0														
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.00001	<0.0050					<0.00001	<0.0500				<0.50				<0.50		<0.50	<0.50	<0.50		
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.0001															
RPD			0						0														
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.00001						<0.00010															
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<0.00001						<0.00010															
RPD			0						0														
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.00001						<0.00010															
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.0001															
RPD			0						0														

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

		Chlorinated Hydrocarbons															NA						
		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	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	1	0.1	0.1	0.1	
Location Code	Field ID																						
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<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	<10			<0.1	<0.1	<0.1
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF	<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	<10			<0.1	<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<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	<10			<0.1	<0.1	<0.1
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	27.6			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																	<0.05					
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																	<0.05					
RPD																		0					
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																	<0.05					
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF																	<0.05					
RPD																		0					
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF																	<0.05					
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS																	<0.05	<0.05				
RPD																		0					
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	<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	<10			<0.1	<0.1	<0.1
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF	<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	<10			<0.1	<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	<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	<10			<0.1	<0.1	<0.1
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	27.3			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																	<0.05					
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF																	<0.05					
RPD																		0					
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																	<0.05					
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS																	<0.05	<0.05				
RPD																		0					
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																	<0.05					
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF																	<0.05					
RPD																		0					
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF																	<0.05					
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS																	<0.05	<0.05				
RPD																		0					
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	31.2			
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	33.3			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7			
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	31.2			
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF	<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	<10			<0.1	<0.1	<0.1
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	31.2			
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																	<0.05					
RPD																		0					
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																	<0.05					
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS																	<0.05					
RPD																		0					
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS																	<0.05					
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF																	<0.05	<0.05				
RPD																		0					
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	32.9			
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	32.8			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	32.9			
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF	<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	<10			<0.1	<0.1	<0.1
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	32.9			
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF																	<0.05					
RPD																		0					
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS																	<0.05					
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS																	<0.05					
RPD			</																				

Chlorinated Hydrocarbons																	NA					
	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	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	UG/KG	µg/L	%	mg/kg	mg/kg	mg/kg
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11			
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.01	28.0			
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<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	<10			<0.1	<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.01	28.0			
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																<0.05					
RPD																	0					
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																	<0.05				
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS																	<0.05				
RPD																	0					
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS																	<0.05				
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF																<0.05					
RPD																						
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<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	<10			<0.1	<0.1	<0.1
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<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	<10			<0.1	<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<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	<10			<0.1	<0.1	<0.1
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.01	25.4			
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																<0.05					
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																<0.05					
RPD																	0					
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																<0.05					
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF																<0.05					
RPD																	0					
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF																<0.05					
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS																	<0.05				
RPD																						
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.01	25.2			
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS	<0.5	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.01	21.2			
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			17		
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.01	25.2			
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<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	<10			<0.1	<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.01	25.2			
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																<0.05					
RPD																	0					
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																	<0.05				
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS																	<0.05				
RPD																	0					
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS																	<0.05				
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF																<0.05					
RPD																						

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

		PCBs					Inorganics							Halogenated Benzenes							Halogenated		
		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	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	mg/kg	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	100	1	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																						
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				8.2	<100	28	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				7.3	<100	27	<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				12	0	4	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				8.2	<100	28	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS					<0.1	1.0	5.1	9.9	5.0		250	<5	<0.50	<0.50		<0.50				<0.50		
RPD						0					86		0	0	0		0				0		
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF							5.1		5.0													
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF							5.1		5.0													
RPD								0		0													
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF							8.6		6.3													
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF							8.6		6.3													
RPD								0		0													
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF							8.6		6.3													
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS							9.5															
RPD								10															
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				7.3	<100	27	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				7.4	<100	26	<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				1	0	4	0	0	0	0	0	0	0	0	0	0	0
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				7.3	<100	27	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS					<0.1	1.1	5.1	8.9	5.0		260	<5	<0.50	<0.50		<0.50				<0.50		
RPD						0					89		0	0	0		0				0		
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF							5.1		5.0													
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF							5.1		5.0													
RPD								0		0													
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF							8.6		6.3													
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF							8.6		6.3													
RPD								0		0													
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF							8.6		6.3													
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS							9.5															
RPD								10															
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS					<0.1	1.3	5.1	9.3	5.0		220	<5	<0.50	<0.50		<0.50				<0.50		
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS					<0.1	1.1	5.1	9.7	5.0		200	<5	<0.50	<0.50		<0.50				<0.50		
RPD						0	17	0	4	0		10	0	0	0		0				0		
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS					<0.1	1.3	5.1	9.3	5.0		220	<5	<0.50	<0.50		<0.50				<0.50		
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				9.4	<100	34	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD						0					75		0	0	0		0				0		
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS					<0.1	1.3	5.1	9.3	5.0		220	<5	<0.50	<0.50		<0.50				<0.50		
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF							5.1		5.0													
RPD								0		0													
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS							8.8															
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS							9.9															
RPD								12															
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS							8.8															
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF							9.0		6.3													
RPD								2															
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS					<0.1	1.1	5.1	9.4	5.0		240	<5	<0.50	<0.50		<0.50				<0.50		
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS					<0.1	1.1	5.1	9.4	5.0		280	<5	<0.50	<0.50		<0.50				<0.50		
RPD						0	0	0	0	0		15	0	0	0		0				0		
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS					<0.1	1.1	5.1	9.4	5.0		240	<5	<0.50	<0.50		<0.50				<0.50		
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				8.6	<100	31	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD						0					82		0	0	0		0				0		
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS					<0.1	1.1	5.1	9.4	5.0		240	<5	<0.50	<0.50		<0.50				<0.50		
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF							5.1		5.0													
RPD								0		0													
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS							9.9															
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS							9.5															
RPD								4															
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS							9.9															
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF							8.6		6.3													
RPD								14															
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS					<0.1	1.3	5.1	8.6	5.0		260	<5	<0.50	<0.50		<0.50				<0.50		
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS					<0.1	1.2	5.1	9.1	5.0		240	<5	<0.50	<0.50		<0.50				<0.50		

		PCBs					Inorganics							Halogenated Benzenes							Halog		
		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	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
RPD					0	8	0	6	0		8		0	0	0	0	0			0			
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS				<0.1	1.3	5.1	8.6	5.0		260		<5	<0.50	<0.50		<0.50			<0.50			
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1					8.7	<100	28	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD					0						89		0	0	0	0	0			0			
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS				<0.1	1.3	5.1	8.6	5.0		260		<5	<0.50	<0.50		<0.50			<0.50			
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF						5.3		4.9														
RPD							4		2														
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS						8.3																
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS						9.4																
RPD							12																
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS						8.3																
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF						8.4		6.1														
RPD							1																
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				8.2	<100	24	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				8.1	<100	25	<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				1	0	4	0	0	0	0	0	0	0	0	0	0	
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1				8.2	<100	24	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS				<0.1	1.2	5.2	9.8	5.0		250		<5	<0.50	<0.50		<0.50			<0.50			
RPD					0						86		0	0	0	0	0			0			
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF						5.1		4.9														
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF						5.1		4.9														
RPD							0		0														
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF						8.7		6.1														
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF						8.6		6.1														
RPD							1		0														
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF						8.7		6.1														
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS						10.0																
RPD							14																
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS				<0.1	1.2	5.2	10.1	5.0		260		<5	<0.50	<0.50		<0.50			<0.50			
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS				<0.1	1.3	5.2	10.0	5.0		290		<5	<0.50	<0.50		<0.50			<0.50			
RPD					0	8	0	1	0		11		0	0	0	0	0			0			
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS				<0.1	1.2	5.2	10.1	5.0		260		<5	<0.50	<0.50		<0.50			<0.50			
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1					8.5	<100	22	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD					0						89		0	0	0	0	0			0			
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS				<0.1	1.2	5.2	10.1	5.0		260		<5	<0.50	<0.50		<0.50			<0.50			
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF						5.1		4.9														
RPD							2		2														
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS						10.1																
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS						10.1																
RPD							0																
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS						10.1																
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF						8.7		6.1														
RPD							15																

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

EQL	enated Hydrocarbons			MAH						Solvents					SPOCAS
	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Iso propylbenzene	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	-
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

Location Code	Field ID	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Iso propylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<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	
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF	<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	
RPD		0	0	0	0		0	0	0	0	0	0	0	0	0	
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF	<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	
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS					<0.5		<0.5								7.9
RPD								0								
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF															
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF															
RPD																
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF															
C05.03	SX_OB_20220606_16_17_SS_Duplicate_EUF															
RPD																
C05.03	SX_OB_20220606_16_15_SS_Primary_EUF															
C05.03	SX_OB_20220606_16_18_SS_Triplicate_ALS															
RPD																
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	<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	
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF	<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	
RPD		0	0	0	0		0	0	0	0	0	0	0	0	0	
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF	<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	
C05.03	SX_OB_20220606_20_10_SS_Triplicate_ALS					<0.5		<0.5								7.6
RPD								0								
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF															
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF															
RPD																
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF															
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF															
RPD																
C05.03	SX_OB_20220606_20_09_SS_Primary_EUF															
C05.03	SX_OB_20220606_20_10_SS_Duplicate_EUF															
RPD																
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS					<0.5		<0.5								9.0
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS					<0.5		<0.5								8.6
RPD						0		0								5
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS					<0.5		<0.5								9.0
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF	<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	
RPD								0								
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS					<0.5		<0.5								9.0
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF															
RPD																
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS															
C05.03	SX_OB_20220606_09_24_SS_Duplicate_ALS															
RPD																
C05.03	SX_OB_20220606_09_23_SS_Primary_ALS															
C05.03	SX_OB_20220606_09_24_SS_Triplicate_EUF															
RPD																
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS					<0.5		<0.5								8.6
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS					<0.5		<0.5								8.3
RPD						0		0								4
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS					<0.5		<0.5								8.6
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF	<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	
RPD								0								
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS					<0.5		<0.5								8.6
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF															
RPD																
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS															
C05.03	SX_OB_20220606_12_17_SS_Duplicate_ALS															
RPD																
C05.03	SX_OB_20220606_12_15_SS_Primary_ALS															
C05.03	SX_OB_20220606_12_18_SS_Triplicate_EUF															
RPD																
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS					<0.5		<0.5								7.8
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS					<0.5		<0.5								7.9

		enated Hydrocarbons			MAH					Solvents					SPOCAS	
		1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPAVIC	1,3,5-trimethylbenzene	Styrene	Iso propylbenzene	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	-
RPD						0		0								1
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS					<0.5		<0.5								7.8
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF	<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	
RPD								0								
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS					<0.5		<0.5								7.8
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF															
RPD																
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS															
D01.02	SX_OB_20220607_08_36_SS_Duplicate_ALS															
RPD																
D01.02	SX_OB_20220607_08_35_SS_Primary_ALS															
D01.02	SX_OB_20220607_08_37_SS_Triplicate_EUF															
RPD																
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<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	
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF	<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	
RPD		0	0	0	0		0	0	0	0	0	0	0	0	0	
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF	<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	
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS					<0.5		<0.5								8.0
RPD								0								
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF															
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF															
RPD																
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF															
D01.02	SX_OB_20220607_16_31_SS_Duplicate_EUF															
RPD																
D01.02	SX_OB_20220607_16_31_SS_Primary_EUF															
D01.02	SX_OB_20220607_16_33_SS_Triplicate_ALS															
RPD																
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS					<0.5		<0.5								8.2
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS					<0.5		<0.5								8.2
RPD						0		0								0
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS					<0.5		<0.5								8.2
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF	<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	
RPD								0								
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS					<0.5		<0.5								8.2
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF															
RPD																
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS															
D01.02	SX_OB_20220608_01_59_SS_Duplicate_ALS															
RPD																
D01.02	SX_OB_20220608_01_58_SS_Primary_ALS															
D01.02	SX_OB_20220608_01_59_SS_Triplicate_EUF															
RPD																

*RPDs have only been considered where a concentration is greater than 1 times th
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary bet

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	D01.0220220617120824_01	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	UCL Statistics for Data Sets with Non-Detects										
2											
3	User Selected Options										
4	Date/Time of Computation		ProUCL 5.117/06/2022 1:41:51 PM								
5	From File		WorkSheet_a.xls								
6	Full Precision		OFF								
7	Confidence Coefficient		95%								
8	Number of Bootstrap Operations		2000								
9											
10											
11	Arsenic										
12											
13	General Statistics										
14	Total Number of Observations			19		Number of Distinct Observations			14		
15							Number of Missing Observations			0	
16	Minimum			40		Mean			49.16		
17	Maximum			67		Median			47		
18	SD			6.914		Std. Error of Mean			1.586		
19	Coefficient of Variation			0.141		Skewness			1.036		
20											
21	Normal GOF Test										
22	Shapiro Wilk Test Statistic			0.925		Shapiro Wilk GOF Test					
23	5% Shapiro Wilk Critical Value			0.901		Data appear Normal at 5% Significance Level					
24	Lilliefors Test Statistic			0.15		Lilliefors GOF Test					
25	5% Lilliefors Critical Value			0.197		Data appear Normal at 5% Significance Level					
26	Data appear Normal at 5% Significance Level										
27											
28	Assuming Normal Distribution										
29	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
30	95% Student's-t UCL			51.91		95% Adjusted-CLT UCL (Chen-1995)			52.17		
31						95% Modified-t UCL (Johnson-1978)			51.97		
32											
33	Gamma GOF Test										
34	A-D Test Statistic			0.38		Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value			0.74		Detected data appear Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic			0.148		Kolmogorov-Smirnov Gamma GOF Test					
37	5% K-S Critical Value			0.198		Detected data appear Gamma Distributed at 5% Significance Level					
38	Detected data appear Gamma Distributed at 5% Significance Level										
39											
40	Gamma Statistics										
41	k hat (MLE)			56.94		k star (bias corrected MLE)			47.98		
42	Theta hat (MLE)			0.863		Theta star (bias corrected MLE)			1.025		
43	nu hat (MLE)			2164		nu star (bias corrected)			1823		
44	MLE Mean (bias corrected)			49.16		MLE Sd (bias corrected)			7.097		
45						Approximate Chi Square Value (0.05)			1725		
46	Adjusted Level of Significance			0.0369		Adjusted Chi Square Value			1717		
47											
48	Assuming Gamma Distribution										
49	95% Approximate Gamma UCL (use when n>=50))			51.96		95% Adjusted Gamma UCL (use when n<50)			52.21		
50											
51	Lognormal GOF Test										
52	Shapiro Wilk Test Statistic			0.954		Shapiro Wilk Lognormal GOF Test					
53	5% Shapiro Wilk Critical Value			0.901		Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic			0.139		Lilliefors Lognormal GOF Test					
55	5% Lilliefors Critical Value			0.197		Data appear Lognormal at 5% Significance Level					
56	Data appear Lognormal at 5% Significance Level										
57											

A	B	C	D	E	F	G	H	I	J	K	L
58	Lognormal Statistics										
59	Minimum of Logged Data				3.689	Mean of logged Data				3.886	
60	Maximum of Logged Data				4.205	SD of logged Data				0.134	
61											
62	Assuming Lognormal Distribution										
63	95% H-UCL			51.97	90% Chebyshev (MVUE) UCL				53.71		
64	95% Chebyshev (MVUE) UCL			55.77	97.5% Chebyshev (MVUE) UCL				58.64		
65	99% Chebyshev (MVUE) UCL			64.27							
66											
67	Nonparametric Distribution Free UCL Statistics										
68	Data appear to follow a Discernible Distribution at 5% Significance Level										
69											
70	Nonparametric Distribution Free UCLs										
71	95% CLT UCL			51.77	95% Jackknife UCL				51.91		
72	95% Standard Bootstrap UCL			51.72	95% Bootstrap-t UCL				52.5		
73	95% Hall's Bootstrap UCL			52.73	95% Percentile Bootstrap UCL				51.79		
74	95% BCA Bootstrap UCL			52.05							
75	90% Chebyshev(Mean, Sd) UCL			53.92	95% Chebyshev(Mean, Sd) UCL				56.07		
76	97.5% Chebyshev(Mean, Sd) UCL			59.06	99% Chebyshev(Mean, Sd) UCL				64.94		
77											
78	Suggested UCL to Use										
79	95% Student's-t UCL			51.91							
80											
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
82	Recommendations are based upon data size, data distribution, and skewness.										
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
85											
86											
87	Nickel										
88											
89	General Statistics										
90	Total Number of Observations			19	Number of Distinct Observations				16		
91					Number of Missing Observations				0		
92	Minimum			73	Mean				87.37		
93	Maximum			110	Median				87		
94	SD			9.633	Std. Error of Mean				2.21		
95	Coefficient of Variation			0.11	Skewness				0.62		
96											
97	Normal GOF Test										
98	Shapiro Wilk Test Statistic			0.958	Shapiro Wilk GOF Test						
99	5% Shapiro Wilk Critical Value			0.901	Data appear Normal at 5% Significance Level						
100	Lilliefors Test Statistic			0.132	Lilliefors GOF Test						
101	5% Lilliefors Critical Value			0.197	Data appear Normal at 5% Significance Level						
102	Data appear Normal at 5% Significance Level										
103											
104	Assuming Normal Distribution										
105	95% Normal UCL				95% UCLs (Adjusted for Skewness)						
106	95% Student's-t UCL			91.2	95% Adjusted-CLT UCL (Chen-1995)				91.34		
107					95% Modified-t UCL (Johnson-1978)				91.25		
108											
109	Gamma GOF Test										
110	A-D Test Statistic			0.274	Anderson-Darling Gamma GOF Test						
111	5% A-D Critical Value			0.738	Detected data appear Gamma Distributed at 5% Significance Level						
112	K-S Test Statistic			0.133	Kolmogorov-Smirnov Gamma GOF Test						
113	5% K-S Critical Value			0.198	Detected data appear Gamma Distributed at 5% Significance Level						
114	Detected data appear Gamma Distributed at 5% Significance Level										
115											

A	B	C	D	E	F	G	H	I	J	K	L	
116	Gamma Statistics											
117	k hat (MLE)				89.38	k star (bias corrected MLE)				75.31		
118	Theta hat (MLE)				0.977	Theta star (bias corrected MLE)				1.16		
119	nu hat (MLE)				3397	nu star (bias corrected)				2862		
120	MLE Mean (bias corrected)				87.37	MLE Sd (bias corrected)				10.07		
121						Approximate Chi Square Value (0.05)				2738		
122	Adjusted Level of Significance				0.0369	Adjusted Chi Square Value				2728		
123												
124	Assuming Gamma Distribution											
125	95% Approximate Gamma UCL (use when n>=50)				91.3	95% Adjusted Gamma UCL (use when n<50)				91.65		
126												
127	Lognormal GOF Test											
128	Shapiro Wilk Test Statistic				0.971	Shapiro Wilk Lognormal GOF Test						
129	5% Shapiro Wilk Critical Value				0.901	Data appear Lognormal at 5% Significance Level						
130	Lilliefors Test Statistic				0.125	Lilliefors Lognormal GOF Test						
131	5% Lilliefors Critical Value				0.197	Data appear Lognormal at 5% Significance Level						
132	Data appear Lognormal at 5% Significance Level											
133												
134	Lognormal Statistics											
135	Minimum of Logged Data				4.29	Mean of logged Data				4.465		
136	Maximum of Logged Data				4.7	SD of logged Data				0.108		
137												
138	Assuming Lognormal Distribution											
139	95% H-UCL				91.33	90% Chebyshev (MVUE) UCL				93.87		
140	95% Chebyshev (MVUE) UCL				96.82	97.5% Chebyshev (MVUE) UCL				100.9		
141	99% Chebyshev (MVUE) UCL				109							
142												
143	Nonparametric Distribution Free UCL Statistics											
144	Data appear to follow a Discernible Distribution at 5% Significance Level											
145												
146	Nonparametric Distribution Free UCLs											
147	95% CLT UCL				91	95% Jackknife UCL				91.2		
148	95% Standard Bootstrap UCL				90.98	95% Bootstrap-t UCL				91.82		
149	95% Hall's Bootstrap UCL				91.54	95% Percentile Bootstrap UCL				90.95		
150	95% BCA Bootstrap UCL				90.95							
151	90% Chebyshev(Mean, Sd) UCL				94	95% Chebyshev(Mean, Sd) UCL				97		
152	97.5% Chebyshev(Mean, Sd) UCL				101.2	99% Chebyshev(Mean, Sd) UCL				109.4		
153												
154	Suggested UCL to Use											
155	95% Student's-t UCL				91.2							
156												
157	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
158	Recommendations are based upon data size, data distribution, and skewness.											
159	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
160	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
161												

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	D01.0220220617120824_01	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



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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

Sydney
179 Magowar Road
Girraween NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

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

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

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220607043422-Eurofin-22
Project ID: JC0927

Order No.:
Report #: 895177
Phone: 08 8338 1009
Fax:

Received: Jun 7, 2022 11:41 AM
Due: Jun 10, 2022
Priority: 3 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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_20220606_09_24_S_S_Triplicate_EUF	Jun 06, 2022	9:24AM	Soil	M22-Jn0013279		X	X	X
2	SX_OB_20220606_09_28_S_S_Primary_EUF	Jun 06, 2022	9:28AM	Soil	M22-Jn0013280		X	X	X
3	SX_OB_20220606_12_11_S_S_Primary_EUF	Jun 06, 2022	12:11PM	Soil	M22-Jn0013281		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220607043422-Eurofin-22
Project ID: JC0927

Order No.:
Report #: 895177
Phone: 08 8338 1009
Fax:

Received: Jun 7, 2022 11:41 AM
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Priority: 3 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
4	SX_OB_20220606_12_18_S_S_Triplicate_EUF	Jun 06, 2022	12:18PM	Soil	M22-Jn0013282		X	X	X
5	SX_OB_20220606_16_15_S_S_Primary_EUF	Jun 06, 2022	4:15PM	Soil	M22-Jn0013283		X	X	X
6	SX_OB_20220606_16_17_S_S_Duplicate_EUF	Jun 06, 2022	4:17PM	Soil	M22-Jn0013284		X	X	X
7	SX_OB_20220606_20_09_S	Jun 06, 2022	8:09PM	Soil	M22-Jn0013285		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220607043422-Eurofin-22
Project ID: JC0927

Order No.:
Report #: 895177
Phone: 08 8338 1009
Fax:

Received: Jun 7, 2022 11:41 AM
Due: Jun 10, 2022
Priority: 3 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	S_Primary_EU F								
8	SX_OB_20220 606_20_10_S S_Duplicate_E UF	Jun 06, 2022	8:10PM	Soil	M22- Jn0013286		X	X	X
9	SX_OB_20220 607_00_09_S S_Primary_EU F	Jun 07, 2022	9:00AM	Soil	M22- Jn0013287		X	X	X
10	SX_OB_20220 607_04_14_S S_Primary_EU F	Jun 07, 2022	4:14AM	Soil	M22- Jn0013288		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 7, 2022 11:41 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895177	Due:	Jun 10, 2022
Project Name:	20220607043422-Eurofin-22	Phone:	08 8338 1009	Priority:	3 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
11	SX_OB_20220606_09_24_S_S_Triplicate_EUF	Jun 06, 2022	9:24AM	AUS Leachate - pH 5.0	M22-Jn0013289	X		X	
12	SX_OB_20220606_09_28_S_S_Primary_EUF	Jun 06, 2022	9:28AM	AUS Leachate - pH 5.0	M22-Jn0013290	X		X	
13	SX_OB_20220606_12_11_S_S_Primary_EUF	Jun 06, 2022	12:11PM	AUS Leachate - pH 5.0	M22-Jn0013291	X		X	
14	SX_OB_20220606_12_18_S	Jun 06, 2022	12:18PM	AUS Leachate - pH 5.0	M22-Jn0013292	X		X	



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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NATA # 1261 Site # 1254

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Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220607043422-Eurofin-22
Project ID: JC0927

Order No.:
Report #: 895177
Phone: 08 8338 1009
Fax:

Received: Jun 7, 2022 11:41 AM
Due: Jun 10, 2022
Priority: 3 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	S_Triplicate_EUF								
15	SX_OB_20220606_16_15_S_S_Primary_EUF	Jun 06, 2022	4:15PM	AUS Leachate - pH 5.0	M22-Jn0013293	X		X	
16	SX_OB_20220606_16_17_S_S_Duplicate_EUF	Jun 06, 2022	4:17PM	AUS Leachate - pH 5.0	M22-Jn0013294	X		X	
17	SX_OB_20220606_20_09_S_S_Primary_EUF	Jun 06, 2022	8:09PM	AUS Leachate - pH 5.0	M22-Jn0013295	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 WGTP 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									
18	SX_OB_20220606_20_10_S_S_Duplicate_EUF	Jun 06, 2022	8:10PM	AUS Leachate - pH 5.0	M22-Jn0013296	X		X	
19	SX_OB_20220607_00_09_S_S_Primary_EUF	Jun 07, 2022	9:00AM	AUS Leachate - pH 5.0	M22-Jn0013297	X		X	
20	SX_OB_20220607_04_14_S_S_Primary_EUF	Jun 07, 2022	4:14AM	AUS Leachate - pH 5.0	M22-Jn0013298	X		X	
21	SX_OB_20220606_09_24_S	Jun 06, 2022	9:24AM	AUS Leachate - Reagent	M22-Jn0013299	X		X	



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Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
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SA 5063
Project Name: 20220607043422-Eurofin-22
Project ID: JC0927

Order No.:
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Received: Jun 7, 2022 11:41 AM
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Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	S_Triplicate_EUF			Water					
22	SX_OB_20220606_09_28_S_S_Primary_EUF	Jun 06, 2022	9:28AM	AUS Leachate - Reagent Water	M22-Jn0013300	X		X	
23	SX_OB_20220606_12_11_S_S_Primary_EUF	Jun 06, 2022	12:11PM	AUS Leachate - Reagent Water	M22-Jn0013301	X		X	
24	SX_OB_20220606_12_18_S_S_Triplicate_EUF	Jun 06, 2022	12:18PM	AUS Leachate - Reagent Water	M22-Jn0013302	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 WGTP 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									
25	SX_OB_20220606_16_15_S_S_Primary_EU_F	Jun 06, 2022	4:15PM	AUS Leachate - Reagent Water	M22-Jn0013303	X		X	
26	SX_OB_20220606_16_17_S_S_Duplicate_EUF	Jun 06, 2022	4:17PM	AUS Leachate - Reagent Water	M22-Jn0013304	X		X	
27	SX_OB_20220606_20_09_S_S_Primary_EU_F	Jun 06, 2022	8:09PM	AUS Leachate - Reagent Water	M22-Jn0013305	X		X	
28	SX_OB_20220606_20_10_S	Jun 06, 2022	8:10PM	AUS Leachate - Reagent	M22-Jn0013306	X		X	



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SA 5063

Project Name: 20220607043422-Eurofin-22
Project ID: JC0927

Order No.:
Report #: 895177
Phone: 08 8338 1009
Fax:

Received: Jun 7, 2022 11:41 AM
Due: Jun 10, 2022
Priority: 3 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	S_Duplicate_EUF			Water					
29	SX_OB_20220607_00_09_S_S_Primary_EUF	Jun 07, 2022	9:00AM	AUS Leachate - Reagent Water	M22-Jn0013307	X		X	
30	SX_OB_20220607_04_14_S_S_Primary_EUF	Jun 07, 2022	4:14AM	AUS Leachate - Reagent Water	M22-Jn0013308	X		X	
Test Counts						20	10	30	10

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: - ALL SPOIL REPORTS WGTP Mother Hub

Report **895177-L**
Project name 20220607043422-Eurofin-22
Project ID JC0927
Received Date Jun 07, 2022

Client Sample ID			SX_OB_20220 606_09_24_SS _TriPLICATE_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF	SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_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- Jn0013289	M22- Jn0013290	M22- Jn0013291	M22- Jn0013292
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	93	93	102	88
13C5-PFPeA (surr.)	1	%	93	96	98	90
13C5-PFHxA (surr.)	1	%	105	122	113	126
13C4-PFHpA (surr.)	1	%	104	105	113	110
13C8-PFOA (surr.)	1	%	139	147	144	140
13C5-PFNA (surr.)	1	%	106	112	117	122
13C6-PFDA (surr.)	1	%	141	104	107	82
13C2-PFUnDA (surr.)	1	%	101	92	98	58
13C2-PFDoDA (surr.)	1	%	106	92	102	64
13C2-PFTeDA (surr.)	1	%	119	102	121	77

Client Sample ID			SX_OB_20220 606_09_24_SS _TriPLICATE_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF	SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_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- Jn0013289	M22- Jn0013290	M22- Jn0013291	M22- Jn0013292
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	85	81	80	32
D3-N-MeFOSA (surr.)	1	%	32	24	25	12
D5-N-EtFOSA (surr.)	1	%	41	31	34	21
D7-N-MeFOSE (surr.)	1	%	65	58	62	28
D9-N-EtFOSE (surr.)	1	%	67	58	64	35
D5-N-EtFOSAA (surr.)	1	%	86	82	96	48
D3-N-MeFOSAA (surr.)	1	%	97	95	100	53
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	119	128	130	130
18O2-PFHxS (surr.)	1	%	109	115	113	117
13C8-PFOS (surr.)	1	%	103	106	106	91
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	94	108	106	120
13C2-6:2 FTSA (surr.)	1	%	143	113	120	132
13C2-8:2 FTSA (surr.)	1	%	81	75	87	67
13C2-10:2 FTSA (surr.)	1	%	70	64	71	50
PFASs Summations						
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 606_16_15_SS _Primary_EUF	SX_OB_20220 606_16_17_SS _Duplicate_EU F	SX_OB_20220 606_20_09_SS _Primary_EUF	SX_OB_20220 606_20_10_SS _Duplicate_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- Jn0013293	M22- Jn0013294	M22- Jn0013295	M22- Jn0013296
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	109	70	97	85
13C5-PFPeA (surr.)	1	%	104	69	91	91
13C5-PFHxA (surr.)	1	%	116	81	104	102
13C4-PFHpA (surr.)	1	%	122	75	104	91
13C8-PFOA (surr.)	1	%	153	103	141	123
13C5-PFNA (surr.)	1	%	126	83	122	99
13C6-PFDA (surr.)	1	%	121	76	103	86
13C2-PFUnDA (surr.)	1	%	102	71	96	72
13C2-PFDoDA (surr.)	1	%	89	70	98	70
13C2-PFTTeDA (surr.)	1	%	93	81	116	79
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	87	59	79	60
D3-N-MeFOSA (surr.)	1	%	26	20	28	16
D5-N-EtFOSA (surr.)	1	%	29	25	34	19
D7-N-MeFOSE (surr.)	1	%	57	45	58	42
D9-N-EtFOSE (surr.)	1	%	58	46	61	42
D5-N-EtFOSAA (surr.)	1	%	95	63	86	64
D3-N-MeFOSAA (surr.)	1	%	105	71	94	72

Client Sample ID			SX_OB_20220 606_16_15_SS _Primary_EUF	SX_OB_20220 606_16_17_SS _Duplicate_EU F	SX_OB_20220 606_20_09_SS _Primary_EUF	SX_OB_20220 606_20_10_SS _Duplicate_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- Jn0013293	M22- Jn0013294	M22- Jn0013295	M22- Jn0013296
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	141	97	132	116
18O2-PFHxS (surr.)	1	%	124	87	116	103
13C8-PFOS (surr.)	1	%	113	80	106	91
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	144	75	123	88
13C2-6:2 FTSA (surr.)	1	%	145	90	117	106
13C2-8:2 FTSA (surr.)	1	%	94	59	88	62
13C2-10:2 FTSA (surr.)	1	%	76	51	70	52
PFASs Summations						
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 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_SS _Primary_EUF	SX_OB_20220 606_09_24_SS _Triplicate_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Jn0013297	M22- Jn0013298	M22- Jn0013299	M22- Jn0013300
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	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	5.0	5.0	6.3	6.3
pH (off)	0.1	pH Units	5.0	5.1	9.0	8.6

Client Sample ID			SX_OB_20220 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_SS _Primary_EUF	SX_OB_20220 606_09_24_SS _Triplicate_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Jn0013297	M22- Jn0013298	M22- Jn0013299	M22- Jn0013300
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	92	96	77	91
13C5-PFPeA (surr.)	1	%	106	101	91	101
13C5-PFHxA (surr.)	1	%	122	107	89	111
13C4-PFHpA (surr.)	1	%	104	102	92	97
13C8-PFOA (surr.)	1	%	141	137	123	141
13C5-PFNA (surr.)	1	%	119	122	88	105
13C6-PFDA (surr.)	1	%	109	106	128	113
13C2-PFUnDA (surr.)	1	%	111	99	100	109
13C2-PFDoDA (surr.)	1	%	117	103	108	118
13C2-PFTeDA (surr.)	1	%	143	100	118	135
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	89	85	88	101
D3-N-MeFOSA (surr.)	1	%	35	26	70	58
D5-N-EtFOSA (surr.)	1	%	44	34	73	64
D7-N-MeFOSE (surr.)	1	%	69	62	60	68
D9-N-EtFOSE (surr.)	1	%	73	64	61	71
D5-N-EtFOSAA (surr.)	1	%	92	92	86	97
D3-N-MeFOSAA (surr.)	1	%	106	105	100	110
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_SS _Primary_EUF	SX_OB_20220 606_09_24_SS _Triplicate_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Jn0013297	M22- Jn0013298	M22- Jn0013299	M22- Jn0013300
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	129	128	94	128
18O2-PFHxS (surr.)	1	%	112	116	88	112
13C8-PFOS (surr.)	1	%	106	111	95	111
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	98	99	77	89
13C2-6:2 FTSA (surr.)	1	%	123	121	113	107
13C2-8:2 FTSA (surr.)	1	%	106	97	74	77
13C2-10:2 FTSA (surr.)	1	%	82	77	80	79
PFASs Summations						
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 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_SS _Triplicate_EU F	SX_OB_20220 606_16_15_SS _Primary_EUF	SX_OB_20220 606_16_17_SS _Duplicate_EU F
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Jn0013301	M22- Jn0013302	M22- Jn0013303	M22- Jn0013304
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	6.3	6.3	6.3	6.3
pH (off)	0.1	pH Units	8.3	8.6	8.6	8.6
Perfluoroalkyl carboxylic acids (PFCA)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_SS _Triuplicate_EU F	SX_OB_20220 606_16_15_SS _Primary_EUF	SX_OB_20220 606_16_17_SS _Duplicate_EU F
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Jn0013301	M22- Jn0013302	M22- Jn0013303	M22- Jn0013304
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTeDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	93	90	91	94
13C5-PFPeA (surr.)	1	%	106	88	93	90
13C5-PFHxA (surr.)	1	%	110	117	97	102
13C4-PFHpA (surr.)	1	%	103	107	104	102
13C8-PFOA (surr.)	1	%	143	141	137	131
13C5-PFNA (surr.)	1	%	106	110	120	114
13C6-PFDA (surr.)	1	%	111	118	113	111
13C2-PFUnDA (surr.)	1	%	113	112	115	117
13C2-PFDoDA (surr.)	1	%	114	123	125	122
13C2-PFTeDA (surr.)	1	%	130	146	143	144
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	99	101	104	101
D3-N-MeFOSA (surr.)	1	%	30	51	57	38
D5-N-EtFOSA (surr.)	1	%	37	57	67	45
D7-N-MeFOSE (surr.)	1	%	59	70	67	65
D9-N-EtFOSE (surr.)	1	%	63	71	74	70
D5-N-EtFOSAA (surr.)	1	%	104	107	108	106
D3-N-MeFOSAA (surr.)	1	%	116	110	112	119
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	128	125	124	124
18O2-PFHxS (surr.)	1	%	113	112	115	112
13C8-PFOS (surr.)	1	%	114	113	110	109

Client Sample ID			SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_SS _TriPLICATE_EU F	SX_OB_20220 606_16_15_SS _Primary_EUF	SX_OB_20220 606_16_17_SS _Duplicate_EU F
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Jn0013301	M22- Jn0013302	M22- Jn0013303	M22- Jn0013304
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	93	104	101	100
13C2-6:2 FTSA (surr.)	1	%	112	115	103	106
13C2-8:2 FTSA (surr.)	1	%	94	86	82	83
13C2-10:2 FTSA (surr.)	1	%	81	90	82	88
PFASs Summations						
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 606_20_09_SS _Primary_EUF	SX_OB_20220 606_20_10_SS _Duplicate_EU F	SX_OB_20220 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_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- Jn0013305	M22- Jn0013306	M22- Jn0013307	M22- Jn0013308
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	6.3	6.3	6.3	6.3
pH (off)	0.1	pH Units	8.6	8.6	8.3	8.3
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	93	93	92	94

Client Sample ID			SX_OB_20220 606_20_09_SS _Primary_EUF	SX_OB_20220 606_20_10_SS _Duplicate_EU F	SX_OB_20220 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_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- Jn0013305	M22- Jn0013306	M22- Jn0013307	M22- Jn0013308
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFPeA (surr.)	1	%	90	102	90	96
13C5-PFHxA (surr.)	1	%	101	106	91	112
13C4-PFHpA (surr.)	1	%	106	104	109	109
13C8-PFOA (surr.)	1	%	133	139	125	136
13C5-PFNA (surr.)	1	%	120	109	123	118
13C6-PFDA (surr.)	1	%	107	111	114	112
13C2-PFUnDA (surr.)	1	%	115	113	113	119
13C2-PFDoDA (surr.)	1	%	120	122	124	129
13C2-PFTeDA (surr.)	1	%	137	135	141	134
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	99	102	103	96
D3-N-MeFOSA (surr.)	1	%	52	37	38	58
D5-N-EtFOSA (surr.)	1	%	61	40	43	66
D7-N-MeFOSE (surr.)	1	%	68	65	67	71
D9-N-EtFOSE (surr.)	1	%	71	68	69	74
D5-N-EtFOSAA (surr.)	1	%	104	105	108	106
D3-N-MeFOSAA (surr.)	1	%	109	114	113	115
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	114	125	119	124
18O2-PFHxS (surr.)	1	%	108	110	111	108
13C8-PFOS (surr.)	1	%	116	107	111	112

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Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Jn0013305	M22- Jn0013306	M22- Jn0013307	M22- Jn0013308
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	102	102	97	100
13C2-6:2 FTSA (surr.)	1	%	111	116	124	122
13C2-8:2 FTSA (surr.)	1	%	81	84	104	107
13C2-10:2 FTSA (surr.)	1	%	89	79	88	88
PFASs Summations						
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	Jun 07, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Jun 07, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Jun 07, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	

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Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895177	Due:	Jun 10, 2022
Project Name:	20220607043422-Eurofin-22	Phone:	08 8338 1009	Priority:	3 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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_20220606_09_24_S_S_Triplicate_EUF	Jun 06, 2022	9:24AM	Soil	M22-Jn0013279		X	X	X
2	SX_OB_20220606_09_28_S_S_Primary_EUF	Jun 06, 2022	9:28AM	Soil	M22-Jn0013280		X	X	X
3	SX_OB_20220606_12_11_S_S_Primary_EUF	Jun 06, 2022	12:11PM	Soil	M22-Jn0013281		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
4	SX_OB_20220606_12_18_S_S_Triplicate_EUF	Jun 06, 2022	12:18PM	Soil	M22-Jn0013282		X	X	X
5	SX_OB_20220606_16_15_S_S_Primary_EUF	Jun 06, 2022	4:15PM	Soil	M22-Jn0013283		X	X	X
6	SX_OB_20220606_16_17_S_S_Duplicate_EUF	Jun 06, 2022	4:17PM	Soil	M22-Jn0013284		X	X	X
7	SX_OB_20220606_20_09_S	Jun 06, 2022	8:09PM	Soil	M22-Jn0013285		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	S_Primary_EU F								
8	SX_OB_20220 606_20_10_S S_Duplicate_E UF	Jun 06, 2022	8:10PM	Soil	M22- Jn0013286		X	X	X
9	SX_OB_20220 607_00_09_S S_Primary_EU F	Jun 07, 2022	9:00AM	Soil	M22- Jn0013287		X	X	X
10	SX_OB_20220 607_04_14_S S_Primary_EU F	Jun 07, 2022	4:14AM	Soil	M22- Jn0013288		X	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 WGTP 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									
11	SX_OB_20220606_09_24_S_S_Triplicate_EUF	Jun 06, 2022	9:24AM	AUS Leachate - pH 5.0	M22-Jn0013289	X		X	
12	SX_OB_20220606_09_28_S_S_Primary_EUF	Jun 06, 2022	9:28AM	AUS Leachate - pH 5.0	M22-Jn0013290	X		X	
13	SX_OB_20220606_12_11_S_S_Primary_EUF	Jun 06, 2022	12:11PM	AUS Leachate - pH 5.0	M22-Jn0013291	X		X	
14	SX_OB_20220606_12_18_S	Jun 06, 2022	12:18PM	AUS Leachate - pH 5.0	M22-Jn0013292	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 WGTP 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									
	S_Triplicate_EUF								
15	SX_OB_20220606_16_15_S_S_Primary_EUF	Jun 06, 2022	4:15PM	AUS Leachate - pH 5.0	M22-Jn0013293	X		X	
16	SX_OB_20220606_16_17_S_S_Duplicate_EUF	Jun 06, 2022	4:17PM	AUS Leachate - pH 5.0	M22-Jn0013294	X		X	
17	SX_OB_20220606_20_09_S_S_Primary_EUF	Jun 06, 2022	8:09PM	AUS Leachate - pH 5.0	M22-Jn0013295	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
18	SX_OB_20220606_20_10_S_S_Duplicate_EUF	Jun 06, 2022	8:10PM	AUS Leachate - pH 5.0	M22-Jn0013296	X		X	
19	SX_OB_20220607_00_09_S_S_Primary_EUF	Jun 07, 2022	9:00AM	AUS Leachate - pH 5.0	M22-Jn0013297	X		X	
20	SX_OB_20220607_04_14_S_S_Primary_EUF	Jun 07, 2022	4:14AM	AUS Leachate - pH 5.0	M22-Jn0013298	X		X	
21	SX_OB_20220606_09_24_S	Jun 06, 2022	9:24AM	AUS Leachate - Reagent	M22-Jn0013299	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	S_Triplicate_EUF			Water					
22	SX_OB_20220606_09_28_S_S_Primary_EUF	Jun 06, 2022	9:28AM	AUS Leachate - Reagent Water	M22-Jn0013300	X	X		
23	SX_OB_20220606_12_11_S_S_Primary_EUF	Jun 06, 2022	12:11PM	AUS Leachate - Reagent Water	M22-Jn0013301	X	X		
24	SX_OB_20220606_12_18_S_S_Triplicate_EUF	Jun 06, 2022	12:18PM	AUS Leachate - Reagent Water	M22-Jn0013302	X	X		

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Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
25	SX_OB_20220606_16_15_S_S_Primary_EU_F	Jun 06, 2022	4:15PM	AUS Leachate - Reagent Water	M22-Jn0013303	X		X	
26	SX_OB_20220606_16_17_S_S_Duplicate_EUF	Jun 06, 2022	4:17PM	AUS Leachate - Reagent Water	M22-Jn0013304	X		X	
27	SX_OB_20220606_20_09_S_S_Primary_EU_F	Jun 06, 2022	8:09PM	AUS Leachate - Reagent Water	M22-Jn0013305	X		X	
28	SX_OB_20220606_20_10_S	Jun 06, 2022	8:10PM	AUS Leachate - Reagent	M22-Jn0013306	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	S_Duplicate_EUF			Water					
29	SX_OB_20220607_00_09_S_S_Primary_EUF	Jun 07, 2022	9:00AM	AUS Leachate - Reagent Water	M22-Jn0013307	X		X	
30	SX_OB_20220607_04_14_S_S_Primary_EUF	Jun 07, 2022	4:14AM	AUS Leachate - Reagent Water	M22-Jn0013308	X		X	
Test Counts						20	10	30	10

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

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

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	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.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	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
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
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	
Method Blank						
Perfluoroalkyl sulfonamido substances						
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	
Method Blank						
Perfluoroalkyl sulfonic acids (PFASs)						
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	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	121		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	123		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	109		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	109		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	98		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	90		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	105		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	109		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	111		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	108		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	107		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code		
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)	%	94			50-150	Pass			
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	103			50-150	Pass			
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	106			50-150	Pass			
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	108			50-150	Pass			
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	103			50-150	Pass			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	105			50-150	Pass			
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	105			50-150	Pass			
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)									
Perfluorobutanesulfonic acid (PFBS)	%	97			50-150	Pass			
Perfluorononanesulfonic acid (PFNS)	%	104			50-150	Pass			
Perfluoropropanesulfonic acid (PFPrS)	%	97			50-150	Pass			
Perfluoropentanesulfonic acid (PFPeS)	%	91			50-150	Pass			
Perfluorohexanesulfonic acid (PFHxS)	%	103			50-150	Pass			
Perfluoroheptanesulfonic acid (PFHpS)	%	108			50-150	Pass			
Perfluorooctanesulfonic acid (PFOS)	%	101			50-150	Pass			
Perfluorodecanesulfonic acid (PFDS)	%	97			50-150	Pass			
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	105			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)	%	130			50-150	Pass			
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	103			50-150	Pass			
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)									
				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-Jn0013291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances									
				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-Jn0013291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0013291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0013291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0013291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0013291	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-Jn0013291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0013291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0013291	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-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0013291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Jn0013291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0013291	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
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:

Callum McEwan	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS
Mary Makarios	Senior Analyst-Sample Properties



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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Accreditation Number 1261
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
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Attention: - ALL SPOIL REPORTS WGTP Mother Hub

Report **895177-S**
Project name 20220607043422-Eurofin-22
Project ID JC0927
Received Date Jun 07, 2022

Client Sample ID			SX_OB_20220 606_09_24_SS _TriPLICATE_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF	SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_SS _TriPLICATE_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013279	M22- Jn0013280	M22- Jn0013281	M22- Jn0013282
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
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 ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
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 606_09_24_SS _TriPLICATE_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF	SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_SS _TriPLICATE_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013279	M22- Jn0013280	M22- Jn0013281	M22- Jn0013282
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	60	129	148	142
Toluene-d8 (surr.)	1	%	57	136	135	137
Polycyclic Aromatic Hydrocarbons						
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 606_09_24_SS _TriPLICATE_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF	SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_SS _TriPLICATE_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013279	M22- Jn0013280	M22- Jn0013281	M22- Jn0013282
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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 ^{N07}	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	%	88	113	115	114
p-Terphenyl-d14 (surr.)	1	%	87	113	116	107
Organochlorine Pesticides						
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	%	59	65	56	69
Tetrachloro-m-xylene (surr.)	1	%	99	113	117	115

Client Sample ID			SX_OB_20220 606_09_24_SS _TriPLICATE_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF	SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_SS _TriPLICATE_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013279	M22- Jn0013280	M22- Jn0013281	M22- Jn0013282
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
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	%	59	65	56	69
Tetrachloro-m-xylene (surr.)	1	%	99	113	117	115
Phenols (Halogenated)						
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
Phenols (non-Halogenated)						
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	%	78	115	114	109
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	9.4	7.2	7.6	8.6
% Moisture						
% Moisture	1	%	34	33	32	31
Heavy Metals						
Arsenic	2	mg/kg	35	42	57	61
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	130	110	130	110
Copper	5	mg/kg	59	45	48	52
Lead	5	mg/kg	5.1	7.5	7.4	7.3
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 606_09_24_SS _Triuplicate_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF	SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_SS _Triuplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013279	M22- Jn0013280	M22- Jn0013281	M22- Jn0013282
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	170	110	120	120
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	86	86	89
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	91	95	84	81
13C5-PFPeA (surr.)	1	%	105	113	103	91
13C5-PFHxA (surr.)	1	%	97	105	97	95
13C4-PFHpA (surr.)	1	%	93	101	93	91
13C8-PFOA (surr.)	1	%	103	111	108	104
13C5-PFNA (surr.)	1	%	96	102	96	98
13C6-PFDA (surr.)	1	%	79	96	95	82
13C2-PFUnDA (surr.)	1	%	106	115	113	107
13C2-PFDoDA (surr.)	1	%	105	99	102	106
13C2-PFTeDA (surr.)	1	%	94	94	99	89
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	90	96	97	102
D3-N-MeFOSA (surr.)	1	%	96	88	89	88
D5-N-EtFOSA (surr.)	1	%	94	97	97	91
D7-N-MeFOSE (surr.)	1	%	95	88	86	94
D9-N-EtFOSE (surr.)	1	%	102	103	100	102
D5-N-EtFOSAA (surr.)	1	%	103	94	121	129
D3-N-MeFOSAA (surr.)	1	%	102	101	101	99

Client Sample ID			SX_OB_20220 606_09_24_SS _TriPLICATE_EU F	SX_OB_20220 606_09_28_SS _Primary_EUF	SX_OB_20220 606_12_11_SS _Primary_EUF	SX_OB_20220 606_12_18_SS _TriPLICATE_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013279	M22- Jn0013280	M22- Jn0013281	M22- Jn0013282
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	92	94	92	89
18O2-PFHxS (surr.)	1	%	95	93	86	91
13C8-PFOS (surr.)	1	%	94	92	72	66
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	87	90	89	86
13C2-6:2 FTSA (surr.)	1	%	83	77	88	83
13C2-8:2 FTSA (surr.)	1	%	64	70	66	63
13C2-10:2 FTSA (surr.)	1	%	111	93	93	131
PFASs Summations						
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 606_16_15_SS _Primary_EUF	SX_OB_20220 606_16_17_SS _Duplicate_EU F	SX_OB_20220 606_20_09_SS _Primary_EUF	SX_OB_20220 606_20_10_SS _Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013283	M22- Jn0013284	M22- Jn0013285	M22- Jn0013286
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
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 ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			SX_OB_20220 606_16_15_SS _Primary_EUF	SX_OB_20220 606_16_17_SS _Duplicate_EU F	SX_OB_20220 606_20_09_SS _Primary_EUF	SX_OB_20220 606_20_10_SS _Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013283	M22- Jn0013284	M22- Jn0013285	M22- Jn0013286
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
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

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013283	M22- Jn0013284	M22- Jn0013285	M22- Jn0013286
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	106	77	109	105
Toluene-d8 (surr.)	1	%	90	115	109	87
Polycyclic Aromatic Hydrocarbons						
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 ^{N07}	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	%	72	60	57	127
p-Terphenyl-d14 (surr.)	1	%	70	76	83	103

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013283	M22- Jn0013284	M22- Jn0013285	M22- Jn0013286
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
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
Dibutylchlorendate (surr.)	1	%	70	71	71	113
Tetrachloro-m-xylene (surr.)	1	%	75	85	81	50
Polychlorinated Biphenyls						
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	%	70	71	71	113
Tetrachloro-m-xylene (surr.)	1	%	75	85	81	50
Phenols (Halogenated)						
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

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013283	M22- Jn0013284	M22- Jn0013285	M22- Jn0013286
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
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	54	46	32
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.2	7.3	7.3	7.4
% Moisture						
% Moisture	1	%	28	27	27	26
Heavy Metals						
Arsenic	2	mg/kg	40	120	37	42
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	83	100	88	82
Copper	5	mg/kg	41	69	36	40
Lead	5	mg/kg	7.8	12	8.1	8.0
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	100	110	88	110
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	67	81	59	68
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	81	81	102	81
13C5-PFPeA (surr.)	1	%	95	91	106	101
13C5-PFHxA (surr.)	1	%	98	94	116	100

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013283	M22- Jn0013284	M22- Jn0013285	M22- Jn0013286
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	95	93	114	95
13C8-PFOA (surr.)	1	%	98	96	118	110
13C5-PFNA (surr.)	1	%	94	97	111	100
13C6-PFDA (surr.)	1	%	85	80	98	88
13C2-PFUnDA (surr.)	1	%	91	104	118	124
13C2-PFDoDA (surr.)	1	%	95	99	116	116
13C2-PFTeDA (surr.)	1	%	73	86	102	101
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	88	87	105	96
D3-N-MeFOSA (surr.)	1	%	79	85	105	89
D5-N-EtFOSA (surr.)	1	%	84	84	109	97
D7-N-MeFOSE (surr.)	1	%	95	95	102	95
D9-N-EtFOSE (surr.)	1	%	93	96	108	100
D5-N-EtFOSAA (surr.)	1	%	103	108	107	111
D3-N-MeFOSAA (surr.)	1	%	82	102	117	123
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	101	95	106	96
18O2-PFHxS (surr.)	1	%	96	84	105	85
13C8-PFOS (surr.)	1	%	66	81	76	82
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	87	86	106	85
13C2-6:2 FTSA (surr.)	1	%	91	89	91	86

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0013283	M22- Jn0013284	M22- Jn0013285	M22- Jn0013286
Date Sampled			Jun 06, 2022	Jun 06, 2022	Jun 06, 2022	Jun 06, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-8:2 FTSA (surr.)	1	%	55	56	77	59
13C2-10:2 FTSA (surr.)	1	%	78	117	126	113
PFASs Summations						
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 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- Jn0013287	M22- Jn0013288
Date Sampled			Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
Volatile Organics				
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5
Volatile Organics				
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- Jn0013287	M22- Jn0013288
Date Sampled			Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit		
Volatile Organics				
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	111	106
Toluene-d8 (surr.)	1	%	92	92

Client Sample ID			SX_OB_20220 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- Jn0013287	M22- Jn0013288
Date Sampled			Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	134	66
p-Terphenyl-d14 (surr.)	1	%	50	91
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- Jn0013287	M22- Jn0013288
Date Sampled			Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Dibutylchlorendate (surr.)	1	%	147	78
Tetrachloro-m-xylene (surr.)	1	%	60	77
Polychlorinated Biphenyls				
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	147	78
Tetrachloro-m-xylene (surr.)	1	%	60	77
Phenols (Halogenated)				
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1
Phenols (non-Halogenated)				
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	112	139
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20
Chromium (hexavalent)				
Chromium (hexavalent)	1	mg/kg	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.6	8.5
% Moisture	1	%	29	29

Client Sample ID			SX_OB_20220 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- Jn0013287	M22- Jn0013288
Date Sampled			Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit		
Heavy Metals				
Arsenic	2	mg/kg	58	54
Cadmium	1	mg/kg	< 1	< 1
Chromium	5	mg/kg	110	100
Copper	5	mg/kg	36	44
Lead	5	mg/kg	8.5	7.8
Mercury	0.1	mg/kg	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5
Nickel	5	mg/kg	90	91
Selenium	5	mg/kg	< 5	< 5
Silver	2	mg/kg	< 2	< 2
Tin	10	mg/kg	< 10	< 10
Zinc	5	mg/kg	56	63
Perfluoroalkyl carboxylic acids (PFCAs)				
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5
Perfluorotridecanoic acid (PFTeDA) ^{N15}	5	ug/kg	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5
13C4-PFBA (surr.)	1	%	77	86
13C5-PFPeA (surr.)	1	%	90	90
13C5-PFHxA (surr.)	1	%	95	96
13C4-PFHpA (surr.)	1	%	92	100
13C8-PFOA (surr.)	1	%	98	96
13C5-PFNA (surr.)	1	%	101	102
13C6-PFDA (surr.)	1	%	73	86
13C2-PFUnDA (surr.)	1	%	109	111
13C2-PFDoDA (surr.)	1	%	108	104
13C2-PFTeDA (surr.)	1	%	98	99
Perfluoroalkyl sulfonamido substances				
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10
13C8-FOSA (surr.)	1	%	100	90
D3-N-MeFOSA (surr.)	1	%	86	92

Client Sample ID			SX_OB_20220 607_00_09_SS _Primary_EUF	SX_OB_20220 607_04_14_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- Jn0013287	M22- Jn0013288
Date Sampled			Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D5-N-EtFOSA (surr.)	1	%	95	97
D7-N-MeFOSE (surr.)	1	%	103	101
D9-N-EtFOSE (surr.)	1	%	102	111
D5-N-EtFOSAA (surr.)	1	%	119	127
D3-N-MeFOSAA (surr.)	1	%	115	110
Perfluoroalkyl sulfonic acids (PFASs)				
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5
13C3-PFBS (surr.)	1	%	92	92
18O2-PFHxS (surr.)	1	%	86	102
13C8-PFOS (surr.)	1	%	73	62
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	81	85
13C2-6:2 FTSA (surr.)	1	%	89	92
13C2-8:2 FTSA (surr.)	1	%	64	65
13C2-10:2 FTSA (surr.)	1	%	127	131
PFASs Summations				
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 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	Jun 07, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jun 07, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jun 07, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Jun 07, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Jun 07, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jun 07, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Jun 07, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Jun 07, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jun 07, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jun 07, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	Jun 07, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Jun 08, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	Jun 08, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Jun 07, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Jun 07, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Jun 07, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 07, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 7, 2022 11:41 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895177	Due:	Jun 10, 2022
Project Name:	20220607043422-Eurofin-22	Phone:	08 8338 1009	Priority:	3 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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_20220606_09_24_S_S_Triplicate_EUF	Jun 06, 2022	9:24AM	Soil	M22-Jn0013279		X	X	X
2	SX_OB_20220606_09_28_S_S_Primary_EUF	Jun 06, 2022	9:28AM	Soil	M22-Jn0013280		X	X	X
3	SX_OB_20220606_12_11_S_S_Primary_EUF	Jun 06, 2022	12:11PM	Soil	M22-Jn0013281		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
4	SX_OB_20220606_12_18_S_S_Triplicate_EUF	Jun 06, 2022	12:18PM	Soil	M22-Jn0013282		X	X	X
5	SX_OB_20220606_16_15_S_S_Primary_EUF	Jun 06, 2022	4:15PM	Soil	M22-Jn0013283		X	X	X
6	SX_OB_20220606_16_17_S_S_Duplicate_EUF	Jun 06, 2022	4:17PM	Soil	M22-Jn0013284		X	X	X
7	SX_OB_20220606_20_09_S	Jun 06, 2022	8:09PM	Soil	M22-Jn0013285		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
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Project Name: 20220607043422-Eurofin-22
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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	S_Primary_EU F								
8	SX_OB_20220 606_20_10_S S_Duplicate_E UF	Jun 06, 2022	8:10PM	Soil	M22- Jn0013286		X	X	X
9	SX_OB_20220 607_00_09_S S_Primary_EU F	Jun 07, 2022	9:00AM	Soil	M22- Jn0013287		X	X	X
10	SX_OB_20220 607_04_14_S S_Primary_EU F	Jun 07, 2022	4:14AM	Soil	M22- Jn0013288		X	X	X

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Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
11	SX_OB_20220606_09_24_S_S_Triplicate_EUF	Jun 06, 2022	9:24AM	AUS Leachate - pH 5.0	M22-Jn0013289	X		X	
12	SX_OB_20220606_09_28_S_S_Primary_EUF	Jun 06, 2022	9:28AM	AUS Leachate - pH 5.0	M22-Jn0013290	X		X	
13	SX_OB_20220606_12_11_S_S_Primary_EUF	Jun 06, 2022	12:11PM	AUS Leachate - pH 5.0	M22-Jn0013291	X		X	
14	SX_OB_20220606_12_18_S	Jun 06, 2022	12:18PM	AUS Leachate - pH 5.0	M22-Jn0013292	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 WGTP 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									
	S_Triplicate_EUF								
15	SX_OB_20220606_16_15_S_S_Primary_EUF	Jun 06, 2022	4:15PM	AUS Leachate - pH 5.0	M22-Jn0013293	X		X	
16	SX_OB_20220606_16_17_S_S_Duplicate_EUF	Jun 06, 2022	4:17PM	AUS Leachate - pH 5.0	M22-Jn0013294	X		X	
17	SX_OB_20220606_20_09_S_S_Primary_EUF	Jun 06, 2022	8:09PM	AUS Leachate - pH 5.0	M22-Jn0013295	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 WGTP 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									
18	SX_OB_20220606_20_10_S_S_Duplicate_EUF	Jun 06, 2022	8:10PM	AUS Leachate - pH 5.0	M22-Jn0013296	X		X	
19	SX_OB_20220607_00_09_S_S_Primary_EUF	Jun 07, 2022	9:00AM	AUS Leachate - pH 5.0	M22-Jn0013297	X		X	
20	SX_OB_20220607_04_14_S_S_Primary_EUF	Jun 07, 2022	4:14AM	AUS Leachate - pH 5.0	M22-Jn0013298	X		X	
21	SX_OB_20220606_09_24_S	Jun 06, 2022	9:24AM	AUS Leachate - Reagent	M22-Jn0013299	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 WGTP 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									
	S_Triplicate_EUF			Water					
22	SX_OB_20220606_09_28_S_S_Primary_EUF	Jun 06, 2022	9:28AM	AUS Leachate - Reagent Water	M22-Jn0013300	X		X	
23	SX_OB_20220606_12_11_S_S_Primary_EUF	Jun 06, 2022	12:11PM	AUS Leachate - Reagent Water	M22-Jn0013301	X		X	
24	SX_OB_20220606_12_18_S_S_Triplicate_EUF	Jun 06, 2022	12:18PM	AUS Leachate - Reagent Water	M22-Jn0013302	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
25	SX_OB_20220606_16_15_S_S_Primary_EU_F	Jun 06, 2022	4:15PM	AUS Leachate - Reagent Water	M22-Jn0013303	X		X	
26	SX_OB_20220606_16_17_S_S_Duplicate_EUF	Jun 06, 2022	4:17PM	AUS Leachate - Reagent Water	M22-Jn0013304	X		X	
27	SX_OB_20220606_20_09_S_S_Primary_EU_F	Jun 06, 2022	8:09PM	AUS Leachate - Reagent Water	M22-Jn0013305	X		X	
28	SX_OB_20220606_20_10_S	Jun 06, 2022	8:10PM	AUS Leachate - Reagent	M22-Jn0013306	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	S_Duplicate_EUF			Water					
29	SX_OB_20220607_00_09_S_S_Primary_EUF	Jun 07, 2022	9:00AM	AUS Leachate - Reagent Water	M22-Jn0013307	X		X	
30	SX_OB_20220607_04_14_S_S_Primary_EUF	Jun 07, 2022	4:14AM	AUS Leachate - Reagent Water	M22-Jn0013308	X		X	
Test Counts						20	10	30	10

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

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

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	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.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	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
Method Blank							
Total Recoverable Hydrocarbons							
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	
Method Blank							
Volatile Organics							
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
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	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
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	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 1			1	Pass	
2,4,6-Trichlorophenol	mg/kg	< 1			1	Pass	
2,6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4,6-dinitrophenol	mg/kg	< 5			5	Pass	
2-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	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 1			1	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	< 5			5	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	
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
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 (PFTTrDA)	ug/kg	< 5		5	Pass	
Perfluorotetradecanoic acid (PFTTeDA)	ug/kg	< 5		5	Pass	
Method Blank						
Perfluoroalkyl sulfonamido substances						
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	
Method Blank						
Perfluoroalkyl sulfonic acids (PFSAs)						
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	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	
LCS - % Recovery						
Total Recoverable Hydrocarbons						
TRH C6-C9	%	89		70-130	Pass	
TRH C10-C14	%	90		70-130	Pass	
Naphthalene	%	112		70-130	Pass	
TRH C6-C10	%	89		70-130	Pass	
TRH >C10-C16	%	99		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	84		70-130	Pass	
1.1.1-Trichloroethane	%	88		70-130	Pass	
1.2-Dichlorobenzene	%	86		70-130	Pass	
1.2-Dichloroethane	%	99		70-130	Pass	
Benzene	%	76		70-130	Pass	
Ethylbenzene	%	84		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	77			70-130	Pass	
Toluene	%	86			70-130	Pass	
Trichloroethene	%	94			70-130	Pass	
Xylenes - Total*	%	79			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	75			70-130	Pass	
Acenaphthylene	%	90			70-130	Pass	
Anthracene	%	93			70-130	Pass	
Benz(a)anthracene	%	83			70-130	Pass	
Benzo(a)pyrene	%	93			70-130	Pass	
Benzo(b&i)fluoranthene	%	80			70-130	Pass	
Benzo(g,h,i)perylene	%	99			70-130	Pass	
Benzo(k)fluoranthene	%	87			70-130	Pass	
Chrysene	%	81			70-130	Pass	
Dibenz(a,h)anthracene	%	87			70-130	Pass	
Fluoranthene	%	87			70-130	Pass	
Fluorene	%	84			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	81			70-130	Pass	
Naphthalene	%	94			70-130	Pass	
Phenanthrene	%	86			70-130	Pass	
Pyrene	%	90			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	84			70-130	Pass	
4,4'-DDD	%	87			70-130	Pass	
4,4'-DDE	%	83			70-130	Pass	
4,4'-DDT	%	106			70-130	Pass	
a-HCH	%	91			70-130	Pass	
Aldrin	%	76			70-130	Pass	
b-HCH	%	105			70-130	Pass	
d-HCH	%	113			70-130	Pass	
Dieldrin	%	89			70-130	Pass	
Endosulfan I	%	84			70-130	Pass	
Endosulfan II	%	77			70-130	Pass	
Endosulfan sulphate	%	77			70-130	Pass	
Endrin	%	82			70-130	Pass	
Endrin aldehyde	%	92			70-130	Pass	
Endrin ketone	%	89			70-130	Pass	
g-HCH (Lindane)	%	92			70-130	Pass	
Heptachlor	%	81			70-130	Pass	
Heptachlor epoxide	%	84			70-130	Pass	
Hexachlorobenzene	%	92			70-130	Pass	
Methoxychlor	%	94			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	91			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	54			25-140	Pass	
2,4-Dichlorophenol	%	51			25-140	Pass	
2,4,5-Trichlorophenol	%	94			25-140	Pass	
2,4,6-Trichlorophenol	%	97			25-140	Pass	
2,6-Dichlorophenol	%	47			25-140	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	96		25-140	Pass	
Pentachlorophenol	%	71		25-140	Pass	
Tetrachlorophenols - Total	%	126		25-140	Pass	
LCS - % Recovery						
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	%	73		25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	76		25-140	Pass	
2-Nitrophenol	%	106		25-140	Pass	
2,4-Dimethylphenol	%	98		25-140	Pass	
2,4-Dinitrophenol	%	50		25-140	Pass	
2-Methylphenol (o-Cresol)	%	50		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	50		25-140	Pass	
4-Nitrophenol	%	103		25-140	Pass	
Dinoseb	%	88		25-140	Pass	
Phenol	%	51		25-140	Pass	
LCS - % Recovery						
Chromium (hexavalent)	%	86		70-130	Pass	
Cyanide (total)	%	96		70-130	Pass	
Fluoride (Total)	%	78		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	108		80-120	Pass	
Cadmium	%	104		80-120	Pass	
Chromium	%	111		80-120	Pass	
Copper	%	110		80-120	Pass	
Lead	%	114		80-120	Pass	
Mercury	%	105		80-120	Pass	
Molybdenum	%	110		80-120	Pass	
Nickel	%	106		80-120	Pass	
Selenium	%	103		80-120	Pass	
Silver	%	109		80-120	Pass	
Tin	%	105		80-120	Pass	
Zinc	%	108		80-120	Pass	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	104		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	97		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	87		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	91		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	84		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	78		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	94		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	92		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	81		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	88		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	89		50-150	Pass	
LCS - % Recovery						
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)	%	92		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	92		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	101		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	97		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	100		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	71		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	93			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	83			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	120			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	107			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	88			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	95			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	63			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	90			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	104			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	108			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	90			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	143			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	99			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C10-C14	M22-Jn0012435	NCP	%	91		70-130	Pass	
TRH >C10-C16	M22-Jn0012435	NCP	%	98		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-Jn0019256	NCP	%	96		70-130	Pass	
Acenaphthylene	M22-Jn0019256	NCP	%	105		70-130	Pass	
Anthracene	M22-Jn0019256	NCP	%	84		70-130	Pass	
Benz(a)anthracene	M22-Jn0019256	NCP	%	96		70-130	Pass	
Benzo(a)pyrene	M22-Jn0019256	NCP	%	85		70-130	Pass	
Benzo(b&j)fluoranthene	M22-Jn0019256	NCP	%	78		70-130	Pass	
Benzo(g,h,i)perylene	M22-Jn0019256	NCP	%	113		70-130	Pass	
Benzo(k)fluoranthene	M22-Jn0019256	NCP	%	92		70-130	Pass	
Chrysene	M22-Jn0019256	NCP	%	104		70-130	Pass	
Dibenz(a,h)anthracene	M22-Jn0019256	NCP	%	77		70-130	Pass	
Fluoranthene	M22-Jn0019256	NCP	%	102		70-130	Pass	
Fluorene	M22-Jn0019256	NCP	%	101		70-130	Pass	
Indeno(1.2.3-cd)pyrene	M22-Jn0019256	NCP	%	74		70-130	Pass	
Naphthalene	M22-Jn0019256	NCP	%	104		70-130	Pass	
Phenanthrene	M22-Jn0019256	NCP	%	104		70-130	Pass	
Pyrene	M22-Jn0019256	NCP	%	114		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-Jn0019256	NCP	%	92		30-130	Pass	
2,4-Dichlorophenol	M22-Jn0019256	NCP	%	91		30-130	Pass	
2,4,5-Trichlorophenol	M22-Jn0019256	NCP	%	88		30-130	Pass	
2,4,6-Trichlorophenol	M22-Jn0019256	NCP	%	124		30-130	Pass	
2,6-Dichlorophenol	M22-Jn0019256	NCP	%	86		30-130	Pass	
4-Chloro-3-methylphenol	M22-Jn0019256	NCP	%	119		30-130	Pass	
Pentachlorophenol	M22-Jn0019256	NCP	%	89		30-130	Pass	
Tetrachlorophenols - Total	M22-Jn0019256	NCP	%	115		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-Jn0019256	NCP	%	100		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-Jn0019256	NCP	%	113		30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
2-Nitrophenol	M22-Jn0019256	NCP	%	123		30-130	Pass	
2,4-Dimethylphenol	M22-Jn0019256	NCP	%	102		30-130	Pass	
2,4-Dinitrophenol	M22-Jn0019256	NCP	%	98		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Jn0019256	NCP	%	83		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Jn0019256	NCP	%	89		30-130	Pass	
4-Nitrophenol	M22-Jn0019256	NCP	%	110		30-130	Pass	
Dinoseb	M22-Jn0019256	NCP	%	112		30-130	Pass	
Phenol	M22-Jn0019256	NCP	%	87		30-130	Pass	
Spike - % Recovery								
				Result 1				
Cyanide (total)	M22-Jn0011713	NCP	%	102		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-Jn0013368	NCP	%	93		75-125	Pass	
Cadmium	M22-Jn0013368	NCP	%	102		75-125	Pass	
Chromium	M22-Jn0013368	NCP	%	104		75-125	Pass	
Copper	M22-Jn0013368	NCP	%	86		75-125	Pass	
Lead	M22-Jn0013368	NCP	%	103		75-125	Pass	
Mercury	M22-Jn0013368	NCP	%	103		75-125	Pass	
Molybdenum	M22-Jn0013368	NCP	%	103		75-125	Pass	
Nickel	M22-Jn0013368	NCP	%	88		75-125	Pass	
Selenium	M22-Jn0013368	NCP	%	91		75-125	Pass	
Silver	M22-Jn0013368	NCP	%	80		75-125	Pass	
Tin	M22-Jn0013368	NCP	%	100		75-125	Pass	
Zinc	M22-Jn0013368	NCP	%	91		75-125	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	M22-Jn0011234	NCP	%	77		70-130	Pass	
Aroclor-1260	M22-Jn0011234	NCP	%	88		70-130	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Jn0013280	CP	%	98		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Jn0013280	CP	%	91		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Jn0013280	CP	%	86		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Jn0013280	CP	%	91		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Jn0013280	CP	%	83		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Jn0013280	CP	%	81		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Jn0013280	CP	%	88		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0013280	CP	%	86		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Jn0013280	CP	%	82		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Jn0013280	CP	%	79		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0013280	CP	%	81		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Jn0013280	CP	%	82		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0013280	CP	%	105		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0013280	CP	%	92		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0013280	CP	%	86		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0013280	CP	%	93		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Jn0013280	CP	%	72		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0013280	CP	%	84		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0013280	CP	%	82		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Jn0013280	CP	%	122		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0013280	CP	%	105		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0013280	CP	%	85		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0013280	CP	%	92		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0013280	CP	%	62		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0013280	CP	%	96		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0013280	CP	%	103		50-150	Pass	
Spike - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Jn0013280	CP	%	105		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0013280	CP	%	87		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Jn0013280	CP	%	135		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0013280	CP	%	93		50-150	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M22-Jn0013283	CP	%	108		70-130	Pass	
Naphthalene	M22-Jn0013283	CP	%	88		70-130	Pass	
TRH C6-C10	M22-Jn0013283	CP	%	107		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	M22-Jn0013283	CP	%	92		70-130	Pass	
1.1.1-Trichloroethane	M22-Jn0013283	CP	%	91		70-130	Pass	
1.2-Dichlorobenzene	M22-Jn0013283	CP	%	80		70-130	Pass	
1.2-Dichloroethane	M22-Jn0013283	CP	%	95		70-130	Pass	
Benzene	M22-Jn0013283	CP	%	84		70-130	Pass	
Ethylbenzene	M22-Jn0013283	CP	%	87		70-130	Pass	
m&p-Xylenes	M22-Jn0013283	CP	%	88		70-130	Pass	
o-Xylene	M22-Jn0013283	CP	%	90		70-130	Pass	
Toluene	M22-Jn0013283	CP	%	89		70-130	Pass	
Trichloroethene	M22-Jn0013283	CP	%	94		70-130	Pass	
Xylenes - Total*	M22-Jn0013283	CP	%	89		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-Jn0013284	CP	%	80		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDD	M22-Jn0013284	CP	%	104			70-130	Pass	
4.4'-DDE	M22-Jn0013284	CP	%	83			70-130	Pass	
4.4'-DDT	M22-Jn0013284	CP	%	79			70-130	Pass	
a-HCH	M22-Jn0013284	CP	%	86			70-130	Pass	
Aldrin	M22-Jn0013284	CP	%	84			70-130	Pass	
b-HCH	M22-Jn0013284	CP	%	88			70-130	Pass	
d-HCH	M22-Jn0013284	CP	%	102			70-130	Pass	
Dieldrin	M22-Jn0013284	CP	%	95			70-130	Pass	
Endosulfan I	M22-Jn0013284	CP	%	85			70-130	Pass	
Endosulfan II	M22-Jn0013284	CP	%	75			70-130	Pass	
Endosulfan sulphate	M22-Jn0013284	CP	%	87			70-130	Pass	
Endrin	M22-Jn0013284	CP	%	78			70-130	Pass	
Endrin aldehyde	M22-Jn0013284	CP	%	89			70-130	Pass	
Endrin ketone	M22-Jn0013284	CP	%	77			70-130	Pass	
g-HCH (Lindane)	M22-Jn0013284	CP	%	76			70-130	Pass	
Heptachlor	M22-Jn0013284	CP	%	72			70-130	Pass	
Heptachlor epoxide	M22-Jn0013284	CP	%	84			70-130	Pass	
Hexachlorobenzene	M22-Jn0013284	CP	%	78			70-130	Pass	
Methoxychlor	M22-Jn0013284	CP	%	89			70-130	Pass	
Spike - % Recovery									
				Result 1					
Fluoride (Total)	M22-Jn0013287	CP	%	76			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	M22-Jn0012440	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-Jn0012440	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-Jn0012440	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	M22-Jn0012440	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-Jn0012440	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-Jn0012440	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)anthracene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Jn0008962	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Jn0008962	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Jn0008962	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Jn0008962	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Jn0008962	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Jn0008962	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Jn0008962	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Jn0008962	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Jn0008962	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Jn0008962	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dichlorophenol	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4.5-Trichlorophenol	M22-Jn0008962	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4.6-Trichlorophenol	M22-Jn0008962	NCP	mg/kg	< 1	< 1	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Jn0008962	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Jn0008962	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Jn0008962	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4.6-dinitrophenol	M22-Jn0008962	NCP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4.6-dinitrophenol	M22-Jn0008962	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Jn0008962	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4-Dimethylphenol	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dinitrophenol	M22-Jn0008962	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Jn0008962	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Jn0008962	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Jn0008962	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Jn0008962	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Jn0008962	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-Jn0015226	NCP	mg/kg	< 5	< 5	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Jn0014098	NCP	pH Units	9.4	9.3	pass	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S22-Jn0005071	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Cadmium	S22-Jn0005071	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-Jn0013368	NCP	mg/kg	21	21	1.0	30%	Pass
Copper	S22-Jn0005071	NCP	mg/kg	13	13	1.0	30%	Pass
Lead	S22-Jn0005071	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Mercury	S22-Jn0005071	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	S22-Jn0005071	NCP	mg/kg	8.4	8.4	<1	30%	Pass
Nickel	S22-Jn0005071	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Selenium	S22-Jn0005071	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	S22-Jn0005071	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	S22-Jn0005071	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	S22-Jn0005071	NCP	mg/kg	36	37	1.0	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Jn0007503	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0007503	NCP	ug/kg	< 10	< 10	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFASs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<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-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0007503	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0007503	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Heptachlor epoxide	M22-Jn0008951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2,6-Dichlorophenol	M22-Jn0008951	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	M22-Jn0013280	CP	%	33	31	8.0	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	M22-Jn0013282	CP	mg/kg	< 20	< 20	<1	30%	Pass
Naphthalene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	M22-Jn0013282	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Hexachlorobutadiene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1,1-Dichloroethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2,4-Trichlorobenzene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1-Dichloroethene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1,1-Trichloroethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1,1,2-Tetrachloroethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1,2-Trichloroethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1,2,2-Tetrachloroethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2-Dibromoethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2-Dichlorobenzene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2-Dichloroethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.2-Dichloropropane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-Jn0013282	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-Jn0013282	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-Jn0013282	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-Jn0013282	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-Jn0013282	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1.2-Dichloroethene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-Jn0013282	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-Jn0013282	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Jn0013285	CP	mg/kg	< 1	< 1	<1	30%	Pass
Fluoride (Total)	M22-Jn0013285	CP	mg/kg	< 100	< 100	<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).

Authorised by:

Callum McEwan	Analytical Services Manager
Caitlin Breeze	Senior Analyst-Inorganic
Edward Lee	Senior Analyst-Organic
Harry Bacalis	Senior Analyst-Volatile
Joseph Edouard	Senior Analyst-Organic
Joseph Edouard	Senior Analyst-PFAS
Joseph Edouard	Senior Analyst-Volatile
Linda Chouman	Senior Analyst-Sample Properties
Mary Makarios	Senior Analyst-Metal
Mele Singh	Senior Analyst-Volatile
Scott Beddoes	Senior Analyst-Inorganic



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

Eurofins | Environment Testing | ABN 50 005 045 531

Sydney Laboratory
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Brisbane Laboratory
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07 3902 4600 EnviroSampleQLD@eurofins.com

Perth Laboratory
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08 9251 9600 EnviroSampleWA@eurofins.com

Melbourne Laboratory
6 Monterey 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)	Will + Martha											
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		Project Name	20220608044922-Eurofin-52					EDD Format	ESdat, EOUIS etc					Esdat	Handed over by											
Contact Name		Craig Trimbur David Lawson		Analyses Where metals are requested, please specify 'Total' or 'Filtered'. SUITE code must be used to attach SUITE pricing	Spoil Sample Preparation Suite WGPTR-TRH/PAH/Phenols/OCPI/PCB/VOG/Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn) Cr6+ 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					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 noted													
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					*Surcharge will apply													
Purchase Order										250mL Plastic					<input type="checkbox"/> Overnight (reporting by 9am)♦													
Quote ID No		Agon WGPTR TST		125mL Plastic					<input type="checkbox"/> Same day♦ <input type="checkbox"/> 1 day♦																			
				200mL Amber Glass					<input type="checkbox"/> 2 days♦ <input type="checkbox"/> 3 days♦																			
				40mL VOA vial					<input type="checkbox"/> 5 days (Standard)																			
				500mL PFAS Bottle					<input type="checkbox"/> Other()																			
				Jar (Glass or HDPE)																								
				Other (Asbestos AS4684, WA Guidelines)																								
No	Client Sample ID	Sampled Date/Time	Matrix						Sample Comments / Dangerous Goods Hazard Warning																			
		dd/mm/yyyy hh:mm	Solid (S) Water (W)																									
1	SX_OB_20220607_08_37_SS_Triplicate_EUF	07.06.2022 08:37	S	X	X	X	X	X																				
2	SX_OB_20220607_08_39_SS_Primary_EUF	07.06.2022 08:39	S	X	X	X	X	X																				
3	SX_OB_20220607_11_53_SS_Primary_EUF	07.06.2022 11:53	S	X	X	X	X	X																				
4	SX_OB_20220607_16_31_SS_Primary_EUF	07.06.2022 16:31	S	X	X	X	X	X																				
5	SX_OB_20220607_16_31_SS_Duplicate_EUF	07.06.2022 16:31	S	X	X	X	X	X																				
6	SX_OB_20220607_17_47_SR_Rinsate_EUF	07.06.2022 17:47	W			X			8/6/22 2:00 PM																			
7	SX_OB_20220607_17_48_SB_Blank_EUF	07.06.2022 17:48	W			X			10.3																			
8	SX_OB_20220607_20_19_SS_Primary_EUF	07.06.2022 20:19	S	X	X	X	X	X	10.1 10.2 TY Gouze																			
9	SX_OB_20220608_01_59_SS_Triplicate_EUF	08.06.2022 01:59	S	X	X	X	X	X																				
10	SX_OB_20220608_04_02_SS_Primary_EUF	08.06.2022 04:02	S	X	X	X	X	X																				
11																												
12																												
13																												
Total Counts				8	8	10	8	8																				
Method of Shipment		<input type="checkbox"/> Courier (#) <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal		Name					Signature					Date					Time									
Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW					Signature					Date					Time					Temperature				
		Received By		SYD BNE MEL PER ADL NTL DRW					Signature					Date					Time					Report No				

895630
TY



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Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220608044922-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 895630
Phone: 08 8338 1009
Fax:

Received: Jun 8, 2022 2:00 PM
Due: Jun 16, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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_20220607_08_37_S_S_Triplicate_EUF	Jun 07, 2022	8:37AM	Soil	M22-Jn0016783		X	X	X
2	SX_OB_20220607_08_39_S_S_Primary_EUF	Jun 07, 2022	8:39AM	Soil	M22-Jn0016784		X	X	X
3	SX_OB_20220607_11_53_S_S_Primary_EUF	Jun 07, 2022	11:53AM	Soil	M22-Jn0016785		X	X	X

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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									
4	SX_OB_20220607_16_31_S_S_Primary_EU_F	Jun 07, 2022	4:31PM	Soil	M22-Jn0016786		X	X	X
5	SX_OB_20220607_16_31_S_S_Duplicate_EUF	Jun 07, 2022	4:31PM	Soil	M22-Jn0016787		X	X	X
6	SX_OB_20220607_17_47_S_R_Rinsate_EU_F	Jun 07, 2022	5:47PM	Water	M22-Jn0016788			X	
7	SX_OB_20220607_17_48_S	Jun 07, 2022	5:48PM	Water	M22-Jn0016789			X	



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Received: Jun 8, 2022 2:00 PM
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Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

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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_Blank_EUF								
8	SX_OB_20220607_20_19_S_S_Primary_EUF	Jun 07, 2022	8:19PM	Soil	M22-Jn0016790		X	X	X
9	SX_OB_20220608_01_59_S_S_Triplicate_EUF	Jun 08, 2022	1:59AM	Soil	M22-Jn0016791		X	X	X
10	SX_OB_20220608_04_02_S_S_Primary_EUF	Jun 08, 2022	4:02AM	Soil	M22-Jn0016792		X	X	X
11	SX_OB_20220	Jun 07, 2022	8:37AM	AUS Leachate	M22-	X		X	



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Project Name: 20220608044922-Eurofin-52
Project ID: JC0927

Order No.:
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Phone: 08 8338 1009
Fax:

Received: Jun 8, 2022 2:00 PM
Due: Jun 16, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	607_08_37_S S_Triplicate_E UF			- pH 5.0	Jn0016793				
12	SX_OB_20220 607_08_39_S S_Primary_EU F	Jun 07, 2022	8:39AM	AUS Leachate - pH 5.0	M22- Jn0016794	X		X	
13	SX_OB_20220 607_11_53_S S_Primary_EU F	Jun 07, 2022	11:53AM	AUS Leachate - pH 5.0	M22- Jn0016795	X		X	
14	SX_OB_20220 607_16_31_S S_Primary_EU	Jun 07, 2022	4:31PM	AUS Leachate - pH 5.0	M22- Jn0016796	X		X	



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Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP Suite
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Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	F								
15	SX_OB_20220607_16_31_S_S_Duplicate_EUF	Jun 07, 2022	4:31PM	AUS Leachate - pH 5.0	M22-Jn0016797	X		X	
16	SX_OB_20220607_20_19_S_S_Primary_EUF	Jun 07, 2022	8:19PM	AUS Leachate - pH 5.0	M22-Jn0016798	X		X	
17	SX_OB_20220608_01_59_S_S_Triplicate_EUF	Jun 08, 2022	1:59AM	AUS Leachate - pH 5.0	M22-Jn0016799	X		X	
18	SX_OB_20220	Jun 08, 2022	4:02AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

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Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	608_04_02_S S_Primary_EU F			- pH 5.0	Jn0016800				
19	SX_OB_20220 607_08_37_S S_Triplicate_E UF	Jun 07, 2022	8:37AM	AUS Leachate - Reagent Water	M22- Jn0016801	X		X	
20	SX_OB_20220 607_08_39_S S_Primary_EU F	Jun 07, 2022	8:39AM	AUS Leachate - Reagent Water	M22- Jn0016802	X		X	
21	SX_OB_20220 607_11_53_S S_Primary_EU	Jun 07, 2022	11:53AM	AUS Leachate - Reagent Water	M22- Jn0016803	X		X	



Environment Testing

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NATA # 1261 Site # 18217

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NATA # 1261 Site # 20794

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Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
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SA 5063

Project Name: 20220608044922-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 895630
Phone: 08 8338 1009
Fax:

Received: Jun 8, 2022 2:00 PM
Due: Jun 16, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	F								
22	SX_OB_20220607_16_31_S_S_Primary_EU_F	Jun 07, 2022	4:31PM	AUS Leachate - Reagent Water	M22-Jn0016804	X		X	
23	SX_OB_20220607_16_31_S_S_Duplicate_EUF	Jun 07, 2022	4:31PM	AUS Leachate - Reagent Water	M22-Jn0016805	X		X	
24	SX_OB_20220607_20_19_S_S_Primary_EU_F	Jun 07, 2022	8:19PM	AUS Leachate - Reagent Water	M22-Jn0016806	X		X	
25	SX_OB_20220	Jun 08, 2022	1:59AM	AUS Leachate	M22-	X		X	



Environment Testing

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NATA # 1261 Site # 20794

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Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
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SA 5063

Project Name: 20220608044922-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 895630
Phone: 08 8338 1009
Fax:

Received: Jun 8, 2022 2:00 PM
Due: Jun 16, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	608_01_59_S S_Triplicate_E UF			- Reagent Water	Jn0016807				
26	SX_OB_20220 608_04_02_S S_Primary_EU F	Jun 08, 2022	4:02AM	AUS Leachate - Reagent Water	M22- Jn0016808	X		X	
Test Counts						16	8	26	8

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: - ALL SPOIL REPORTS WGTP Mother Hub

Report **895630-L**
Project name 20220608044922-Eurofin-52
Project ID JC0927
Received Date Jun 08, 2022

Client Sample ID			SX_OB_20220 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_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- Jn0016793	M22- Jn0016794	M22- Jn0016795	M22- Jn0016796
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	4.9	4.9	4.9	4.9
pH (off)	0.1	pH Units	5.3	5.0	5.1	5.1
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	66	73	84	51
13C5-PFPeA (surr.)	1	%	75	71	101	71
13C5-PFHxA (surr.)	1	%	89	73	84	53
13C4-PFHpA (surr.)	1	%	79	77	108	68
13C8-PFOA (surr.)	1	%	109	100	131	86
13C5-PFNA (surr.)	1	%	76	74	100	69
13C6-PFDA (surr.)	1	%	69	86	101	85
13C2-PFUnDA (surr.)	1	%	60	83	92	86
13C2-PFDoDA (surr.)	1	%	69	95	107	95
13C2-PFTTeDA (surr.)	1	%	106	129	133	125

Client Sample ID			SX_OB_20220 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_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- Jn0016793	M22- Jn0016794	M22- Jn0016795	M22- Jn0016796
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	54	81	77	60
D3-N-MeFOSA (surr.)	1	%	61	64	60	13
D5-N-EtFOSA (surr.)	1	%	84	87	70	15
D7-N-MeFOSE (surr.)	1	%	39	50	48	29
D9-N-EtFOSE (surr.)	1	%	38	47	46	24
D5-N-EtFOSAA (surr.)	1	%	77	119	125	110
D3-N-MeFOSAA (surr.)	1	%	59	88	95	85
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	96	94	117	75
18O2-PFHxS (surr.)	1	%	85	76	109	69
13C8-PFOS (surr.)	1	%	67	76	92	70
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	95	84	113	87
13C2-6:2 FTSA (surr.)	1	%	138	149	189	139
13C2-8:2 FTSA (surr.)	1	%	53	80	91	71
13C2-10:2 FTSA (surr.)	1	%	62	96	104	101
PFASs Summations						
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 607_16_31_SS Duplicate_EU F	SX_OB_20220 607_20_19_SS Primary_EUF	SX_OB_20220 608_01_59_SS Triplicate_EU F	SX_OB_20220 608_04_02_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- Jn0016797	M22- Jn0016798	M22- Jn0016799	M22- Jn0016800
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	4.9	4.9	4.9	4.9
pH (off)	0.1	pH Units	5.1	5.1	5.1	5.1
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	75	59	83	77
13C5-PFPeA (surr.)	1	%	89	69	98	92
13C5-PFHxA (surr.)	1	%	72	61	82	77
13C4-PFHpA (surr.)	1	%	85	72	97	97
13C8-PFOA (surr.)	1	%	116	94	121	122
13C5-PFNA (surr.)	1	%	91	71	100	102
13C6-PFDA (surr.)	1	%	99	85	108	118
13C2-PFUnDA (surr.)	1	%	90	79	96	112
13C2-PFDoDA (surr.)	1	%	99	91	100	122
13C2-PFTTeDA (surr.)	1	%	141	146	132	188
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	74	71	77	97
D3-N-MeFOSA (surr.)	1	%	80	58	71	78
D5-N-EtFOSA (surr.)	1	%	100	79	87	102
D7-N-MeFOSE (surr.)	1	%	50	50	50	63
D9-N-EtFOSE (surr.)	1	%	51	48	48	62
D5-N-EtFOSAA (surr.)	1	%	124	100	118	137
D3-N-MeFOSAA (surr.)	1	%	93	80	92	101

Client Sample ID			SX_OB_20220 607_16_31_SS Duplicate_EU F	SX_OB_20220 607_20_19_SS Primary_EUF	SX_OB_20220 608_01_59_SS Triplicate_EU F	SX_OB_20220 608_04_02_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- Jn0016797	M22- Jn0016798	M22- Jn0016799	M22- Jn0016800
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	102	79	116	114
18O2-PFHxS (surr.)	1	%	92	79	102	101
13C8-PFOS (surr.)	1	%	83	75	91	96
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	119	86	121	121
13C2-6:2 FTSA (surr.)	1	%	196	189	104	125
13C2-8:2 FTSA (surr.)	1	%	91	65	91	83
13C2-10:2 FTSA (surr.)	1	%	107	92	99	136
PFASs Summations						
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 607_08_37_SS Triplicate_EU F	SX_OB_20220 607_08_39_SS Primary_EUF	SX_OB_20220 607_11_53_SS Primary_EUF	SX_OB_20220 607_16_31_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- Jn0016801	M22- Jn0016802	M22- Jn0016803	M22- Jn0016804
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	8.4	8.2	8.5	8.7

Client Sample ID			SX_OB_20220 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_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- Jn0016801	M22- Jn0016802	M22- Jn0016803	M22- Jn0016804
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	83	55	44	55
13C5-PFPeA (surr.)	1	%	108	78	49	61
13C5-PFHxA (surr.)	1	%	102	66	48	55
13C4-PFHpA (surr.)	1	%	103	71	56	65
13C8-PFOA (surr.)	1	%	130	92	67	80
13C5-PFNA (surr.)	1	%	101	70	54	64
13C6-PFDA (surr.)	1	%	122	80	54	78
13C2-PFUnDA (surr.)	1	%	117	76	60	78
13C2-PFDoDA (surr.)	1	%	126	78	69	83
13C2-PFTeDA (surr.)	1	%	179	109	109	108
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	111	71	55	70
D3-N-MeFOSA (surr.)	1	%	107	29	61	59
D5-N-EtFOSA (surr.)	1	%	134	35	81	72
D7-N-MeFOSE (surr.)	1	%	65	41	36	41
D9-N-EtFOSE (surr.)	1	%	65	41	39	43
D5-N-EtFOSAA (surr.)	1	%	148	94	79	96
D3-N-MeFOSAA (surr.)	1	%	118	79	61	79
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_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- Jn0016801	M22- Jn0016802	M22- Jn0016803	M22- Jn0016804
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	116	83	57	79
18O2-PFHxS (surr.)	1	%	105	77	56	71
13C8-PFOS (surr.)	1	%	98	71	52	67
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	115	81	64	88
13C2-6:2 FTSA (surr.)	1	%	194	165	116	127
13C2-8:2 FTSA (surr.)	1	%	80	73	46	70
13C2-10:2 FTSA (surr.)	1	%	119	72	64	79
PFASs Summations						
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 607_16_31_SS _Duplicate_EU F	SX_OB_20220 607_20_19_SS _Primary_EUF	SX_OB_20220 608_01_59_SS _TriPLICATE_EU F	SX_OB_20220 608_04_02_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- Jn0016805	M22- Jn0016806	M22- Jn0016807	M22- Jn0016808
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	8.6	8.7	8.7	8.7
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 607_16_31_SS Duplicate_EU F	SX_OB_20220 607_20_19_SS Primary_EUF	SX_OB_20220 608_01_59_SS Triplicate_EU F	SX_OB_20220 608_04_02_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- Jn0016805	M22- Jn0016806	M22- Jn0016807	M22- Jn0016808
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTeDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	47	94	88	85
13C5-PFPeA (surr.)	1	%	55	103	95	90
13C5-PFHxA (surr.)	1	%	42	81	73	72
13C4-PFHpA (surr.)	1	%	52	94	94	96
13C8-PFOA (surr.)	1	%	66	120	125	114
13C5-PFNA (surr.)	1	%	50	104	99	106
13C6-PFDA (surr.)	1	%	61	117	114	109
13C2-PFUnDA (surr.)	1	%	65	120	114	109
13C2-PFDoDA (surr.)	1	%	70	135	133	122
13C2-PFTeDA (surr.)	1	%	107	188	198	176
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	58	103	102	101
D3-N-MeFOSA (surr.)	1	%	62	111	58	64
D5-N-EtFOSA (surr.)	1	%	85	137	78	89
D7-N-MeFOSE (surr.)	1	%	37	66	53	57
D9-N-EtFOSE (surr.)	1	%	37	65	53	58
D5-N-EtFOSAA (surr.)	1	%	76	140	156	141
D3-N-MeFOSAA (surr.)	1	%	63	113	119	108
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	63	116	116	113
18O2-PFHxS (surr.)	1	%	58	103	104	99
13C8-PFOS (surr.)	1	%	58	104	97	95

Client Sample ID			SX_OB_20220 607_16_31_SS _Duplicate_EU F	SX_OB_20220 607_20_19_SS _Primary_EUF	SX_OB_20220 608_01_59_SS _Triplicate_EU F	SX_OB_20220 608_04_02_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- Jn0016805	M22- Jn0016806	M22- Jn0016807	M22- Jn0016808
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	64	116	129	124
13C2-6:2 FTSA (surr.)	1	%	133	123	114	128
13C2-8:2 FTSA (surr.)	1	%	56	93	91	80
13C2-10:2 FTSA (surr.)	1	%	66	124	130	135
PFASs Summations						
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	Jun 08, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Jun 08, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Jun 08, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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_20220607_08_37_S_S_Triplicate_EUF	Jun 07, 2022	8:37AM	Soil	M22-Jn0016783		X	X	X
2	SX_OB_20220607_08_39_S_S_Primary_EUF	Jun 07, 2022	8:39AM	Soil	M22-Jn0016784		X	X	X
3	SX_OB_20220607_11_53_S_S_Primary_EUF	Jun 07, 2022	11:53AM	Soil	M22-Jn0016785		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220608044922-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 895630
Phone: 08 8338 1009
Fax:

Received: Jun 8, 2022 2:00 PM
Due: Jun 16, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
4	SX_OB_20220607_16_31_S_S_Primary_EU_F	Jun 07, 2022	4:31PM	Soil	M22-Jn0016786		X	X	X
5	SX_OB_20220607_16_31_S_S_Duplicate_EU_F	Jun 07, 2022	4:31PM	Soil	M22-Jn0016787		X	X	X
6	SX_OB_20220607_17_47_S_R_Rinsate_EU_F	Jun 07, 2022	5:47PM	Water	M22-Jn0016788			X	
7	SX_OB_20220607_17_48_S	Jun 07, 2022	5:48PM	Water	M22-Jn0016789			X	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220608044922-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 895630
Phone: 08 8338 1009
Fax:

Received: Jun 8, 2022 2:00 PM
Due: Jun 16, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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_Blank_EUF								
8	SX_OB_20220607_20_19_S_S_Primary_EUF	Jun 07, 2022	8:19PM	Soil	M22-Jn0016790		X	X	X
9	SX_OB_20220608_01_59_S_S_Triplicate_EUF	Jun 08, 2022	1:59AM	Soil	M22-Jn0016791		X	X	X
10	SX_OB_20220608_04_02_S_S_Primary_EUF	Jun 08, 2022	4:02AM	Soil	M22-Jn0016792		X	X	X
11	SX_OB_20220	Jun 07, 2022	8:37AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	607_08_37_S S_Triplicate_E UF			- pH 5.0	Jn0016793				
12	SX_OB_20220 607_08_39_S S_Primary_EU F	Jun 07, 2022	8:39AM	AUS Leachate - pH 5.0	M22- Jn0016794	X		X	
13	SX_OB_20220 607_11_53_S S_Primary_EU F	Jun 07, 2022	11:53AM	AUS Leachate - pH 5.0	M22- Jn0016795	X		X	
14	SX_OB_20220 607_16_31_S S_Primary_EU	Jun 07, 2022	4:31PM	AUS Leachate - pH 5.0	M22- Jn0016796	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
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Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	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 WGTP 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									
	F								
15	SX_OB_20220607_16_31_S_S_Duplicate_EUF	Jun 07, 2022	4:31PM	AUS Leachate - pH 5.0	M22-Jn0016797	X		X	
16	SX_OB_20220607_20_19_S_S_Primary_EUF	Jun 07, 2022	8:19PM	AUS Leachate - pH 5.0	M22-Jn0016798	X		X	
17	SX_OB_20220608_01_59_S_S_Triplicate_EUF	Jun 08, 2022	1:59AM	AUS Leachate - pH 5.0	M22-Jn0016799	X		X	
18	SX_OB_20220	Jun 08, 2022	4:02AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	608_04_02_S S_Primary_EU F			- pH 5.0	Jn0016800				
19	SX_OB_20220 607_08_37_S S_Triplicate_E UF	Jun 07, 2022	8:37AM	AUS Leachate - Reagent Water	M22- Jn0016801	X		X	
20	SX_OB_20220 607_08_39_S S_Primary_EU F	Jun 07, 2022	8:39AM	AUS Leachate - Reagent Water	M22- Jn0016802	X		X	
21	SX_OB_20220 607_11_53_S S_Primary_EU	Jun 07, 2022	11:53AM	AUS Leachate - Reagent Water	M22- Jn0016803	X		X	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220608044922-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 895630
Phone: 08 8338 1009
Fax:

Received: Jun 8, 2022 2:00 PM
Due: Jun 16, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	F								
22	SX_OB_20220607_16_31_S_S_Primary_EU_F	Jun 07, 2022	4:31PM	AUS Leachate - Reagent Water	M22-Jn0016804	X		X	
23	SX_OB_20220607_16_31_S_S_Duplicate_EUF	Jun 07, 2022	4:31PM	AUS Leachate - Reagent Water	M22-Jn0016805	X		X	
24	SX_OB_20220607_20_19_S_S_Primary_EU_F	Jun 07, 2022	8:19PM	AUS Leachate - Reagent Water	M22-Jn0016806	X		X	
25	SX_OB_20220	Jun 08, 2022	1:59AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	608_01_59_S S_Triplicate_E UF			- Reagent Water	Jn0016807				
26	SX_OB_20220 608_04_02_S S_Primary_EU F	Jun 08, 2022	4:02AM	AUS Leachate - Reagent Water	M22- Jn0016808	X		X	
Test Counts						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

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

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	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.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	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
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
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	
Method Blank						
Perfluoroalkyl sulfonamido substances						
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	
Method Blank						
Perfluoroalkyl sulfonic acids (PFASs)						
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	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	100		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	100		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	105		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	99		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	103		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	106		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	91		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	106		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	104		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	97		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	94		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	95			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	107			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	119			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	110			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	119			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	99			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	113			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA)								
Perfluorobutanesulfonic acid (PFBS)	%	86			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	107			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	85			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	81			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	97			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	110			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	106			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	97			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	101			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	102			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	128			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	103			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)								
				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Jn0016799	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances								
				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Jn0016799	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0016799	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0016799	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0016799	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0016799	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-Jn0016799	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0016799	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0016799	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-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0016799	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0016799	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Jn0016803	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Jn0016803	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0016803	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0016803	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0016803	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0016803	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Jn0016803	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0016803	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0016803	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-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0016803	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Jn0016803	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0016803	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
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:

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS



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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SA 5063



NATA Accredited
Accreditation Number 1261
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: - ALL SPOIL REPORTS WGTP Mother Hub

Report **895630-S**
Project name 20220608044922-Eurofin-52
Project ID JC0927
Received Date Jun 08, 2022

Client Sample ID			SX_OB_20220 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016783	M22- Jn0016784	M22- Jn0016785	M22- Jn0016786
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
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 ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
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 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016783	M22- Jn0016784	M22- Jn0016785	M22- Jn0016786
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	79	65	66	101
Toluene-d8 (surr.)	1	%	84	61	66	89
Polycyclic Aromatic Hydrocarbons						
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 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016783	M22- Jn0016784	M22- Jn0016785	M22- Jn0016786
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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 ^{N07}	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	%	113	113	98	126
p-Terphenyl-d14 (surr.)	1	%	100	98	77	132
Organochlorine Pesticides						
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	%	113	80	64	85
Tetrachloro-m-xylene (surr.)	1	%	127	120	124	97

Client Sample ID			SX_OB_20220 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016783	M22- Jn0016784	M22- Jn0016785	M22- Jn0016786
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
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
Dibutylchloendate (surr.)	1	%	113	80	64	85
Tetrachloro-m-xylene (surr.)	1	%	127	120	124	97
Phenols (Halogenated)						
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
Phenols (non-Halogenated)						
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	%	39	100	112	119
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.7	8.8	8.9	8.2
% Moisture						
% Moisture	1	%	28	27	26	24
Heavy Metals						
Arsenic	2	mg/kg	45	43	40	45
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	85	78	64	58
Copper	5	mg/kg	42	42	36	38
Lead	5	mg/kg	6.8	7.1	6.4	6.4
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016783	M22- Jn0016784	M22- Jn0016785	M22- Jn0016786
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	100	87	82	80
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	70	64	60	59
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	87	88	91	109
13C5-PFPeA (surr.)	1	%	82	95	83	96
13C5-PFHxA (surr.)	1	%	105	105	101	105
13C4-PFHpA (surr.)	1	%	102	102	99	115
13C8-PFOA (surr.)	1	%	92	102	99	120
13C5-PFNA (surr.)	1	%	109	87	106	125
13C6-PFDA (surr.)	1	%	81	83	78	109
13C2-PFUnDA (surr.)	1	%	90	107	102	112
13C2-PFDoDA (surr.)	1	%	97	100	101	125
13C2-PFTeDA (surr.)	1	%	115	112	117	142
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	86	82	88	107
D3-N-MeFOSA (surr.)	1	%	97	98	100	124
D5-N-EtFOSA (surr.)	1	%	92	97	96	122
D7-N-MeFOSE (surr.)	1	%	126	112	109	150
D9-N-EtFOSE (surr.)	1	%	99	102	100	125
D5-N-EtFOSAA (surr.)	1	%	86	95	88	97
D3-N-MeFOSAA (surr.)	1	%	96	111	96	121

Client Sample ID			SX_OB_20220 607_08_37_SS _TriPLICATE_EU F	SX_OB_20220 607_08_39_SS _Primary_EUF	SX_OB_20220 607_11_53_SS _Primary_EUF	SX_OB_20220 607_16_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016783	M22- Jn0016784	M22- Jn0016785	M22- Jn0016786
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	97	101	91	101
18O2-PFHxS (surr.)	1	%	82	91	92	114
13C8-PFOS (surr.)	1	%	110	96	119	127
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	89	93	99	143
13C2-6:2 FTSA (surr.)	1	%	101	108	111	143
13C2-8:2 FTSA (surr.)	1	%	83	65	69	79
13C2-10:2 FTSA (surr.)	1	%	109	145	119	161
PFASs Summations						
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 607_16_31_SS _Duplicate_EU F	SX_OB_20220 607_20_19_SS _Primary_EUF	SX_OB_20220 608_01_59_SS _TriPLICATE_EU F	SX_OB_20220 608_04_02_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016787	M22- Jn0016790	M22- Jn0016791	M22- Jn0016792
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
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 ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			SX_OB_20220 607_16_31_SS Duplicate_EU F	SX_OB_20220 607_20_19_SS Primary_EUF	SX_OB_20220 608_01_59_SS Triplicate_EU F	SX_OB_20220 608_04_02_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016787	M22- Jn0016790	M22- Jn0016791	M22- Jn0016792
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
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

Client Sample ID			SX_OB_20220 607_16_31_SS Duplicate_EU F	SX_OB_20220 607_20_19_SS Primary_EUF	SX_OB_20220 608_01_59_SS Triplicate_EU F	SX_OB_20220 608_04_02_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016787	M22- Jn0016790	M22- Jn0016791	M22- Jn0016792
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	75	96	102	90
Toluene-d8 (surr.)	1	%	74	94	74	83
Polycyclic Aromatic Hydrocarbons						
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 ^{N07}	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	%	135	121	105	125
p-Terphenyl-d14 (surr.)	1	%	90	113	94	119

Client Sample ID			SX_OB_20220 607_16_31_SS Duplicate_EU F	SX_OB_20220 607_20_19_SS Primary_EUF	SX_OB_20220 608_01_59_SS Triplicate_EU F	SX_OB_20220 608_04_02_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016787	M22- Jn0016790	M22- Jn0016791	M22- Jn0016792
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
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
Dibutylchlorendate (surr.)	1	%	108	65	99	56
Tetrachloro-m-xylene (surr.)	1	%	145	125	118	127
Polychlorinated Biphenyls						
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	%	108	65	99	56
Tetrachloro-m-xylene (surr.)	1	%	145	125	118	127
Phenols (Halogenated)						
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 607_16_31_SS Duplicate_EU F	SX_OB_20220 607_20_19_SS Primary_EUF	SX_OB_20220 608_01_59_SS Triplicate_EU F	SX_OB_20220 608_04_02_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016787	M22- Jn0016790	M22- Jn0016791	M22- Jn0016792
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
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	%	78	105	99	108
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	< 100	120	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.1	9.0	8.5	8.6
% Moisture						
% Moisture	1	%	25	21	22	21
Heavy Metals						
Arsenic	2	mg/kg	51	67	51	49
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	65	94	86	80
Copper	5	mg/kg	41	53	45	38
Lead	5	mg/kg	6.7	9.1	8.6	7.6
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	88	110	98	85
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	58	74	63	60
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	91	100	100	95
13C5-PFPeA (surr.)	1	%	79	113	124	110
13C5-PFHxA (surr.)	1	%	91	112	111	107

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016787	M22- Jn0016790	M22- Jn0016791	M22- Jn0016792
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	99	119	121	112
13C8-PFOA (surr.)	1	%	99	132	126	117
13C5-PFNA (surr.)	1	%	110	99	102	92
13C6-PFDA (surr.)	1	%	99	131	113	130
13C2-PFUnDA (surr.)	1	%	109	146	144	129
13C2-PFDoDA (surr.)	1	%	122	143	145	139
13C2-PFTeDA (surr.)	1	%	107	125	134	125
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	96	124	122	121
D3-N-MeFOSA (surr.)	1	%	109	111	109	100
D5-N-EtFOSA (surr.)	1	%	95	115	108	105
D7-N-MeFOSE (surr.)	1	%	129	132	130	119
D9-N-EtFOSE (surr.)	1	%	102	133	126	131
D5-N-EtFOSAA (surr.)	1	%	98	132	129	138
D3-N-MeFOSAA (surr.)	1	%	108	146	146	144
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	89	119	97	96
18O2-PFHxS (surr.)	1	%	112	101	97	78
13C8-PFOS (surr.)	1	%	131	107	108	93
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	123	109	114	114
13C2-6:2 FTSA (surr.)	1	%	139	130	129	137

Client Sample ID			SX_OB_20220 607_16_31_SS _Duplicate_EU F	SX_OB_20220 607_20_19_SS _Primary_EUF	SX_OB_20220 608_01_59_SS _Triplicate_EU F	SX_OB_20220 608_04_02_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Jn0016787	M22- Jn0016790	M22- Jn0016791	M22- Jn0016792
Date Sampled			Jun 07, 2022	Jun 07, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-8:2 FTSA (surr.)	1	%	100	141	143	125
13C2-10:2 FTSA (surr.)	1	%	117	129	122	145
PFASs Summations						
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	Jun 08, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jun 08, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jun 08, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Jun 08, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Jun 08, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jun 08, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Jun 08, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Jun 08, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jun 08, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jun 08, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection - Method: LTM-INO-4230 Hexavalent Chromium by UV-Vis	Melbourne	Jun 08, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Jun 09, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE	Melbourne	Jun 09, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Jun 08, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Jun 08, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Jun 08, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Jun 08, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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_20220607_08_37_S_S_Triplicate_EUF	Jun 07, 2022	8:37AM	Soil	M22-Jn0016783		X	X	X
2	SX_OB_20220607_08_39_S_S_Primary_EUF	Jun 07, 2022	8:39AM	Soil	M22-Jn0016784		X	X	X
3	SX_OB_20220607_11_53_S_S_Primary_EUF	Jun 07, 2022	11:53AM	Soil	M22-Jn0016785		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 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 WGTP 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									
4	SX_OB_20220607_16_31_S_S_Primary_EU_F	Jun 07, 2022	4:31PM	Soil	M22-Jn0016786		X	X	X
5	SX_OB_20220607_16_31_S_S_Duplicate_EU_F	Jun 07, 2022	4:31PM	Soil	M22-Jn0016787		X	X	X
6	SX_OB_20220607_17_47_S_R_Rinsate_EU_F	Jun 07, 2022	5:47PM	Water	M22-Jn0016788			X	
7	SX_OB_20220607_17_48_S	Jun 07, 2022	5:48PM	Water	M22-Jn0016789			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 WGTP 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_Blank_EUF								
8	SX_OB_20220607_20_19_S_S_Primary_EUF	Jun 07, 2022	8:19PM	Soil	M22-Jn0016790		X	X	X
9	SX_OB_20220608_01_59_S_S_Triplicate_EUF	Jun 08, 2022	1:59AM	Soil	M22-Jn0016791		X	X	X
10	SX_OB_20220608_04_02_S_S_Primary_EUF	Jun 08, 2022	4:02AM	Soil	M22-Jn0016792		X	X	X
11	SX_OB_20220	Jun 07, 2022	8:37AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
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Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	607_08_37_S S_Triplicate_E UF			- pH 5.0	Jn0016793				
12	SX_OB_20220 607_08_39_S S_Primary_EU F	Jun 07, 2022	8:39AM	AUS Leachate - pH 5.0	M22- Jn0016794	X		X	
13	SX_OB_20220 607_11_53_S S_Primary_EU F	Jun 07, 2022	11:53AM	AUS Leachate - pH 5.0	M22- Jn0016795	X		X	
14	SX_OB_20220 607_16_31_S S_Primary_EU	Jun 07, 2022	4:31PM	AUS Leachate - pH 5.0	M22- Jn0016796	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	F								
15	SX_OB_20220607_16_31_S_S_Duplicate_EUF	Jun 07, 2022	4:31PM	AUS Leachate - pH 5.0	M22-Jn0016797	X		X	
16	SX_OB_20220607_20_19_S_S_Primary_EUF	Jun 07, 2022	8:19PM	AUS Leachate - pH 5.0	M22-Jn0016798	X		X	
17	SX_OB_20220608_01_59_S_S_Triplicate_EUF	Jun 08, 2022	1:59AM	AUS Leachate - pH 5.0	M22-Jn0016799	X		X	
18	SX_OB_20220	Jun 08, 2022	4:02AM	AUS Leachate	M22-	X		X	

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Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	608_04_02_S S_Primary_EU F			- pH 5.0	Jn0016800				
19	SX_OB_20220 607_08_37_S S_Triplicate_E UF	Jun 07, 2022	8:37AM	AUS Leachate - Reagent Water	M22- Jn0016801	X		X	
20	SX_OB_20220 607_08_39_S S_Primary_EU F	Jun 07, 2022	8:39AM	AUS Leachate - Reagent Water	M22- Jn0016802	X		X	
21	SX_OB_20220 607_11_53_S S_Primary_EU	Jun 07, 2022	11:53AM	AUS Leachate - Reagent Water	M22- Jn0016803	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	F								
22	SX_OB_20220607_16_31_S_S_Primary_EU_F	Jun 07, 2022	4:31PM	AUS Leachate - Reagent Water	M22-Jn0016804	X		X	
23	SX_OB_20220607_16_31_S_S_Duplicate_EUF	Jun 07, 2022	4:31PM	AUS Leachate - Reagent Water	M22-Jn0016805	X		X	
24	SX_OB_20220607_20_19_S_S_Primary_EU_F	Jun 07, 2022	8:19PM	AUS Leachate - Reagent Water	M22-Jn0016806	X		X	
25	SX_OB_20220	Jun 08, 2022	1:59AM	AUS Leachate	M22-	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 WGTP 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									
	608_01_59_S S_Triplicate_E UF			- Reagent Water	Jn0016807				
26	SX_OB_20220 608_04_02_S S_Primary_EU F	Jun 08, 2022	4:02AM	AUS Leachate - Reagent Water	M22- Jn0016808	X		X	
Test Counts						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

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

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	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.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	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
Method Blank							
Total Recoverable Hydrocarbons							
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	
Method Blank							
Volatile Organics							
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
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	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
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	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 1			1	Pass	
2,4,6-Trichlorophenol	mg/kg	< 1			1	Pass	
2,6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4,6-dinitrophenol	mg/kg	< 5			5	Pass	
2-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	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 1			1	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	< 5			5	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	
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
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	
Method Blank						
Perfluoroalkyl sulfonamido substances						
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	
Method Blank						
Perfluoroalkyl sulfonic acids (PFSAs)						
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	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	
LCS - % Recovery						
Total Recoverable Hydrocarbons						
TRH C6-C9	%	92		70-130	Pass	
TRH C10-C14	%	71		70-130	Pass	
Naphthalene	%	90		70-130	Pass	
TRH C6-C10	%	91		70-130	Pass	
TRH >C10-C16	%	79		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	79		70-130	Pass	
1.1.1-Trichloroethane	%	75		70-130	Pass	
1.2-Dichlorobenzene	%	89		70-130	Pass	
1.2-Dichloroethane	%	99		70-130	Pass	
Benzene	%	84		70-130	Pass	
Ethylbenzene	%	86		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	87			70-130	Pass	
Toluene	%	85			70-130	Pass	
Trichloroethene	%	76			70-130	Pass	
Xylenes - Total*	%	87			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	101			70-130	Pass	
Acenaphthylene	%	109			70-130	Pass	
Anthracene	%	106			70-130	Pass	
Benz(a)anthracene	%	113			70-130	Pass	
Benzo(a)pyrene	%	95			70-130	Pass	
Benzo(b&i)fluoranthene	%	98			70-130	Pass	
Benzo(g,h,i)perylene	%	112			70-130	Pass	
Benzo(k)fluoranthene	%	111			70-130	Pass	
Chrysene	%	128			70-130	Pass	
Dibenz(a,h)anthracene	%	93			70-130	Pass	
Fluoranthene	%	92			70-130	Pass	
Fluorene	%	103			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	82			70-130	Pass	
Naphthalene	%	103			70-130	Pass	
Phenanthrene	%	128			70-130	Pass	
Pyrene	%	94			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	95			70-130	Pass	
4,4'-DDD	%	87			70-130	Pass	
4,4'-DDE	%	116			70-130	Pass	
4,4'-DDT	%	105			70-130	Pass	
a-HCH	%	110			70-130	Pass	
Aldrin	%	116			70-130	Pass	
b-HCH	%	122			70-130	Pass	
d-HCH	%	122			70-130	Pass	
Dieldrin	%	94			70-130	Pass	
Endosulfan I	%	89			70-130	Pass	
Endosulfan II	%	110			70-130	Pass	
Endosulfan sulphate	%	102			70-130	Pass	
Endrin	%	98			70-130	Pass	
Endrin aldehyde	%	113			70-130	Pass	
Endrin ketone	%	125			70-130	Pass	
g-HCH (Lindane)	%	116			70-130	Pass	
Heptachlor	%	118			70-130	Pass	
Heptachlor epoxide	%	106			70-130	Pass	
Hexachlorobenzene	%	96			70-130	Pass	
Methoxychlor	%	106			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	89			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	88			25-140	Pass	
2,4-Dichlorophenol	%	104			25-140	Pass	
2,4,5-Trichlorophenol	%	99			25-140	Pass	
2,4,6-Trichlorophenol	%	116			25-140	Pass	
2,6-Dichlorophenol	%	104			25-140	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	96		25-140	Pass	
Pentachlorophenol	%	99		25-140	Pass	
Tetrachlorophenols - Total	%	87		25-140	Pass	
LCS - % Recovery						
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	%	91		25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	116		25-140	Pass	
2-Nitrophenol	%	106		25-140	Pass	
2,4-Dimethylphenol	%	120		25-140	Pass	
2,4-Dinitrophenol	%	103		25-140	Pass	
2-Methylphenol (o-Cresol)	%	128		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	90		25-140	Pass	
4-Nitrophenol	%	102		25-140	Pass	
Dinoseb	%	102		25-140	Pass	
Phenol	%	110		25-140	Pass	
LCS - % Recovery						
Chromium (hexavalent)	%	130		70-130	Pass	
Cyanide (total)	%	97		70-130	Pass	
Fluoride (Total)	%	78		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	104		80-120	Pass	
Cadmium	%	101		80-120	Pass	
Chromium	%	108		80-120	Pass	
Copper	%	104		80-120	Pass	
Lead	%	108		80-120	Pass	
Mercury	%	102		80-120	Pass	
Molybdenum	%	105		80-120	Pass	
Nickel	%	103		80-120	Pass	
Selenium	%	104		80-120	Pass	
Silver	%	107		80-120	Pass	
Tin	%	101		80-120	Pass	
Zinc	%	105		80-120	Pass	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	77		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	78		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	68		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	71		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	80		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	74		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	71		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	91		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	81		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	78		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	78		50-150	Pass	
LCS - % Recovery						
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)	%	77		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	85		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	85		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	93		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	89		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	85		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	83			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	60			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	123			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	73			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	77			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	79			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	66			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	79			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	73			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	88			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	77			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	86			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	86			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M22-Jn0017732	NCP	%	74		70-130	Pass	
TRH C10-C14	M22-Jn0023757	NCP	%	115		70-130	Pass	
Naphthalene	M22-Jn0017732	NCP	%	84		70-130	Pass	
TRH C6-C10	M22-Jn0017732	NCP	%	74		70-130	Pass	
TRH >C10-C16	M22-Jn0023757	NCP	%	124		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	M22-Jn0017732	NCP	%	77		70-130	Pass	
1.1.1-Trichloroethane	M22-Jn0017732	NCP	%	94		70-130	Pass	
1.2-Dichlorobenzene	M22-Jn0017732	NCP	%	86		70-130	Pass	
1.2-Dichloroethane	M22-Jn0017732	NCP	%	83		70-130	Pass	
Benzene	M22-Jn0017732	NCP	%	89		70-130	Pass	
Ethylbenzene	M22-Jn0017732	NCP	%	76		70-130	Pass	
m&p-Xylenes	M22-Jn0017732	NCP	%	77		70-130	Pass	
o-Xylene	M22-Jn0017732	NCP	%	80		70-130	Pass	
Toluene	M22-Jn0017732	NCP	%	95		70-130	Pass	
Trichloroethene	M22-Jn0017732	NCP	%	85		70-130	Pass	
Xylenes - Total*	M22-Jn0017732	NCP	%	78		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-Jn0018551	NCP	%	96		70-130	Pass	
Acenaphthylene	M22-Jn0018551	NCP	%	83		70-130	Pass	
Anthracene	M22-Jn0018551	NCP	%	75		70-130	Pass	
Benzo(a)anthracene	M22-Jn0018551	NCP	%	82		70-130	Pass	
Benzo(a)pyrene	M22-Jn0018551	NCP	%	77		70-130	Pass	
Benzo(b&j)fluoranthene	M22-Jn0018551	NCP	%	88		70-130	Pass	
Benzo(g,h,i)perylene	M22-Jn0018551	NCP	%	97		70-130	Pass	
Benzo(k)fluoranthene	M22-Jn0018551	NCP	%	74		70-130	Pass	
Chrysene	M22-Jn0018551	NCP	%	83		70-130	Pass	
Dibenzo(a,h)anthracene	M22-Jn0018551	NCP	%	99		70-130	Pass	
Fluoranthene	M22-Jn0018551	NCP	%	108		70-130	Pass	
Fluorene	M22-Jn0018551	NCP	%	77		70-130	Pass	
Indeno(1.2.3-cd)pyrene	M22-Jn0018551	NCP	%	103		70-130	Pass	
Naphthalene	M22-Jn0018551	NCP	%	104		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Phenanthrene	M22-Jn0018551	NCP	%	99		70-130	Pass	
Pyrene	M22-Jn0018551	NCP	%	106		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-Jn0025018	NCP	%	103		70-130	Pass	
4.4'-DDD	M22-Jn0025018	NCP	%	100		70-130	Pass	
4.4'-DDE	M22-Jn0025018	NCP	%	107		70-130	Pass	
4.4'-DDT	M22-Jn0025018	NCP	%	95		70-130	Pass	
a-HCH	M22-Jn0025018	NCP	%	98		70-130	Pass	
Aldrin	M22-Jn0025018	NCP	%	104		70-130	Pass	
b-HCH	M22-Jn0025018	NCP	%	100		70-130	Pass	
d-HCH	M22-Jn0025018	NCP	%	101		70-130	Pass	
Dieldrin	M22-Jn0025018	NCP	%	111		70-130	Pass	
Endosulfan I	M22-Jn0025018	NCP	%	102		70-130	Pass	
Endosulfan II	M22-Jn0025018	NCP	%	126		70-130	Pass	
Endosulfan sulphate	M22-Jn0025018	NCP	%	121		70-130	Pass	
Endrin	M22-Jn0025018	NCP	%	99		70-130	Pass	
Endrin aldehyde	M22-Jn0025018	NCP	%	94		70-130	Pass	
Endrin ketone	M22-Jn0025018	NCP	%	127		70-130	Pass	
g-HCH (Lindane)	M22-Jn0025018	NCP	%	101		70-130	Pass	
Heptachlor	M22-Jn0025018	NCP	%	122		70-130	Pass	
Heptachlor epoxide	M22-Jn0025018	NCP	%	98		70-130	Pass	
Hexachlorobenzene	M22-Jn0025018	NCP	%	105		70-130	Pass	
Methoxychlor	M22-Jn0025018	NCP	%	110		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-Jn0018551	NCP	%	59		30-130	Pass	
2.4-Dichlorophenol	M22-Jn0018551	NCP	%	66		30-130	Pass	
2.4.5-Trichlorophenol	M22-Jn0018551	NCP	%	97		30-130	Pass	
2.4.6-Trichlorophenol	M22-Jn0018551	NCP	%	106		30-130	Pass	
2.6-Dichlorophenol	M22-Jn0018551	NCP	%	61		30-130	Pass	
4-Chloro-3-methylphenol	M22-Jn0018551	NCP	%	126		30-130	Pass	
Pentachlorophenol	M22-Jn0018551	NCP	%	63		30-130	Pass	
Tetrachlorophenols - Total	M22-Jn0018551	NCP	%	94		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4.6-dinitrophenol	M22-Jn0018551	NCP	%	98		30-130	Pass	
2-Methyl-4.6-dinitrophenol	M22-Jn0018551	NCP	%	126		30-130	Pass	
2-Nitrophenol	M22-Jn0018551	NCP	%	99		30-130	Pass	
2.4-Dimethylphenol	M22-Jn0018551	NCP	%	121		30-130	Pass	
2.4-Dinitrophenol	M22-Jn0018551	NCP	%	89		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Jn0018551	NCP	%	61		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Jn0018551	NCP	%	65		30-130	Pass	
4-Nitrophenol	M22-Jn0018551	NCP	%	105		30-130	Pass	
Dinoseb	M22-Jn0018551	NCP	%	109		30-130	Pass	
Phenol	M22-Jn0018551	NCP	%	70		30-130	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-Jn0013515	NCP	%	94		70-130	Pass	
Fluoride (Total)	M22-Jn0013287	NCP	%	76		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	L22-Jn0020287	NCP	%	102		75-125	Pass	
Cadmium	L22-Jn0020287	NCP	%	74		75-125	Fail	Q08

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Chromium	L22-Jn0020287	NCP	%	100		75-125	Pass	
Copper	L22-Jn0020287	NCP	%	99		75-125	Pass	
Lead	L22-Jn0020287	NCP	%	98		75-125	Pass	
Mercury	L22-Jn0020287	NCP	%	105		75-125	Pass	
Molybdenum	L22-Jn0020287	NCP	%	105		75-125	Pass	
Nickel	L22-Jn0020287	NCP	%	99		75-125	Pass	
Selenium	L22-Jn0020287	NCP	%	100		75-125	Pass	
Silver	L22-Jn0020287	NCP	%	78		75-125	Pass	
Tin	L22-Jn0020287	NCP	%	100		75-125	Pass	
Zinc	L22-Jn0020287	NCP	%	100		75-125	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	M22-Jn0011234	NCP	%	77		70-130	Pass	
Aroclor-1260	M22-Jn0011234	NCP	%	88		70-130	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Jn0016784	CP	%	80		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Jn0016784	CP	%	89		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Jn0016784	CP	%	77		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Jn0016784	CP	%	78		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Jn0016784	CP	%	86		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Jn0016784	CP	%	84		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Jn0016784	CP	%	96		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0016784	CP	%	98		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Jn0016784	CP	%	91		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Jn0016784	CP	%	89		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0016784	CP	%	88		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Jn0016784	CP	%	84		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0016784	CP	%	96		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0016784	CP	%	104		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0016784	CP	%	101		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0016784	CP	%	105		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Jn0016784	CP	%	95		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0016784	CP	%	106		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0016784	CP	%	79		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Jn0016784	CP	%	54		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0016784	CP	%	97		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0016784	CP	%	89		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0016784	CP	%	91			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0016784	CP	%	74			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0016784	CP	%	89			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0016784	CP	%	85			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Jn0016784	CP	%	98			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0016784	CP	%	104			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Jn0016784	CP	%	119			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0016784	CP	%	76			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M22-Jn0019130	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	L22-Jn0020294	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	L22-Jn0020294	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	L22-Jn0020294	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-Jn0019130	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	L22-Jn0020294	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	L22-Jn0020294	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	L22-Jn0020294	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
4-Chlorotoluene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-Jn0019130	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-Jn0019130	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-Jn0019130	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-Jn0019130	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-Jn0019130	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1.2-Dichloroethene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-Jn0019130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-Jn0019130	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Jn0023677	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Jn0023677	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Jn0023677	NCP	mg/kg	2.4	1.9	26	30%	Pass
Dibenz(a,h)anthracene	M22-Jn0023677	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Jn0023677	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	M22-Jn0023677	NCP	mg/kg	1.0	0.8	30	30%	Pass
Naphthalene	M22-Jn0023677	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Jn0023677	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Dieldrin	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Jn0023677	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Jn0018690	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Jn0023677	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Jn0023677	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Jn0023677	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Jn0023677	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Jn0023677	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Jn0023677	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Jn0023677	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Jn0023677	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Jn0023677	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-Jn0023677	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-Jn0023677	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-Jn0023677	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M22-Jn0023677	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Jn0023677	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Jn0023677	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Jn0023677	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-Jn0023677	NCP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-Jn0023677	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Jn0023677	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-Jn0023677	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-Jn0023677	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Jn0023677	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Jn0023677	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Jn0023677	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Jn0023677	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	B22-Jn0017105	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Jn0014178	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	L22-Jn0020287	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Cadmium	L22-Jn0020287	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	L22-Jn0020287	NCP	mg/kg	6.6	6.5	1.0	30%	Pass
Copper	L22-Jn0020287	NCP	mg/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Lead	L22-Jn0020287	NCP	mg/kg	5.4	5.3	<1	30%	Pass
Mercury	L22-Jn0020287	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	L22-Jn0020287	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	L22-Jn0020287	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Selenium	L22-Jn0020287	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	L22-Jn0020287	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	L22-Jn0020287	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	L22-Jn0020287	NCP	mg/kg	14	14	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Jn0016783	CP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0016783	CP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<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-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0016783	CP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (8:2 FTSA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0016783	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-Jn0016784	CP	mg/kg	< 5	< 5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-Jn0016786	CP	mg/kg	< 5	< 5	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Jn0016786	CP	pH Units	8.2	8.3	pass	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	M22-Jn0016787	CP	%	25	25	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Fluoride (Total)	M22-Jn0016791	CP	mg/kg	< 100	< 100	<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.
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:

Catherine Wilson	Analytical Services Manager
Caitlin Breeze	Senior Analyst-Inorganic
Edward Lee	Senior Analyst-Organic
Joseph Edouard	Senior Analyst-Organic
Joseph Edouard	Senior Analyst-PFAS
Joseph Edouard	Senior Analyst-Volatile
Mary Makarios	Senior Analyst-Metal
Mary Makarios	Senior Analyst-Sample Properties
Mele Singh	Senior Analyst-Organic
Scott Beddoes	Senior Analyst-Metal
Vivian Wang	Senior Analyst-Volatile



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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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: - ALL SPOIL REPORTS WGTP Mother Hub

Report **895630-W**
Project name **20220608044922-Eurofin-52**
Project ID **JC0927**
Received Date **Jun 08, 2022**

Client Sample ID			SX_OB_20220 607_17_47_SR _Rinsate_EUF	SX_OB_20220 607_17_48_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Jn0016788	M22- Jn0016789
Date Sampled			Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	84	84
13C5-PFPeA (surr.)	1	%	95	94
13C5-PFHxA (surr.)	1	%	98	95
13C4-PFHpA (surr.)	1	%	93	92
13C8-PFOA (surr.)	1	%	144	137
13C5-PFNA (surr.)	1	%	99	97
13C6-PFDA (surr.)	1	%	96	97
13C2-PFUnDA (surr.)	1	%	95	99
13C2-PFDoDA (surr.)	1	%	96	101
13C2-PFTeDA (surr.)	1	%	123	120
Perfluoroalkyl sulfonamido substances				
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	90	91

Client Sample ID			SX_OB_20220 607_17_47_SR _Rinsate_EUF	SX_OB_20220 607_17_48_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Jn0016788	M22- Jn0016789
Date Sampled			Jun 07, 2022	Jun 07, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D3-N-MeFOSA (surr.)	1	%	72	76
D5-N-EtFOSA (surr.)	1	%	79	91
D7-N-MeFOSE (surr.)	1	%	63	63
D9-N-EtFOSE (surr.)	1	%	64	63
D5-N-EtFOSAA (surr.)	1	%	121	123
D3-N-MeFOSAA (surr.)	1	%	103	99
Perfluoroalkyl sulfonic acids (PFASs)				
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	104	106
18O2-PFHxS (surr.)	1	%	99	99
13C8-PFOS (surr.)	1	%	108	107
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	92	84
13C2-6:2 FTSA (surr.)	1	%	94	94
13C2-8:2 FTSA (surr.)	1	%	92	81
13C2-10:2 FTSA (surr.)	1	%	98	106
PFASs Summations				
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.

Description	Testing Site	Extracted	Holding Time
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Melbourne	Jun 08, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	Jun 08, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	Jun 08, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	Jun 08, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	Jun 08, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Jun 8, 2022 2:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	895630	Due:	Jun 16, 2022
Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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_20220607_08_37_S_S_Triplicate_EUF	Jun 07, 2022	8:37AM	Soil	M22-Jn0016783		X	X	X
2	SX_OB_20220607_08_39_S_S_Primary_EUF	Jun 07, 2022	8:39AM	Soil	M22-Jn0016784		X	X	X
3	SX_OB_20220607_11_53_S_S_Primary_EUF	Jun 07, 2022	11:53AM	Soil	M22-Jn0016785		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
4	SX_OB_20220607_16_31_S_S_Primary_EU_F	Jun 07, 2022	4:31PM	Soil	M22-Jn0016786		X	X	X
5	SX_OB_20220607_16_31_S_S_Duplicate_EU_F	Jun 07, 2022	4:31PM	Soil	M22-Jn0016787		X	X	X
6	SX_OB_20220607_17_47_S_R_Rinsate_EU_F	Jun 07, 2022	5:47PM	Water	M22-Jn0016788			X	
7	SX_OB_20220607_17_48_S	Jun 07, 2022	5:48PM	Water	M22-Jn0016789			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 WGTP 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_Blank_EUF								
8	SX_OB_20220607_20_19_S_S_Primary_EUF	Jun 07, 2022	8:19PM	Soil	M22-Jn0016790		X	X	X
9	SX_OB_20220608_01_59_S_S_Triplicate_EUF	Jun 08, 2022	1:59AM	Soil	M22-Jn0016791		X	X	X
10	SX_OB_20220608_04_02_S_S_Primary_EUF	Jun 08, 2022	4:02AM	Soil	M22-Jn0016792		X	X	X
11	SX_OB_20220	Jun 07, 2022	8:37AM	AUS Leachate	M22-	X		X	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220608044922-Eurofin-52
Project ID: JC0927

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Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	607_08_37_S S_Triplicate_E UF			- pH 5.0	Jn0016793				
12	SX_OB_20220 607_08_39_S S_Primary_EU F	Jun 07, 2022	8:39AM	AUS Leachate - pH 5.0	M22- Jn0016794	X		X	
13	SX_OB_20220 607_11_53_S S_Primary_EU F	Jun 07, 2022	11:53AM	AUS Leachate - pH 5.0	M22- Jn0016795	X		X	
14	SX_OB_20220 607_16_31_S S_Primary_EU	Jun 07, 2022	4:31PM	AUS Leachate - pH 5.0	M22- Jn0016796	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 WGTP 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									
	F								
15	SX_OB_20220607_16_31_S_S_Duplicate_EUF	Jun 07, 2022	4:31PM	AUS Leachate - pH 5.0	M22-Jn0016797	X		X	
16	SX_OB_20220607_20_19_S_S_Primary_EUF	Jun 07, 2022	8:19PM	AUS Leachate - pH 5.0	M22-Jn0016798	X		X	
17	SX_OB_20220608_01_59_S_S_Triplicate_EUF	Jun 08, 2022	1:59AM	AUS Leachate - pH 5.0	M22-Jn0016799	X		X	
18	SX_OB_20220	Jun 08, 2022	4:02AM	AUS Leachate	M22-	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 WGTP 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									
	608_04_02_S S_Primary_EU F			- pH 5.0	Jn0016800				
19	SX_OB_20220 607_08_37_S S_Triplicate_E UF	Jun 07, 2022	8:37AM	AUS Leachate - Reagent Water	M22- Jn0016801	X		X	
20	SX_OB_20220 607_08_39_S S_Primary_EU F	Jun 07, 2022	8:39AM	AUS Leachate - Reagent Water	M22- Jn0016802	X		X	
21	SX_OB_20220 607_11_53_S S_Primary_EU	Jun 07, 2022	11:53AM	AUS Leachate - Reagent Water	M22- Jn0016803	X		X	

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Project Name:	20220608044922-Eurofin-52	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	F								
22	SX_OB_20220607_16_31_S_S_Primary_EU_F	Jun 07, 2022	4:31PM	AUS Leachate - Reagent Water	M22-Jn0016804	X		X	
23	SX_OB_20220607_16_31_S_S_Duplicate_EUF	Jun 07, 2022	4:31PM	AUS Leachate - Reagent Water	M22-Jn0016805	X		X	
24	SX_OB_20220607_20_19_S_S_Primary_EU_F	Jun 07, 2022	8:19PM	AUS Leachate - Reagent Water	M22-Jn0016806	X		X	
25	SX_OB_20220	Jun 08, 2022	1:59AM	AUS Leachate	M22-	X		X	

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Project ID:	JC0927	Fax:		Contact Name:	- ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP 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									
	608_01_59_S S_Triplicate_E UF			- Reagent Water	Jn0016807				
26	SX_OB_20220 608_04_02_S S_Primary_EU F	Jun 08, 2022	4:02AM	AUS Leachate - Reagent Water	M22- Jn0016808	X		X	
Test Counts						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

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

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	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.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	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
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
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	
Method Blank						
Perfluoroalkyl sulfonamido substances						
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	
Method Blank						
Perfluoroalkyl sulfonic acids (PFASs)						
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	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	110		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	109		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	108		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	109		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	100		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	108		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	107		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	114		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	96		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	105		50-150	Pass	
LCS - % Recovery						

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	91			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	105			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	114			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	104			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	108			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	106			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	108			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA)							
Perfluorobutanesulfonic acid (PFBS)	%	98			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	108			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	102			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	92			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	112			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	109			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	98			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	95			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	107			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)	%	129			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	108			50-150	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:

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS



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.

ALS Melbourne: 4 Westall Rd, Springvale, VIC 3171 Phone (03) 8549 9800. Facsimile (03) 8549 9801. Email Samples.Melbourne@alsenviro.com

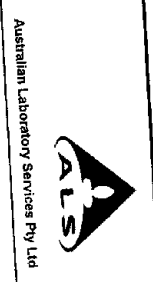
CHAIN OF CUSTODY DOCUMENTATION

CLIENT: Agon Environmental
 ADDRESS / OFFICE: Melbourne
 PROJECT MANAGER (P/M): Craig Trimburl
 PROJECT ID: JC0927

P.O. NO.:
 QUOTE NO.: ME-150-19 WCTP
 SITE: 2022090704394-ALS-22
 RESULTS REQUIRED (Date): 5 days

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

ES and HK - EP
 Risk
 SAMPLER: +61 400 826 907 (Craig Trimburl)
 MOBILE 1: +61 490 411 004 (David Lamson)
 MOBILE 2:
 EMAIL REPORT TO: Labreports.TST@agonenviro.com.au agonenviro.com.au agonenviro.com.au
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ALS ID	SAMPLE INFORMATION (Order: S = Soil, W=Water)			CONTAINER INFORMATION			ANALYSIS REQUIRED (If different to report)				
	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	Spot Sample Prep	P16 plus Cr	PFAS 28 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	DI Leachate PFAS - Extended Suite
1	SX_OB_20220908_09_23_SS_Primary_AIS	S	6/06/2022	09:23	Bucket	1	X	X	X	X	X
2	SX_OB_20220908_09_24_SS_Duplicate_AIS	S	6/06/2022	08:24	Bucket	1	X	X	X	X	X
3	SX_OB_20220908_08_43_SR_Rinseate_AIS	W	6/06/2022	09:43	Bucket	1					
4	SX_OB_20220908_09_44_SB_Shank_AIS	W	6/06/2022	09:44	Bottle	1					
5	SX_OB_20220908_12_15_SS_Primary_AIS	S	6/06/2022	12:15	Bucket	1	X	X	X	X	X
6	SX_OB_20220908_12_17_SS_Duplicate_AIS	S	6/06/2022	12:17	Bucket	1	X	X	X	X	X
7	SX_OB_20220908_16_09_SS_Primary_AIS	S	6/06/2022	16:09	Bucket	1	X	X	X	X	X
8	SX_OB_20220908_16_18_SS_Triplicate_AIS	S	6/06/2022	16:18	Bucket	1	X	X	X	X	X
9	SX_OB_20220908_20_03_SS_Primary_AIS	S	6/06/2022	20:03	Bucket	1	X	X	X	X	X
10	SX_OB_20220908_20_10_SS_Triplicate_AIS	S	6/06/2022	20:10	Bucket	1	X	X	X	X	X
11	SX_OB_20220907_00_18_SS_Primary_AIS	S	7/06/2022	00:18	Bucket	1	X	X	X	X	X
12	SX_OB_20220907_04_01_SS_Primary_AIS	S	7/06/2022	04:01	Bucket	1	X	X	X	X	X

RELINQUISHED BY: [Signature] DATE: [Date] TIME: [Time]

RECEIVED BY: [Signature] DATE: [Date] TIME: [Time]

NAME: [Name] OFF: [Office]

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = 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 Bottle; ST = Sterile Bottle; ASS = Plastic Bead for Acid Sulphate Solids; B = Unpreserved Bag.

AUSTRALIAN LABORATORY SERVICES P/L

Environmental Division
 Melbourne
 Work Order Reference
 EM2210681

Telephone: + 61-3-8549 9800

Method of Shipment: Cont Note No. Transport Co.

COC Page 1 of 1

CERTIFICATE OF ANALYSIS

Work Order	: EM2210681	Page	: 1 of 29
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Contact	: Josh Alexander
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 07-Jun-2022 10:45
Order number	: ----	Date Analysis Commenced	: 08-Jun-2022
C-O-C number	: 20220607043804-ALS-22	Issue Date	: 15-Jun-2022 17:58
Sampler	: ES and HK - EP Risk		
Site	: 20220607043804-ALS-22		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 22		
No. of samples analysed	: 22		



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
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
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 Contract 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.
- 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_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-001	EM2210681-002	EM2210681-005	EM2210681-006	EM2210681-007
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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
EP231B: Perfluoroalkyl Carboxylic Acids								
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
EP231C: Perfluoroalkyl Sulfonamides								
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_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-001	EM2210681-002	EM2210681-005	EM2210681-006	EM2210681-007
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
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
EP231P: PFAS Sums								
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
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	90.9	96.3	115	92.0	94.6
13C8-PFOA	----	0.02	%	98.3	97.5	103	95.5	100



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220606_16_18_SS_Triplicate_ALS	SX_OB_20220606_20_03_SS_Primary_ALS	SX_OB_20220606_20_10_SS_Triplicate_ALS	SX_OB_20220607_00_18_SS_Primary_ALS	SX_OB_20220607_04_01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-008	EM2210681-009	EM2210681-010	EM2210681-011	EM2210681-012
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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
EP231B: Perfluoroalkyl Carboxylic Acids								
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
EP231C: Perfluoroalkyl Sulfonamides								
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_20220606_16_18_SS_Triplicate_ALS	SX_OB_20220606_20_03_SS_Primary_ALS	SX_OB_20220606_20_10_SS_Triplicate_ALS	SX_OB_20220607_00_18_SS_Primary_ALS	SX_OB_20220607_04_01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-008	EM2210681-009	EM2210681-010	EM2210681-011	EM2210681-012
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
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
EP231P: PFAS Sums								
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
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	99.4	95.5	94.9	97.1	90.6
13C8-PFOA	----	0.02	%	95.4	98.0	103	101	96.0



Analytical Results

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

Sample ID

				SX_OB_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-013	EM2210681-014	EM2210681-015	EM2210681-016	EM2210681-017
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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
EP231B: Perfluoroalkyl Carboxylic Acids								
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
EP231C: Perfluoroalkyl Sulfonamides								
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_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-013	EM2210681-014	EM2210681-015	EM2210681-016	EM2210681-017
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
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
EP231P: PFAS Sums								
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
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	104	99.2	111	105	99.5
13C8-PFOA	----	0.02	%	104	99.9	111	106	109



Analytical Results

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

Sample ID

				SX_OB_20220606_16_18_SS_Triplicate_ALS	SX_OB_20220606_20_03_SS_Primary_ALS	SX_OB_20220606_20_10_SS_Triplicate_ALS	SX_OB_20220607_00_18_SS_Primary_ALS	SX_OB_20220607_04_01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-018	EM2210681-019	EM2210681-020	EM2210681-021	EM2210681-022
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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
EP231B: Perfluoroalkyl Carboxylic Acids								
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
EP231C: Perfluoroalkyl Sulfonamides								
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_20220606_16_18_SS_Triplicate_ALS	SX_OB_20220606_20_03_SS_Primary_ALS	SX_OB_20220606_20_10_SS_Triplicate_ALS	SX_OB_20220607_00_18_SS_Primary_ALS	SX_OB_20220607_04_01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-018	EM2210681-019	EM2210681-020	EM2210681-021	EM2210681-022
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
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
EP231P: PFAS Sums								
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
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	99.7	113	106	97.9	96.1
13C8-PFOA	----	0.02	%	102	100	104	101	95.9



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-001	EM2210681-002	EM2210681-005	EM2210681-006	EM2210681-007
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	9.0	8.6	8.6	8.3	7.9
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	31.2	33.3	32.9	32.8	26.4
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	32	39	56	47	40
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	75	89	82	80	53
Copper	7440-50-8	5	mg/kg	38	52	47	41	41
Lead	7439-92-1	5	mg/kg	<5	<5	6	6	8
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	100	138	109	108	132
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	74	98	84	72	90
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	220	200	240	280	240
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.3	9.7	9.4	9.4	9.1
After HCl pH	----	0.1	pH Unit	1.3	1.1	1.1	1.1	1.1
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
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons								
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_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-001	EM2210681-002	EM2210681-005	EM2210681-006	EM2210681-007
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
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
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP074I: Volatile Halogenated Compounds								
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
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-001	EM2210681-002	EM2210681-005	EM2210681-006	EM2210681-007
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued								
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
EP075A: Phenolic Compounds (Non-halogenated)								
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
EP075B: Polynuclear Aromatic Hydrocarbons								
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_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-001	EM2210681-002	EM2210681-005	EM2210681-006	EM2210681-007
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
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	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP075I: Organochlorine Pesticides								
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_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-001	EM2210681-002	EM2210681-005	EM2210681-006	EM2210681-007
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ 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
EP080/071: Total Petroleum Hydrocarbons								
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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>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
EP231A: Perfluoroalkyl Sulfonic Acids								
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_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-001	EM2210681-002	EM2210681-005	EM2210681-006	EM2210681-007
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
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
EP231C: Perfluoroalkyl Sulfonamides								
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
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220606_09_23_SS_Primary_ALS	SX_OB_20220606_09_24_SS_Duplicate_ALS	SX_OB_20220606_12_15_SS_Primary_ALS	SX_OB_20220606_12_17_SS_Duplicate_ALS	SX_OB_20220606_16_09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-001	EM2210681-002	EM2210681-005	EM2210681-006	EM2210681-007
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
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
EP231P: PFAS Sums								
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
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	114	107	116	113	120
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	84.2	89.5	88.2	90.5	93.6
Toluene-D8	2037-26-5	0.1	%	80.1	85.0	85.4	85.2	90.2
4-Bromofluorobenzene	460-00-4	0.1	%	93.0	98.4	98.9	98.7	103
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	106	101	106	108	114
2-Chlorophenol-D4	93951-73-6	0.025	%	102	96.6	99.7	102	107
2,4,6-Tribromophenol	118-79-6	0.025	%	105	95.9	97.6	98.7	105
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	108	102	105	108	113
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	105	98.1	100	101	108
2-Fluorobiphenyl	321-60-8	0.025	%	113	107	109	111	120
Anthracene-d10	1719-06-8	0.025	%	108	103	105	110	115
4-Terphenyl-d14	1718-51-0	0.025	%	99.5	94.4	97.7	102	107
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	89.6	98.0	113	90.7	118
13C8-PFOA	----	0.0002	%	96.8	103	110	104	90.4



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220606_16_18_SS_Triplicate_ALS	SX_OB_20220606_20_03_SS_Primary_ALS	SX_OB_20220606_20_10_SS_Triplicate_ALS	SX_OB_20220607_00_18_SS_Primary_ALS	SX_OB_20220607_04_01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-008	EM2210681-009	EM2210681-010	EM2210681-011	EM2210681-012
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	7.9	7.9	7.6	7.6	7.9
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	27.6	27.9	27.3	30.8	29.1
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	34	40	39	69	55
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	61	66	67	88	74
Copper	7440-50-8	5	mg/kg	35	38	36	40	42
Lead	7439-92-1	5	mg/kg	6	6	6	6	7
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	94	106	96	81	96
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	57	69	59	53	58
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	250	310	260	180	230
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.9	9.2	8.9	8.4	8.5
After HCl pH	----	0.1	pH Unit	1.0	1.1	1.1	1.1	1.1
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	5.0	5.1	5.0	5.0
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons								
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_20220606_16 _18_SS_Triplicate_AL S	SX_OB_20220606_20 _03_SS_Primary_ALS	SX_OB_20220606_20 _10_SS_Triplicate_AL S	SX_OB_20220607_00 _18_SS_Primary_ALS	SX_OB_20220607_04 _01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-008	EM2210681-009	EM2210681-010	EM2210681-011	EM2210681-012
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
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
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP074I: Volatile Halogenated Compounds								
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
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220606_16 _18_SS_Triplicate_AL S	SX_OB_20220606_20 _03_SS_Primary_ALS	SX_OB_20220606_20 _10_SS_Triplicate_AL S	SX_OB_20220607_00 _18_SS_Primary_ALS	SX_OB_20220607_04 _01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-008	EM2210681-009	EM2210681-010	EM2210681-011	EM2210681-012
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued								
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
EP075A: Phenolic Compounds (Non-halogenated)								
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
EP075B: Polynuclear Aromatic Hydrocarbons								
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_20220606_16_18_SS_Triplicate_ALS	SX_OB_20220606_20_03_SS_Primary_ALS	SX_OB_20220606_20_10_SS_Triplicate_ALS	SX_OB_20220607_00_18_SS_Primary_ALS	SX_OB_20220607_04_01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-008	EM2210681-009	EM2210681-010	EM2210681-011	EM2210681-012
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
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	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP075I: Organochlorine Pesticides								
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_20220606_16 _18_SS_Triplicate_AL S	SX_OB_20220606_20 _03_SS_Primary_ALS	SX_OB_20220606_20 _10_SS_Triplicate_AL S	SX_OB_20220607_00 _18_SS_Primary_ALS	SX_OB_20220607_04 _01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-008	EM2210681-009	EM2210681-010	EM2210681-011	EM2210681-012
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ 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
EP080/071: Total Petroleum Hydrocarbons								
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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>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
EP231A: Perfluoroalkyl Sulfonic Acids								
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_20220606_16_18_SS_Triplicate_ALS	SX_OB_20220606_20_03_SS_Primary_ALS	SX_OB_20220606_20_10_SS_Triplicate_ALS	SX_OB_20220607_00_18_SS_Primary_ALS	SX_OB_20220607_04_01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-008	EM2210681-009	EM2210681-010	EM2210681-011	EM2210681-012
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
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
EP231C: Perfluoroalkyl Sulfonamides								
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
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220606_16 _18_SS_Triplicate_AL S	SX_OB_20220606_20 _03_SS_Primary_ALS	SX_OB_20220606_20 _10_SS_Triplicate_AL S	SX_OB_20220607_00 _18_SS_Primary_ALS	SX_OB_20220607_04 _01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-008	EM2210681-009	EM2210681-010	EM2210681-011	EM2210681-012
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
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
EP231P: PFAS Sums								
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
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	111	101	113	101	102
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	70.3	73.8	89.9	95.9	86.5
Toluene-D8	2037-26-5	0.1	%	61.7	69.2	84.4	94.5	85.9
4-Bromofluorobenzene	460-00-4	0.1	%	83.0	87.0	95.6	108	95.5
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	108	97.2	108	94.5	106
2-Chlorophenol-D4	93951-73-6	0.025	%	101	90.3	102	83.8	97.4
2,4,6-Tribromophenol	118-79-6	0.025	%	96.2	85.1	95.2	84.8	91.8
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	108	94.8	108	84.5	103
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	103	87.0	103	71.3	92.7
2-Fluorobiphenyl	321-60-8	0.025	%	112	101	112	90.3	108
Anthracene-d10	1719-06-8	0.025	%	107	98.5	108	99.1	107
4-Terphenyl-d14	1718-51-0	0.025	%	99.0	90.0	99.4	91.4	98.3
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	86.6	112	96.3	115	92.4
13C8-PFOA	----	0.0002	%	92.8	101	112	96.8	100



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220606_09 _23_SS_Primary_ALS	SX_OB_20220606_09 _24_SS_Duplicate_AL S	SX_OB_20220606_12 _15_SS_Primary_ALS	SX_OB_20220606_12 _17_SS_Duplicate_AL S	SX_OB_20220606_16 _09_SS_Primary_ALS
Sampling date / time				06-Jun-2022 09:23	06-Jun-2022 09:24	06-Jun-2022 12:15	06-Jun-2022 12:17	06-Jun-2022 16:09
Compound	CAS Number	LOR	Unit	EM2210681-013	EM2210681-014	EM2210681-015	EM2210681-016	EM2210681-017
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	8.8	9.9	9.9	9.5	9.6



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220606_16 _18_SS_Triplicate_AL S	SX_OB_20220606_20 _03_SS_Primary_ALS	SX_OB_20220606_20 _10_SS_Triplicate_AL S	SX_OB_20220607_00 _18_SS_Primary_ALS	SX_OB_20220607_04 _01_SS_Primary_ALS
Sampling date / time				06-Jun-2022 16:18	06-Jun-2022 20:03	06-Jun-2022 20:10	07-Jun-2022 00:18	07-Jun-2022 04:01
Compound	CAS Number	LOR	Unit	EM2210681-018	EM2210681-019	EM2210681-020	EM2210681-021	EM2210681-022
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.5	9.6	9.5	8.9	8.8



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_OB_20220606_09 _43_SR_Rinsate_ALS	SX_OB_20220606_09 _44_SB_Blank_ALS	----	----	----
Sampling date / time			06-Jun-2022 09:43		06-Jun-2022 09:44		----	----	----
Compound	CAS Number	LOR	Unit	EM2210681-003	EM2210681-004	-----	-----	-----	
				Result	Result	---	---	---	
EP231A: Perfluoroalkyl Sulfonic Acids									
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	----	----	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
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	----	----	----	
EP231C: Perfluoroalkyl Sulfonamides									
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_20220606_09 _43_SR_Rinsate_ALS	SX_OB_20220606_09 _44_SB_Blank_ALS	----	----	----
Sampling date / time				06-Jun-2022 09:43	06-Jun-2022 09:44	----	----	----	
Compound	CAS Number	LOR	Unit	EM2210681-003	EM2210681-004	-----	-----	-----	
				Result	Result	---	---	---	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	----	----	----	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
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	----	----	----	
EP231P: PFAS Sums									
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	----	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	96.4	91.1	----	----	----	
13C8-PFOA	----	0.02	%	97.7	96.9	----	----	----	



Surrogate Control Limits

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

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

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	41	122
EP074S: VOC Surrogates (Ultra-Trace)			
1,2-Dichloroethane-D4	17060-07-0	59	119
Toluene-D8	2037-26-5	55	117
4-Bromofluorobenzene	460-00-4	59	123
EP075S: Acid Extractable Surrogates (Waste Classification)			
Phenol-d6	13127-88-3	63	134
2-Chlorophenol-D4	93951-73-6	60	125
2,4,6-Tribromophenol	118-79-6	54	129
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)			
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
EP231S: PFAS Surrogate			
13C4-PFOS	----	68	136
13C8-PFOA	----	69	133

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

QUALITY CONTROL REPORT

Work Order	: EM2210681	Page	: 1 of 30
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Contact	: Josh Alexander
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 07-Jun-2022
Order number	: ----	Date Analysis Commenced	: 08-Jun-2022
C-O-C number	: 20220607043804-ALS-22	Issue Date	: 15-Jun-2022
Sampler	: ES and HK - EP Risk		
Site	: 20220607043804-ALS-22		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 22		
No. of samples analysed	: 22		



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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Dilani Fernando	Laboratory Coordinator	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
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 Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4390216)									
EM2210515-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	11	15	31.6	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	85	91	7.0	0% - 20%
		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	27	26	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	62	67	8.1	0% - 50%
EM2210681-005	SX_OB_20220606_12_15_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	82	75	9.0	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	109	106	2.7	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	56	47	17.7	0% - 50%
		EG005T: Copper	7440-50-8	5	mg/kg	47	43	7.9	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	6	6	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	84	77	8.4	0% - 50%		

EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4391403)



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 (%)	
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4391403) - continued										
EM2210636-001	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	5.6	5.7	0.0	0% - 20%	
EM2210681-006	SX_OB_20220606_12_17_ SS_Duplicate_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	8.3	8.4	0.0	0% - 20%	
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4390374)										
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	31.2	30.2	3.5	0% - 20%	
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4390215)										
EM2210515-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.2	0.4	45.0	No Limit	
EM2210681-005	SX_OB_20220606_12_15_ SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.1	<0.1	0.0	No Limit	
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4391497)										
EM2210515-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
EM2210669-005	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4392927)										
EM2210515-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit	
EM2210669-003	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit	
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4392929)										
EM2210823-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit	
EM2210708-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit	
EK040T: Fluoride Total (QC Lot: 4391533)										
EM2210515-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	300	300	0.0	No Limit	
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	220	240	9.6	No Limit	
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4390192)										
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4384742)										
EM2210681-001	SX_OB_20220606_09_23_ 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		
EP074H: Naphthalene (QC Lot: 4384742)										
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
EP074I: Volatile Halogenated Compounds (QC Lot: 4384742)										



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 (%)
EP074I: Volatile Halogenated Compounds (QC Lot: 4384742) - continued									
EM2210681-001	SX_OB_20220606_09_23_ 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
		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		
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4390194)									
EM2210681-001	SX_OB_20220606_09_23_ 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	4901-51-3/58-90-2	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
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4390194)									
EM2210681-001	SX_OB_20220606_09_23_ 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



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 (%)
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4390194) - continued									
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	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
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4390194)									
EM2210681-001	SX_OB_20220606_09_23_ 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		
EP075I: Organochlorine Pesticides (QC Lot: 4390194)									
EM2210681-001	SX_OB_20220606_09_23_ 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		



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 (%)
EP075I: Organochlorine Pesticides (QC Lot: 4390194) - continued									
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4384742)									
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4390193)									
EM2210681-001	SX_OB_20220606_09_23_ 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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4384742)									
EM2210681-001	SX_OB_20220606_09_23_ 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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4390193)									
EM2210681-001	SX_OB_20220606_09_23_ 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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4390387)									
EM2210515-001	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
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0003	<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	0.0013	0.0003	129	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2210681-002	SX_OB_20220606_09_24_ 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



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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4390387)									
EM2210515-001	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
EM2210681-002	SX_OB_20220606_09_24_ 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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4390387)									
EM2210515-001	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
		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
EM2210681-002	SX_OB_20220606_09_24_ 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



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 (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4390387) - continued									
EM2210681-002	SX_OB_20220606_09_24_ SS_Duplicate_ALS	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4390387)									
EM2210515-001	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
EM2210681-002	SX_OB_20220606_09_24_ 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
EP231P: PFAS Sums (QC Lot: 4390387)									
EM2210515-001	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0016	0.0003	137	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0016	0.0003	137	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0016	0.0003	137	No Limit
EM2210681-002	SX_OB_20220606_09_24_ 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 (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4391245)									



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 (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4391245) - continued									
EM2210580-003	Anonymous	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2210921-001	Anonymous	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.05	0.05	0.0	No Limit
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.32	0.34	4.8	0% - 20%
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4396151)									
EM2210681-001	SX_OB_20220606_09_23_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
EM2210823-001	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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4396181)									
EM2210681-013	SX_OB_20220606_09_23_SS_Primary_ALS	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	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 (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4396181) - continued									
EM2210681-013	SX_OB_20220606_09_23_ SS_Primary_ALS	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
EM2210823-014	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		
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4391245)									
EM2210580-003	Anonymous	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	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 (PFTrDA)	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
EM2210921-001	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	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 (PFTrDA)	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		
EM2210921-001	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	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 (PFTrDA)	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		
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4396151)									
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4396151) - continued									
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	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
EM2210823-001	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		
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4396181)									
EM2210681-013	SX_OB_20220606_09_23_ 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
		EM2210823-014	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
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



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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4396181) - continued									
EM2210823-014	Anonymous	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4391245)									
EM2210580-003	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	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
EM2210921-001	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4396151)									
EM2210681-001	SX_OB_20220606_09_23_ 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



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 (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4396151) - continued									
EM2210681-001	SX_OB_20220606_09_23_ SS_Primary_ALS	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
EM2210823-001	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4396181)									
EM2210681-013	SX_OB_20220606_09_23_ 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
EM2210823-014	Anonymous	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



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 (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4396181) - continued									
EM2210823-014	Anonymous	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4391245)									
EM2210580-003	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	<0.05	<0.05	0.0	No Limit
		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
EM2210921-001	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	<0.05	<0.05	0.0	No Limit
		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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4396151)									
EM2210681-001	SX_OB_20220606_09_23_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
EM2210823-001	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



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4396151) - continued									
EM2210823-001	Anonymous	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4396181)									
EM2210681-013	SX_OB_20220606_09_23_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
EM2210823-014	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
EP231P: PFAS Sums (QC Lot: 4391245)									
EM2210580-003	Anonymous	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit
EM2210921-001	Anonymous	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	0.37	0.39	5.3	0% - 20%
		EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.37	0.39	5.3	0% - 20%
		EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.37	0.39	5.3	0% - 20%
EP231P: PFAS Sums (QC Lot: 4396151)									
EM2210681-001	SX_OB_20220606_09_23_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
EM2210823-001	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



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 (%)
EP231P: PFAS Sums (QC Lot: 4396181)									
EM2210681-013	SX_OB_20220606_09_23_ 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
EM2210823-014	Anonymous	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 (%) LCS	Acceptable Limits (%) Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4390216)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	96.6	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	58.0	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	97.2	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	98.4	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	99.3	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	88.5	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	100	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	78.8	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	117	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	78.6	70.0	130
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4392796)								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.0	----	----	----	----
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4391403)								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	100	98.8	101
					7 pH Unit	100	99.3	101
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4390215)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	91.4	70.0	130
EG048G: Hexavalent Chromium (Alkaline Digest) (QCLot: 4391497)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	82.2	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4392927)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	82.8	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4392929)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	90.3	70.0	130
EK040T: Fluoride Total (QCLot: 4391533)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	107	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4390192)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	133	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4384742)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	97.1	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	91.2	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	91.3	66.6	115



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	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4384742) - continued									
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	89.5	65.2	112	
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	90.0	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	90.4	68.4	110	
EP074H: Naphthalene (QCLot: 4384742)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	92.1	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4384742)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	98.5	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	94.7	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	96.2	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	96.4	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	96.4	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	96.3	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	96.0	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	94.2	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	101	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	94.0	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	93.2	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	88.7	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	93.2	71.8	116	
EP074-UT: 1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	91.2	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	100	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	93.4	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	96.2	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	95.0	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	97.0	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4390194)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	1 mg/kg	107	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	1 mg/kg	106	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	1 mg/kg	108	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	1 mg/kg	105	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	1 mg/kg	108	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	1 mg/kg	103	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	1 mg/kg	95.2	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	2 mg/kg	104	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	2 mg/kg	88.9	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4390194)									



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	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4390194) - continued									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	1 mg/kg	113	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	1 mg/kg	109	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	2 mg/kg	114	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	1 mg/kg	106	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	1 mg/kg	107	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	64.4	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	107	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	93.4	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	99.6	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	77.7	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4390194)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	1 mg/kg	109	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	1 mg/kg	107	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	1 mg/kg	106	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	1 mg/kg	110	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	1 mg/kg	110	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	1 mg/kg	110	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	1 mg/kg	99.0	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	1 mg/kg	104	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	1 mg/kg	109	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	1 mg/kg	110	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	2 mg/kg	113	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	1 mg/kg	112	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	1 mg/kg	110	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	1 mg/kg	111	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	1 mg/kg	108	71.3	134	
EP075I: Organochlorine Pesticides (QCLot: 4390194)									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	1 mg/kg	104	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	1 mg/kg	105	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	1 mg/kg	105	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	1 mg/kg	107	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	1 mg/kg	110	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	1 mg/kg	104	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	1 mg/kg	105	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	1 mg/kg	105	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	1 mg/kg	100	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	1 mg/kg	97.0	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	1 mg/kg	98.6	69.4	134	



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	
EP075I: Organochlorine Pesticides (QCLot: 4390194) - continued									
EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	1 mg/kg	112	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	1 mg/kg	98.1	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	1 mg/kg	93.3	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	1 mg/kg	92.2	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	1 mg/kg	101	71.4	135	
EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	1 mg/kg	101	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	1 mg/kg	103	70.2	135	
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	1 mg/kg	98.7	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	1 mg/kg	103	63.6	135	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4384742)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	97.2	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4390193)									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	76.4	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	98.3	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	92.9	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	93.6	70.0	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4384742)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	97.9	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4390193)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	88.7	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	100	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	79.3	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	97.0	70.0	130	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4390387)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	96.7	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	93.0	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	67.2	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	106	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	102	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	98.7	59.0	134	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4390387)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	93.8	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.9	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.9	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.5	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.6	69.0	133	



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	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4390387) - continued									
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.9	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.0	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.4	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	95.8	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4390387)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.0	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	95.0	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	108	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.5	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.9	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4390387)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	102	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	108	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	106	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	84.5	70.0	130	
EP231P: PFAS Sums (QCLot: 4390387)									
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 Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4391245)									
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	95.7	72.0	130	
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	86.0	71.0	127	
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	88.0	68.0	131	
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	98.9	69.0	134	
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	96.9	65.0	140	
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	89.6	53.0	142	



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	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396151)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	120	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	96.2	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	105	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	87.8	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	80.2	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396181)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	110	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	93.5	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	105	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	107	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	98.2	53.0	142	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4391245)									
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	90.7	73.0	129	
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	88.3	72.0	129	
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	93.6	72.0	129	
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	98.2	72.0	130	
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	92.8	71.0	133	
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	91.4	69.0	130	
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	94.2	71.0	129	
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	92.4	69.0	133	
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	95.5	72.0	134	
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	86.7	65.0	144	
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	95.9	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396151)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	109	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	108	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	122	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	106	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	110	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.1	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	123	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	107	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	119	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396181)									



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	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396181) - continued									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.9	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	107	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	116	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	95.8	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.2	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	113	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4391245)									
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	97.7	67.0	137	
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	98.5	68.0	141	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	88.1	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	96.9	70.0	130	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	90.2	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	109	65.0	136	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	100	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396151)									
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	119	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	114	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	103	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	90.6	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396181)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	107	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	114	68.0	141	



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
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396181) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	102	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.8	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	124	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	94.7	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	109	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4391245)								
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	104	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	115	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	106	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	73.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4396151)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	107	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	113	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	101	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4396181)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	116	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	113	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	121	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	95.1	70.0	130
EP231P: PFAS Sums (QCLot: 4391245)								
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	----	----	----	----
EP231P: PFAS Sums (QCLot: 4396151)								
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	----	----	----	----
EP231P: PFAS Sums (QCLot: 4396181)								
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	----	----	----	----



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	
EP231P: PFAS Sums (QCLot: 4396181) - continued									
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	SpikeRecovery(%) MS	Acceptable Limits (%) Low High	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4390216)							
EM2210515-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	103	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	95.1	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	85.9	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	103	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	102	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	79.3	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	87.7	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4390215)							
EM2210515-002	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	94.5	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4391497)							
EM2210515-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	85.6	58.0	114
EM2210515-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	96.5	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4392927)							
EM2210515-002	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	81.8	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4392929)							
EM2210681-010	SX_OB_20220606_20_10_SS_Triplicate_ALS	EK026SF: Total Cyanide	57-12-5	20 mg/kg	97.5	70.0	130
EK040T: Fluoride Total (QCLot: 4391533)							
EM2210515-002	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	75.9	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4390192)							
EM2210681-005	SX_OB_20220606_12_15_SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	123	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4384742)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	88.8	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	92.9	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4384742)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	56.3	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	81.7	48.1	128



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
EP074I: Volatile Halogenated Compounds (QCLot: 4384742) - continued							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	86.4	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4390194)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	51.9	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	52.1	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	16.0	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4390194)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP075-EM: Phenol	108-95-2	3 mg/kg	52.0	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	46.8	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4390194)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	48.9	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	47.4	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4384742)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	85.4	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4390193)							
EM2210681-006	SX_OB_20220606_12_17_SS_Duplicate_ALS	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	76.2	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	97.7	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	91.5	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	93.0	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4384742)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	82.7	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4390193)							
EM2210681-006	SX_OB_20220606_12_17_SS_Duplicate_ALS	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	88.6	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	99.2	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	76.5	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	96.2	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4390387)							
EM2210515-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	99.5	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	74.6	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	84.8	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	112	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	100	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	93.0	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4390387)							
EM2210515-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	97.4	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	87.0	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	97.9	70.0	132



Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4390387) - continued							
EM2210515-002	Anonymous	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	101	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	87.8	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	98.5	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	85.9	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	109	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	102	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	86.0	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	95.9	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4390387)							
EM2210515-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	103	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	104	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	99.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	101	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	92.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	107	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	87.6	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4390387)							
EM2210515-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	104	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	107	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	113	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	77.8	70.0	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
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4391245)							
EM2210580-004	Anonymous	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	88.6	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	110	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	101	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	109	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	90.5	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	99.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396151)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	103	72.0	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		
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396151) - continued									
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	104	71.0	127		
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	111	68.0	131		
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	116	69.0	134		
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	135	65.0	140		
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	123	53.0	142		
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396181)									
EM2210681-014	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	118	72.0	130		
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	106	71.0	127		
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	112	68.0	131		
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	114	69.0	134		
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	101	65.0	140		
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	96.3	53.0	142		
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4391245)									
EM2210580-004	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	90.0	73.0	129		
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	90.6	72.0	129		
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	88.6	72.0	129		
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	106	72.0	130		
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	88.9	71.0	133		
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	102	69.0	130		
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	95.7	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	105	72.0	134		
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	85.0	65.0	144		
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	89.9	71.0	132		
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396151)									
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	98.3	73.0	129		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	102	72.0	129		
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	104	72.0	129		
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	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	102	69.0	130		
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	94.5	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	102	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	104	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	88.3	65.0	144		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	115	71.0	132		
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396181)							
		EM2210681-014	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	98.8	73.0	129



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396181) - continued							
EM2210681-014	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	107	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	121	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	104	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	113	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	114	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	95.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	96.4	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.25 µg/L	90.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	123	71.0	132		
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4391245)							
EM2210580-004	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	97.3	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	106	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	104	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	91.0	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	85.6	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	117	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	106	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396151)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	95.8	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	102	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	102	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	101	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	98.0	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	116	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	120	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396181)							
EM2210681-014	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	112	67.0	137



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396181) - continued							
EM2210681-014	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	118	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	97.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	98.1	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	122	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	91.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	124	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4391245)							
EM2210580-004	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	103	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	104	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	99.1	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	71.4	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4396151)							
EM2210681-002	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	97.1	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	114	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	97.5	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	74.8	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4396181)							
EM2210681-014	SX_OB_20220606_09_24_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	111	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	125	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	114	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	104	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2210681	Page	: 1 of 14
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 07-Jun-2022
Site	: 20220607043804-ALS-22	Issue Date	: 15-Jun-2022
Sampler	: ES and HK - EP Risk	No. of samples received	: 22
Order number	: ----	No. of samples analysed	: 22

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.**
- **NO Matrix Spike outliers occur.**
- **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.**



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	
EA001: pH in soil using 0.01M CaCl extract								
Soil Glass Jar - Unpreserved (EA001) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	10-Jun-2022	13-Jun-2022	✓	10-Jun-2022	10-Jun-2022	✓
Soil Glass Jar - Unpreserved (EA001) SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	14-Jun-2022	✓	10-Jun-2022	10-Jun-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	----	----	----	09-Jun-2022	20-Jun-2022	✓
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	----	----	----	09-Jun-2022	21-Jun-2022	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	10-Jun-2022	03-Dec-2022	✓	10-Jun-2022	03-Dec-2022	✓
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	04-Dec-2022	✓
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	10-Jun-2022	04-Jul-2022	✓	10-Jun-2022	04-Jul-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	05-Jul-2022	✓	10-Jun-2022	05-Jul-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	
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	11-Jun-2022	04-Jul-2022	✓	14-Jun-2022	18-Jun-2022	✓
Soil Glass Jar - Unpreserved (EG048G)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	11-Jun-2022	05-Jul-2022	✓	14-Jun-2022	18-Jun-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	10-Jun-2022	20-Jun-2022	✓	11-Jun-2022	24-Jun-2022	✓
Soil Glass Jar - Unpreserved (EK026SF)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	21-Jun-2022	✓	11-Jun-2022	24-Jun-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	11-Jun-2022	04-Jul-2022	✓	15-Jun-2022	04-Jul-2022	✓
Soil Glass Jar - Unpreserved (EK040T)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	11-Jun-2022	05-Jul-2022	✓	15-Jun-2022	05-Jul-2022	✓
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	10-Jun-2022	03-Dec-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	----	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	10-Jun-2022	03-Dec-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-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	
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	20-Jun-2022	✓	10-Jun-2022	19-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	21-Jun-2022	✓	10-Jun-2022	19-Jul-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	08-Jun-2022	13-Jun-2022	✓	09-Jun-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	08-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	08-Jun-2022	13-Jun-2022	✓	09-Jun-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	08-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	08-Jun-2022	13-Jun-2022	✓	09-Jun-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	08-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	20-Jun-2022	✓	10-Jun-2022	19-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	21-Jun-2022	✓	10-Jun-2022	19-Jul-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	
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	20-Jun-2022	✓	10-Jun-2022	19-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	21-Jun-2022	✓	10-Jun-2022	19-Jul-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	20-Jun-2022	✓	10-Jun-2022	19-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	21-Jun-2022	✓	10-Jun-2022	19-Jul-2022	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	20-Jun-2022	✓	10-Jun-2022	19-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	21-Jun-2022	✓	10-Jun-2022	19-Jul-2022	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	08-Jun-2022	13-Jun-2022	✓	09-Jun-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	20-Jun-2022	✓	09-Jun-2022	19-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	08-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	21-Jun-2022	✓	09-Jun-2022	19-Jul-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	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	08-Jun-2022	13-Jun-2022	✓	09-Jun-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	20-Jun-2022	✓	09-Jun-2022	19-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	08-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	21-Jun-2022	✓	09-Jun-2022	19-Jul-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	03-Dec-2022	✓	09-Jun-2022	19-Jul-2022	✓
HDPE Soil Jar (EP231X)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	04-Dec-2022	✓	09-Jun-2022	19-Jul-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	03-Dec-2022	✓	09-Jun-2022	19-Jul-2022	✓
HDPE Soil Jar (EP231X)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	04-Dec-2022	✓	09-Jun-2022	19-Jul-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	03-Dec-2022	✓	09-Jun-2022	19-Jul-2022	✓
HDPE Soil Jar (EP231X)								
SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	04-Dec-2022	✓	09-Jun-2022	19-Jul-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	
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	03-Dec-2022	✓	09-Jun-2022	19-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	04-Dec-2022	✓	09-Jun-2022	19-Jul-2022	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS	06-Jun-2022	09-Jun-2022	03-Dec-2022	✓	09-Jun-2022	19-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220607_04_01_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	04-Dec-2022	✓	09-Jun-2022	19-Jul-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	
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220606_09_43_SR_Rinsate_ALS,	SX_OB_20220606_09_44_SB_Blank_ALS	06-Jun-2022	10-Jun-2022	03-Dec-2022	✓	10-Jun-2022	03-Dec-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220607_00_18_SS_Primary_ALS, SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_04_01_SS_Primary_ALS, SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_04_01_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-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	
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220606_09_43_SR_Rinsate_ALS, SX_OB_20220606_09_44_SB_Blank_ALS	06-Jun-2022	10-Jun-2022	03-Dec-2022	✓	10-Jun-2022	03-Dec-2022	✓	
HDPE (no PTFE) (EP231X) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_00_18_SS_Primary_ALS, SX_OB_20220607_04_01_SS_Primary_ALS, SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_00_18_SS_Primary_ALS, SX_OB_20220607_04_01_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-2022	✓	
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220606_09_43_SR_Rinsate_ALS, SX_OB_20220606_09_44_SB_Blank_ALS	06-Jun-2022	10-Jun-2022	03-Dec-2022	✓	10-Jun-2022	03-Dec-2022	✓	
HDPE (no PTFE) (EP231X) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_00_18_SS_Primary_ALS, SX_OB_20220607_04_01_SS_Primary_ALS, SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_00_18_SS_Primary_ALS, SX_OB_20220607_04_01_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-2022	✓	
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220606_09_43_SR_Rinsate_ALS, SX_OB_20220606_09_44_SB_Blank_ALS	06-Jun-2022	10-Jun-2022	03-Dec-2022	✓	10-Jun-2022	03-Dec-2022	✓	
HDPE (no PTFE) (EP231X) SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_00_18_SS_Primary_ALS, SX_OB_20220607_04_01_SS_Primary_ALS, SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_00_18_SS_Primary_ALS, SX_OB_20220607_04_01_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-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	
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220606_09_43_SR_Rinsate_ALS, SX_OB_20220606_09_44_SB_Blank_ALS	06-Jun-2022	10-Jun-2022	03-Dec-2022	✓	10-Jun-2022	03-Dec-2022	✓	
HDPE (no PTFE) (EP231X)								
SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220607_00_18_SS_Primary_ALS, SX_OB_20220606_09_23_SS_Primary_ALS, SX_OB_20220606_12_15_SS_Primary_ALS, SX_OB_20220606_16_09_SS_Primary_ALS, SX_OB_20220606_20_03_SS_Primary_ALS, SX_OB_20220607_00_18_SS_Primary_ALS,	SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_04_01_SS_Primary_ALS, SX_OB_20220606_09_24_SS_Duplicate_ALS, SX_OB_20220606_12_17_SS_Duplicate_ALS, SX_OB_20220606_16_18_SS_Triplicate_ALS, SX_OB_20220606_20_10_SS_Triplicate_ALS, SX_OB_20220607_04_01_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-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	
Analytical Methods							
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	1	10	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	10	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	1	10	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	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	10	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	10	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
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	10	10.00	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	10	10.00	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	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	10	10.00	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	10	10.00	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	10	10.00	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	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	10	10.00	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	
Analytical Methods							
Matrix Spikes (MS)							
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	10	10.00	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	10	10.00	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	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	10	10.00	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	
Analytical Methods							
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	38	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	14	7.14	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 ₂ 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 ₂ 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 ₂) (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 ₂ 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 soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and 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 ₂ 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 ₂ 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 ₂ SO ₄ 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.

CHAIN OF CUSTODY DOCUMENTATION										 Australian Laboratory Services Pty Ltd																																																																																																																
CLIENT: Agon Environmental					SAMPLER: Will + Martha																																																																																																																					
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																																																																																																																					
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FOR LABORATORY USE ONLY COOLER SEAL (if applicable) Intact: Yes No N/A SAMPLE TEMPERATURE CHILLED: Yes No			COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:							Notes:																																																																																																																
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">SAMPLE INFORMATION (note: S = Soil, W=Water)</th> <th colspan="3">CONTAINER INFORMATION</th> </tr> <tr> <th>ALS ID</th> <th>SAMPLE ID</th> <th>MATRIX</th> <th>DATE</th> <th>Time</th> <th>Type / Code</th> <th>Total bottles</th> </tr> </thead> <tbody> <tr> <td>14/ 1</td> <td>SX_OB_20220607_08_35_SS_Primary_ALS</td> <td>S</td> <td>7/06/2022</td> <td>08:35</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>15/ 2</td> <td>SX_OB_20220607_08_36_SS_Duplicate_ALS</td> <td>S</td> <td>7/06/2022</td> <td>08:36</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>16/ 3</td> <td>SX_OB_20220607_11_57_SS_Primary_ALS</td> <td>S</td> <td>7/06/2022</td> <td>11:57</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>17/ 4</td> <td>SX_OB_20220607_16_29_SS_Primary_ALS</td> <td>S</td> <td>7/06/2022</td> <td>16:29</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>18/ 5</td> <td>SX_OB_20220607_16_33_SS_Triplicate_ALS</td> <td>S</td> <td>7/06/2022</td> <td>16:33</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>6</td> <td>SX_OB_20220607_17_46_SR_Rinse_ALS</td> <td>W</td> <td>7/06/2022</td> <td>17:45</td> <td>Bottle</td> <td>1</td> </tr> <tr> <td>7</td> <td>SX_OB_20220607_17_46_SB_Blank_ALS</td> <td>W</td> <td>7/06/2022</td> <td>17:46</td> <td>Botte</td> <td>1</td> </tr> <tr> <td>19/ 8</td> <td>SX_OB_20220607_20_25_SS_Primary_ALS</td> <td>S</td> <td>7/06/2022</td> <td>20:25</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>20/ 9</td> <td>SX_OB_20220608_01_58_SS_Primary_ALS</td> <td>S</td> <td>8/06/2022</td> <td>01:58</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>21/ 10</td> <td>SX_OB_20220608_01_59_SS_Duplicate_ALS</td> <td>S</td> <td>8/06/2022</td> <td>01:59</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>11</td> <td>SX_OB_20220608_02_11_SR_Rinse_ALS</td> <td>W</td> <td>8/06/2022</td> <td>02:11</td> <td>Bottle</td> <td>1</td> </tr> <tr> <td>12</td> <td>SX_OB_20220608_02_12_SB_Blank_ALS</td> <td>W</td> <td>8/06/2022</td> <td>02:12</td> <td>Botte</td> <td>1</td> </tr> <tr> <td>22/ 13</td> <td>SX_OB_20220608_04_06_SS_Primary_ALS</td> <td>S</td> <td>8/06/2022</td> <td>4:06</td> <td>Bucket</td> <td>1</td> </tr> </tbody> </table>							SAMPLE INFORMATION (note: S = Soil, W=Water)				CONTAINER INFORMATION			ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	14/ 1	SX_OB_20220607_08_35_SS_Primary_ALS	S	7/06/2022	08:35	Bucket	1	15/ 2	SX_OB_20220607_08_36_SS_Duplicate_ALS	S	7/06/2022	08:36	Bucket	1	16/ 3	SX_OB_20220607_11_57_SS_Primary_ALS	S	7/06/2022	11:57	Bucket	1	17/ 4	SX_OB_20220607_16_29_SS_Primary_ALS	S	7/06/2022	16:29	Bucket	1	18/ 5	SX_OB_20220607_16_33_SS_Triplicate_ALS	S	7/06/2022	16:33	Bucket	1	6	SX_OB_20220607_17_46_SR_Rinse_ALS	W	7/06/2022	17:45	Bottle	1	7	SX_OB_20220607_17_46_SB_Blank_ALS	W	7/06/2022	17:46	Botte	1	19/ 8	SX_OB_20220607_20_25_SS_Primary_ALS	S	7/06/2022	20:25	Bucket	1	20/ 9	SX_OB_20220608_01_58_SS_Primary_ALS	S	8/06/2022	01:58	Bucket	1	21/ 10	SX_OB_20220608_01_59_SS_Duplicate_ALS	S	8/06/2022	01:59	Bucket	1	11	SX_OB_20220608_02_11_SR_Rinse_ALS	W	8/06/2022	02:11	Bottle	1	12	SX_OB_20220608_02_12_SB_Blank_ALS	W	8/06/2022	02:12	Botte	1	22/ 13	SX_OB_20220608_04_06_SS_Primary_ALS	S	8/06/2022	4:06	Bucket	1	Spill Sample Prep	P16 plus Cr	PFAS 20 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	DI Leachate PFAS - Extended Suite						
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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 Bag for Acid Sulphate Soils; B = Unpreserved Bag																																																																																																																										

Environmental Division
Melbourne
Work Order Reference
EM2210823



Telephone : + 61-3-8549 9600

CERTIFICATE OF ANALYSIS

Work Order : **EM2210823**
Client : **AGON ENVIRONMENTAL PTY LTD**
Contact : Craig Trimbur
Address : D1.1 63-85 TURNER STREET
 PORT MELBOURNE 3207

Telephone : ----
Project : JC0927
Order number : ----
C-O-C number : 20220608044505-ALS-52
Sampler : Will + Martha
Site : 20220608044505-ALS-52
Quote number : EN/150/19 -WGTP -Bulk Sample Quote
No. of samples received : 22
No. of samples analysed : 22

Page : 1 of 29
Laboratory : Environmental Division Melbourne
Contact : Josh Alexander
Address : 4 Westall Rd Springvale VIC Australia 3171

Telephone : +61-3-8549 9600
Date Samples Received : 09-Jun-2022 09:46
Date Analysis Commenced : 09-Jun-2022
Issue Date : 15-Jun-2022 18:25



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
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 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 Contract 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.
- EP075-EM: EM2210823_005 Poor surrogate recovery due to matrix effects.
- 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_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
Sampling date / time				07-Jun-2022 08:35	07-Jun-2022 08:36	07-Jun-2022 11:57	07-Jun-2022 16:29	07-Jun-2022 16:33
Compound	CAS Number	LOR	Unit	EM2210823-001	EM2210823-002	EM2210823-003	EM2210823-004	EM2210823-005
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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
EP231B: Perfluoroalkyl Carboxylic Acids								
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
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
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_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
Sampling date / time				07-Jun-2022 08:35	07-Jun-2022 08:36	07-Jun-2022 11:57	07-Jun-2022 16:29	07-Jun-2022 16:33
Compound	CAS Number	LOR	Unit	EM2210823-001	EM2210823-002	EM2210823-003	EM2210823-004	EM2210823-005
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
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
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
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)	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	102	87.7	109	101	99.0
13C8-PFOA	----	0.02	%	105	99.7	102	93.1	96.9



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	----
Sampling date / time				07-Jun-2022 20:25	08-Jun-2022 01:58	08-Jun-2022 01:59	08-Jun-2022 04:06	----
Compound	CAS Number	LOR	Unit	EM2210823-008	EM2210823-009	EM2210823-010	EM2210823-013	-----
				Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<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	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<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	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<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	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<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	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<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	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<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	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<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	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<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	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	----
Sampling date / time				07-Jun-2022 20:25	08-Jun-2022 01:58	08-Jun-2022 01:59	08-Jun-2022 04:06	----
Compound	CAS Number	LOR	Unit	EM2210823-008	EM2210823-009	EM2210823-010	EM2210823-013	-----
				Result	Result	Result	Result	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<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	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<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	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<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	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	98.8	108	126	93.8	----
13C8-PFOA	----	0.02	%	104	96.1	97.6	99.9	----



Analytical Results

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

Sample ID

				SX_OB_20220607_08 _35_SS_Primary_ALS	SX_OB_20220607_08 _36_SS_Duplicate_AL S	SX_OB_20220607_11 _57_SS_Primary_ALS	SX_OB_20220607_16 _29_SS_Primary_ALS	SX_OB_20220607_16 _33_SS_Triplicate_AL S
Sampling date / time				07-Jun-2022 00:00	07-Jun-2022 00:00	07-Jun-2022 00:00	07-Jun-2022 00:00	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-014	EM2210823-015	EM2210823-016	EM2210823-017	EM2210823-018
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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
EP231B: Perfluoroalkyl Carboxylic Acids								
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
EP231C: Perfluoroalkyl Sulfonamides								
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_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
Sampling date / time				07-Jun-2022 00:00	07-Jun-2022 00:00	07-Jun-2022 00:00	07-Jun-2022 00:00	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-014	EM2210823-015	EM2210823-016	EM2210823-017	EM2210823-018
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
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
EP231P: PFAS Sums								
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
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	102	106	94.8	98.0	101
13C8-PFOA	----	0.02	%	101	105	94.6	102	103



Analytical Results

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

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	----
Sampling date / time				07-Jun-2022 00:00	08-Jun-2022 00:00	08-Jun-2022 00:00	08-Jun-2022 00:00	----
Compound	CAS Number	LOR	Unit	EM2210823-019	EM2210823-020	EM2210823-021	EM2210823-022	-----
				Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<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	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<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	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<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	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<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	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<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	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<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	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<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	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<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	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<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	----



Analytical Results

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

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	----
Sampling date / time				07-Jun-2022 00:00	08-Jun-2022 00:00	08-Jun-2022 00:00	08-Jun-2022 00:00	----
Compound	CAS Number	LOR	Unit	EM2210823-019	EM2210823-020	EM2210823-021	EM2210823-022	-----
				Result	Result	Result	Result	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<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	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<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	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<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	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<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	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<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	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	103	93.7	103	96.9	----
13C8-PFOA	----	0.02	%	109	106	108	108	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
Sampling date / time				07-Jun-2022 08:35	07-Jun-2022 08:36	07-Jun-2022 11:57	07-Jun-2022 16:29	07-Jun-2022 16:33
Compound	CAS Number	LOR	Unit	EM2210823-001	EM2210823-002	EM2210823-003	EM2210823-004	EM2210823-005
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	7.8	7.9	8.0	8.4	8.0
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	28.0	25.2	23.8	23.0	25.4
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	44	46	60	51	47
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	74	70	72	51	52
Copper	7440-50-8	5	mg/kg	39	37	47	32	33
Lead	7439-92-1	5	mg/kg	6	5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	95	88	94	78	76
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	56	53	62	43	44
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	260	240	280	240	250
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	8.6	9.1	9.8	9.9	9.8
After HCl pH	----	0.1	pH Unit	1.3	1.2	1.2	1.2	1.2
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	5.2	5.2
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons								
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_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
Sampling date / time				07-Jun-2022 08:35	07-Jun-2022 08:36	07-Jun-2022 11:57	07-Jun-2022 16:29	07-Jun-2022 16:33
Compound	CAS Number	LOR	Unit	EM2210823-001	EM2210823-002	EM2210823-003	EM2210823-004	EM2210823-005
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
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
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP074I: Volatile Halogenated Compounds								
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
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
			Sampling date / time	07-Jun-2022 08:35	07-Jun-2022 08:36	07-Jun-2022 11:57	07-Jun-2022 16:29	07-Jun-2022 16:33
Compound	CAS Number	LOR	Unit	EM2210823-001	EM2210823-002	EM2210823-003	EM2210823-004	EM2210823-005
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued								
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
EP075A: Phenolic Compounds (Non-halogenated)								
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
EP075B: Polynuclear Aromatic Hydrocarbons								
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_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
			Sampling date / time	07-Jun-2022 08:35	07-Jun-2022 08:36	07-Jun-2022 11:57	07-Jun-2022 16:29	07-Jun-2022 16:33
Compound	CAS Number	LOR	Unit	EM2210823-001	EM2210823-002	EM2210823-003	EM2210823-004	EM2210823-005
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
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	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP075I: Organochlorine Pesticides								
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_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
Sampling date / time				07-Jun-2022 08:35	07-Jun-2022 08:36	07-Jun-2022 11:57	07-Jun-2022 16:29	07-Jun-2022 16:33
Compound	CAS Number	LOR	Unit	EM2210823-001	EM2210823-002	EM2210823-003	EM2210823-004	EM2210823-005
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ 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
EP080/071: Total Petroleum Hydrocarbons								
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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>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
EP231A: Perfluoroalkyl Sulfonic Acids								
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_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
Sampling date / time				07-Jun-2022 08:35	07-Jun-2022 08:36	07-Jun-2022 11:57	07-Jun-2022 16:29	07-Jun-2022 16:33
Compound	CAS Number	LOR	Unit	EM2210823-001	EM2210823-002	EM2210823-003	EM2210823-004	EM2210823-005
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
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
EP231C: Perfluoroalkyl Sulfonamides								
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
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_08_35_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS	SX_OB_20220607_11_57_SS_Primary_ALS	SX_OB_20220607_16_29_SS_Primary_ALS	SX_OB_20220607_16_33_SS_Triplicate_ALS
Sampling date / time				07-Jun-2022 08:35	07-Jun-2022 08:36	07-Jun-2022 11:57	07-Jun-2022 16:29	07-Jun-2022 16:33
Compound	CAS Number	LOR	Unit	EM2210823-001	EM2210823-002	EM2210823-003	EM2210823-004	EM2210823-005
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
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
EP231P: PFAS Sums								
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
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	111	112	108	117	116
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	85.4	82.4	95.5	100	90.8
Toluene-D8	2037-26-5	0.1	%	82.8	78.1	90.3	92.6	83.7
4-Bromofluorobenzene	460-00-4	0.1	%	90.4	85.5	98.1	96.1	91.5
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	117	110	100	114	98.5
2-Chlorophenol-D4	93951-73-6	0.025	%	102	96.6	83.3	105	78.4
2,4,6-Tribromophenol	118-79-6	0.025	%	92.4	86.4	83.3	89.4	89.1
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	99.2	93.4	79.2	95.2	72.0
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	95.7	89.1	67.6	91.0	51.4
2-Fluorobiphenyl	321-60-8	0.025	%	106	99.1	92.6	102	91.1
Anthracene-d10	1719-06-8	0.025	%	103	97.8	95.6	100	99.0
4-Terphenyl-d14	1718-51-0	0.025	%	96.2	91.0	89.7	93.2	92.2
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	87.4	106	91.2	94.6	106
13C8-PFOA	----	0.0002	%	89.9	95.2	97.0	95.7	102



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_08_35_SS_Primary_ALS
Sampling date / time				07-Jun-2022 20:25	08-Jun-2022 01:58	08-Jun-2022 01:59	08-Jun-2022 04:06	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-008	EM2210823-009	EM2210823-010	EM2210823-013	EM2210823-014
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	8.1	8.2	8.2	8.5	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	20.4	25.2	21.2	25.3	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	56	42	42	46	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	----
Chromium	7440-47-3	5	mg/kg	52	50	52	50	----
Copper	7440-50-8	5	mg/kg	37	36	33	35	----
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	----
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	----
Nickel	7440-02-0	5	mg/kg	81	80	73	78	----
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	----
Silver	7440-22-4	2	mg/kg	<2	<2	<2	<2	----
Tin	7440-31-5	10	mg/kg	<10	<10	<10	<10	----
Zinc	7440-66-6	5	mg/kg	43	46	37	44	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	----
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	----
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	----
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	320	260	290	260	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.9	10.1	10.0	10.2	----
After HCl pH	----	0.1	pH Unit	1.3	1.2	1.3	1.3	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	----
Final pH	----	0.1	pH Unit	5.2	5.2	5.2	5.2	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	----	----	----	----	8.3
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_08_35_SS_Primary_ALS
Sampling date / time				07-Jun-2022 20:25	08-Jun-2022 01:58	08-Jun-2022 01:59	08-Jun-2022 04:06	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-008	EM2210823-009	EM2210823-010	EM2210823-013	EM2210823-014
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	<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	----
Styrene	100-42-5	0.5	mg/kg	<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	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	----
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<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	----
Methylene chloride	75-09-2	0.5	mg/kg	<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	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----
Chloroform	67-66-3	0.50	mg/kg	<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	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<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	----
Trichloroethene	79-01-6	0.50	mg/kg	<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	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<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	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----
Chlorobenzene	108-90-7	0.50	mg/kg	<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	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<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	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<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	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_08_35_SS_Primary_ALS
		Sampling date / time		07-Jun-2022 20:25	08-Jun-2022 01:58	08-Jun-2022 01:59	08-Jun-2022 04:06	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-008	EM2210823-009	EM2210823-010	EM2210823-013	EM2210823-014
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated)								
2-Chlorophenol	95-57-8	0.50	mg/kg	<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	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<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	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<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	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<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	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	----
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	<1	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	<1	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	<1	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	<1	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	<5	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	<5	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	<5	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	<20	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	<20	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	<20	----
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Pyrene	129-00-0	0.5	mg/kg	<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	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_08_35_SS_Primary_ALS
Sampling date / time				07-Jun-2022 20:25	08-Jun-2022 01:58	08-Jun-2022 01:59	08-Jun-2022 04:06	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-008	EM2210823-009	EM2210823-010	EM2210823-013	EM2210823-014
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	0.5	mg/kg	<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	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<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	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<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	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<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	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	----
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<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	----
beta-BHC	319-85-7	0.05	mg/kg	<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	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	----
Aldrin	309-00-2	0.05	mg/kg	<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	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<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	----
Endosulfan 1	959-98-8	0.05	mg/kg	<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	----
Dieldrin	60-57-1	0.05	mg/kg	<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	----
Endrin	72-20-8	0.05	mg/kg	<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	----
4.4`-DDD	72-54-8	0.05	mg/kg	<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	----
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_08_35_SS_Primary_ALS
Sampling date / time				07-Jun-2022 20:25	08-Jun-2022 01:58	08-Jun-2022 01:59	08-Jun-2022 04:06	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-008	EM2210823-009	EM2210823-010	EM2210823-013	EM2210823-014
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<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	----
^ Chlordane	57-74-9	0.10	mg/kg	<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	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	<20	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	----
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	<20	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	<20	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<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	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<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	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<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	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_08_35_SS_Primary_ALS
Sampling date / time				07-Jun-2022 20:25	08-Jun-2022 01:58	08-Jun-2022 01:59	08-Jun-2022 04:06	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-008	EM2210823-009	EM2210823-010	EM2210823-013	EM2210823-014
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	<5	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<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	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<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	----
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<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	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<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	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<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	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<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	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<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	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<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	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_20_25_SS_Primary_ALS	SX_OB_20220608_01_58_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS	SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_08_35_SS_Primary_ALS
Sampling date / time				07-Jun-2022 20:25	08-Jun-2022 01:58	08-Jun-2022 01:59	08-Jun-2022 04:06	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-008	EM2210823-009	EM2210823-010	EM2210823-013	EM2210823-014
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<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	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<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	----
EP231P: PFAS Sums								
Sum of PFAS	----	50.0	µg/kg	<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	----
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	119	114	116	80.5	----
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	99.8	102	96.6	89.0	----
Toluene-D8	2037-26-5	0.1	%	91.1	97.9	90.8	81.2	----
4-Bromofluorobenzene	460-00-4	0.1	%	96.6	104	94.8	87.7	----
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	114	112	114	82.4	----
2-Chlorophenol-D4	93951-73-6	0.025	%	105	99.1	100	72.7	----
2,4,6-Tribromophenol	118-79-6	0.025	%	95.2	90.8	91.2	63.9	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	99.3	93.4	94.8	69.1	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	95.2	89.3	89.4	67.0	----
2-Fluorobiphenyl	321-60-8	0.025	%	106	101	101	74.6	----
Anthracene-d10	1719-06-8	0.025	%	105	99.0	100	73.6	----
4-Terphenyl-d14	1718-51-0	0.025	%	96.9	92.7	93.2	68.1	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	107	110	101	94.4	----
13C8-PFOA	----	0.0002	%	96.0	97.8	95.8	86.8	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220607_08 _36_SS_Duplicate_AL S	SX_OB_20220607_11 _57_SS_Primary_ALS	SX_OB_20220607_16 _29_SS_Primary_ALS	SX_OB_20220607_16 _33_SS_Triplicate_AL S	SX_OB_20220607_20 _25_SS_Primary_ALS
Sampling date / time				07-Jun-2022 00:00	07-Jun-2022 00:00	07-Jun-2022 00:00	07-Jun-2022 00:00	07-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	EM2210823-015	EM2210823-016	EM2210823-017	EM2210823-018	EM2210823-019
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.4	9.8	10.1	10.0	10.0



Analytical Results

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

Sample ID

				SX_OB_20220608_01 _58_SS_Primary_ALS	SX_OB_20220608_01 _59_SS_Duplicate_AL S	SX_OB_20220608_04 _06_SS_Primary_ALS	----	----
Sampling date / time				08-Jun-2022 00:00	08-Jun-2022 00:00	08-Jun-2022 00:00	----	----
Compound	CAS Number	LOR	Unit	EM2210823-020	EM2210823-021	EM2210823-022	-----	-----
				Result	Result	Result	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	10.1	10.1	10.2	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_OB_20220607_17_45_SR_Rinsate_ALS	SX_OB_20220607_17_46_SB_Blank_ALS	SX_OB_20220608_02_11_SR_Rinsate_ALS	SX_OB_20220608_02_12_SB_Blank_ALS	----
Sampling date / time				07-Jun-2022 17:45	07-Jun-2022 17:46	08-Jun-2022 02:11	08-Jun-2022 02:12	----	
Compound	CAS Number	LOR	Unit	EM2210823-006	EM2210823-007	EM2210823-011	EM2210823-012	-----	
				Result	Result	Result	Result	----	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<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	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<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	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<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	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	----	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<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	----	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<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	----	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<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	----	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<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	----	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<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	----	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<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	----	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_OB_20220607_17_45_SR_Rinsate_ALS	SX_OB_20220607_17_46_SB_Blank_ALS	SX_OB_20220608_02_11_SR_Rinsate_ALS	SX_OB_20220608_02_12_SB_Blank_ALS	----
Sampling date / time				07-Jun-2022 17:45	07-Jun-2022 17:46	08-Jun-2022 02:11	08-Jun-2022 02:12	----	
Compound	CAS Number	LOR	Unit	EM2210823-006	EM2210823-007	EM2210823-011	EM2210823-012	-----	
				Result	Result	Result	Result	----	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<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	----	
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<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	----	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<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	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<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	----	
EP231P: PFAS Sums									
Sum of PFAS	----	0.10	µg/L	<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	----	
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	102	95.2	91.4	83.3	----	
13C8-PFOA	----	0.02	%	101	102	95.0	99.0	----	



Surrogate Control Limits

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

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

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	41	122
EP074S: VOC Surrogates (Ultra-Trace)			
1,2-Dichloroethane-D4	17060-07-0	59	119
Toluene-D8	2037-26-5	55	117
4-Bromofluorobenzene	460-00-4	59	123
EP075S: Acid Extractable Surrogates (Waste Classification)			
Phenol-d6	13127-88-3	63	134
2-Chlorophenol-D4	93951-73-6	60	125
2,4,6-Tribromophenol	118-79-6	54	129
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)			
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
EP231S: PFAS Surrogate			
13C4-PFOS	----	68	136
13C8-PFOA	----	69	133

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

QUALITY CONTROL REPORT

Work Order	: EM2210823	Page	: 1 of 31
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Contact	: Josh Alexander
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 09-Jun-2022
Order number	: ----	Date Analysis Commenced	: 09-Jun-2022
C-O-C number	: 20220608044505-ALS-52	Issue Date	: 15-Jun-2022
Sampler	: Will + Martha		
Site	: 20220608044505-ALS-52		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 22		
No. of samples analysed	: 22		



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
Jarvis Nheu	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic 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 (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4391552)									
EM2210636-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	30	30	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	32	31	3.7	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	62	62	0.0	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	36	39	7.5	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	125	126	0.0	0% - 20%
EM2210636-020	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	26	22	17.0	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	15	12	23.9	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	19	12	40.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	22	15	34.0	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	22	62.7	No Limit
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4391404)									
EM2210813-002	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.7	0.0	0% - 20%



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 (%)
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4391404) - continued									
EM2210823-005	SX_OB_20220607_16_33_ SS_Triplicate_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	8.0	8.0	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4392028)									
EM2210636-001	Anonymous	EA055: Moisture Content	----	0.1	%	22.8	23.0	0.7	0% - 20%
EM2210813-006	Anonymous	EA055: Moisture Content	----	0.1	%	15.8	15.4	2.7	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4392030)									
EM2210636-002	Anonymous	EA055: Moisture Content	----	0.1	%	24.4	23.5	3.8	0% - 20%
EM2210687-002	Anonymous	EA055: Moisture Content	----	0.1	%	17.7	18.3	3.7	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4391551)									
EM2210636-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2210636-020	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4391498)									
EM2210708-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EM2210823-004	SX_OB_20220607_16_29_ SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4392929)									
EM2210823-001	SX_OB_20220607_08_35_ SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2210708-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4391534)									
EM2210708-002	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	600	530	14.0	0% - 50%
EM2210823-008	SX_OB_20220607_20_25_ SS_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	320	220	35.5	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4391471)									
EM2210515-001	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2210823-001	SX_OB_20220607_08_35_ SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4389088)									
EM2210823-001	SX_OB_20220607_08_35_ 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
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP074H: Naphthalene (QC Lot: 4389088)									
EM2210823-001	SX_OB_20220607_08_35_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	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 (%)
EP074I: Volatile Halogenated Compounds (QC Lot: 4389088)									
EM2210823-001	SX_OB_20220607_08_35_ 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
		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		
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4391470)									
EM2210515-001	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	4901-51-3/58-90-2	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
EM2210823-001	SX_OB_20220607_08_35_ 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		



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 (%)
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4391470) - continued									
EM2210823-001	SX_OB_20220607_08_35_ 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	<1.0	<1.0	0.0	No Limit
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4391470)									
EM2210515-001	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
EM2210823-001	SX_OB_20220607_08_35_ 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
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4391470)	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
		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



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 (%)
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4391470) - continued									
EM2210515-001	Anonymous	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
EM2210823-001	SX_OB_20220607_08_35_ 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		
EP075I: Organochlorine Pesticides (QC Lot: 4391470)									
EM2210515-001	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



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 (%)
EP075I: Organochlorine Pesticides (QC Lot: 4391470) - continued									
EM2210823-001	SX_OB_20220607_08_35_ 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		
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4389088)									
EM2210823-001	SX_OB_20220607_08_35_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4391472)									
EM2210515-001	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
EM2210823-001	SX_OB_20220607_08_35_ 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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4389088)									
EM2210823-001	SX_OB_20220607_08_35_ 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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4391472)									
EM2210515-001	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	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 (%)
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4391472) - continued									
EM2210515-001	Anonymous	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
EM2210823-001	SX_OB_20220607_08_35_ 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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4391204)									
EM2210823-001	SX_OB_20220607_08_35_ 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
EM2210880-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	0.0032	0.0025	26.3	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	0.0013	0.0009	32.2	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0103	0.0104	0.0	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	0.0019	0.0019	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.643	0.629	2.3	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	0.0117	0.0142	19.2	0% - 20%
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4391204)									
EM2210823-001	SX_OB_20220607_08_35_ 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
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<5 µg/kg	<0.005	0.0	No Limit
EM2210880-002	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0018	0.0015	14.1	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0048	0.0038	23.9	0% - 50%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	0.0005	0.0006	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0034	0.0034	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0003	<0.0004	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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4391204) - continued									
EM2210880-002	Anonymous	EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0003	<0.0004	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0003	<0.0004	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0003	<0.0004	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0003	<0.0004	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0008	<0.0010	17.1	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.002	<0.002	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4391204)									
EM2210823-001	SX_OB_20220607_08_35_ 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
EM2210880-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	0.0032	0.0029	8.1	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0003	<0.0004	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0003	<0.0004	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0008	<0.0010	17.1	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0008	<0.0010	17.1	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0008	<0.0010	17.1	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0008	<0.0010	17.1	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4391204)									
EM2210823-001	SX_OB_20220607_08_35_ 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



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4391204) - continued									
EM2210823-001	SX_OB_20220607_08_35_SS_Primary_ALS	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
EM2210880-002	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
EP231P: PFAS Sums (QC Lot: 4391204)									
EM2210823-001	SX_OB_20220607_08_35_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
EM2210880-002	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.685	0.671	2.1	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.653	0.639	2.2	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.667	0.651	2.4	0% - 20%

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 (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4391245)									
EM2210580-003	Anonymous	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2210921-001	Anonymous	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.05	0.05	0.0	No Limit
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.32	0.34	4.8	0% - 20%
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	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 (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4391245) - continued									
EM2210921-001	Anonymous	EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4396151)									
EM2210681-001	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
EM2210823-001	SX_OB_20220607_08_35_SS_Primary_ALS	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		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
EM2210823-001	SX_OB_20220607_08_35_SS_Primary_ALS	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
		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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4396181)									
EM2210681-013	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
EM2210823-014	SX_OB_20220607_08_35_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
EM2210823-014	SX_OB_20220607_08_35_SS_Primary_ALS	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4391245)									
EM2210580-003	Anonymous	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4391245) - continued									
EM2210580-003	Anonymous	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 (PFTrDA)	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	<0.10	<0.10	0.0	No Limit
EM2210921-001	Anonymous	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	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 (PFTrDA)	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	<0.10	<0.10	0.0	No Limit
		EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4396151)							
EM2210681-001	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
		EM2210823-001	SX_OB_20220607_08_35_SS_Primary_ALS	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
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: Perfluorododecanoic acid (PFDoDA)	307-55-1			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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4396151) - continued									
EM2210823-001	SX_OB_20220607_08_35_ SS_Primary_ALS	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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4396181)									
EM2210681-013	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 (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
EM2210823-014	SX_OB_20220607_08_35_ 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 (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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4391245)									
EM2210580-003	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	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



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 (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4391245) - continued									
EM2210580-003	Anonymous	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
EM2210921-001	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4396151)									
EM2210681-001	Anonymous	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
EM2210823-001	SX_OB_20220607_08_35_SS_Primary_ALS	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



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 (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4396151) - continued									
EM2210823-001	SX_OB_20220607_08_35_ SS_Primary_ALS	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4396181)									
EM2210681-013	Anonymous	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
EM2210823-014	SX_OB_20220607_08_35_ 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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4391245)									
EM2210580-003	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	<0.05	<0.05	0.0	No Limit
		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



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4391245) - continued									
EM2210580-003	Anonymous	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
EM2210921-001	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	<0.05	<0.05	0.0	No Limit
		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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4396151)									
EM2210681-001	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
EM2210823-001	SX_OB_20220607_08_35_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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4396181)									
EM2210681-013	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
EM2210823-014	SX_OB_20220607_08_35_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



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4396181) - continued									
EM2210823-014	SX_OB_20220607_08_35_ SS_Primary_ALS	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
EP231P: PFAS Sums (QC Lot: 4391245)									
EM2210580-003	Anonymous	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit
EM2210921-001	Anonymous	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	0.37	0.39	5.3	0% - 20%
		EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.37	0.39	5.3	0% - 20%
		EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.37	0.39	5.3	0% - 20%
EP231P: PFAS Sums (QC Lot: 4396151)									
EM2210681-001	Anonymous	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
EM2210823-001	SX_OB_20220607_08_35_ SS_Primary_ALS	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
EP231P: PFAS Sums (QC Lot: 4396181)									
EM2210681-013	Anonymous	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
EM2210823-014	SX_OB_20220607_08_35_ 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



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	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4391552)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	96.1	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	66.1	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	98.8	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	95.8	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	88.6	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	97.6	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	86.3	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	83.7	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	74.2	70.0	130	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4392844)									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.0	----	----	----	----	
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4391404)									
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	100	98.8	101	
					7 pH Unit	100	99.3	101	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4391551)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	108	70.0	130	
EG048G: Hexavalent Chromium (Alkaline Digest) (QCLot: 4391498)									
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	80.9	70.0	130	
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4392929)									
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	90.3	70.0	130	
EK040T: Fluoride Total (QCLot: 4391534)									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	107	75.2	110	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4391471)									
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	111	67.4	136	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4389088)									
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	87.1	69.2	116	
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	87.8	67.7	116	
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	86.7	66.6	115	
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	86.2	65.2	112	
	106-42-3								
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	87.9	69.4	111	



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	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4389088) - continued									
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	86.6	68.4	110	
EP074H: Naphthalene (QCLot: 4389088)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	78.4	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4389088)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	98.6	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	88.8	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	84.5	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	83.7	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	83.8	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	82.0	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	86.7	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	86.1	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	86.1	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	88.2	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	92.6	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	90.8	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	87.1	71.8	116	
EP074-UT: 1,1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	93.7	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	80.8	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	84.9	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	80.0	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	83.8	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	79.8	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4391470)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	1 mg/kg	105	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	1 mg/kg	95.0	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	1 mg/kg	97.4	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	1 mg/kg	97.4	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	1 mg/kg	93.1	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	1 mg/kg	93.8	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	1 mg/kg	88.8	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	2 mg/kg	93.8	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	2 mg/kg	72.3	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4391470)									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	1 mg/kg	113	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	1 mg/kg	105	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	2 mg/kg	95.4	74.3	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	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4391470) - continued									
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	1 mg/kg	92.7	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	1 mg/kg	98.6	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	57.5	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	94.0	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	73.8	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	81.6	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	57.5	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4391470)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	1 mg/kg	104	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	1 mg/kg	102	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	1 mg/kg	97.7	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	1 mg/kg	104	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	1 mg/kg	104	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	1 mg/kg	103	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	1 mg/kg	101	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	1 mg/kg	104	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	1 mg/kg	106	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	1 mg/kg	110	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	2 mg/kg	110	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	1 mg/kg	106	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	1 mg/kg	106	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	1 mg/kg	104	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	1 mg/kg	102	71.3	134	
EP075I: Organochlorine Pesticides (QCLot: 4391470)									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	1 mg/kg	100	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	1 mg/kg	96.9	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	1 mg/kg	99.0	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	1 mg/kg	100	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	1 mg/kg	103	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	1 mg/kg	91.7	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	1 mg/kg	98.2	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	1 mg/kg	94.4	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	1 mg/kg	93.0	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	1 mg/kg	93.8	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	1 mg/kg	106	69.4	134	
EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	1 mg/kg	102	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	1 mg/kg	104	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	1 mg/kg	93.3	69.0	143	



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
EP075I: Organochlorine Pesticides (QCLot: 4391470) - continued								
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	1 mg/kg	97.8	55.7	145
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	1 mg/kg	104	71.4	135
EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	1 mg/kg	102	74.8	134
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	1 mg/kg	99.2	70.2	135
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	1 mg/kg	94.0	77.7	133
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	1 mg/kg	101	63.6	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4389088)								
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	85.2	61.1	119
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4391472)								
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	96.5	74.4	129
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	104	81.0	123
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	98.4	81.8	121
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	101	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4389088)								
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	88.2	59.9	119
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4391472)								
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	105	75.4	132
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	107	80.8	120
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	93.4	73.3	136
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	106	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4391204)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	110	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	102	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	72.6	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	103	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	99.5	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	103	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4391204)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	89.7	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.4	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.9	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.2	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.2	64.0	136



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	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4391204) - continued									
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.6	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.9	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.6	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4391204)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.6	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	84.1	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	81.2	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	85.5	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	95.6	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.6	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.8	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4391204)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	97.6	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	90.5	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	103	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	120	70.0	130	
EP231P: PFAS Sums (QCLot: 4391204)									
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 Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4391245)									
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	95.7	72.0	130	
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	86.0	71.0	127	
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	88.0	68.0	131	
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	98.9	69.0	134	
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	96.9	65.0	140	
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	89.6	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396151)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	120	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	96.2	71.0	127	



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
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396151) - continued								
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	105	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	87.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	80.2	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396181)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	110	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	93.5	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	105	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	107	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	98.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4391245)								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	90.7	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	88.3	72.0	129
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	93.6	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	98.2	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	92.8	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	91.4	69.0	130
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	94.2	71.0	129
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	92.4	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	95.5	72.0	134
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	86.7	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	95.9	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396151)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	109	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	108	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	122	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	106	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	110	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.1	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	123	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	107	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	119	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396181)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.9	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129



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	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396181) - continued									
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	107	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	116	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	95.8	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.2	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	113	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4391245)									
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	97.7	67.0	137	
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	98.5	68.0	141	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	88.1	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	96.9	70.0	130	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	90.2	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	109	65.0	136	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	100	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396151)									
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	119	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	114	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	103	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	90.6	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396181)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	107	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	114	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	102	70.0	130	



Sub-Matrix: WATER

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	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396181) - continued									
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.8	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	124	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	94.7	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	109	61.0	135	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4391245)									
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	104	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	115	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	106	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	73.7	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4396151)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	107	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	113	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	101	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4396181)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	116	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	113	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	121	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	95.1	70.0	130	
EP231P: PFAS Sums (QCLot: 4391245)									
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	----	----	----	----	
EP231P: PFAS Sums (QCLot: 4396151)									
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	----	----	----	----	
EP231P: PFAS Sums (QCLot: 4396181)									
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	SpikeRecovery(%) MS	Acceptable Limits (%)	
				Low	High		
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4391552)							
EM2210636-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	98.1	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	106	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	108	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	109	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	108	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	107	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	101	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4391551)							
EM2210636-002	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	103	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4391498)							
EM2210708-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	75.1	58.0	114
EM2210708-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	84.1	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4392929)							
EM2210681-010	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	97.5	70.0	130
EK040T: Fluoride Total (QCLot: 4391534)							
EM2210708-003	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	76.4	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4391471)							
EM2210515-008	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	140	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4389088)							
EM2210823-002	SX_OB_20220607_08_36_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	81.6	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	82.0	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4389088)							
EM2210823-002	SX_OB_20220607_08_36_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	80.7	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	80.0	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	74.4	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4391470)							
EM2210515-002	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	1.5 mg/kg	100	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	1.5 mg/kg	96.2	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	1.5 mg/kg	47.6	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4391470)							
EM2210515-002	Anonymous	EP075-EM: Phenol	108-95-2	1.5 mg/kg	109	44.2	134



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4391470) - continued							
EM2210515-002	Anonymous	EP075-EM: 2-Nitrophenol	88-75-5	1.5 mg/kg	84.8	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4391470)							
EM2210515-002	Anonymous	EP075-EM: Acenaphthene	83-32-9	1.5 mg/kg	93.3	42.6	138
		EP075-EM: Pyrene	129-00-0	1.5 mg/kg	93.4	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4389088)							
EM2210823-002	SX_OB_20220607_08_36_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	68.2	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4391472)							
EM2210669-001	Anonymous	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	94.3	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	99.8	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	95.1	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	99.0	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4389088)							
EM2210823-002	SX_OB_20220607_08_36_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	61.6	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4391472)							
EM2210669-001	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	102	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	103	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	91.4	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	104	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4391204)							
EM2210823-002	SX_OB_20220607_08_36_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	124	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	86.8	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	71.7	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHps)	375-92-8	0.00119 mg/kg	93.9	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	89.5	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	94.1	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4391204)							
EM2210823-002	SX_OB_20220607_08_36_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	89.3	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	113	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	94.1	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	106	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	93.1	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	127	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	88.4	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	87.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	86.0	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	84.6	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	104	69.0	133



Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4391204)							
EM2210823-002	SX_OB_20220607_08_36_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	102	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	84.0	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	85.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	82.5	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	98.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	94.0	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	99.7	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4391204)							
EM2210823-002	SX_OB_20220607_08_36_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	102	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	104	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	113	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	108	70.0	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
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4391245)							
EM2210580-004	Anonymous	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	88.6	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	110	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	101	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	109	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	90.5	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	99.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396151)							
EM2210681-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	103	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	111	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	116	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	135	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	123	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396181)							
EM2210681-014	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	118	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	106	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	112	68.0	131



Sub-Matrix: WATER

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report					
				Concentration	Spike Recovery(%) MS	Acceptable Limits (%) Low High			
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4396181) - continued									
EM2210681-014	Anonymous	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	114	69.0	134		
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	101	65.0	140		
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	96.3	53.0	142		
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4391245)									
EM2210580-004	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	90.0	73.0	129		
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	90.6	72.0	129		
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	88.6	72.0	129		
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	106	72.0	130		
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	88.9	71.0	133		
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	102	69.0	130		
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	95.7	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	105	72.0	134		
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	85.0	65.0	144		
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	89.9	71.0	132		
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396151)									
EM2210681-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	98.3	73.0	129		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	102	72.0	129		
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	104	72.0	129		
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	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	102	69.0	130		
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	94.5	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	102	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	104	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	88.3	65.0	144		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	115	71.0	132		
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396181)							
		EM2210681-014	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	98.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3			0.25 µg/L	107	72.0	129		
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4			0.25 µg/L	101	72.0	129		
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9			0.25 µg/L	121	72.0	130		
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1			0.25 µg/L	104	71.0	133		
EP231X: Perfluorononanoic acid (PFNA)	375-95-1			0.25 µg/L	113	69.0	130		
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2			0.25 µg/L	114	71.0	129		
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8			0.25 µg/L	95.0	69.0	133		
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1			0.25 µg/L	96.4	72.0	134		
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8			0.25 µg/L	90.2	65.0	144		



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	Spike Recovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4396181) - continued							
EM2210681-014	Anonymous	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	123	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4391245)							
EM2210580-004	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	97.3	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	106	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	104	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	91.0	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	85.6	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	117	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	106	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396151)							
EM2210681-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	95.8	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	102	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	102	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	101	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	98.0	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	116	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	120	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396181)							
EM2210681-014	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	112	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	118	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	97.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	98.1	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	122	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	91.2	65.0	136



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4396181) - continued							
EM2210681-014	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	124	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4391245)							
EM2210580-004	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	103	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	104	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	99.1	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	71.4	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4396151)							
EM2210681-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	97.1	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	114	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	97.5	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	74.8	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4396181)							
EM2210681-014	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	111	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	125	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	114	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	104	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2210823	Page	: 1 of 15
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 09-Jun-2022
Site	: 20220608044505-ALS-52	Issue Date	: 15-Jun-2022
Sampler	: Will + Martha	No. of samples received	: 22
Order number	: ----	No. of samples analysed	: 22

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.**
- **NO Matrix Spike outliers occur.**
- **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.**



Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP075T: Base/Neutral Extractable Surrogates (Waste C	EM2210823-005	SX_OB_20220607_16_33_SS	1,2-Dichlorobenzene-D4	2199-69-1	51.4 %	61.0-124 %	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	
EA001: pH in soil using 0.01M CaCl extract								
Soil Glass Jar - Unpreserved (EA001)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	14-Jun-2022	✓	10-Jun-2022	10-Jun-2022	✓
Soil Glass Jar - Unpreserved (EA001)								
SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	15-Jun-2022	✓	10-Jun-2022	10-Jun-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	----	----	----	10-Jun-2022	21-Jun-2022	✓
Soil Glass Jar - Unpreserved (EA055)								
SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	----	----	----	10-Jun-2022	22-Jun-2022	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	14-Jun-2022	04-Dec-2022	✓
Soil Glass Jar - Unpreserved (EG005T)								
SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	14-Jun-2022	05-Dec-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	
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	05-Jul-2022	✓	11-Jun-2022	05-Jul-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	06-Jul-2022	✓	11-Jun-2022	06-Jul-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	11-Jun-2022	05-Jul-2022	✓	14-Jun-2022	18-Jun-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	11-Jun-2022	06-Jul-2022	✓	14-Jun-2022	18-Jun-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	21-Jun-2022	✓	11-Jun-2022	24-Jun-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	22-Jun-2022	✓	11-Jun-2022	24-Jun-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	11-Jun-2022	05-Jul-2022	✓	15-Jun-2022	05-Jul-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	11-Jun-2022	06-Jul-2022	✓	15-Jun-2022	06-Jul-2022	✓
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	05-Dec-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	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	21-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	22-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	09-Jun-2022	15-Jun-2022	✓	09-Jun-2022	15-Jun-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	09-Jun-2022	15-Jun-2022	✓	09-Jun-2022	15-Jun-2022	✓
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	09-Jun-2022	15-Jun-2022	✓	09-Jun-2022	15-Jun-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	
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	21-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	22-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	21-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	22-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	21-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	22-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	21-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	22-Jun-2022	✓	10-Jun-2022	20-Jul-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	
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	21-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	09-Jun-2022	15-Jun-2022	✓	09-Jun-2022	15-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	22-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	09-Jun-2022	14-Jun-2022	✓	09-Jun-2022	14-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	21-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	09-Jun-2022	15-Jun-2022	✓	09-Jun-2022	15-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	22-Jun-2022	✓	10-Jun-2022	20-Jul-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	20-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	20-Jul-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	
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	20-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	20-Jul-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	20-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	20-Jul-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	20-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	20-Jul-2022	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS,	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	20-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220608_01_59_SS_Duplicate_ALS,	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	20-Jul-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	
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220607_17_45_SR_Rinsate_ALS,	SX_OB_20220607_17_46_SB_Blank_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	04-Dec-2022	✓
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220608_02_11_SR_Rinsate_ALS,	SX_OB_20220608_02_12_SB_Blank_ALS	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	05-Dec-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS, SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS, SX_OB_20220608_01_59_SS_Duplicate_ALS, SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS, SX_OB_20220608_01_59_SS_Duplicate_ALS, SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220607_17_45_SR_Rinsate_ALS,	SX_OB_20220607_17_46_SB_Blank_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	04-Dec-2022	✓
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220608_02_11_SR_Rinsate_ALS,	SX_OB_20220608_02_12_SB_Blank_ALS	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	05-Dec-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS, SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS, SX_OB_20220608_01_59_SS_Duplicate_ALS, SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS, SX_OB_20220608_01_59_SS_Duplicate_ALS, SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-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
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220607_17_45_SR_Rinsate_ALS, SX_OB_20220607_17_46_SB_Blank_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	04-Dec-2022	✓
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220608_02_11_SR_Rinsate_ALS, SX_OB_20220608_02_12_SB_Blank_ALS	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	05-Dec-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS, SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS, SX_OB_20220608_01_59_SS_Duplicate_ALS, SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220607_17_45_SR_Rinsate_ALS, SX_OB_20220607_17_46_SB_Blank_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	04-Dec-2022	✓
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220608_02_11_SR_Rinsate_ALS, SX_OB_20220608_02_12_SB_Blank_ALS	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	05-Dec-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS, SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-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	
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220607_17_45_SR_Rinsate_ALS, SX_OB_20220607_17_46_SB_Blank_ALS	07-Jun-2022	10-Jun-2022	04-Dec-2022	✓	10-Jun-2022	04-Dec-2022	✓	
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220608_02_11_SR_Rinsate_ALS, SX_OB_20220608_02_12_SB_Blank_ALS	08-Jun-2022	10-Jun-2022	05-Dec-2022	✓	10-Jun-2022	05-Dec-2022	✓	
HDPE (no PTFE) (EP231X)								
SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS, SX_OB_20220607_08_36_SS_Duplicate_ALS, SX_OB_20220607_16_29_SS_Primary_ALS, SX_OB_20220607_20_25_SS_Primary_ALS, SX_OB_20220608_01_59_SS_Duplicate_ALS, SX_OB_20220607_08_35_SS_Primary_ALS, SX_OB_20220607_11_57_SS_Primary_ALS, SX_OB_20220607_16_33_SS_Triplicate_ALS, SX_OB_20220608_01_58_SS_Primary_ALS, SX_OB_20220608_04_06_SS_Primary_ALS	10-Jun-2022	14-Jun-2022	07-Dec-2022	✓	14-Jun-2022	07-Dec-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	
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	4	40	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	19	10.53	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	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
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	19	5.26	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	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	9	11.11	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	19	5.26	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	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	11.11	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	Reular	Actual	Expected	Evaluation	
Analytical Methods							
Matrix Spikes (MS)							
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	19	5.26	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	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	11.11	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	Reular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	38	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	14	7.14	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 ₂ 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 ₂ 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 ₂) (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 ₂ 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 ₂ 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 ₂ 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 ₂ SO ₄ 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.