

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C06.0120220421160048_02	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	1
Approx. Source Tunnel Chainage From	174	Approx. Source Tunnel Chainage To	186
Approx. Rings From	74	Approx. Rings To	79
Foaming Agent	TamSoil 287AC	Water Source	Potable (City West Water)
For BSF Holding Bay No:	C06.01	Start of Filling From (Time / date)	28/03/2022
Tonnes Put in Holding Bay No:	7025.43	Finish of Filling (Time / Date)	11/04/2022
Classified Volume (LCM)	4000	Spoil Classification Decision	NPIW Containment
Sampling Ratio (samples per LCM)	1 : 173.91	Approx. Bank Cubic Meters (BCM)	2294.54

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_IB_20220328_20_11_SS_Primary_EUF	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220408_15_56_SS_Primary_ALS
SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_08_04_SS_Triplicate_EUF	SX_IB_20220408_16_00_SS_Primary_EUF
SX_IB_20220329_00_05_SS_Primary_EUF	SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220408_16_01_SS_Duplicate_EUF
SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_11_53_SS_Primary_EUF	SX_IB_20220408_16_02_SS_Triplicate_ALS
SX_IB_20220329_04_16_SS_Primary_EUF	SX_IB_20220407_15_59_SS_Primary_ALS	SX_IB_20220409_07_31_SS_Primary_ALS
SX_IB_20220329_04_21_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_EUF	SX_IB_20220409_11_55_SS_Primary_EUF
SX_IB_20220329_07_57_SS_Primary_EUF	SX_IB_20220408_11_58_SS_Primary_EUF	SX_IB_20220409_15_47_SS_Primary_ALS
SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	
Total Sample Numbers	23	Ratio Acceptable
Primary Sample Numbers	19	Yes
Classified Volume (LCM)	4000 m ³	
Volume: Sample Number Ratio (Samples per LCM)	1 : 173.91	

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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>	Yes
<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>	NA
<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>	NA
<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>	NA
<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
<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?	Yes
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 ?	No
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:	
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	Number 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	23*	19	1 : 173.91	23	15	22.09	23.9	33	20	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Chromium (hexavalent)	mg/kg	1	23*	19	1 : 173.91	1	<1	N/A	N/A	1.1	1	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Nickel	mg/kg	5	23*	19	1 : 173.91	23	120	159.4	166.3	200	60	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Fluoride	mg/kg	100	23*	19	1 : 173.91	15	<100	254.2	N/A	460	450	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)

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

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

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

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

PFAS Test Results											
Chemical	Unit	LOR	No. of samples	No. of primary samples	No > LOR	Min	Mean	95% UCL on Mean	Max	Upper Limiting Criteria for NPIW Containment	Spoil Category for PFAS
Total PFAS Concentrations											
Total PFOS	ug/kg	5	23*	19	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFOA	ug/kg	5	23*	19	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFHxS	ug/kg	5	23*	19	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
ASLP (pH= 5) PFAS Concentrations											
PFOA	ug/L	0.01	23*	19	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS + PFHxS	ug/L	0.01	23*	19	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment
ASLP (pH= 7) PFAS Concentrations											
PFOA	ug/L	0.01	23*	19	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS + PFHxS	ug/L	0.01	23*	19	1	<0.01	N/A	N/A	0.02	7	NPIW-Containment

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

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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 comprise:</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</i> section 6.2 <i>Arsenic enrichment in the residual soil of the upper Older Volcanics (Tvo1)</i> found that while the soil of the upper Older Volcanics sub-unit contains arsenic, the arsenic is not characteristic of the wider sub unit (i.e the rock) or the lower sub-unit (soil or rock). The concentration of arsenic therefore appears to be related to the chemical and biological weather of the unit over time. This is further supported by: <ol style="list-style-type: none"> 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</i> section 6.3 <i>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 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 Tvo2 soil) indicating that the nickel is likely associated with geochemical enrichment rather than added contamination. 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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5. Attachments

ATTACHMENT A: TABULATED RESULTS

ATTACHMENT B: 95% UCL AVE CALCULATIONS

ATTACHMENT C: LABORATORY CERTIFICATES

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C06.0120220421160048_02	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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ATTACHMENT A: TABULATED RESULTS

Tabulated Results

							Metals											
							Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783	9/04/2022	878963	MGT	Normal												
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800	9/04/2022	878963	MGT	Normal												
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	9/04/2022	EM2206583	ALSE-Melbourne	Normal	15	<1	47	72	<1.0	<5	<0.1	<5	120	<5	<2	<10
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025	9/04/2022	EM2206583	ALSE-Melbourne	Normal												

			PAH																			
			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	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	
			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
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783																				
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800																				
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	69	<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
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025																				

			BTEX								TRH										
			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)	C6-C9	C10-C14
			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
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783																			
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800																			
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<0.5	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	120	100	220	<20	<50
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025																			

TPH			Organochlorine Pesticides																			
			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)	Chlordane (trans)	
			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
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783																				
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800																				
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<100	120	120	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025																				

			Hexachlorobenzene	Heptachlor	Heptachlor epoxide	α -BHC	β -BHC	δ -BHC	γ -BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPA/Vic	Other organochlorine pesticides EPA/Vic	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-chloro-3-methylphenol	Pentachlorophenol	2,3,4,5 & 2,3,4,6-Tetrachlorophenol
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783																			
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800																			
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025																			

			Phenols																			
			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)		
			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/L	mg/kg
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783																			<0.00001	
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800																			<0.00001	
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1				<0.00005	<0.0050
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025																			<0.00005	

C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783	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)		N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)		N-Methylperfluorooctanesulf onamidoethanol (N-MeFOSE)		Perfluorobutanoic acid	
			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	
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	<0.00005
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.0001
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	<0.0001

			PFOS/PFOA																		
			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)		Perfluoronanesulfonic acid (PFNS)(trace)		
			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
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050		
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002			

C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783	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
			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
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800	<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025	<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001

			acid (PFHxS)		Sum of PFHxS and PFOS		Sum of US EPA PFAS (PFOS + PFOA)*		Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*		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	
			mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L											mg/kg
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001											
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001											
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50						<0.50		<0.50
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025		<0.00001						<0.00010													

			Chlorinated Hydrocarbons																			
			Chloroform	1,1,1,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVc	Trichloroethene	Chlorinated hydrocarbons EPAVc	cis-1,2-dichloroethene	1,1,2-trichloroethane	trans-1,3-dichloropropene	Vinyl chloride	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	
			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
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783																				
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800																				
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50				<0.50
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025																				

			NA				PCBs						Inorganics							
			Tetrachloroethene		Moisture Content	Arochlor 1232	Arochlor 1242	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)
			Sum of WA DWER PFAS (n=10)*																	
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783																		
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800																		
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<0.50	<10.0	<0.05	36.3							<0.1	1.4	5.6	10.2	5		190	
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025			<0.05										10.5					

			Halogenated Benzenes						Halogenated Hydrocarbons					MAH						
			Cyanide Total	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	4-chlorotoluene	Chlorobenzene	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPAVc	1,3,5-trimethylbenzene	Styrene	Iso propylbenzene
			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
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783																		
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800																		
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007	<5	<0.50	<0.50		<0.50									<0.5		<0.5		
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025																		

	Solvents					SPOCAS
	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
EQL	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						
EPA Victoria IWRG621 Category C Leached Upper Limits						
EPA Victoria IWRG621 Category C Upper Limits						
EPA Victoria IWRG621 Fill Upper Limits						

Location Code	Field ID	Sample Code						
C06.01	SX_IB_20220328_20_11_SS_Primary_EUF	M22-Ma60489	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220328_20_11_SS_Primary_EUF	M22-Ma60497						
C06.01	SX_IB_20220328_20_11_SS_Primary_EUF	M22-Ma60505						
C06.01	SX_IB_20220328_20_19_SS_Primary_ALS	EM2205583006						8.2
C06.01	SX_IB_20220328_20_19_SS_Primary_ALS	EM2205583014						
C06.01	SX_IB_20220329_00_05_SS_Primary_EUF	M22-Ma60490	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220329_00_05_SS_Primary_EUF	M22-Ma60498						
C06.01	SX_IB_20220329_00_05_SS_Primary_EUF	M22-Ma60506						
C06.01	SX_IB_20220329_00_09_SS_Primary_ALS	EM2205583007						8
C06.01	SX_IB_20220329_00_09_SS_Primary_ALS	EM2205583015						
C06.01	SX_IB_20220329_04_16_SS_Primary_EUF	M22-Ma60491	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220329_04_16_SS_Primary_EUF	M22-Ma60499						
C06.01	SX_IB_20220329_04_16_SS_Primary_EUF	M22-Ma60507						
C06.01	SX_IB_20220329_04_21_SS_Primary_ALS	EM2205583008						7.8
C06.01	SX_IB_20220329_04_21_SS_Primary_ALS	EM2205583016						
C06.01	SX_IB_20220329_07_57_SS_Primary_EUF	M22-Ma62865	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220329_07_57_SS_Primary_EUF	M22-Ma62868						
C06.01	SX_IB_20220329_07_57_SS_Primary_EUF	M22-Ma62871						
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS	EM2205596001						8
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS	EM2205596006						
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS	EM2205596002						8
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS	EM2205596007						
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF	M22-Ma62866	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF	M22-Ma62869						
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF	M22-Ma62872						
C06.01	SX_IB_20220329_11_45_SS_Primary_ALS	EM2205596005						7.9
C06.01	SX_IB_20220329_11_45_SS_Primary_ALS	EM2205596008						
C06.01	SX_IB_20220329_11_53_SS_Primary_EUF	M22-Ma62867	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220329_11_53_SS_Primary_EUF	M22-Ma62870						
C06.01	SX_IB_20220329_11_53_SS_Primary_EUF	M22-Ma62873						
C06.01	SX_IB_20220407_15_59_SS_Primary_ALS	EM2206457006						8.7
C06.01	SX_IB_20220407_15_59_SS_Primary_ALS	EM2206457015						
C06.01	SX_IB_20220407_15_59_SS_Primary_EUF	M22-Ap0018753	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220407_15_59_SS_Primary_EUF	M22-Ap0018762						
C06.01	SX_IB_20220407_15_59_SS_Primary_EUF	M22-Ap0018771						
C06.01	SX_IB_20220408_11_58_SS_Primary_EUF	M22-Ap0020274	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220408_11_58_SS_Primary_EUF	M22-Ap0020285						
C06.01	SX_IB_20220408_11_58_SS_Primary_EUF	M22-Ap0020294						
C06.01	SX_IB_20220408_12_02_SS_Primary_ALS	EM2206562005						8
C06.01	SX_IB_20220408_12_02_SS_Primary_ALS	EM2206562014						
C06.01	SX_IB_20220408_15_56_SS_Primary_ALS	EM2206562006						8.9
C06.01	SX_IB_20220408_15_56_SS_Primary_ALS	EM2206562015						
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF	M22-Ap0020278	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF	M22-Ap0020287						
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF	M22-Ap0020296						
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF	M22-Ap0020279	<0.5	<0.5	<0.5	<0.5	<0.5	
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF	M22-Ap0020288						
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF	M22-Ap0020297						
C06.01	SX_IB_20220408_16_02_SS_Triplicate_ALS	EM2206562007						7.8
C06.01	SX_IB_20220408_16_02_SS_Triplicate_ALS	EM2206562016						
C06.01	SX_IB_20220409_07_31_SS_Primary_ALS	EM2206583001						8.5
C06.01	SX_IB_20220409_07_31_SS_Primary_ALS	EM2206583021						
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021764	<0.5	<0.5	<0.5	<0.5	<0.5	

			Solvents					SPOCAS
			4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021783						
C06.01	SX_IB_20220409_11_55_SS_Primary_EUF	M22-Ap0021800						
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583007						9.9
C06.01	SX_IB_20220409_15_47_SS_Primary_ALS	EM2206583025						

							Metals												
							Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin	Zinc
							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
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF	9/04/2022	878963	MGT	Interlab_D	EM2206583002													
RPD																			
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	9/04/2022	EM2206583	ALSE-Melbourne	Normal														
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS	9/04/2022	EM2206583	ALSE-Melbourne	Field_D	EM2206583022													
RPD																			
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	9/04/2022	EM2206583	ALSE-Melbourne	Normal														
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF	9/04/2022	878963	MGT	Interlab_D	EM2206583022													
RPD																			
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF	10/04/2022	878963	MGT	Normal														
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	10/04/2022	878963	MGT	Field_D	M22-Ap0021809	100	<0.4	76	160	<1	<5	<0.1	<5	190	<2	<2	<10	110
RPD																			
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF	10/04/2022	878963	MGT	Normal														
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	10/04/2022	EM2206583	ALSE-Melbourne	Interlab_D	M22-Ap0021809	38	<1	58	92	<1.0	<5	<0.1	<5	148	<5	<2	<10	81
RPD																			
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	10/04/2022	878963	MGT	Normal		54	<0.4	76	180	<1	<5	<0.1	<5	180	<2	<2	<10	120
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	10/04/2022	878963	MGT	Field_D	M22-Ap0021776													
RPD																			
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	10/04/2022	878963	MGT	Normal														
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	10/04/2022	878963	MGT	Field_D	M22-Ap0021793													
RPD																			
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	10/04/2022	878963	MGT	Normal														
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	10/04/2022	EM2206583	ALSE-Melbourne	Interlab_D	M22-Ap0021793													
RPD																			
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	10/04/2022	EM2206583	ALSE-Melbourne	Normal		51	<1	56	118	<1.0	<5	<0.1	<5	136	<5	<2	<10	81
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	10/04/2022	EM2206583	ALSE-Melbourne	Field_D	EM2206583013	38	<1	50	87	<1.0	<5	<0.1	<5	110	<5	<2	<10	62
RPD							29	0	11	30	0	0	0	0	21	0	0	0	27
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	10/04/2022	EM2206583	ALSE-Melbourne	Normal		51	<1	56	118	<1.0	<5	<0.1	<5	136	<5	<2	<10	81
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	10/04/2022	878963	MGT	Interlab_D	EM2206583013	51	<0.4	64	190	<1	<5	<0.1	<5	160	<2	<2	<10	100
RPD							0	0	13	47	0	0	0	0	16	0	0	0	21
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	10/04/2022	EM2206583	ALSE-Melbourne	Normal		51	<1	56	118	<1.0	<5	<0.1	<5	136	<5	<2	<10	81
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	10/04/2022	878963	MGT	Interlab_D	EM2206583013													
RPD																			
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	10/04/2022	EM2206583	ALSE-Melbourne	Normal														
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	10/04/2022	EM2206583	ALSE-Melbourne	Field_D	EM2206583031													
RPD																			
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	10/04/2022	EM2206583	ALSE-Melbourne	Normal														
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	10/04/2022	878963	MGT	Interlab_D	EM2206583031													
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

PAHs (Vic EPA List)	PAH																			
	Benzo(b+h)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(e,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
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	0.5	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	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID																			
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF																			
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF																			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF																			
C02.01	SX_IB_20220328_15_48_SS_Triplicate_ALS																			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF																			
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF																			
RPD																				
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF																			
C02.01	SX_IB_20220328_15_48_SS_Triplicate_ALS																			
RPD																				
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																			
C02.01	SX_IB_20220328_07_45_SS_Duplicate_ALS																			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																			
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF																			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																			
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF																			
RPD																				
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																			
C02.01	SX_IB_20220328_07_45_SS_Duplicate_ALS																			
RPD																				
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																			
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF																			
RPD																				
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																			
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS																			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																			
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF																			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																			
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF																			
RPD																				
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																			
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS																			
RPD																				
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																			
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF																			
RPD																				
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF																			
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF																			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF																			
D07.01	SX_OB_20220407_16_15_SS_Triplicate_ALS																			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF																			
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF																			
RPD																				
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF																			
D07.01	SX_OB_20220407_16_15_SS_Triplicate_ALS																			
RPD																				
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS																			
D07.01	SX_OB_20220407_08_02_SS_Duplicate_ALS																			
RPD			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	PAHs (Vic EPA List)	PAH																			
		Benzo(b+f+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+f)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	Pyrene
	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
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																				
RPD																					
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																				
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS																				
RPD																					
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																				
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																				
RPD																					
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																				
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF			<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																					
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																				
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<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																					
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF			<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
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																				
RPD																					
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																				
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																				
RPD																					
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																				
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																				
RPD																					
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<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
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<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
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF			<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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<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
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																				
RPD																					
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																				
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS																				
RPD																					
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																				
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																				
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 multipli
 ***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

	PAHs (Sum of total)	BTEX						TRH						TPH					Aldrin	Dieldrin		
		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)	
	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	
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																					
RPD																						
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																					
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS																					
RPD																						
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																					
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<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																						
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS		<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																						
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<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
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS																					
RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		<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
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS		<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
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		<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
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	<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
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		<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
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																					
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS																					
RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																					
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																					
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 multipli
 ***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

		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	α-BHC	β-BHC	δ-BHC	γ-BHC (Lindane)
		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
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																					
RPD																						
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																					
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS																					
RPD																						
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																					
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_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
RPD																						
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_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
RPD																						
D08.01	SX_OB_20220410_15_47_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
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS																					
RPD																						
D08.01	SX_OB_20220410_07_57_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
D08.01	SX_OB_20220410_08_02_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
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_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
D08.01	SX_OB_20220410_08_02_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
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_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
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																					
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS																					
RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																					
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																					
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 multipli
 ***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

		Phenols																					
		Methoxychlor	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	
		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
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																						
	RPD																						
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																						
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS																						
	RPD																						
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																						
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																						
	RPD																						
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																						
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<0.05	<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	
	RPD																						
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																						
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<0.05		<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	
	RPD																						
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.05	<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	
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																						
	RPD																						
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																						
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																						
	RPD																						
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																						
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS																						
	RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.05		<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	
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.05		<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	
	RPD	0		0	0	0	0	0	0	0	0	0	0	0		0		0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.05		<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	
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	<0.05	<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	
	RPD	0		0	0	0	0	0	0	0	0	0	0	0		0		0			0	0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.05		<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	
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																						
	RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																						
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS																						
	RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																						
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																						
	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 multipli
 ***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

		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 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-	
		mg/kg	mg/kg	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
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF									<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005
RPD										0	0	0	0	0	0	0	0
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS									<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
D08.01	SX_OB_20220409_07_40_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
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS									<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF									<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005
RPD										0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF									<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<1	<5	<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.01
RPD																	
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF									<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100
RPD										0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<1	<5	<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF									<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005
RPD																	
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF									<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005
D08.01	SX_OB_20220410_15_48_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
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100
RPD		0	0	0	0	0	0			0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	<1	<5	<0.4	<5	<20	<0.5	<1	<20	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01
RPD		0	0	0	0	0	0			0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF									<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005
RPD										0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS									<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
D08.01	SX_OB_20220410_08_02_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
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS									<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF									<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005
RPD										0	0	0	0	0	0	0	0

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

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

PFOS,

		N-Ethylperfluorooctane amidoethanol (NEFOSE)	N-Methyl perfluorooctane sulfonamide (MMeFOA)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOAAA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	Perfluorobutanoic acid (PFBA)	Perfluorobutane sulfonic acid (PFBS)	Perfluorodecanoic acid (PFDA)	Perfluorodecanoic acid (PFDoDA)	Perfluorodecane sulfonic acid (PFDS)	Perfluoroheptanoic acid (PFHpA)	Perfluoroheptane sulfonic acid (PFHPs)
		mg/kg	mg/L	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
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.005	<0.00002	<0.0050
D07.01	SX_OB_20220407_08_02_SS_Triplicate_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
RPD		0		0		0		0		0		0
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.00002	<0.0050	<0.00002
D07.01	SX_OB_20220407_08_02_SS_Triplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD		0		0		0		0		0		0
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
D07.01	SX_OB_20220407_08_02_SS_Duplicate_ALS		<0.00005		<0.00005		<0.00001		<0.00002		<0.00002	
RPD		0		0		0		0		0		0
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS		<0.00005		<0.00005		<0.00001		<0.00002		<0.00002	
D07.01	SX_OB_20220407_08_02_SS_Triplicate_EUF		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001	
RPD		0		0		0		0		0		0
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
RPD		0		0		0		0		0		0
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
C06.01	SX_IB_20220408_16_02_SS_Triplicate_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.00002	<0.0050	<0.00002
RPD		0		0		0		0		0		0
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD		0		0		0		0		0		0
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD		0		0		0		0		0		0
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
C06.01	SX_IB_20220408_16_02_SS_Triplicate_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
RPD		0		0		0		0		0		0
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.005	<0.00002	<0.0050
D07.01	SX_OB_20220408_07_59_SS_Duplicate_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.005	<0.00002	<0.0050
RPD		0		0		0		0		0		0
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.00002	<0.0050	<0.00002
D07.01	SX_OB_20220408_08_00_SS_Triplicate_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
RPD		0		0		0		0		0		0
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.00002	<0.0050	<0.00002
D07.01	SX_OB_20220408_08_00_SS_Triplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD		0		0		0		0		0		0
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
D07.01	SX_OB_20220408_07_59_SS_Duplicate_ALS		<0.00005		<0.00005		<0.00001		<0.00002		<0.00002	
RPD		0		0		0		0		0		0
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
D07.01	SX_OB_20220408_08_00_SS_Triplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD		0		0		0		0		0		0
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
D08.01	SX_OB_20220409_15_52_SS_Duplicate_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
RPD		0		0		0		0		0		0
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
D08.01	SX_OB_20220409_15_53_SS_Triplicate_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.00002	<0.0050	<0.00002
RPD		0		0		0		0		0		0
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
D08.01	SX_OB_20220409_15_52_SS_Duplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD		0		0		0		0		0		0
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
D08.01	SX_OB_20220409_15_52_SS_Duplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD		0		0		0		0		0		0
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
D08.01	SX_OB_20220409_15_53_SS_Triplicate_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
RPD		0		0		0		0		0		0
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.00002	<0.0050	<0.00002
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.00002	<0.0050	<0.00002
RPD		0		0		0		0		0		0
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.00002	<0.0050	<0.00002
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
RPD		0		0		0		0		0		0
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.00002	<0.0050	<0.00002

PFOS,

		Perfluoroethanol (NEFOSE)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOAAA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	Perfluorobutanoic acid (PFBA)	Perfluorobutane sulfonic acid (PFBS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDDA)	Perfluorodecane sulfonic acid (PFDS)	Perfluoroheptanoic acid (PFHpA)	Perfluoroheptane sulfonic acid (PFHPS)
		mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD			0		0		0		0		0	
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
RPD			0		0		0		0		0	
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD			0		0		0		0		0	
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
RPD												
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
RPD			0		0		0		0		0	
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD												
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD			0		0		0		0		0	
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
RPD			0		0		0		0		0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
RPD			0		0		0		0		0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	<0.005		<0.005		<0.01		<0.005		<0.005		<0.005
RPD			0		0		0		0		0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD			0		0		0		0		0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
RPD			0		0		0		0		0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD			0		0		0		0		0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		<0.00005		<0.00005		<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001	
RPD			0		0		0		0		0	

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

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

PFOA

EQL	Perfluorohexanoic acid (PFHxA)		Perfluorononanoic acid (PFNA)		Perfluorodecanoic acid (PFDA)		Perfluorododecanoic acid (PFDDA)		Perfluorotetradecanoic acid (PFTeDA)		Perfluorohexadecanoic acid (PFHxDA)		Perfluorooctadecanoic acid (PFODDA)		Perfluorotriacontanoic acid (PFTA)		Perfluorotriacontanoic acid (PFTA)		Perfluoroundecanoic acid		
	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
EQ	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	0.00001	0.005	0.00001	0.005	0.00001
Location Code	Field ID																				
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF																				
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF																				
RPD																					
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF																				
C02.01	SX_IB_20220328_15_48_SS_Triplicate_ALS																				
RPD																					
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF																				
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF																				
RPD																					
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF																				
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF																				
RPD																					
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF																				
C02.01	SX_IB_20220328_15_48_SS_Triplicate_ALS																				
RPD																					
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																				
C02.01	SX_IB_20220328_07_45_SS_Duplicate_ALS																				
RPD																					
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																				
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF																				
RPD																					
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																				
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF																				
RPD																					
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																				
C02.01	SX_IB_20220328_07_45_SS_Duplicate_ALS																				
RPD																					
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS																				
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF																				
RPD																					
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																				
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS																				
RPD																					
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																				
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF																				
RPD																					
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																				
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF																				
RPD																					
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																				
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS																				
RPD																					
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS																				
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF																				
RPD																					
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF																				
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF																				
RPD																					
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF																				
D07.01	SX_OB_20220407_16_15_SS_Triplicate_ALS																				
RPD																					
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF																				
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF																				
RPD																					
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF																				
D07.01	SX_OB_20220407_16_15_SS_Triplicate_ALS																				
RPD																					
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS																				
D07.01	SX_OB_20220407_08_02_SS_Duplicate_ALS																				

PFOA

		Perfluorohexanoic acid (PFHxA)		Perfluorononanoic acid (PFNA)		Perfluorodecanoic acid (PFDA)		Perfluorooctanoic acid (PFOA)		Perfluorooctane sulfonamide (PFOSA)		Perfluoropentanoic acid (PFPeA)		Perfluoropentane sulfonic acid (PFPeS)		Perfluoropropanoic acid (PFPrS)		Perfluorotetradecanoic acid (PFTeDA)		Perfluorotridecanoic acid (PFTeDA)		Perfluoroundecanoic acid	
		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
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
RPD		0		0				0		0		0		0		0		0		0		0	
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS	<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002	
RPD		0		0				0		0		0		0		0		0		0		0	
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
RPD		0		0				0		0		0		0		0		0		0		0	
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
RPD																							
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.00002
RPD		0		0				0		0		0		0		0		0		0		0	
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
RPD																							
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
RPD		0		0		0		0		0		0		0		0		0		0		0	
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002	
RPD		0		0				0		0		0		0		0		0		0		0	
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.00002
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.00002
RPD		0	0	0	0			0	0	0	0	0	0	0	0			0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.00002
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF		<0.005		<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
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.00002
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
RPD		0		0				0		0		0		0		0		0		0		0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002	
RPD		0		0				0		0		0		0		0		0		0		0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
RPD		0		0				0		0		0		0		0		0		0		0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002	
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<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 the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier)

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

EQL	PFUnDA	Perfluorooctanesulfonic acid (PFOS)		Perfluorohexane sulfonic acid (PFHxS)		Sum of PFHxS and PFOS		Sum of US EPA PFAS (PFOS + PFOA)*		Sum of enHealth PFAS (PFHxS + 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	
		mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L											mg/kg
EQL		0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID																					
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.05		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.05		<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	

PFUNDA	mg/kg	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + 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
		mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0001									
RPD		0	0	0			0									
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.00001	<0.00001	<0.00001			<0.00010									
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS	<0.00001	<0.00001	<0.00001			<0.00010									
RPD		0	0	0			0									
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.00001	<0.00001	<0.00001			<0.00010									
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0001									
RPD		0	0	0			0									
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0001									
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<0.005	<0.005	<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
RPD																
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0001									
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00010	<0.0500	<0.50			<0.50				<0.50
RPD		0	0	0			0									
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.005	<0.005	<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
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0001									
RPD		0	0	0			0									
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0001									
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0001									
RPD		0	0	0			0									
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0001									
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00010									
RPD		0	0	0			0									
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00010	<0.0500	<0.50			<0.50				<0.50
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00010	<0.0500	<0.50			<0.50				<0.50
RPD		0	0	0			0	0	0	0	0	0	0	0	0	0
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00010	<0.0500	<0.50			<0.50				<0.50
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.0001	<0.0500	<0.50			<0.50				<0.50
RPD		0	0	0			0									
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00010									
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00010									
RPD		0	0	0			0									
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00010									
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00010									
RPD		0	0	0			0									
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00010									
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	0.00005	<0.00001	0.00005	0.00005	0.00005	<0.0001									
RPD		133	0	133			0									

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multipli
 ***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

		Chlorinated Hydrocarbons																					
		Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,2,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVc	Trichloroethene	Chlorinated hydrocarbons EPAVc	cis-1,2-dichloroethene	1,1,2-trichloroethane	trans-1,3-dichloropropene	Vinyl chloride	Bromoform	Carbon tetrachloride	Chlorobromomethane	Chloroethane	trans-1,2-dichloroethene	
		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	
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																						
RPD																							
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																						
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS																						
RPD																							
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																						
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																						
RPD																							
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																						
D08.01	SX_OB_20220410_15_48_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	<0.5	<0.5	<0.5	<0.5	
RPD																							
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	
RPD																							
D08.01	SX_OB_20220410_15_47_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	<0.5	<0.5	<0.5	<0.5	
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																						
RPD																							
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																						
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS																						
RPD																							
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	
RPD			0	0	0				0	0	0	0	0	0	0		0		0			0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	
D08.01	SX_OB_20220410_08_02_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	<0.5	<0.5	<0.5	<0.5	
RPD			0	0	0				0	0	0	0	0	0	0		0		0			0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																						
RPD																							
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																						
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS																						
RPD																							
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																						
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																						
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 multipli
 ***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

		NA				PCBs							Inorganics								
Tetrachloroethene		Sum of WA DWER PFAS (n=10)*		Moisture Content	Arochlor 1232	Arochlor 1242	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
	mg/kg	UG/KG	µg/L	%	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	0.05		1	0.1	0.1	0.1	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
Location Code	Field ID																				
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.3	<100	30	<5	<0.5
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.6	<100	29	<5	<0.5
RPD		0	0		0	0	0	0	0	0	0	0					8	0	3	0	0
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.3	<100	30	<5	<0.5
C02.01	SX_IB_20220328_15_48_SS_Triplicate_ALS	<0.50	<10.0	<0.05	31.3							<0.1	1.5	5.1	9.2	5.0		360		<5	<0.50
RPD		0	0									0					113		0	0	
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF	<0.05												5.2		5.0					
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF	<0.05												5.2		5.0					
RPD		0												0		0					
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF	<0.05												9.2		6.7					
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF	<0.05												9.2		6.7					
RPD		0												0		0					
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF	<0.05												9.2		6.7					
C02.01	SX_IB_20220328_15_48_SS_Triplicate_ALS		<0.05											9.5							
RPD														3							
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS	<0.50	<10.0	<0.05	31.4							<0.1	1.6	5.0	7.7	5.0		230		<5	<0.50
C02.01	SX_IB_20220328_07_45_SS_Duplicate_ALS	<0.50	<10.0	<0.05	32.0							<0.1	1.6	5.2	9.3	5.0		210		<5	<0.50
RPD		0	0	2								0	0	4	19	0		9		0	0
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS	<0.50	<10.0	<0.05	31.4							<0.1	1.6	5.0	7.7	5.0		230		<5	<0.50
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.0	<100	30	<5	<0.5
RPD		0	0									0						79		0	0
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS	<0.50	<10.0	<0.05	31.4							<0.1	1.6	5.0	7.7	5.0		230		<5	<0.50
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF	<0.50	<10.0	<0.05										5.1		5.0					
RPD		0												2		0					
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS		<0.05											9.4							
C02.01	SX_IB_20220328_07_45_SS_Duplicate_ALS		<0.05											9.7							
RPD			0											3							
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS		<0.05											9.4							
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF	<0.05												9.2		6.7					
RPD														2							
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS	<0.50	<10.0	<0.05	30.3							<0.1	1.6	4.6	9.1	5.0		210		<5	<0.50
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS	<0.50	<10.0	<0.05	29.4							<0.1	1.6	4.6	9.0	5.0		220		<5	<0.50
RPD		0	0	3								0	0	0	1	0		5		0	0
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS	<0.50	<10.0	<0.05	30.3							<0.1	1.6	4.6	9.1	5.0		210		<5	<0.50
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.8	<100	28	<5	<0.5
RPD		0	0									0						71		0	0
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS	<0.50	<10.0	<0.05	30.3							<0.1	1.6	4.6	9.1	5.0		210		<5	<0.50
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF	<0.50	<10.0	<0.05										5.4		5.0					
RPD		0												16		0					
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS		<0.05											9.6							
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS		<0.05											9.7							
RPD			0											1							
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS		<0.05											9.6							
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF	<0.05												9.4		6.7					
RPD														2							
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.2	<100	32	<5	<0.5
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.8	<100	33	<5	<0.5
RPD		0	0		0	0	0	0	0	0	0	0					4	0	3	0	0
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.2	<100	32	<5	<0.5
D07.01	SX_OB_20220407_16_15_SS_Triplicate_ALS	<0.50	<10.0	<0.05	30.6							<0.1	1.4	4.9	9.6	5.0		190		<5	<0.50
RPD		0	0									0						62		0	0
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF	<0.05												5.0		5.0					
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF	<0.05												5.0		5.0					
RPD		0												0		0					
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF	<0.05												9.1		6.4					
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF	<0.05												8.9		6.4					
RPD		0												2		0					
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF	<0.05												9.1		6.4					
D07.01	SX_OB_20220407_16_15_SS_Triplicate_ALS		<0.05											9.7							
RPD														6							
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS	<0.50	<10.0	<0.05	33.3							<0.1	1.4	5.0	8.9	5.0		180		<5	<0.50
D07.01	SX_OB_20220407_08_02_SS_Duplicate_ALS	<0.50	<10.0	<0.05	29.5							<0.1	1.4	5.0	9.5	5.0		230		<5	<0.50

		NA				PCBs							Inorganics									
		Tetrachloroethene	Sum of WA DWER PFAS (n=10)*	Moisture Content	%	Arochlor 1232	Arochlor 1242	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
						mg/kg	UG/KG	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
RPD		0	0	0	12							0	0	0	7	0	-	24		0	0	
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS	<0.50	<10.0	<0.05	33.3							<0.1	1.4	5.0	8.9	5.0		180		<5	<0.50	
D07.01	SX_OB_20220407_08_02_SS_Triplicate_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.8	<100	31	<5	<0.5	
RPD		0	0									0						57		0	0	
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS	<0.50	<10.0	<0.05	33.3							<0.1	1.4	5.0	8.9	5.0		180		<5	<0.50	
D07.01	SX_OB_20220407_08_02_SS_Triplicate_EUF		<0.05											5.1		5.0						
RPD			0											2		0						
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS			<0.05										9.6								
D07.01	SX_OB_20220407_08_02_SS_Duplicate_ALS			<0.05										9.6								
RPD				0										0								
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS			<0.05										9.6								
D07.01	SX_OB_20220407_08_02_SS_Triplicate_EUF		<0.05											8.8		6.4						
RPD														9								
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.0	440	31	<5	<0.5	
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.7	420	31	<5	<0.5	
RPD		0	0			0	0	0	0	0	0	0					3	5	0	0	0	
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.0	440	31	<5	<0.5	
C06.01	SX_IB_20220408_16_02_SS_Triplicate_ALS	<0.50	<10.0	<0.05	32.4							<0.1	1.1	5.1	9.5	5.0		190		<5	<0.50	
RPD		0	0									0						79		0	0	
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF		<0.05											5.0		5.0						
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF		<0.05											5.0		5.0						
RPD			0											0		0						
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF		<0.05											8.9		6.4						
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF		<0.05											9.0		6.4						
RPD			0											1		0						
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF		<0.05											8.9		6.4						
C06.01	SX_IB_20220408_16_02_SS_Triplicate_ALS			<0.05										9.9								
RPD														11								
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS	<0.50	<10.0	<0.05	30.8							<0.1	1.2	5.0	9.4	5.0		150		<5	<0.50	
D07.01	SX_OB_20220408_07_59_SS_Duplicate_ALS	<0.50	<10.0	<0.05	32.3							<0.1	1.0	5.0	9.0	5.0		160		<5	<0.50	
RPD		0	0	0	5							0	18	0	4	0		6		0	0	
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS	<0.50	<10.0	<0.05	30.8							<0.1	1.2	5.0	9.4	5.0		150		<5	<0.50	
D07.01	SX_OB_20220408_08_00_SS_Triplicate_EUF	<0.5	66			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.6	<100	28	<5	<0.5	
RPD		0	147									0						40		0	0	
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS	<0.50	<10.0	<0.05	30.8							<0.1	1.2	5.0	9.4	5.0		150		<5	<0.50	
D07.01	SX_OB_20220408_08_00_SS_Triplicate_EUF		<0.05											4.9		5.0						
RPD			0											2		0						
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS			<0.05										9.6								
D07.01	SX_OB_20220408_07_59_SS_Duplicate_ALS			<0.05										9.5								
RPD				0										1								
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS			<0.05										9.6								
D07.01	SX_OB_20220408_08_00_SS_Triplicate_EUF		<0.05											8.4		6.4						
RPD														13								
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.3	590	29	<5	<0.5	
D08.01	SX_OB_20220409_15_52_SS_Duplicate_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.3	<100	31	<5	<0.5	
RPD		0	0			0	0	0	0	0	0	0					0	142	7	0	0	
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.3	590	29	<5	<0.5	
D08.01	SX_OB_20220409_15_53_SS_Triplicate_ALS	<0.50	<10.0	<0.05	29.2							<0.1	1.0	5.0	8.1	5.0		160		<5	<0.50	
RPD		0	0									0						115		0	0	
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF		<0.05											5.0		5.0						
D08.01	SX_OB_20220409_15_52_SS_Duplicate_EUF		<0.05											4.9		5.0						
RPD			0											2		0						
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF		<0.05											8.7		6.4						
D08.01	SX_OB_20220409_15_52_SS_Duplicate_EUF		<0.05											8.6		6.4						
RPD			0											1		0						
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF		<0.05											8.7		6.4						
D08.01	SX_OB_20220409_15_53_SS_Triplicate_ALS			<0.05										9.5								
RPD														9								
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.50	<10.0	<0.05	26.5							<0.1	1.0	5.0	9.3	5.0		160		<5	<0.50	
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS	<0.50	<10.0	<0.05	24.0							<0.1	1.0	5.0	9.4	5.0		190		<5	<0.50	
RPD		0	0	0	10							0	0	0	1	0		17		0	0	
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.50	<10.0	<0.05	26.5							<0.1	1.0	5.0	9.3	5.0		160		<5	<0.50	
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.7	370	28	<5	<0.5	
RPD		0	0									0						79		0	0	
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS	<0.50	<10.0	<0.05	26.5							<0.1	1.0	5.0	9.3	5.0		160		<5	<0.50	

		NA			PCBs							Inorganics										
		Tetrachloroethene mg/kg	Sum of WA DWER PFAS (n=10)* UG/KG	Moisture Content µg/L	Moisture Content %	Arochlor 1232 mg/kg	Arochlor 1242 mg/kg	Arochlor 1248 mg/kg	Arochlor 1254 mg/kg	Arochlor 1221 mg/kg	Arochlor 1260 mg/kg	Arochlor 1016 mg/kg	PCBs (Sum of total) mg/kg	pH (after HCL) -	pH (Final) -	pH (Initial) -	pH of Leaching Fluid -	pH (aqueous extract) -	Fluoride mg/kg	Moisture Content (dried @ 103°C) %	Cyanide Total mg/kg	1,2,4-trichlorobenzene mg/kg
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF		<0.05																			
RPD			0																			
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS			<0.05																		
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS			<0.05																		
RPD				0																		
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS			<0.05																		
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF		<0.05																			
RPD																						
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF		<0.05																			
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1										
RPD				0																		
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF		<0.05																			
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<0.50	<10.0	<0.05	30.9							<0.1	1.1	5.0	9.0	5.0		150		<5	<0.50	
RPD				0																		
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1										
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF		<0.05																			
RPD				0																		
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF		<0.05																			
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF		<0.05																			
RPD				0																		
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF		<0.05																			
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS			<0.05																		
RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.50	<10.0	<0.05	34.1							<0.1	1.0	5.1	8.4	5.0		160		<5	<0.50	
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.50	<10.0	<0.05	33.6							<0.1	0.9	5.1	8.8	5.0		130		<5	<0.50	
RPD				0	1							0	11	0	5	0		21		0	0	
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.50	<10.0	<0.05	34.1							<0.1	1.0	5.1	8.4	5.0		160		<5	<0.50	
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1										
RPD				0								0										
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.50	<10.0	<0.05	34.1							<0.1	1.0	5.1	8.4	5.0		160		<5	<0.50	
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF		<0.05																			
RPD				0																		
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS			<0.05																		
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS			<0.05																		
RPD				0																		
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS			<0.05																		
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS			<0.05																		
RPD				0																		
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS			<0.05																		
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF		0.05																			
RPD																						

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

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

		Halogenated Benzenes					Halogenated Hydrocarbons					MAH					Solvents					
		1,2-dichlorobenzene mg/kg	1,3-dichlorobenzene mg/kg	1,4-dichlorobenzene mg/kg	Bromobenzene mg/kg	4-chlorotoluene mg/kg	Chlorobenzene mg/kg	Iodomethane mg/kg	Bromomethane mg/kg	1,2-dibromoethane mg/kg	Dichlorodifluoromethane mg/kg	Trichlorofluoromethane mg/kg	Total MAH mg/kg	Monocyclic aromatic hydrocarbons EPAVc mg/kg	1,3,5-trimethylbenzene mg/kg	Styrene mg/kg	Isopropylbenzene mg/kg	1,2,4-trimethylbenzene mg/kg	4-Methyl-2-pentanone mg/kg	Acetone mg/kg	Allyl chloride mg/kg	Carbon disulfide mg/kg
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																					
RPD																						
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																					
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS																					
RPD																						
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS																					
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_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	<0.5	<0.5	
RPD																						
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS	<0.50		<0.50			<0.50							<0.5	<0.5							
RPD																						
D08.01	SX_OB_20220410_15_47_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	<0.5	<0.5	
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF																					
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS																					
RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.50		<0.50			<0.50							<0.5	<0.5							
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS	<0.50		<0.50			<0.50							<0.5	<0.5							
RPD		0		0			0							0	0							
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.50		<0.50			<0.50							<0.5	<0.5							
D08.01	SX_OB_20220410_08_02_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	<0.5	<0.5	
RPD		0		0			0							0	0							
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS	<0.50		<0.50			<0.50							<0.5	<0.5							
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																					
RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																					
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS																					
RPD																						
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS																					
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF																					
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 multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

	Methyl Ethyl Ketone	SPOCAS
	mg/kg	pH (CaCl2)
EQL	0.5	0.1

Location Code	Field ID		
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF	<0.5	
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF	<0.5	
RPD		0	
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF	<0.5	
C02.01	SX_IB_20220328_15_48_SS_Triplicate_ALS		8.0
RPD			
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF		
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF		
RPD			
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF		
C02.01	SX_IB_20220328_15_47_SS_Duplicate_EUF		
RPD			
C02.01	SX_IB_20220328_15_44_SS_Primary_EUF		
C02.01	SX_IB_20220328_15_48_SS_Triplicate_ALS		
RPD			
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS		8.0
C02.01	SX_IB_20220328_07_45_SS_Duplicate_ALS		8.1
RPD			1
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS		8.0
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF	<0.5	
RPD			
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS		8.0
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF		
RPD			
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS		
C02.01	SX_IB_20220328_07_45_SS_Duplicate_ALS		
RPD			
C02.01	SX_IB_20220328_07_41_SS_Primary_ALS		
C02.01	SX_IB_20220328_07_46_SS_Triplicate_EUF		
RPD			
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS		8.0
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS		8.0
RPD			0
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS		8.0
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF	<0.5	
RPD			
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS		8.0
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF		
RPD			
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS		
C06.01	SX_IB_20220329_08_03_SS_Duplicate_ALS		
RPD			
C06.01	SX_IB_20220329_08_02_SS_Primary_ALS		
C06.01	SX_IB_20220329_08_04_SS_Triplicate_EUF		
RPD			
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF	<0.5	
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF	<0.5	
RPD			0
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF	<0.5	
D07.01	SX_OB_20220407_16_15_SS_Triplicate_ALS		7.9
RPD			
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF		
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF		
RPD			
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF		
D07.01	SX_OB_20220407_16_15_SS_Duplicate_EUF		
RPD			
D07.01	SX_OB_20220407_16_14_SS_Primary_EUF		
D07.01	SX_OB_20220407_16_15_SS_Triplicate_ALS		
RPD			
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS		7.8
D07.01	SX_OB_20220407_08_02_SS_Duplicate_ALS		7.6

		SPOCAS	
		Methyl Ethyl Ketone	pH (CaCl2)
		mg/kg	-
RPD			3
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS		7.8
D07.01	SX_OB_20220407_08_02_SS_Triplicate_EUF	<0.5	
RPD			
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS		7.8
D07.01	SX_OB_20220407_08_02_SS_Triplicate_EUF		
RPD			
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS		
D07.01	SX_OB_20220407_08_02_SS_Duplicate_ALS		
RPD			
D07.01	SX_OB_20220407_08_01_SS_Primary_ALS		
D07.01	SX_OB_20220407_08_02_SS_Triplicate_EUF		
RPD			
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF	<0.5	
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF	<0.5	
RPD		0	
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF	<0.5	
C06.01	SX_IB_20220408_16_02_SS_Triplicate_ALS		7.8
RPD			
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF		
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF		
RPD			
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF		
C06.01	SX_IB_20220408_16_01_SS_Duplicate_EUF		
RPD			
C06.01	SX_IB_20220408_16_00_SS_Primary_EUF		
C06.01	SX_IB_20220408_16_02_SS_Triplicate_ALS		
RPD			
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS		7.8
D07.01	SX_OB_20220408_07_59_SS_Duplicate_ALS		7.8
RPD		0	
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS		7.8
D07.01	SX_OB_20220408_08_00_SS_Triplicate_EUF	<0.5	
RPD			
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS		7.8
D07.01	SX_OB_20220408_08_00_SS_Triplicate_EUF		
RPD			
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS		
D07.01	SX_OB_20220408_07_59_SS_Duplicate_ALS		
RPD			
D07.01	SX_OB_20220408_07_59_SS_Primary_ALS		
D07.01	SX_OB_20220408_08_00_SS_Triplicate_EUF		
RPD			
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF	<0.5	
D08.01	SX_OB_20220409_15_52_SS_Duplicate_EUF	<0.5	
RPD		0	
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF	<0.5	
D08.01	SX_OB_20220409_15_53_SS_Triplicate_ALS		7.7
RPD			
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF		
D08.01	SX_OB_20220409_15_52_SS_Duplicate_EUF		
RPD			
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF		
D08.01	SX_OB_20220409_15_52_SS_Duplicate_EUF		
RPD			
D08.01	SX_OB_20220409_15_52_SS_Primary_EUF		
D08.01	SX_OB_20220409_15_53_SS_Triplicate_ALS		
RPD			
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS		7.7
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS		7.8
RPD		1	
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS		7.7
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF	<0.5	
RPD			
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS		7.7

		SPOCAS	
		Methyl Ethyl Ketone	pH (CaCl2)
		mg/kg	-
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF		
RPD			
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS		
D08.01	SX_OB_20220409_07_40_SS_Duplicate_ALS		
RPD			
D08.01	SX_OB_20220409_07_38_SS_Primary_ALS		
D08.01	SX_OB_20220409_07_40_SS_Triplicate_EUF		
RPD			
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF		
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF	<0.5	
RPD			
D08.01	SX_OB_20220410_11_58_SS_Primary_EUF		
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS		7.8
RPD			
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF	<0.5	
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF		
RPD			
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF		
D08.01	SX_OB_20220410_15_48_SS_Duplicate_EUF		
RPD			
D08.01	SX_OB_20220410_15_47_SS_Primary_EUF		
D08.01	SX_OB_20220410_15_48_SS_Triplicate_ALS		
RPD			
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		7.7
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS		7.6
RPD			1
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		7.7
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF	<0.5	
RPD			
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		7.7
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF		
RPD			
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		
D08.01	SX_OB_20220410_08_02_SS_Duplicate_ALS		
RPD			
D08.01	SX_OB_20220410_07_57_SS_Primary_ALS		
D08.01	SX_OB_20220410_08_02_SS_Triplicate_EUF		
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 multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C06.0120220421160048_02	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 Uncensored Full Data Sets										
2											
3	User Selected Options										
4	Date/Time of Computation		ProUCL 5.122/04/2022 7:13:01 AM								
5	From File		WorkSheet.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			23		Number of Distinct Observations			14		
15							Number of Missing Observations			0	
16	Minimum			15		Mean			22.09		
17	Maximum			33		Median			23		
18	SD			5.062		Std. Error of Mean			1.056		
19	Coefficient of Variation			0.229		Skewness			0.17		
20											
21	Normal GOF Test										
22	Shapiro Wilk Test Statistic			0.94		Shapiro Wilk GOF Test					
23	5% Shapiro Wilk Critical Value			0.914		Data appear Normal at 5% Significance Level					
24	Lilliefors Test Statistic			0.126		Lilliefors GOF Test					
25	5% Lilliefors Critical Value			0.18		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			23.9		95% Adjusted-CLT UCL (Chen-1995)			23.86		
31						95% Modified-t UCL (Johnson-1978)			23.91		
32											
33	Gamma GOF Test										
34	A-D Test Statistic			0.611		Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value			0.742		Detected data appear Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic			0.151		Kolmogorov-Smirnov Gamma GOF Test					
37	5% K-S Critical Value			0.181		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)			19.57		k star (bias corrected MLE)			17.04		
42	Theta hat (MLE)			1.129		Theta star (bias corrected MLE)			1.296		
43	nu hat (MLE)			900.1		nu star (bias corrected)			784.1		
44	MLE Mean (bias corrected)			22.09		MLE Sd (bias corrected)			5.35		
45						Approximate Chi Square Value (0.05)			720.1		
46	Adjusted Level of Significance			0.0389		Adjusted Chi Square Value			715.7		
47											
48	Assuming Gamma Distribution										
49	95% Approximate Gamma UCL (use when n>=50))			24.05		95% Adjusted Gamma UCL (use when n<50)			24.2		
50											
51	Lognormal GOF Test										
52	Shapiro Wilk Test Statistic			0.933		Shapiro Wilk Lognormal GOF Test					
53	5% Shapiro Wilk Critical Value			0.914		Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic			0.157		Lilliefors Lognormal GOF Test					
55	5% Lilliefors Critical Value			0.18		Data appear Lognormal at 5% Significance Level					
	Data appear Lognormal at 5% Significance Level										

A	B	C	D	E	F	G	H	I	J	K	L
57											
58	Lognormal Statistics										
59	Minimum of Logged Data				2.708		Mean of logged Data				3.069
60	Maximum of Logged Data				3.497		SD of logged Data				0.234
61											
62	Assuming Lognormal Distribution										
63	95% H-UCL				24.18		90% Chebyshev (MVUE) UCL				25.36
64	95% Chebyshev (MVUE) UCL				26.84		97.5% Chebyshev (MVUE) UCL				28.89
65	99% Chebyshev (MVUE) UCL				32.92						
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				23.82		95% Jackknife UCL				23.9
72	95% Standard Bootstrap UCL				23.8		95% Bootstrap-t UCL				23.88
73	95% Hall's Bootstrap UCL				23.94		95% Percentile Bootstrap UCL				23.78
74	95% BCA Bootstrap UCL				23.87						
75	90% Chebyshev(Mean, Sd) UCL				25.25		95% Chebyshev(Mean, Sd) UCL				26.69
76	97.5% Chebyshev(Mean, Sd) UCL				28.68		99% Chebyshev(Mean, Sd) UCL				32.59
77											
78	Suggested UCL to Use										
79	95% Student's-t UCL				23.9						
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				23		Number of Distinct Observations				16
91							Number of Missing Observations				0
92	Minimum				120		Mean				159.4
93	Maximum				200		Median				160
94	SD				19.13		Std. Error of Mean				3.989
95	Coefficient of Variation				0.12		Skewness				-0.018
96											
97	Normal GOF Test										
98	Shapiro Wilk Test Statistic				0.973		Shapiro Wilk GOF Test				
99	5% Shapiro Wilk Critical Value				0.914		Data appear Normal at 5% Significance Level				
100	Lilliefors Test Statistic				0.12		Lilliefors GOF Test				
101	5% Lilliefors Critical Value				0.18		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				166.3		95% Adjusted-CLT UCL (Chen-1995)				166
107							95% Modified-t UCL (Johnson-1978)				166.3
108											
109	Gamma GOF Test										
110	A-D Test Statistic				0.334		Anderson-Darling Gamma GOF Test				
111	5% A-D Critical Value				0.741		Detected data appear Gamma Distributed at 5% Significance Level				
112	K-S Test Statistic				0.122		Kolmogorov-Smirnov Gamma GOF Test				
113	5% K-S Critical Value				0.181		Detected data appear Gamma Distributed at 5% Significance Level				
114	Detected data appear Gamma Distributed at 5% Significance Level										

A	B	C	D	E	F	G	H	I	J	K	L
115											
116	Gamma Statistics										
117	k hat (MLE)		71.36		k star (bias corrected MLE)		62.08				
118	Theta hat (MLE)		2.234		Theta star (bias corrected MLE)		2.568				
119	nu hat (MLE)		3283		nu star (bias corrected)		2856				
120	MLE Mean (bias corrected)		159.4		MLE Sd (bias corrected)		20.24				
121					Approximate Chi Square Value (0.05)		2733				
122	Adjusted Level of Significance		0.0389		Adjusted Chi Square Value		2724				
123											
124	Assuming Gamma Distribution										
125	95% Approximate Gamma UCL (use when n>=50))		166.6		95% Adjusted Gamma UCL (use when n<50)		167.2				
126											
127	Lognormal GOF Test										
128	Shapiro Wilk Test Statistic		0.969		Shapiro Wilk Lognormal GOF Test						
129	5% Shapiro Wilk Critical Value		0.914		Data appear Lognormal at 5% Significance Level						
130	Lilliefors Test Statistic		0.115		Lilliefors Lognormal GOF Test						
131	5% Lilliefors Critical Value		0.18		Data appear Lognormal at 5% Significance Level						
132	Data appear Lognormal at 5% Significance Level										
133											
134	Lognormal Statistics										
135	Minimum of Logged Data		4.787		Mean of logged Data		5.065				
136	Maximum of Logged Data		5.298		SD of logged Data		0.122				
137											
138	Assuming Lognormal Distribution										
139	95% H-UCL		166.8		90% Chebyshev (MVUE) UCL		171.6				
140	95% Chebyshev (MVUE) UCL		177.2		97.5% Chebyshev (MVUE) UCL		184.8				
141	99% Chebyshev (MVUE) UCL		199.9								
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		166		95% Jackknife UCL		166.3				
148	95% Standard Bootstrap UCL		165.8		95% Bootstrap-t UCL		166.2				
149	95% Hall's Bootstrap UCL		166.3		95% Percentile Bootstrap UCL		165.6				
150	95% BCA Bootstrap UCL		165.7								
151	90% Chebyshev(Mean, Sd) UCL		171.4		95% Chebyshev(Mean, Sd) UCL		176.8				
152	97.5% Chebyshev(Mean, Sd) UCL		184.3		99% Chebyshev(Mean, Sd) UCL		199.1				
153											
154	Suggested UCL to Use										
155	95% Student's-t UCL		166.3								
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											
162	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be										
163	reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.										
164											

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C06.0120220421160048_02	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

Company		AGON Environmental - Tunnel Spoil Testing		Project No	JC0927			Project Manager	Craig Trimbur		Sampler(s)	Will & Brandon - Agon			
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207			Project Name	WGTP-Tunnel Ref: 20220329051117-Eurofin-14			EDD Format	Esdat		Handed over by			
Contact Name		Craig Trimbur David Lawson			Analyses Where marks are requested, please specify 'Total' or 'Filtered' SUITE code must be used to attract SUITE Pricing	Spoil Sample Preparation SUITE WGTP-R-1-TRH/PAH/Phenols/OCPI/PCB/VOC/Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn)/Cr+/-/CN/ Total Fluoride/ pH PFAS Extended Suite - 0.1 - 5ug/kg ASLP PH 5 - PFAS 0.01-0.05 ug/l ASLP Request - PFAS 0.01-0.05ug/l	Containers Change container type & size if necessary						Required Turnaround Time (TAT) Default will be 5 days if not listed		
Phone No		+61 400 826 907 (Craig) +61 490 411 004 (David)					500mL Plastic 250mL Plastic 125mL Plastic 200mL Amber Glass 40mL VOA vial 500mL PFAS Bottle Jar (Glass or HDPE) Other (Asbestos AS/NZS, WA Guidelines)						*Surcharge will apply <input type="checkbox"/> Overnight (reporting by 9am) * <input type="checkbox"/> Same day * <input type="checkbox"/> 1 day * <input type="checkbox"/> 2 days * <input type="checkbox"/> 3 days * <input checked="" type="checkbox"/> 5 days (Standard) <input type="checkbox"/> Other ()		
Special Directions		Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with other sample receipt documentation.											Sample Comments / Dangerous Goods Hazard Warning		
Purchase Order															
Quote ID No		Agon WGTP TST													
No	Client Sample ID	Sampled Date/Time dd/mm/yyyy hh:mm	Matrix Soils (S) Water (W)												
1	SX_IB_20220328_08_06_SS_Primary_EUF	28/03/22	S	X	X	X	X	X							
2	SX_IB_20220328_07_46_SS_Triplicate_EUF	28/03/22	S	X	X	X	X	X							
3	SX_IB_20220328_11_51_SS_Primary_EUF	28/03/22	S	X	X	X	X	X							
4	SX_IB_20220328_15_44_SS_Primary_EUF	28/03/22	S	X	X	X	X	X							
5	SX_IB_20220328_15_47_SS_Duplicate_EUF	28/03/22	S	X	X	X	X	X							
6	SX_IB_20220328_20_11_SS_Primary_EUF	28/03/22	S	X	X	X	X	X							
7	SX_IB_20220329_00_05_SS_Primary_EUF	29/03/22	S	X	X	X	X	X							
8	SX_IB_20220329_04_16_SS_Primary_EUF	29/03/22	S	X	X	X	X	X							
9															
10															
11															
12															
13															
Total Counts				6	6	6	6	6							
Method of Shipment		<input checked="" type="checkbox"/> Courier <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal		Name	Kinnaly		Signature	[Signature]		Date	29/3/22				
Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW	Signature		Date	29/3/22		Time	1:48pm				
		Received By		SYD BNE MEL PER ADL NTL DRW	Signature		Date			Time	Report No				

875283
Lucy Dal
29/03/22

210
20.9

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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
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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: 20220329051117-EUROFIN-14
Project ID: JC0927

Order No.:
Report #: 875283
Phone: 08 8338 1009
Fax:

Received: Mar 29, 2022 1:48 PM
Due: Apr 5, 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_IB_20220328_08_06_SS_Primary_EUF	Mar 28, 2022		Soil	M22-Ma60484		X	X	X
2	SX_IB_20220328_07_46_SS_Triplicate_EUF	Mar 28, 2022		Soil	M22-Ma60485		X	X	X
3	SX_IB_20220328_11_51_SS_Primary_EUF	Mar 28, 2022		Soil	M22-Ma60486		X	X	X
4	SX_IB_20220328_15_44_SS	Mar 28, 2022		Soil	M22-Ma60487		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									
	_Primary_EUF								
5	SX_IB_202203 28_15_47_SS Duplicate_EU F	Mar 28, 2022		Soil	M22-Ma60488		X	X	X
6	SX_IB_202203 28_20_11_SS Primary_EUF	Mar 28, 2022		Soil	M22-Ma60489		X	X	X
7	SX_IB_202203 29_00_05_SS Primary_EUF	Mar 29, 2022		Soil	M22-Ma60490		X	X	X
8	SX_IB_202203 29_04_16_SS Primary_EUF	Mar 29, 2022		Soil	M22-Ma60491		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									
9	SX_IB_202203 28_08_06_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60492	X		X	
10	SX_IB_202203 28_07_46_SS _Triplicate_EU F	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60493	X		X	
11	SX_IB_202203 28_11_51_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60494	X		X	
12	SX_IB_202203 28_15_44_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60495	X		X	
13	SX_IB_202203	Mar 28, 2022		AUS Leachate	M22-Ma60496	X		X	



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Melbourne
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NATA # 1261 Site # 25079

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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								
	28_15_47_SS _Duplicate_EU F			- pH 5.0				
14	SX_IB_202203 28_20_11_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60497	X	X	
15	SX_IB_202203 29_00_05_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - pH 5.0	M22-Ma60498	X	X	
16	SX_IB_202203 29_04_16_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - pH 5.0	M22-Ma60499	X	X	
17	SX_IB_202203 28_08_06_SS	Mar 28, 2022		AUS Leachate - Reagent	M22-Ma60500	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								
	28_08_06_SS _Primary_EUF			- Reagent Water				
18	SX_IB_202203 28_07_46_SS _Triplicate_EU F	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60501	X	X	
19	SX_IB_202203 28_11_51_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60502	X	X	
20	SX_IB_202203 28_15_44_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60503	X	X	
21	SX_IB_202203 28_15_47_SS	Mar 28, 2022		AUS Leachate - Reagent	M22-Ma60504	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									
	_Duplicate_EU F			Water					
22	SX_IB_202203 28_20_11_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60505	X		X	
23	SX_IB_202203 29_00_05_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - Reagent Water	M22-Ma60506	X		X	
24	SX_IB_202203 29_04_16_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - Reagent Water	M22-Ma60507	X		X	
Test Counts						16	8	24	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: **David Lawson**

Report **875283-S-V2**
Project name **20220329051117-EUROFIN-14**
Project ID **JC0927**
Received Date **Mar 29, 2022**

Client Sample ID			SX_IB_202203 28_08_06_SS Primary_EUF	SX_IB_202203 28_07_46_SS Triplicate_EUF	SX_IB_202203 28_11_51_SS Primary_EUF	SX_IB_202203 28_15_44_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma60484	M22-Ma60485	M22-Ma60486	M22-Ma60487
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 28, 2022	Mar 28, 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
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_IB_202203 28_08_06_SS Primary_EUF Soil M22-Ma60484 Mar 28, 2022	SX_IB_202203 28_07_46_SS Triplicate_EUF Soil M22-Ma60485 Mar 28, 2022	SX_IB_202203 28_11_51_SS Primary_EUF Soil M22-Ma60486 Mar 28, 2022	SX_IB_202203 28_15_44_SS Primary_EUF Soil M22-Ma60487 Mar 28, 2022
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	76	59	56	53
Toluene-d8 (surr.)	1	%	72	51	61	57
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

Client Sample ID			SX_IB_202203 28_08_06_SS Primary_EUF Soil M22-Ma60484 Mar 28, 2022	SX_IB_202203 28_07_46_SS Triplicate_EUF Soil M22-Ma60485 Mar 28, 2022	SX_IB_202203 28_11_51_SS Primary_EUF Soil M22-Ma60486 Mar 28, 2022	SX_IB_202203 28_15_44_SS Primary_EUF Soil M22-Ma60487 Mar 28, 2022
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	75	93	88	91
p-Terphenyl-d14 (surr.)	1	%	93	104	95	93
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	%	87	75	80	76
Tetrachloro-m-xylene (surr.)	1	%	124	137	124	126

Client Sample ID			SX_IB_202203 28_08_06_SS Primary_EUF Soil M22-Ma60484 Mar 28, 2022	SX_IB_202203 28_07_46_SS Triplicate_EUF Soil M22-Ma60485 Mar 28, 2022	SX_IB_202203 28_11_51_SS Primary_EUF Soil M22-Ma60486 Mar 28, 2022	SX_IB_202203 28_15_44_SS Primary_EUF Soil M22-Ma60487 Mar 28, 2022
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
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	%	87	75	80	76
Tetrachloro-m-xylene (surr.)	1	%	124	137	124	126
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	%	77	99	95	93
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	200	< 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	8.9	9.0	8.7	9.3
% Moisture						
% Moisture	1	%	30	30	31	30
Heavy Metals						
Arsenic	2	mg/kg	24	22	31	33
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	120	120	130	130
Copper	5	mg/kg	67	61	69	73
Lead	5	mg/kg	< 5	< 5	5.5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5

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Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Heavy Metals						
Nickel	5	mg/kg	170	170	180	190
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	110	120	130
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	%	84	81	82	81
13C5-PFPeA (surr.)	1	%	94	87	87	89
13C5-PFHxA (surr.)	1	%	91	85	92	93
13C4-PFHpA (surr.)	1	%	90	89	91	91
13C8-PFOA (surr.)	1	%	86	77	90	86
13C5-PFNA (surr.)	1	%	60	56	60	61
13C6-PFDA (surr.)	1	%	70	63	70	69
13C2-PFUnDA (surr.)	1	%	106	119	109	117
13C2-PFDoDA (surr.)	1	%	95	99	95	94
13C2-PFTeDA (surr.)	1	%	68	64	62	62
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	%	93	95	87	91
D3-N-MeFOSA (surr.)	1	%	81	77	83	80
D5-N-EtFOSA (surr.)	1	%	83	82	81	83
D7-N-MeFOSE (surr.)	1	%	85	84	84	84
D9-N-EtFOSE (surr.)	1	%	75	71	72	72
D5-N-EtFOSAA (surr.)	1	%	120	106	99	114
D3-N-MeFOSAA (surr.)	1	%	140	125	132	136

Client Sample ID			SX_IB_202203 28_08_06_SS Primary_EUF	SX_IB_202203 28_07_46_SS TriPLICATE_EUF	SX_IB_202203 28_11_51_SS Primary_EUF	SX_IB_202203 28_15_44_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma60484	M22-Ma60485	M22-Ma60486	M22-Ma60487
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 28, 2022	Mar 28, 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	%	82	78	82	76
18O2-PFHxS (surr.)	1	%	80	65	69	75
13C8-PFOS (surr.)	1	%	63	60	64	62
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	%	68	73	68	73
13C2-6:2 FTSA (surr.)	1	%	87	80	77	75
13C2-8:2 FTSA (surr.)	1	%	105	99	103	103
13C2-10:2 FTSA (surr.)	1	%	130	125	125	115
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_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma60488	M22-Ma60489	M22-Ma60490	M22-Ma60491
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 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	35	29	31
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	53	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	53	< 50	< 50

Client Sample ID			SX_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma60488	M22-Ma60489	M22-Ma60490	M22-Ma60491
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
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
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

Client Sample ID			SX_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma60488	M22-Ma60489	M22-Ma60490	M22-Ma60491
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	83	52	52	64
Toluene-d8 (surr.)	1	%	84	51	52	52
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	%	88	61	86	94
p-Terphenyl-d14 (surr.)	1	%	94	83	101	95
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

Client Sample ID			SX_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma60488	M22-Ma60489	M22-Ma60490	M22-Ma60491
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
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	%	87	59	75	66
Tetrachloro-m-xylene (surr.)	1	%	119	90	115	105
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	%	87	59	75	66
Tetrachloro-m-xylene (surr.)	1	%	119	90	115	105
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

Client Sample ID			SX_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma60488	M22-Ma60489	M22-Ma60490	M22-Ma60491
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
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	%	98	46	44	70
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 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	8.6	8.8	9.0	9.2
% Moisture						
% Moisture	1	%	29	30	27	27
Heavy Metals						
Arsenic	2	mg/kg	20	28	25	33
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	120	130	110	120
Copper	5	mg/kg	62	73	59	66
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	160	180	160	180
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	130	110	120
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 (PFTriDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	83	78	76	74
13C5-PFPeA (surr.)	1	%	95	79	84	82
13C5-PFHxA (surr.)	1	%	93	85	82	78
13C4-PFHpA (surr.)	1	%	94	82	82	76
13C8-PFOA (surr.)	1	%	90	75	68	72
13C5-PFNA (surr.)	1	%	63	51	88	51
13C6-PFDA (surr.)	1	%	59	56	63	57
13C2-PFUnDA (surr.)	1	%	115	99	95	98
13C2-PFDoDA (surr.)	1	%	95	91	76	85
13C2-PFTeDA (surr.)	1	%	64	60	58	56

Client Sample ID			SX_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ma60488	M22-Ma60489	M22-Ma60490	M22-Ma60491
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit				
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	%	93	86	82	79
D3-N-MeFOSA (surr.)	1	%	79	73	70	72
D5-N-EtFOSA (surr.)	1	%	83	78	73	75
D7-N-MeFOSE (surr.)	1	%	81	73	74	74
D9-N-EtFOSE (surr.)	1	%	74	68	65	66
D5-N-EtFOSAA (surr.)	1	%	99	104	85	90
D3-N-MeFOSAA (surr.)	1	%	131	123	93	123
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	%	84	81	74	75
18O2-PFHxS (surr.)	1	%	74	60	84	60
13C8-PFOS (surr.)	1	%	70	65	57	61
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	%	74	69	62	66
13C2-6:2 FTSA (surr.)	1	%	74	74	60	72
13C2-8:2 FTSA (surr.)	1	%	101	88	107	86
13C2-10:2 FTSA (surr.)	1	%	122	110	80	116
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	Mar 30, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 30, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 30, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Mar 30, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Mar 30, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 30, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Mar 30, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Mar 30, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 30, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 30, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	Mar 30, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Mar 31, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	Mar 31, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Mar 30, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Mar 30, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Mar 29, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 29, 2022	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220329051117-EUROFIN-14
Project ID: JC0927

Order No.:
Report #: 875283
Phone: 08 8338 1009
Fax:

Received: Mar 29, 2022 1:48 PM
Due: Apr 5, 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_IB_20220328_08_06_SS_Primary_EUF	Mar 28, 2022		Soil	M22-Ma60484		X	X	X
2	SX_IB_20220328_07_46_SS_Triplicate_EUF	Mar 28, 2022		Soil	M22-Ma60485		X	X	X
3	SX_IB_20220328_11_51_SS_Primary_EUF	Mar 28, 2022		Soil	M22-Ma60486		X	X	X
4	SX_IB_20220328_15_44_SS	Mar 28, 2022		Soil	M22-Ma60487		X	X	X

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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									
	_Primary_EUF								
5	SX_IB_202203 28_15_47_SS Duplicate_EU F	Mar 28, 2022		Soil	M22-Ma60488		X	X	X
6	SX_IB_202203 28_20_11_SS Primary_EUF	Mar 28, 2022		Soil	M22-Ma60489		X	X	X
7	SX_IB_202203 29_00_05_SS Primary_EUF	Mar 29, 2022		Soil	M22-Ma60490		X	X	X
8	SX_IB_202203 29_04_16_SS Primary_EUF	Mar 29, 2022		Soil	M22-Ma60491		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									
9	SX_IB_202203 28_08_06_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60492	X		X	
10	SX_IB_202203 28_07_46_SS _Triplicate_EU F	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60493	X		X	
11	SX_IB_202203 28_11_51_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60494	X		X	
12	SX_IB_202203 28_15_44_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60495	X		X	
13	SX_IB_202203	Mar 28, 2022		AUS Leachate	M22-Ma60496	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								
	28_15_47_SS _Duplicate_EU F			- pH 5.0				
14	SX_IB_202203 28_20_11_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60497	X	X	
15	SX_IB_202203 29_00_05_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - pH 5.0	M22-Ma60498	X	X	
16	SX_IB_202203 29_04_16_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - pH 5.0	M22-Ma60499	X	X	
17	SX_IB_202203 28_08_06_SS	Mar 28, 2022		AUS Leachate - Reagent	M22-Ma60500	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									
	28_08_06_SS _Primary_EUF			- Reagent Water					
18	SX_IB_202203 28_07_46_SS _Triplicate_EU F	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60501	X		X	
19	SX_IB_202203 28_11_51_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60502	X		X	
20	SX_IB_202203 28_15_44_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60503	X		X	
21	SX_IB_202203 28_15_47_SS	Mar 28, 2022		AUS Leachate - Reagent	M22-Ma60504	X		X	

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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									
	_Duplicate_EU F			Water					
22	SX_IB_202203 28_20_11_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60505	X		X	
23	SX_IB_202203 29_00_05_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - Reagent Water	M22-Ma60506	X		X	
24	SX_IB_202203 29_04_16_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - Reagent Water	M22-Ma60507	X		X	
Test Counts						16	8	24	8

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5		5	Pass	
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	%	90		70-130	Pass	
TRH C10-C14	%	106		70-130	Pass	
Naphthalene	%	101		70-130	Pass	
TRH C6-C10	%	86		70-130	Pass	
TRH >C10-C16	%	104		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	80		70-130	Pass	
1.1.1-Trichloroethane	%	94		70-130	Pass	
1.2-Dichlorobenzene	%	109		70-130	Pass	
1.2-Dichloroethane	%	86		70-130	Pass	
Benzene	%	76		70-130	Pass	
Ethylbenzene	%	85		70-130	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	80		70-130	Pass	
Toluene	%	83		70-130	Pass	
Trichloroethene	%	83		70-130	Pass	
Xylenes - Total*	%	81		70-130	Pass	
LCS - % Recovery						
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	%	94		70-130	Pass	
Acenaphthylene	%	95		70-130	Pass	
Anthracene	%	87		70-130	Pass	
Benz(a)anthracene	%	82		70-130	Pass	
Benzo(a)pyrene	%	84		70-130	Pass	
Benzo(b&i)fluoranthene	%	82		70-130	Pass	
Benzo(g,h,i)perylene	%	81		70-130	Pass	
Benzo(k)fluoranthene	%	86		70-130	Pass	
Chrysene	%	81		70-130	Pass	
Dibenz(a,h)anthracene	%	86		70-130	Pass	
Fluoranthene	%	95		70-130	Pass	
Fluorene	%	94		70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	86		70-130	Pass	
Naphthalene	%	87		70-130	Pass	
Phenanthrene	%	89		70-130	Pass	
Pyrene	%	96		70-130	Pass	
LCS - % Recovery						
Organochlorine Pesticides						
Chlordanes - Total	%	88		70-130	Pass	
4,4'-DDD	%	84		70-130	Pass	
4,4'-DDE	%	92		70-130	Pass	
4,4'-DDT	%	89		70-130	Pass	
a-HCH	%	122		70-130	Pass	
Aldrin	%	87		70-130	Pass	
b-HCH	%	95		70-130	Pass	
d-HCH	%	101		70-130	Pass	
Dieldrin	%	89		70-130	Pass	
Endosulfan I	%	87		70-130	Pass	
Endosulfan II	%	83		70-130	Pass	
Endosulfan sulphate	%	87		70-130	Pass	
Endrin	%	91		70-130	Pass	
Endrin aldehyde	%	82		70-130	Pass	
Endrin ketone	%	92		70-130	Pass	
g-HCH (Lindane)	%	86		70-130	Pass	
Heptachlor	%	99		70-130	Pass	
Heptachlor epoxide	%	87		70-130	Pass	
Hexachlorobenzene	%	87		70-130	Pass	
Methoxychlor	%	90		70-130	Pass	
LCS - % Recovery						
Polychlorinated Biphenyls						
Aroclor-1260	%	116		70-130	Pass	
LCS - % Recovery						
Phenols (Halogenated)						
2-Chlorophenol	%	85		25-140	Pass	
2,4-Dichlorophenol	%	98		25-140	Pass	
2,4,5-Trichlorophenol	%	81		25-140	Pass	
2,4,6-Trichlorophenol	%	85		25-140	Pass	
2,6-Dichlorophenol	%	84		25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	89			25-140	Pass	
Pentachlorophenol	%	83			25-140	Pass	
Tetrachlorophenols - Total	%	100			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	%	48			25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	69			25-140	Pass	
2-Nitrophenol	%	90			25-140	Pass	
2,4-Dimethylphenol	%	83			25-140	Pass	
2,4-Dinitrophenol	%	46			25-140	Pass	
2-Methylphenol (o-Cresol)	%	73			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	93			25-140	Pass	
4-Nitrophenol	%	82			25-140	Pass	
Dinoseb	%	78			25-140	Pass	
Phenol	%	87			25-140	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	100			70-130	Pass	
Cyanide (total)	%	105			70-130	Pass	
Fluoride (Total)	%	78			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	113			80-120	Pass	
Cadmium	%	110			80-120	Pass	
Chromium	%	120			80-120	Pass	
Copper	%	117			80-120	Pass	
Lead	%	116			80-120	Pass	
Mercury	%	110			80-120	Pass	
Molybdenum	%	114			80-120	Pass	
Nickel	%	113			80-120	Pass	
Selenium	%	114			80-120	Pass	
Silver	%	117			80-120	Pass	
Tin	%	110			80-120	Pass	
Zinc	%	114			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	98			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	86			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	86			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	86			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	99			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	112			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	108			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	90			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	95			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	87			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	99			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	96			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	91			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	94			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	89			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	91			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)	%	90			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFASs)								
Perfluorobutanesulfonic acid (PFBS)	%	88			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	105			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	90			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	93			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	88			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	58			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	90			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	115			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	99			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	83			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	124			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	88			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-Ma61793	NCP	%	105		70-130	Pass	
TRH >C10-C16	M22-Ma61793	NCP	%	102		70-130	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-Ma63502	NCP	%	122		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-Ma64215	NCP	%	93		75-125	Pass	
Cadmium	M22-Ma64215	NCP	%	91		75-125	Pass	
Chromium	M22-Ma64215	NCP	%	92		75-125	Pass	
Copper	M22-Ma64215	NCP	%	95		75-125	Pass	
Lead	M22-Ma64215	NCP	%	125		75-125	Pass	
Mercury	M22-Ma64215	NCP	%	104		75-125	Pass	
Molybdenum	M22-Ma64215	NCP	%	104		75-125	Pass	
Nickel	M22-Ma64215	NCP	%	98		75-125	Pass	
Selenium	M22-Ma64215	NCP	%	94		75-125	Pass	
Silver	M22-Ma64215	NCP	%	96		75-125	Pass	
Tin	M22-Ma64215	NCP	%	98		75-125	Pass	
Zinc	M22-Ma64215	NCP	%	90		75-125	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Ma60375	NCP	%	91		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ma60375	NCP	%	88		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ma60375	NCP	%	86		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ma60375	NCP	%	86		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ma60375	NCP	%	91		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ma60375	NCP	%	105		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ma60375	NCP	%	103		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ma60375	NCP	%	88		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ma60375	NCP	%	97		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ma60375	NCP	%	97		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma60375	NCP	%	94		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Ma60375	NCP	%	92		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma60375	NCP	%	91		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma60375	NCP	%	93		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma60375	NCP	%	80		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma60375	NCP	%	89		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma60375	NCP	%	77		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma60375	NCP	%	90		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Ma60375	NCP	%	83		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ma60375	NCP	%	113		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma60375	NCP	%	83		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma60375	NCP	%	110		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma60375	NCP	%	90		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma60375	NCP	%	130		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ma60375	NCP	%	87		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ma60375	NCP	%	121		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-Ma60375	NCP	%	103		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma60375	NCP	%	92		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma60375	NCP	%	115		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma60375	NCP	%	80		50-150	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-Ma60486	CP	%	99		70-130	Pass	
Acenaphthylene	M22-Ma60486	CP	%	99		70-130	Pass	
Anthracene	M22-Ma60486	CP	%	91		70-130	Pass	
Benz(a)anthracene	M22-Ma60486	CP	%	88		70-130	Pass	
Benzo(a)pyrene	M22-Ma60486	CP	%	91		70-130	Pass	
Benzo(b&j)fluoranthene	M22-Ma60486	CP	%	77		70-130	Pass	
Benzo(k)fluoranthene	M22-Ma60486	CP	%	97		70-130	Pass	
Chrysene	M22-Ma60486	CP	%	87		70-130	Pass	
Dibenz(a,h)anthracene	M22-Ma60486	CP	%	85		70-130	Pass	
Fluoranthene	M22-Ma60486	CP	%	95		70-130	Pass	
Fluorene	M22-Ma60486	CP	%	98		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Indeno(1,2,3-cd)pyrene	M22-Ma60486	CP	%	83		70-130	Pass	
Naphthalene	M22-Ma60486	CP	%	90		70-130	Pass	
Phenanthrene	M22-Ma60486	CP	%	89		70-130	Pass	
Pyrene	M22-Ma60486	CP	%	96		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-Ma60486	CP	%	88		30-130	Pass	
2,4-Dichlorophenol	M22-Ma60486	CP	%	101		30-130	Pass	
2,4,5-Trichlorophenol	M22-Ma60486	CP	%	92		30-130	Pass	
2,4,6-Trichlorophenol	M22-Ma60486	CP	%	92		30-130	Pass	
2,6-Dichlorophenol	M22-Ma60486	CP	%	94		30-130	Pass	
4-Chloro-3-methylphenol	M22-Ma60486	CP	%	96		30-130	Pass	
Pentachlorophenol	M22-Ma60486	CP	%	79		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Methyl-4,6-dinitrophenol	M22-Ma60486	CP	%	93		30-130	Pass	
2-Nitrophenol	M22-Ma60486	CP	%	93		30-130	Pass	
2,4-Dimethylphenol	M22-Ma60486	CP	%	113		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Ma60486	CP	%	78		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Ma60486	CP	%	100		30-130	Pass	
4-Nitrophenol	M22-Ma60486	CP	%	116		30-130	Pass	
Dinoseb	M22-Ma60486	CP	%	101		30-130	Pass	
Phenol	M22-Ma60486	CP	%	91		30-130	Pass	
Spike - % Recovery								
				Result 1				
Fluoride (Total)	M22-Ma60487	CP	%	85		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M22-Ma60488	CP	%	104		70-130	Pass	
Naphthalene	M22-Ma60488	CP	%	99		70-130	Pass	
TRH C6-C10	M22-Ma60488	CP	%	99		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1,1-Dichloroethene	M22-Ma60488	CP	%	82		70-130	Pass	
1,1,1-Trichloroethane	M22-Ma60488	CP	%	80		70-130	Pass	
1,2-Dichlorobenzene	M22-Ma60488	CP	%	118		70-130	Pass	
1,2-Dichloroethane	M22-Ma60488	CP	%	79		70-130	Pass	
Benzene	M22-Ma60488	CP	%	72		70-130	Pass	
Ethylbenzene	M22-Ma60488	CP	%	97		70-130	Pass	
m&p-Xylenes	M22-Ma60488	CP	%	93		70-130	Pass	
o-Xylene	M22-Ma60488	CP	%	93		70-130	Pass	
Toluene	M22-Ma60488	CP	%	88		70-130	Pass	
Trichloroethene	M22-Ma60488	CP	%	75		70-130	Pass	
Xylenes - Total*	M22-Ma60488	CP	%	93		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-Ma60488	CP	%	79		70-130	Pass	
4,4'-DDD	M22-Ma60488	CP	%	87		70-130	Pass	
4,4'-DDE	M22-Ma60488	CP	%	78		70-130	Pass	
4,4'-DDT	M22-Ma60488	CP	%	87		70-130	Pass	
a-HCH	M22-Ma60488	CP	%	76		70-130	Pass	
Aldrin	M22-Ma60488	CP	%	78		70-130	Pass	
b-HCH	M22-Ma60488	CP	%	75		70-130	Pass	
d-HCH	M22-Ma60488	CP	%	78		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dieldrin	M22-Ma60488	CP	%	78			70-130	Pass	
Endosulfan I	M22-Ma60488	CP	%	77			70-130	Pass	
Endosulfan II	M22-Ma60488	CP	%	75			70-130	Pass	
Endosulfan sulphate	M22-Ma60488	CP	%	74			70-130	Pass	
Endrin	M22-Ma60488	CP	%	89			70-130	Pass	
Endrin aldehyde	M22-Ma60488	CP	%	87			70-130	Pass	
Endrin ketone	M22-Ma60488	CP	%	88			70-130	Pass	
g-HCH (Lindane)	M22-Ma60488	CP	%	93			70-130	Pass	
Heptachlor	M22-Ma60488	CP	%	75			70-130	Pass	
Heptachlor epoxide	M22-Ma60488	CP	%	73			70-130	Pass	
Hexachlorobenzene	M22-Ma60488	CP	%	79			70-130	Pass	
Methoxychlor	M22-Ma60488	CP	%	74			70-130	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	M22-Ma60488	CP	%	90			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Benzo(g,h,i)perylene	M22-Ma61793	NCP	%	86			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
Tetrachlorophenols - Total	M22-Ma61793	NCP	%	60			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4,6-dinitrophenol	M22-Ma61793	NCP	%	45			30-130	Pass	
2,4-Dinitrophenol	M22-Ma61793	NCP	%	53			30-130	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-Ma60484	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-Ma60484	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-Ma60484	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	M22-Ma60484	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-Ma60484	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-Ma60484	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ma60484	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ma60484	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ma60484	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ma60484	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ma60484	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ma60484	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ma60484	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ma60484	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ma60484	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ma60484	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dichlorophenol	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4.5-Trichlorophenol	M22-Ma60484	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.4.6-Trichlorophenol	M22-Ma60484	CP	mg/kg	< 1	< 1	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ma60484	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ma60484	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ma60484	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4.6-dinitrophenol	M22-Ma60484	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4.6-dinitrophenol	M22-Ma60484	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ma60484	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.4-Dimethylphenol	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dinitrophenol	M22-Ma60484	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Ma60484	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ma60484	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Ma60484	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ma60484	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ma60484	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-Ma61023	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Fluoride (Total)	M22-Ma62520	NCP	mg/kg	170	140	20	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-Ma60152	NCP	mg/kg	3.3	3.3	<1	30%	Pass
Cadmium	M22-Ma60152	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-Ma60152	NCP	mg/kg	24	27	9.0	30%	Pass
Copper	M22-Ma60152	NCP	mg/kg	15	17	18	30%	Pass
Lead	M22-Ma60152	NCP	mg/kg	21	20	3.0	30%	Pass
Mercury	M22-Ma60152	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-Ma60152	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-Ma60152	NCP	mg/kg	31	27	13	30%	Pass
Selenium	M22-Ma60152	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-Ma60152	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-Ma60152	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-Ma60152	NCP	mg/kg	50	48	4.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ma60486	CP	mg/kg	< 1	< 1	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Ma60486	CP	pH Units	8.7	8.8	pass	30%	Pass
% Moisture	M22-Ma60486	CP	%	31	28	9.0	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTTeDA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma60486	CP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma60486	CP	ug/kg	< 10	< 10	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma60486	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-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma60486	CP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma60486	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M22-Ma60487	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M22-Ma60487	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M22-Ma60487	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M22-Ma60487	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M22-Ma60487	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M22-Ma60487	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ma60487	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ma60487	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ma60487	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ma60487	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ma60487	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ma60487	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ma60487	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ma60487	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ma60487	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ma60487	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dichlorophenol	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4.5-Trichlorophenol	M22-Ma60487	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.4.6-Trichlorophenol	M22-Ma60487	CP	mg/kg	< 1	< 1	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ma60487	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ma60487	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ma60487	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4.6-dinitrophenol	M22-Ma60487	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4.6-dinitrophenol	M22-Ma60487	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ma60487	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.4-Dimethylphenol	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dinitrophenol	M22-Ma60487	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Ma60487	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ma60487	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Ma60487	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ma60487	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ma60487	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M22-Ma60488	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M22-Ma60488	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M22-Ma60488	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M22-Ma60488	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M22-Ma60488	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M22-Ma60488	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ma60488	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ma60488	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ma60488	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ma60488	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ma60488	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ma60488	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ma60488	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ma60488	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1260	M22-Ma60488	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ma60488	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-Ma60488	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-Ma60488	CP	mg/kg	< 1	< 1	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ma60488	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ma60488	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ma60488	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-Ma60488	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-Ma60488	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ma60488	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-Ma60488	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Ma60488	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ma60488	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Ma60488	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ma60488	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ma60488	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Heptachlor epoxide	M22-Ma60157	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2,6-Dichlorophenol	M22-Ma60157	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ma60489	CP	mg/kg	< 1	< 1	<1	30%	Pass

Comments

V2: Project ID amended to "20220329051117-EUROFIN-14" from "202203290511174-EUROFIN-14".

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
Mary Makarios	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (VIC)
Caitlin Breeze	Senior Analyst (VIC)
Edward Lee	Senior Analyst (VIC)
Vivian Wang	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: **David Lawson**

Report **875283-L-V2**
Project name **20220329051117-EUROFIN-14**
Project ID **JC0927**
Received Date **Mar 29, 2022**

Client Sample ID			SX_IB_202203 28_08_06_SS Primary_EUF	SX_IB_202203 28_07_46_SS Triplicate_EUF	SX_IB_202203 28_11_51_SS Primary_EUF	SX_IB_202203 28_15_44_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-Ma60492	M22-Ma60493	M22-Ma60494	M22-Ma60495
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 28, 2022	Mar 28, 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	5.2	5.1	5.1	5.2
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	%	76	80	77	79
13C5-PFPeA (surr.)	1	%	107	106	92	99
13C5-PFHxA (surr.)	1	%	89	94	90	88
13C4-PFHpA (surr.)	1	%	81	85	82	80
13C8-PFOA (surr.)	1	%	93	93	92	85
13C5-PFNA (surr.)	1	%	84	80	79	74
13C6-PFDA (surr.)	1	%	69	72	72	65
13C2-PFUnDA (surr.)	1	%	64	62	64	53
13C2-PFDoDA (surr.)	1	%	52	54	51	56
13C2-PFTTeDA (surr.)	1	%	56	19	19	18
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

Client Sample ID			SX_IB_202203 28_08_06_SS Primary_EUF	SX_IB_202203 28_07_46_SS TriPLICATE_EUF	SX_IB_202203 28_11_51_SS Primary_EUF	SX_IB_202203 28_15_44_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-Ma60492	M22-Ma60493	M22-Ma60494	M22-Ma60495
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 28, 2022	Mar 28, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
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	80	78	66
D3-N-MeFOSA (surr.)	1	%	92	89	94	46
D5-N-EtFOSA (surr.)	1	%	95	94	99	50
D7-N-MeFOSE (surr.)	1	%	61	66	64	47
D9-N-EtFOSE (surr.)	1	%	59	61	61	47
D5-N-EtFOSAA (surr.)	1	%	18	15	21	13
D3-N-MeFOSAA (surr.)	1	%	19	21	11	14
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	%	91	92	93	93
18O2-PFHxS (surr.)	1	%	79	79	83	89
13C8-PFOS (surr.)	1	%	81	83	83	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	%	73	76	65	77
13C2-6:2 FTSA (surr.)	1	%	76	73	67	74
13C2-8:2 FTSA (surr.)	1	%	126	160	142	140
13C2-10:2 FTSA (surr.)	1	%	54	65	63	57
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_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_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-Ma60496	M22-Ma60497	M22-Ma60498	M22-Ma60499
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 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	5.2	5.2	5.2	5.2
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	%	80	77	78	80
13C5-PFPeA (surr.)	1	%	103	102	111	97
13C5-PFHxA (surr.)	1	%	92	87	88	88
13C4-PFHpA (surr.)	1	%	82	75	80	78
13C8-PFOA (surr.)	1	%	91	82	80	78
13C5-PFNA (surr.)	1	%	79	70	71	71
13C6-PFDA (surr.)	1	%	67	58	60	52
13C2-PFUnDA (surr.)	1	%	55	49	145	42
13C2-PFDoDA (surr.)	1	%	55	47	47	40
13C2-PFTeDA (surr.)	1	%	15	13	12	11
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	%	70	56	61	53
D3-N-MeFOSA (surr.)	1	%	55	52	43	44
D5-N-EtFOSA (surr.)	1	%	59	54	47	47
D7-N-MeFOSE (surr.)	1	%	56	43	51	48
D9-N-EtFOSE (surr.)	1	%	56	43	48	45
D5-N-EtFOSAA (surr.)	1	%	15	12	15	11
D3-N-MeFOSAA (surr.)	1	%	20	17	13	20

Client Sample ID			SX_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_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-Ma60496	M22-Ma60497	M22-Ma60498	M22-Ma60499
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 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	%	96	91	95	90
18O2-PFHxS (surr.)	1	%	79	77	74	74
13C8-PFOS (surr.)	1	%	78	68	65	62
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	%	78	77	79	77
13C2-6:2 FTSA (surr.)	1	%	71	68	75	60
13C2-8:2 FTSA (surr.)	1	%	134	145	149	115
13C2-10:2 FTSA (surr.)	1	%	41	39	39	37
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_IB_202203 28_08_06_SS Primary_EUF	SX_IB_202203 28_07_46_SS TriPLICATE_EUF	SX_IB_202203 28_11_51_SS Primary_EUF	SX_IB_202203 28_15_44_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-Ma60500	M22-Ma60501	M22-Ma60502	M22-Ma60503
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 28, 2022	Mar 28, 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	6.7	6.7	6.7	6.7
pH (off)	0.1	pH Units	9.2	9.2	9.1	9.2

Client Sample ID			SX_IB_202203 28_08_06_SS Primary_EUF	SX_IB_202203 28_07_46_SS TriPLICATE_EUF	SX_IB_202203 28_11_51_SS Primary_EUF	SX_IB_202203 28_15_44_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-Ma60500	M22-Ma60501	M22-Ma60502	M22-Ma60503
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 28, 2022	Mar 28, 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	%	72	72	71	70
13C5-PFPeA (surr.)	1	%	87	98	94	101
13C5-PFHxA (surr.)	1	%	84	87	88	82
13C4-PFHpA (surr.)	1	%	76	79	80	73
13C8-PFOA (surr.)	1	%	82	82	84	79
13C5-PFNA (surr.)	1	%	78	75	74	70
13C6-PFDA (surr.)	1	%	62	69	69	61
13C2-PFUnDA (surr.)	1	%	56	59	62	56
13C2-PFDoDA (surr.)	1	%	47	48	52	47
13C2-PFTeDA (surr.)	1	%	17	16	17	16
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	%	71	69	75	64
D3-N-MeFOSA (surr.)	1	%	98	61	55	53
D5-N-EtFOSA (surr.)	1	%	92	58	55	51
D7-N-MeFOSE (surr.)	1	%	60	55	55	53
D9-N-EtFOSE (surr.)	1	%	53	48	51	48
D5-N-EtFOSAA (surr.)	1	%	17	17	17	17
D3-N-MeFOSAA (surr.)	1	%	22	18	20	17
Perfluoroalkyl sulfonic acids (PFSAs)						
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

Client Sample ID			SX_IB_202203 28_08_06_SS Primary_EUF	SX_IB_202203 28_07_46_SS TriPLICATE_EUF	SX_IB_202203 28_11_51_SS Primary_EUF	SX_IB_202203 28_15_44_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-Ma60500	M22-Ma60501	M22-Ma60502	M22-Ma60503
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 28, 2022	Mar 28, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
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	%	90	97	91	87
18O2-PFHxS (surr.)	1	%	76	82	84	72
13C8-PFOS (surr.)	1	%	83	75	79	73
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	%	68	76	67	71
13C2-6:2 FTSA (surr.)	1	%	58	74	63	59
13C2-8:2 FTSA (surr.)	1	%	123	162	157	123
13C2-10:2 FTSA (surr.)	1	%	53	56	54	47
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_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_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-Ma60504	M22-Ma60505	M22-Ma60506	M22-Ma60507
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 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	6.7	6.7	6.7	6.7
pH (off)	0.1	pH Units	9.2	9.1	9.2	9.2
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

Client Sample ID			SX_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_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-Ma60504	M22-Ma60505	M22-Ma60506	M22-Ma60507
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
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	%	81	75	71	73
13C5-PFPeA (surr.)	1	%	113	104	97	94
13C5-PFHxA (surr.)	1	%	100	90	87	88
13C4-PFHpA (surr.)	1	%	87	82	77	77
13C8-PFOA (surr.)	1	%	91	91	83	82
13C5-PFNA (surr.)	1	%	86	79	77	73
13C6-PFDA (surr.)	1	%	75	69	72	64
13C2-PFUnDA (surr.)	1	%	56	64	59	56
13C2-PFDoDA (surr.)	1	%	44	51	52	41
13C2-PFTeDA (surr.)	1	%	17	16	18	14
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	%	70	74	79	70
D3-N-MeFOSA (surr.)	1	%	55	81	94	76
D5-N-EtFOSA (surr.)	1	%	48	77	94	70
D7-N-MeFOSE (surr.)	1	%	55	60	62	52
D9-N-EtFOSE (surr.)	1	%	47	52	59	46
D5-N-EtFOSAA (surr.)	1	%	13	20	18	14
D3-N-MeFOSAA (surr.)	1	%	19	18	22	16
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	^{N09} 0.02
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	102	92	91	87
18O2-PFHxS (surr.)	1	%	81	81	74	72
13C8-PFOS (surr.)	1	%	79	84	80	73

Client Sample ID			SX_IB_202203 28_15_47_SS Duplicate_EUF	SX_IB_202203 28_20_11_SS Primary_EUF	SX_IB_202203 29_00_05_SS Primary_EUF	SX_IB_202203 29_04_16_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-Ma60504	M22-Ma60505	M22-Ma60506	M22-Ma60507
Date Sampled			Mar 28, 2022	Mar 28, 2022	Mar 29, 2022	Mar 29, 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	%	91	78	75	83
13C2-6:2 FTSA (surr.)	1	%	75	66	73	79
13C2-8:2 FTSA (surr.)	1	%	177	149	181	169
13C2-10:2 FTSA (surr.)	1	%	52	60	65	54
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.02
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.02
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.02
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 30, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 30, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 30, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 29, 2022	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220329051117-EUROFIN-14
Project ID: JC0927

Order No.:
Report #: 875283
Phone: 08 8338 1009
Fax:

Received: Mar 29, 2022 1:48 PM
Due: Apr 5, 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_IB_20220328_08_06_SS_Primary_EUF	Mar 28, 2022		Soil	M22-Ma60484		X	X	X
2	SX_IB_20220328_07_46_SS_Triplicate_EUF	Mar 28, 2022		Soil	M22-Ma60485		X	X	X
3	SX_IB_20220328_11_51_SS_Primary_EUF	Mar 28, 2022		Soil	M22-Ma60486		X	X	X
4	SX_IB_20220328_15_44_SS	Mar 28, 2022		Soil	M22-Ma60487		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									
	_Primary_EUF								
5	SX_IB_202203 28_15_47_SS Duplicate_EU F	Mar 28, 2022		Soil	M22-Ma60488		X	X	X
6	SX_IB_202203 28_20_11_SS Primary_EUF	Mar 28, 2022		Soil	M22-Ma60489		X	X	X
7	SX_IB_202203 29_00_05_SS Primary_EUF	Mar 29, 2022		Soil	M22-Ma60490		X	X	X
8	SX_IB_202203 29_04_16_SS Primary_EUF	Mar 29, 2022		Soil	M22-Ma60491		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									
9	SX_IB_202203 28_08_06_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60492	X		X	
10	SX_IB_202203 28_07_46_SS _Triplicate_EU F	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60493	X		X	
11	SX_IB_202203 28_11_51_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60494	X		X	
12	SX_IB_202203 28_15_44_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60495	X		X	
13	SX_IB_202203	Mar 28, 2022		AUS Leachate	M22-Ma60496	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								
	28_15_47_SS _Duplicate_EU F			- pH 5.0				
14	SX_IB_202203 28_20_11_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - pH 5.0	M22-Ma60497	X	X	
15	SX_IB_202203 29_00_05_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - pH 5.0	M22-Ma60498	X	X	
16	SX_IB_202203 29_04_16_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - pH 5.0	M22-Ma60499	X	X	
17	SX_IB_202203 28_08_06_SS	Mar 28, 2022		AUS Leachate - Reagent	M22-Ma60500	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								
	28_08_06_SS _Primary_EUF			- Reagent Water				
18	SX_IB_202203 28_07_46_SS _Triplicate_EU F	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60501	X	X	
19	SX_IB_202203 28_11_51_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60502	X	X	
20	SX_IB_202203 28_15_44_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60503	X	X	
21	SX_IB_202203 28_15_47_SS	Mar 28, 2022		AUS Leachate - Reagent	M22-Ma60504	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									
	_Duplicate_EU F			Water					
22	SX_IB_202203 28_20_11_SS _Primary_EUF	Mar 28, 2022		AUS Leachate - Reagent Water	M22-Ma60505	X		X	
23	SX_IB_202203 29_00_05_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - Reagent Water	M22-Ma60506	X		X	
24	SX_IB_202203 29_04_16_SS _Primary_EUF	Mar 29, 2022		AUS Leachate - Reagent Water	M22-Ma60507	X		X	
Test Counts						16	8	24	8

Internal Quality Control Review and Glossary
General

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

Holding Times

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

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

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

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

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

Units

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)	%	92		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	116		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	104		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	112		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	119		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	99		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	137		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	116		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	131		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	109		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	122		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code		
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)	%	106			50-150	Pass			
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	111			50-150	Pass			
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	120			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)	%	104			50-150	Pass			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	124			50-150	Pass			
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	110			50-150	Pass			
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)									
Perfluorobutanesulfonic acid (PFBS)	%	99			50-150	Pass			
Perfluorononanesulfonic acid (PFNS)	%	107			50-150	Pass			
Perfluoropropanesulfonic acid (PFPrS)	%	116			50-150	Pass			
Perfluoropentanesulfonic acid (PFPeS)	%	115			50-150	Pass			
Perfluorohexanesulfonic acid (PFHxS)	%	109			50-150	Pass			
Perfluoroheptanesulfonic acid (PFHpS)	%	121			50-150	Pass			
Perfluorooctanesulfonic acid (PFOS)	%	100			50-150	Pass			
Perfluorodecanesulfonic acid (PFDS)	%	92			50-150	Pass			
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	133			50-150	Pass			
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	124			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)	%	110			50-150	Pass			
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)									
Perfluorobutanoic acid (PFBA)	M22-Ma60492	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)	M22-Ma60492	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma60492	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma60492	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma60492	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma60492	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-Ma60492	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma60492	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma60492	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-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma60492	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma60492	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma60507	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma60507	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma60507	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma60507	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma60507	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma60507	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma60507	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma60507	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma60507	CP	ug/L	0.02	0.02	8.0	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma60507	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-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma60507	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma60507	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments

V2: Project ID amended to "20220329051117-EUROFIN-14" from "202203290511174-EUROFIN-14 " .

Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

Callum McEwan	Analytical Services Manager
Mary Makarios	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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Company		Project No		Project Manager		Sampler(s)					
AGON Environmental - Tunnel Spoil Testing		JC0927		Craig Trimbur		Hannah - EP Riek					
Address		Project Name		EDD Format		Handed over by					
Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		WGTP-Tunnel Ref:20220330051559-Eurofin-14		ESdat, EQuS etc		Esdat					
Contact Name		Analyses (Where metals are requested, please specify "Total" or "Filterable" SUITE code must be used to attract SUITE pricing)	Spoil Sample Preparation					Email for Invoice			
Craig Trimbur David Lawson			Suite WGTP-R1-TRH/PAH/Phenols/OC/PCB/VOCl/Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn)/ Cr6+/CN/ Total Fluoride/ pH					finance@agonenviro.com.au LabReports.TST@agonenviro.com.au			
Phone No			PFAS Extended Suite - 0.1-5ug/kg					Email for Results			
+61 400 826 907 (Craig) +61 490 411 004 (David)			ASLP PH 5 - PFAS 0.01-0.05 ug/l ASLP Reagent - PFAS 0.01-0.05ug/l					LabReports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au Amrit.Kaur@agile-analytics.com.au			
Special Directions		Purchase Order		Containers		Required Turnaround Time (TAT)					
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.				Change container type & size if necessary		Default will be 5 days if not ticked.					
Quote ID No		Client Sample ID		Sampled Date/Time		Matrix					
Agon WGTP TST				dd/mm/yyyy hh:mm		Solid (S) Water (W)					
No	Client Sample ID	Sampled Date/Time	Matrix	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle Jar (Glass or HDPE)	Other (Asbestos AS4984, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	SX_IB_20220329_07_57_SS_Primary_EUF	29/03/22	S	X	X	X	X	X			
2	SX_IB_20220329_08_04_SS_Triplicate_EUF	29/03/22	S	X	X	X	X	X			
3	SX_IB_20220329_11_53_SS_Primary_EUF	29/03/22	S	X	X	X	X	X			
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
Total Counts				3	3	3	3	3		9	

Method of Shipment Courier (#) Hand Delivered Postal Name **Emma.S** Signature Date **30/03/22** Time

Laboratory Use Only Received By **Sam** Date **30/3/22** Signature Date **30/3** Time **12 pm** Temperature Report No **875571**

Jadice

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: **David Lawson**

Report **875571-S**
Project name **20220330051559-Eurofin-14**
Project ID **JC0927**
Received Date **Mar 30, 2022**

Client Sample ID			SX_IB_202203 29_07_57_SS Primary_EUF	SX_IB_202203 29_08_04_SS Triplicate_EUF	SX_IB_202203 29_11_53_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22-Ma62865	M22-Ma62866	M22-Ma62867
Date Sampled			Mar 29, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
Volatile Organics					
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Volatile Organics					
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_IB_202203 29_07_57_SS Primary_EUF	SX_IB_202203 29_08_04_SS Triplicate_EUF	SX_IB_202203 29_11_53_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22-Ma62865	M22-Ma62866	M22-Ma62867
Date Sampled			Mar 29, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit			
Volatile Organics					
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	51	54	58
Toluene-d8 (surr.)	1	%	67	55	62
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_IB_202203 29_07_57_SS Primary_EUF	SX_IB_202203 29_08_04_SS Triplicate_EUF	SX_IB_202203 29_11_53_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22-Ma62865	M22-Ma62866	M22-Ma62867
Date Sampled			Mar 29, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	108	87	62
p-Terphenyl-d14 (surr.)	1	%	131	96	103
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	121	86	113
Tetrachloro-m-xylene (surr.)	1	%	134	102	121

Client Sample ID			SX_IB_202203 29_07_57_SS Primary_EUF	SX_IB_202203 29_08_04_SS Triplicate_EUF	SX_IB_202203 29_11_53_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22-Ma62865	M22-Ma62866	M22-Ma62867
Date Sampled			Mar 29, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit			
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	121	86	113
Tetrachloro-m-xylene (surr.)	1	%	134	102	121
Phenols (Halogenated)					
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1
Phenols (non-Halogenated)					
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	88	53	58
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20
Heavy Metals					
Arsenic	2	mg/kg	26	28	27
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	130	110	120
Copper	5	mg/kg	66	59	63
Lead	5	mg/kg	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.9	8.8	8.7
% Moisture	1	%	28	28	30

Client Sample ID			SX_IB_202203 29_07_57_SS Primary_EUF	SX_IB_202203 29_08_04_SS Triplicate_EUF	SX_IB_202203 29_11_53_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22-Ma62865	M22-Ma62866	M22-Ma62867
Date Sampled			Mar 29, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit			
Heavy Metals					
Nickel	5	mg/kg	180	150	160
Selenium	2	mg/kg	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10
Zinc	5	mg/kg	130	110	120
Perfluoroalkyl carboxylic acids (PFCAs)					
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	84	87	88
13C5-PFPeA (surr.)	1	%	72	79	80
13C5-PFHxA (surr.)	1	%	82	84	87
13C4-PFHpA (surr.)	1	%	86	87	93
13C8-PFOA (surr.)	1	%	80	86	87
13C5-PFNA (surr.)	1	%	88	73	78
13C6-PFDA (surr.)	1	%	81	72	83
13C2-PFUnDA (surr.)	1	%	91	102	101
13C2-PFDoDA (surr.)	1	%	85	90	90
13C2-PFTeDA (surr.)	1	%	78	83	82
Perfluoroalkyl sulfonamido substances					
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	92	95	95
D3-N-MeFOSA (surr.)	1	%	89	92	91
D5-N-EtFOSA (surr.)	1	%	92	95	98
D7-N-MeFOSE (surr.)	1	%	93	97	95
D9-N-EtFOSE (surr.)	1	%	92	95	96
D5-N-EtFOSAA (surr.)	1	%	99	108	97
D3-N-MeFOSAA (surr.)	1	%	64	79	90

Client Sample ID			SX_IB_202203 29_07_57_SS Primary_EUF	SX_IB_202203 29_08_04_SS Triplicate_EUF	SX_IB_202203 29_11_53_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22-Ma62865	M22-Ma62866	M22-Ma62867
Date Sampled			Mar 29, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit			
Perfluoroalkyl sulfonic acids (PFASs)					
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	84	85	84
18O2-PFHxS (surr.)	1	%	68	63	86
13C8-PFOS (surr.)	1	%	99	101	107
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	70	78	76
13C2-6:2 FTSA (surr.)	1	%	81	82	88
13C2-8:2 FTSA (surr.)	1	%	83	99	98
13C2-10:2 FTSA (surr.)	1	%	66	71	74
PFASs Summations					
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
IWRG 621 WGTP Suite			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 30, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 30, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Mar 30, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Mar 30, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Mar 30, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 30, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Mar 30, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Mar 30, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 30, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Mar 30, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	Mar 30, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Mar 31, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	Mar 31, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Mar 30, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Mar 30, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Mar 30, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Mar 30, 2022 12:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	875571	Due:	Apr 6, 2022
Project Name:	20220330051559-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_IB_20220329_07_57_SS_Primary_EUF	Mar 29, 2022	7:57AM	Soil	M22-Ma62865		X	X	X
2	SX_IB_20220329_08_04_SS_Triplicate_EUF	Mar 29, 2022	8:04AM	Soil	M22-Ma62866		X	X	X
3	SX_IB_20220329_11_53_SS_Primary_EUF	Mar 29, 2022	11:53AM	Soil	M22-Ma62867		X	X	X
4	SX_IB_20220329_07_57_SS	Mar 29, 2022	7:57AM	AUS Leachate - pH 5.0	M22-Ma62868	X		X	

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

Project Name: 20220330051559-Eurofin-14
Project ID: JC0927

Order No.:
Report #: 875571
Phone: 08 8338 1009
Fax:

Received: Mar 30, 2022 12:00 PM
Due: Apr 6, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
	_Primary_EUF								
5	SX_IB_202203 29_08_04_SS _Triplicate_EU F	Mar 29, 2022	8:04AM	AUS Leachate - pH 5.0	M22-Ma62869	X		X	
6	SX_IB_202203 29_11_53_SS _Primary_EUF	Mar 29, 2022	11:53AM	AUS Leachate - pH 5.0	M22-Ma62870	X		X	
7	SX_IB_202203 29_07_57_SS _Primary_EUF	Mar 29, 2022	7:57AM	AUS Leachate - Reagent Water	M22-Ma62871	X		X	
8	SX_IB_202203 29_08_04_SS _Triplicate_EU	Mar 29, 2022	8:04AM	AUS Leachate - Reagent Water	M22-Ma62872	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Mar 30, 2022 12:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	875571	Due:	Apr 6, 2022
		Phone:	08 8338 1009	Priority:	5 Day
		Fax:		Contact Name:	Agon Lab Reports (Spoil Project)
Project Name:	20220330051559-Eurofin-14				
Project ID:	JC0927				

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	_Triplicate_EU F			Water					
9	SX_IB_202203 29_11_53_SS _Primary_EUF	Mar 29, 2022	11:53AM	AUS Leachate - Reagent Water	M22-Ma62873	X		X	
Test Counts						6	3	9	3

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	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5		5	Pass	
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	%	94		70-130	Pass	
TRH C10-C14	%	105		70-130	Pass	
Naphthalene	%	84		70-130	Pass	
TRH C6-C10	%	93		70-130	Pass	
TRH >C10-C16	%	106		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	86		70-130	Pass	
1.1.1-Trichloroethane	%	81		70-130	Pass	
1.2-Dichlorobenzene	%	77		70-130	Pass	
1.2-Dichloroethane	%	86		70-130	Pass	
Benzene	%	89		70-130	Pass	
Ethylbenzene	%	83		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	86			70-130	Pass	
Toluene	%	85			70-130	Pass	
Trichloroethene	%	76			70-130	Pass	
Xylenes - Total*	%	83			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	81			70-130	Pass	
Acenaphthylene	%	87			70-130	Pass	
Anthracene	%	75			70-130	Pass	
Benz(a)anthracene	%	76			70-130	Pass	
Benzo(a)pyrene	%	105			70-130	Pass	
Benzo(b&i)fluoranthene	%	88			70-130	Pass	
Benzo(g,h,i)perylene	%	94			70-130	Pass	
Benzo(k)fluoranthene	%	71			70-130	Pass	
Chrysene	%	84			70-130	Pass	
Dibenz(a,h)anthracene	%	81			70-130	Pass	
Fluoranthene	%	75			70-130	Pass	
Fluorene	%	79			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	85			70-130	Pass	
Naphthalene	%	79			70-130	Pass	
Phenanthrene	%	73			70-130	Pass	
Pyrene	%	78			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	120			70-130	Pass	
4,4'-DDD	%	109			70-130	Pass	
4,4'-DDE	%	89			70-130	Pass	
4,4'-DDT	%	97			70-130	Pass	
a-HCH	%	128			70-130	Pass	
Aldrin	%	116			70-130	Pass	
b-HCH	%	94			70-130	Pass	
d-HCH	%	101			70-130	Pass	
Dieldrin	%	117			70-130	Pass	
Endosulfan I	%	124			70-130	Pass	
Endosulfan II	%	120			70-130	Pass	
Endosulfan sulphate	%	123			70-130	Pass	
Endrin	%	122			70-130	Pass	
Endrin aldehyde	%	103			70-130	Pass	
Endrin ketone	%	114			70-130	Pass	
g-HCH (Lindane)	%	122			70-130	Pass	
Heptachlor	%	125			70-130	Pass	
Heptachlor epoxide	%	115			70-130	Pass	
Hexachlorobenzene	%	129			70-130	Pass	
Methoxychlor	%	103			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	87			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	83			25-140	Pass	
2,4-Dichlorophenol	%	77			25-140	Pass	
2,4,5-Trichlorophenol	%	81			25-140	Pass	
2,4,6-Trichlorophenol	%	78			25-140	Pass	
2,6-Dichlorophenol	%	75			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	82			25-140	Pass	
Pentachlorophenol	%	76			25-140	Pass	
Tetrachlorophenols - Total	%	94			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	%	45			25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	58			25-140	Pass	
2-Nitrophenol	%	78			25-140	Pass	
2,4-Dimethylphenol	%	70			25-140	Pass	
2,4-Dinitrophenol	%	65			25-140	Pass	
2-Methylphenol (o-Cresol)	%	64			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	75			25-140	Pass	
4-Nitrophenol	%	78			25-140	Pass	
Dinoseb	%	63			25-140	Pass	
Phenol	%	83			25-140	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	116			70-130	Pass	
Cyanide (total)	%	104			70-130	Pass	
Fluoride (Total)	%	78			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	104			80-120	Pass	
Cadmium	%	102			80-120	Pass	
Chromium	%	110			80-120	Pass	
Copper	%	107			80-120	Pass	
Lead	%	109			80-120	Pass	
Mercury	%	99			80-120	Pass	
Molybdenum	%	104			80-120	Pass	
Nickel	%	103			80-120	Pass	
Selenium	%	103			80-120	Pass	
Silver	%	109			80-120	Pass	
Tin	%	102			80-120	Pass	
Zinc	%	105			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	91			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	79			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	83			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	90			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	97			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	105			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	115			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	94			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	101			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	95			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	95			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	93			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	83			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	94			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	81			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	87			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	88			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	88			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFASs)								
Perfluorobutanesulfonic acid (PFBS)	%	85			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	72			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	85			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	88			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	87			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	58			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	81			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	101			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	100			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)	%	114			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	78			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-Ma66880	NCP	%	86		70-130	Pass	
TRH C10-C14	M22-Ma62951	NCP	%	87		70-130	Pass	
Naphthalene	M22-Ma66880	NCP	%	77		70-130	Pass	
TRH C6-C10	M22-Ma66880	NCP	%	85		70-130	Pass	
TRH >C10-C16	M22-Ma62951	NCP	%	83		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	M22-Ma66880	NCP	%	78		70-130	Pass	
1.1.1-Trichloroethane	M22-Ma66880	NCP	%	80		70-130	Pass	
1.2-Dichlorobenzene	M22-Ma66880	NCP	%	79		70-130	Pass	
1.2-Dichloroethane	M22-Ma66880	NCP	%	78		70-130	Pass	
Benzene	M22-Ma66880	NCP	%	77		70-130	Pass	
Ethylbenzene	M22-Ma66880	NCP	%	85		70-130	Pass	
m&p-Xylenes	M22-Ma66880	NCP	%	87		70-130	Pass	
o-Xylene	M22-Ma66880	NCP	%	84		70-130	Pass	
Toluene	M22-Ma66880	NCP	%	75		70-130	Pass	
Trichloroethene	M22-Ma66880	NCP	%	80		70-130	Pass	
Xylenes - Total*	M22-Ma66880	NCP	%	86		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-Ma56461	NCP	%	98		70-130	Pass	
Acenaphthylene	M22-Ma56461	NCP	%	97		70-130	Pass	
Anthracene	M22-Ma56461	NCP	%	79		70-130	Pass	
Benz(a)anthracene	M22-Ma56461	NCP	%	74		70-130	Pass	
Benzo(a)pyrene	M22-Ma56461	NCP	%	86		70-130	Pass	
Benzo(b&j)fluoranthene	M22-Ma56461	NCP	%	98		70-130	Pass	
Benzo(g,h,i)perylene	M22-Ma56461	NCP	%	104		70-130	Pass	
Benzo(k)fluoranthene	M22-Ma56461	NCP	%	97		70-130	Pass	
Chrysene	M22-Ma56461	NCP	%	100		70-130	Pass	
Dibenz(a,h)anthracene	M22-Ma56461	NCP	%	95		70-130	Pass	
Fluoranthene	M22-Ma56461	NCP	%	77		70-130	Pass	
Fluorene	M22-Ma56461	NCP	%	91		70-130	Pass	
Indeno(1.2.3-cd)pyrene	M22-Ma56461	NCP	%	106		70-130	Pass	
Naphthalene	M22-Ma56461	NCP	%	86		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Phenanthrene	M22-Ma56461	NCP	%	76		70-130	Pass	
Pyrene	M22-Ma56461	NCP	%	77		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-Ma53211	NCP	%	103		70-130	Pass	
4.4'-DDD	M22-Ma53211	NCP	%	87		70-130	Pass	
4.4'-DDE	M22-Ma53211	NCP	%	97		70-130	Pass	
4.4'-DDT	M22-Ma53211	NCP	%	88		70-130	Pass	
a-HCH	M22-Ma53211	NCP	%	112		70-130	Pass	
Aldrin	M22-Ma53211	NCP	%	96		70-130	Pass	
b-HCH	M22-Ma53211	NCP	%	95		70-130	Pass	
d-HCH	M22-Ma53211	NCP	%	72		70-130	Pass	
Dieldrin	M22-Ma53211	NCP	%	115		70-130	Pass	
Endosulfan I	M22-Ma53211	NCP	%	109		70-130	Pass	
Endosulfan II	M22-Ma53211	NCP	%	85		70-130	Pass	
Endosulfan sulphate	M22-Ma53211	NCP	%	86		70-130	Pass	
Endrin	M22-Ma53211	NCP	%	118		70-130	Pass	
Endrin aldehyde	M22-Ma53211	NCP	%	102		70-130	Pass	
Endrin ketone	M22-Ma53211	NCP	%	86		70-130	Pass	
g-HCH (Lindane)	M22-Ma53211	NCP	%	109		70-130	Pass	
Heptachlor	M22-Ma53211	NCP	%	109		70-130	Pass	
Heptachlor epoxide	M22-Ma53211	NCP	%	91		70-130	Pass	
Hexachlorobenzene	M22-Ma53211	NCP	%	99		70-130	Pass	
Methoxychlor	M22-Ma53211	NCP	%	90		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	M22-Ma42822	NCP	%	101		70-130	Pass	
Aroclor-1260	M22-Ma42822	NCP	%	108		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-Ma56461	NCP	%	78		30-130	Pass	
2,4-Dichlorophenol	M22-Ma56461	NCP	%	100		30-130	Pass	
2,4,5-Trichlorophenol	M22-Ma56461	NCP	%	107		30-130	Pass	
2,4,6-Trichlorophenol	M22-Ma56461	NCP	%	68		30-130	Pass	
2,6-Dichlorophenol	M22-Ma56461	NCP	%	90		30-130	Pass	
4-Chloro-3-methylphenol	M22-Ma56461	NCP	%	80		30-130	Pass	
Pentachlorophenol	M22-Ma56461	NCP	%	46		30-130	Pass	
Tetrachlorophenols - Total	M22-Ma56461	NCP	%	76		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-Ma56461	NCP	%	45		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-Ma56461	NCP	%	30		30-130	Pass	
2-Nitrophenol	M22-Ma56461	NCP	%	91		30-130	Pass	
2,4-Dimethylphenol	M22-Ma56461	NCP	%	77		30-130	Pass	
2,4-Dinitrophenol	M22-Ma52948	NCP	%	47		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Ma56461	NCP	%	69		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Ma56461	NCP	%	88		30-130	Pass	
4-Nitrophenol	M22-Ma56461	NCP	%	45		30-130	Pass	
Dinoseb	M22-Ma56461	NCP	%	56		30-130	Pass	
Phenol	M22-Ma56461	NCP	%	65		30-130	Pass	
Spike - % Recovery								
				Result 1				
Cyanide (total)	M22-Ma60488	NCP	%	90		70-130	Pass	
Fluoride (Total)	M22-Ma60487	NCP	%	85		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-Ma62938	NCP	%	106		75-125	Pass	
Cadmium	M22-Ma62938	NCP	%	80		75-125	Pass	
Chromium	M22-Ma62938	NCP	%	113		75-125	Pass	
Copper	M22-Ma62938	NCP	%	108		75-125	Pass	
Lead	M22-Ma62938	NCP	%	112		75-125	Pass	
Mercury	M22-Ma62938	NCP	%	110		75-125	Pass	
Molybdenum	M22-Ma62938	NCP	%	107		75-125	Pass	
Nickel	M22-Ma62938	NCP	%	109		75-125	Pass	
Selenium	M22-Ma62938	NCP	%	102		75-125	Pass	
Silver	M22-Ma62938	NCP	%	85		75-125	Pass	
Tin	M22-Ma62938	NCP	%	106		75-125	Pass	
Zinc	M22-Ma62938	NCP	%	107		75-125	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Ma66218	NCP	%	95		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ma66218	NCP	%	76		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ma66218	NCP	%	90		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ma66218	NCP	%	87		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ma66218	NCP	%	99		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ma66218	NCP	%	122		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ma66218	NCP	%	116		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ma66218	NCP	%	99		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ma66218	NCP	%	106		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ma66218	NCP	%	108		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma66218	NCP	%	100		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Ma66218	NCP	%	101		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma66218	NCP	%	89		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma66218	NCP	%	104		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma66218	NCP	%	87		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma66218	NCP	%	92		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma66218	NCP	%	80		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma66218	NCP	%	85		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Ma66218	NCP	%	89		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ma66218	NCP	%	117		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma66218	NCP	%	89		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma66218	NCP	%	121		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma66218	NCP	%	104			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma66218	NCP	%	58			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ma66218	NCP	%	98			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ma66218	NCP	%	132			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-Ma66218	NCP	%	113			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma66218	NCP	%	102			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma66218	NCP	%	126			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma66218	NCP	%	83			50-150	Pass	
Spike - % Recovery									
				Result 1					
Chromium (hexavalent)	M22-Ma63502	NCP	%	122			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 C6-C9	M22-Ma64559	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-Ma64559	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Benzene	M22-Ma64559	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-Ma64559	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-Ma64559	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-Ma64559	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-Ma64559	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1.2-Dichloroethene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-Ma64559	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-Ma64559	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	B22-Ma52235	NCP	mg/kg	1.2	1.0	29	30%	Pass
Cyanide (total)	M22-Ma61023	NCP	mg/kg	< 5	< 5	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Ma62519	NCP	pH Units	9.3	9.3	pass	30%	Pass
% Moisture	M22-Ma62939	NCP	%	9.0	9.1	2.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-Ma62937	NCP	mg/kg	2.5	2.8	12	30%	Pass
Cadmium	M22-Ma62937	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-Ma62937	NCP	mg/kg	10	10	1.0	30%	Pass
Copper	M22-Ma62937	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Lead	M22-Ma62937	NCP	mg/kg	5.4	6.0	10	30%	Pass
Mercury	M22-Ma62937	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-Ma62937	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-Ma62937	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Selenium	M22-Ma62937	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-Ma62937	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-Ma62937	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-Ma62937	NCP	mg/kg	< 5	6.3	28	30%	Pass

Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma60486	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma60486	NCP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma60486	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-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma60486	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma60486	NCP	ug/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M22-Ma62866	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M22-Ma62866	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M22-Ma62866	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M22-Ma62866	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M22-Ma62866	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M22-Ma62866	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ma62866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ma62866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ma62866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ma62866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ma62866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ma62866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ma62866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1254	M22-Ma62866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ma62866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ma62866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-Ma62866	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-Ma62866	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ma62866	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ma62866	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ma62866	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-Ma62866	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-Ma62866	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ma62866	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-Ma62866	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Ma62866	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ma62866	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Ma62866	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ma62866	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ma62866	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Fluoride (Total)	M22-Ma62866	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:

Michael Cassidy	Analytical Services Manager
Mary Makarios	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (VIC)
Caitlin Breeze	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: **David Lawson**

Report **875571-L**
Project name **20220330051559-Eurofin-14**
Project ID **JC0927**
Received Date **Mar 30, 2022**

Client Sample ID			SX_IB_202203 29_07_57_SS Primary_EUF	SX_IB_202203 29_08_04_SS Triplicate_EUF	SX_IB_202203 29_11_53_SS Primary_EUF	SX_IB_202203 29_07_57_SS Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma62868	M22-Ma62869	M22-Ma62870	M22-Ma62871
Date Sampled			Mar 29, 2022	Mar 29, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	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	5.0	6.7
pH (off)	0.1	pH Units	5.5	5.4	5.3	9.2
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	%	77	77	78	73
13C5-PFPeA (surr.)	1	%	92	108	108	100
13C5-PFHxA (surr.)	1	%	85	86	88	86
13C4-PFHpA (surr.)	1	%	84	76	74	79
13C8-PFOA (surr.)	1	%	99	83	78	90
13C5-PFNA (surr.)	1	%	78	77	74	81
13C6-PFDA (surr.)	1	%	66	61	70	74
13C2-PFUnDA (surr.)	1	%	55	51	55	58
13C2-PFDoDA (surr.)	1	%	57	39	44	48
13C2-PFTeDA (surr.)	1	%	14	12	15	17
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

Client Sample ID			SX_IB_202203 29_07_57_SS Primary_EUF	SX_IB_202203 29_08_04_SS TriPLICATE_EUF	SX_IB_202203 29_11_53_SS Primary_EUF	SX_IB_202203 29_07_57_SS Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma62868	M22-Ma62869	M22-Ma62870	M22-Ma62871
Date Sampled			Mar 29, 2022	Mar 29, 2022	Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
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	%	71	66	67	75
D3-N-MeFOSA (surr.)	1	%	53	50	74	94
D5-N-EtFOSA (surr.)	1	%	56	55	76	87
D7-N-MeFOSE (surr.)	1	%	53	51	55	62
D9-N-EtFOSE (surr.)	1	%	49	48	51	56
D5-N-EtFOSAA (surr.)	1	%	16	12	17	15
D3-N-MeFOSAA (surr.)	1	%	38	16	19	22
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	%	91	94	90	90
18O2-PFHxS (surr.)	1	%	80	74	69	81
13C8-PFOS (surr.)	1	%	85	69	75	83
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	%	76	72	66	68
13C2-6:2 FTSA (surr.)	1	%	77	66	57	60
13C2-8:2 FTSA (surr.)	1	%	140	143	135	148
13C2-10:2 FTSA (surr.)	1	%	51	44	44	64
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_IB_202203 29_08_04_SS TriPLICATE_EUF	SX_IB_202203 29_11_53_SS Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma62872	M22-Ma62873
Date Sampled			Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit		
AUS Leaching Procedure				
Leachate Fluid ^{C01}		comment	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	6.7	6.7
pH (off)	0.1	pH Units	9.4	9.4
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 (PFTTrDA) ^{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	%	74	73
13C5-PFPeA (surr.)	1	%	106	105
13C5-PFHxA (surr.)	1	%	85	86
13C4-PFHpA (surr.)	1	%	78	78
13C8-PFOA (surr.)	1	%	81	82
13C5-PFNA (surr.)	1	%	74	80
13C6-PFDA (surr.)	1	%	71	62
13C2-PFUnDA (surr.)	1	%	54	56
13C2-PFDoDA (surr.)	1	%	45	45
13C2-PFTeDA (surr.)	1	%	16	15
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	%	70	71
D3-N-MeFOSA (surr.)	1	%	57	79
D5-N-EtFOSA (surr.)	1	%	60	77
D7-N-MeFOSE (surr.)	1	%	56	59
D9-N-EtFOSE (surr.)	1	%	50	53
D5-N-EtFOSAA (surr.)	1	%	15	17
D3-N-MeFOSAA (surr.)	1	%	20	17

Client Sample ID			SX_IB_202203 29_08_04_SS Triplicate_EUF	SX_IB_202203 29_11_53_SS Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ma62872	M22-Ma62873
Date Sampled			Mar 29, 2022	Mar 29, 2022
Test/Reference	LOR	Unit		
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	%	96	91
18O2-PFHxS (surr.)	1	%	80	81
13C8-PFOS (surr.)	1	%	74	77
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	%	70	70
13C2-6:2 FTSA (surr.)	1	%	67	69
13C2-8:2 FTSA (surr.)	1	%	143	140
13C2-10:2 FTSA (surr.)	1	%	56	55
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
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 30, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 30, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Mar 30, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Mar 30, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Mar 30, 2022 12:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	875571	Due:	Apr 6, 2022
Project Name:	20220330051559-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_IB_20220329_07_57_SS_Primary_EUF	Mar 29, 2022	7:57AM	Soil	M22-Ma62865		X	X	X
2	SX_IB_20220329_08_04_SS_Triplicate_EUF	Mar 29, 2022	8:04AM	Soil	M22-Ma62866		X	X	X
3	SX_IB_20220329_11_53_SS_Primary_EUF	Mar 29, 2022	11:53AM	Soil	M22-Ma62867		X	X	X
4	SX_IB_20220329_07_57_SS	Mar 29, 2022	7:57AM	AUS Leachate - pH 5.0	M22-Ma62868	X		X	

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

Order No.:
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Contact Name: Agon Lab Reports (Spoil Project)

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Project ID: JC0927

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	_Primary_EUF								
5	SX_IB_202203 29_08_04_SS _Triplicate_EU F	Mar 29, 2022	8:04AM	AUS Leachate - pH 5.0	M22-Ma62869	X		X	
6	SX_IB_202203 29_11_53_SS _Primary_EUF	Mar 29, 2022	11:53AM	AUS Leachate - pH 5.0	M22-Ma62870	X		X	
7	SX_IB_202203 29_07_57_SS _Primary_EUF	Mar 29, 2022	7:57AM	AUS Leachate - Reagent Water	M22-Ma62871	X		X	
8	SX_IB_202203 29_08_04_SS _Triplicate_EU	Mar 29, 2022	8:04AM	AUS Leachate - Reagent Water	M22-Ma62872	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Mar 30, 2022 12:00 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	875571	Due:	Apr 6, 2022
Project Name:	20220330051559-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
	_Triplicate_EU F			Water					
9	SX_IB_202203 29_11_53_SS _Primary_EUF	Mar 29, 2022	11:53AM	AUS Leachate - Reagent Water	M22-Ma62873	X		X	
Test Counts						6	3	9	3

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 (PFTeDA)	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)	%	90		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	113		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	106		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	106		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	121		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	98		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	128		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	108		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	129		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	121		50-150	Pass	
LCS - % Recovery						

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	100			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	110			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	118			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	103			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	105			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	99			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	107			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA)								
Perfluorobutanesulfonic acid (PFBS)	%	98			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	104			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	120			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	118			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	107			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	123			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	100			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	96			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	128			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	129			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)	%	115			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Duplicate								
Perfluoroalkyl carboxylic acids (PFCA)								
				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ma62869	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances								
				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ma62869	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma62869	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma62869	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma62869	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma62869	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-Ma62869	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma62869	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma62869	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma62869	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma62869	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:

Michael Cassidy	Analytical Services Manager
Mary Makarios	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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Company	AGON Environmental - Tunnel Spoil Testing	Project No	JC0927	Project Manager	Craig Trimbur	Sampler(s)	Hannah - EP Risk LR - EP Risk				
Address	Unit H76, 63-85 Turner St, Port Melbourne VIC 3207	Project Name	WGTP-Tunnel Ref:20220408045057-Euroflin-21	EDD Format	ESdat	Handed over by					
		Email for Invoice: finance@agonenviro.com.au LabReports.TST@agonenviro.com.au									
Contact Name	Craig Trimbur David Lawson	Email for Results: LabReports.TST@agonenviro.com.au agonenviro.com.au motherhublabresults1@wgtp.com.au Amrit.Kaur@agile-analytics.com.au									
Phone No	+61 400 826 907 (Craig) +61 490 411 004 (David)	Containers: Change container type & size if necessary Required Turnaround Time (TAT): Default will be 5 days if not booked									
Special Directions	Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with other sample receipt documentation.	Analyses: Where metals are requested, please specify 'Total' or 'Filtered' SUITE code must be used to attract SUITE pricing. Spoil Sample Preparation Suite WGTP-R1-TPH/PAH/Phenols/CCP/PCB/VOC/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	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA Vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4984, WA Guidelines)	<input type="checkbox"/> Overnight (reporting by 9am) ♦ <input type="checkbox"/> Same day ♦ <input type="checkbox"/> 1 day ♦ <input type="checkbox"/> 2 days ♦ <input type="checkbox"/> 3 days ♦ <input checked="" type="checkbox"/> 5 days (Standard) <input type="checkbox"/> Other()
Purchase Order											
Quote ID No	Agon WGTP TST										

No	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)															Sample Comments / Dangerous Goods Hazard Warning
1	SX_OB_20220407_07_53_SS_Primary_EUF	7/04/22	S	X	X	X	X	X										1
2	SX_OB_20220407_08_02_SS_Triplicate_EUF	7/04/22	S	X	X	X	X	X										1
3	SX_OB_20220407_11_43_SS_Primary_EUF	7/04/22	S	X	X	X	X	X										1
4	SX_OB_20220407_15_36_SB_Blank_EUF	7/04/22	W				X											1
5	SX_OB_20220407_15_37_SR_Rinsate_EUF	7/04/22	W				X											1
6	SX_IB_20220407_15_59_SS_Primary_EUF	7/04/22	S	X	X	X	X	X										1
7	SX_OB_20220407_16_14_SS_Primary_EUF	7/04/22	S	X	X	X	X	X										1
8	SX_OB_20220407_16_15_SS_Duplicate_EUF	7/04/22	S	X	X	X	X	X										1
9	SX_OB_20220407_19_59_SS_Primary_EUF	7/04/22	S	X	X	X	X	X										1
10	SX_OB_20220408_00_11_SS_Primary_EUF	8/04/22	S	X	X	X	X	X										1
11	SX_OB_20220408_04_19_SS_Primary_EUF	8/04/22	S	X	X	X	X	X										1
12																		
13																		
Total Counts				5	9	11	9	9										11

Method of Shipment	<input checked="" type="checkbox"/> Courier (#) <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal	Name	Hannah	Signature		Date	8/4/22	Time		
Laboratory Use Only	Received By: Matthew	SYD BNE MEL PER ADL NTL DRW	Signature		Date	8/4	Time	12.50pm	Temperature	21.7°C
	Received By:	SYD BNE MEL PER ADL NTL DRW	Signature		Date		Time		Report No.	

8/4/22 12:50pm
 Yes/NO
 21.9
 -0.2
 21.7
 878619
 [Signature]



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
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Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
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Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welsphool 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: 20220408045057-Eurofin-21
Project ID: JC0927

Order No.:
Report #: 878619
Phone: 08 8338 1009
Fax:

Received: Apr 8, 2022 12:50 PM
Due: Apr 19, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220407_07_53_S_S_Primary_EU_F	Apr 07, 2022		Soil	M22-Ap0018748		X	X	X
2	SX_OB_20220407_08_02_S_S_Triplicate_EU_F	Apr 07, 2022		Soil	M22-Ap0018749		X	X	X
3	SX_OB_20220407_11_43_S_S_Primary_EU_F	Apr 07, 2022		Soil	M22-Ap0018750		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
4	SX_OB_20220407_15_36_S B_Blank_EUF	Apr 07, 2022		Water	M22-Ap0018751			X	
5	SX_OB_20220407_15_37_S R_Rinsate_EUF	Apr 07, 2022		Water	M22-Ap0018752			X	
6	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018753		X	X	X
7	SX_OB_20220407_16_14_S S_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018754		X	X	X

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
8	SX_OB_20220407_16_15_S_S_Duplicate_EUF	Apr 07, 2022		Soil	M22-Ap0018755		X	X	X
9	SX_OB_20220407_19_59_S_S_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018756		X	X	X
10	SX_OB_20220408_00_11_S_S_Primary_EUF	Apr 08, 2022		Soil	M22-Ap0018757		X	X	X
11	SX_OB_20220408_04_19_S	Apr 08, 2022		Soil	M22-Ap0018758		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 8, 2022 12:50 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878619	Due:	Apr 19, 2022
Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
12	SX_OB_20220 407_07_53_S S_Primary_EU F	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018759	X		X	
13	SX_OB_20220 407_08_02_S S_Triplicate_E UF	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018760	X		X	
14	SX_OB_20220 407_11_43_S S_Primary_EU F	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018761	X		X	

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Due: Apr 19, 2022
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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
15	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018762	X		X	
16	SX_OB_20220407_16_14_S_Primary_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018763	X		X	
17	SX_OB_20220407_16_15_S_S_Duplicate_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018764	X		X	
18	SX_OB_20220407_19_59_S_Primary_EU	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018765	X		X	



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
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Received: Apr 8, 2022 12:50 PM
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Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
19	SX_OB_20220408_00_11_S_S_Primary_EU_F	Apr 08, 2022		AUS Leachate - pH 5.0	M22-Ap0018766	X		X	
20	SX_OB_20220408_04_19_S_S_Primary_EU_F	Apr 08, 2022		AUS Leachate - pH 5.0	M22-Ap0018767	X		X	
21	SX_OB_20220407_07_53_S_S_Primary_EU_F	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018768	X		X	
22	SX_OB_20220	Apr 07, 2022		AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 8, 2022 12:50 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878619	Due:	Apr 19, 2022
Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
22	SX_OB_20220407_08_02_S_S_Triplicate_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018769				
23	SX_OB_20220407_11_43_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018770	X		X	
24	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018771	X		X	
25	SX_OB_20220407_16_14_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018772	X		X	



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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
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Murarrie QLD 4172
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PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

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Project Name: 20220408045057-Eurofin-21
Project ID: JC0927

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Phone: 08 8338 1009
Fax:

Received: Apr 8, 2022 12:50 PM
Due: Apr 19, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
26	SX_OB_20220407_16_15_S_S_Duplicate_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018773	X		X	
27	SX_OB_20220407_19_59_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018774	X		X	
28	SX_OB_20220408_00_11_S_S_Primary_EUF	Apr 08, 2022		AUS Leachate - Reagent Water	M22-Ap0018775	X		X	
29	SX_OB_20220	Apr 08, 2022		AUS Leachate	M22-	X		X	



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Received: Apr 8, 2022 12:50 PM
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Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
29	SX_OB_20220408_04_19_SS_Primary_EUF	Apr 08, 2022		AUS Leachate - Reagent Water	M22-Ap0018776				
Test Counts						18	9	29	9

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: **Agon Lab Reports (Spoil Project)**

Report **878619-S**
Project name **20220408045057-Eurofin-21**
Project ID **JC0927**
Received Date **Apr 08, 2022**

Client Sample ID			SX_OB_20220 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _Triplicate_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF	SX_IB_202204 07_15_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018748	M22- Ap0018749	M22- Ap0018750	M22- Ap0018753
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	22	< 20	21	42
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

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018748	M22- Ap0018749	M22- Ap0018750	M22- Ap0018753
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	%	62	66	77	82
Toluene-d8 (surr.)	1	%	55	60	70	78
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 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _Triplicate_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF	SX_IB_202204 07_15_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018748	M22- Ap0018749	M22- Ap0018750	M22- Ap0018753
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	%	69	68	68	67
p-Terphenyl-d14 (surr.)	1	%	84	71	67	58
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	%	97	96	104	134
Tetrachloro-m-xylene (surr.)	1	%	98	97	103	128

Client Sample ID			SX_OB_20220 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _Triplicate_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF	SX_IB_202204 07_15_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018748	M22- Ap0018749	M22- Ap0018750	M22- Ap0018753
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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
Dibutylchlorendate (surr.)	1	%	97	96	104	134
Tetrachloro-m-xylene (surr.)	1	%	98	97	103	128
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	%	42	38	41	71
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	210	< 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	8.3	8.8	8.8	9.7
% Moisture						
% Moisture	1	%	28	31	35	30
Heavy Metals						
Arsenic	2	mg/kg	32	38	35	22
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	140	170	150	140
Copper	5	mg/kg	65	60	63	69
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _Triplicate_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF	SX_IB_202204 07_15_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018748	M22- Ap0018749	M22- Ap0018750	M22- Ap0018753
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 07, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	210	170	190	180
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	110	100	120
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	%	92	93	94	97
13C5-PFPeA (surr.)	1	%	84	87	88	96
13C5-PFHxA (surr.)	1	%	82	84	85	88
13C4-PFHpA (surr.)	1	%	80	81	80	90
13C8-PFOA (surr.)	1	%	82	90	88	97
13C5-PFNA (surr.)	1	%	80	86	106	88
13C6-PFDA (surr.)	1	%	93	95	92	121
13C2-PFUnDA (surr.)	1	%	130	99	127	136
13C2-PFDoDA (surr.)	1	%	100	97	106	103
13C2-PFTeDA (surr.)	1	%	130	113	118	115
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	%	118	114	116	115
D3-N-MeFOSA (surr.)	1	%	114	101	115	107
D5-N-EtFOSA (surr.)	1	%	123	126	117	125
D7-N-MeFOSE (surr.)	1	%	74	77	85	92
D9-N-EtFOSE (surr.)	1	%	107	96	94	89
D5-N-EtFOSAA (surr.)	1	%	67	115	102	93
D3-N-MeFOSAA (surr.)	1	%	101	74	116	103

Client Sample ID			SX_OB_20220 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _TriPLICATE_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF	SX_IB_202204 07_15_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018748	M22- Ap0018749	M22- Ap0018750	M22- Ap0018753
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	%	99	102	96	100
18O2-PFHxS (surr.)	1	%	96	95	101	90
13C8-PFOS (surr.)	1	%	87	96	98	84
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	%	90	87	87	94
13C2-6:2 FTSA (surr.)	1	%	86	82	84	75
13C2-8:2 FTSA (surr.)	1	%	88	102	90	70
13C2-10:2 FTSA (surr.)	1	%	60	47	60	85
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 407_16_14_SS _Primary_EUF	SX_OB_20220 407_16_15_SS _Duplicate_EU F	SX_OB_20220 407_19_59_SS _Primary_EUF	SX_OB_20220 408_00_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018754	M22- Ap0018755	M22- Ap0018756	M22- Ap0018757
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	27	29	< 20	24
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

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018754	M22- Ap0018755	M22- Ap0018756	M22- Ap0018757
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018754	M22- Ap0018755	M22- Ap0018756	M22- Ap0018757
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 08, 2022
Test/Reference	LOR	Unit				
Volatiles 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	%	57	58	64	71
Toluene-d8 (surr.)	1	%	65	65	57	68
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	%	74	72	99	102
p-Terphenyl-d14 (surr.)	1	%	70	66	65	76

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018754	M22- Ap0018755	M22- Ap0018756	M22- Ap0018757
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	%	106	118	52	105
Tetrachloro-m-xylene (surr.)	1	%	88	138	139	129
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	%	106	118	52	105
Tetrachloro-m-xylene (surr.)	1	%	88	138	139	129
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- Ap0018754	M22- Ap0018755	M22- Ap0018756	M22- Ap0018757
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	%	80	87	77	69
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	9.2	8.8	8.8	8.8
% Moisture						
% Moisture	1	%	32	33	28	27
Heavy Metals						
Arsenic	2	mg/kg	36	35	32	33
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	160	130	140	130
Copper	5	mg/kg	62	61	65	56
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	180	180	200	180
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	110	110	110	100
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	%	99	90	90	92
13C5-PFPeA (surr.)	1	%	97	76	83	89
13C5-PFHxA (surr.)	1	%	90	79	81	80

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018754	M22- Ap0018755	M22- Ap0018756	M22- Ap0018757
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 08, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	89	79	79	79
13C8-PFOA (surr.)	1	%	103	77	76	74
13C5-PFNA (surr.)	1	%	89	80	91	86
13C6-PFDA (surr.)	1	%	109	90	88	99
13C2-PFUnDA (surr.)	1	%	111	97	102	95
13C2-PFDoDA (surr.)	1	%	97	84	81	81
13C2-PFTeDA (surr.)	1	%	98	80	80	76
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	%	116	97	94	98
D3-N-MeFOSA (surr.)	1	%	110	105	94	94
D5-N-EtFOSA (surr.)	1	%	118	106	118	117
D7-N-MeFOSE (surr.)	1	%	82	72	90	74
D9-N-EtFOSE (surr.)	1	%	89	76	81	89
D5-N-EtFOSAA (surr.)	1	%	95	71	71	87
D3-N-MeFOSAA (surr.)	1	%	76	89	85	95
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	%	103	87	95	83
18O2-PFHxS (surr.)	1	%	102	86	84	99
13C8-PFOS (surr.)	1	%	78	68	90	64
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	%	94	88	84	99
13C2-6:2 FTSA (surr.)	1	%	78	87	82	96

Client Sample ID			SX_OB_20220 407_16_14_SS _Primary_EUF	SX_OB_20220 407_16_15_SS _Duplicate_EU F	SX_OB_20220 407_19_59_SS _Primary_EUF	SX_OB_20220 408_00_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0018754	M22- Ap0018755	M22- Ap0018756	M22- Ap0018757
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 08, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-8:2 FTSA (surr.)	1	%	102	87	84	70
13C2-10:2 FTSA (surr.)	1	%	73	37	72	81
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 408_04_19_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0018758
Date Sampled			Apr 08, 2022
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	24
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
Volatile Organics			
Hexachlorobutadiene	0.5	mg/kg	< 0.5
Volatile Organics			
1.1-Dichloroethane	0.5	mg/kg	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5
1.1-Dichloroethane	0.5	mg/kg	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5

Client Sample ID			SX_OB_20220 408_04_19_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0018758
Date Sampled			Apr 08, 2022
Test/Reference	LOR	Unit	
Volatile Organics			
1,3-Dichlorobenzene	0.5	mg/kg	< 0.5
1,3-Dichloropropane	0.5	mg/kg	< 0.5
1,3,5-Trimethylbenzene	0.5	mg/kg	< 0.5
1,4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5
Benzene	0.1	mg/kg	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5
Bromoform	0.5	mg/kg	< 0.5
Bromomethane	0.5	mg/kg	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5
Chloroethane	0.5	mg/kg	< 0.5
Chloroform	0.5	mg/kg	< 0.5
Chloromethane	0.5	mg/kg	< 0.5
cis-1,2-Dichloroethene	0.5	mg/kg	< 0.5
cis-1,3-Dichloropropene	0.5	mg/kg	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1
Iodomethane	0.5	mg/kg	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5
o-Xylene	0.1	mg/kg	< 0.1
Styrene	0.5	mg/kg	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5
Toluene	0.1	mg/kg	< 0.1
trans-1,2-Dichloroethene	0.5	mg/kg	< 0.5
trans-1,3-Dichloropropene	0.5	mg/kg	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3
Total MAH*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5
4-Bromofluorobenzene (surr.)	1	%	78
Toluene-d8 (surr.)	1	%	74

Client Sample ID			SX_OB_20220 408_04_19_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0018758
Date Sampled			Apr 08, 2022
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	92
p-Terphenyl-d14 (surr.)	1	%	76
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05
a-HCH	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-HCH	0.05	mg/kg	< 0.05
d-HCH	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.5	mg/kg	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1

Client Sample ID			SX_OB_20220 408_04_19_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0018758
Date Sampled			Apr 08, 2022
Test/Reference	LOR	Unit	
Organochlorine Pesticides			
Dibutylchlorendate (surr.)	1	%	110
Tetrachloro-m-xylene (surr.)	1	%	123
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	110
Tetrachloro-m-xylene (surr.)	1	%	123
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1
Pentachlorophenol	1	mg/kg	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10
Total Halogenated Phenol*	1	mg/kg	< 1
Phenols (non-Halogenated)			
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5
2-Nitrophenol	1.0	mg/kg	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
Total cresols*	0.5	mg/kg	< 0.5
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Phenol-d6 (surr.)	1	%	69
Total Non-Halogenated Phenol*	20	mg/kg	< 20
Chromium (hexavalent)			
Chromium (hexavalent)	1	mg/kg	< 1
Cyanide (total)	5	mg/kg	< 5
Fluoride (Total)	100	mg/kg	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	9.1
% Moisture	1	%	28

Client Sample ID			SX_OB_20220 408_04_19_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0018758
Date Sampled			Apr 08, 2022
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic	2	mg/kg	36
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	150
Copper	5	mg/kg	66
Lead	5	mg/kg	< 5
Mercury	0.1	mg/kg	< 0.1
Molybdenum	5	mg/kg	< 5
Nickel	5	mg/kg	200
Selenium	2	mg/kg	< 2
Silver	2	mg/kg	< 2
Tin	10	mg/kg	< 10
Zinc	5	mg/kg	120
Perfluoroalkyl carboxylic acids (PFCAs)			
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5
Perfluorotridecanoic acid (PFTeDA) ^{N15}	5	ug/kg	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5
13C4-PFBA (surr.)	1	%	91
13C5-PFPeA (surr.)	1	%	88
13C5-PFHxA (surr.)	1	%	81
13C4-PFHpA (surr.)	1	%	78
13C8-PFOA (surr.)	1	%	88
13C5-PFNA (surr.)	1	%	81
13C6-PFDA (surr.)	1	%	83
13C2-PFUnDA (surr.)	1	%	97
13C2-PFDoDA (surr.)	1	%	85
13C2-PFTeDA (surr.)	1	%	86
Perfluoroalkyl sulfonamido substances			
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10
13C8-FOSA (surr.)	1	%	103
D3-N-MeFOSA (surr.)	1	%	94

Client Sample ID			SX_OB_20220 408_04_19_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0018758
Date Sampled			Apr 08, 2022
Test/Reference	LOR	Unit	
Perfluoroalkyl sulfonamido substances			
D5-N-EtFOSA (surr.)	1	%	107
D7-N-MeFOSE (surr.)	1	%	78
D9-N-EtFOSE (surr.)	1	%	90
D5-N-EtFOSAA (surr.)	1	%	96
D3-N-MeFOSAA (surr.)	1	%	104
Perfluoroalkyl sulfonic acids (PFASs)			
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5
13C3-PFBS (surr.)	1	%	92
18O2-PFHxS (surr.)	1	%	83
13C8-PFOS (surr.)	1	%	82
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5
13C2-4:2 FTSA (surr.)	1	%	87
13C2-6:2 FTSA (surr.)	1	%	93
13C2-8:2 FTSA (surr.)	1	%	76
13C2-10:2 FTSA (surr.)	1	%	99
PFASs Summations			
Sum (PFHxS + PFOS)*	5	ug/kg	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 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	Apr 09, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 09, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 09, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Apr 09, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Apr 09, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 09, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Apr 09, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Apr 09, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 09, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 09, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	Apr 09, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Apr 11, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	Apr 09, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Apr 09, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Apr 09, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Apr 08, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 08, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 8, 2022 12:50 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878619	Due:	Apr 19, 2022
Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220407_07_53_S_S_Primary_EU_F	Apr 07, 2022		Soil	M22-Ap0018748		X	X	X
2	SX_OB_20220407_08_02_S_S_Triplicate_EUF	Apr 07, 2022		Soil	M22-Ap0018749		X	X	X
3	SX_OB_20220407_11_43_S_S_Primary_EU_F	Apr 07, 2022		Soil	M22-Ap0018750		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
4	SX_OB_20220407_15_36_S B_Blank_EUF	Apr 07, 2022		Water	M22-Ap0018751			X	
5	SX_OB_20220407_15_37_S R_Rinsate_EUF	Apr 07, 2022		Water	M22-Ap0018752			X	
6	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018753		X	X	X
7	SX_OB_20220407_16_14_S S_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018754		X	X	X

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
8	SX_OB_20220 407_16_15_S S_Duplicate_E UF	Apr 07, 2022		Soil	M22- Ap0018755		X	X	X
9	SX_OB_20220 407_19_59_S S_Primary_EU F	Apr 07, 2022		Soil	M22- Ap0018756		X	X	X
10	SX_OB_20220 408_00_11_S S_Primary_EU F	Apr 08, 2022		Soil	M22- Ap0018757		X	X	X
11	SX_OB_20220 408_04_19_S	Apr 08, 2022		Soil	M22- Ap0018758		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 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
12	SX_OB_20220 407_07_53_S S_Primary_EU F	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018759	X		X	
13	SX_OB_20220 407_08_02_S S_Triplicate_E UF	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018760	X		X	
14	SX_OB_20220 407_11_43_S S_Primary_EU F	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018761	X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
15	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018762	X		X	
16	SX_OB_20220407_16_14_S_Primary_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018763	X		X	
17	SX_OB_20220407_16_15_S_Duplicate_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018764	X		X	
18	SX_OB_20220407_19_59_S_Primary_EU	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018765	X		X	

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
19	SX_OB_20220408_00_11_S_S_Primary_EU_F	Apr 08, 2022		AUS Leachate - pH 5.0	M22-Ap0018766	X		X	
20	SX_OB_20220408_04_19_S_S_Primary_EU_F	Apr 08, 2022		AUS Leachate - pH 5.0	M22-Ap0018767	X		X	
21	SX_OB_20220407_07_53_S_S_Primary_EU_F	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018768	X		X	
22	SX_OB_20220	Apr 07, 2022		AUS Leachate	M22-	X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
22	SX_OB_20220407_08_02_S_S_Triplicate_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018769				
23	SX_OB_20220407_11_43_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018770	X		X	
24	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018771	X		X	
25	SX_OB_20220407_16_14_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018772	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	F								
26	SX_OB_20220407_16_15_S_S_Duplicate_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018773	X		X	
27	SX_OB_20220407_19_59_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018774	X		X	
28	SX_OB_20220408_00_11_S_S_Primary_EUF	Apr 08, 2022		AUS Leachate - Reagent Water	M22-Ap0018775	X		X	
29	SX_OB_20220	Apr 08, 2022		AUS Leachate	M22-	X		X	

ABN: 50 005 085 521

ABN: 91 05 0159 898

NZBN: 9429046024954

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

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

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

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
29	SX_OB_20220408_04_19_SS_Primary_EUF	Apr 08, 2022		AUS Leachate - Reagent Water	M22-Ap0018776				
Test Counts						18	9	29	9

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	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5		5	Pass	
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	%	117		70-130	Pass	
TRH C10-C14	%	73		70-130	Pass	
Naphthalene	%	117		70-130	Pass	
TRH C6-C10	%	115		70-130	Pass	
TRH >C10-C16	%	74		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	104		70-130	Pass	
1.1.1-Trichloroethane	%	91		70-130	Pass	
1.2-Dichlorobenzene	%	117		70-130	Pass	
1.2-Dichloroethane	%	117		70-130	Pass	
Benzene	%	112		70-130	Pass	
Ethylbenzene	%	122		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	118			70-130	Pass	
Toluene	%	121			70-130	Pass	
Trichloroethene	%	91			70-130	Pass	
Xylenes - Total*	%	117			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	86			70-130	Pass	
Acenaphthylene	%	99			70-130	Pass	
Anthracene	%	97			70-130	Pass	
Benz(a)anthracene	%	82			70-130	Pass	
Benzo(a)pyrene	%	95			70-130	Pass	
Benzo(b&i)fluoranthene	%	88			70-130	Pass	
Benzo(g,h,i)perylene	%	77			70-130	Pass	
Benzo(k)fluoranthene	%	88			70-130	Pass	
Chrysene	%	82			70-130	Pass	
Dibenz(a,h)anthracene	%	101			70-130	Pass	
Fluoranthene	%	113			70-130	Pass	
Fluorene	%	99			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	97			70-130	Pass	
Naphthalene	%	84			70-130	Pass	
Phenanthrene	%	90			70-130	Pass	
Pyrene	%	107			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	90			70-130	Pass	
4,4'-DDD	%	91			70-130	Pass	
4,4'-DDE	%	85			70-130	Pass	
4,4'-DDT	%	95			70-130	Pass	
a-HCH	%	104			70-130	Pass	
Aldrin	%	73			70-130	Pass	
b-HCH	%	83			70-130	Pass	
d-HCH	%	104			70-130	Pass	
Dieldrin	%	75			70-130	Pass	
Endosulfan I	%	105			70-130	Pass	
Endosulfan II	%	87			70-130	Pass	
Endosulfan sulphate	%	82			70-130	Pass	
Endrin	%	81			70-130	Pass	
Endrin aldehyde	%	123			70-130	Pass	
Endrin ketone	%	77			70-130	Pass	
g-HCH (Lindane)	%	76			70-130	Pass	
Heptachlor	%	74			70-130	Pass	
Heptachlor epoxide	%	93			70-130	Pass	
Hexachlorobenzene	%	102			70-130	Pass	
Methoxychlor	%	103			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	110			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	82			25-140	Pass	
2,4-Dichlorophenol	%	78			25-140	Pass	
2,4,5-Trichlorophenol	%	78			25-140	Pass	
2,4,6-Trichlorophenol	%	81			25-140	Pass	
2,6-Dichlorophenol	%	78			25-140	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	68		25-140	Pass	
Pentachlorophenol	%	88		25-140	Pass	
Tetrachlorophenols - Total	%	50		25-140	Pass	
LCS - % Recovery						
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	%	51		25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	67		25-140	Pass	
2-Nitrophenol	%	79		25-140	Pass	
2,4-Dimethylphenol	%	83		25-140	Pass	
2,4-Dinitrophenol	%	59		25-140	Pass	
2-Methylphenol (o-Cresol)	%	97		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	72		25-140	Pass	
4-Nitrophenol	%	78		25-140	Pass	
Dinoseb	%	78		25-140	Pass	
Phenol	%	92		25-140	Pass	
LCS - % Recovery						
Chromium (hexavalent)	%	93		70-130	Pass	
Cyanide (total)	%	109		70-130	Pass	
Fluoride (Total)	%	74		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	108		80-120	Pass	
Cadmium	%	108		80-120	Pass	
Chromium	%	107		80-120	Pass	
Copper	%	106		80-120	Pass	
Lead	%	113		80-120	Pass	
Mercury	%	110		80-120	Pass	
Molybdenum	%	112		80-120	Pass	
Nickel	%	105		80-120	Pass	
Selenium	%	107		80-120	Pass	
Silver	%	114		80-120	Pass	
Tin	%	111		80-120	Pass	
Zinc	%	104		80-120	Pass	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	85		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	88		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	87		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	95		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	95		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	93		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	81		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	103		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	93		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	105		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	99		50-150	Pass	
LCS - % Recovery						
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)	%	89		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	96		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	90		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	89		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	98		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	67		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	104			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	87			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	72			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	108			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	109			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	104			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	78			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	83			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	90			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	92			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	101			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	116			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	82			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-Ap0020273	NCP	%	117		70-130	Pass	
TRH C10-C14	M22-Ap0012828	NCP	%	98		70-130	Pass	
Naphthalene	M22-Ap0020273	NCP	%	117		70-130	Pass	
TRH C6-C10	M22-Ap0020273	NCP	%	115		70-130	Pass	
TRH >C10-C16	M22-Ap0012828	NCP	%	99		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	M22-Ap0020273	NCP	%	94		70-130	Pass	
1.1.1-Trichloroethane	M22-Ap0020273	NCP	%	83		70-130	Pass	
1.2-Dichlorobenzene	M22-Ap0020273	NCP	%	117		70-130	Pass	
1.2-Dichloroethane	M22-Ap0020273	NCP	%	108		70-130	Pass	
Benzene	M22-Ap0020273	NCP	%	102		70-130	Pass	
Ethylbenzene	M22-Ap0020273	NCP	%	122		70-130	Pass	
m&p-Xylenes	M22-Ap0020273	NCP	%	118		70-130	Pass	
o-Xylene	M22-Ap0020273	NCP	%	115		70-130	Pass	
Toluene	M22-Ap0020273	NCP	%	108		70-130	Pass	
Trichloroethene	M22-Ap0020273	NCP	%	81		70-130	Pass	
Xylenes - Total*	M22-Ap0020273	NCP	%	117		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-Ap0014866	NCP	%	72		70-130	Pass	
Acenaphthylene	M22-Ap0014866	NCP	%	96		70-130	Pass	
Anthracene	M22-Ap0014866	NCP	%	95		70-130	Pass	
Benz(a)anthracene	M22-Ap0014866	NCP	%	81		70-130	Pass	
Benzo(a)pyrene	M22-Ap0014866	NCP	%	93		70-130	Pass	
Benzo(b&j)fluoranthene	M22-Ap0014866	NCP	%	87		70-130	Pass	
Benzo(g,h,i)perylene	M22-Ap0014866	NCP	%	82		70-130	Pass	
Benzo(k)fluoranthene	M22-Ap0014866	NCP	%	88		70-130	Pass	
Chrysene	M22-Ap0014866	NCP	%	78		70-130	Pass	
Dibenz(a,h)anthracene	M22-Ap0014866	NCP	%	103		70-130	Pass	
Fluoranthene	M22-Ap0014866	NCP	%	100		70-130	Pass	
Fluorene	M22-Ap0014866	NCP	%	95		70-130	Pass	
Indeno(1.2.3-cd)pyrene	M22-Ap0014866	NCP	%	104		70-130	Pass	
Naphthalene	M22-Ap0014866	NCP	%	83		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Phenanthrene	M22-Ap0014866	NCP	%	82		70-130	Pass	
Pyrene	M22-Ap0014866	NCP	%	99		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-Ap0011674	NCP	%	91		70-130	Pass	
4.4'-DDD	M22-Ap0011674	NCP	%	74		70-130	Pass	
4.4'-DDE	M22-Ap0011674	NCP	%	106		70-130	Pass	
4.4'-DDT	M22-Ap0011674	NCP	%	99		70-130	Pass	
a-HCH	M22-Ap0011674	NCP	%	93		70-130	Pass	
Aldrin	M22-Ap0011674	NCP	%	123		70-130	Pass	
b-HCH	M22-Ap0011674	NCP	%	82		70-130	Pass	
d-HCH	M22-Ap0011674	NCP	%	103		70-130	Pass	
Dieldrin	M22-Ap0011674	NCP	%	102		70-130	Pass	
Endosulfan I	M22-Ap0011674	NCP	%	94		70-130	Pass	
Endosulfan II	M22-Ap0011674	NCP	%	89		70-130	Pass	
Endosulfan sulphate	M22-Ap0011674	NCP	%	99		70-130	Pass	
Endrin	M22-Ap0011674	NCP	%	97		70-130	Pass	
Endrin aldehyde	M22-Ap0011674	NCP	%	105		70-130	Pass	
Endrin ketone	M22-Ap0011674	NCP	%	74		70-130	Pass	
g-HCH (Lindane)	M22-Ap0011674	NCP	%	91		70-130	Pass	
Heptachlor	M22-Ap0011674	NCP	%	82		70-130	Pass	
Heptachlor epoxide	M22-Ap0011674	NCP	%	87		70-130	Pass	
Hexachlorobenzene	M22-Ap0011674	NCP	%	85		70-130	Pass	
Methoxychlor	M22-Ap0011674	NCP	%	96		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	M22-Ap0005702	NCP	%	123		70-130	Pass	
Aroclor-1260	M22-Ap0005702	NCP	%	90		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-Ap0014866	NCP	%	74		30-130	Pass	
2,4-Dichlorophenol	M22-Ap0014866	NCP	%	68		30-130	Pass	
2,4,5-Trichlorophenol	M22-Ap0014866	NCP	%	80		30-130	Pass	
2,4,6-Trichlorophenol	M22-Ap0014866	NCP	%	77		30-130	Pass	
2,6-Dichlorophenol	M22-Ap0014866	NCP	%	75		30-130	Pass	
4-Chloro-3-methylphenol	M22-Ap0014866	NCP	%	65		30-130	Pass	
Pentachlorophenol	M22-Ap0014866	NCP	%	78		30-130	Pass	
Tetrachlorophenols - Total	M22-Ap0014866	NCP	%	42		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-Ap0014866	NCP	%	62		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-Ap0014866	NCP	%	64		30-130	Pass	
2-Nitrophenol	M22-Ap0014866	NCP	%	74		30-130	Pass	
2,4-Dimethylphenol	M22-Ap0014866	NCP	%	83		30-130	Pass	
2,4-Dinitrophenol	M22-Ap0014866	NCP	%	57		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Ap0014866	NCP	%	62		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Ap0014866	NCP	%	70		30-130	Pass	
4-Nitrophenol	M22-Ap0014866	NCP	%	69		30-130	Pass	
Dinoseb	M22-Ap0014866	NCP	%	72		30-130	Pass	
Phenol	M22-Ap0014866	NCP	%	56		30-130	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-Ap0014867	NCP	%	68		70-130	Fail	Q08
Cyanide (total)	M22-Ma60375	NCP	%	73		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-Ap0019361	NCP	%	105		75-125	Pass	
Cadmium	M22-Ap0019361	NCP	%	114		75-125	Pass	
Chromium	M22-Ap0019361	NCP	%	121		75-125	Pass	
Copper	M22-Ap0019361	NCP	%	116		75-125	Pass	
Lead	M22-Ap0019361	NCP	%	107		75-125	Pass	
Mercury	M22-Ap0019361	NCP	%	113		75-125	Pass	
Molybdenum	M22-Ap0019361	NCP	%	117		75-125	Pass	
Nickel	M22-Ap0019361	NCP	%	107		75-125	Pass	
Selenium	M22-Ap0019361	NCP	%	102		75-125	Pass	
Silver	M22-Ap0019361	NCP	%	116		75-125	Pass	
Tin	M22-Ap0019361	NCP	%	122		75-125	Pass	
Zinc	M22-Ap0019361	NCP	%	80		75-125	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Ap0016379	NCP	%	92		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0016379	NCP	%	104		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0016379	NCP	%	91		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0016379	NCP	%	91		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0016379	NCP	%	97		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0016379	NCP	%	114		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0016379	NCP	%	93		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0016379	NCP	%	110		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0016379	NCP	%	98		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0016379	NCP	%	101		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0016379	NCP	%	111		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Ap0016379	NCP	%	92		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0016379	NCP	%	92		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0016379	NCP	%	84		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0016379	NCP	%	94		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0016379	NCP	%	107		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0016379	NCP	%	85		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0016379	NCP	%	107		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0016379	NCP	%	87		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ap0016379	NCP	%	121		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0016379	NCP	%	112		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0016379	NCP	%	88		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0016379	NCP	%	85			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0016379	NCP	%	64			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0016379	NCP	%	112			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0016379	NCP	%	129			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-Ap0016379	NCP	%	96			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0016379	NCP	%	110			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0016379	NCP	%	138			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0016379	NCP	%	103			50-150	Pass	
Spike - % Recovery									
Fluoride (Total)	M22-Ap0016623	NCP	%	73			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 C6-C9	M22-Ap0020272	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M22-Ap0012836	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-Ap0012836	NCP	mg/kg	64	84	27	30%	Pass	
TRH C29-C36	M22-Ap0012836	NCP	mg/kg	140	170	20	30%	Pass	
Naphthalene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-Ap0020272	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M22-Ap0012836	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-Ap0012836	NCP	mg/kg	150	200	25	30%	Pass	
TRH >C34-C40	M22-Ap0012836	NCP	mg/kg	130	140	13	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1,4-Dichlorobenzene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-Ap0020272	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,2-Dichloroethene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,3-Dichloropropene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-Ap0020272	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-Ap0020272	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-Ap0020272	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-Ap0020272	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1,2-Dichloroethene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-Ap0020272	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-Ap0020272	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Phenanthrene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ap0014863	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ap0014863	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ap0014863	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ap0014863	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ap0014863	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ap0014863	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ap0014863	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ap0014863	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ap0014863	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ap0014863	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dichlorophenol	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4.5-Trichlorophenol	M22-Ap0014863	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4.6-Trichlorophenol	M22-Ap0014863	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.6-Dichlorophenol	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ap0014863	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ap0014863	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ap0014863	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4.6-dinitrophenol	M22-Ap0014863	NCP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4.6-dinitrophenol	M22-Ap0014863	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ap0014863	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4-Dimethylphenol	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dinitrophenol	M22-Ap0014863	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Ap0014863	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ap0014863	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass

Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
4-Nitrophenol	M22-Ap0014863	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ap0014863	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ap0014863	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-Ma60374	NCP	mg/kg	< 5	< 5	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Ap0012995	NCP	pH Units	6.6	6.7	pass	30%	Pass
% Moisture	M22-Ap0017888	NCP	%	2.8	3.0	9.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-Ap0019186	NCP	mg/kg	42	43	4.0	30%	Pass
Cadmium	M22-Ap0019186	NCP	mg/kg	0.6	0.6	7.0	30%	Pass
Chromium	M22-Ap0019186	NCP	mg/kg	41	42	5.0	30%	Pass
Copper	M22-Ap0019186	NCP	mg/kg	200	210	4.0	30%	Pass
Lead	M22-Ap0019186	NCP	mg/kg	740	770	4.0	30%	Pass
Mercury	M22-Ap0019200	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-Ap0019186	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-Ap0019186	NCP	mg/kg	50	52	4.0	30%	Pass
Selenium	M22-Ap0019186	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-Ap0019186	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-Ap0019186	NCP	mg/kg	50	51	3.0	30%	Pass
Zinc	M22-Ap0019186	NCP	mg/kg	620	650	5.0	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0016364	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0016364	NCP	ug/kg	< 10	< 10	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0016364	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-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0016364	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0016364	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ap0018758	CP	mg/kg	< 1	< 1	<1	30%	Pass
Fluoride (Total)	M22-Ap0018758	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.

Authorised by:

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst (VIC)
Mary Makarios	Senior Analyst (NSW)
Mele Singh	Senior Analyst (VIC)
Edward Lee	Senior Analyst (VIC)
Alex Petridis	Senior Analyst (NSW)
Scott Beddoes	Senior Analyst (NSW)
Harry Bacalis	Senior Analyst (NSW)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: **Agon Lab Reports (Spoil Project)**

Report **878619-L**
Project name **20220408045057-Eurofin-21**
Project ID **JC0927**
Received Date **Apr 08, 2022**

Client Sample ID			SX_OB_20220 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _Triplicate_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF	SX_IB_202204 07_15_59_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- Ap0018759	M22- Ap0018760	M22- Ap0018761	M22- Ap0018762
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.1	5.1	5.1	5.2
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	%	78	81	81	82
13C5-PFPeA (surr.)	1	%	83	94	94	96
13C5-PFHxA (surr.)	1	%	77	82	80	84
13C4-PFHpA (surr.)	1	%	78	92	83	91
13C8-PFOA (surr.)	1	%	93	90	101	110
13C5-PFNA (surr.)	1	%	81	87	92	88
13C6-PFDA (surr.)	1	%	79	78	75	80
13C2-PFUnDA (surr.)	1	%	70	70	78	80
13C2-PFDoDA (surr.)	1	%	115	92	115	109
13C2-PFTTeDA (surr.)	1	%	99	70	81	80

Client Sample ID			SX_OB_20220 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _Triplicate_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF	SX_IB_202204 07_15_59_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- Ap0018759	M22- Ap0018760	M22- Ap0018761	M22- Ap0018762
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	%	117	110	130	120
D3-N-MeFOSA (surr.)	1	%	150	63	125	69
D5-N-EtFOSA (surr.)	1	%	157	60	133	63
D7-N-MeFOSE (surr.)	1	%	77	65	76	70
D9-N-EtFOSE (surr.)	1	%	142	114	136	124
D5-N-EtFOSAA (surr.)	1	%	64	50	60	69
D3-N-MeFOSAA (surr.)	1	%	64	49	57	63
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	%	81	89	90	91
18O2-PFHxS (surr.)	1	%	94	89	88	94
13C8-PFOS (surr.)	1	%	85	77	91	90
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	%	62	79	57	77
13C2-6:2 FTSA (surr.)	1	%	103	97	77	112
13C2-8:2 FTSA (surr.)	1	%	79	119	109	138
13C2-10:2 FTSA (surr.)	1	%	70	88	76	104
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 407_16_14_SS _Primary_EUF	SX_OB_20220 407_16_15_SS _Duplicate_EU F	SX_OB_20220 407_19_59_SS _Primary_EUF	SX_OB_20220 408_00_11_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- Ap0018763	M22- Ap0018764	M22- Ap0018765	M22- Ap0018766
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.0	5.0	5.0	5.0
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	%	84	86	78	78
13C5-PFPeA (surr.)	1	%	95	101	95	86
13C5-PFHxA (surr.)	1	%	84	87	78	72
13C4-PFHpA (surr.)	1	%	90	93	80	88
13C8-PFOA (surr.)	1	%	96	96	94	76
13C5-PFNA (surr.)	1	%	84	89	78	82
13C6-PFDA (surr.)	1	%	76	80	72	67
13C2-PFUnDA (surr.)	1	%	63	60	69	70
13C2-PFDoDA (surr.)	1	%	83	86	100	116
13C2-PFTTeDA (surr.)	1	%	57	57	87	93
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	%	118	118	117	115
D3-N-MeFOSA (surr.)	1	%	99	97	114	117
D5-N-EtFOSA (surr.)	1	%	95	94	141	128
D7-N-MeFOSE (surr.)	1	%	75	75	70	76
D9-N-EtFOSE (surr.)	1	%	131	132	124	125
D5-N-EtFOSAA (surr.)	1	%	46	55	68	74
D3-N-MeFOSAA (surr.)	1	%	60	55	59	59

Client Sample ID			SX_OB_20220 407_16_14_SS _Primary_EUF	SX_OB_20220 407_16_15_SS _Duplicate_EU F	SX_OB_20220 407_19_59_SS _Primary_EUF	SX_OB_20220 408_00_11_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- Ap0018763	M22- Ap0018764	M22- Ap0018765	M22- Ap0018766
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	%	92	83	83	37
18O2-PFHxS (surr.)	1	%	91	101	91	89
13C8-PFOS (surr.)	1	%	80	78	82	80
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	%	74	84	58	67
13C2-6:2 FTSA (surr.)	1	%	99	113	88	121
13C2-8:2 FTSA (surr.)	1	%	131	126	83	90
13C2-10:2 FTSA (surr.)	1	%	76	109	91	95
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 408_04_19_SS _Primary_EUF	SX_OB_20220 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _Triplicate_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0018767	M22- Ap0018768	M22- Ap0018769	M22- Ap0018770
Date Sampled			Apr 08, 2022	Apr 07, 2022	Apr 07, 2022	Apr 07, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	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	5.0	6.4	6.4	6.4
pH (off)	0.1	pH Units	5.1	8.0	8.8	8.7

Client Sample ID			SX_OB_20220 408_04_19_SS _Primary_EUF	SX_OB_20220 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _Triplicate_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0018767	M22- Ap0018768	M22- Ap0018769	M22- Ap0018770
Date Sampled			Apr 08, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	70	48	76
13C5-PFPeA (surr.)	1	%	92	76	52	89
13C5-PFHxA (surr.)	1	%	83	75	56	81
13C4-PFHpA (surr.)	1	%	84	79	62	87
13C8-PFOA (surr.)	1	%	94	78	75	107
13C5-PFNA (surr.)	1	%	85	75	60	86
13C6-PFDA (surr.)	1	%	68	72	67	81
13C2-PFUnDA (surr.)	1	%	60	75	68	84
13C2-PFDoDA (surr.)	1	%	82	101	97	105
13C2-PFTeDA (surr.)	1	%	65	59	66	51
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	98	90	114
D3-N-MeFOSA (surr.)	1	%	74	65	68	82
D5-N-EtFOSA (surr.)	1	%	68	60	62	70
D7-N-MeFOSE (surr.)	1	%	61	56	60	64
D9-N-EtFOSE (surr.)	1	%	113	95	109	105
D5-N-EtFOSAA (surr.)	1	%	56	75	95	81
D3-N-MeFOSAA (surr.)	1	%	54	65	77	68
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 408_04_19_SS _Primary_EUF	SX_OB_20220 407_07_53_SS _Primary_EUF	SX_OB_20220 407_08_02_SS _Triplicate_EU F	SX_OB_20220 407_11_43_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0018767	M22- Ap0018768	M22- Ap0018769	M22- Ap0018770
Date Sampled			Apr 08, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	%	89	79	71	92
18O2-PFHxS (surr.)	1	%	89	88	68	92
13C8-PFOS (surr.)	1	%	71	87	71	95
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	%	63	60	49	57
13C2-6:2 FTSA (surr.)	1	%	84	84	55	86
13C2-8:2 FTSA (surr.)	1	%	106	136	112	143
13C2-10:2 FTSA (surr.)	1	%	68	64	87	81
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_IB_202204 07_15_59_SS _Primary_EUF	SX_OB_20220 407_16_14_SS _Primary_EUF	SX_OB_20220 407_16_15_SS _Duplicate_EU F	SX_OB_20220 407_19_59_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- Ap0018771	M22- Ap0018772	M22- Ap0018773	M22- Ap0018774
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	6.4	6.4	6.4	6.4
pH (off)	0.1	pH Units	9.4	9.1	8.9	8.8
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_IB_202204_07_15_59_SS_Primary_EUF	SX_OB_202204_07_16_14_SS_Primary_EUF	SX_OB_202204_07_16_15_SS_Duplicate_EUF	SX_OB_202204_07_19_59_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-Ap0018771	M22-Ap0018772	M22-Ap0018773	M22-Ap0018774
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 07, 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	%	69	76	65	74
13C5-PFPeA (surr.)	1	%	81	88	72	80
13C5-PFHxA (surr.)	1	%	73	80	68	74
13C4-PFHpA (surr.)	1	%	79	84	74	82
13C8-PFOA (surr.)	1	%	98	93	82	92
13C5-PFNA (surr.)	1	%	77	83	70	79
13C6-PFDA (surr.)	1	%	83	89	75	85
13C2-PFUnDA (surr.)	1	%	79	83	79	76
13C2-PFDoDA (surr.)	1	%	104	109	114	109
13C2-PFTeDA (surr.)	1	%	70	67	78	74
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	%	109	109	109	104
D3-N-MeFOSA (surr.)	1	%	90	69	80	76
D5-N-EtFOSA (surr.)	1	%	75	62	70	66
D7-N-MeFOSE (surr.)	1	%	67	60	57	61
D9-N-EtFOSE (surr.)	1	%	116	102	104	106
D5-N-EtFOSAA (surr.)	1	%	83	81	88	95
D3-N-MeFOSAA (surr.)	1	%	62	82	86	77
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	%	87	88	82	80
18O2-PFHxS (surr.)	1	%	87	98	93	92
13C8-PFOS (surr.)	1	%	99	92	92	83

Client Sample ID			SX_IB_202204_07_15_59_SS_Primary_EUF	SX_OB_20220407_16_14_SS_Primary_EUF	SX_OB_20220407_16_15_SS_Duplicate_EUF	SX_OB_20220407_19_59_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-Ap0018771	M22-Ap0018772	M22-Ap0018773	M22-Ap0018774
Date Sampled			Apr 07, 2022	Apr 07, 2022	Apr 07, 2022	Apr 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	%	50	67	53	44
13C2-6:2 FTSA (surr.)	1	%	84	87	67	67
13C2-8:2 FTSA (surr.)	1	%	143	145	130	117
13C2-10:2 FTSA (surr.)	1	%	87	74	90	93
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_20220408_00_11_SS_Primary_EUF	SX_OB_20220408_04_19_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ap0018775	M22-Ap0018776
Date Sampled			Apr 08, 2022	Apr 08, 2022
Test/Reference	LOR	Unit		
AUS Leaching Procedure				
Leachate Fluid ^{C01}		comment	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	6.4	6.4
pH (off)	0.1	pH Units	8.8	8.6
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 (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	73	74

Client Sample ID			SX_OB_20220 408_00_11_SS _Primary_EUF	SX_OB_20220 408_04_19_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0018775	M22- Ap0018776
Date Sampled			Apr 08, 2022	Apr 08, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
13C5-PFPeA (surr.)	1	%	81	84
13C5-PFHxA (surr.)	1	%	72	77
13C4-PFHpA (surr.)	1	%	84	81
13C8-PFOA (surr.)	1	%	60	100
13C5-PFNA (surr.)	1	%	81	84
13C6-PFDA (surr.)	1	%	79	84
13C2-PFUnDA (surr.)	1	%	72	79
13C2-PFDoDA (surr.)	1	%	107	87
13C2-PFTeDA (surr.)	1	%	80	61
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	%	104	106
D3-N-MeFOSA (surr.)	1	%	84	61
D5-N-EtFOSA (surr.)	1	%	74	59
D7-N-MeFOSE (surr.)	1	%	61	53
D9-N-EtFOSE (surr.)	1	%	108	92
D5-N-EtFOSAA (surr.)	1	%	93	68
D3-N-MeFOSAA (surr.)	1	%	90	49
Perfluoroalkyl sulfonic acids (PFSA)				
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	^{N09} 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	41	87
18O2-PFHxS (surr.)	1	%	87	87
13C8-PFOS (surr.)	1	%	88	79

Client Sample ID			SX_OB_20220 408_00_11_SS _Primary_EUF	SX_OB_20220 408_04_19_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0018775	M22- Ap0018776
Date Sampled			Apr 08, 2022	Apr 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
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	%	53	57
13C2-6:2 FTSA (surr.)	1	%	73	78
13C2-8:2 FTSA (surr.)	1	%	113	140
13C2-10:2 FTSA (surr.)	1	%	100	103
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
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Apr 09, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Apr 09, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Apr 09, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 08, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 8, 2022 12:50 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878619	Due:	Apr 19, 2022
Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220407_07_53_S_S_Primary_EU F	Apr 07, 2022		Soil	M22-Ap0018748		X	X	X
2	SX_OB_20220407_08_02_S_S_Triplicate_EU F	Apr 07, 2022		Soil	M22-Ap0018749		X	X	X
3	SX_OB_20220407_11_43_S_S_Primary_EU F	Apr 07, 2022		Soil	M22-Ap0018750		X	X	X

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220407_15_36_S B_Blank_EUF	Apr 07, 2022		Water	M22-Ap0018751			X	
5	SX_OB_20220407_15_37_S R_Rinsate_EUF	Apr 07, 2022		Water	M22-Ap0018752			X	
6	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018753		X	X	X
7	SX_OB_20220407_16_14_S S_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018754		X	X	X

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
8	SX_OB_20220407_16_15_S_S_Duplicate_EUF	Apr 07, 2022		Soil	M22-Ap0018755		X	X	X
9	SX_OB_20220407_19_59_S_S_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018756		X	X	X
10	SX_OB_20220408_00_11_S_S_Primary_EUF	Apr 08, 2022		Soil	M22-Ap0018757		X	X	X
11	SX_OB_20220408_04_19_S	Apr 08, 2022		Soil	M22-Ap0018758		X	X	X

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

Project Name: 20220408045057-Eurofin-21
Project ID: JC0927

Order No.:
Report #: 878619
Phone: 08 8338 1009
Fax:

Received: Apr 8, 2022 12:50 PM
Due: Apr 19, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
12	SX_OB_20220 407_07_53_S S_Primary_EU F	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018759	X		X	
13	SX_OB_20220 407_08_02_S S_Triplicate_E UF	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018760	X		X	
14	SX_OB_20220 407_11_43_S S_Primary_EU F	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018761	X		X	

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
15	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018762	X		X	
16	SX_OB_20220407_16_14_S_Primary_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018763	X		X	
17	SX_OB_20220407_16_15_S_S_Duplicate_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018764	X		X	
18	SX_OB_20220407_19_59_S_Primary_EU	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018765	X		X	

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
19	SX_OB_20220408_00_11_S_S_Primary_EU_F	Apr 08, 2022		AUS Leachate - pH 5.0	M22-Ap0018766	X		X	
20	SX_OB_20220408_04_19_S_S_Primary_EU_F	Apr 08, 2022		AUS Leachate - pH 5.0	M22-Ap0018767	X		X	
21	SX_OB_20220407_07_53_S_S_Primary_EU_F	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018768	X		X	
22	SX_OB_20220	Apr 07, 2022		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 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
22	SX_OB_20220407_08_02_S_S_Triplicate_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018769				
23	SX_OB_20220407_11_43_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018770	X		X	
24	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018771	X		X	
25	SX_OB_20220407_16_14_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018772	X		X	

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
26	SX_OB_20220407_16_15_S_S_Duplicate_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018773	X		X	
27	SX_OB_20220407_19_59_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018774	X		X	
28	SX_OB_20220408_00_11_S_S_Primary_EUF	Apr 08, 2022		AUS Leachate - Reagent Water	M22-Ap0018775	X		X	
29	SX_OB_20220	Apr 08, 2022		AUS Leachate	M22-	X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
29	SX_OB_20220408_04_19_SS_Primary_EUF	Apr 08, 2022		AUS Leachate - Reagent Water	M22-Ap0018776				
Test Counts						18	9	29	9

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)	%	78		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	95		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	85		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	85		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	93		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	88		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	86		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	85		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	96		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	88		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	105		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	88			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	102			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	76			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	81			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	91			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	72			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	68			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA)								
Perfluorobutanesulfonic acid (PFBS)	%	81			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	76			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	105			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	81			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	85			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	87			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	87			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	76			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	93			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	130			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	101			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	69			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-Ap0018759	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances								
				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0018759	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0018759	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0018759	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0018759	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0018759	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-Ap0018759	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0018759	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0018759	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-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0018759	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0018759	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ap0018768	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0018768	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0018768	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0018768	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0018768	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0018768	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0018768	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0018768	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0018768	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0018768	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments
Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst (VIC)
Mary Makarios	Senior Analyst (NSW)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: Agon Lab Reports (Spoil Project)

Report 878619-W
Project name 20220408045057-Eurofin-21
Project ID JC0927
Received Date Apr 08, 2022

Client Sample ID			SX_OB_20220 407_15_36_SB Blank_EUF	SX_OB_20220 407_15_37_SR Rinsate_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Ap0018751	M22- Ap0018752
Date Sampled			Apr 07, 2022	Apr 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 (PFTTrDA) ^{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	%	110	110
13C5-PFPeA (surr.)	1	%	143	130
13C5-PFHxA (surr.)	1	%	111	114
13C4-PFHpA (surr.)	1	%	102	111
13C8-PFOA (surr.)	1	%	87	97
13C5-PFNA (surr.)	1	%	88	97
13C6-PFDA (surr.)	1	%	62	64
13C2-PFUnDA (surr.)	1	%	63	67
13C2-PFDoDA (surr.)	1	%	60	55
13C2-PFTeDA (surr.)	1	%	29	37
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	%	78	67

Client Sample ID			SX_OB_20220 407_15_36_SB _Blank_EUF	SX_OB_20220 407_15_37_SR _Rinsate_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Ap0018751	M22- Ap0018752
Date Sampled			Apr 07, 2022	Apr 07, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D3-N-MeFOSA (surr.)	1	%	65	66
D5-N-EtFOSA (surr.)	1	%	59	57
D7-N-MeFOSE (surr.)	1	%	66	55
D9-N-EtFOSE (surr.)	1	%	61	56
D5-N-EtFOSAA (surr.)	1	%	83	71
D3-N-MeFOSAA (surr.)	1	%	100	80
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	%	118	124
18O2-PFHxS (surr.)	1	%	102	109
13C8-PFOS (surr.)	1	%	97	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
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	%	95	88
13C2-6:2 FTSA (surr.)	1	%	79	87
13C2-8:2 FTSA (surr.)	1	%	72	97
13C2-10:2 FTSA (surr.)	1	%	66	63
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	Apr 09, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	Apr 09, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	Apr 09, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	Apr 09, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	Apr 08, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 8, 2022 12:50 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878619	Due:	Apr 19, 2022
Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220407_07_53_S_S_Primary_EU_F	Apr 07, 2022		Soil	M22-Ap0018748		X	X	X
2	SX_OB_20220407_08_02_S_S_Triplicate_EUF	Apr 07, 2022		Soil	M22-Ap0018749		X	X	X
3	SX_OB_20220407_11_43_S_S_Primary_EU_F	Apr 07, 2022		Soil	M22-Ap0018750		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 8, 2022 12:50 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878619	Due:	Apr 19, 2022
Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220407_15_36_S B_Blank_EUF	Apr 07, 2022		Water	M22-Ap0018751			X	
5	SX_OB_20220407_15_37_S R_Rinsate_EUF	Apr 07, 2022		Water	M22-Ap0018752			X	
6	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018753		X	X	X
7	SX_OB_20220407_16_14_S S_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018754		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220408045057-Eurofin-21
Project ID: JC0927

Order No.:
Report #: 878619
Phone: 08 8338 1009
Fax:

Received: Apr 8, 2022 12:50 PM
Due: Apr 19, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
8	SX_OB_20220407_16_15_S_S_Duplicate_EUF	Apr 07, 2022		Soil	M22-Ap0018755		X	X	X
9	SX_OB_20220407_19_59_S_S_Primary_EUF	Apr 07, 2022		Soil	M22-Ap0018756		X	X	X
10	SX_OB_20220408_00_11_S_S_Primary_EUF	Apr 08, 2022		Soil	M22-Ap0018757		X	X	X
11	SX_OB_20220408_04_19_S	Apr 08, 2022		Soil	M22-Ap0018758		X	X	X

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
12	SX_OB_20220 407_07_53_S S_Primary_EU F	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018759	X		X	
13	SX_OB_20220 407_08_02_S S_Triplicate_E UF	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018760	X		X	
14	SX_OB_20220 407_11_43_S S_Primary_EU F	Apr 07, 2022		AUS Leachate - pH 5.0	M22- Ap0018761	X		X	

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
15	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018762	X		X	
16	SX_OB_20220407_16_14_S_Primary_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018763	X		X	
17	SX_OB_20220407_16_15_S_Duplicate_EUF	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018764	X		X	
18	SX_OB_20220407_19_59_S_Primary_EU	Apr 07, 2022		AUS Leachate - pH 5.0	M22-Ap0018765	X		X	

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
19	SX_OB_20220408_00_11_S_S_Primary_EU F	Apr 08, 2022		AUS Leachate - pH 5.0	M22-Ap0018766	X		X	
20	SX_OB_20220408_04_19_S_S_Primary_EU F	Apr 08, 2022		AUS Leachate - pH 5.0	M22-Ap0018767	X		X	
21	SX_OB_20220407_07_53_S_S_Primary_EU F	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018768	X		X	
22	SX_OB_20220	Apr 07, 2022		AUS Leachate	M22-	X		X	

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
22	SX_OB_20220407_08_02_S_S_Triplicate_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018769				
23	SX_OB_20220407_11_43_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018770	X		X	
24	SX_IB_20220407_15_59_SS_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018771	X		X	
25	SX_OB_20220407_16_14_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018772	X		X	

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
26	SX_OB_20220407_16_15_S_S_Duplicate_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018773	X		X	
27	SX_OB_20220407_19_59_S_S_Primary_EUF	Apr 07, 2022		AUS Leachate - Reagent Water	M22-Ap0018774	X		X	
28	SX_OB_20220408_00_11_S_S_Primary_EUF	Apr 08, 2022		AUS Leachate - Reagent Water	M22-Ap0018775	X		X	
29	SX_OB_20220	Apr 08, 2022		AUS Leachate	M22-	X		X	

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Project Name:	20220408045057-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
29	SX_OB_20220408_04_19_SS_Primary_EUF	Apr 08, 2022		AUS Leachate - Reagent Water	M22-Ap0018776				
Test Counts						18	9	29	9

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)	%	96		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	100		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	93		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	83		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	84		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	82		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	89		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	97		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	90		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	121		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	90		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	97			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	112			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	89			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	91			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	93			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	94			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	85			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	82			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	80			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	103			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	96			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	88			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	76			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	91			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	62			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	97			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	129			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	89			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	102			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)								
Perfluorobutanoic acid (PFBA)	M22-Ap0016418	NCP	%	103		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0016418	NCP	%	99		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0016418	NCP	%	99		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0016418	NCP	%	89		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0016418	NCP	%	89		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0016418	NCP	%	93		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0016418	NCP	%	93		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0016418	NCP	%	102		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0016418	NCP	%	96		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0016418	NCP	%	82		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0016418	NCP	%	107		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	M22-Ap0016418	NCP	%	106		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0016418	NCP	%	134		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0016418	NCP	%	113		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0016418	NCP	%	100		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0016418	NCP	%	103		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0016418	NCP	%	71			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0016418	NCP	%	57			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0016418	NCP	%	90			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ap0016418	NCP	%	69			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0016418	NCP	%	111			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0016418	NCP	%	129			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0016418	NCP	%	100			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0016418	NCP	%	104			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0016418	NCP	%	86			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0016418	NCP	%	50			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-Ap0016418	NCP	%	114			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0016418	NCP	%	145			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0016418	NCP	%	94			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0016418	NCP	%	121			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-Ap0018751	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTEDA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0018751	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0018751	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0018751	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0018751	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0018751	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0018751	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0018751	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0018751	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-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0018751	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0018751	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0018751	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
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 (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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Company		AGON Environmental - Tunnel Spoil Testing		Project No	JC0927					Project Manager	Craig Trimbur					Sampler(s)	Hannah - EP Risk & Brandon - Agon																	
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		Project Name	WGTP-Tunnel Ref:20220409044210-Eurofin-14					EDD Format	ESdat, EQUIS etc					Esdat	Esdat	Hannah - EP Risk																
Contact Name		Craig Trimbur David Lawson		Analyses <small>Where metals are requested, please specify "Total" or "Filtered" SULTE code must be used to indicate SULTE pricing</small>	Spoil Sample Preparation Suite WGTP-R1 - TRH/ PAH/ Phenols/ OCP/ PCB/ VOC/ 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										Handed over by					Hannah - EP Risk														
Phone No		#61 400 826 907 (Craig) #61 490 411 004 (David)													Containers <small>Change container type & size if necessary</small>					Required Turnaround Time (TAT) <small>Default will be 5 days if not ticked</small>					Email for Invoice					finance@agonenviro.com.au LabReports.TST@agonenviro.com.au				
Special Directions		Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with oter sample receipt documentation.																							Email for Results					LabReports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au Amrit.Kaur@agile-analytics.com.au				
Purchase Order																																		
Quote ID No		Agon WGTP TST		Sampled Date/Time <small>dd/mm/yyyy hh:mm</small>					Matrix <small>Solid (S) Water (W)</small>					Sample Comments <small>/ Dangerous Goods Hazard Warning</small>																				
No	Client Sample ID																																	
1	SX_OB_20220408_08_00_SS_Triplicate_EUF			8/04/22					S					X X X X X																				
2	SX_OB_20220408_08_06_SS_Primary_EUF			8/04/22					S					X X X X X																				
3	SX_IB_20220408_11_58_SS_Primary_EUF			8/04/22					S					X X X X X																				
4	SX_OB_20220408_12_06_SS_Primary_EUF			8/04/22					S					X X X X X																				
5	SX_OB_20220408_15_45_SR_Rinsate_EUF			8/04/22					W					X																				
6	SX_OB_20220408_15_47_SB_Blank_EUF			8/04/22					W					X																				
7	SX_IB_20220408_16_00_SS_Primary_EUF			8/04/22					S					X X X X X																				
8	SX_IB_20220408_16_01_SS_Duplicate_EUF			8/04/22					S					X X X X X																				
9	SX_OB_20220408_20_06_SS_Primary_EUF			8/04/22					S					X X X X X																				
10	SX_OB_20220409_00_25_SS_Primary_EUF			9/04/22					S					X X X X X																				
11	SX_OB_20220409_04_06_SS_Primary_EUF			9/04/22					S					X X X X X																				
12																																		
13																																		
Total Counts									9 9 11 9 9																									
Method of Shipment		<input checked="" type="checkbox"/> Courier (#) <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal		Name		Hannah Kennedy		Signature		Date		9/4/22		Time																				
Laboratory Use Only		Received By		Joke		SYD BNE MEL PER ADL NTL DRW		Signature		Date		9/4		Time		10:15																		
Laboratory Use Only		Received By				SYD BNE MEL PER ADL NTL DRW		Signature		Date				Time		Report No																		

828808



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
Welsphool 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: 20220409044210-Eurofin-14
Project ID: JC0927

Order No.:
Report #: 878808
Phone: 08 8338 1009
Fax:

Received: Apr 9, 2022 10:15 AM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220408_08_00_S_S_Triplicate_EUF	Apr 08, 2022	8:00AM	Soil	M22-Ap0020272		X	X	X
2	SX_OB_20220408_08_06_S_S_Primary_EUF	Apr 08, 2022	8:06AM	Soil	M22-Ap0020273		X	X	X
3	SX_IB_20220408_11_58_SS_Primary_EUF	Apr 08, 2022	11:58AM	Soil	M22-Ap0020274		X	X	X
4	SX_OB_20220408_12_06PM	Apr 08, 2022	12:06PM	Soil	M22-		X	X	X



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

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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

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
	408_12_06_S S_Primary_EU F				Ap0020275				
5	SX_OB_20220 408_15_45_S R_Rinsate_EU F	Apr 08, 2022	3:45PM	Water	M22- Ap0020276			X	
6	SX_OB_20220 408_15_47_S B_Blank_EUF	Apr 08, 2022	3:47PM	Water	M22- Ap0020277			X	
7	SX_IB_202204 08_16_00_SS _Primary_EUF	Apr 08, 2022	4:00PM	Soil	M22- Ap0020278		X	X	X
8	SX_IB_202204	Apr 08, 2022	4:01PM	Soil	M22-		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
8	SX_IB_20220408_16_01_SS_Duplicate_EU_F	Apr 08, 2022	4:01PM	Soil	M22-Ap0020279				
9	SX_OB_20220408_20_06_SS_Primary_EU_F	Apr 08, 2022	8:06PM	Soil	M22-Ap0020280		X	X	X
10	SX_OB_20220409_00_25_SS_Primary_EU_F	Apr 09, 2022	12:25AM	Soil	M22-Ap0020281		X	X	X
11	SX_OB_20220409_04_06_S	Apr 09, 2022	4:06AM	Soil	M22-Ap0020282		X	X	X



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
Welsphool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

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NZBN: 9429046024954

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IANZ # 1327

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IANZ # 1290

web: www.eurofins.com.au
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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
12	SX_OB_20220 408_08_00_S S_Triplicate_E UF	Apr 08, 2022	8:00AM	AUS Leachate - pH 5.0	M22- Ap0020283	X		X	
13	SX_OB_20220 408_08_06_S S_Primary_EU F	Apr 08, 2022	8:06AM	AUS Leachate - pH 5.0	M22- Ap0020284	X		X	
14	SX_IB_202204 08_11_58_SS _Primary_EUF	Apr 08, 2022	11:58AM	AUS Leachate - pH 5.0	M22- Ap0020285	X		X	
15	SX_OB_20220	Apr 08, 2022	12:06PM	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 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
15	SX_OB_20220408_12_06_S_S_Primary_EU_F	Apr 08, 2022	12:06PM	AUS Leachate - pH 5.0	M22-Ap0020286				
16	SX_IB_20220408_16_00_SS_Primary_EUF	Apr 08, 2022	4:00PM	AUS Leachate - pH 5.0	M22-Ap0020287	X		X	
17	SX_IB_20220408_16_01_SS_Duplicate_EUF	Apr 08, 2022	4:01PM	AUS Leachate - pH 5.0	M22-Ap0020288	X		X	
18	SX_OB_20220408_20_06_S_S_Primary_EU	Apr 08, 2022	8:06PM	AUS Leachate - pH 5.0	M22-Ap0020289	X		X	



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne
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Sydney
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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: 20220409044210-Eurofin-14
Project ID: JC0927

Order No.:
Report #: 878808
Phone: 08 8338 1009
Fax:

Received: Apr 9, 2022 10:15 AM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
19	SX_OB_20220409_00_25_S_S_Primary_EU_F	Apr 09, 2022	12:25AM	AUS Leachate - pH 5.0	M22-Ap0020290	X		X	
20	SX_OB_20220409_04_06_S_S_Primary_EU_F	Apr 09, 2022	4:06AM	AUS Leachate - pH 5.0	M22-Ap0020291	X		X	
21	SX_OB_20220408_08_00_S_S_Triplicate_EUF	Apr 08, 2022	8:00AM	AUS Leachate - Reagent Water	M22-Ap0020292	X		X	
22	SX_OB_20220	Apr 08, 2022	8:06AM	AUS Leachate	M22-	X		X	

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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									
22	SX_OB_20220408_08_06_S_S_Primary_EUF	Apr 08, 2022	8:06AM	AUS Leachate - Reagent Water	M22-Ap0020293				
23	SX_IB_20220408_11_58_SS_Primary_EUF	Apr 08, 2022	11:58AM	AUS Leachate - Reagent Water	M22-Ap0020294	X		X	
24	SX_OB_20220408_12_06_S_S_Primary_EUF	Apr 08, 2022	12:06PM	AUS Leachate - Reagent Water	M22-Ap0020295	X		X	
25	SX_IB_20220408_16_00_SS_Primary_EUF	Apr 08, 2022	4:00PM	AUS Leachate - Reagent Water	M22-Ap0020296	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878808	Due:	Apr 20, 2022
Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
26	SX_IB_20220408_16_01_SS_Duplicate_EU_F	Apr 08, 2022	4:01PM	AUS Leachate - Reagent Water	M22-Ap0020297	X		X	
27	SX_OB_20220408_20_06_SS_Primary_EU_F	Apr 08, 2022	8:06PM	AUS Leachate - Reagent Water	M22-Ap0020298	X		X	
28	SX_OB_20220409_00_25_SS_Primary_EU_F	Apr 09, 2022	12:25AM	AUS Leachate - Reagent Water	M22-Ap0020299	X		X	
29	SX_OB_20220409_04_06_S	Apr 09, 2022	4:06AM	AUS Leachate - Reagent	M22-Ap0020300	X		X	



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: 20220409044210-Eurofin-14
Project ID: JC0927

Order No.:
Report #: 878808
Phone: 08 8338 1009
Fax:

Received: Apr 9, 2022 10:15 AM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail				AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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			Water				
Test Counts				18	9	29	9

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: **Agon Lab Reports (Spoil Project)**

Report **878808-S**
Project name **20220409044210-Eurofin-14**
Project ID **JC0927**
Received Date **Apr 09, 2022**

Client Sample ID			SX_OB_20220 408_08_00_SS _TriPLICATE_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF	SX_OB_20220 408_12_06_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020272	M22- Ap0020273	M22- Ap0020274	M22- Ap0020275
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 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
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 408_08_00_SS _TriPLICATE_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF	SX_OB_20220 408_12_06_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020272	M22- Ap0020273	M22- Ap0020274	M22- Ap0020275
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 08, 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	%	67	77	84	80
Toluene-d8 (surr.)	1	%	63	74	85	81
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 408_08_00_SS _TriPLICATE_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF	SX_OB_20220 408_12_06_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020272	M22- Ap0020273	M22- Ap0020274	M22- Ap0020275
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 08, 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	%	87	65	74	74
p-Terphenyl-d14 (surr.)	1	%	103	95	101	59
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	%	95	98	90	98
Tetrachloro-m-xylene (surr.)	1	%	136	148	51	147

Client Sample ID			SX_OB_20220 408_08_00_SS _TriPLICATE_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF	SX_OB_20220 408_12_06_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020272	M22- Ap0020273	M22- Ap0020274	M22- Ap0020275
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 08, 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	%	95	98	90	98
Tetrachloro-m-xylene (surr.)	1	%	136	148	51	147
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	%	92	78	85	85
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	1.0	< 1	< 1	1.2
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	< 100	460	460	460
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.6	8.3	9.4	8.1
% Moisture						
% Moisture	1	%	28	26	31	28
Heavy Metals						
Arsenic	2	mg/kg	24	46	25	33
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	160	120	140	160
Copper	5	mg/kg	75	60	75	72
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 408_08_00_SS _TriPLICATE_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF	SX_OB_20220 408_12_06_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020272	M22- Ap0020273	M22- Ap0020274	M22- Ap0020275
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 08, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	250	200	200	220
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	130	110	140	130
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	78	79
13C5-PFPeA (surr.)	1	%	85	81	83	76
13C5-PFHxA (surr.)	1	%	76	75	75	72
13C4-PFHpA (surr.)	1	%	71	72	69	72
13C8-PFOA (surr.)	1	%	69	78	67	80
13C5-PFNA (surr.)	1	%	61	55	49	55
13C6-PFDA (surr.)	1	%	90	81	70	71
13C2-PFUnDA (surr.)	1	%	114	100	115	98
13C2-PFDoDA (surr.)	1	%	121	126	112	113
13C2-PFTeDA (surr.)	1	%	101	115	111	99
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	%	101	93	75	108
D3-N-MeFOSA (surr.)	1	%	113	102	81	121
D5-N-EtFOSA (surr.)	1	%	133	132	104	142
D7-N-MeFOSE (surr.)	1	%	112	81	52	106
D9-N-EtFOSE (surr.)	1	%	102	92	62	105
D5-N-EtFOSAA (surr.)	1	%	86	136	107	84
D3-N-MeFOSAA (surr.)	1	%	149	142	97	77

Client Sample ID			SX_OB_20220 408_08_00_SS _TriPLICATE_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF	SX_OB_20220 408_12_06_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020272	M22- Ap0020273	M22- Ap0020274	M22- Ap0020275
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 08, 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	%	77	78	68	75
18O2-PFHxS (surr.)	1	%	66	66	59	66
13C8-PFOS (surr.)	1	%	66	58	62	65
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	66	< 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	%	60	55	55	65
13C2-6:2 FTSA (surr.)	1	%	85	51	54	59
13C2-8:2 FTSA (surr.)	1	%	112	119	117	101
13C2-10:2 FTSA (surr.)	1	%	138	110	95	122
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	66	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	66	< 50	< 50	< 50

Client Sample ID			SX_IB_202204 08_16_00_SS _Primary_EUF	SX_IB_202204 08_16_01_SS _Duplicate_EUF	SX_OB_20220 408_20_06_SS _Primary_EUF	SX_OB_20220 409_00_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020278	M22- Ap0020279	M22- Ap0020280	M22- Ap0020281
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 09, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	31	< 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

Client Sample ID			SX_IB_202204 08_16_00_SS Primary_EUF	SX_IB_202204 08_16_01_SS Duplicate_EUF	SX_OB_20220 408_20_06_SS Primary_EUF	SX_OB_20220 409_00_25_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020278	M22- Ap0020279	M22- Ap0020280	M22- Ap0020281
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 09, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
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
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_IB_202204 08_16_00_SS Primary_EUF	SX_IB_202204 08_16_01_SS Duplicate_EUF	SX_OB_20220 408_20_06_SS _Primary_EUF	SX_OB_20220 409_00_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020278	M22- Ap0020279	M22- Ap0020280	M22- Ap0020281
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 09, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	69	66	69	61
Toluene-d8 (surr.)	1	%	66	69	75	61
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	%	74	86	74	68
p-Terphenyl-d14 (surr.)	1	%	118	119	127	103

Client Sample ID			SX_IB_202204_08_16_00_SS_Primary_EUF	SX_IB_202204_08_16_01_SS_Duplicate_EUF	SX_OB_20220_408_20_06_SS_Primary_EUF	SX_OB_20220_409_00_25_SS_Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ap0020278	M22-Ap0020279	M22-Ap0020280	M22-Ap0020281
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 09, 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
Dibutylchloroendate (surr.)	1	%	87	73	107	84
Tetrachloro-m-xylene (surr.)	1	%	134	109	147	108
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	%	87	73	107	84
Tetrachloro-m-xylene (surr.)	1	%	134	109	147	108
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_IB_202204 08_16_00_SS Primary_EUF	SX_IB_202204 08_16_01_SS Duplicate_EUF	SX_OB_20220 408_20_06_SS _Primary_EUF	SX_OB_20220 409_00_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020278	M22- Ap0020279	M22- Ap0020280	M22- Ap0020281
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 09, 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	%	91	47	45	48
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	440	420	300	440
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	9.0	8.7	8.4	8.4
% Moisture						
% Moisture	1	%	31	31	29	28
Heavy Metals						
Arsenic	2	mg/kg	23	25	31	59
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	120	140	160	150
Copper	5	mg/kg	67	66	64	61
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	11
Nickel	5	mg/kg	160	180	210	210
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	110	130	120	110
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 (PFTTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	83	81	82	79
13C5-PFPeA (surr.)	1	%	85	93	85	84
13C5-PFHxA (surr.)	1	%	76	75	77	75

Client Sample ID			SX_IB_202204_08_16_00_SS_Primary_EUF	SX_IB_202204_08_16_01_SS_Duplicate_EUF	SX_OB_202204_08_20_06_SS_Primary_EUF	SX_OB_202204_09_00_25_SS_Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-Ap0020278	M22-Ap0020279	M22-Ap0020280	M22-Ap0020281
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 09, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	74	77	78	71
13C8-PFOA (surr.)	1	%	84	76	81	74
13C5-PFNA (surr.)	1	%	57	66	66	69
13C6-PFDA (surr.)	1	%	82	82	77	63
13C2-PFUnDA (surr.)	1	%	109	117	91	97
13C2-PFDoDA (surr.)	1	%	108	97	93	91
13C2-PFTeDA (surr.)	1	%	96	98	89	83
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	%	105	108	105	101
D3-N-MeFOSA (surr.)	1	%	110	114	134	112
D5-N-EtFOSA (surr.)	1	%	143	119	141	143
D7-N-MeFOSE (surr.)	1	%	116	103	128	109
D9-N-EtFOSE (surr.)	1	%	108	101	111	107
D5-N-EtFOSAA (surr.)	1	%	80	110	100	105
D3-N-MeFOSAA (surr.)	1	%	85	147	84	97
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	%	76	75	80	79
18O2-PFHxS (surr.)	1	%	91	79	68	74
13C8-PFOS (surr.)	1	%	79	77	62	70
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	%	50	53	65	62
13C2-6:2 FTSA (surr.)	1	%	57	61	75	58

Client Sample ID			SX_IB_202204 08_16_00_SS Primary_EUF	SX_IB_202204 08_16_01_SS Duplicate_EUF	SX_OB_20220 408_20_06_SS _Primary_EUF	SX_OB_20220 409_00_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0020278	M22- Ap0020279	M22- Ap0020280	M22- Ap0020281
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 09, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-8:2 FTSA (surr.)	1	%	93	114	107	112
13C2-10:2 FTSA (surr.)	1	%	82	78	145	87
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 409_04_06_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0020282
Date Sampled			Apr 09, 2022
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
Volatile Organics			
Hexachlorobutadiene	0.5	mg/kg	< 0.5
Volatile Organics			
1.1-Dichloroethane	0.5	mg/kg	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5

Client Sample ID			SX_OB_20220 409_04_06_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0020282
Date Sampled			Apr 09, 2022
Test/Reference	LOR	Unit	
Volatile Organics			
1,3-Dichlorobenzene	0.5	mg/kg	< 0.5
1,3-Dichloropropane	0.5	mg/kg	< 0.5
1,3,5-Trimethylbenzene	0.5	mg/kg	< 0.5
1,4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5
Benzene	0.1	mg/kg	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5
Bromoform	0.5	mg/kg	< 0.5
Bromomethane	0.5	mg/kg	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5
Chloroethane	0.5	mg/kg	< 0.5
Chloroform	0.5	mg/kg	< 0.5
Chloromethane	0.5	mg/kg	< 0.5
cis-1,2-Dichloroethene	0.5	mg/kg	< 0.5
cis-1,3-Dichloropropene	0.5	mg/kg	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1
Iodomethane	0.5	mg/kg	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5
o-Xylene	0.1	mg/kg	< 0.1
Styrene	0.5	mg/kg	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5
Toluene	0.1	mg/kg	< 0.1
trans-1,2-Dichloroethene	0.5	mg/kg	< 0.5
trans-1,3-Dichloropropene	0.5	mg/kg	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3
Total MAH*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5
4-Bromofluorobenzene (surr.)	1	%	63
Toluene-d8 (surr.)	1	%	61

Client Sample ID			SX_OB_20220 409_04_06_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0020282
Date Sampled			Apr 09, 2022
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	68
p-Terphenyl-d14 (surr.)	1	%	126
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05
a-HCH	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-HCH	0.05	mg/kg	< 0.05
d-HCH	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.5	mg/kg	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1

Client Sample ID			SX_OB_20220 409_04_06_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0020282
Date Sampled			Apr 09, 2022
Test/Reference	LOR	Unit	
Organochlorine Pesticides			
Dibutylchlorendate (surr.)	1	%	87
Tetrachloro-m-xylene (surr.)	1	%	122
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	87
Tetrachloro-m-xylene (surr.)	1	%	122
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1
Pentachlorophenol	1	mg/kg	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10
Total Halogenated Phenol*	1	mg/kg	< 1
Phenols (non-Halogenated)			
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5
2-Nitrophenol	1.0	mg/kg	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
Total cresols*	0.5	mg/kg	< 0.5
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Phenol-d6 (surr.)	1	%	40
Total Non-Halogenated Phenol*	20	mg/kg	< 20
Chromium (hexavalent)			
Chromium (hexavalent)	1	mg/kg	< 1
Cyanide (total)	5	mg/kg	< 5
Fluoride (Total)	100	mg/kg	400
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.8
% Moisture	1	%	26

Client Sample ID			SX_OB_20220 409_04_06_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0020282
Date Sampled			Apr 09, 2022
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic	2	mg/kg	51
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	170
Copper	5	mg/kg	67
Lead	5	mg/kg	< 5
Mercury	0.1	mg/kg	< 0.1
Molybdenum	5	mg/kg	< 5
Nickel	5	mg/kg	220
Selenium	2	mg/kg	< 2
Silver	2	mg/kg	< 2
Tin	10	mg/kg	< 10
Zinc	5	mg/kg	150
Perfluoroalkyl carboxylic acids (PFCAs)			
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5
Perfluorotridecanoic acid (PFTeDA) ^{N15}	5	ug/kg	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5
13C4-PFBA (surr.)	1	%	80
13C5-PFPeA (surr.)	1	%	82
13C5-PFHxA (surr.)	1	%	76
13C4-PFHpA (surr.)	1	%	72
13C8-PFOA (surr.)	1	%	86
13C5-PFNA (surr.)	1	%	68
13C6-PFDA (surr.)	1	%	60
13C2-PFUnDA (surr.)	1	%	108
13C2-PFDoDA (surr.)	1	%	74
13C2-PFTeDA (surr.)	1	%	83
Perfluoroalkyl sulfonamido substances			
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10
13C8-FOSA (surr.)	1	%	112
D3-N-MeFOSA (surr.)	1	%	121

Client Sample ID			SX_OB_20220 409_04_06_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0020282
Date Sampled			Apr 09, 2022
Test/Reference	LOR	Unit	
Perfluoroalkyl sulfonamido substances			
D5-N-EtFOSA (surr.)	1	%	118
D7-N-MeFOSE (surr.)	1	%	119
D9-N-EtFOSE (surr.)	1	%	102
D5-N-EtFOSAA (surr.)	1	%	109
D3-N-MeFOSAA (surr.)	1	%	77
Perfluoroalkyl sulfonic acids (PFASs)			
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5
13C3-PFBS (surr.)	1	%	75
18O2-PFHxS (surr.)	1	%	81
13C8-PFOS (surr.)	1	%	72
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5
13C2-4:2 FTSA (surr.)	1	%	72
13C2-6:2 FTSA (surr.)	1	%	67
13C2-8:2 FTSA (surr.)	1	%	110
13C2-10:2 FTSA (surr.)	1	%	135
PFASs Summations			
Sum (PFHxS + PFOS)*	5	ug/kg	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 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	Apr 11, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 11, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 11, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Apr 11, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Apr 11, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 11, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Apr 11, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Apr 11, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 11, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 11, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection - Method: LTM-INO-4230 Hexavalent Chromium by UV-Vis	Melbourne	Apr 11, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Apr 11, 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	Apr 12, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Apr 11, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Apr 11, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Apr 09, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220409044210-Eurofin-14
Project ID: JC0927

Order No.:
Report #: 878808
Phone: 08 8338 1009
Fax:

Received: Apr 9, 2022 10:15 AM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220408_08_00_S_S_Triplicate_EUF	Apr 08, 2022	8:00AM	Soil	M22-Ap0020272		X	X	X
2	SX_OB_20220408_08_06_S_S_Primary_EUF	Apr 08, 2022	8:06AM	Soil	M22-Ap0020273		X	X	X
3	SX_IB_20220408_11_58_SS_Primary_EUF	Apr 08, 2022	11:58AM	Soil	M22-Ap0020274		X	X	X
4	SX_OB_20220408_12_06PM	Apr 08, 2022	12:06PM	Soil	M22-		X	X	X

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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
	408_12_06_S S_Primary_EU F				Ap0020275				
5	SX_OB_20220 408_15_45_S R_Rinsate_EU F	Apr 08, 2022	3:45PM	Water	M22- Ap0020276			X	
6	SX_OB_20220 408_15_47_S B_Blank_EUF	Apr 08, 2022	3:47PM	Water	M22- Ap0020277			X	
7	SX_IB_202204 08_16_00_SS _Primary_EUF	Apr 08, 2022	4:00PM	Soil	M22- Ap0020278		X	X	X
8	SX_IB_202204	Apr 08, 2022	4:01PM	Soil	M22-		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
8	SX_IB_20220408_16_01_SS_Duplicate_EU F	Apr 08, 2022	4:01PM	Soil	M22-Ap0020279				
9	SX_OB_20220408_20_06_SS_Primary_EU F	Apr 08, 2022	8:06PM	Soil	M22-Ap0020280		X	X	X
10	SX_OB_20220409_00_25_SS_Primary_EU F	Apr 09, 2022	12:25AM	Soil	M22-Ap0020281		X	X	X
11	SX_OB_20220409_04_06_S	Apr 09, 2022	4:06AM	Soil	M22-Ap0020282		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
12	SX_OB_20220 408_08_00_S S_Triplicate_E UF	Apr 08, 2022	8:00AM	AUS Leachate - pH 5.0	M22- Ap0020283	X		X	
13	SX_OB_20220 408_08_06_S S_Primary_EU F	Apr 08, 2022	8:06AM	AUS Leachate - pH 5.0	M22- Ap0020284	X		X	
14	SX_IB_202204 08_11_58_SS _Primary_EUF	Apr 08, 2022	11:58AM	AUS Leachate - pH 5.0	M22- Ap0020285	X		X	
15	SX_OB_20220	Apr 08, 2022	12:06PM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
15	SX_OB_20220408_12_06_S_S_Primary_EU_F	Apr 08, 2022	12:06PM	AUS Leachate - pH 5.0	M22-Ap0020286				
16	SX_IB_20220408_16_00_SS_Primary_EUF	Apr 08, 2022	4:00PM	AUS Leachate - pH 5.0	M22-Ap0020287	X		X	
17	SX_IB_20220408_16_01_SS_Duplicate_EU_F	Apr 08, 2022	4:01PM	AUS Leachate - pH 5.0	M22-Ap0020288	X		X	
18	SX_OB_20220408_20_06_S_S_Primary_EU	Apr 08, 2022	8:06PM	AUS Leachate - pH 5.0	M22-Ap0020289	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
19	SX_OB_20220409_00_25_S_S_Primary_EU_F	Apr 09, 2022	12:25AM	AUS Leachate - pH 5.0	M22-Ap0020290	X		X	
20	SX_OB_20220409_04_06_S_S_Primary_EU_F	Apr 09, 2022	4:06AM	AUS Leachate - pH 5.0	M22-Ap0020291	X		X	
21	SX_OB_20220408_08_00_S_S_Triplicate_EUF	Apr 08, 2022	8:00AM	AUS Leachate - Reagent Water	M22-Ap0020292	X		X	
22	SX_OB_20220	Apr 08, 2022	8:06AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
22	SX_OB_20220408_08_06_S_S_Primary_EUF	Apr 08, 2022	8:06AM	AUS Leachate - Reagent Water	M22-Ap0020293				
23	SX_IB_20220408_11_58_SS_Primary_EUF	Apr 08, 2022	11:58AM	AUS Leachate - Reagent Water	M22-Ap0020294	X		X	
24	SX_OB_20220408_12_06_S_S_Primary_EUF	Apr 08, 2022	12:06PM	AUS Leachate - Reagent Water	M22-Ap0020295	X		X	
25	SX_IB_20220408_16_00_SS_Primary_EUF	Apr 08, 2022	4:00PM	AUS Leachate - Reagent Water	M22-Ap0020296	X		X	

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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
26	SX_IB_20220408_16_01_SS_Duplicate_EU_F	Apr 08, 2022	4:01PM	AUS Leachate - Reagent Water	M22-Ap0020297	X		X	
27	SX_OB_20220408_20_06_SS_Primary_EU_F	Apr 08, 2022	8:06PM	AUS Leachate - Reagent Water	M22-Ap0020298	X		X	
28	SX_OB_20220409_00_25_SS_Primary_EU_F	Apr 09, 2022	12:25AM	AUS Leachate - Reagent Water	M22-Ap0020299	X		X	
29	SX_OB_20220409_04_06_S	Apr 09, 2022	4:06AM	AUS Leachate - Reagent	M22-Ap0020300	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878808	Due:	Apr 20, 2022
Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail				AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IMRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254				X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
Perth Laboratory - NATA # 2377 Site # 2370							
External Laboratory							
	S_Primary_EU F		Water				
Test Counts				18	9	29	9

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	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5		5	Pass	
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	%	117		70-130	Pass	
TRH C10-C14	%	108		70-130	Pass	
Naphthalene	%	117		70-130	Pass	
TRH C6-C10	%	115		70-130	Pass	
TRH >C10-C16	%	115		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	104		70-130	Pass	
1.1.1-Trichloroethane	%	91		70-130	Pass	
1.2-Dichlorobenzene	%	117		70-130	Pass	
1.2-Dichloroethane	%	117		70-130	Pass	
Benzene	%	112		70-130	Pass	
Ethylbenzene	%	122		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	118			70-130	Pass	
Toluene	%	121			70-130	Pass	
Trichloroethene	%	91			70-130	Pass	
Xylenes - Total*	%	117			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	89			70-130	Pass	
Acenaphthylene	%	95			70-130	Pass	
Anthracene	%	74			70-130	Pass	
Benz(a)anthracene	%	73			70-130	Pass	
Benzo(a)pyrene	%	85			70-130	Pass	
Benzo(b&i)fluoranthene	%	94			70-130	Pass	
Benzo(g,h,i)perylene	%	77			70-130	Pass	
Benzo(k)fluoranthene	%	84			70-130	Pass	
Chrysene	%	88			70-130	Pass	
Dibenz(a,h)anthracene	%	86			70-130	Pass	
Fluoranthene	%	77			70-130	Pass	
Fluorene	%	87			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	72			70-130	Pass	
Naphthalene	%	85			70-130	Pass	
Phenanthrene	%	75			70-130	Pass	
Pyrene	%	76			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	106			70-130	Pass	
4,4'-DDD	%	104			70-130	Pass	
4,4'-DDE	%	109			70-130	Pass	
4,4'-DDT	%	76			70-130	Pass	
a-HCH	%	106			70-130	Pass	
Aldrin	%	103			70-130	Pass	
b-HCH	%	101			70-130	Pass	
d-HCH	%	104			70-130	Pass	
Dieldrin	%	106			70-130	Pass	
Endosulfan I	%	107			70-130	Pass	
Endosulfan II	%	95			70-130	Pass	
Endosulfan sulphate	%	89			70-130	Pass	
Endrin	%	78			70-130	Pass	
Endrin aldehyde	%	81			70-130	Pass	
Endrin ketone	%	78			70-130	Pass	
g-HCH (Lindane)	%	95			70-130	Pass	
Heptachlor	%	91			70-130	Pass	
Heptachlor epoxide	%	109			70-130	Pass	
Hexachlorobenzene	%	111			70-130	Pass	
Methoxychlor	%	72			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	106			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	89			25-140	Pass	
2,4-Dichlorophenol	%	92			25-140	Pass	
2,4,5-Trichlorophenol	%	85			25-140	Pass	
2,4,6-Trichlorophenol	%	83			25-140	Pass	
2,6-Dichlorophenol	%	86			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	86			25-140	Pass	
Pentachlorophenol	%	72			25-140	Pass	
Tetrachlorophenols - Total	%	71			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	%	38			25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	49			25-140	Pass	
2-Nitrophenol	%	87			25-140	Pass	
2,4-Dimethylphenol	%	92			25-140	Pass	
2,4-Dinitrophenol	%	63			25-140	Pass	
2-Methylphenol (o-Cresol)	%	75			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	89			25-140	Pass	
4-Nitrophenol	%	53			25-140	Pass	
Dinoseb	%	52			25-140	Pass	
Phenol	%	87			25-140	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	84			70-130	Pass	
Cyanide (total)	%	109			70-130	Pass	
Fluoride (Total)	%	109			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	114			80-120	Pass	
Cadmium	%	108			80-120	Pass	
Chromium	%	116			80-120	Pass	
Copper	%	113			80-120	Pass	
Lead	%	115			80-120	Pass	
Mercury	%	105			80-120	Pass	
Molybdenum	%	114			80-120	Pass	
Nickel	%	109			80-120	Pass	
Selenium	%	111			80-120	Pass	
Silver	%	111			80-120	Pass	
Tin	%	111			80-120	Pass	
Zinc	%	111			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	92			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	94			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	89			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	91			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	95			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	100			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	105			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	136			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	106			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	101			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	108			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	95			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	143			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	97			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	100			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	96			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)	%	87			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFASs)								
Perfluorobutanesulfonic acid (PFBS)	%	90			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	119			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	115			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	107			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	103			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	72			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	93			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	130			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)	%	124			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	105			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	114			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	L22-Ap0014801	NCP	%	117		70-130	Pass	
TRH >C10-C16	L22-Ap0014801	NCP	%	123		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-Ap0016624	NCP	%	100		70-130	Pass	
Acenaphthylene	M22-Ap0016624	NCP	%	105		70-130	Pass	
Anthracene	M22-Ap0016624	NCP	%	92		70-130	Pass	
Benz(a)anthracene	M22-Ap0016624	NCP	%	103		70-130	Pass	
Benzo(a)pyrene	M22-Ap0016624	NCP	%	91		70-130	Pass	
Benzo(b&j)fluoranthene	M22-Ap0016624	NCP	%	90		70-130	Pass	
Benzo(g,h,i)perylene	M22-Ap0016624	NCP	%	79		70-130	Pass	
Benzo(k)fluoranthene	M22-Ap0016624	NCP	%	112		70-130	Pass	
Chrysene	M22-Ap0016624	NCP	%	111		70-130	Pass	
Dibenz(a,h)anthracene	M22-Ap0016624	NCP	%	91		70-130	Pass	
Fluoranthene	M22-Ap0016624	NCP	%	92		70-130	Pass	
Fluorene	M22-Ap0016624	NCP	%	99		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M22-Ap0016624	NCP	%	96		70-130	Pass	
Naphthalene	M22-Ap0016624	NCP	%	93		70-130	Pass	
Phenanthrene	M22-Ap0016624	NCP	%	84		70-130	Pass	
Pyrene	M22-Ap0016624	NCP	%	95		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-Ap0021400	NCP	%	92		70-130	Pass	
4,4'-DDD	M22-Ap0014858	NCP	%	81		70-130	Pass	
4,4'-DDE	M22-Ap0021400	NCP	%	92		70-130	Pass	
4,4'-DDT	M22-Ap0021400	NCP	%	117		70-130	Pass	
a-HCH	M22-Ap0021400	NCP	%	99		70-130	Pass	
Aldrin	M22-Ap0021400	NCP	%	95		70-130	Pass	
b-HCH	M22-Ap0021400	NCP	%	79		70-130	Pass	
d-HCH	M22-Ap0021400	NCP	%	78		70-130	Pass	
Dieldrin	M22-Ap0021400	NCP	%	102		70-130	Pass	
Endosulfan I	M22-Ap0021400	NCP	%	100		70-130	Pass	
Endosulfan II	M22-Ap0021400	NCP	%	88		70-130	Pass	
Endosulfan sulphate	M22-Ap0021400	NCP	%	103		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Endrin	M22-Ap0021400	NCP	%	97		70-130	Pass	
Endrin aldehyde	M22-Ap0021400	NCP	%	88		70-130	Pass	
Endrin ketone	M22-Ap0021400	NCP	%	102		70-130	Pass	
g-HCH (Lindane)	M22-Ap0021400	NCP	%	86		70-130	Pass	
Heptachlor	M22-Ap0021400	NCP	%	102		70-130	Pass	
Heptachlor epoxide	M22-Ap0021400	NCP	%	98		70-130	Pass	
Hexachlorobenzene	M22-Ap0021400	NCP	%	88		70-130	Pass	
Methoxychlor	M22-Ap0021400	NCP	%	109		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	M22-Ap0016379	NCP	%	72		70-130	Pass	
Aroclor-1260	M22-Ap0016379	NCP	%	79		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-Ap0016624	NCP	%	95		30-130	Pass	
2,4-Dichlorophenol	M22-Ap0016624	NCP	%	97		30-130	Pass	
2,4,5-Trichlorophenol	M22-Ap0016624	NCP	%	87		30-130	Pass	
2,4,6-Trichlorophenol	M22-Ap0016624	NCP	%	90		30-130	Pass	
2,6-Dichlorophenol	M22-Ap0016624	NCP	%	85		30-130	Pass	
4-Chloro-3-methylphenol	M22-Ap0016624	NCP	%	96		30-130	Pass	
Pentachlorophenol	M22-Ap0016624	NCP	%	71		30-130	Pass	
Tetrachlorophenols - Total	M22-Ap0016624	NCP	%	76		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-Ap0016624	NCP	%	42		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-Ap0016624	NCP	%	48		30-130	Pass	
2-Nitrophenol	M22-Ap0016624	NCP	%	93		30-130	Pass	
2,4-Dimethylphenol	M22-Ap0016624	NCP	%	105		30-130	Pass	
2,4-Dinitrophenol	M22-Ma65426	NCP	%	30		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Ap0016624	NCP	%	85		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Ap0016624	NCP	%	103		30-130	Pass	
4-Nitrophenol	M22-Ap0016624	NCP	%	63		30-130	Pass	
Dinoseb	M22-Ap0016624	NCP	%	61		30-130	Pass	
Phenol	M22-Ap0016624	NCP	%	99		30-130	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-Ap0013012	NCP	%	91		70-130	Pass	
Cyanide (total)	M22-Ma60375	NCP	%	73		70-130	Pass	
Fluoride (Total)	M22-Ap0022645	NCP	%	84		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-Ap0012778	NCP	%	112		75-125	Pass	
Cadmium	M22-Ap0012778	NCP	%	112		75-125	Pass	
Chromium	M22-Ap0012778	NCP	%	110		75-125	Pass	
Copper	M22-Ap0012778	NCP	%	119		75-125	Pass	
Lead	M22-Ap0012778	NCP	%	98		75-125	Pass	
Mercury	M22-Ap0012778	NCP	%	92		75-125	Pass	
Molybdenum	M22-Ap0012778	NCP	%	117		75-125	Pass	
Nickel	M22-Ap0012778	NCP	%	118		75-125	Pass	
Selenium	M22-Ap0012778	NCP	%	97		75-125	Pass	
Silver	M22-Ap0012778	NCP	%	114		75-125	Pass	
Tin	M22-Ap0012778	NCP	%	113		75-125	Pass	
Zinc	M22-Ap0012778	NCP	%	120		75-125	Pass	
Spike - % Recovery								

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	L22-Ap0014802	NCP	%	94		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	L22-Ap0014802	NCP	%	93		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	L22-Ap0014802	NCP	%	91		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	L22-Ap0014802	NCP	%	98		50-150	Pass	
Perfluorooctanoic acid (PFOA)	L22-Ap0014802	NCP	%	107		50-150	Pass	
Perfluorononanoic acid (PFNA)	L22-Ap0014802	NCP	%	98		50-150	Pass	
Perfluorodecanoic acid (PFDA)	L22-Ap0014802	NCP	%	104		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	L22-Ap0014802	NCP	%	113		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	L22-Ap0014802	NCP	%	118		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	L22-Ap0014802	NCP	%	119		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L22-Ap0014802	NCP	%	116		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	L22-Ap0014802	NCP	%	91		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L22-Ap0014802	NCP	%	91		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L22-Ap0014802	NCP	%	85		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	L22-Ap0014802	NCP	%	96		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	L22-Ap0014802	NCP	%	101		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L22-Ap0014802	NCP	%	82		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L22-Ap0014802	NCP	%	92		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	L22-Ap0014802	NCP	%	91		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	L22-Ap0014802	NCP	%	130		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	L22-Ap0014802	NCP	%	121		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L22-Ap0014802	NCP	%	98		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L22-Ap0014802	NCP	%	101		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L22-Ap0014802	NCP	%	78		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	L22-Ap0014802	NCP	%	121		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	L22-Ap0014802	NCP	%	129		50-150	Pass	
Spike - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L22-Ap0014802	NCP	%	101		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	L22-Ap0014802	NCP	%	139		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L22-Ap0014802	NCP	%	126		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L22-Ap0014802	NCP	%	131			50-150	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	M22-Ap0020273	CP	%	117			70-130	Pass	
Naphthalene	M22-Ap0020273	CP	%	117			70-130	Pass	
TRH C6-C10	M22-Ap0020273	CP	%	115			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	M22-Ap0020273	CP	%	94			70-130	Pass	
1.1.1-Trichloroethane	M22-Ap0020273	CP	%	83			70-130	Pass	
1.2-Dichlorobenzene	M22-Ap0020273	CP	%	117			70-130	Pass	
1.2-Dichloroethane	M22-Ap0020273	CP	%	108			70-130	Pass	
Benzene	M22-Ap0020273	CP	%	102			70-130	Pass	
Ethylbenzene	M22-Ap0020273	CP	%	122			70-130	Pass	
m&p-Xylenes	M22-Ap0020273	CP	%	118			70-130	Pass	
o-Xylene	M22-Ap0020273	CP	%	115			70-130	Pass	
Toluene	M22-Ap0020273	CP	%	108			70-130	Pass	
Trichloroethene	M22-Ap0020273	CP	%	81			70-130	Pass	
Xylenes - Total*	M22-Ap0020273	CP	%	117			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 C6-C9	M22-Ap0020272	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	L22-Ap0014810	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	L22-Ap0014810	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	L22-Ap0014810	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-Ap0020272	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	L22-Ap0014810	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	L22-Ap0014810	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	L22-Ap0014810	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1,4-Dichlorobenzene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-Ap0020272	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,2-Dichloroethene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,3-Dichloropropene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-Ap0020272	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-Ap0020272	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-Ap0020272	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-Ap0020272	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1,2-Dichloroethene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-Ap0020272	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-Ap0020272	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Phenanthrene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ap0021399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ap0021399	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ap0021399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ap0021399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ap0021399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ap0021399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ap0021399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ap0021399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ap0021399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ap0021399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dichlorophenol	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4.5-Trichlorophenol	M22-Ap0021399	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4.6-Trichlorophenol	M22-Ap0021399	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.6-Dichlorophenol	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ap0021399	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ap0021399	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ap0021399	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4.6-dinitrophenol	M22-Ap0021399	NCP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4.6-dinitrophenol	M22-Ap0021399	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ap0021399	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4-Dimethylphenol	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dinitrophenol	M22-Ap0021399	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Ap0021399	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ap0021399	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass

Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
4-Nitrophenol	M22-Ap0021399	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ap0021399	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ap0021399	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ap0019103	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Cyanide (total)	M22-Ap0020272	CP	mg/kg	< 5	< 5	<1	30%	Pass
Fluoride (Total)	M22-Ap0016037	NCP	mg/kg	< 100	< 100	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Ap0013131	NCP	pH Units	6.7	6.7	pass	30%	Pass
% Moisture	M22-Ap0020272	CP	%	28	28	1.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-Ap0012831	NCP	mg/kg	3.5	3.4	3.0	30%	Pass
Cadmium	M22-Ap0012831	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-Ap0012831	NCP	mg/kg	25	23	6.0	30%	Pass
Copper	M22-Ap0012831	NCP	mg/kg	36	29	22	30%	Pass
Lead	M22-Ap0012831	NCP	mg/kg	15	13	14	30%	Pass
Mercury	M22-Ap0012831	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-Ap0012831	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-Ap0012831	NCP	mg/kg	35	30	14	30%	Pass
Selenium	M22-Ap0012831	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-Ap0012831	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-Ap0012831	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-Ap0012831	NCP	mg/kg	90	84	7.0	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L22-Ap0014801	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L22-Ap0014801	NCP	ug/kg	< 10	< 10	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	L22-Ap0014801	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)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	L22-Ap0014801	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L22-Ap0014801	NCP	ug/kg	< 5	< 5	<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:

Catherine Wilson	Analytical Services Manager
Alex Petridis	Senior Analyst (NSW)
Harry Bacalis	Senior Analyst (NSW)
Edward Lee	Senior Analyst (VIC)
Joseph Edouard	Senior Analyst (VIC)
Mary Makarios	Senior Analyst (NSW)
Linda Chouman	Senior Analyst (NSW)
Scott Beddoes	Senior Analyst (NSW)
Caitlin Breeze	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: **Agon Lab Reports (Spoil Project)**

Report **878808-L**
Project name **20220409044210-Eurofin-14**
Project ID **JC0927**
Received Date **Apr 09, 2022**

Client Sample ID			SX_OB_20220 408_08_00_SS _TriPLICATE_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF	SX_OB_20220 408_12_06_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- Ap0020283	M22- Ap0020284	M22- Ap0020285	M22- Ap0020286
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 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	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	4.9	5.0	5.0	4.9
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	%	81	85	85	82
13C5-PFPeA (surr.)	1	%	95	97	91	98
13C5-PFHxA (surr.)	1	%	93	94	96	94
13C4-PFHpA (surr.)	1	%	82	89	86	86
13C8-PFOA (surr.)	1	%	81	83	78	84
13C5-PFNA (surr.)	1	%	72	81	74	76
13C6-PFDA (surr.)	1	%	72	74	69	79
13C2-PFUnDA (surr.)	1	%	53	56	49	61
13C2-PFDoDA (surr.)	1	%	38	41	31	47
13C2-PFTTeDA (surr.)	1	%	12	12	20	13

Client Sample ID			SX_OB_20220 408_08_00_SS _TriPLICATE_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF	SX_OB_20220 408_12_06_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- Ap0020283	M22- Ap0020284	M22- Ap0020285	M22- Ap0020286
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 08, 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	%	82	89	78	86
D3-N-MeFOSA (surr.)	1	%	76	58	37	96
D5-N-EtFOSA (surr.)	1	%	64	59	39	92
D7-N-MeFOSE (surr.)	1	%	69	71	51	77
D9-N-EtFOSE (surr.)	1	%	65	64	48	71
D5-N-EtFOSAA (surr.)	1	%	25	27	20	28
D3-N-MeFOSAA (surr.)	1	%	33	28	30	39
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	%	92	91	92	89
18O2-PFHxS (surr.)	1	%	86	86	79	90
13C8-PFOS (surr.)	1	%	83	84	83	82
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	%	58	65	57	54
13C2-6:2 FTSA (surr.)	1	%	57	64	53	55
13C2-8:2 FTSA (surr.)	1	%	56	59	52	56
13C2-10:2 FTSA (surr.)	1	%	47	42	34	53
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_IB_202204_08_16_00_SS_Primary_EUF	SX_IB_202204_08_16_01_SS_Duplicate_EUF	SX_OB_202204_08_20_06_SS_Primary_EUF	SX_OB_202204_09_00_25_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-Ap0020287	M22-Ap0020288	M22-Ap0020289	M22-Ap0020290
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 09, 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	5.0	5.0	4.9	4.9
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	84	84	82
13C5-PFPeA (surr.)	1	%	101	88	98	94
13C5-PFHxA (surr.)	1	%	97	100	96	96
13C4-PFHpA (surr.)	1	%	86	90	87	87
13C8-PFOA (surr.)	1	%	79	80	88	84
13C5-PFNA (surr.)	1	%	77	83	81	77
13C6-PFDA (surr.)	1	%	83	75	83	74
13C2-PFUnDA (surr.)	1	%	60	61	61	56
13C2-PFDoDA (surr.)	1	%	41	51	48	43
13C2-PFTeDA (surr.)	1	%	12	16	13	11
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	%	84	94	84	89
D3-N-MeFOSA (surr.)	1	%	58	97	66	73
D5-N-EtFOSA (surr.)	1	%	49	92	60	72
D7-N-MeFOSE (surr.)	1	%	70	78	69	73
D9-N-EtFOSE (surr.)	1	%	64	75	63	67
D5-N-EtFOSAA (surr.)	1	%	27	30	30	26
D3-N-MeFOSAA (surr.)	1	%	33	33	39	31

Client Sample ID			SX_IB_202204_08_16_00_SS_Primary_EUF	SX_IB_202204_08_16_01_SS_Duplicate_EUF	SX_OB_20220_408_20_06_SS_Primary_EUF	SX_OB_20220_409_00_25_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-Ap0020287	M22-Ap0020288	M22-Ap0020289	M22-Ap0020290
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 09, 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	%	98	94	92	92
18O2-PFHxS (surr.)	1	%	88	90	95	92
13C8-PFOS (surr.)	1	%	88	88	82	88
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	%	57	55	58	53
13C2-6:2 FTSA (surr.)	1	%	52	55	58	49
13C2-8:2 FTSA (surr.)	1	%	57	60	59	60
13C2-10:2 FTSA (surr.)	1	%	44	64	71	51
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_409_04_06_SS_Primary_EUF	SX_OB_20220_408_08_00_SS_Triplicate_EUF	SX_OB_20220_408_08_06_SS_Primary_EUF	SX_IB_202204_08_11_58_SS_Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ap0020291	M22-Ap0020292	M22-Ap0020293	M22-Ap0020294
Date Sampled			Apr 09, 2022	Apr 08, 2022	Apr 08, 2022	Apr 08, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	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	5.0	6.4	6.4	6.4
pH (off)	0.1	pH Units	5.0	8.4	8.6	9.3

Client Sample ID			SX_OB_20220 409_04_06_SS _Primary_EUF	SX_OB_20220 408_08_00_SS _TriPLICATE_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0020291	M22- Ap0020292	M22- Ap0020293	M22- Ap0020294
Date Sampled			Apr 09, 2022	Apr 08, 2022	Apr 08, 2022	Apr 08, 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	%	80	90	88	73
13C5-PFPeA (surr.)	1	%	96	96	97	77
13C5-PFHxA (surr.)	1	%	95	91	98	88
13C4-PFHpA (surr.)	1	%	84	87	83	77
13C8-PFOA (surr.)	1	%	79	86	78	70
13C5-PFNA (surr.)	1	%	76	85	81	75
13C6-PFDA (surr.)	1	%	74	78	72	68
13C2-PFUnDA (surr.)	1	%	58	61	57	53
13C2-PFDoDA (surr.)	1	%	47	45	38	43
13C2-PFTeDA (surr.)	1	%	15	13	13	16
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	%	82	80	80	86
D3-N-MeFOSA (surr.)	1	%	89	32	42	105
D5-N-EtFOSA (surr.)	1	%	83	30	35	95
D7-N-MeFOSE (surr.)	1	%	74	49	54	68
D9-N-EtFOSE (surr.)	1	%	72	45	50	65
D5-N-EtFOSAA (surr.)	1	%	30	24	26	25
D3-N-MeFOSAA (surr.)	1	%	34	34	31	28
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 409_04_06_SS _Primary_EUF	SX_OB_20220 408_08_00_SS _Triplicate_EU F	SX_OB_20220 408_08_06_SS _Primary_EUF	SX_IB_202204 08_11_58_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0020291	M22- Ap0020292	M22- Ap0020293	M22- Ap0020294
Date Sampled			Apr 09, 2022	Apr 08, 2022	Apr 08, 2022	Apr 08, 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
Perfluorodecane sulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	86	88	93	87
18O2-PFHxS (surr.)	1	%	76	90	87	85
13C8-PFOS (surr.)	1	%	86	89	87	83
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-perfluorodecane sulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecane sulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	53	62	55	43
13C2-6:2 FTSA (surr.)	1	%	59	58	55	46
13C2-8:2 FTSA (surr.)	1	%	61	64	61	52
13C2-10:2 FTSA (surr.)	1	%	49	49	44	47
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 408_12_06_SS _Primary_EUF	SX_IB_202204 08_16_00_SS _Primary_EUF	SX_IB_202204 08_16_01_SS _Duplicate_EUF	SX_OB_20220 408_20_06_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- Ap0020295	M22- Ap0020296	M22- Ap0020297	M22- Ap0020298
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 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	6.4	6.4	6.4	6.4
pH (off)	0.1	pH Units	8.8	8.9	9.0	8.8
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_20220408_12_06_SS_Primary_EUF	SX_IB_20220408_16_00_SS_Primary_EUF	SX_IB_20220408_16_01_SS_Duplicate_EUF	SX_OB_20220408_20_06_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-Ap0020295	M22-Ap0020296	M22-Ap0020297	M22-Ap0020298
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 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 (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	%	89	84	87	92
13C5-PFPeA (surr.)	1	%	88	92	98	105
13C5-PFHxA (surr.)	1	%	96	95	100	96
13C4-PFHpA (surr.)	1	%	85	86	85	87
13C8-PFOA (surr.)	1	%	81	73	74	88
13C5-PFNA (surr.)	1	%	82	81	83	80
13C6-PFDA (surr.)	1	%	78	76	81	80
13C2-PFUnDA (surr.)	1	%	58	59	59	60
13C2-PFDoDA (surr.)	1	%	43	44	43	48
13C2-PFTeDA (surr.)	1	%	14	14	15	13
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	%	78	78	86	80
D3-N-MeFOSA (surr.)	1	%	46	69	73	37
D5-N-EtFOSA (surr.)	1	%	41	59	64	35
D7-N-MeFOSE (surr.)	1	%	55	62	64	56
D9-N-EtFOSE (surr.)	1	%	54	54	55	49
D5-N-EtFOSAA (surr.)	1	%	25	28	26	28
D3-N-MeFOSAA (surr.)	1	%	34	37	33	40
Perfluoroalkyl sulfonic acids (PFSAs)						
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	%	89	91	92	88
18O2-PFHxS (surr.)	1	%	88	87	89	91
13C8-PFOS (surr.)	1	%	86	88	95	92

Client Sample ID			SX_OB_20220408_12_06_SS_Primary_EUF	SX_IB_20220408_16_00_SS_Primary_EUF	SX_IB_20220408_16_01_SS_Duplicate_EUF	SX_OB_20220408_20_06_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-Ap0020295	M22-Ap0020296	M22-Ap0020297	M22-Ap0020298
Date Sampled			Apr 08, 2022	Apr 08, 2022	Apr 08, 2022	Apr 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	%	58	49	55	59
13C2-6:2 FTSA (surr.)	1	%	51	48	48	57
13C2-8:2 FTSA (surr.)	1	%	63	56	62	64
13C2-10:2 FTSA (surr.)	1	%	45	58	49	46
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_20220409_00_25_SS_Primary_EUF	SX_OB_20220409_04_06_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ap0020299	M22-Ap0020300
Date Sampled			Apr 09, 2022	Apr 09, 2022
Test/Reference	LOR	Unit		
AUS Leaching Procedure				
Leachate Fluid ^{C01}		comment	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	6.4	6.4
pH (off)	0.1	pH Units	8.7	8.5
Perfluoroalkyl carboxylic acids (PFCA)				
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 (PFTTrDA) ^{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	%	88	87
13C5-PFPeA (surr.)	1	%	99	96

Client Sample ID			SX_OB_20220 409_00_25_SS _Primary_EUF	SX_OB_20220 409_04_06_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0020299	M22- Ap0020300
Date Sampled			Apr 09, 2022	Apr 09, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
13C5-PFHxA (surr.)	1	%	96	88
13C4-PFHpA (surr.)	1	%	86	81
13C8-PFOA (surr.)	1	%	78	76
13C5-PFNA (surr.)	1	%	83	80
13C6-PFDA (surr.)	1	%	72	77
13C2-PFUnDA (surr.)	1	%	57	60
13C2-PFDoDA (surr.)	1	%	43	42
13C2-PFTeDA (surr.)	1	%	15	14
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	%	76	82
D3-N-MeFOSA (surr.)	1	%	40	53
D5-N-EtFOSA (surr.)	1	%	35	47
D7-N-MeFOSE (surr.)	1	%	45	57
D9-N-EtFOSE (surr.)	1	%	39	50
D5-N-EtFOSAA (surr.)	1	%	24	29
D3-N-MeFOSAA (surr.)	1	%	38	38
Perfluoroalkyl sulfonic acids (PFSA)				
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	%	90	84
18O2-PFHxS (surr.)	1	%	85	69
13C8-PFOS (surr.)	1	%	90	85
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

Client Sample ID			SX_OB_20220 409_00_25_SS _Primary_EUF	SX_OB_20220 409_04_06_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0020299	M22- Ap0020300
Date Sampled			Apr 09, 2022	Apr 09, 2022
Test/Reference	LOR	Unit		
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				
13C2-4:2 FTSA (surr.)	1	%	50	56
13C2-6:2 FTSA (surr.)	1	%	50	67
13C2-8:2 FTSA (surr.)	1	%	57	67
13C2-10:2 FTSA (surr.)	1	%	53	53
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
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Apr 11, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Apr 11, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Apr 11, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 09, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878808	Due:	Apr 20, 2022
Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220408_08_00_S_S_Triplicate_EUF	Apr 08, 2022	8:00AM	Soil	M22-Ap0020272		X	X	X
2	SX_OB_20220408_08_06_S_S_Primary_EUF	Apr 08, 2022	8:06AM	Soil	M22-Ap0020273		X	X	X
3	SX_IB_20220408_11_58_SS_Primary_EUF	Apr 08, 2022	11:58AM	Soil	M22-Ap0020274		X	X	X
4	SX_OB_20220	Apr 08, 2022	12:06PM	Soil	M22-		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 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	408_12_06_S S_Primary_EU F				Ap0020275				
5	SX_OB_20220 408_15_45_S R_Rinsate_EU F	Apr 08, 2022	3:45PM	Water	M22- Ap0020276			X	
6	SX_OB_20220 408_15_47_S B_Blank_EUF	Apr 08, 2022	3:47PM	Water	M22- Ap0020277			X	
7	SX_IB_202204 08_16_00_SS _Primary_EUF	Apr 08, 2022	4:00PM	Soil	M22- Ap0020278		X	X	X
8	SX_IB_202204	Apr 08, 2022	4:01PM	Soil	M22-		X	X	X

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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
8	SX_IB_20220408_16_01_SS_Duplicate_EU_F	Apr 08, 2022	4:01PM	Soil	M22-Ap0020279				
9	SX_OB_20220408_20_06_SS_Primary_EU_F	Apr 08, 2022	8:06PM	Soil	M22-Ap0020280		X	X	X
10	SX_OB_20220409_00_25_SS_Primary_EU_F	Apr 09, 2022	12:25AM	Soil	M22-Ap0020281		X	X	X
11	SX_OB_20220409_04_06_S	Apr 09, 2022	4:06AM	Soil	M22-Ap0020282		X	X	X

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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
12	SX_OB_20220 408_08_00_S S_Triplicate_E UF	Apr 08, 2022	8:00AM	AUS Leachate - pH 5.0	M22- Ap0020283	X		X	
13	SX_OB_20220 408_08_06_S S_Primary_EU F	Apr 08, 2022	8:06AM	AUS Leachate - pH 5.0	M22- Ap0020284	X		X	
14	SX_IB_202204 08_11_58_SS _Primary_EUF	Apr 08, 2022	11:58AM	AUS Leachate - pH 5.0	M22- Ap0020285	X		X	
15	SX_OB_20220	Apr 08, 2022	12:06PM	AUS Leachate	M22-	X		X	

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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
15	SX_OB_20220408_12_06_S_S_Primary_EU_F	Apr 08, 2022	12:06PM	AUS Leachate - pH 5.0	M22-Ap0020286				
16	SX_IB_20220408_16_00_SS_Primary_EUF	Apr 08, 2022	4:00PM	AUS Leachate - pH 5.0	M22-Ap0020287	X		X	
17	SX_IB_20220408_16_01_SS_Duplicate_EU_F	Apr 08, 2022	4:01PM	AUS Leachate - pH 5.0	M22-Ap0020288	X		X	
18	SX_OB_20220408_20_06_S_S_Primary_EU	Apr 08, 2022	8:06PM	AUS Leachate - pH 5.0	M22-Ap0020289	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
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Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
19	SX_OB_20220409_00_25_S_S_Primary_EU_F	Apr 09, 2022	12:25AM	AUS Leachate - pH 5.0	M22-Ap0020290	X		X	
20	SX_OB_20220409_04_06_S_S_Primary_EU_F	Apr 09, 2022	4:06AM	AUS Leachate - pH 5.0	M22-Ap0020291	X		X	
21	SX_OB_20220408_08_00_S_S_Triplicate_EUF	Apr 08, 2022	8:00AM	AUS Leachate - Reagent Water	M22-Ap0020292	X		X	
22	SX_OB_20220	Apr 08, 2022	8:06AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878808	Due:	Apr 20, 2022
Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
22	SX_OB_20220408_08_06_S_S_Primary_EUF	Apr 08, 2022	8:06AM	AUS Leachate - Reagent Water	M22-Ap0020293				
23	SX_IB_20220408_11_58_SS_Primary_EUF	Apr 08, 2022	11:58AM	AUS Leachate - Reagent Water	M22-Ap0020294	X		X	
24	SX_OB_20220408_12_06_S_S_Primary_EUF	Apr 08, 2022	12:06PM	AUS Leachate - Reagent Water	M22-Ap0020295	X		X	
25	SX_IB_20220408_16_00_SS_Primary_EUF	Apr 08, 2022	4:00PM	AUS Leachate - Reagent Water	M22-Ap0020296	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878808	Due:	Apr 20, 2022
Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
26	SX_IB_20220408_16_01_SS_Duplicate_EU_F	Apr 08, 2022	4:01PM	AUS Leachate - Reagent Water	M22-Ap0020297	X		X	
27	SX_OB_20220408_20_06_SS_Primary_EU_F	Apr 08, 2022	8:06PM	AUS Leachate - Reagent Water	M22-Ap0020298	X		X	
28	SX_OB_20220409_00_25_SS_Primary_EU_F	Apr 09, 2022	12:25AM	AUS Leachate - Reagent Water	M22-Ap0020299	X		X	
29	SX_OB_20220409_04_06_S	Apr 09, 2022	4:06AM	AUS Leachate - Reagent	M22-Ap0020300	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878808	Due:	Apr 20, 2022
Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail				AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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		Water				
Test Counts				18	9	29	9

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)	%	111		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	118		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	107		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	114		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	133		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	108		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	150		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	105		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	121		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	122		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	106		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code		
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)	%	100			50-150	Pass			
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	92			50-150	Pass			
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	120			50-150	Pass			
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	89			50-150	Pass			
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	99			50-150	Pass			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	91			50-150	Pass			
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	93			50-150	Pass			
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)									
Perfluorobutanesulfonic acid (PFBS)	%	104			50-150	Pass			
Perfluorononanesulfonic acid (PFNS)	%	108			50-150	Pass			
Perfluoropropanesulfonic acid (PFPrS)	%	84			50-150	Pass			
Perfluoropentanesulfonic acid (PFPeS)	%	106			50-150	Pass			
Perfluorohexanesulfonic acid (PFHxS)	%	114			50-150	Pass			
Perfluoroheptanesulfonic acid (PFHpS)	%	115			50-150	Pass			
Perfluorooctanesulfonic acid (PFOS)	%	109			50-150	Pass			
Perfluorodecanesulfonic acid (PFDS)	%	73			50-150	Pass			
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	139			50-150	Pass			
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	126			50-150	Pass			
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	109			50-150	Pass			
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	94			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-Ap0020291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances									
				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-Ap0020291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0020291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0020291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0020291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0020291	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-Ap0020291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0020291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0020291	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-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0020291	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0020291	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0020291	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
Mary Makarios	Senior Analyst (NSW)
Glenn Jackson	Senior Analyst (NSW)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: Agon Lab Reports (Spoil Project)

Report 878808-W
Project name 20220409044210-Eurofin-14
Project ID JC0927
Received Date Apr 09, 2022

Client Sample ID			SX_OB_20220 408_15_45_SR _Rinsate_EUF	SX_OB_20220 408_15_47_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Ap0020276	M22- Ap0020277
Date Sampled			Apr 08, 2022	Apr 08, 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	%	81	80
13C5-PFPeA (surr.)	1	%	95	95
13C5-PFHxA (surr.)	1	%	92	90
13C4-PFHpA (surr.)	1	%	90	90
13C8-PFOA (surr.)	1	%	86	89
13C5-PFNA (surr.)	1	%	82	76
13C6-PFDA (surr.)	1	%	77	66
13C2-PFUnDA (surr.)	1	%	64	53
13C2-PFDoDA (surr.)	1	%	52	43
13C2-PFTeDA (surr.)	1	%	19	14
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	%	76	69

Client Sample ID			SX_OB_20220 408_15_45_SR _Rinsate_EUF	SX_OB_20220 408_15_47_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Ap0020276	M22- Ap0020277
Date Sampled			Apr 08, 2022	Apr 08, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D3-N-MeFOSA (surr.)	1	%	45	64
D5-N-EtFOSA (surr.)	1	%	72	80
D7-N-MeFOSE (surr.)	1	%	59	54
D9-N-EtFOSE (surr.)	1	%	58	49
D5-N-EtFOSAA (surr.)	1	%	28	21
D3-N-MeFOSAA (surr.)	1	%	30	29
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	%	102	104
18O2-PFHxS (surr.)	1	%	104	90
13C8-PFOS (surr.)	1	%	85	85
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	%	41	37
13C2-6:2 FTSA (surr.)	1	%	47	42
13C2-8:2 FTSA (surr.)	1	%	142	140
13C2-10:2 FTSA (surr.)	1	%	66	53
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	Apr 09, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	Apr 09, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	Apr 09, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	Apr 09, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	Apr 09, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 9, 2022 10:15 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878808	Due:	Apr 20, 2022
Project Name:	20220409044210-Eurofin-14	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220408_08_00_S_S_Triplicate_EUF	Apr 08, 2022	8:00AM	Soil	M22-Ap0020272		X	X	X
2	SX_OB_20220408_08_06_S_S_Primary_EUF	Apr 08, 2022	8:06AM	Soil	M22-Ap0020273		X	X	X
3	SX_IB_20220408_11_58_SS_Primary_EUF	Apr 08, 2022	11:58AM	Soil	M22-Ap0020274		X	X	X
4	SX_OB_20220408_12_06_PM	Apr 08, 2022	12:06PM	Soil	M22-		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	408_12_06_S S_Primary_EU F				Ap0020275				
5	SX_OB_20220 408_15_45_S R_Rinsate_EU F	Apr 08, 2022	3:45PM	Water	M22- Ap0020276			X	
6	SX_OB_20220 408_15_47_S B_Blank_EUF	Apr 08, 2022	3:47PM	Water	M22- Ap0020277			X	
7	SX_IB_202204 08_16_00_SS _Primary_EUF	Apr 08, 2022	4:00PM	Soil	M22- Ap0020278		X	X	X
8	SX_IB_202204	Apr 08, 2022	4:01PM	Soil	M22-		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 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
8	SX_IB_20220408_16_01_SS_Duplicate_EU F	Apr 08, 2022	4:01PM	Soil	M22-Ap0020279				
9	SX_OB_20220408_20_06_SS_Primary_EU F	Apr 08, 2022	8:06PM	Soil	M22-Ap0020280		X	X	X
10	SX_OB_20220409_00_25_SS_Primary_EU F	Apr 09, 2022	12:25AM	Soil	M22-Ap0020281		X	X	X
11	SX_OB_20220409_04_06_S	Apr 09, 2022	4:06AM	Soil	M22-Ap0020282		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 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
12	SX_OB_20220 408_08_00_S S_Triplicate_E UF	Apr 08, 2022	8:00AM	AUS Leachate - pH 5.0	M22- Ap0020283	X		X	
13	SX_OB_20220 408_08_06_S S_Primary_EU F	Apr 08, 2022	8:06AM	AUS Leachate - pH 5.0	M22- Ap0020284	X		X	
14	SX_IB_202204 08_11_58_SS _Primary_EUF	Apr 08, 2022	11:58AM	AUS Leachate - pH 5.0	M22- Ap0020285	X		X	
15	SX_OB_20220	Apr 08, 2022	12:06PM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
15	SX_OB_20220408_12_06_S_S_Primary_EU_F	Apr 08, 2022	12:06PM	AUS Leachate - pH 5.0	M22-Ap0020286				
16	SX_IB_20220408_16_00_SS_Primary_EUF	Apr 08, 2022	4:00PM	AUS Leachate - pH 5.0	M22-Ap0020287	X		X	
17	SX_IB_20220408_16_01_SS_Duplicate_EU_F	Apr 08, 2022	4:01PM	AUS Leachate - pH 5.0	M22-Ap0020288	X		X	
18	SX_OB_20220408_20_06_S_S_Primary_EU	Apr 08, 2022	8:06PM	AUS Leachate - pH 5.0	M22-Ap0020289	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	F								
19	SX_OB_20220409_00_25_S_S_Primary_EU_F	Apr 09, 2022	12:25AM	AUS Leachate - pH 5.0	M22-Ap0020290	X		X	
20	SX_OB_20220409_04_06_S_S_Primary_EU_F	Apr 09, 2022	4:06AM	AUS Leachate - pH 5.0	M22-Ap0020291	X		X	
21	SX_OB_20220408_08_00_S_S_Triplicate_EUF	Apr 08, 2022	8:00AM	AUS Leachate - Reagent Water	M22-Ap0020292	X		X	
22	SX_OB_20220	Apr 08, 2022	8:06AM	AUS Leachate	M22-	X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
22	SX_OB_20220408_08_06_S_S_Primary_EUF	Apr 08, 2022	8:06AM	AUS Leachate - Reagent Water	M22-Ap0020293				
23	SX_IB_20220408_11_58_SS_Primary_EUF	Apr 08, 2022	11:58AM	AUS Leachate - Reagent Water	M22-Ap0020294	X		X	
24	SX_OB_20220408_12_06_S_S_Primary_EUF	Apr 08, 2022	12:06PM	AUS Leachate - Reagent Water	M22-Ap0020295	X		X	
25	SX_IB_20220408_16_00_SS_Primary_EUF	Apr 08, 2022	4:00PM	AUS Leachate - Reagent Water	M22-Ap0020296	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
26	SX_IB_20220408_16_01_SS_Duplicate_EU_F	Apr 08, 2022	4:01PM	AUS Leachate - Reagent Water	M22-Ap0020297	X		X	
27	SX_OB_20220408_20_06_SS_Primary_EU_F	Apr 08, 2022	8:06PM	AUS Leachate - Reagent Water	M22-Ap0020298	X		X	
28	SX_OB_20220409_00_25_SS_Primary_EU_F	Apr 09, 2022	12:25AM	AUS Leachate - Reagent Water	M22-Ap0020299	X		X	
29	SX_OB_20220409_04_06_S	Apr 09, 2022	4:06AM	AUS Leachate - Reagent	M22-Ap0020300	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail				AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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		Water				
Test Counts				18	9	29	9

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)	%	105		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	115		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	102		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	95		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	104		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	100		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	105		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	122		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	103		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	72		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	109		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	107			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	137			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	132			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)	%	102			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	126			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	112			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	95			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	81			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	118			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	109			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	92			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	108			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	97			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	83			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	117			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	147			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	101			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	101			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)								
Perfluorobutanoic acid (PFBA)	M22-Ap0014936	NCP	%	132		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0014936	NCP	%	54		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0014936	NCP	%	110		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0014936	NCP	%	96		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0014936	NCP	%	104		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0014936	NCP	%	102		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0014936	NCP	%	119		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0014936	NCP	%	120		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0014936	NCP	%	145		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0014936	NCP	%	97		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0014936	NCP	%	145		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	M22-Ap0014936	NCP	%	128		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0014936	NCP	%	84		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0014936	NCP	%	81		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0014936	NCP	%	126		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0014936	NCP	%	140		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0014936	NCP	%	91			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0014936	NCP	%	57			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0014936	NCP	%	92			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ap0014936	NCP	%	60			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0014936	NCP	%	115			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0014936	NCP	%	123			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0014936	NCP	%	103			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0014936	NCP	%	105			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0014936	NCP	%	100			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0014936	NCP	%	72			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-Ap0014936	NCP	%	118			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0014936	NCP	%	150			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0014936	NCP	%	107			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0014936	NCP	%	134			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-Ap0014935	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTEDA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0014935	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0014935	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0014935	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0014935	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0014935	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0014935	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0014935	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0014935	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0014935	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments
Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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CHAIN OF CUSTODY RECORD

Sample ID: SX-20220409-07-40-SS-Triplicate-EUF

Sydney Laboratory
Unit F3 Bld F-16 Mars Road Lane Cove West NSW 1505
02 9590 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory
Unit 1 21 Smeethwood Place Murgas QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

Perth Laboratory
Unit Z 91 Leach Highway Kewdale WA 6105
08 9251 9500 EnviroSampleWA@eurofins.com

Melbourne Laboratory
8 Montmorey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVIC@eurofins.com

Company		Project No		Project Manager		Sampler(s)			
AGON Environmental - Tunnel Spoil Testing		JC0927		Craig Trimbur		Hannah - EP Risk, WOH-Agon, TG-AGON			
Address		Project Name		EOD Format		Handed over by			
Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		WGTP-Tunnel Ref: Spoil Samples 9-11th 2022 WOH		Esdar Esdar FOUAS		WOH - AGON			
Contact Name		Analyte Sulfide WGTP-R-TRIH/PAH/Phenols/OCPI/PCB/VOC/Vinyl Chloride/Alkalis (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 0 - PFAS 0.01-0.05 ug/l ACEP Residues - PFAS 0.01-0.05ug/l		Email for Invoice		Email for Results			
Craig Trimbur David Lawson				finance@agonenviro.com.au LabReports.TST@agonenviro.com.au		LabReports.TST@agonenviro.com.au agonenvironmental@esdar.com.au motherlabresults@wgtp.com.au Amrit.Kaur@agile-analytics.com.au			
Phone No		Special Directions		Containers		Required Turnaround Time (TAT)			
+61 400 826 907 (Craig) +61 490 411 004 (David)		Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with other sample receipt documentation.		500mL Plastic 250mL Plastic 125mL Plastic 200mL Amber Glass 40mL YOA vial 500mL PFAS Bottle Jar (Glass or HDPE) Other (Indicate AS stock, if applicable)		Default will be 3 days if not locked *Surcharge will apply <input type="checkbox"/> Overnight (reporting by 9am) <input type="checkbox"/> Same day <input type="checkbox"/> 1 day <input checked="" type="checkbox"/> 2 days <input type="checkbox"/> 3 days <input type="checkbox"/> 5 days (Standard) <input type="checkbox"/> Other()			
Purchase Order		Quote ID No		Matrix		Sample Comments / Dangerous Goods Hazard Warning			
		Agon WGTP TST		Matrix Solid None (S)					
No	Client Sample ID	Sampled Date/Time	Matrix	S	W	L	U	Other	Comments
1	SX_OB_20220409_07_40_SS_Triplicate_EUF	9/04/22	S	X	X	X	X	X	
2	SX_OB_20220409_09_37_SS_Primary_EUF	9/04/22	S	X	X	X	X	X	
3	SX_IB_20220409_11_55_SS_Primary_EUF	9/04/22	S	X	X	X	X	X	
4	SX_OB_20220409_12_04_SS_Primary_EUF	9/04/22	S	X	X	X	X	X	
5	SX_OB_20220409_15_35_SR_Rinsate_EUF	9/04/22	W			X			
6	SX_OB_20220409_15_37_SB_Blank_EUF	9/04/22	W			X			
7	SX_OB_20220409_15_52_SS_Primary_EUF	9/04/22	S	X	X	X	X	X	
8	SX_OB_20220409_15_52_SS_Duplicate_EUF	9/04/22	S	X	X	X	X	X	
9	SX_OB_20220409_20_06_SS_Primary_EUF	9/04/22	S	X	X	X	X	X	
10	SX_OB_20220410_00_19_SS_Primary_EUF	10/04/22	S	X	X	X	X	X	
11	SX_OB_20220410_04_09_SS_Primary_EUF	10/04/22	S	X	X	X	X	X	
12	SX_OB_20220410_08_02_SS_Triplicate_EUF	10/04/22	S	X	X	X	X	X	
13	SX_OB_20220410_08_06_SS_Primary_EUF	10/04/22	S	X	X	X	X	X	
14	SX_OB_20220410_11_58_SS_Primary_EUF	10/04/22	S	X	X	X	X	X	
15	SX_OB_20220410_15_47_SS_Primary_EUF	10/04/22	S	X	X	X	X	X	
16	SX_OB_20220410_15_48_SS_Duplicate_EUF	10/04/22	S	X	X	X	X	X	
17	SX_OB_20220410_19_58_SS_Primary_EUF	10/04/22	S	X	X	X	X	X	
18	SX_OB_20220411_00_08_SS_Primary_EUF	11/04/22	S	X	X	X	X	X	
19	SX_OB_20220411_04_04_SS_Primary_EUF	11/04/22	S	X	X	X	X	X	
20									
21									
22									
23									
24									
25									
26									
27									
Total Counts				17	17	18	17	17	
Method of Shipment		Received By		Signature		Date		Time	
<input checked="" type="checkbox"/> Courier <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal		460 CANTH		Will O'Hara		11-4-22		AM	
Laboratory Use Only		Received By		Signature		Date		Time	
		CANTH		CANTH		11/4/22		12:30p	

171
-0.2
16.9
Comm

878963
Jake



CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing | ABN 50 005 085 521

Sydney Laboratory
Unit F1, Bldg F, 18 Mars Road Lane Cove West NSW 2086
02 9500 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory
Unit 1 21 Smallwood Place Duramie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

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

Melbourne Laboratory
6 Montey Road Sandernong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		AGON Environmental - Tunnel Spoil Testing		Project No	JC0927					Project Manager	Craig Trimbur					Sampler(s)	Hannah - EP Risk, WOH-Agon, TG-AGON								
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		Project Name	WGTP-Tunnel Ref:20220411162958-Eurofin-8					EDD Format	ESdat					Handed over by	WOH - AGON								
Contact Name		Craig Trimbur David Lawson		Analysis Wherever an analysis is requested "Target" or "Element" SUITE code must be used to affect SUITE priority	Spot Sample Preparation					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	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4894 WA Guidelines)	Required Turnaround Time (TAT) Default will be 5 days if not ticked.				
Phone No		+61 400 826 907 (Craig) +61 490 411 004 (David)			Site WGTP-PCB/TRH/PAH/Phenols/OCPI/PCB/VOC/Vinyl Chloride/Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn, Cr6+, CN, Total Fluoride) pH																Containers Change container type & size if necessary.				
Special Directions		Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with other sample receipt documentation.		Purchase Order		Quote ID No		Agon WGTP TST		No		Client Sample ID		Sampled Date/Time dd/mm/yyyy hh:mm		Matrix Solid (S) Water (W)		Sample Comments / Dangerous Goods Hazard Warning							
1	SX_OB_20220409_07_40_SS_Triplicate_EUF	9/04/22	S	X	X	X	X	X												1					
2	SX_OB_20220409_09_37_SS_Primary_EUF	9/04/22	S	X	X	X	X	X													1				
3	SX_IB_20220409_11_55_SS_Primary_EUF	9/04/22	S	X	X	X	X	X													1				
4	SX_OB_20220409_12_04_SS_Primary_EUF	9/04/22	S	X	X	X	X	X													1				
5	SX_OB_20220409_15_35_SR_Rinsate_EUF	9/04/22	W				X														1				
6	SX_OB_20220409_15_37_SB_Blank_EUF	9/04/22	W				X														1				
7	SX_OB_20220409_15_52_SS_Primary_EUF	9/04/22	S	X	X	X	X	X													1				
8	SX_OB_20220409_15_52_SS_Duplicate_EUF	9/04/22	S	X	X	X	X	X													1				
9	SX_OB_20220409_20_06_SS_Primary_EUF	9/04/22	S	X	X	X	X	X													1				
10	SX_OB_20220410_00_19_SS_Primary_EUF	10/04/22	S	X	X	X	X	X													1				
11	SX_OB_20220410_04_09_SS_Primary_EUF	10/04/22	S	X	X	X	X	X													1				
12	SX_OB_20220410_08_02_SS_Triplicate_EUF	10/04/22	S	X	X	X	X	X													1				
13	SX_OB_20220410_08_06_SS_Primary_EUF	10/04/22	S	X	X	X	X	X													1				
14	SX_OB_20220410_11_58_SS_Primary_EUF	10/04/22	S	X	X	X	X	X													1				
15	SX_OB_20220410_15_47_SS_Primary_EUF	10/04/22	S	X	X	X	X	X													1				
16	SX_OB_20220410_15_48_SS_Duplicate_EUF	10/04/22	S	X	X	X	X	X													1				
17	SX_OB_20220410_19_58_SS_Primary_EUF	10/04/22	S	X	X	X	X	X													1				
18	SX_OB_20220411_00_08_SS_Primary_EUF	11/04/22	S	X	X	X	X	X													1				
19	SX_OB_20220411_04_04_SS_Primary_EUF	11/04/22	S	X	X	X	X	X													1				
26																									
27																									
Total Counts				17	17	19	17	17													19				
Method of Shipment		<input checked="" type="checkbox"/> Courier (#)		<input type="checkbox"/> Hand Delivered		<input type="checkbox"/> Postal		Name		Signature		Date		Time		Temperature									
Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No													



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
Welsphool 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: 20220411162958-Eurofin-8
Project ID: JC0927

Order No.:
Report #: 878963
Phone: 08 8338 1009
Fax:

Received: Apr 11, 2022 12:30 PM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220409_07_40_S_S_Triplicate_EUF	Apr 09, 2022	7:40AM	Soil	M22-Ap0021762		X	X	X
2	SX_OB_20220409_09_37_S_S_Primary_EUF	Apr 09, 2022	9:37AM	Soil	M22-Ap0021763		X	X	X
3	SX_IB_20220409_11_55_SS_Primary_EUF	Apr 09, 2022	11:55AM	Soil	M22-Ap0021764		X	X	X
4	SX_OB_20220409_12_04PM	Apr 09, 2022	12:04PM	Soil	M22-		X	X	X



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Melbourne
6 Monterey Road
Dandenong South VIC 3175
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NATA # 1261 Site # 1254

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179 Magowar Road
Girraween NSW 2066
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NATA # 1261 Site # 25079

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ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welsphool 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
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IANZ # 1290

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	409_12_04_S S_Primary_EU F				Ap0021765				
5	SX_OB_20220 409_15_35_S R_Rinsate_EU F	Apr 09, 2022	3:35PM	Water	M22- Ap0021766			X	
6	SX_OB_20220 409_15_37_S B_Blank_EUF	Apr 09, 2022	3:37PM	Water	M22- Ap0021767			X	
7	SX_OB_20220 409_15_52_S S_Primary_EU F	Apr 09, 2022	3:52PM	Soil	M22- Ap0021768		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
8	SX_OB_20220409_15_52_S_S_Duplicate_EUF	Apr 09, 2022	3:52PM	Soil	M22-Ap0021769		X	X	X
9	SX_OB_20220409_20_06_S_S_Primary_EUF	Apr 09, 2022	8:06PM	Soil	M22-Ap0021770		X	X	X
10	SX_OB_20220410_00_19_S_S_Primary_EUF	Apr 10, 2022	12:19AM	Soil	M22-Ap0021771		X	X	X
11	SX_OB_20220410_04_09_S	Apr 10, 2022	4:09AM	Soil	M22-Ap0021772		X	X	X



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
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Newcastle
4/52 Industrial Drive
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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
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IANZ # 1290

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
12	SX_OB_20220 410_08_02_S S_Triplicate_E UF	Apr 10, 2022	8:02AM	Soil	M22- Ap0021773		X	X	X
13	SX_OB_20220 410_08_06_S S_Primary_EU F	Apr 10, 2022	8:06AM	Soil	M22- Ap0021774		X	X	X
14	SX_OB_20220 410_11_58_S S_Primary_EU F	Apr 10, 2022	11:58AM	Soil	M22- Ap0021775		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
15	SX_OB_20220410_15_47_S_S_Primary_EU_F	Apr 10, 2022	3:47PM	Soil	M22-Ap0021776		X	X	X
16	SX_OB_20220410_15_48_S_S_Duplicate_EUF	Apr 10, 2022	3:48PM	Soil	M22-Ap0021777		X	X	X
17	SX_OB_20220410_19_58_S_S_Primary_EU_F	Apr 10, 2022	7:58PM	Soil	M22-Ap0021778		X	X	X
18	SX_OB_20220411_00_08_S	Apr 11, 2022	12:08AM	Soil	M22-Ap0021779		X	X	X



Environment Testing

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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
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NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welsphool 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
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Rolleston, Christchurch 7675
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IANZ # 1290

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

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
19	SX_OB_20220 411_04_04_S S_Primary_EU F	Apr 11, 2022	4:04AM	Soil	M22- Ap0021780		X	X	X
20	SX_OB_20220 409_07_40_S S_Triplicate_E UF	Apr 09, 2022	7:40AM	AUS Leachate - pH 5.0	M22- Ap0021781	X		X	
21	SX_OB_20220 409_09_37_S S_Primary_EU F	Apr 09, 2022	9:37AM	AUS Leachate - pH 5.0	M22- Ap0021782	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
22	SX_IB_20220409_11_55_SS_Primary_EUF	Apr 09, 2022	11:55AM	AUS Leachate - pH 5.0	M22-Ap0021783	X		X	
23	SX_OB_20220409_12_04_SS_Primary_EUF	Apr 09, 2022	12:04PM	AUS Leachate - pH 5.0	M22-Ap0021784	X		X	
24	SX_OB_20220409_15_52_SS_Primary_EUF	Apr 09, 2022	3:52PM	AUS Leachate - pH 5.0	M22-Ap0021785	X		X	
25	SX_OB_20220409_15_52_SS_Duplicate_EUF	Apr 09, 2022	3:52PM	AUS Leachate - pH 5.0	M22-Ap0021786	X		X	



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
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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

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Phone : +64 9 526 45 51
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web: www.eurofins.com.au
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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	UF								
26	SX_OB_20220409_20_06_S_S_Primary_EU F	Apr 09, 2022	8:06PM	AUS Leachate - pH 5.0	M22-Ap0021787	X		X	
27	SX_OB_20220410_00_19_S_S_Primary_EU F	Apr 10, 2022	12:19AM	AUS Leachate - pH 5.0	M22-Ap0021788	X		X	
28	SX_OB_20220410_04_09_S_S_Primary_EU F	Apr 10, 2022	4:09AM	AUS Leachate - pH 5.0	M22-Ap0021789	X		X	
29	SX_OB_20220	Apr 10, 2022	8:02AM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
29	SX_OB_20220410_08_02_S_S_Triplicate_EUF	Apr 10, 2022	8:02AM	AUS Leachate - pH 5.0	M22-Ap0021790				
30	SX_OB_20220410_08_06_S_S_Primary_EUF	Apr 10, 2022	8:06AM	AUS Leachate - pH 5.0	M22-Ap0021791	X		X	
31	SX_OB_20220410_11_58_S_S_Primary_EUF	Apr 10, 2022	11:58AM	AUS Leachate - pH 5.0	M22-Ap0021792	X		X	
32	SX_OB_20220410_15_47_S	Apr 10, 2022	3:47PM	AUS Leachate - pH 5.0	M22-Ap0021793	X		X	



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ABN: 50 005 085 521

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
33	SX_OB_20220 410_15_48_S S_Duplicate_E UF	Apr 10, 2022	3:48PM	AUS Leachate - pH 5.0	M22- Ap0021794	X		X	
34	SX_OB_20220 410_19_58_S S_Primary_EU F	Apr 10, 2022	7:58PM	AUS Leachate - pH 5.0	M22- Ap0021795	X		X	
35	SX_OB_20220 411_00_08_S S_Primary_EU F	Apr 11, 2022	12:08AM	AUS Leachate - pH 5.0	M22- Ap0021796	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
36	SX_OB_20220411_04_04_S_S_Primary_EU_F	Apr 11, 2022	4:04AM	AUS Leachate - pH 5.0	M22-Ap0021797	X		X	
37	SX_OB_20220409_07_40_S_S_Triplicate_EUF	Apr 09, 2022	7:40AM	AUS Leachate - Reagent Water	M22-Ap0021798	X		X	
38	SX_OB_20220409_09_37_S_S_Primary_EU_F	Apr 09, 2022	9:37AM	AUS Leachate - Reagent Water	M22-Ap0021799	X		X	
39	SX_IB_20220409_11_55_SS	Apr 09, 2022	11:55AM	AUS Leachate - Reagent	M22-Ap0021800	X		X	



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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: 20220411162958-Eurofin-8
Project ID: JC0927

Order No.:
Report #: 878963
Phone: 08 8338 1009
Fax:

Received: Apr 11, 2022 12:30 PM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
	_Primary_EUF			Water					
40	SX_OB_20220409_12_04_S_S_Primary_EUF	Apr 09, 2022	12:04PM	AUS Leachate - Reagent Water	M22-Ap0021801	X		X	
41	SX_OB_20220409_15_52_S_S_Primary_EUF	Apr 09, 2022	3:52PM	AUS Leachate - Reagent Water	M22-Ap0021802	X		X	
42	SX_OB_20220409_15_52_S_S_Duplicate_EUF	Apr 09, 2022	3:52PM	AUS Leachate - Reagent Water	M22-Ap0021803	X		X	
43	SX_OB_20220	Apr 09, 2022	8:06PM	AUS Leachate	M22-	X		X	

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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									
43	SX_OB_20220409_20_06_S_S_Primary_EU_F	Apr 09, 2022	8:06PM	AUS Leachate - Reagent Water	M22-Ap0021804				
44	SX_OB_20220410_00_19_S_S_Primary_EU_F	Apr 10, 2022	12:19AM	AUS Leachate - Reagent Water	M22-Ap0021805	X		X	
45	SX_OB_20220410_04_09_S_S_Primary_EU_F	Apr 10, 2022	4:09AM	AUS Leachate - Reagent Water	M22-Ap0021806	X		X	
46	SX_OB_20220410_08_02_S	Apr 10, 2022	8:02AM	AUS Leachate - Reagent	M22-Ap0021807	X		X	



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
Welsphool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

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Phone : +64 9 526 45 51
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Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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					
47	SX_OB_20220410_08_06_S_S_Primary_EUF	Apr 10, 2022	8:06AM	AUS Leachate - Reagent Water	M22-Ap0021808	X	X		
48	SX_OB_20220410_11_58_S_S_Primary_EUF	Apr 10, 2022	11:58AM	AUS Leachate - Reagent Water	M22-Ap0021809	X	X		
49	SX_OB_20220410_15_47_S_S_Primary_EUF	Apr 10, 2022	3:47PM	AUS Leachate - Reagent Water	M22-Ap0021810	X	X		

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
50	SX_OB_20220410_15_48_S_S_Duplicate_EUF	Apr 10, 2022	3:48PM	AUS Leachate - Reagent Water	M22-Ap0021811	X		X	
51	SX_OB_20220410_19_58_S_S_Primary_EUF	Apr 10, 2022	7:58PM	AUS Leachate - Reagent Water	M22-Ap0021812	X		X	
52	SX_OB_20220411_00_08_S_S_Primary_EUF	Apr 11, 2022	12:08AM	AUS Leachate - Reagent Water	M22-Ap0021813	X		X	
53	SX_OB_20220411_04_04_S	Apr 11, 2022	4:04AM	AUS Leachate - Reagent	M22-Ap0021814	X		X	



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

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Project ID: JC0927

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Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail				AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IMRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254				X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
Perth Laboratory - NATA # 2377 Site # 2370							
External Laboratory							
	S_Primary_EU F		Water				
Test Counts				34	17	53	17

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: **Agon Lab Reports (Spoil Project)**

Report **878963-S**
Project name **20220411162958-Eurofin-8**
Project ID **JC0927**
Received Date **Apr 11, 2022**

Client Sample ID			SX_OB_20220 409_07_40_SS _TriPLICATE_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF	SX_OB_20220 409_12_04_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021762	M22- Ap0021763	M22- Ap0021764	M22- Ap0021765
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	35	< 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 409_07_40_SS _TriPLICATE_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF	SX_OB_20220 409_12_04_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021762	M22- Ap0021763	M22- Ap0021764	M22- Ap0021765
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	%	128	71	53	79
Toluene-d8 (surr.)	1	%	141	78	55	84
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 409_07_40_SS _TriPLICATE_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF	SX_OB_20220 409_12_04_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021762	M22- Ap0021763	M22- Ap0021764	M22- Ap0021765
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	%	76	69	105	52
p-Terphenyl-d14 (surr.)	1	%	57	59	90	61
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	%	94	106	120	76
Tetrachloro-m-xylene (surr.)	1	%	97	99	135	91

Client Sample ID			SX_OB_20220 409_07_40_SS _TriPLICATE_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF	SX_OB_20220 409_12_04_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021762	M22- Ap0021763	M22- Ap0021764	M22- Ap0021765
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	%	94	106	120	76
Tetrachloro-m-xylene (surr.)	1	%	97	99	135	91
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	%	55	46	90	36
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	370	360	< 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	7.7	8.6	8.8	7.2
% Moisture						
% Moisture	1	%	28	28	30	32
Heavy Metals						
Arsenic	2	mg/kg	46	56	24	35
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	160	230	140	160
Copper	5	mg/kg	61	82	61	69
Lead	5	mg/kg	< 5	5.1	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 409_07_40_SS _TriPLICATE_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF	SX_OB_20220 409_12_04_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021762	M22- Ap0021763	M22- Ap0021764	M22- Ap0021765
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	200	280	170	200
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	110	160	120	120
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	82	92	82
13C5-PFPeA (surr.)	1	%	83	89	97	81
13C5-PFHxA (surr.)	1	%	80	77	80	78
13C4-PFHpA (surr.)	1	%	81	78	84	72
13C8-PFOA (surr.)	1	%	94	86	94	81
13C5-PFNA (surr.)	1	%	63	71	56	56
13C6-PFDA (surr.)	1	%	106	76	72	108
13C2-PFUnDA (surr.)	1	%	143	114	125	119
13C2-PFDoDA (surr.)	1	%	117	69	91	104
13C2-PFTeDA (surr.)	1	%	77	85	68	78
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	%	85	113	88	78
D3-N-MeFOSA (surr.)	1	%	97	120	88	83
D5-N-EtFOSA (surr.)	1	%	110	142	104	96
D7-N-MeFOSE (surr.)	1	%	84	127	74	79
D9-N-EtFOSE (surr.)	1	%	85	111	82	77
D5-N-EtFOSAA (surr.)	1	%	97	97	133	101
D3-N-MeFOSAA (surr.)	1	%	134	75	141	121

Client Sample ID			SX_OB_20220 409_07_40_SS _TriPLICATE_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF	SX_OB_20220 409_12_04_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021762	M22- Ap0021763	M22- Ap0021764	M22- Ap0021765
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	%	79	71	77	76
18O2-PFHxS (surr.)	1	%	64	93	70	61
13C8-PFOS (surr.)	1	%	63	76	62	56
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	%	77	72	65	70
13C2-6:2 FTSA (surr.)	1	%	112	71	83	86
13C2-8:2 FTSA (surr.)	1	%	53	97	88	88
13C2-10:2 FTSA (surr.)	1	%	119	75	130	102
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 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS _Duplicate_EU F	SX_OB_20220 409_20_06_SS _Primary_EUF	SX_OB_20220 410_00_19_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021768	M22- Ap0021769	M22- Ap0021770	M22- Ap0021771
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 10, 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	33	< 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 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS Duplicate_EU F	SX_OB_20220 409_20_06_SS _Primary_EUF	SX_OB_20220 410_00_19_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021768	M22- Ap0021769	M22- Ap0021770	M22- Ap0021771
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 10, 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 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS Duplicate_EU F	SX_OB_20220 409_20_06_SS _Primary_EUF	SX_OB_20220 410_00_19_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021768	M22- Ap0021769	M22- Ap0021770	M22- Ap0021771
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
Volatiles 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	%	62	89	53	67
Toluene-d8 (surr.)	1	%	69	100	55	74
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	%	78	75	102	72
p-Terphenyl-d14 (surr.)	1	%	63	57	81	62

Client Sample ID			SX_OB_20220 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS Duplicate_EU F	SX_OB_20220 409_20_06_SS _Primary_EUF	SX_OB_20220 410_00_19_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021768	M22- Ap0021769	M22- Ap0021770	M22- Ap0021771
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 10, 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	%	114	105	133	88
Tetrachloro-m-xylene (surr.)	1	%	118	106	135	95
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	%	114	105	133	88
Tetrachloro-m-xylene (surr.)	1	%	118	106	135	95
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 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS Duplicate_EU F	SX_OB_20220 409_20_06_SS _Primary_EUF	SX_OB_20220 410_00_19_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021768	M22- Ap0021769	M22- Ap0021770	M22- Ap0021771
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 10, 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	%	46	52	77	55
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	590	< 100	290	320
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.3	7.3	7.4	8.1
% Moisture						
% Moisture	1	%	29	31	28	28
Heavy Metals						
Arsenic	2	mg/kg	60	82	54	69
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	180	210	180	260
Copper	5	mg/kg	63	77	69	96
Lead	5	mg/kg	< 5	< 5	< 5	6.8
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	220	270	220	310
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	170	130	160
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	%	74	81	81	71
13C5-PFPeA (surr.)	1	%	87	79	85	79
13C5-PFHxA (surr.)	1	%	68	71	72	64

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021768	M22- Ap0021769	M22- Ap0021770	M22- Ap0021771
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	68	74	74	58
13C8-PFOA (surr.)	1	%	75	95	74	78
13C5-PFNA (surr.)	1	%	56	57	88	52
13C6-PFDA (surr.)	1	%	63	116	64	61
13C2-PFUnDA (surr.)	1	%	100	123	94	104
13C2-PFDoDA (surr.)	1	%	67	120	60	57
13C2-PFTeDA (surr.)	1	%	80	94	98	74
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	%	105	84	70	99
D3-N-MeFOSA (surr.)	1	%	104	96	69	102
D5-N-EtFOSA (surr.)	1	%	137	107	97	124
D7-N-MeFOSE (surr.)	1	%	113	69	77	106
D9-N-EtFOSE (surr.)	1	%	103	82	74	96
D5-N-EtFOSAA (surr.)	1	%	94	78	97	94
D3-N-MeFOSAA (surr.)	1	%	80	134	91	149
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	%	64	76	68	62
18O2-PFHxS (surr.)	1	%	73	53	73	70
13C8-PFOS (surr.)	1	%	67	70	72	60
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	%	67	77	67	72
13C2-6:2 FTSA (surr.)	1	%	56	88	63	66

Client Sample ID			SX_OB_20220 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS Duplicate_EU F	SX_OB_20220 409_20_06_SS _Primary_EUF	SX_OB_20220 410_00_19_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021768	M22- Ap0021769	M22- Ap0021770	M22- Ap0021771
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-8:2 FTSA (surr.)	1	%	93	120	101	99
13C2-10:2 FTSA (surr.)	1	%	129	117	113	76
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 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS TriPLICATE_EU F	SX_OB_20220 410_08_06_SS _Primary_EUF	SX_OB_20220 410_11_58_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021772	M22- Ap0021773	M22- Ap0021774	M22- Ap0021775
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 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

Client Sample ID			SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _Triplicate_EU F	SX_OB_20220 410_08_06_SS _Primary_EUF	SX_OB_20220 410_11_58_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021772	M22- Ap0021773	M22- Ap0021774	M22- Ap0021775
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
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	%	53	73	74	53
Toluene-d8 (surr.)	1	%	57	77	77	55

Client Sample ID			SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _Triplicate_EU F	SX_OB_20220 410_08_06_SS _Primary_EUF	SX_OB_20220 410_11_58_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021772	M22- Ap0021773	M22- Ap0021774	M22- Ap0021775
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
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	61	62	74
p-Terphenyl-d14 (surr.)	1	%	98	59	63	58
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

Client Sample ID			SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _Triplicate_EU F	SX_OB_20220 410_08_06_SS _Primary_EUF	SX_OB_20220 410_11_58_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021772	M22- Ap0021773	M22- Ap0021774	M22- Ap0021775
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	90	60	60	95
Tetrachloro-m-xylene (surr.)	1	%	121	94	91	96
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	%	90	60	60	95
Tetrachloro-m-xylene (surr.)	1	%	121	94	91	96
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	%	74	57	60	55
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	1.2	< 1	< 1	< 1
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	400	390	350	310
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.9	8.3	8.3	7.5
% Moisture						
% Moisture	1	%	25	32	30	27

Client Sample ID			SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _Triplicate_EU F	SX_OB_20220 410_08_06_SS _Primary_EUF	SX_OB_20220 410_11_58_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021772	M22- Ap0021773	M22- Ap0021774	M22- Ap0021775
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	58	51	71	41
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	170	190	190	170
Copper	5	mg/kg	66	64	74	75
Lead	5	mg/kg	< 5	< 5	6.2	5.0
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	180	160	240	240
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	110	100	170	140
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	%	86	82	79	86
13C5-PFPeA (surr.)	1	%	87	83	84	86
13C5-PFHxA (surr.)	1	%	77	73	73	79
13C4-PFHpA (surr.)	1	%	72	73	70	79
13C8-PFOA (surr.)	1	%	74	79	77	87
13C5-PFNA (surr.)	1	%	68	80	74	79
13C6-PFDA (surr.)	1	%	105	98	65	107
13C2-PFUnDA (surr.)	1	%	95	109	92	117
13C2-PFDoDA (surr.)	1	%	70	92	68	126
13C2-PFTeDA (surr.)	1	%	63	83	92	105
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	%	78	76	74	88

Client Sample ID			SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _Triplicate_EU F	SX_OB_20220 410_08_06_SS _Primary_EUF	SX_OB_20220 410_11_58_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021772	M22- Ap0021773	M22- Ap0021774	M22- Ap0021775
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D3-N-MeFOSA (surr.)	1	%	96	84	76	91
D5-N-EtFOSA (surr.)	1	%	102	94	94	98
D7-N-MeFOSE (surr.)	1	%	89	81	76	85
D9-N-EtFOSE (surr.)	1	%	75	77	75	87
D5-N-EtFOSAA (surr.)	1	%	117	62	85	94
D3-N-MeFOSAA (surr.)	1	%	106	105	119	123
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	%	64	69	67	71
18O2-PFHxS (surr.)	1	%	74	72	64	57
13C8-PFOS (surr.)	1	%	58	75	64	57
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	%	74	68	65	65
13C2-6:2 FTSA (surr.)	1	%	69	88	53	92
13C2-8:2 FTSA (surr.)	1	%	97	118	80	127
13C2-10:2 FTSA (surr.)	1	%	129	74	90	112
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 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_SS _Primary_EUF	SX_OB_20220 411_00_08_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021776	M22- Ap0021777	M22- Ap0021778	M22- Ap0021779
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 11, 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
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

Client Sample ID			SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_SS _Primary_EUF	SX_OB_20220 411_00_08_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021776	M22- Ap0021777	M22- Ap0021778	M22- Ap0021779
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 11, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	65	67	53	54
Toluene-d8 (surr.)	1	%	70	67	55	66
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

Client Sample ID			SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS Duplicate_EU F	SX_OB_20220 410_19_58_SS _Primary_EUF	SX_OB_20220 411_00_08_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021776	M22- Ap0021777	M22- Ap0021778	M22- Ap0021779
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 11, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	65	83	79	61
p-Terphenyl-d14 (surr.)	1	%	56	99	112	99
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
Dibutylchloredate (surr.)	1	%	92	97	95	69
Tetrachloro-m-xylene (surr.)	1	%	95	120	125	100
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
Dibutylchloredate (surr.)	1	%	92	97	95	69
Tetrachloro-m-xylene (surr.)	1	%	95	120	125	100

Client Sample ID			SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_SS _Primary_EUF	SX_OB_20220 411_00_08_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021776	M22- Ap0021777	M22- Ap0021778	M22- Ap0021779
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 11, 2022
Test/Reference	LOR	Unit				
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	%	48	84	77	60
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	380	460	400	490
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.4	8.4	7.6	8.3
% Moisture						
% Moisture	1	%	32	30	19	31
Heavy Metals						
Arsenic	2	mg/kg	54	100	56	58
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	180	160	160	190
Copper	5	mg/kg	76	76	63	79
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	180	190	170	210
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	110	130	140
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

Client Sample ID			SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_SS _Primary_EUF	SX_OB_20220 411_00_08_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021776	M22- Ap0021777	M22- Ap0021778	M22- Ap0021779
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 11, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
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	%	73	77	82	85
13C5-PFPeA (surr.)	1	%	82	81	85	87
13C5-PFHxA (surr.)	1	%	68	74	78	72
13C4-PFHpA (surr.)	1	%	64	72	78	73
13C8-PFOA (surr.)	1	%	70	84	98	82
13C5-PFNA (surr.)	1	%	56	84	58	80
13C6-PFDA (surr.)	1	%	60	67	82	105
13C2-PFUnDA (surr.)	1	%	96	100	99	107
13C2-PFDoDA (surr.)	1	%	54	62	111	68
13C2-PFTeDA (surr.)	1	%	72	78	78	56
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	%	94	65	75	80
D3-N-MeFOSA (surr.)	1	%	105	91	100	74
D5-N-EtFOSA (surr.)	1	%	130	96	102	89
D7-N-MeFOSE (surr.)	1	%	103	68	86	81
D9-N-EtFOSE (surr.)	1	%	104	68	83	75
D5-N-EtFOSAA (surr.)	1	%	99	100	112	94
D3-N-MeFOSAA (surr.)	1	%	147	94	119	110
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoronanesulfonic 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	%	71	69	75	65
18O2-PFHxS (surr.)	1	%	70	62	59	65
13C8-PFOS (surr.)	1	%	69	82	54	62

Client Sample ID			SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS Duplicate_EU F	SX_OB_20220 410_19_58_SS _Primary_EUF	SX_OB_20220 411_00_08_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0021776	M22- Ap0021777	M22- Ap0021778	M22- Ap0021779
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 11, 2022
Test/Reference	LOR	Unit				
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	%	64	70	78	70
13C2-6:2 FTSA (surr.)	1	%	62	53	104	60
13C2-8:2 FTSA (surr.)	1	%	95	99	69	101
13C2-10:2 FTSA (surr.)	1	%	149	110	127	127
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 411_04_04_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0021780
Date Sampled			Apr 11, 2022
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
Volatile Organics			
Hexachlorobutadiene	0.5	mg/kg	< 0.5
Volatile Organics			
1.1-Dichloroethane	0.5	mg/kg	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5

Client Sample ID			SX_OB_20220 411_04_04_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0021780
Date Sampled			Apr 11, 2022
Test/Reference	LOR	Unit	
Volatile Organics			
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	1.0
4-Chlorotoluene	0.5	mg/kg	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5
Benzene	0.1	mg/kg	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5
Bromoform	0.5	mg/kg	< 0.5
Bromomethane	0.5	mg/kg	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5
Chloroethane	0.5	mg/kg	< 0.5
Chloroform	0.5	mg/kg	< 0.5
Chloromethane	0.5	mg/kg	< 0.5
cis-1,2-Dichloroethene	0.5	mg/kg	< 0.5
cis-1,3-Dichloropropene	0.5	mg/kg	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1
Iodomethane	0.5	mg/kg	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5
o-Xylene	0.1	mg/kg	< 0.1
Styrene	0.5	mg/kg	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5
Toluene	0.1	mg/kg	< 0.1
trans-1,2-Dichloroethene	0.5	mg/kg	< 0.5
trans-1,3-Dichloropropene	0.5	mg/kg	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5

Client Sample ID			SX_OB_20220 411_04_04_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0021780
Date Sampled			Apr 11, 2022
Test/Reference	LOR	Unit	
Volatile Organics			
Vinyl chloride	0.5	mg/kg	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3
Total MAH*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5
4-Bromofluorobenzene (surr.)	1	%	67
Toluene-d8 (surr.)	1	%	75
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	69
p-Terphenyl-d14 (surr.)	1	%	61
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05
a-HCH	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-HCH	0.05	mg/kg	< 0.05
d-HCH	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05

Client Sample ID			SX_OB_20220 411_04_04_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0021780
Date Sampled			Apr 11, 2022
Test/Reference	LOR	Unit	
Organochlorine Pesticides			
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.5	mg/kg	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	90
Tetrachloro-m-xylene (surr.)	1	%	92
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	90
Tetrachloro-m-xylene (surr.)	1	%	92
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1
Pentachlorophenol	1	mg/kg	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10
Total Halogenated Phenol*	1	mg/kg	< 1
Phenols (non-Halogenated)			
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5
2-Nitrophenol	1.0	mg/kg	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
Total cresols*	0.5	mg/kg	< 0.5
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Phenol-d6 (surr.)	1	%	55
Total Non-Halogenated Phenol*	20	mg/kg	< 20

Client Sample ID			SX_OB_20220 411_04_04_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0021780
Date Sampled			Apr 11, 2022
Test/Reference	LOR	Unit	
Chromium (hexavalent)	1	mg/kg	< 1
Cyanide (total)	5	mg/kg	< 5
Fluoride (Total)	100	mg/kg	350
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.3
% Moisture	1	%	28
Heavy Metals			
Arsenic	2	mg/kg	46
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	170
Copper	5	mg/kg	74
Lead	5	mg/kg	< 5
Mercury	0.1	mg/kg	< 0.1
Molybdenum	5	mg/kg	< 5
Nickel	5	mg/kg	230
Selenium	2	mg/kg	< 2
Silver	2	mg/kg	< 2
Tin	10	mg/kg	< 10
Zinc	5	mg/kg	130
Perfluoroalkyl carboxylic acids (PFCAs)			
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5
Perfluorotridecanoic acid (PFTeDA) ^{N15}	5	ug/kg	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5
13C4-PFBA (surr.)	1	%	78
13C5-PFPeA (surr.)	1	%	81
13C5-PFHxA (surr.)	1	%	74
13C4-PFHpA (surr.)	1	%	72
13C8-PFOA (surr.)	1	%	78
13C5-PFNA (surr.)	1	%	60
13C6-PFDA (surr.)	1	%	69
13C2-PFUnDA (surr.)	1	%	103
13C2-PFDoDA (surr.)	1	%	65
13C2-PFTeDA (surr.)	1	%	90
Perfluoroalkyl sulfonamido substances			
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5

Client Sample ID			SX_OB_20220 411_04_04_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- Ap0021780
Date Sampled			Apr 11, 2022
Test/Reference	LOR	Unit	
Perfluoroalkyl sulfonamido substances			
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10
13C8-FOSA (surr.)	1	%	116
D3-N-MeFOSA (surr.)	1	%	122
D5-N-EtFOSA (surr.)	1	%	139
D7-N-MeFOSE (surr.)	1	%	122
D9-N-EtFOSE (surr.)	1	%	103
D5-N-EtFOSAA (surr.)	1	%	90
D3-N-MeFOSAA (surr.)	1	%	78
Perfluoroalkyl sulfonic acids (PFASs)			
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5
13C3-PFBS (surr.)	1	%	75
18O2-PFHxS (surr.)	1	%	72
13C8-PFOS (surr.)	1	%	65
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5
13C2-4:2 FTSA (surr.)	1	%	72
13C2-6:2 FTSA (surr.)	1	%	60
13C2-8:2 FTSA (surr.)	1	%	95
13C2-10:2 FTSA (surr.)	1	%	83
PFASs Summations			
Sum (PFHxS + PFOS)*	5	ug/kg	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 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	Apr 12, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 12, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 12, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Apr 12, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Apr 12, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 12, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Apr 12, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Apr 12, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 12, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 12, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection - Method: LTM-INO-4230 Hexavalent Chromium by UV-Vis	Melbourne	Apr 12, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Apr 13, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	Apr 12, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Apr 12, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Apr 12, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Apr 11, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 12, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 12, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 12, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 12, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220409_07_40_S_S_Triplicate_EUF	Apr 09, 2022	7:40AM	Soil	M22-Ap0021762		X	X	X
2	SX_OB_20220409_09_37_S_S_Primary_EUF	Apr 09, 2022	9:37AM	Soil	M22-Ap0021763		X	X	X
3	SX_IB_20220409_11_55_SS_Primary_EUF	Apr 09, 2022	11:55AM	Soil	M22-Ap0021764		X	X	X
4	SX_OB_20220409_12_04PM	Apr 09, 2022	12:04PM	Soil	M22-		X	X	X

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

Project Name: 20220411162958-Eurofin-8
Project ID: JC0927

Order No.:
Report #: 878963
Phone: 08 8338 1009
Fax:

Received: Apr 11, 2022 12:30 PM
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Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
	409_12_04_S S_Primary_EU F				Ap0021765				
5	SX_OB_20220 409_15_35_S R_Rinsate_EU F	Apr 09, 2022	3:35PM	Water	M22- Ap0021766			X	
6	SX_OB_20220 409_15_37_S B_Blank_EUF	Apr 09, 2022	3:37PM	Water	M22- Ap0021767			X	
7	SX_OB_20220 409_15_52_S S_Primary_EU F	Apr 09, 2022	3:52PM	Soil	M22- Ap0021768		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
8	SX_OB_20220409_15_52_S_S_Duplicate_EUF	Apr 09, 2022	3:52PM	Soil	M22-Ap0021769		X	X	X
9	SX_OB_20220409_20_06_S_S_Primary_EUF	Apr 09, 2022	8:06PM	Soil	M22-Ap0021770		X	X	X
10	SX_OB_20220410_00_19_S_S_Primary_EUF	Apr 10, 2022	12:19AM	Soil	M22-Ap0021771		X	X	X
11	SX_OB_20220410_04_09_S	Apr 10, 2022	4:09AM	Soil	M22-Ap0021772		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
12	SX_OB_20220 410_08_02_S S_Triplicate_E UF	Apr 10, 2022	8:02AM	Soil	M22- Ap0021773		X	X	X
13	SX_OB_20220 410_08_06_S S_Primary_EU F	Apr 10, 2022	8:06AM	Soil	M22- Ap0021774		X	X	X
14	SX_OB_20220 410_11_58_S S_Primary_EU F	Apr 10, 2022	11:58AM	Soil	M22- Ap0021775		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220411162958-Eurofin-8
Project ID: JC0927

Order No.:
Report #: 878963
Phone: 08 8338 1009
Fax:

Received: Apr 11, 2022 12:30 PM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
15	SX_OB_20220410_15_47_S_S_Primary_EU_F	Apr 10, 2022	3:47PM	Soil	M22-Ap0021776		X	X	X
16	SX_OB_20220410_15_48_S_S_Duplicate_EUF	Apr 10, 2022	3:48PM	Soil	M22-Ap0021777		X	X	X
17	SX_OB_20220410_19_58_S_S_Primary_EU_F	Apr 10, 2022	7:58PM	Soil	M22-Ap0021778		X	X	X
18	SX_OB_20220411_00_08_S	Apr 11, 2022	12:08AM	Soil	M22-Ap0021779		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
19	SX_OB_20220 411_04_04_S S_Primary_EU F	Apr 11, 2022	4:04AM	Soil	M22- Ap0021780		X	X	X
20	SX_OB_20220 409_07_40_S S_Triplicate_E UF	Apr 09, 2022	7:40AM	AUS Leachate - pH 5.0	M22- Ap0021781	X		X	
21	SX_OB_20220 409_09_37_S S_Primary_EU F	Apr 09, 2022	9:37AM	AUS Leachate - pH 5.0	M22- Ap0021782	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
22	SX_IB_20220409_11_55_SS_Primary_EUF	Apr 09, 2022	11:55AM	AUS Leachate - pH 5.0	M22-Ap0021783	X		X	
23	SX_OB_20220409_12_04_S_Primary_EUF	Apr 09, 2022	12:04PM	AUS Leachate - pH 5.0	M22-Ap0021784	X		X	
24	SX_OB_20220409_15_52_S_Primary_EUF	Apr 09, 2022	3:52PM	AUS Leachate - pH 5.0	M22-Ap0021785	X		X	
25	SX_OB_20220409_15_52_S_Duplicate_EUF	Apr 09, 2022	3:52PM	AUS Leachate - pH 5.0	M22-Ap0021786	X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
	UF								
26	SX_OB_20220409_20_06_S_S_Primary_EU F	Apr 09, 2022	8:06PM	AUS Leachate - pH 5.0	M22-Ap0021787	X		X	
27	SX_OB_20220410_00_19_S_S_Primary_EU F	Apr 10, 2022	12:19AM	AUS Leachate - pH 5.0	M22-Ap0021788	X		X	
28	SX_OB_20220410_04_09_S_S_Primary_EU F	Apr 10, 2022	4:09AM	AUS Leachate - pH 5.0	M22-Ap0021789	X		X	
29	SX_OB_20220	Apr 10, 2022	8:02AM	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 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
29	SX_OB_20220410_08_02_S_S_Triplicate_EUF	Apr 10, 2022	8:02AM	AUS Leachate - pH 5.0	M22-Ap0021790				
30	SX_OB_20220410_08_06_S_S_Primary_EUF	Apr 10, 2022	8:06AM	AUS Leachate - pH 5.0	M22-Ap0021791	X		X	
31	SX_OB_20220410_11_58_S_S_Primary_EUF	Apr 10, 2022	11:58AM	AUS Leachate - pH 5.0	M22-Ap0021792	X		X	
32	SX_OB_20220410_15_47_S	Apr 10, 2022	3:47PM	AUS Leachate - pH 5.0	M22-Ap0021793	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
33	SX_OB_20220 410_15_48_S S_Duplicate_E UF	Apr 10, 2022	3:48PM	AUS Leachate - pH 5.0	M22- Ap0021794	X		X	
34	SX_OB_20220 410_19_58_S S_Primary_EU F	Apr 10, 2022	7:58PM	AUS Leachate - pH 5.0	M22- Ap0021795	X		X	
35	SX_OB_20220 411_00_08_S S_Primary_EU F	Apr 11, 2022	12:08AM	AUS Leachate - pH 5.0	M22- Ap0021796	X		X	

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Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
36	SX_OB_20220411_04_04_S_S_Primary_EU_F	Apr 11, 2022	4:04AM	AUS Leachate - pH 5.0	M22-Ap0021797	X		X	
37	SX_OB_20220409_07_40_S_S_Triplicate_EUF	Apr 09, 2022	7:40AM	AUS Leachate - Reagent Water	M22-Ap0021798	X		X	
38	SX_OB_20220409_09_37_S_S_Primary_EU_F	Apr 09, 2022	9:37AM	AUS Leachate - Reagent Water	M22-Ap0021799	X		X	
39	SX_IB_20220409_11_55_SS	Apr 09, 2022	11:55AM	AUS Leachate - Reagent	M22-Ap0021800	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	_Primary_EUF			Water					
40	SX_OB_20220409_12_04_S_S_Primary_EUF	Apr 09, 2022	12:04PM	AUS Leachate - Reagent Water	M22-Ap0021801	X		X	
41	SX_OB_20220409_15_52_S_S_Primary_EUF	Apr 09, 2022	3:52PM	AUS Leachate - Reagent Water	M22-Ap0021802	X		X	
42	SX_OB_20220409_15_52_S_S_Duplicate_EUF	Apr 09, 2022	3:52PM	AUS Leachate - Reagent Water	M22-Ap0021803	X		X	
43	SX_OB_20220	Apr 09, 2022	8:06PM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
43	SX_OB_20220409_20_06_S_S_Primary_EU_F	Apr 09, 2022	8:06PM	AUS Leachate - Reagent Water	M22-Ap0021804				
44	SX_OB_20220410_00_19_S_S_Primary_EU_F	Apr 10, 2022	12:19AM	AUS Leachate - Reagent Water	M22-Ap0021805	X		X	
45	SX_OB_20220410_04_09_S_S_Primary_EU_F	Apr 10, 2022	4:09AM	AUS Leachate - Reagent Water	M22-Ap0021806	X		X	
46	SX_OB_20220410_08_02_S	Apr 10, 2022	8:02AM	AUS Leachate - Reagent	M22-Ap0021807	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Triplicate_EUF			Water					
47	SX_OB_20220410_08_06_S_S_Primary_EUF	Apr 10, 2022	8:06AM	AUS Leachate - Reagent Water	M22-Ap0021808	X		X	
48	SX_OB_20220410_11_58_S_S_Primary_EUF	Apr 10, 2022	11:58AM	AUS Leachate - Reagent Water	M22-Ap0021809	X		X	
49	SX_OB_20220410_15_47_S_S_Primary_EUF	Apr 10, 2022	3:47PM	AUS Leachate - Reagent Water	M22-Ap0021810	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
50	SX_OB_20220410_15_48_S_S_Duplicate_EUF	Apr 10, 2022	3:48PM	AUS Leachate - Reagent Water	M22-Ap0021811	X		X	
51	SX_OB_20220410_19_58_S_S_Primary_EUF	Apr 10, 2022	7:58PM	AUS Leachate - Reagent Water	M22-Ap0021812	X		X	
52	SX_OB_20220411_00_08_S_S_Primary_EUF	Apr 11, 2022	12:08AM	AUS Leachate - Reagent Water	M22-Ap0021813	X		X	
53	SX_OB_20220411_04_04_S	Apr 11, 2022	4:04AM	AUS Leachate - Reagent	M22-Ap0021814	X		X	

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Sample Detail					AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254					X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217								
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
	S_Primary_EU			Water				
	F							
Test Counts					34	17	53	17

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	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5		5	Pass	
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	%	120		70-130	Pass	
TRH C10-C14	%	115		70-130	Pass	
Naphthalene	%	118		70-130	Pass	
TRH C6-C10	%	118		70-130	Pass	
TRH >C10-C16	%	121		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	111		70-130	Pass	
1.1.1-Trichloroethane	%	113		70-130	Pass	
1.2-Dichlorobenzene	%	118		70-130	Pass	
1.2-Dichloroethane	%	93		70-130	Pass	
Benzene	%	97		70-130	Pass	
Ethylbenzene	%	96		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	93			70-130	Pass	
Toluene	%	95			70-130	Pass	
Trichloroethene	%	100			70-130	Pass	
Xylenes - Total*	%	93			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	109			70-130	Pass	
Acenaphthylene	%	120			70-130	Pass	
Anthracene	%	116			70-130	Pass	
Benz(a)anthracene	%	85			70-130	Pass	
Benzo(a)pyrene	%	104			70-130	Pass	
Benzo(b&j)fluoranthene	%	124			70-130	Pass	
Benzo(g,h,i)perylene	%	92			70-130	Pass	
Benzo(k)fluoranthene	%	123			70-130	Pass	
Chrysene	%	125			70-130	Pass	
Dibenz(a,h)anthracene	%	111			70-130	Pass	
Fluoranthene	%	122			70-130	Pass	
Fluorene	%	120			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	102			70-130	Pass	
Naphthalene	%	106			70-130	Pass	
Phenanthrene	%	106			70-130	Pass	
Pyrene	%	121			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	106			70-130	Pass	
4,4'-DDD	%	85			70-130	Pass	
4,4'-DDE	%	115			70-130	Pass	
4,4'-DDT	%	86			70-130	Pass	
a-HCH	%	85			70-130	Pass	
Aldrin	%	101			70-130	Pass	
b-HCH	%	91			70-130	Pass	
d-HCH	%	100			70-130	Pass	
Dieldrin	%	113			70-130	Pass	
Endosulfan I	%	99			70-130	Pass	
Endosulfan II	%	99			70-130	Pass	
Endosulfan sulphate	%	104			70-130	Pass	
Endrin	%	113			70-130	Pass	
Endrin aldehyde	%	123			70-130	Pass	
Endrin ketone	%	86			70-130	Pass	
g-HCH (Lindane)	%	102			70-130	Pass	
Heptachlor	%	118			70-130	Pass	
Heptachlor epoxide	%	114			70-130	Pass	
Hexachlorobenzene	%	111			70-130	Pass	
Methoxychlor	%	91			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	77			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	100			25-140	Pass	
2,4-Dichlorophenol	%	105			25-140	Pass	
2,4,5-Trichlorophenol	%	116			25-140	Pass	
2,4,6-Trichlorophenol	%	51			25-140	Pass	
2,6-Dichlorophenol	%	92			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	105			25-140	Pass	
Pentachlorophenol	%	107			25-140	Pass	
Tetrachlorophenols - Total	%	106			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	%	34			25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	59			25-140	Pass	
2-Nitrophenol	%	111			25-140	Pass	
2,4-Dimethylphenol	%	116			25-140	Pass	
2,4-Dinitrophenol	%	71			25-140	Pass	
2-Methylphenol (o-Cresol)	%	93			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	107			25-140	Pass	
4-Nitrophenol	%	102			25-140	Pass	
Dinoseb	%	75			25-140	Pass	
Phenol	%	91			25-140	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	90			70-130	Pass	
Cyanide (total)	%	105			70-130	Pass	
Fluoride (Total)	%	75			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	110			80-120	Pass	
Cadmium	%	101			80-120	Pass	
Chromium	%	109			80-120	Pass	
Copper	%	111			80-120	Pass	
Lead	%	116			80-120	Pass	
Mercury	%	103			80-120	Pass	
Molybdenum	%	110			80-120	Pass	
Nickel	%	109			80-120	Pass	
Selenium	%	107			80-120	Pass	
Silver	%	102			80-120	Pass	
Tin	%	112			80-120	Pass	
Zinc	%	109			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	90			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	96			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	90			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	94			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	101			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	95			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	120			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	125			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	103			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	143			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	93			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	88			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	105			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	116			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	117			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	98			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	92			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	89			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFASs)								
Perfluorobutanesulfonic acid (PFBS)	%	86			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	128			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	116			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	73			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	77			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	90			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	108			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	125			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	102			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	120			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	107			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	106			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-Ap0012889	NCP	%	94		70-130	Pass	
Acenaphthylene	M22-Ap0012889	NCP	%	105		70-130	Pass	
Anthracene	M22-Ap0012889	NCP	%	106		70-130	Pass	
Benz(a)anthracene	M22-Ap0012889	NCP	%	79		70-130	Pass	
Benzo(a)pyrene	M22-Ap0012889	NCP	%	95		70-130	Pass	
Benzo(b&j)fluoranthene	M22-Ap0012889	NCP	%	111		70-130	Pass	
Benzo(g,h,i)perylene	M22-Ap0012889	NCP	%	81		70-130	Pass	
Benzo(k)fluoranthene	M22-Ap0012889	NCP	%	111		70-130	Pass	
Chrysene	M22-Ap0012889	NCP	%	76		70-130	Pass	
Dibenz(a,h)anthracene	M22-Ap0012889	NCP	%	96		70-130	Pass	
Fluoranthene	M22-Ap0012889	NCP	%	110		70-130	Pass	
Fluorene	M22-Ap0012889	NCP	%	108		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M22-Ap0012889	NCP	%	89		70-130	Pass	
Naphthalene	M22-Ap0012889	NCP	%	91		70-130	Pass	
Phenanthrene	M22-Ap0012889	NCP	%	91		70-130	Pass	
Pyrene	M22-Ap0012889	NCP	%	110		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-Ap0020095	NCP	%	115		70-130	Pass	
4,4'-DDD	M22-Ap0020095	NCP	%	111		70-130	Pass	
4,4'-DDE	M22-Ap0020095	NCP	%	118		70-130	Pass	
4,4'-DDT	M22-Ap0020095	NCP	%	95		70-130	Pass	
a-HCH	M22-Ap0020095	NCP	%	89		70-130	Pass	
Aldrin	M22-Ap0020095	NCP	%	108		70-130	Pass	
b-HCH	M22-Ap0020095	NCP	%	110		70-130	Pass	
d-HCH	M22-Ap0020095	NCP	%	111		70-130	Pass	
Dieldrin	M22-Ap0020095	NCP	%	116		70-130	Pass	
Endosulfan I	M22-Ap0020095	NCP	%	110		70-130	Pass	
Endosulfan II	M22-Ap0020095	NCP	%	109		70-130	Pass	
Endosulfan sulphate	M22-Ap0020095	NCP	%	86		70-130	Pass	
Endrin	M22-Ap0020095	NCP	%	105		70-130	Pass	
Endrin aldehyde	M22-Ap0020095	NCP	%	103		70-130	Pass	
Endrin ketone	M22-Ap0020095	NCP	%	91		70-130	Pass	
g-HCH (Lindane)	M22-Ap0020095	NCP	%	86		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	M22-Ap0020095	NCP	%	107		70-130	Pass	
Heptachlor epoxide	M22-Ap0020095	NCP	%	103		70-130	Pass	
Hexachlorobenzene	M22-Ap0020095	NCP	%	103		70-130	Pass	
Methoxychlor	M22-Ap0020095	NCP	%	94		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	M22-Ma62516	NCP	%	74		70-130	Pass	
Aroclor-1260	M22-Ma62516	NCP	%	77		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-Ap0012889	NCP	%	86		30-130	Pass	
2,4-Dichlorophenol	M22-Ap0012889	NCP	%	99		30-130	Pass	
2,4,5-Trichlorophenol	M22-Ap0012889	NCP	%	91		30-130	Pass	
2,4,6-Trichlorophenol	M22-Ap0012889	NCP	%	97		30-130	Pass	
2,6-Dichlorophenol	M22-Ap0012889	NCP	%	81		30-130	Pass	
4-Chloro-3-methylphenol	M22-Ap0012889	NCP	%	95		30-130	Pass	
Pentachlorophenol	M22-Ap0012889	NCP	%	122		30-130	Pass	
Tetrachlorophenols - Total	M22-Ap0012889	NCP	%	102		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-Ap0012889	NCP	%	57		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-Ap0012889	NCP	%	75		30-130	Pass	
2-Nitrophenol	M22-Ap0012889	NCP	%	103		30-130	Pass	
2,4-Dimethylphenol	M22-Ap0012889	NCP	%	100		30-130	Pass	
2,4-Dinitrophenol	M22-Ap0012889	NCP	%	42		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Ap0012889	NCP	%	87		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Ap0012889	NCP	%	95		30-130	Pass	
4-Nitrophenol	M22-Ap0012889	NCP	%	94		30-130	Pass	
Dinoseb	M22-Ap0012889	NCP	%	84		30-130	Pass	
Phenol	M22-Ap0012889	NCP	%	67		30-130	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-Ap0015047	NCP	%	80		70-130	Pass	
Cyanide (total)	M22-Ma60375	NCP	%	73		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-Ap0019050	NCP	%	103		75-125	Pass	
Cadmium	M22-Ap0019050	NCP	%	112		75-125	Pass	
Chromium	M22-Ap0019050	NCP	%	106		75-125	Pass	
Copper	M22-Ap0020099	NCP	%	118		75-125	Pass	
Lead	M22-Ap0019050	NCP	%	130		75-125	Fail	Q08
Mercury	M22-Ap0019050	NCP	%	103		75-125	Pass	
Molybdenum	M22-Ap0019050	NCP	%	119		75-125	Pass	
Nickel	M22-Ap0019050	NCP	%	92		75-125	Pass	
Selenium	M22-Ap0019050	NCP	%	101		75-125	Pass	
Silver	M22-Ap0019050	NCP	%	112		75-125	Pass	
Tin	M22-Ap0019050	NCP	%	118		75-125	Pass	
Zinc	M22-Ap0019050	NCP	%	110		75-125	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Ap0016854	NCP	%	100		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0016854	NCP	%	98		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0016854	NCP	%	95		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0016854	NCP	%	101		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Perfluorooctanoic acid (PFOA)	M22-Ap0016854	NCP	%	103		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0016854	NCP	%	122		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0016854	NCP	%	107		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0016854	NCP	%	128		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0016854	NCP	%	128		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0016854	NCP	%	135		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0016854	NCP	%	111		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Ap0016854	NCP	%	101		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0016854	NCP	%	119		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0016854	NCP	%	76		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0016854	NCP	%	101		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0016854	NCP	%	111		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0016854	NCP	%	77		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0016854	NCP	%	102		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0016854	NCP	%	90		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ap0016854	NCP	%	136		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0016854	NCP	%	118		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0016854	NCP	%	97		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0016854	NCP	%	103		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0016854	NCP	%	79		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0016854	NCP	%	113		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0016854	NCP	%	129		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-Ap0016854	NCP	%	115		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0016854	NCP	%	123		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0016854	NCP	%	149		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0016854	NCP	%	101		50-150	Pass	
Spike - % Recovery								
				Result 1				
Fluoride (Total)	M22-Ap0021769	CP	%	80		70-130	Pass	
Spike - % Recovery								

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
				Result 1					
Fluoride (Total)	M22-Ap0021772	CP	%	87			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	M22-Ap0021775	CP	%	120			70-130	Pass	
TRH C10-C14	M22-Ap0021775	CP	%	97			70-130	Pass	
Naphthalene	M22-Ap0021775	CP	%	105			70-130	Pass	
TRH C6-C10	M22-Ap0021775	CP	%	119			70-130	Pass	
TRH >C10-C16	M22-Ap0021775	CP	%	101			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	M22-Ap0021775	CP	%	104			70-130	Pass	
1.1.1-Trichloroethane	M22-Ap0021775	CP	%	103			70-130	Pass	
1.2-Dichlorobenzene	M22-Ap0021775	CP	%	113			70-130	Pass	
1.2-Dichloroethane	M22-Ap0021775	CP	%	103			70-130	Pass	
Benzene	M22-Ap0021775	CP	%	103			70-130	Pass	
Ethylbenzene	M22-Ap0021775	CP	%	129			70-130	Pass	
m&p-Xylenes	M22-Ap0021775	CP	%	126			70-130	Pass	
o-Xylene	M22-Ap0021775	CP	%	125			70-130	Pass	
Toluene	M22-Ap0021775	CP	%	128			70-130	Pass	
Trichloroethene	M22-Ap0021775	CP	%	103			70-130	Pass	
Xylenes - Total*	M22-Ap0021775	CP	%	126			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-Ap0014965	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-Ap0014965	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-Ap0014965	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	M22-Ap0014965	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-Ap0014965	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-Ap0014965	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M22-Ap0019050	NCP	mg/kg	9.7	9.6	1.0	30%	Pass	
Cadmium	M22-Ap0019050	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M22-Ap0019050	NCP	mg/kg	53	54	2.0	30%	Pass	
Copper	M22-Ap0019050	NCP	mg/kg	150	150	3.0	30%	Pass	
Lead	M22-Ap0019050	NCP	mg/kg	68	70	3.0	30%	Pass	
Mercury	M22-Ap0019050	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	M22-Ap0019050	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M22-Ap0019050	NCP	mg/kg	110	110	3.0	30%	Pass	
Selenium	M22-Ap0019050	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M22-Ap0019050	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Tin	M22-Ap0019050	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	M22-Ap0019050	NCP	mg/kg	150	160	3.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	M22-Ap0021764	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Fluoride (Total)	M22-Ap0021765	CP	mg/kg	< 100	< 100	<1	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Ap0021765	CP	pH Units	7.2	7.2	pass	30%	Pass	

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	M22-Ap0021769	CP	mg/kg	< 20	< 20	<1	30%	Pass
Naphthalene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	M22-Ap0021769	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Hexachlorobutadiene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.1-Dichloroethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trichlorobenzene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1-Dichloroethene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1-Trichloroethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1.2-Tetrachloroethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2-Trichloroethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2.2-Tetrachloroethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromoethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichlorobenzene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloroethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloropropane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-Ap0021769	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Tetrachloroethene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1.2-Dichloroethene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-Ap0021769	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ap0021769	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ap0021769	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-Ap0021769	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-Ap0021769	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ap0021769	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ap0021769	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ap0021769	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-Ap0021769	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-Ap0021769	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ap0021769	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-Ap0021769	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Ap0021769	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ap0021769	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Ap0021769	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ap0021769	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ap0021769	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0021770	CP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0021770	CP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0021770	CP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0021770	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ap0021773	CP	mg/kg	< 1	< 1	<1	30%	Pass
Fluoride (Total)	M22-Ap0021773	CP	mg/kg	390	400	2.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	M22-Ap0021777	CP	%	30	31	4.0	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)anthracene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Indeno(1.2.3-cd)pyrene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ap0021778	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ap0021778	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ap0021778	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ap0021778	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ap0021778	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ap0021778	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ap0021778	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ap0021778	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ap0021778	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ap0021778	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dichlorophenol	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4.5-Trichlorophenol	M22-Ap0021778	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.4.6-Trichlorophenol	M22-Ap0021778	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.6-Dichlorophenol	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ap0021778	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ap0021778	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ap0021778	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4.6-dinitrophenol	M22-Ap0021778	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4.6-dinitrophenol	M22-Ap0021778	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ap0021778	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.4-Dimethylphenol	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dinitrophenol	M22-Ap0021778	CP	mg/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Methylphenol (o-Cresol)	M22-Ap0021778	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ap0021778	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Ap0021778	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ap0021778	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ap0021778	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Comments
Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst (VIC)
Mary Makarios	Senior Analyst (NSW)
Linda Chouman	Senior Analyst (NSW)
Scott Beddoes	Senior Analyst (NSW)
Edward Lee	Senior Analyst (VIC)
Alex Petridis	Senior Analyst (NSW)
Harry Bacalis	Senior Analyst (NSW)
Caitlin Breeze	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: **Agon Lab Reports (Spoil Project)**

Report **878963-L**
Project name **20220411162958-Eurofin-8**
Project ID **JC0927**
Received Date **Apr 11, 2022**

Client Sample ID			SX_OB_20220 409_07_40_SS _TriPLICATE_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF	SX_OB_20220 409_12_04_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- Ap0021781	M22- Ap0021782	M22- Ap0021783	M22- Ap0021784
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	5.0	5.0
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	%	82	83	81	75
13C5-PFPeA (surr.)	1	%	90	97	95	87
13C5-PFHxA (surr.)	1	%	93	90	96	89
13C4-PFHpA (surr.)	1	%	84	89	88	80
13C8-PFOA (surr.)	1	%	77	78	77	73
13C5-PFNA (surr.)	1	%	75	79	74	73
13C6-PFDA (surr.)	1	%	69	80	73	78
13C2-PFUnDA (surr.)	1	%	56	61	57	78
13C2-PFDoDA (surr.)	1	%	42	47	45	59
13C2-PFTTeDA (surr.)	1	%	13	14	13	85

Client Sample ID			SX_OB_20220 409_07_40_SS _TriPLICATE_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF	SX_OB_20220 409_12_04_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- Ap0021781	M22- Ap0021782	M22- Ap0021783	M22- Ap0021784
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	%	81	83	81	83
D3-N-MeFOSA (surr.)	1	%	63	93	88	35
D5-N-EtFOSA (surr.)	1	%	55	92	89	36
D7-N-MeFOSE (surr.)	1	%	65	76	72	66
D9-N-EtFOSE (surr.)	1	%	62	73	69	58
D5-N-EtFOSAA (surr.)	1	%	27	25	28	84
D3-N-MeFOSAA (surr.)	1	%	29	36	34	118
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	%	87	85	91	80
18O2-PFHxS (surr.)	1	%	78	67	86	74
13C8-PFOS (surr.)	1	%	77	85	76	79
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	%	53	60	60	132
13C2-6:2 FTSA (surr.)	1	%	70	89	48	78
13C2-8:2 FTSA (surr.)	1	%	58	61	55	128
13C2-10:2 FTSA (surr.)	1	%	47	51	57	100
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 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS Duplicate_EU F	SX_OB_20220 409_20_06_SS _Primary_EUF	SX_OB_20220 410_00_19_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- Ap0021785	M22- Ap0021786	M22- Ap0021787	M22- Ap0021788
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 10, 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	5.0	4.9	5.0	4.9
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	%	82	86	72	82
13C5-PFPeA (surr.)	1	%	85	69	76	93
13C5-PFHxA (surr.)	1	%	88	75	87	89
13C4-PFHpA (surr.)	1	%	81	61	76	86
13C8-PFOA (surr.)	1	%	73	80	71	77
13C5-PFNA (surr.)	1	%	72	51	69	79
13C6-PFDA (surr.)	1	%	68	68	76	72
13C2-PFUnDA (surr.)	1	%	51	56	81	55
13C2-PFDoDA (surr.)	1	%	37	41	59	46
13C2-PFTTeDA (surr.)	1	%	14	21	103	11
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	%	78	64	79	84
D3-N-MeFOSA (surr.)	1	%	57	73	58	88
D5-N-EtFOSA (surr.)	1	%	56	82	64	85
D7-N-MeFOSE (surr.)	1	%	65	58	72	77
D9-N-EtFOSE (surr.)	1	%	61	54	65	76
D5-N-EtFOSAA (surr.)	1	%	23	29	74	26
D3-N-MeFOSAA (surr.)	1	%	29	30	112	35

Client Sample ID			SX_OB_20220 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS Duplicate_EU F	SX_OB_20220 409_20_06_SS _Primary_EUF	SX_OB_20220 410_00_19_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- Ap0021785	M22- Ap0021786	M22- Ap0021787	M22- Ap0021788
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 10, 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	%	88	72	84	91
18O2-PFHxS (surr.)	1	%	67	63	72	83
13C8-PFOS (surr.)	1	%	76	75	75	79
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	%	56	30	113	58
13C2-6:2 FTSA (surr.)	1	%	84	55	142	60
13C2-8:2 FTSA (surr.)	1	%	60	66	111	54
13C2-10:2 FTSA (surr.)	1	%	45	43	121	46
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 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _TriPLICATE_EU F	SX_OB_20220 410_08_06_SS _Primary_EUF	SX_OB_20220 410_11_58_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- Ap0021789	M22- Ap0021790	M22- Ap0021791	M22- Ap0021792
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 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	5.0	4.9	5.0	5.0

Client Sample ID			SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _Triplicate_EU F	SX_OB_20220 410_08_06_SS _Primary_EUF	SX_OB_20220 410_11_58_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- Ap0021789	M22- Ap0021790	M22- Ap0021791	M22- Ap0021792
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 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 (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	%	83	73	81	82
13C5-PFPeA (surr.)	1	%	97	81	92	96
13C5-PFHxA (surr.)	1	%	88	83	92	92
13C4-PFHpA (surr.)	1	%	82	74	85	87
13C8-PFOA (surr.)	1	%	78	65	86	85
13C5-PFNA (surr.)	1	%	76	68	83	78
13C6-PFDA (surr.)	1	%	77	70	82	78
13C2-PFUnDA (surr.)	1	%	55	73	58	61
13C2-PFDoDA (surr.)	1	%	45	57	44	48
13C2-PFTTeDA (surr.)	1	%	13	68	14	12
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	%	82	75	82	83
D3-N-MeFOSA (surr.)	1	%	86	53	63	59
D5-N-EtFOSA (surr.)	1	%	86	60	55	55
D7-N-MeFOSE (surr.)	1	%	73	71	66	65
D9-N-EtFOSE (surr.)	1	%	67	64	64	64
D5-N-EtFOSAA (surr.)	1	%	28	89	28	25
D3-N-MeFOSAA (surr.)	1	%	37	106	40	33
Perfluoroalkyl sulfonic acids (PFSAs)						
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

Client Sample ID			SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _TriPLICATE_EU F	SX_OB_20220 410_08_06_SS _Primary_EUF	SX_OB_20220 410_11_58_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- Ap0021789	M22- Ap0021790	M22- Ap0021791	M22- Ap0021792
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
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	%	91	79	92	92
18O2-PFHxS (surr.)	1	%	73	55	89	88
13C8-PFOS (surr.)	1	%	88	77	83	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	%	59	129	61	57
13C2-6:2 FTSA (surr.)	1	%	93	122	63	49
13C2-8:2 FTSA (surr.)	1	%	62	123	56	59
13C2-10:2 FTSA (surr.)	1	%	45	87	43	44
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 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_SS _Primary_EUF	SX_OB_20220 411_00_08_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- Ap0021793	M22- Ap0021794	M22- Ap0021795	M22- Ap0021796
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 11, 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	5.0	5.0	5.0	4.9
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

Client Sample ID			SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_SS _Primary_EUF	SX_OB_20220 411_00_08_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- Ap0021793	M22- Ap0021794	M22- Ap0021795	M22- Ap0021796
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 11, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
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	%	81	82	73	75
13C5-PFPeA (surr.)	1	%	95	94	75	81
13C5-PFHxA (surr.)	1	%	84	90	88	84
13C4-PFHpA (surr.)	1	%	83	86	77	78
13C8-PFOA (surr.)	1	%	74	81	71	75
13C5-PFNA (surr.)	1	%	73	75	67	73
13C6-PFDA (surr.)	1	%	71	74	72	79
13C2-PFUnDA (surr.)	1	%	58	55	71	80
13C2-PFDoDA (surr.)	1	%	45	42	60	60
13C2-PFTeDA (surr.)	1	%	12	12	109	86
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	%	78	76	78	83
D3-N-MeFOSA (surr.)	1	%	57	50	64	44
D5-N-EtFOSA (surr.)	1	%	56	48	69	50
D7-N-MeFOSE (surr.)	1	%	71	64	71	72
D9-N-EtFOSE (surr.)	1	%	63	57	63	62
D5-N-EtFOSAA (surr.)	1	%	28	26	66	85
D3-N-MeFOSAA (surr.)	1	%	31	30	108	114
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	%	86	94	80	81
18O2-PFHxS (surr.)	1	%	70	77	70	65
13C8-PFOS (surr.)	1	%	80	80	77	78

Client Sample ID			SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_SS _Primary_EUF	SX_OB_20220 411_00_08_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- Ap0021793	M22- Ap0021794	M22- Ap0021795	M22- Ap0021796
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 11, 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	%	62	59	122	131
13C2-6:2 FTSA (surr.)	1	%	79	65	78	113
13C2-8:2 FTSA (surr.)	1	%	64	54	105	130
13C2-10:2 FTSA (surr.)	1	%	41	51	86	100
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 411_04_04_SS _Primary_EUF	SX_OB_20220 409_07_40_SS _Triplicate_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0021797	M22- Ap0021798	M22- Ap0021799	M22- Ap0021800
Date Sampled			Apr 11, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	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	5.0	6.4	6.4	6.4
pH (off)	0.1	pH Units	5.0	5.0	8.3	8.4
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	%	81	85	83	82

Client Sample ID			SX_OB_20220 411_04_04_SS _Primary_EUF	SX_OB_20220 409_07_40_SS _Triuplicate_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0021797	M22- Ap0021798	M22- Ap0021799	M22- Ap0021800
Date Sampled			Apr 11, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFPeA (surr.)	1	%	90	94	95	96
13C5-PFHxA (surr.)	1	%	90	86	83	92
13C4-PFHpA (surr.)	1	%	83	85	78	82
13C8-PFOA (surr.)	1	%	84	73	68	72
13C5-PFNA (surr.)	1	%	79	85	75	80
13C6-PFDA (surr.)	1	%	79	83	72	74
13C2-PFUnDA (surr.)	1	%	63	63	53	62
13C2-PFDoDA (surr.)	1	%	50	46	38	44
13C2-PFTeDA (surr.)	1	%	16	16	11	16
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	82	77	81
D3-N-MeFOSA (surr.)	1	%	69	68	64	70
D5-N-EtFOSA (surr.)	1	%	65	54	56	60
D7-N-MeFOSE (surr.)	1	%	74	63	61	59
D9-N-EtFOSE (surr.)	1	%	67	57	55	57
D5-N-EtFOSAA (surr.)	1	%	25	27	23	24
D3-N-MeFOSAA (surr.)	1	%	32	34	25	37
Perfluoroalkyl sulfonic acids (PFSAAs)						
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	%	88	88	83	92
18O2-PFHxS (surr.)	1	%	80	77	66	83
13C8-PFOS (surr.)	1	%	87	94	87	82

Client Sample ID			SX_OB_20220 411_04_04_SS _Primary_EUF	SX_OB_20220 409_07_40_SS _TriPLICATE_EU F	SX_OB_20220 409_09_37_SS _Primary_EUF	SX_IB_202204 09_11_55_SS _Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0021797	M22- Ap0021798	M22- Ap0021799	M22- Ap0021800
Date Sampled			Apr 11, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	%	61	57	58	48
13C2-6:2 FTSA (surr.)	1	%	65	89	100	47
13C2-8:2 FTSA (surr.)	1	%	57	59	64	55
13C2-10:2 FTSA (surr.)	1	%	54	72	48	68
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 409_12_04_SS _Primary_EUF	SX_OB_20220 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS _Duplicate_EU F	SX_OB_20220 409_20_06_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- Ap0021801	M22- Ap0021802	M22- Ap0021803	M22- Ap0021804
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	6.4	6.4	6.4	6.4
pH (off)	0.1	pH Units	8.9	8.7	8.6	8.5
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	%	85	80	84	84

Client Sample ID			SX_OB_20220 409_12_04_SS _Primary_EUF	SX_OB_20220 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS _Duplicate_EU F	SX_OB_20220 409_20_06_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- Ap0021801	M22- Ap0021802	M22- Ap0021803	M22- Ap0021804
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFPeA (surr.)	1	%	81	85	93	92
13C5-PFHxA (surr.)	1	%	93	78	85	90
13C4-PFHpA (surr.)	1	%	83	72	78	80
13C8-PFOA (surr.)	1	%	74	62	74	73
13C5-PFNA (surr.)	1	%	77	65	74	79
13C6-PFDA (surr.)	1	%	73	55	73	74
13C2-PFUnDA (surr.)	1	%	62	37	54	58
13C2-PFDoDA (surr.)	1	%	47	24	40	45
13C2-PFTeDA (surr.)	1	%	14	44	17	12
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	%	84	60	77	81
D3-N-MeFOSA (surr.)	1	%	33	24	44	49
D5-N-EtFOSA (surr.)	1	%	28	16	33	40
D7-N-MeFOSE (surr.)	1	%	54	43	57	54
D9-N-EtFOSE (surr.)	1	%	50	32	52	50
D5-N-EtFOSAA (surr.)	1	%	27	13	23	24
D3-N-MeFOSAA (surr.)	1	%	30	21	30	31
Perfluoroalkyl sulfonic acids (PFSAAs)						
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	%	90	80	87	90
18O2-PFHxS (surr.)	1	%	85	63	72	83
13C8-PFOS (surr.)	1	%	85	75	85	83

Client Sample ID			SX_OB_20220 409_12_04_SS _Primary_EUF	SX_OB_20220 409_15_52_SS _Primary_EUF	SX_OB_20220 409_15_52_SS _Duplicate_EU F	SX_OB_20220 409_20_06_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- Ap0021801	M22- Ap0021802	M22- Ap0021803	M22- Ap0021804
Date Sampled			Apr 09, 2022	Apr 09, 2022	Apr 09, 2022	Apr 09, 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	%	59	49	53	53
13C2-6:2 FTSA (surr.)	1	%	59	88	86	53
13C2-8:2 FTSA (surr.)	1	%	59	57	61	58
13C2-10:2 FTSA (surr.)	1	%	67	25	48	54
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 410_00_19_SS _Primary_EUF	SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _Triplicate_EU F	SX_OB_20220 410_08_06_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- Ap0021805	M22- Ap0021806	M22- Ap0021807	M22- Ap0021808
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 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	6.4	6.4	6.4	6.4
pH (off)	0.1	pH Units	8.6	8.5	8.4	8.6
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	%	88	84	83	80

Client Sample ID			SX_OB_20220 410_00_19_SS _Primary_EUF	SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _Triplicate_EU F	SX_OB_20220 410_08_06_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- Ap0021805	M22- Ap0021806	M22- Ap0021807	M22- Ap0021808
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFPeA (surr.)	1	%	97	83	94	96
13C5-PFHxA (surr.)	1	%	95	83	83	88
13C4-PFHpA (surr.)	1	%	84	80	80	80
13C8-PFOA (surr.)	1	%	81	72	71	72
13C5-PFNA (surr.)	1	%	82	78	76	74
13C6-PFDA (surr.)	1	%	78	72	77	77
13C2-PFUnDA (surr.)	1	%	63	56	58	58
13C2-PFDoDA (surr.)	1	%	49	39	51	48
13C2-PFTeDA (surr.)	1	%	19	10	14	15
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	75	81	80
D3-N-MeFOSA (surr.)	1	%	42	35	52	73
D5-N-EtFOSA (surr.)	1	%	37	27	41	65
D7-N-MeFOSE (surr.)	1	%	68	53	65	63
D9-N-EtFOSE (surr.)	1	%	65	46	55	61
D5-N-EtFOSAA (surr.)	1	%	27	21	24	25
D3-N-MeFOSAA (surr.)	1	%	40	28	31	29
Perfluoroalkyl sulfonic acids (PFSAAs)						
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	^{N09} 0.05	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	89	87	84	86
18O2-PFHxS (surr.)	1	%	81	67	62	80
13C8-PFOS (surr.)	1	%	97	88	81	86

Client Sample ID			SX_OB_20220 410_00_19_SS _Primary_EUF	SX_OB_20220 410_04_09_SS _Primary_EUF	SX_OB_20220 410_08_02_SS _Triplicate_EU F	SX_OB_20220 410_08_06_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- Ap0021805	M22- Ap0021806	M22- Ap0021807	M22- Ap0021808
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 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	%	57	56	59	48
13C2-6:2 FTSA (surr.)	1	%	66	125	121	49
13C2-8:2 FTSA (surr.)	1	%	63	101	94	48
13C2-10:2 FTSA (surr.)	1	%	55	44	47	53
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	0.05	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.05	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.05	< 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 410_11_58_SS _Primary_EUF	SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_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- Ap0021809	M22- Ap0021810	M22- Ap0021811	M22- Ap0021812
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 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	6.4	6.4	6.4	6.4
pH (off)	0.1	pH Units	8.8	8.5	8.7	8.5
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	%	84	74	80	76

Client Sample ID			SX_OB_20220 410_11_58_SS _Primary_EUF	SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_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- Ap0021809	M22- Ap0021810	M22- Ap0021811	M22- Ap0021812
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFPeA (surr.)	1	%	88	83	85	75
13C5-PFHxA (surr.)	1	%	94	75	82	73
13C4-PFHpA (surr.)	1	%	77	75	78	76
13C8-PFOA (surr.)	1	%	80	68	69	66
13C5-PFNA (surr.)	1	%	77	75	71	71
13C6-PFDA (surr.)	1	%	69	73	64	61
13C2-PFUnDA (surr.)	1	%	61	49	50	51
13C2-PFDoDA (surr.)	1	%	45	36	34	34
13C2-PFTeDA (surr.)	1	%	13	15	16	13
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	%	83	83	77	75
D3-N-MeFOSA (surr.)	1	%	50	68	76	48
D5-N-EtFOSA (surr.)	1	%	38	60	67	42
D7-N-MeFOSE (surr.)	1	%	56	65	62	54
D9-N-EtFOSE (surr.)	1	%	52	59	54	50
D5-N-EtFOSAA (surr.)	1	%	27	20	23	21
D3-N-MeFOSAA (surr.)	1	%	34	25	27	25
Perfluoroalkyl sulfonic acids (PFSAAs)						
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	%	92	85	81	77
18O2-PFHxS (surr.)	1	%	87	75	75	75
13C8-PFOS (surr.)	1	%	86	85	83	79

Client Sample ID			SX_OB_20220 410_11_58_SS _Primary_EUF	SX_OB_20220 410_15_47_SS _Primary_EUF	SX_OB_20220 410_15_48_SS _Duplicate_EU F	SX_OB_20220 410_19_58_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- Ap0021809	M22- Ap0021810	M22- Ap0021811	M22- Ap0021812
Date Sampled			Apr 10, 2022	Apr 10, 2022	Apr 10, 2022	Apr 10, 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	%	46	54	51	60
13C2-6:2 FTSA (surr.)	1	%	47	72	65	64
13C2-8:2 FTSA (surr.)	1	%	58	56	52	58
13C2-10:2 FTSA (surr.)	1	%	55	41	40	43
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 411_00_08_SS _Primary_EUF	SX_OB_20220 411_04_04_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0021813	M22- Ap0021814
Date Sampled			Apr 11, 2022	Apr 11, 2022
Test/Reference	LOR	Unit		
AUS Leaching Procedure				
Leachate Fluid ^{C01}		comment	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	6.4	6.4
pH (off)	0.1	pH Units	8.6	8.6
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 (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	85	85

Client Sample ID			SX_OB_20220 411_00_08_SS _Primary_EUF	SX_OB_20220 411_04_04_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0021813	M22- Ap0021814
Date Sampled			Apr 11, 2022	Apr 11, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
13C5-PFPeA (surr.)	1	%	95	95
13C5-PFHxA (surr.)	1	%	79	89
13C4-PFHpA (surr.)	1	%	79	84
13C8-PFOA (surr.)	1	%	70	85
13C5-PFNA (surr.)	1	%	72	83
13C6-PFDA (surr.)	1	%	69	84
13C2-PFUnDA (surr.)	1	%	51	60
13C2-PFDoDA (surr.)	1	%	38	48
13C2-PFTeDA (surr.)	1	%	20	13
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	%	80	85
D3-N-MeFOSA (surr.)	1	%	59	42
D5-N-EtFOSA (surr.)	1	%	58	35
D7-N-MeFOSE (surr.)	1	%	58	56
D9-N-EtFOSE (surr.)	1	%	54	54
D5-N-EtFOSAA (surr.)	1	%	18	29
D3-N-MeFOSAA (surr.)	1	%	27	36
Perfluoroalkyl sulfonic acids (PFSA)				
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	%	80	88
18O2-PFHxS (surr.)	1	%	68	87
13C8-PFOS (surr.)	1	%	85	104

Client Sample ID			SX_OB_20220 411_00_08_SS _Primary_EUF	SX_OB_20220 411_04_04_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0021813	M22- Ap0021814
Date Sampled			Apr 11, 2022	Apr 11, 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
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	%	66	60
13C2-6:2 FTSA (surr.)	1	%	98	65
13C2-8:2 FTSA (surr.)	1	%	64	60
13C2-10:2 FTSA (surr.)	1	%	40	62
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
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Apr 11, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Apr 11, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	Apr 11, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 13, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 13, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 13, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 13, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 11, 2022	

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Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220409_07_40_S_S_Triplicate_EUF	Apr 09, 2022	7:40AM	Soil	M22-Ap0021762		X	X	X
2	SX_OB_20220409_09_37_S_S_Primary_EUF	Apr 09, 2022	9:37AM	Soil	M22-Ap0021763		X	X	X
3	SX_IB_20220409_11_55_SS_Primary_EUF	Apr 09, 2022	11:55AM	Soil	M22-Ap0021764		X	X	X
4	SX_OB_20220409_12_04PM	Apr 09, 2022	12:04PM	Soil	M22-		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	409_12_04_S S_Primary_EU F				Ap0021765				
5	SX_OB_20220 409_15_35_S R_Rinsate_EU F	Apr 09, 2022	3:35PM	Water	M22- Ap0021766			X	
6	SX_OB_20220 409_15_37_S B_Blank_EUF	Apr 09, 2022	3:37PM	Water	M22- Ap0021767			X	
7	SX_OB_20220 409_15_52_S S_Primary_EU F	Apr 09, 2022	3:52PM	Soil	M22- Ap0021768		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
8	SX_OB_20220409_15_52_S_S_Duplicate_EUF	Apr 09, 2022	3:52PM	Soil	M22-Ap0021769		X	X	X
9	SX_OB_20220409_20_06_S_S_Primary_EUF	Apr 09, 2022	8:06PM	Soil	M22-Ap0021770		X	X	X
10	SX_OB_20220410_00_19_S_S_Primary_EUF	Apr 10, 2022	12:19AM	Soil	M22-Ap0021771		X	X	X
11	SX_OB_20220410_04_09_S	Apr 10, 2022	4:09AM	Soil	M22-Ap0021772		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
12	SX_OB_20220 410_08_02_S S_Triplicate_E UF	Apr 10, 2022	8:02AM	Soil	M22- Ap0021773		X	X	X
13	SX_OB_20220 410_08_06_S S_Primary_EU F	Apr 10, 2022	8:06AM	Soil	M22- Ap0021774		X	X	X
14	SX_OB_20220 410_11_58_S S_Primary_EU F	Apr 10, 2022	11:58AM	Soil	M22- Ap0021775		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
15	SX_OB_20220410_15_47_S_S_Primary_EU_F	Apr 10, 2022	3:47PM	Soil	M22-Ap0021776		X	X	X
16	SX_OB_20220410_15_48_S_S_Duplicate_EUF	Apr 10, 2022	3:48PM	Soil	M22-Ap0021777		X	X	X
17	SX_OB_20220410_19_58_S_S_Primary_EU_F	Apr 10, 2022	7:58PM	Soil	M22-Ap0021778		X	X	X
18	SX_OB_20220411_00_08_S	Apr 11, 2022	12:08AM	Soil	M22-Ap0021779		X	X	X

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Project ID: JC0927

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
19	SX_OB_20220 411_04_04_S S_Primary_EU F	Apr 11, 2022	4:04AM	Soil	M22- Ap0021780		X	X	X
20	SX_OB_20220 409_07_40_S S_Triplicate_E UF	Apr 09, 2022	7:40AM	AUS Leachate - pH 5.0	M22- Ap0021781	X		X	
21	SX_OB_20220 409_09_37_S S_Primary_EU F	Apr 09, 2022	9:37AM	AUS Leachate - pH 5.0	M22- Ap0021782	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
22	SX_IB_20220409_11_55_SS_Primary_EUF	Apr 09, 2022	11:55AM	AUS Leachate - pH 5.0	M22-Ap0021783	X		X	
23	SX_OB_20220409_12_04_S_Primary_EUF	Apr 09, 2022	12:04PM	AUS Leachate - pH 5.0	M22-Ap0021784	X		X	
24	SX_OB_20220409_15_52_S_Primary_EUF	Apr 09, 2022	3:52PM	AUS Leachate - pH 5.0	M22-Ap0021785	X		X	
25	SX_OB_20220409_15_52_S_Duplicate_EUF	Apr 09, 2022	3:52PM	AUS Leachate - pH 5.0	M22-Ap0021786	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	UF								
26	SX_OB_20220409_20_06_S_S_Primary_EU F	Apr 09, 2022	8:06PM	AUS Leachate - pH 5.0	M22-Ap0021787	X		X	
27	SX_OB_20220410_00_19_S_S_Primary_EU F	Apr 10, 2022	12:19AM	AUS Leachate - pH 5.0	M22-Ap0021788	X		X	
28	SX_OB_20220410_04_09_S_S_Primary_EU F	Apr 10, 2022	4:09AM	AUS Leachate - pH 5.0	M22-Ap0021789	X		X	
29	SX_OB_20220	Apr 10, 2022	8:02AM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
29	SX_OB_20220410_08_02_S_S_Triplicate_EUF	Apr 10, 2022	8:02AM	AUS Leachate - pH 5.0	M22-Ap0021790				
30	SX_OB_20220410_08_06_S_S_Primary_EUF	Apr 10, 2022	8:06AM	AUS Leachate - pH 5.0	M22-Ap0021791	X		X	
31	SX_OB_20220410_11_58_S_S_Primary_EUF	Apr 10, 2022	11:58AM	AUS Leachate - pH 5.0	M22-Ap0021792	X		X	
32	SX_OB_20220410_15_47_S	Apr 10, 2022	3:47PM	AUS Leachate - pH 5.0	M22-Ap0021793	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
33	SX_OB_20220 410_15_48_S S_Duplicate_E UF	Apr 10, 2022	3:48PM	AUS Leachate - pH 5.0	M22- Ap0021794	X		X	
34	SX_OB_20220 410_19_58_S S_Primary_EU F	Apr 10, 2022	7:58PM	AUS Leachate - pH 5.0	M22- Ap0021795	X		X	
35	SX_OB_20220 411_00_08_S S_Primary_EU F	Apr 11, 2022	12:08AM	AUS Leachate - pH 5.0	M22- Ap0021796	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
36	SX_OB_20220411_04_04_S_S_Primary_EU_F	Apr 11, 2022	4:04AM	AUS Leachate - pH 5.0	M22-Ap0021797	X		X	
37	SX_OB_20220409_07_40_S_S_Triplicate_EUF	Apr 09, 2022	7:40AM	AUS Leachate - Reagent Water	M22-Ap0021798	X		X	
38	SX_OB_20220409_09_37_S_S_Primary_EU_F	Apr 09, 2022	9:37AM	AUS Leachate - Reagent Water	M22-Ap0021799	X		X	
39	SX_IB_20220409_11_55_SS	Apr 09, 2022	11:55AM	AUS Leachate - Reagent	M22-Ap0021800	X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	_Primary_EUF			Water					
40	SX_OB_20220409_12_04_S_S_Primary_EUF	Apr 09, 2022	12:04PM	AUS Leachate - Reagent Water	M22-Ap0021801	X		X	
41	SX_OB_20220409_15_52_S_S_Primary_EUF	Apr 09, 2022	3:52PM	AUS Leachate - Reagent Water	M22-Ap0021802	X		X	
42	SX_OB_20220409_15_52_S_S_Duplicate_EUF	Apr 09, 2022	3:52PM	AUS Leachate - Reagent Water	M22-Ap0021803	X		X	
43	SX_OB_20220	Apr 09, 2022	8:06PM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
43	SX_OB_20220409_20_06_S_S_Primary_EU_F	Apr 09, 2022	8:06PM	AUS Leachate - Reagent Water	M22-Ap0021804				
44	SX_OB_20220410_00_19_S_S_Primary_EU_F	Apr 10, 2022	12:19AM	AUS Leachate - Reagent Water	M22-Ap0021805	X		X	
45	SX_OB_20220410_04_09_S_S_Primary_EU_F	Apr 10, 2022	4:09AM	AUS Leachate - Reagent Water	M22-Ap0021806	X		X	
46	SX_OB_20220410_08_02_S	Apr 10, 2022	8:02AM	AUS Leachate - Reagent	M22-Ap0021807	X		X	

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

Order No.:
Report #: 878963
Phone: 08 8338 1009
Fax:

Received: Apr 11, 2022 12:30 PM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Project Name: 20220411162958-Eurofin-8
Project ID: JC0927

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Triplicate_EUF			Water					
47	SX_OB_20220410_08_06_S_S_Primary_EUF	Apr 10, 2022	8:06AM	AUS Leachate - Reagent Water	M22-Ap0021808	X		X	
48	SX_OB_20220410_11_58_S_S_Primary_EUF	Apr 10, 2022	11:58AM	AUS Leachate - Reagent Water	M22-Ap0021809	X		X	
49	SX_OB_20220410_15_47_S_S_Primary_EUF	Apr 10, 2022	3:47PM	AUS Leachate - Reagent Water	M22-Ap0021810	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
50	SX_OB_20220410_15_48_S_S_Duplicate_EUF	Apr 10, 2022	3:48PM	AUS Leachate - Reagent Water	M22-Ap0021811	X		X	
51	SX_OB_20220410_19_58_S_S_Primary_EUF	Apr 10, 2022	7:58PM	AUS Leachate - Reagent Water	M22-Ap0021812	X		X	
52	SX_OB_20220411_00_08_S_S_Primary_EUF	Apr 11, 2022	12:08AM	AUS Leachate - Reagent Water	M22-Ap0021813	X		X	
53	SX_OB_20220411_04_04_S	Apr 11, 2022	4:04AM	AUS Leachate - Reagent	M22-Ap0021814	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail					AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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			Water				
Test Counts					34	17	53	17

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)	%	101		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	105		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	97		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	93		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	87		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	88		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	94		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	105		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	106		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	110		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	104		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	105			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	117			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	113			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	113			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	104			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	84			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	103			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA)								
Perfluorobutanesulfonic acid (PFBS)	%	91			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	97			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	105			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	107			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	114			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	106			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	106			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	72			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	100			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	118			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	88			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	85			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-Ap0021787	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances								
				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0021787	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0021787	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0021787	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0021787	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0021787	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-Ap0021787	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0021787	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0021787	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0021787	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ap0021810	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0021810	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0021810	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0021810	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0021810	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0021810	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0021810	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0021810	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0021810	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-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0021810	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0021810	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ap0021811	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0021811	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0021811	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0021811	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0021811	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0021811	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0021811	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0021811	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0021811	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-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0021811	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0021811	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments
Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

Catherine Wilson	Analytical Services Manager
Mary Makarios	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (VIC)
Glenn Jackson	Senior Analyst (NSW)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: **Agon Lab Reports (Spoil Project)**

Report **878963-W**
Project name **20220411162958-Eurofin-8**
Project ID **JC0927**
Received Date **Apr 11, 2022**

Client Sample ID			SX_OB_20220 409_15_35_SR _Rinsate_EUF	SX_OB_20220 409_15_37_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Ap0021766	M22- Ap0021767
Date Sampled			Apr 09, 2022	Apr 09, 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	%	97	75
13C5-PFPeA (surr.)	1	%	98	86
13C5-PFHxA (surr.)	1	%	124	100
13C4-PFHpA (surr.)	1	%	102	81
13C8-PFOA (surr.)	1	%	97	79
13C5-PFNA (surr.)	1	%	95	76
13C6-PFDA (surr.)	1	%	78	74
13C2-PFUnDA (surr.)	1	%	60	65
13C2-PFDoDA (surr.)	1	%	47	44
13C2-PFTeDA (surr.)	1	%	94	54
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	69

Client Sample ID			SX_OB_20220 409_15_35_SR _Rinsate_EUF	SX_OB_20220 409_15_37_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Ap0021766	M22- Ap0021767
Date Sampled			Apr 09, 2022	Apr 09, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D3-N-MeFOSA (surr.)	1	%	83	28
D5-N-EtFOSA (surr.)	1	%	114	30
D7-N-MeFOSE (surr.)	1	%	71	46
D9-N-EtFOSE (surr.)	1	%	88	40
D5-N-EtFOSAA (surr.)	1	%	18	79
D3-N-MeFOSAA (surr.)	1	%	11	115
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	%	113	92
18O2-PFHxS (surr.)	1	%	100	83
13C8-PFOS (surr.)	1	%	92	78
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	%	97	98
13C2-6:2 FTSA (surr.)	1	%	60	100
13C2-8:2 FTSA (surr.)	1	%	62	99
13C2-10:2 FTSA (surr.)	1	%	45	69
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	Apr 11, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	Apr 11, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	Apr 11, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	Apr 11, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	Apr 11, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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_20220409_07_40_S_S_Triplicate_EUF	Apr 09, 2022	7:40AM	Soil	M22-Ap0021762		X	X	X
2	SX_OB_20220409_09_37_S_S_Primary_EUF	Apr 09, 2022	9:37AM	Soil	M22-Ap0021763		X	X	X
3	SX_IB_20220409_11_55_SS_Primary_EUF	Apr 09, 2022	11:55AM	Soil	M22-Ap0021764		X	X	X
4	SX_OB_20220409_12_04PM	Apr 09, 2022	12:04PM	Soil	M22-		X	X	X

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

Project Name: 20220411162958-Eurofin-8
Project ID: JC0927

Order No.:
Report #: 878963
Phone: 08 8338 1009
Fax:

Received: Apr 11, 2022 12:30 PM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
	409_12_04_S S_Primary_EU F				Ap0021765				
5	SX_OB_20220 409_15_35_S R_Rinsate_EU F	Apr 09, 2022	3:35PM	Water	M22- Ap0021766			X	
6	SX_OB_20220 409_15_37_S B_Blank_EUF	Apr 09, 2022	3:37PM	Water	M22- Ap0021767			X	
7	SX_OB_20220 409_15_52_S S_Primary_EU F	Apr 09, 2022	3:52PM	Soil	M22- Ap0021768		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
8	SX_OB_20220409_15_52_S_S_Duplicate_EUF	Apr 09, 2022	3:52PM	Soil	M22-Ap0021769		X	X	X
9	SX_OB_20220409_20_06_S_S_Primary_EUF	Apr 09, 2022	8:06PM	Soil	M22-Ap0021770		X	X	X
10	SX_OB_20220410_00_19_S_S_Primary_EUF	Apr 10, 2022	12:19AM	Soil	M22-Ap0021771		X	X	X
11	SX_OB_20220410_04_09_S	Apr 10, 2022	4:09AM	Soil	M22-Ap0021772		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 11, 2022 12:30 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	878963	Due:	Apr 20, 2022
Project Name:	20220411162958-Eurofin-8	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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								
12	SX_OB_20220 410_08_02_S S_Triplicate_E UF	Apr 10, 2022	8:02AM	Soil	M22- Ap0021773		X	X	X
13	SX_OB_20220 410_08_06_S S_Primary_EU F	Apr 10, 2022	8:06AM	Soil	M22- Ap0021774		X	X	X
14	SX_OB_20220 410_11_58_S S_Primary_EU F	Apr 10, 2022	11:58AM	Soil	M22- Ap0021775		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
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Project Name: 20220411162958-Eurofin-8
Project ID: JC0927

Order No.:
Report #: 878963
Phone: 08 8338 1009
Fax:

Received: Apr 11, 2022 12:30 PM
Due: Apr 20, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
15	SX_OB_20220410_15_47_S_S_Primary_EU_F	Apr 10, 2022	3:47PM	Soil	M22-Ap0021776		X	X	X
16	SX_OB_20220410_15_48_S_S_Duplicate_EUF	Apr 10, 2022	3:48PM	Soil	M22-Ap0021777		X	X	X
17	SX_OB_20220410_19_58_S_S_Primary_EU_F	Apr 10, 2022	7:58PM	Soil	M22-Ap0021778		X	X	X
18	SX_OB_20220411_00_08_S	Apr 11, 2022	12:08AM	Soil	M22-Ap0021779		X	X	X

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Contact Name: Agon Lab Reports (Spoil Project)

Project Name: 20220411162958-Eurofin-8
Project ID: JC0927

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
19	SX_OB_20220 411_04_04_S S_Primary_EU F	Apr 11, 2022	4:04AM	Soil	M22- Ap0021780		X	X	X
20	SX_OB_20220 409_07_40_S S_Triplicate_E UF	Apr 09, 2022	7:40AM	AUS Leachate - pH 5.0	M22- Ap0021781	X		X	
21	SX_OB_20220 409_09_37_S S_Primary_EU F	Apr 09, 2022	9:37AM	AUS Leachate - pH 5.0	M22- Ap0021782	X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
22	SX_IB_20220409_11_55_SS_Primary_EUF	Apr 09, 2022	11:55AM	AUS Leachate - pH 5.0	M22-Ap0021783	X		X	
23	SX_OB_20220409_12_04_S_Primary_EUF	Apr 09, 2022	12:04PM	AUS Leachate - pH 5.0	M22-Ap0021784	X		X	
24	SX_OB_20220409_15_52_S_Primary_EUF	Apr 09, 2022	3:52PM	AUS Leachate - pH 5.0	M22-Ap0021785	X		X	
25	SX_OB_20220409_15_52_S_Duplicate_EUF	Apr 09, 2022	3:52PM	AUS Leachate - pH 5.0	M22-Ap0021786	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	UF								
26	SX_OB_20220409_20_06_S_S_Primary_EU F	Apr 09, 2022	8:06PM	AUS Leachate - pH 5.0	M22-Ap0021787	X		X	
27	SX_OB_20220410_00_19_S_S_Primary_EU F	Apr 10, 2022	12:19AM	AUS Leachate - pH 5.0	M22-Ap0021788	X		X	
28	SX_OB_20220410_04_09_S_S_Primary_EU F	Apr 10, 2022	4:09AM	AUS Leachate - pH 5.0	M22-Ap0021789	X		X	
29	SX_OB_20220	Apr 10, 2022	8:02AM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
29	SX_OB_20220410_08_02_S_S_Triplicate_EUF	Apr 10, 2022	8:02AM	AUS Leachate - pH 5.0	M22-Ap0021790				
30	SX_OB_20220410_08_06_S_S_Primary_EUF	Apr 10, 2022	8:06AM	AUS Leachate - pH 5.0	M22-Ap0021791	X		X	
31	SX_OB_20220410_11_58_S_S_Primary_EUF	Apr 10, 2022	11:58AM	AUS Leachate - pH 5.0	M22-Ap0021792	X		X	
32	SX_OB_20220410_15_47_S	Apr 10, 2022	3:47PM	AUS Leachate - pH 5.0	M22-Ap0021793	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EU F								
33	SX_OB_20220 410_15_48_S S_Duplicate_E UF	Apr 10, 2022	3:48PM	AUS Leachate - pH 5.0	M22- Ap0021794	X		X	
34	SX_OB_20220 410_19_58_S S_Primary_EU F	Apr 10, 2022	7:58PM	AUS Leachate - pH 5.0	M22- Ap0021795	X		X	
35	SX_OB_20220 411_00_08_S S_Primary_EU F	Apr 11, 2022	12:08AM	AUS Leachate - pH 5.0	M22- Ap0021796	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
36	SX_OB_20220411_04_04_S_S_Primary_EU_F	Apr 11, 2022	4:04AM	AUS Leachate - pH 5.0	M22-Ap0021797	X		X	
37	SX_OB_20220409_07_40_S_S_Triplicate_EUF	Apr 09, 2022	7:40AM	AUS Leachate - Reagent Water	M22-Ap0021798	X		X	
38	SX_OB_20220409_09_37_S_S_Primary_EU_F	Apr 09, 2022	9:37AM	AUS Leachate - Reagent Water	M22-Ap0021799	X		X	
39	SX_IB_20220409_11_55_SS	Apr 09, 2022	11:55AM	AUS Leachate - Reagent	M22-Ap0021800	X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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									
	_Primary_EUF			Water					
40	SX_OB_20220409_12_04_S_S_Primary_EUF	Apr 09, 2022	12:04PM	AUS Leachate - Reagent Water	M22-Ap0021801	X		X	
41	SX_OB_20220409_15_52_S_S_Primary_EUF	Apr 09, 2022	3:52PM	AUS Leachate - Reagent Water	M22-Ap0021802	X		X	
42	SX_OB_20220409_15_52_S_S_Duplicate_EUF	Apr 09, 2022	3:52PM	AUS Leachate - Reagent Water	M22-Ap0021803	X		X	
43	SX_OB_20220	Apr 09, 2022	8:06PM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
43	SX_OB_20220409_20_06_S_S_Primary_EU_F	Apr 09, 2022	8:06PM	AUS Leachate - Reagent Water	M22-Ap0021804				
44	SX_OB_20220410_00_19_S_S_Primary_EU_F	Apr 10, 2022	12:19AM	AUS Leachate - Reagent Water	M22-Ap0021805	X		X	
45	SX_OB_20220410_04_09_S_S_Primary_EU_F	Apr 10, 2022	4:09AM	AUS Leachate - Reagent Water	M22-Ap0021806	X		X	
46	SX_OB_20220410_08_02_S	Apr 10, 2022	8:02AM	AUS Leachate - Reagent	M22-Ap0021807	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Triplicate_EUF			Water					
47	SX_OB_20220410_08_06_S_S_Primary_EUF	Apr 10, 2022	8:06AM	AUS Leachate - Reagent Water	M22-Ap0021808	X	X		
48	SX_OB_20220410_11_58_S_S_Primary_EUF	Apr 10, 2022	11:58AM	AUS Leachate - Reagent Water	M22-Ap0021809	X	X		
49	SX_OB_20220410_15_47_S_S_Primary_EUF	Apr 10, 2022	3:47PM	AUS Leachate - Reagent Water	M22-Ap0021810	X	X		

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
50	SX_OB_20220410_15_48_S_S_Duplicate_EUF	Apr 10, 2022	3:48PM	AUS Leachate - Reagent Water	M22-Ap0021811	X		X	
51	SX_OB_20220410_19_58_S_S_Primary_EUF	Apr 10, 2022	7:58PM	AUS Leachate - Reagent Water	M22-Ap0021812	X		X	
52	SX_OB_20220411_00_08_S_S_Primary_EUF	Apr 11, 2022	12:08AM	AUS Leachate - Reagent Water	M22-Ap0021813	X		X	
53	SX_OB_20220411_04_04_S	Apr 11, 2022	4:04AM	AUS Leachate - Reagent	M22-Ap0021814	X		X	

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Sample Detail				AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IMRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254				X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
Perth Laboratory - NATA # 2377 Site # 2370							
External Laboratory							
	S_Primary_EU F		Water				
Test Counts				34	17	53	17

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)	%	97		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	104		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	97		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	89		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	92		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	82		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	90		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	111		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	105		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	83		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	106		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	98			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	110			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	117			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	94			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	108			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	59			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	106			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	85			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	86			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	106			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	95			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	83			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	94			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	79			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	81			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	102			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	138			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	121			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	89			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)								
Perfluorobutanoic acid (PFBA)	M22-Ap0029186	NCP	%	104		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0029186	NCP	%	104		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0029186	NCP	%	97		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0029186	NCP	%	96		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0029186	NCP	%	99		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0029186	NCP	%	97		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0029186	NCP	%	94		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0029186	NCP	%	101		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0029186	NCP	%	115		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0029186	NCP	%	149		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0029186	NCP	%	121		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	M22-Ap0029186	NCP	%	105		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0029186	NCP	%	113		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0029186	NCP	%	115		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0029186	NCP	%	96		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0029186	NCP	%	110		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0029186	NCP	%	101			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0029186	NCP	%	78			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0029186	NCP	%	95			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ap0029186	NCP	%	65			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0029186	NCP	%	114			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0029186	NCP	%	99			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0029186	NCP	%	59			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0029186	NCP	%	93			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0029217	NCP	%	82			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0029186	NCP	%	57			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-Ap0029186	NCP	%	107			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0029186	NCP	%	116			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0029186	NCP	%	100			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0029186	NCP	%	106			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-Ap0023794	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTEDA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0023794	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0023794	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0023794	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0023794	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0023794	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0023794	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0023794	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0023794	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0023794	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments
Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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Australian Laboratory Services Pty Ltd



Telephone : + 61-3-8549 9600

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CHAIN OF CUSTODY DOCUMENTATION																																																																																																																																																				
CLIENT: Agon Environmental				SAMPLER: Will & Brandon - Agon																																																																																																																																																
ADDRESS / OFFICE: Melbourne				MOBILE 1: +61 400 826 907 (Craig Trimbur)																																																																																																																																																
PROJECT MANAGER (PM): Craig Trimbur				MOBILE 2: +61 490 411 004 (David Lawson)																																																																																																																																																
PROJECT ID: JC0927				EMAIL REPORT TO: Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au																																																																																																																																																
SITE: 20220329050622-ALS-14 P.O. NO.:				motherhublabresults1@wgtp.com.au Amrit.Kaur@aqile-analytics.com.au																																																																																																																																																
RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP				EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au																																																																																																																																																
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:							ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)																																																																																																																																													
<div style="background-color: #cccccc; padding: 5px;"> SAMPLE INFORMATION (note: S = Soil, W=Water) </div>							<table border="1"> <thead> <tr> <th>Spot</th> <th>P 16 plus Ct</th> <th>PFAS 28 Extended suite</th> <th>ASIP PFAS - Extended Suite (Lab to determine pH)</th> <th>D Leachate PFAS - Extended Suite</th> <th colspan="6"></th> <th>Notes:</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>3</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>4</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>5</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>6</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>7</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>8</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>										Spot	P 16 plus Ct	PFAS 28 Extended suite	ASIP PFAS - Extended Suite (Lab to determine pH)	D Leachate PFAS - Extended Suite							Notes:	1	x	x	x	x											2	x	x	x	x											3	x	x	x	x											4	x	x	x	x											5	x	x	x	x											6	x	x	x	x											7	x	x	x	x											8	x	x	x	x										
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<table border="1"> <thead> <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>1</td> <td>SX_IB_20220328_07_41_SS_Primary_ALS</td> <td>S</td> <td>28/03/2022</td> <td>07:41</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>2</td> <td>SX_IB_20220328_07_45_SS_Duplicate_ALS</td> <td>S</td> <td>28/03/2022</td> <td>07:45</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>3</td> <td>SX_IB_20220328_11_59_SS_Primary_ALS</td> <td>S</td> <td>28/03/2022</td> <td>11:59</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>4</td> <td>SX_IB_20220328_15_48_SS_Triplicate_ALS</td> <td>S</td> <td>28/03/2022</td> <td>15:48</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>5</td> <td>SX_IB_20220328_15_50_SS_Primary_ALS</td> <td>S</td> <td>28/03/2022</td> <td>15:50</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>6</td> <td>SX_IB_20220328_20_19_SS_Primary_ALS</td> <td>S</td> <td>28/03/2022</td> <td>20:19</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>7</td> <td>SX_IB_20220329_00_09_SS_Primary_ALS</td> <td>S</td> <td>29/03/2022</td> <td>00:09</td> <td>Bucket</td> <td>1</td> </tr> <tr> <td>8</td> <td>SX_IB_20220329_04_21_SS_Primary_ALS</td> <td>S</td> <td>29/03/2022</td> <td>04:09</td> <td>Bucket</td> <td>1</td> </tr> </tbody> </table>							ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	1	SX_IB_20220328_07_41_SS_Primary_ALS	S	28/03/2022	07:41	Bucket	1	2	SX_IB_20220328_07_45_SS_Duplicate_ALS	S	28/03/2022	07:45	Bucket	1	3	SX_IB_20220328_11_59_SS_Primary_ALS	S	28/03/2022	11:59	Bucket	1	4	SX_IB_20220328_15_48_SS_Triplicate_ALS	S	28/03/2022	15:48	Bucket	1	5	SX_IB_20220328_15_50_SS_Primary_ALS	S	28/03/2022	15:50	Bucket	1	6	SX_IB_20220328_20_19_SS_Primary_ALS	S	28/03/2022	20:19	Bucket	1	7	SX_IB_20220329_00_09_SS_Primary_ALS	S	29/03/2022	00:09	Bucket	1	8	SX_IB_20220329_04_21_SS_Primary_ALS	S	29/03/2022	04:09	Bucket	1																																																																															
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4	SX_IB_20220328_15_48_SS_Triplicate_ALS	S	28/03/2022	15:48	Bucket	1																																																																																																																																														
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6	SX_IB_20220328_20_19_SS_Primary_ALS	S	28/03/2022	20:19	Bucket	1																																																																																																																																														
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8	SX_IB_20220329_04_21_SS_Primary_ALS	S	29/03/2022	04:09	Bucket	1																																																																																																																																														
RELINQUISHED BY:							RECEIVED BY:			METHOD OF SHIPMENT:																																																																																																																																										
Name: Hannah Kennedy		Date: 29/3/22		Name: [Signature]		Date: 29/3		Con' Note No:																																																																																																																																												
Of: SP Risk		Time:		Of: Au		Time: 12:20		Transport Co:																																																																																																																																												
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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 = Sulphuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulphuric 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

CERTIFICATE OF ANALYSIS

Work Order : **EM2205583**
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 : 20220329050622-ALS-14
Sampler : BRANDON CLARKE, WILLIAM O'HAIRE
Site : 20220329050622-ALS-14
Quote number : EN/150/19 -WGTP -Bulk Sample Quote
No. of samples received : 16
No. of samples analysed : 16

Page : 1 of 27
Laboratory : Environmental Division Melbourne
Contact : Bronwyn Sheen
Address : 4 Westall Rd Springvale VIC Australia 3171

Telephone : +6138549 9600
Date Samples Received : 29-Mar-2022 12:20
Date Analysis Commenced : 31-Mar-2022
Issue Date : 05-Apr-2022 17:34



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
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 Contact for details.

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

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EG035T: EM2205589 #1 Poor duplicate precision for mercury due to sample heterogeneity. Confirmed by re-extraction and re-analysis.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220328_07_41_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS	SX_IB_20220328_11_59_SS_Primary_ALS	SX_IB_20220328_15_48_SS_Triplicate_ALS	SX_IB_20220328_15_50_SS_Primary_ALS
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50
Compound	CAS Number	LOR	Unit	EM2205583-001	EM2205583-002	EM2205583-003	EM2205583-004	EM2205583-005
				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 (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
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	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_IB_20220328_07_41_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS	SX_IB_20220328_11_59_SS_Primary_ALS	SX_IB_20220328_15_48_SS_Triplicate_ALS	SX_IB_20220328_15_50_SS_Primary_ALS
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50
Compound	CAS Number	LOR	Unit	EM2205583-001	EM2205583-002	EM2205583-003	EM2205583-004	EM2205583-005
				Result	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	<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	%	96.6	97.4	110	97.8	99.6
13C8-PFOA	----	0.02	%	105	104	101	106	106



Analytical Results

Sub-Matrix: ASLP LEACHATE (Matrix: WATER)				Sample ID	SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_04_21_SS_Primary_ALS	----	----
Sampling date / time				28-Mar-2022 20:19	29-Mar-2022 00:09	29-Mar-2022 04:09	----	----	
Compound	CAS Number	LOR	Unit	EM2205583-006	EM2205583-007	EM2205583-008	-----	-----	
				Result	Result	Result	----	----	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----	



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_04_21_SS_Primary_ALS	----	----
Sampling date / time				28-Mar-2022 20:19	29-Mar-2022 00:09	29-Mar-2022 04:09	----	----
Compound	CAS Number	LOR	Unit	EM2205583-006	EM2205583-007	EM2205583-008	-----	-----
				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	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	98.8	98.7	110	----	----
13C8-PFOA	----	0.02	%	104	104	106	----	----



Analytical Results

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

Sample ID

				SX_IB_20220328_07_41_SS_Primary_ALS DI	SX_IB_20220328_07_45_SS_Duplicate_ALS DI	SX_IB_20220328_11_59_SS_Primary_ALS DI	SX_IB_20220328_15_48_SS_Triplicate_ALS DI	SX_IB_20220328_15_50_SS_Primary_ALS DI
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50
Compound	CAS Number	LOR	Unit	EM2205583-009	EM2205583-010	EM2205583-011	EM2205583-012	EM2205583-013
				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_IB_20220328_07_41_SS_Primary_ALS DI	SX_IB_20220328_07_45_SS_Duplicate_ALS DI	SX_IB_20220328_11_59_SS_Primary_ALS DI	SX_IB_20220328_15_48_SS_Triplicate_ALS DI	SX_IB_20220328_15_50_SS_Primary_ALS DI
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50
Compound	CAS Number	LOR	Unit	EM2205583-009	EM2205583-010	EM2205583-011	EM2205583-012	EM2205583-013
				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	%	94.3	94.6	101	98.0	98.1
13C8-PFOA	----	0.02	%	104	102	103	102	104



Analytical Results

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

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS DI	SX_IB_20220329_00_09_SS_Primary_ALS DI	SX_IB_20220329_04_21_SS_Primary_ALS DI	----	----
Sampling date / time				28-Mar-2022 08:19	29-Mar-2022 12:09	29-Mar-2022 04:09	----	----
Compound	CAS Number	LOR	Unit	EM2205583-014	EM2205583-015	EM2205583-016	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----



Analytical Results

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

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS DI	SX_IB_20220329_00_09_SS_Primary_ALS DI	SX_IB_20220329_04_21_SS_Primary_ALS DI	----	----
Sampling date / time				28-Mar-2022 08:19	29-Mar-2022 12:09	29-Mar-2022 04:09	----	----
Compound	CAS Number	LOR	Unit	EM2205583-014	EM2205583-015	EM2205583-016	-----	-----
				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	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	99.6	99.6	96.6	----	----
13C8-PFOA	----	0.02	%	102	104	104	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID				
				SX_IB_20220328_07_41_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS	SX_IB_20220328_11_59_SS_Primary_ALS	SX_IB_20220328_15_48_SS_Triplicate_ALS	SX_IB_20220328_15_50_SS_Primary_ALS
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50
Compound	CAS Number	LOR	Unit	EM2205583-001	EM2205583-002	EM2205583-003	EM2205583-004	EM2205583-005
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	8.0	8.1	7.8	8.0	7.8
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	31.4	32.0	29.9	31.3	28.9
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	17	18	20	23	24
Cadmium	7440-43-9	1	mg/kg	1	1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	96	106	93	102	102
Copper	7440-50-8	5	mg/kg	63	64	59	57	65
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	174	169	173	151	162
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	102	100	100	93	93
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	230	210	240	360	240
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	7.7	9.3	8.9	9.2	9.2
After HCl pH	----	0.1	pH Unit	1.6	1.6	1.6	1.5	1.4
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.0	5.2	5.0	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
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_07_41_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS	SX_IB_20220328_11_59_SS_Primary_ALS	SX_IB_20220328_15_48_SS_Triplicate_ALS	SX_IB_20220328_15_50_SS_Primary_ALS
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50
Compound	CAS Number	LOR	Unit	EM2205583-001	EM2205583-002	EM2205583-003	EM2205583-004	EM2205583-005
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
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
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)								
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



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_07_41_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS	SX_IB_20220328_11_59_SS_Primary_ALS	SX_IB_20220328_15_48_SS_Triplicate_ALS	SX_IB_20220328_15_50_SS_Primary_ALS
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50
Compound	CAS Number	LOR	Unit	EM2205583-001	EM2205583-002	EM2205583-003	EM2205583-004	EM2205583-005
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued								
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
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



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_07_41_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS	SX_IB_20220328_11_59_SS_Primary_ALS	SX_IB_20220328_15_48_SS_Triplicate_ALS	SX_IB_20220328_15_50_SS_Primary_ALS
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50
Compound	CAS Number	LOR	Unit	EM2205583-001	EM2205583-002	EM2205583-003	EM2205583-004	EM2205583-005
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
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
^ 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	72-54-8/72-55-9/50-29-3	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



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220328_07_41_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS	SX_IB_20220328_11_59_SS_Primary_ALS	SX_IB_20220328_15_48_SS_Triplicate_ALS	SX_IB_20220328_15_50_SS_Primary_ALS
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50	
Compound	CAS Number	LOR	Unit	EM2205583-001	EM2205583-002	EM2205583-003	EM2205583-004	EM2205583-005	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
^ Sum of other organochlorine pesticides				----	0.03	mg/kg	<0.03	<0.03	<0.03
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction				----	20	mg/kg	<20	<20	<20
C10 - C14 Fraction				----	50	mg/kg	<50	<50	<50
C6 - C10 Fraction				C6_C10	20	mg/kg	<20	<20	<20
C15 - C28 Fraction				----	100	mg/kg	<100	<100	<100
C29 - C36 Fraction				----	100	mg/kg	<100	<100	<100
^ C10 - C36 Fraction (sum)				----	50	mg/kg	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
>C10 - C16 Fraction				----	50	mg/kg	<50	<50	<50
>C16 - C34 Fraction				----	100	mg/kg	<100	<100	<100
>C34 - C40 Fraction				----	100	mg/kg	<100	<100	<100
^ >C10 - C40 Fraction (sum)				----	50	mg/kg	<50	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)				----	50	mg/kg	----	----	<50
>C10 - C16 Fraction minus Naphthalene (F2)				----	50	mg/kg	<50	<50	----
C6 - C10 Fraction minus BTEX (F1)				C6_C10-BTEX	20	mg/kg	<20	<20	<20
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)				375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluoropentane sulfonic acid (PFPeS)				2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluorohexane sulfonic acid (PFHxS)				355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluoroheptane sulfonic acid (PFHpS)				375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluorooctane sulfonic acid (PFOS)				1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluorodecane sulfonic acid (PFDS)				335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)				375-22-4	5	µg/kg	<5	<5	<5
Perfluoropentanoic acid (PFPeA)				2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220328_07_41_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS	SX_IB_20220328_11_59_SS_Primary_ALS	SX_IB_20220328_15_48_SS_Triplicate_ALS	SX_IB_20220328_15_50_SS_Primary_ALS
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50	
Compound	CAS Number	LOR	Unit	EM2205583-001	EM2205583-002	EM2205583-003	EM2205583-004	EM2205583-005	
				Result	Result	Result	Result	Result	
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
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									
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	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220328_07_41_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS	SX_IB_20220328_11_59_SS_Primary_ALS	SX_IB_20220328_15_48_SS_Triplicate_ALS	SX_IB_20220328_15_50_SS_Primary_ALS
Sampling date / time				28-Mar-2022 07:41	28-Mar-2022 07:45	28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50	
Compound	CAS Number	LOR	Unit	EM2205583-001	EM2205583-002	EM2205583-003	EM2205583-004	EM2205583-005	
				Result	Result	Result	Result	Result	
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
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	%	120	119	120	120	118	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	86.9	86.4	94.1	78.5	85.5	
Toluene-D8	2037-26-5	0.1	%	85.4	86.9	94.6	77.1	82.4	
4-Bromofluorobenzene	460-00-4	0.1	%	92.6	95.1	103	85.2	90.1	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	90.8	90.9	96.1	90.1	86.2	
2-Chlorophenol-D4	93951-73-6	0.025	%	86.4	92.6	95.1	93.6	89.3	
2,4,6-Tribromophenol	118-79-6	0.025	%	82.0	84.4	85.6	85.0	80.5	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	86.7	91.1	92.0	90.2	89.6	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	77.5	82.6	82.8	82.8	78.4	
2-Fluorobiphenyl	321-60-8	0.025	%	83.6	87.3	90.7	89.2	85.0	
Anthracene-d10	1719-06-8	0.025	%	82.5	87.8	90.0	88.8	85.8	
4-Terphenyl-d14	1718-51-0	0.025	%	84.1	89.1	90.3	89.1	86.8	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	88.9	90.6	93.4	85.9	87.5	
13C8-PFOA	----	0.0002	%	97.1	96.2	95.8	98.2	99.6	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_04_21_SS_Primary_ALS	SX_IB_20220328_07_41_SS_Primary_ALS_DI	SX_IB_20220328_07_45_SS_Duplicate_ALS_DI
Sampling date / time				28-Mar-2022 20:19	29-Mar-2022 00:09	29-Mar-2022 04:09	28-Mar-2022 07:41	28-Mar-2022 07:45
Compound	CAS Number	LOR	Unit	EM2205583-006	EM2205583-007	EM2205583-008	EM2205583-009	EM2205583-010
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	8.2	8.0	7.8	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	27.5	30.1	27.0	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	17	18	16	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	----
Chromium	7440-47-3	5	mg/kg	87	95	90	----	----
Copper	7440-50-8	5	mg/kg	51	59	54	----	----
Lead	7439-92-1	5	mg/kg	<5	<5	<5	----	----
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	----	----
Nickel	7440-02-0	5	mg/kg	140	161	152	----	----
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	----	----
Silver	7440-22-4	2	mg/kg	<2	<2	<2	----	----
Tin	7440-31-5	10	mg/kg	<10	<10	<10	----	----
Zinc	7440-66-6	5	mg/kg	80	91	85	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<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	----	----
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	----	----
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	220	210	240	----	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.6	9.5	9.3	----	----
After HCl pH	----	0.1	pH Unit	1.4	1.4	1.4	----	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	----	----
Final pH	----	0.1	pH Unit	5.1	5.1	5.1	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	----	----	----	9.4	9.7
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_04_21_SS_Primary_ALS	SX_IB_20220328_07_41_SS_Primary_ALS_DI	SX_IB_20220328_07_45_SS_Duplicate_ALS_DI
Sampling date / time				28-Mar-2022 20:19	29-Mar-2022 00:09	29-Mar-2022 04:09	28-Mar-2022 07:41	28-Mar-2022 07:45
Compound	CAS Number	LOR	Unit	EM2205583-006	EM2205583-007	EM2205583-008	EM2205583-009	EM2205583-010
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_04_21_SS_Primary_ALS	SX_IB_20220328_07_41_SS_Primary_ALS_DI	SX_IB_20220328_07_45_SS_Duplicate_ALS_DI
Sampling date / time				28-Mar-2022 20:19	29-Mar-2022 00:09	29-Mar-2022 04:09	28-Mar-2022 07:41	28-Mar-2022 07:45
Compound	CAS Number	LOR	Unit	EM2205583-006	EM2205583-007	EM2205583-008	EM2205583-009	EM2205583-010
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated)								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	----	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	----	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	----	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	----	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	----	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	----	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	----	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	----	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	----	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	----	----
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_04_21_SS_Primary_ALS	SX_IB_20220328_07_41_SS_Primary_ALS DI	SX_IB_20220328_07_45_SS_Duplicate_ALS DI
Sampling date / time				28-Mar-2022 20:19	29-Mar-2022 00:09	29-Mar-2022 04:09	28-Mar-2022 07:41	28-Mar-2022 07:45
Compound	CAS Number	LOR	Unit	EM2205583-006	EM2205583-007	EM2205583-008	EM2205583-009	EM2205583-010
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	----	----
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_04_21_SS_Primary_ALS	SX_IB_20220328_07_41_SS_Primary_ALS_DI	SX_IB_20220328_07_45_SS_Duplicate_ALS_DI
Sampling date / time				28-Mar-2022 20:19	29-Mar-2022 00:09	29-Mar-2022 04:09	28-Mar-2022 07:41	28-Mar-2022 07:45
Compound	CAS Number	LOR	Unit	EM2205583-006	EM2205583-007	EM2205583-008	EM2205583-009	EM2205583-010
				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	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	<0.10	----	----
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	----
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_04_21_SS_Primary_ALS	SX_IB_20220328_07_41_SS_Primary_ALS_DI	SX_IB_20220328_07_45_SS_Duplicate_ALS_DI
Sampling date / time				28-Mar-2022 20:19	29-Mar-2022 00:09	29-Mar-2022 04:09	28-Mar-2022 07:41	28-Mar-2022 07:45
Compound	CAS Number	LOR	Unit	EM2205583-006	EM2205583-007	EM2205583-008	EM2205583-009	EM2205583-010
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220329_00_09_SS_Primary_ALS	SX_IB_20220329_04_21_SS_Primary_ALS	SX_IB_20220328_07_41_SS_Primary_ALS_DI	SX_IB_20220328_07_45_SS_Duplicate_ALS_DI
Sampling date / time				28-Mar-2022 20:19	29-Mar-2022 00:09	29-Mar-2022 04:09	28-Mar-2022 07:41	28-Mar-2022 07:45
Compound	CAS Number	LOR	Unit	EM2205583-006	EM2205583-007	EM2205583-008	EM2205583-009	EM2205583-010
				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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	112	118	120	----	----
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	93.4	78.9	91.6	----	----
Toluene-D8	2037-26-5	0.1	%	91.2	80.4	89.5	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	98.3	88.4	98.5	----	----
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	77.6	88.5	85.3	----	----
2-Chlorophenol-D4	93951-73-6	0.025	%	81.8	92.5	91.9	----	----
2,4,6-Tribromophenol	118-79-6	0.025	%	72.8	83.5	80.6	----	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	82.1	93.4	89.7	----	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	71.8	81.4	79.7	----	----
2-Fluorobiphenyl	321-60-8	0.025	%	77.6	87.8	88.1	----	----
Anthracene-d10	1719-06-8	0.025	%	78.5	88.5	87.2	----	----
4-Terphenyl-d14	1718-51-0	0.025	%	78.2	88.2	87.6	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	91.0	94.8	92.2	----	----
13C8-PFOA	----	0.0002	%	100	96.1	98.0	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220328_11_59_SS_Primary_ALS DI	SX_IB_20220328_15_48_SS_Triplicate_ALS DI	SX_IB_20220328_15_50_SS_Primary_ALS DI	SX_IB_20220328_20_19_SS_Primary_ALS DI	SX_IB_20220329_00_09_SS_Primary_ALS DI
Sampling date / time				28-Mar-2022 11:59	28-Mar-2022 15:48	28-Mar-2022 15:50	28-Mar-2022 08:19	29-Mar-2022 12:09
Compound	CAS Number	LOR	Unit	EM2205583-011	EM2205583-012	EM2205583-013	EM2205583-014	EM2205583-015
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.4	9.5	9.3	9.7	9.5



Analytical Results

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

Sample ID

				SX_IB_20220329_04_21_SS_Primary_ALS DI	----	----	----	----
				Sampling date / time	29-Mar-2022 04:09	----	----	----
<i>Compound</i>	<i>CAS Number</i>	<i>LOR</i>	<i>Unit</i>	EM2205583-016	-----	-----	-----	-----
				Result	----	----	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.6	----	----	----	----



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

QUALITY CONTROL REPORT

Work Order	: EM2205583	Page	: 1 of 27
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Contact	: Bronwyn Sheen
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +6138549 9600
Project	: JC0927	Date Samples Received	: 29-Mar-2022
Order number	: ----	Date Analysis Commenced	: 31-Mar-2022
C-O-C number	: 20220329050622-ALS-14	Issue Date	: 05-Apr-2022
Sampler	: BRANDON CLARKE, WILLIAM O'HAIRE		
Site	: 20220329050622-ALS-14		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 16		
No. of samples analysed	: 16		



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

This Quality Control Report contains the following information:

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Dilani Fernando	Laboratory Coordinator	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: 4262047)									
EM2205589-001	Anonymous	EG005T: Chromium	7440-47-3	2	mg/kg	12	17	36.9	No Limit
EM2205579-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	2	1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	20	18	9.3	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	36	31	15.0	0% - 50%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	48	58	18.0	0% - 50%
		EG005T: Copper	7440-50-8	5	mg/kg	76	68	10.3	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	268	258	4.0	0% - 20%
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	10	17	52.8	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	326	324	0.8	0% - 20%
		EM2205589-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1
EG005T: Molybdenum	7439-98-7			2	mg/kg	<2	<2	0.0	No Limit
EG005T: Nickel	7440-02-0			2	mg/kg	19	19	0.0	No Limit
EG005T: Silver	7440-22-4			2	mg/kg	<2	<2	0.0	No Limit
EG005T: Arsenic	7440-38-2			5	mg/kg	1340	1220	9.2	0% - 20%
EG005T: Copper	7440-50-8			5	mg/kg	37	34	7.2	No Limit
EG005T: Lead	7439-92-1			5	mg/kg	64	71	10.9	0% - 50%
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	187	176	6.0	0% - 20%
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4263486)									
EM2205471-005	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.5	7.6	1.7	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: 4263486) - continued									
EM2205583-002	SX_IB_20220328_07_45_S S_Duplicate_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	8.1	8.2	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4262253)									
EM2205583-001	SX_IB_20220328_07_41_S S_Primary_ALS	EA055: Moisture Content	----	0.1	%	31.4	29.6	5.7	0% - 20%
EM2205589-006	Anonymous	EA055: Moisture Content	----	0.1	%	21.8	18.5	16.3	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4262048)									
EM2205589-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	2.2	# 1.7	22.5	0% - 20%
EM2205579-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	1.8	1.7	0.0	0% - 50%
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4262070)									
EM2205306-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EM2205507-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4262071)									
EM2205583-002	SX_IB_20220328_07_45_S S_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2205648-001	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: 4263025)									
EM2205522-016	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	1	1	0.0	No Limit
EM2205541-002	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<2	<2	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4262230)									
EM2205306-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	190	170	12.9	No Limit
EM2205583-002	SX_IB_20220328_07_45_S S_Duplicate_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	210	250	14.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4262137)									
EM2205306-001	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2205583-005	SX_IB_20220328_15_50_S S_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: 4259605)									
EM2205583-001	SX_IB_20220328_07_41_S S_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: 4259605)									
EM2205583-001	SX_IB_20220328_07_41_S S_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: 4259605)									
EM2205583-001	SX_IB_20220328_07_41_S S_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: 4262135)									
EM2205306-001	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	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EM2205583-005	SX_IB_20220328_15_50_S S_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: 4262135) - continued									
EM2205583-005	SX_IB_20220328_15_50_S S_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: 4262135)									
EM2205306-001	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
EM2205583-005	SX_IB_20220328_15_50_S S_Primary_ALS	EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<5	<5	0.0	No Limit
		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
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4262135)	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	0.6	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: 4262135) - continued									
EM2205306-001	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
EM2205583-005	SX_IB_20220328_15_50_S S_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: 4262135)									
EM2205306-001	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: 4262135) - continued									
EM2205583-005	SX_IB_20220328_15_50_S S_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: 4259605)									
EM2205583-001	SX_IB_20220328_07_41_S S_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4262136)									
EM2205306-001	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	110	10.4	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	110	75.0	No Limit
EM2205583-005	SX_IB_20220328_15_50_S S_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: 4259605)									
EM2205583-001	SX_IB_20220328_07_41_S S_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: 4262136)									
EM2205306-001	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	110	11.7	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: 4262136) - continued									
EM2205306-001	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	110	75.0	No Limit
EM2205583-005	SX_IB_20220328_15_50_S S_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: 4264546)									
EM2205492-004	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	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2205583-007	SX_IB_20220329_00_09_S S_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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4264546)									
EM2205492-004	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 (PFTriDA)	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
EM2205583-007	SX_IB_20220329_00_09_S S_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



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: 4264546) - continued									
EM2205583-007	SX_IB_20220329_00_09_S S_Primary_ALS	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: 4264546)									
EM2205492-004	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
		EM2205583-007	SX_IB_20220329_00_09_S S_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<5.0 µg/kg	<0.0050
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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4264546)									
EM2205492-004	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



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: 4264546) - continued									
EM2205492-004	Anonymous	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
EM2205583-007	SX_IB_20220329_00_09_S S_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4264546)									
EM2205492-004	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2205583-007	SX_IB_20220329_00_09_S S_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
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: 4264535)									
EM2205583-009	SX_IB_20220328_07_41_S S_Primary_ALS DI	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
EM2205648-004	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4264537)									



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: 4264537) - continued									
EM2205583-001	SX_IB_20220328_07_41_S S_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
EM2205665-005	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: 4264535)									
EM2205583-009	SX_IB_20220328_07_41_S S_Primary_ALS DI	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
		EM2205648-004	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
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: 4264537)									
EM2205583-001	SX_IB_20220328_07_41_S S_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: 4264537) - continued									
EM2205583-001	SX_IB_20220328_07_41_S S_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 (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
EM2205665-005	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		
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4264535)									
EM2205583-009	SX_IB_20220328_07_41_S S_Primary_ALS DI	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
EM2205648-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4264535) - continued									
EM2205648-004	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4264537)									
EM2205583-001	SX_IB_20220328_07_41_S S_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
EM2205665-005	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4264535)									
EM2205583-009	SX_IB_20220328_07_41_S S_Primary_ALS DI	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	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: 4264535) - continued									
EM2205583-009	SX_IB_20220328_07_41_S S_Primary_ALS DI	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
EM2205648-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4264537)									
EM2205583-001	SX_IB_20220328_07_41_S S_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
EM2205665-005	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: 4264535)									
EM2205583-009	SX_IB_20220328_07_41_S S_Primary_ALS DI	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
EM2205648-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

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 Work Order : EM2205583
 Client : AGON ENVIRONMENTAL PTY LTD
 Project : JC0927



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: 4264537)									
EM2205583-001	SX_IB_20220328_07_41_S S_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
EM2205665-005	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



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 Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Result	Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)
Method: Compound	CAS Number	LOR	Unit	Low				High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4262047)								
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	64.3	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	103	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	92.8	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	95.0	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	97.5	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	96.9	70.0	130
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	92.1	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	81.5	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	72.5	70.0	130
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4262768)								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.0	----	----	----	----
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4263486)								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	99.8	98.8	101
					7 pH Unit	100	99.3	101
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4262048)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	75.5	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4262070)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	82.3	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4262071)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	87.6	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4263025)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	83.3	70.0	130
EK040T: Fluoride Total (QCLot: 4262230)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	90.6	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4262137)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	115	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4259605)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	72.7	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	71.4	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	70.0	66.6	115



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: 4259605) - continued									
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	68.9	65.2	112	
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	70.3	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	71.1	68.4	110	
EP074H: Naphthalene (QCLot: 4259605)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	76.1	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4259605)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	53.5	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	64.8	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	73.6	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	68.6	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	75.1	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	77.7	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	70.8	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	68.8	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	85.0	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	72.2	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	82.4	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	69.0	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	74.0	71.8	116	
EP074-UT: 1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	83.9	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	71.8	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	75.2	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	73.8	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	77.4	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	74.7	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4262135)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	91.5	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	88.9	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	88.9	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	87.9	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	88.5	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	86.0	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	85.9	69.4	126	
EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/5 8-90-2	0.05	mg/kg	<0.05	4 mg/kg	84.8	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	83.0	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4262135)									



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: 4262135) - continued									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	97.0	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	95.7	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	92.3	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	88.5	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	88.4	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	78.2	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	94.6	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	78.5	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	82.3	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	67.5	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4262135)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	88.4	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	85.5	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	85.6	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	89.1	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	87.4	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	88.2	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	88.7	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	88.9	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	94.0	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	93.2	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	86.9	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	86.6	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	87.2	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	88.0	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	86.8	71.3	134	
EP075I: Organochlorine Pesticides (QCLot: 4262135)									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	87.9	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	87.4	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	89.2	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	89.6	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	91.0	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	87.7	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	88.5	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	88.8	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	89.0	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	88.7	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	91.9	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: 4262135) - continued									
EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	87.5	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	89.4	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	80.4	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	93.1	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	91.7	71.4	135	
EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	92.1	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	92.3	70.2	135	
EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	90.7	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	92.1	63.6	135	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4259605)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	77.3	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4262136)									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	760 mg/kg	74.7	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	3270 mg/kg	89.4	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1550 mg/kg	90.3	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	87.6	70.0	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4259605)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	76.2	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: 4262136)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1110 mg/kg	82.4	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	4180 mg/kg	89.4	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	290 mg/kg	77.3	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	87.3	70.0	130	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4264546)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	115	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	92.2	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	78.7	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	113	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	113	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	121	59.0	134	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4264546)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	103	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	119	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	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: 4264546) - continued									
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.4	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.8	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.1	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	121	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264546)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	98.0	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	120	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4264546)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	113	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	112	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	125	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	103	70.0	130	
EP231P: PFAS Sums (QCLot: 4264546)									
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: 4264535)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	99.5	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	99.3	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	93.7	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.5	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	91.6	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	87.4	53.0	142	



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	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4264537)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	91.9	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	106	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	100	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	90.3	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	101	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	97.7	53.0	142	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4264535)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.9	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	95.6	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	98.4	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	95.0	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.4	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.8	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	104	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4264537)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.7	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	94.0	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	92.8	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	93.5	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	97.5	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.9	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.1	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	102	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264535)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	89.0	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	87.4	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	95.4	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	98.0	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	



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
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264535) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	110	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	97.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264537)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	92.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	107	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
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	92.6	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	105	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	99.0	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	99.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4264535)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	96.6	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	98.3	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	105	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	98.1	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4264537)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	92.2	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	106	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	109	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	88.9	70.0	130
EP231P: PFAS Sums (QCLot: 4264535)								
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: 4264537)								
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	----	----	----	----



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

Sub-Matrix: SOIL

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery(%) MS	Acceptable Limits (%)	
				Low	High		
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4262047)							
EM2205583-001	SX_IB_20220328_07_41_SS_Primary_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	80.7	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	97.9	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	93.9	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	103	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	94.6	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	102	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	85.2	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4262048)							
EM2205583-001	SX_IB_20220328_07_41_SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	83.3	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4262070)							
EM2205434-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	82.8	58.0	114
EM2205434-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	91.0	58.0	114
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4262071)							
EM2205583-003	SX_IB_20220328_11_59_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	81.4	58.0	114
EM2205583-003	SX_IB_20220328_11_59_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	89.9	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4263025)							
EM2205522-019	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	93.7	70.0	130
EK040T: Fluoride Total (QCLot: 4262230)							
EM2205487-005	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	72.6	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4262137)							
EM2205522-007	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	124	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4259605)							
EM2205583-002	SX_IB_20220328_07_45_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	92.4	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	93.0	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4259605)							
EM2205583-002	SX_IB_20220328_07_45_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	81.5	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	82.4	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	87.8	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4262135)							
EM2205499-002	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	80.6	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	78.3	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	70.6	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4262135)							
EM2205499-002	Anonymous	EP075-EM: Phenol	108-95-2	3 mg/kg	81.5	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: 4262135) - continued							
EM2205499-002	Anonymous	EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	75.2	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4262135)							
EM2205499-002	Anonymous	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	71.1	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	72.1	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4259605)							
EM2205583-002	SX_IB_20220328_07_45_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	87.2	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4262136)							
EM2205501-003	Anonymous	EP071-EM: C10 - C14 Fraction	----	760 mg/kg	77.2	71.3	126
		EP071-EM: C15 - C28 Fraction	----	3270 mg/kg	87.4	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1550 mg/kg	91.2	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5580 mg/kg	85.1	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4259605)							
EM2205583-002	SX_IB_20220328_07_45_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	81.6	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4262136)							
EM2205501-003	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1110 mg/kg	83.1	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	4180 mg/kg	88.1	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	290 mg/kg	84.5	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5580 mg/kg	85.3	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4264546)							
EM2205492-006	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	113	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	84.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	96.1	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	120	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	111	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	132	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4264546)							
EM2205492-006	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	104	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	104	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	110	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	107	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	108	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	107	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	107	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	81.0	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	104	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	85.4	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	118	69.0	133



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
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264546)							
EM2205492-006	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	117	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	103	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	101	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	106	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	124	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	120	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	122	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4264546)							
EM2205492-006	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	106	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	123	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	128	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	73.0	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4264535)							
EM2205583-010	SX_IB_20220328_07_45_SS_Duplicate_ALS DI	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	92.9	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	102	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	103	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	95.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	85.1	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4264537)							
EM2205583-002	SX_IB_20220328_07_45_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	98.1	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	102	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	96.2	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	98.1	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	94.5	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	81.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4264535)							
EM2205583-010	SX_IB_20220328_07_45_SS_Duplicate_ALS DI	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	98.2	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	104	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	102	72.0	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: 4264535) - continued							
EM2205583-010	SX_IB_20220328_07_45_SS_Duplicate_ALS DI	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	97.6	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	96.0	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	94.8	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	104	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	95.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	107	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	95.0	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	111	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4264537)							
EM2205583-002	SX_IB_20220328_07_45_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	92.5	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	105	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	97.9	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	95.0	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	98.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	104	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	89.3	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	111	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	87.9	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	110	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264535)							
EM2205583-010	SX_IB_20220328_07_45_SS_Duplicate_ALS DI	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	99.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	91.6	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	98.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	100	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	114	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	98.9	61.0	135
		EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264537)					
EM2205583-002	SX_IB_20220328_07_45_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	103	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	89.6	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	98.1	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
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264537) - continued							
EM2205583-002	SX_IB_20220328_07_45_SS_Duplicate_ALS	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	90.0	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	110	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	108	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	107	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4264535)							
EM2205583-010	SX_IB_20220328_07_45_SS_Duplicate_ALS DI	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	93.0	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	99.8	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	72.0	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4264537)							
EM2205583-002	SX_IB_20220328_07_45_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	96.8	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	104	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	109	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	83.8	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2205583	Page	: 1 of 12
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Telephone	: +6138549 9600
Project	: JC0927	Date Samples Received	: 29-Mar-2022
Site	: 20220329050622-ALS-14	Issue Date	: 05-Apr-2022
Sampler	: BRANDON CLARKE, WILLIAM O'HAIRE	No. of samples received	: 16
Order number	: ----	No. of samples analysed	: 16

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG035T: Total Recoverable Mercury by FIMS	EM2205589--001	Anonymous	Mercury	7439-97-6	22.5 %	0% - 20%	RPD exceeds LOR based limits

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_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	04-Apr-2022	✓	01-Apr-2022	02-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA001)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	02-Apr-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	----	----	----	01-Apr-2022	11-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA055)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	----	----	----	01-Apr-2022	12-Apr-2022	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	24-Sep-2022	✓	04-Apr-2022	24-Sep-2022	✓
Soil Glass Jar - Unpreserved (EG005T)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	25-Sep-2022	✓	04-Apr-2022	25-Sep-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	25-Apr-2022	✓	04-Apr-2022	25-Apr-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	26-Apr-2022	✓	04-Apr-2022	26-Apr-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)							
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	25-Apr-2022	✓	02-Apr-2022	08-Apr-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	26-Apr-2022	✓	02-Apr-2022	08-Apr-2022	✓
EK026SF: Total CN by Segmented Flow Analyser							
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	11-Apr-2022	✓	02-Apr-2022	15-Apr-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	12-Apr-2022	✓	02-Apr-2022	15-Apr-2022	✓
EK040T: Fluoride Total							
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	25-Apr-2022	✓	05-Apr-2022	25-Apr-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	26-Apr-2022	✓	05-Apr-2022	26-Apr-2022	✓
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	24-Sep-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	25-Sep-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_IB_20220328_07_41_SS_Primary_ALS - DI, SX_IB_20220328_11_59_SS_Primary_ALS - DI, SX_IB_20220328_15_50_SS_Primary_ALS - DI, SX_IB_20220328_07_45_SS_Duplicate_ALS - DI, SX_IB_20220328_15_48_SS_Triplicate_ALS - DI, SX_IB_20220328_20_19_SS_Primary_ALS - DI	28-Mar-2022	01-Apr-2022	24-Sep-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P) SX_IB_20220329_00_09_SS_Primary_ALS - DI, SX_IB_20220329_04_21_SS_Primary_ALS - DI	29-Mar-2022	01-Apr-2022	25-Sep-2022	✓	----	----	----



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	11-Apr-2022	✓	01-Apr-2022	11-May-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	12-Apr-2022	✓	01-Apr-2022	11-May-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	04-Apr-2022	✓	01-Apr-2022	04-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	04-Apr-2022	✓	01-Apr-2022	04-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	04-Apr-2022	✓	01-Apr-2022	04-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	11-Apr-2022	✓	01-Apr-2022	11-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	12-Apr-2022	✓	01-Apr-2022	11-May-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	01-Apr-2022	11-Apr-2022	✓	01-Apr-2022	11-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	12-Apr-2022	✓	01-Apr-2022	11-May-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220328_07_41_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS,	28-Mar-2022	01-Apr-2022	11-Apr-2022	✓	01-Apr-2022	11-May-2022	✓
SX_IB_20220328_11_59_SS_Primary_ALS,	SX_IB_20220328_15_48_SS_Triplicate_ALS,							
SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_20_19_SS_Primary_ALS							
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	12-Apr-2022	✓	01-Apr-2022	11-May-2022	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220328_07_41_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS,	28-Mar-2022	01-Apr-2022	11-Apr-2022	✓	01-Apr-2022	11-May-2022	✓
SX_IB_20220328_11_59_SS_Primary_ALS,	SX_IB_20220328_15_48_SS_Triplicate_ALS,							
SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_20_19_SS_Primary_ALS							
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	12-Apr-2022	✓	01-Apr-2022	11-May-2022	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220328_07_41_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS,	28-Mar-2022	01-Apr-2022	04-Apr-2022	✓	01-Apr-2022	04-Apr-2022	✓
SX_IB_20220328_11_59_SS_Primary_ALS,	SX_IB_20220328_15_48_SS_Triplicate_ALS,							
SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_20_19_SS_Primary_ALS							
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220328_07_41_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS,	28-Mar-2022	01-Apr-2022	04-Apr-2022	✓	01-Apr-2022	04-Apr-2022	✓
SX_IB_20220328_11_59_SS_Primary_ALS,	SX_IB_20220328_15_48_SS_Triplicate_ALS,							
SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_20_19_SS_Primary_ALS							
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X)								
SX_IB_20220328_07_41_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS,	28-Mar-2022	04-Apr-2022	24-Sep-2022	✓	04-Apr-2022	14-May-2022	✓
SX_IB_20220328_11_59_SS_Primary_ALS,	SX_IB_20220328_15_48_SS_Triplicate_ALS,							
SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_20_19_SS_Primary_ALS							
HDPE Soil Jar (EP231X)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	04-Apr-2022	14-May-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X)								
SX_IB_20220328_07_41_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS,	28-Mar-2022	04-Apr-2022	24-Sep-2022	✓	04-Apr-2022	14-May-2022	✓
SX_IB_20220328_11_59_SS_Primary_ALS,	SX_IB_20220328_15_48_SS_Triplicate_ALS,							
SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_20_19_SS_Primary_ALS							
HDPE Soil Jar (EP231X)								
SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	04-Apr-2022	14-May-2022	✓



Matrix: **SOIL**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	04-Apr-2022	24-Sep-2022	✓	04-Apr-2022	14-May-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	04-Apr-2022	14-May-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	04-Apr-2022	24-Sep-2022	✓	04-Apr-2022	14-May-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	04-Apr-2022	14-May-2022	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS	28-Mar-2022	04-Apr-2022	24-Sep-2022	✓	04-Apr-2022	14-May-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220329_00_09_SS_Primary_ALS,	SX_IB_20220329_04_21_SS_Primary_ALS	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	04-Apr-2022	14-May-2022	✓

Matrix: **WATER**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220328_07_41_SS_Primary_ALS - DI, SX_IB_20220328_11_59_SS_Primary_ALS - DI, SX_IB_20220328_15_50_SS_Primary_ALS - DI, SX_IB_20220329_00_09_SS_Primary_ALS - DI,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS - DI, SX_IB_20220328_15_48_SS_Triplicate_ALS - DI, SX_IB_20220328_20_19_SS_Primary_ALS - DI, SX_IB_20220329_04_21_SS_Primary_ALS - DI	01-Apr-2022	04-Apr-2022	28-Sep-2022	✓	04-Apr-2022	28-Sep-2022	✓



Matrix: WATER

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220328_07_41_SS_Primary_ALS - DI, SX_IB_20220328_11_59_SS_Primary_ALS - DI, SX_IB_20220328_15_50_SS_Primary_ALS - DI, SX_IB_20220329_00_09_SS_Primary_ALS - DI,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS - DI, SX_IB_20220328_15_48_SS_Triplicate_ALS - DI, SX_IB_20220328_20_19_SS_Primary_ALS - DI, SX_IB_20220329_04_21_SS_Primary_ALS - DI	01-Apr-2022	04-Apr-2022	28-Sep-2022	✓	04-Apr-2022	28-Sep-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220328_07_41_SS_Primary_ALS - DI, SX_IB_20220328_11_59_SS_Primary_ALS - DI, SX_IB_20220328_15_50_SS_Primary_ALS - DI, SX_IB_20220329_00_09_SS_Primary_ALS - DI,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS - DI, SX_IB_20220328_15_48_SS_Triplicate_ALS - DI, SX_IB_20220328_20_19_SS_Primary_ALS - DI, SX_IB_20220329_04_21_SS_Primary_ALS - DI	01-Apr-2022	04-Apr-2022	28-Sep-2022	✓	04-Apr-2022	28-Sep-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220328_07_41_SS_Primary_ALS - DI, SX_IB_20220328_11_59_SS_Primary_ALS - DI, SX_IB_20220328_15_50_SS_Primary_ALS - DI, SX_IB_20220329_00_09_SS_Primary_ALS - DI,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS - DI, SX_IB_20220328_15_48_SS_Triplicate_ALS - DI, SX_IB_20220328_20_19_SS_Primary_ALS - DI, SX_IB_20220329_04_21_SS_Primary_ALS - DI	01-Apr-2022	04-Apr-2022	28-Sep-2022	✓	04-Apr-2022	28-Sep-2022	✓
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X) SX_IB_20220328_07_41_SS_Primary_ALS, SX_IB_20220328_11_59_SS_Primary_ALS, SX_IB_20220328_15_50_SS_Primary_ALS, SX_IB_20220329_00_09_SS_Primary_ALS, SX_IB_20220328_07_41_SS_Primary_ALS - DI, SX_IB_20220328_11_59_SS_Primary_ALS - DI, SX_IB_20220328_15_50_SS_Primary_ALS - DI, SX_IB_20220329_00_09_SS_Primary_ALS - DI,	SX_IB_20220328_07_45_SS_Duplicate_ALS, SX_IB_20220328_15_48_SS_Triplicate_ALS, SX_IB_20220328_20_19_SS_Primary_ALS, SX_IB_20220329_04_21_SS_Primary_ALS, SX_IB_20220328_07_45_SS_Duplicate_ALS - DI, SX_IB_20220328_15_48_SS_Triplicate_ALS - DI, SX_IB_20220328_20_19_SS_Primary_ALS - DI, SX_IB_20220329_04_21_SS_Primary_ALS - DI	01-Apr-2022	04-Apr-2022	28-Sep-2022	✓	04-Apr-2022	28-Sep-2022	✓



Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaural	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	12	16.67	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	16	12.50	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	3	20	15.00	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	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	40	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	12	8.33	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	16	6.25	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	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	40	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	12	8.33	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	16	6.25	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	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
Analytical Methods							
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	40	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	12	8.33	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	16	6.25	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	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard

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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	28	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	28	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	28	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	28	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.

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-D1a-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.
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.


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Work Order : EM2205583
Client : AGON ENVIRONMENTAL PTY LTD
Project : JC0927



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



Telephone : + 61-3-8549 9600

CHAIN OF CUSTODY DOCUMENTATION										 Australian Laboratory Services Pty Ltd									
CLIENT: Agon Environmental					SAMPLER: Hannah - EP Risk														
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														
SITE: 20220330051429-ALS-14 P.O. NO.:																			
RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP					EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au														
ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)										Notes:									
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL: _____ _____ _____ _____ _____																			
SAMPLE INFORMATION (note: S = Soil, W=Water) _____ _____ _____ _____ _____										CONTAINER INFORMATION _____ _____ _____ _____ _____									
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	Spoil Sample Prep	P10 plus Cr	PFAS 28 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	D1 Leachate PFAS - Extended Suite								
1	SX_IB_20220329_08_02_SS_Primary_ALS	S	29/03/2022	8:02	Bucket	1	x	x	x	x	x								
2	SX_IB_20220329_08_03_SS_Duplicate_ALS	S	29/03/2022	8:03	Bucket	1	x	x	x	x	x								
3	SX_IB_20220329_08_29_SR_Rinsate_ALS	W	29/03/2022	8:29	Bottle	1			x										
4	SX_IB_20220329_08_31_SB_Blank_ALS	W	29/03/2022	8:31	Bottle	1			x										
5	SX_IB_20220329_11_45_SS_Primary_ALS	S	29/03/2022	11:45	Bucket	1	x	x	x	x	x								
RELINQUISHED BY:					RECEIVED BY:					METHOD OF SHIPMENT:									
Name: Emma.S Date: 30/03/22					Name: _____ Date: _____					Con' Note No: _____									
Of: Capital 30/3/22 Time: _____					Of: _____ Time: _____					Transport Co: _____									
Name: Sam Date: _____					Name: _____ Date: _____					Transport Co: _____									
Of: _____ Time: _____					Of: _____ Time: _____					Transport Co: _____									
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.																			

Handwritten signature/initials

CERTIFICATE OF ANALYSIS

Work Order : **EM2205596**
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 : 20220330051429-ALS-14
Sampler : Hannah - EP Risk
Site : 20220330051429-ALS-14
Quote number : EN/150/19 -WGTP -Bulk Sample Quote
No. of samples received : 8
No. of samples analysed : 8

Page : 1 of 17
Laboratory : Environmental Division Melbourne
Contact : Bronwyn Sheen
Address : 4 Westall Rd Springvale VIC Australia 3171

Telephone : +6138549 9600
Date Samples Received : 30-Mar-2022 11:10
Date Analysis Commenced : 31-Mar-2022
Issue Date : 06-Apr-2022 13:52



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
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC



General Comments

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

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

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

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

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

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

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

- EP231X: Poor matrix spike recovery for sample EM22205595-004 due to sample matrix interference.
- 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.
- EG005-T : EM2205761 #11 poor duplicate precision for Manganese due to sample matrix. Confirmed by re-digestion and re-analysis.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220329_11_45_SS_Primary_ALS	----	----
		Sampling date / time		29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	----	----
Compound	CAS Number	LOR	Unit	EM2205596-001	EM2205596-002	EM2205596-005	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220329_11_45_SS_Primary_ALS	----	----
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	----	----
Compound	CAS Number	LOR	Unit	EM2205596-001	EM2205596-002	EM2205596-005	-----	-----
				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	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	104	94.1	101	----	----
13C8-PFOA	----	0.02	%	104	109	108	----	----



Analytical Results

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

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS DI	SX_IB_20220329_08_03_SS_Duplicate_ALS DI	SX_IB_20220329_11_45_SS_Primary_ALS DI	----	----
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	----	----
Compound	CAS Number	LOR	Unit	EM2205596-006	EM2205596-007	EM2205596-008	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----



Analytical Results

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

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS DI	SX_IB_20220329_08_03_SS_Duplicate_ALS DI	SX_IB_20220329_11_45_SS_Primary_ALS DI	----	----
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	----	----
Compound	CAS Number	LOR	Unit	EM2205596-006	EM2205596-007	EM2205596-008	-----	-----
				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	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	96.3	99.8	106	----	----
13C8-PFOA	----	0.02	%	100	100	103	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_02_SS_Primary_ALS DI	SX_IB_20220329_08_03_SS_Duplicate_ALS DI
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	29-Mar-2022 08:02	29-Mar-2022 08:03
Compound	CAS Number	LOR	Unit	EM2205596-001	EM2205596-002	EM2205596-005	EM2205596-006	EM2205596-007
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	8.0	8.0	7.9	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	30.3	29.4	30.3	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	19	24	27	----	----
Cadmium	7440-43-9	1	mg/kg	1	<1	2	----	----
Chromium	7440-47-3	5	mg/kg	87	93	94	----	----
Copper	7440-50-8	5	mg/kg	78	50	63	----	----
Lead	7439-92-1	5	mg/kg	<5	<5	<5	----	----
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	----	----
Nickel	7440-02-0	5	mg/kg	173	130	156	----	----
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	----	----
Silver	7440-22-4	2	mg/kg	<2	<2	<2	----	----
Tin	7440-31-5	10	mg/kg	<10	<10	<10	----	----
Zinc	7440-66-6	5	mg/kg	111	72	106	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<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	----	----
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	----	----
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	210	220	190	----	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.1	9.0	9.2	----	----
After HCl pH	----	0.1	pH Unit	1.6	1.6	1.5	----	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	----	----
Final pH	----	0.1	pH Unit	4.6	4.6	5.0	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	----	----	----	9.6	9.7
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_02_SS_Primary_ALS DI	SX_IB_20220329_08_03_SS_Duplicate_ALS DI
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	29-Mar-2022 08:02	29-Mar-2022 08:03
Compound	CAS Number	LOR	Unit	EM2205596-001	EM2205596-002	EM2205596-005	EM2205596-006	EM2205596-007
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_02_SS_Primary_ALS DI	SX_IB_20220329_08_03_SS_Duplicate_ALS DI
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	29-Mar-2022 08:02	29-Mar-2022 08:03
Compound	CAS Number	LOR	Unit	EM2205596-001	EM2205596-002	EM2205596-005	EM2205596-006	EM2205596-007
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated)								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	----	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	----	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	----	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	----	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	----	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	----	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	----	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	----	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	----	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	----	----
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_02_SS_Primary_ALS DI	SX_IB_20220329_08_03_SS_Duplicate_ALS DI
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	29-Mar-2022 08:02	29-Mar-2022 08:03
Compound	CAS Number	LOR	Unit	EM2205596-001	EM2205596-002	EM2205596-005	EM2205596-006	EM2205596-007
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	----	----
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_02_SS_Primary_ALS_DI	SX_IB_20220329_08_03_SS_Duplicate_ALS_DI
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	29-Mar-2022 08:02	29-Mar-2022 08:03
Compound	CAS Number	LOR	Unit	EM2205596-001	EM2205596-002	EM2205596-005	EM2205596-006	EM2205596-007
				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	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	<0.10	----	----
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	----
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_02_SS_Primary_ALS DI	SX_IB_20220329_08_03_SS_Duplicate_ALS DI
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	29-Mar-2022 08:02	29-Mar-2022 08:03
Compound	CAS Number	LOR	Unit	EM2205596-001	EM2205596-002	EM2205596-005	EM2205596-006	EM2205596-007
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220329_08_02_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS	SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_02_SS_Primary_ALS_DI	SX_IB_20220329_08_03_SS_Duplicate_ALS_DI
Sampling date / time				29-Mar-2022 08:02	29-Mar-2022 08:03	29-Mar-2022 11:45	29-Mar-2022 08:02	29-Mar-2022 08:03
Compound	CAS Number	LOR	Unit	EM2205596-001	EM2205596-002	EM2205596-005	EM2205596-006	EM2205596-007
				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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	118	116	120	----	----
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	86.4	94.0	85.5	----	----
Toluene-D8	2037-26-5	0.1	%	88.5	92.4	85.8	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	95.9	99.7	94.7	----	----
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	90.2	89.1	87.4	----	----
2-Chlorophenol-D4	93951-73-6	0.025	%	85.5	84.8	81.8	----	----
2,4,6-Tribromophenol	118-79-6	0.025	%	74.6	76.3	72.6	----	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	88.2	86.4	83.5	----	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	83.7	83.4	75.6	----	----
2-Fluorobiphenyl	321-60-8	0.025	%	101	91.5	90.2	----	----
Anthracene-d10	1719-06-8	0.025	%	88.7	88.6	88.0	----	----
4-Terphenyl-d14	1718-51-0	0.025	%	95.2	91.6	95.1	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	102	98.6	92.5	----	----
13C8-PFOA	----	0.0002	%	101	101	99.4	----	----



Analytical Results

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

Sample ID

				SX_IB_20220329_11_45_SS_Primary_ALS DI	----	----	----	----
				Sampling date / time	29-Mar-2022 11:45	----	----	----
Compound	CAS Number	LOR	Unit	EM2205596-008	-----	-----	-----	-----
				Result	----	----	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.9	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_IB_20220329_08_29_SR_Rinsate_ALS	SX_IB_20220329_08_31_SB_Blank_ALS	----	----	----
Sampling date / time			29-Mar-2022 08:29		29-Mar-2022 08:31		----	----	----
Compound	CAS Number	LOR	Unit	EM2205596-003	EM2205596-004	-----	-----	-----	
				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	0.1	µg/L	<0.1	<0.1	----	----	----	
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_IB_20220329_08_29_SR_Rinsate_ALS	SX_IB_20220329_08_31_SB_Blank_ALS	----	----	----
Sampling date / time				29-Mar-2022 08:29	29-Mar-2022 08:31	----	----	----	
Compound	CAS Number	LOR	Unit	EM2205596-003	EM2205596-004	-----	-----	-----	
				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	%	98.8	94.7	----	----	----	
13C8-PFOA	----	0.02	%	107	104	----	----	----	



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	: EM2205596	Page	: 1 of 25
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Contact	: Bronwyn Sheen
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +6138549 9600
Project	: JC0927	Date Samples Received	: 30-Mar-2022
Order number	: ----	Date Analysis Commenced	: 31-Mar-2022
C-O-C number	: 20220330051429-ALS-14	Issue Date	: 06-Apr-2022
Sampler	: Hannah - EP Risk		
Site	: 20220330051429-ALS-14		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 8		
No. of samples analysed	: 8		



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
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: 4264477)									
EM2205761-011	Anonymous	EG005T: Lead	7439-92-1	5	mg/kg	299	# 172	53.8	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	949	953	0.4	0% - 20%
EM2205596-001	SX_IB_20220329_08_02_S S_Primary_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	1	1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	87	100	13.6	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	173	160	7.5	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	19	17	11.5	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	78	59	28.2	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	111	94	16.5	0% - 20%
EM2205761-011	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	21	26	21.3	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	26	33	24.9	0% - 50%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	13	13	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	38	39	2.9	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
EG005T: Tin	7440-31-5	5	mg/kg	<5	5	0.0	No Limit		

EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4267519)



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: 4267519) - continued										
EM2205595-004	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	4.8	4.8	0.0	0% - 20%	
EM2205599-045	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	6.5	6.5	0.0	0% - 20%	
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4263586)										
EM2205586-001	Anonymous	EA055: Moisture Content	----	0.1	%	19.6	19.3	1.3	0% - 20%	
EM2205586-011	Anonymous	EA055: Moisture Content	----	0.1	%	21.1	20.3	4.0	0% - 20%	
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4264478)										
EM2205596-001	SX_IB_20220329_08_02_S S_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
EM2205761-011	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.2	0.4	80.3	No Limit	
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4265110)										
EM2205301-003	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
EM2205452-002	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: 4266485)										
EM2205595-020	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit	
EM2203558-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit	
EK040T: Fluoride Total (QC Lot: 4265107)										
EM2205401-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	490	470	3.4	0% - 50%	
EM2205596-002	SX_IB_20220329_08_03_S S_Duplicate_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	220	180	15.5	No Limit	
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4264342)										
EM2205471-005	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
EM2205755-002	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4259612)										
EM2205596-001	SX_IB_20220329_08_02_S S_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: 4259612)										
EM2205596-001	SX_IB_20220329_08_02_S S_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
EP074I: Volatile Halogenated Compounds (QC Lot: 4259612)										
EM2205596-001	SX_IB_20220329_08_02_S S_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	



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: 4259612) - continued									
EM2205596-001	SX_IB_20220329_08_02_S S_Primary_ALS	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: 4264340)									
EM2205471-005	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EM2205755-002	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4264340)									
EM2205471-005	Anonymous	EP075-EM: Phenol	108-95-2	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 (%)
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4264340) - continued									
EM2205471-005	Anonymous	EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	<5	0.0	No Limit
EM2205755-002	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	<5	0.0	No Limit
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	<5	0.0	No Limit		
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4264340)									
EM2205471-005	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
		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
EM2205755-002	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



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: 4264340) - continued									
EM2205755-002	Anonymous	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: 4264340)									
EM2205471-005	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
EM2205755-002	Anonymous	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit



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: 4264340) - continued									
EM2205755-002	Anonymous	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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4259612)									
EM2205596-001	SX_IB_20220329_08_02_S S_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4264341)									
EM2205471-005	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
EM2205755-002	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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4259612)									
EM2205596-001	SX_IB_20220329_08_02_S S_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: 4264341)									
EM2205471-005	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EM2205755-002	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4264547)									



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 (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4264547) - continued									
EM2205245-009	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	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2205756-002	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	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4264547)									
EM2205245-009	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 (PFTriDA)	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
EM2205756-002	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 (PFTriDA)	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4264547)									
EM2205245-009	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4264547) - continued									
EM2205245-009	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2205756-002	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4264547)									
EM2205245-009	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
EM2205756-002	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: 4264547)									



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 (%)
EP231P: PFAS Sums (QC Lot: 4264547) - continued									
EM2205245-009	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2205756-002	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

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: 4267240)									
EM2205596-001	SX_IB_20220329_08_02_S S_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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4267242)									
EM2205596-006	SX_IB_20220329_08_02_S S_Primary_ALS DI	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: 4267240)									
EM2205596-001	SX_IB_20220329_08_02_S S_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		

EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4267242)



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: 4267242) - continued									
EM2205596-006	SX_IB_20220329_08_02_S S_Primary_ALS DI	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: 4267240)									
EM2205596-001	SX_IB_20220329_08_02_S S_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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4267242)									
EM2205596-006	SX_IB_20220329_08_02_S S_Primary_ALS DI	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



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: 4267242) - continued									
EM2205596-006	SX_IB_20220329_08_02_S S_Primary_ALS DI	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: 4267240)									
EM2205596-001	SX_IB_20220329_08_02_S S_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: 4267242)									
EM2205596-006	SX_IB_20220329_08_02_S S_Primary_ALS DI	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: 4267240)									
EM2205596-001	SX_IB_20220329_08_02_S S_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
EP231P: PFAS Sums (QC Lot: 4267242)									
EM2205596-006	SX_IB_20220329_08_02_S S_Primary_ALS DI	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: 4264477)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	96.0	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	60.1	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	97.3	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	94.6	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	92.3	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	81.0	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	92.8	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	82.5	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	81.6	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	70.4	70.0	130
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4262784)								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4267519)								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	101	98.8	101
					7 pH Unit	100	99.3	101
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4264478)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	92.2	70.0	130
EG048G: Hexavalent Chromium (Alkaline Digest) (QCLot: 4265110)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	85.4	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4266485)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	130	70.0	130
EK040T: Fluoride Total (QCLot: 4265107)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	88.7	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4264342)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	110	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4259612)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	86.2	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	83.8	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	82.3	66.6	115
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	80.2	65.2	112
	106-42-3							
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	80.8	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: 4259612) - continued									
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	82.1	68.4	110	
EP074H: Naphthalene (QCLot: 4259612)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	81.2	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4259612)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	56.1	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	75.6	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	83.4	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	81.3	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	86.6	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	90.3	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	85.2	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	83.3	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	94.5	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	85.0	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	93.0	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	81.4	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	86.0	71.8	116	
EP074-UT: 1,1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	92.4	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	83.2	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	87.2	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	83.7	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	85.8	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	84.9	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4264340)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	94.1	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	88.7	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	90.0	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	89.1	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	88.6	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	87.9	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	89.6	69.4	126	
EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/5 8-90-2	0.05	mg/kg	<0.05	4 mg/kg	96.6	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	89.6	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4264340)									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	95.2	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	93.4	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	94.5	74.3	129	



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	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4264340) - continued									
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	91.9	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	93.2	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	79.8	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	93.2	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	107	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	93.9	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	95.1	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4264340)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	90.6	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	85.0	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	81.1	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	102	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	96.7	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	94.5	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	82.4	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	82.5	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	102	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	102	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	89.3	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	88.7	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	90.1	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	90.0	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	90.5	71.3	134	
EP075I: Organochlorine Pesticides (QCLot: 4264340)									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	86.8	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	85.5	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	94.7	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	105	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	97.1	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	81.8	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	81.4	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	82.0	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	82.0	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	82.6	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	82.0	69.4	134	
EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	101	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	99.5	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	86.3	69.0	143	



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	
EP075I: Organochlorine Pesticides (QCLot: 4264340) - continued									
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	100	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	101	71.4	135	
EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	97.2	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	101	70.2	135	
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	98.5	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	101	63.6	135	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4259612)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	91.5	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4264341)									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	760 mg/kg	86.8	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	3270 mg/kg	89.0	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1550 mg/kg	89.2	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	88.7	70.0	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4259612)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	90.0	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: 4264341)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1110 mg/kg	88.6	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	4180 mg/kg	89.5	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	290 mg/kg	83.4	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	88.9	70.0	130	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4264547)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	105	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	91.0	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	73.9	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	96.1	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	108	59.0	134	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4264547)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	88.8	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.0	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.5	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.7	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.2	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.0	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	80.9	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	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4264547) - continued									
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.4	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.2	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.8	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264547)									
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	91.0	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	86.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.4	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	103	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.8	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.9	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4264547)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	97.4	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	100	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	96.2	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	92.6	70.0	130	
EP231P: PFAS Sums (QCLot: 4264547)									
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	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4267240)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	107	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	106	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	106	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	103	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	102	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4267242)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	105	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	95.5	71.0	127	



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	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4267242) - continued									
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	92.2	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.9	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	118	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4267269)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	107	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	97.0	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	93.2	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	90.2	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	94.3	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	116	53.0	142	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267240)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	103	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	103	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	101	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	108	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	106	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267242)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.3	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	99.0	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	100	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	98.9	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	114	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.0	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	120	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267269)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	95.1	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	94.8	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: 4267269) - continued									
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100.0	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	98.8	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	93.2	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	94.4	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	112	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.1	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	90.8	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	90.2	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	110	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4267240)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	110	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	131	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	124	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.6	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	109	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	108	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	104	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4267242)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	103	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	127	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	105	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	98.4	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	105	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	104	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	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4267269)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	97.5	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	132	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	90.5	70.0	130	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)	Acceptable Limits (%)	
					Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4267269) - continued								
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	97.6	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	86.9	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4267240)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	98.2	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	116	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	102	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	81.3	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4267242)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	101	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	102	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	113	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	90.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4267269)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	101	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	99.6	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	99.3	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	88.4	70.0	130
EP231P: PFAS Sums (QCLot: 4267240)								
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: 4267242)								
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: 4267269)								
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**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4264477)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	98.3	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	95.6	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	104	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	104	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	91.8	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	119	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	86.9	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4264478)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	88.6	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4265110)							
EM2205301-006	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	83.7	58.0	114
EM2205301-006	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	92.6	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4266485)							
EM2203558-003	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	106	70.0	130
EK040T: Fluoride Total (QCLot: 4265107)							
EM2205450-001	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	90.8	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4264342)							
EM2205595-012	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	122	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4259612)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	69.0	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	82.3	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4259612)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	42.8	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	69.4	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	82.0	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4264340)							
EM2205595-004	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	81.9	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	73.4	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	76.9	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4264340)							
EM2205595-004	Anonymous	EP075-EM: Phenol	108-95-2	3 mg/kg	82.2	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	79.6	34.2	129



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4264340)							
EM2205595-004	Anonymous	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	78.5	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	69.4	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4259612)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	92.2	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4264341)							
EM2205595-004	Anonymous	EP071-EM: C10 - C14 Fraction	----	760 mg/kg	90.7	71.3	126
		EP071-EM: C15 - C28 Fraction	----	3270 mg/kg	90.1	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1550 mg/kg	90.0	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5580 mg/kg	89.5	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4259612)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	89.6	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4264341)							
EM2205595-004	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1110 mg/kg	91.2	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	4180 mg/kg	90.4	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	290 mg/kg	85.9	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5580 mg/kg	89.9	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4264547)							
EM2205595-004	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	107	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	77.8	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	90.4	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	90.3	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	92.9	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	# 36.0	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4264547)							
EM2205595-004	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	88.3	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	89.4	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	95.9	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	90.7	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	93.9	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	88.1	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	96.2	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	83.5	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	88.5	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	137	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	98.0	69.0	133
		EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4264547)					
EM2205595-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	96.6	67.0	137



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: 4264547) - continued							
EM2205595-004	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	75.2	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	87.1	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	90.4	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	102	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	85.0	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	66.0	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4264547)							
EM2205595-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	92.1	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	101	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	99.4	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	# 29.5	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: 4267240)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	95.0	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	105	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	103	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	102	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	91.0	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	93.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4267242)							
EM2205596-007	SX_IB_20220329_08_03_SS_Duplicate_ALS DI	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	106	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	97.1	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	97.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	105	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	97.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	102	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267240)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	102	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	104	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	99.8	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
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267240) - continued							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	101	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	105	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	101	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	105	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	103	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	105	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267242)							
EM2205596-007	SX_IB_20220329_08_03_SS_Duplicate_ALS DI	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	91.0	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	97.6	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	101	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	96.8	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	101	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	108	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	95.2	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	98.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	90.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	112	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4267240)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	107	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	128	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	108	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	102	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	100	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	104	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	104	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4267242)							
EM2205596-007	SX_IB_20220329_08_03_SS_Duplicate_ALS DI	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	102	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	126	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	103	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	88.4	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
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4267242) - continued							
EM2205596-007	SX_IB_20220329_08_03_SS_Duplicate_ALS DI	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	100	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	95.1	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4267240)							
EM2205596-002	SX_IB_20220329_08_03_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	96.2	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	103	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	83.1	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4267242)							
EM2205596-007	SX_IB_20220329_08_03_SS_Duplicate_ALS DI	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	94.3	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	99.6	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	112	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	74.0	70.0	130



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2205596	Page	: 1 of 11
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Telephone	: +6138549 9600
Project	: JC0927	Date Samples Received	: 30-Mar-2022
Site	: 20220330051429-ALS-14	Issue Date	: 06-Apr-2022
Sampler	: Hannah - EP Risk	No. of samples received	: 8
Order number	: ----	No. of samples analysed	: 8

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005(ED093)T: Total Metals by ICP-AES	EM2205761--011	Anonymous	Lead	7439-92-1	53.8 %	0% - 20%	RPD exceeds LOR based limits
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	EM2205595--004	Anonymous	Perfluorodecane sulfonic acid (PFDS)	335-77-3	36.0 %	59.0-134%	Recovery less than lower data quality objective
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2205595--004	Anonymous	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	29.5 %	70.0-130%	Recovery less than lower data quality objective

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	2	32	6.25	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA001: pH in soil using 0.01M CaCl extract								
Soil Glass Jar - Unpreserved (EA001)								
SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	05-Apr-2022	05-Apr-2022	✓	05-Apr-2022	05-Apr-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	----	----	----	01-Apr-2022	12-Apr-2022	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	04-Apr-2022	25-Sep-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	26-Apr-2022	✓	05-Apr-2022	26-Apr-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	26-Apr-2022	✓	05-Apr-2022	11-Apr-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	12-Apr-2022	✓	05-Apr-2022	18-Apr-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	26-Apr-2022	✓	06-Apr-2022	26-Apr-2022	✓
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	01-Apr-2022	25-Sep-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_IB_20220329_08_02_SS_Primary_ALS - DI, SX_IB_20220329_11_45_SS_Primary_ALS - DI	SX_IB_20220329_08_03_SS_Duplicate_ALS - DI,	29-Mar-2022	01-Apr-2022	25-Sep-2022	✓	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	12-Apr-2022	✓	04-Apr-2022	14-May-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	12-Apr-2022	✓	04-Apr-2022	14-May-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	12-Apr-2022	✓	04-Apr-2022	14-May-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	12-Apr-2022	✓	04-Apr-2022	14-May-2022	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	12-Apr-2022	✓	04-Apr-2022	14-May-2022	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	12-Apr-2022	✓	04-Apr-2022	14-May-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	01-Apr-2022	05-Apr-2022	✓	01-Apr-2022	05-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	12-Apr-2022	✓	04-Apr-2022	14-May-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	05-Apr-2022	14-May-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	05-Apr-2022	14-May-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	05-Apr-2022	14-May-2022	✓



Matrix: **SOIL** Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	05-Apr-2022	14-May-2022	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS	SX_IB_20220329_08_03_SS_Duplicate_ALS,	29-Mar-2022	04-Apr-2022	25-Sep-2022	✓	05-Apr-2022	14-May-2022	✓

Matrix: **WATER** Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS, SX_IB_20220329_08_03_SS_Duplicate_ALS - DI,	SX_IB_20220329_08_03_SS_Duplicate_ALS, SX_IB_20220329_08_02_SS_Primary_ALS - DI, SX_IB_20220329_11_45_SS_Primary_ALS - DI	01-Apr-2022	05-Apr-2022	28-Sep-2022	✓	05-Apr-2022	28-Sep-2022	✓
HDPE (no PTFE) (EP231X) SX_IB_20220329_08_29_SR_Rinsate_ALS,	SX_IB_20220329_08_31_SB_Blank_ALS	29-Mar-2022	05-Apr-2022	25-Sep-2022	✓	05-Apr-2022	25-Sep-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS, SX_IB_20220329_08_03_SS_Duplicate_ALS - DI,	SX_IB_20220329_08_03_SS_Duplicate_ALS, SX_IB_20220329_08_02_SS_Primary_ALS - DI, SX_IB_20220329_11_45_SS_Primary_ALS - DI	01-Apr-2022	05-Apr-2022	28-Sep-2022	✓	05-Apr-2022	28-Sep-2022	✓
HDPE (no PTFE) (EP231X) SX_IB_20220329_08_29_SR_Rinsate_ALS,	SX_IB_20220329_08_31_SB_Blank_ALS	29-Mar-2022	05-Apr-2022	25-Sep-2022	✓	05-Apr-2022	25-Sep-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS, SX_IB_20220329_08_03_SS_Duplicate_ALS - DI,	SX_IB_20220329_08_03_SS_Duplicate_ALS, SX_IB_20220329_08_02_SS_Primary_ALS - DI, SX_IB_20220329_11_45_SS_Primary_ALS - DI	01-Apr-2022	05-Apr-2022	28-Sep-2022	✓	05-Apr-2022	28-Sep-2022	✓
HDPE (no PTFE) (EP231X) SX_IB_20220329_08_29_SR_Rinsate_ALS,	SX_IB_20220329_08_31_SB_Blank_ALS	29-Mar-2022	05-Apr-2022	25-Sep-2022	✓	05-Apr-2022	25-Sep-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X) SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS, SX_IB_20220329_08_03_SS_Duplicate_ALS - DI,	SX_IB_20220329_08_03_SS_Duplicate_ALS, SX_IB_20220329_08_02_SS_Primary_ALS - DI, SX_IB_20220329_11_45_SS_Primary_ALS - DI	01-Apr-2022	05-Apr-2022	28-Sep-2022	✓	05-Apr-2022	28-Sep-2022	✓
HDPE (no PTFE) (EP231X) SX_IB_20220329_08_29_SR_Rinsate_ALS,	SX_IB_20220329_08_31_SB_Blank_ALS	29-Mar-2022	05-Apr-2022	25-Sep-2022	✓	05-Apr-2022	25-Sep-2022	✓

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 Project : JC0927



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)								
SX_IB_20220329_08_02_SS_Primary_ALS, SX_IB_20220329_11_45_SS_Primary_ALS, SX_IB_20220329_08_03_SS_Duplicate_ALS - DI,	SX_IB_20220329_08_03_SS_Duplicate_ALS, SX_IB_20220329_08_02_SS_Primary_ALS - DI, SX_IB_20220329_11_45_SS_Primary_ALS - DI	01-Apr-2022	05-Apr-2022	28-Sep-2022	✓	05-Apr-2022	28-Sep-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220329_08_29_SR_Rinsate_ALS,	SX_IB_20220329_08_31_SB_Blank_ALS	29-Mar-2022	05-Apr-2022	25-Sep-2022	✓	05-Apr-2022	25-Sep-2022	✓



Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
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	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	18	11.11	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	18	11.11	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	3	20	15.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	3	33.33	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	18	5.56	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	18	5.56	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	3	33.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	11	9.09	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	18	5.56	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	18	5.56	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	3	33.33	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	Reaular	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	18	5.56	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	18	5.56	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	3	33.33	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	Reaular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	32	6.25	10.00	*	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	32	9.38	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	32	9.38	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	32	6.25	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	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

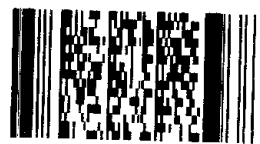
Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
pH in soil using a 0.01M CaCl ₂ extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 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.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	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.

CHAIN OF CUSTODY DOCUMENTATION							 Australian Laboratory Services Pty Ltd											
CLIENT: Agon Environmental				SAMPLER: Hannah - EP Risk														
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														
SITE: 20220408043838-ALS-21 P.O. NO.:				EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au														
RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP				ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)														
BOTTLE PREPARATION / USE ONLY GLOVES WEAR (Always required) PPE: Yes No SAMPLE TEMPERATURE CHILLED: Yes No		COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:					Notes: Spoil Sample Prep P16 plus Cr PFAS 28 Extended suite ASLP PFAS - Extended Suite (Lab to determine pH) DI Leachate PFAS - Extended Suite											
SAMPLE INFORMATION (note: S = Soil, W=Water)				CONTAINER INFORMATION														
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles												
1	SX_OB_20220407_08_01_SS_Primary_ALS	S	7/04/2022	8:01	Bucket	1	X	X	X	X	X							
2	SX_OB_20220407_08_02_SS_Duplicate_ALS	S	7/04/2022	8:02	Bucket	1	X	X	X	X	X							
3	SX_OB_20220407_08_20_SR_Rinsate_ALS	W	7/04/2022	8:20	Bottle	1			X									
4	SX_OB_20220407_08_21_SB_Blank_ALS	W	7/04/2022	8:21	Bottle	1			X									
5	SX_OB_20220407_11_51_SS_Primary_ALS	S	7/04/2022	11:51	Bucket	1	X	X	X	X	X							
6	SX_IB_20220407_15_59_SS_Primary_ALS	S	7/04/2022	15:59	Bucket	1	X	X	X	X	X							
7	SX_OB_20220407_16_08_SS_Primary_ALS	S	7/04/2022	16:08	Bucket	1	X	X	X	X	X							
8	SX_OB_20220407_16_15_SS_Triplicate_ALS	S	7/04/2022	16:15	Bucket	1	X	X	X	X	X							
9	SX_OB_20220407_20_03_SS_Primary_ALS	S	7/04/2022	20:03	Bucket	1	X	X	X	X	X							
10	SX_OB_20220408_00_03_SS_Primary_ALS	S	8/04/2022	00:03	Bucket	1	X	X	X	X	X							
11	SX_OB_20220408_04_27_SS_Primary_ALS	S	8/04/2022	04:27	Bucket	1	X	X	X	X	X							
RELINQUISHED BY:							RECEIVED BY:					METHOD OF SHIPMENT:						
Name: Hannah Kennedy			Date: 8/4/22		Name: Anna			Date: 8/4		Con' Note No:								
Of: EP Risk			Time:		Of:			Time: 12:00		Transport Co:								
Name:			Date:		Name:			Date:										
Of:			Time:		Of:			Time:										

Environmental Division
Melbourne
Work Order Reference
EM2206457



Telephone : + 61-3-8549 9600

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 = Sulphuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulphuric Preserved Plastic; F = Formaldehyde Preserved Glass;
 Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

CERTIFICATE OF ANALYSIS

Work Order	: EM2206457	Page	: 1 of 29
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	: 08-Apr-2022 12:00
Order number	: ----	Date Analysis Commenced	: 11-Apr-2022
C-O-C number	: 20220408043838-ALS-21	Issue Date	: 19-Apr-2022 16:19
Sampler	: Hannah - EP Risk, LR - EP Risk		
Site	: 20220408043838-ALS-21		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 20		
No. of samples analysed	: 20		



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
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC



General Comments

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

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

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

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

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

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

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

- 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.
- EG005-T : EM2206408 #9 Poor duplicate precision for Manganese and Nickel due to sample matrix. Confirmed by re-digestion and re-analysis.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-001	EM2206457-002	EM2206457-005	EM2206457-006	EM2206457-007
				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_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-001	EM2206457-002	EM2206457-005	EM2206457-006	EM2206457-007
				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	%	92.3	101	92.1	97.2	99.1
13C8-PFOA	----	0.02	%	99.8	95.1	101	102	102



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220407_16 _15_SS_Triplicate_AL S	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	----
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	----
Compound	CAS Number	LOR	Unit	EM2206457-008	EM2206457-009	EM2206457-010	EM2206457-011	-----
				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 (PFTTrDA)	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: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220407_16_15_SS_Triplicate_ALS	SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220408_00_03_SS_Primary_ALS	SX_OB_20220408_04_27_SS_Primary_ALS	----
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	----
Compound	CAS Number	LOR	Unit	EM2206457-008	EM2206457-009	EM2206457-010	EM2206457-011	-----
				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	%	101	96.2	97.8	100	----
13C8-PFOA	----	0.02	%	99.6	100	102	102	----



Analytical Results

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

Sample ID

				SX_OB_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-012	EM2206457-013	EM2206457-014	EM2206457-015	EM2206457-016
				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_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-012	EM2206457-013	EM2206457-014	EM2206457-015	EM2206457-016
				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	%	95.7	93.1	98.6	105	99.2
13C8-PFOA	----	0.02	%	103	103	97.2	102	96.8



Analytical Results

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

Sample ID

				SX_OB_20220407_16 _15_SS_Triplicate_AL S	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	----
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	----
Compound	CAS Number	LOR	Unit	EM2206457-017	EM2206457-018	EM2206457-019	EM2206457-020	-----
				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 (PFTTrDA)	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_20220407_16 _15_SS_Triplicate_AL S	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	----
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	----
Compound	CAS Number	LOR	Unit	EM2206457-017	EM2206457-018	EM2206457-019	EM2206457-020	-----
				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	%	94.6	103	100	97.0	----
13C8-PFOA	----	0.02	%	98.8	105	98.2	107	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-001	EM2206457-002	EM2206457-005	EM2206457-006	EM2206457-007
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	7.8	7.6	7.9	8.7	7.7
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	33.3	29.5	34.0	31.6	29.4
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	34	33	27	16	31
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	127	119	101	83	107
Copper	7440-50-8	5	mg/kg	58	54	54	64	52
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	160	154	170	151	156
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	94	87	94	115	85
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	1.4	<1.0	<1.0	<1.0	1.2
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	180	230	200	170	180
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	8.9	9.5	9.6	10.1	9.6
After HCl pH	----	0.1	pH Unit	1.4	1.4	1.4	1.5	1.4
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.0	5.0	5.0	5.1	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_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-001	EM2206457-002	EM2206457-005	EM2206457-006	EM2206457-007
				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_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-001	EM2206457-002	EM2206457-005	EM2206457-006	EM2206457-007
				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_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-001	EM2206457-002	EM2206457-005	EM2206457-006	EM2206457-007
				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_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-001	EM2206457-002	EM2206457-005	EM2206457-006	EM2206457-007
				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_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-001	EM2206457-002	EM2206457-005	EM2206457-006	EM2206457-007
				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_20220407_08_01_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS	SX_OB_20220407_11_51_SS_Primary_ALS	SX_IB_20220407_15_59_SS_Primary_ALS	SX_OB_20220407_16_08_SS_Primary_ALS
Sampling date / time				07-Apr-2022 08:01	07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206457-001	EM2206457-002	EM2206457-005	EM2206457-006	EM2206457-007
				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	%	111	110	110	101	110
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	85.4	87.6	97.0	92.4	93.8
Toluene-D8	2037-26-5	0.1	%	88.9	87.3	96.3	90.3	92.5
4-Bromofluorobenzene	460-00-4	0.1	%	98.8	98.3	106	99.9	102
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	93.0	89.5	97.5	80.7	94.0
2-Chlorophenol-D4	93951-73-6	0.025	%	88.4	85.7	93.9	77.6	90.6
2,4,6-Tribromophenol	118-79-6	0.025	%	88.9	91.6	92.6	76.8	79.4
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	93.9	91.1	99.9	82.5	93.0
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	78.8	73.4	83.1	69.8	84.8
2-Fluorobiphenyl	321-60-8	0.025	%	94.0	91.9	96.1	83.6	93.3
Anthracene-d10	1719-06-8	0.025	%	99.4	99.0	102	90.2	98.4
4-Terphenyl-d14	1718-51-0	0.025	%	88.7	89.9	91.7	82.3	89.0
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	112	129	126	126	121
13C8-PFOA	----	0.0002	%	108	115	112	108	113



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220407_16 _15_SS_Triplicate_AL S	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	SX_OB_20220407_08 _01_SS_Primary_ALS
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	07-Apr-2022 08:01
Compound	CAS Number	LOR	Unit	EM2206457-008	EM2206457-009	EM2206457-010	EM2206457-011	EM2206457-012
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	7.9	7.7	7.8	7.7	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	30.6	29.5	27.0	24.6	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	30	33	25	27	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	----
Chromium	7440-47-3	5	mg/kg	122	112	98	87	----
Copper	7440-50-8	5	mg/kg	56	58	54	50	----
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	169	162	159	165	----
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	97	93	87	82	----
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	1.2	1.6	<1.0	1.1	----
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	190	180	150	160	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.6	9.5	9.6	9.6	----
After HCl pH	----	0.1	pH Unit	1.4	1.3	1.3	1.4	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	----
Final pH	----	0.1	pH Unit	4.9	4.9	5.0	4.9	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	----	----	----	----	9.6
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_20220407_16_15_SS_Triplicate_ALS	SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220408_00_03_SS_Primary_ALS	SX_OB_20220408_04_27_SS_Primary_ALS	SX_OB_20220407_08_01_SS_Primary_ALS
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	07-Apr-2022 08:01
Compound	CAS Number	LOR	Unit	EM2206457-008	EM2206457-009	EM2206457-010	EM2206457-011	EM2206457-012
				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_20220407_16 _15_SS_Triplicate_AL S	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	SX_OB_20220407_08 _01_SS_Primary_ALS
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	07-Apr-2022 08:01
Compound	CAS Number	LOR	Unit	EM2206457-008	EM2206457-009	EM2206457-010	EM2206457-011	EM2206457-012
				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_20220407_16 _15_SS_Triplicate_AL S	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	SX_OB_20220407_08 _01_SS_Primary_ALS
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	07-Apr-2022 08:01
Compound	CAS Number	LOR	Unit	EM2206457-008	EM2206457-009	EM2206457-010	EM2206457-011	EM2206457-012
				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	----
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_20220407_16 _15_SS_Triplicate_AL S	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	SX_OB_20220407_08 _01_SS_Primary_ALS
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	07-Apr-2022 08:01
Compound	CAS Number	LOR	Unit	EM2206457-008	EM2206457-009	EM2206457-010	EM2206457-011	EM2206457-012
				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	----
^ 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_20220407_16 _15_SS_Triplicate_AL S	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	SX_OB_20220407_08 _01_SS_Primary_ALS
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	07-Apr-2022 08:01
Compound	CAS Number	LOR	Unit	EM2206457-008	EM2206457-009	EM2206457-010	EM2206457-011	EM2206457-012
				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_20220407_16 _15_SS_Triplicate_AL S	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	SX_OB_20220407_08 _01_SS_Primary_ALS
Sampling date / time				07-Apr-2022 16:15	07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	07-Apr-2022 08:01
Compound	CAS Number	LOR	Unit	EM2206457-008	EM2206457-009	EM2206457-010	EM2206457-011	EM2206457-012
				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	----
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	%	116	111	103	110	----
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	85.3	97.8	91.1	92.2	----
Toluene-D8	2037-26-5	0.1	%	84.1	95.7	89.0	89.4	----
4-Bromofluorobenzene	460-00-4	0.1	%	90.8	106	98.7	96.6	----
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	103	95.6	85.2	95.1	----
2-Chlorophenol-D4	93951-73-6	0.025	%	99.0	92.1	82.3	91.5	----
2,4,6-Tribromophenol	118-79-6	0.025	%	91.4	78.6	76.5	85.7	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	102	94.9	84.8	93.2	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	81.5	82.8	74.4	80.9	----
2-Fluorobiphenyl	321-60-8	0.025	%	99.0	93.8	85.9	94.4	----
Anthracene-d10	1719-06-8	0.025	%	106	99.5	91.2	100	----
4-Terphenyl-d14	1718-51-0	0.025	%	94.7	89.3	81.6	89.8	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	125	120	118	121	----
13C8-PFOA	----	0.0002	%	106	114	111	116	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220407_08 _02_SS_Duplicate_AL S	SX_OB_20220407_11 _51_SS_Primary_ALS	SX_IB_20220407_15_ 59_SS_Primary_ALS	SX_OB_20220407_16 _08_SS_Primary_ALS	SX_OB_20220407_16 _15_SS_Triplicate_AL S
Sampling date / time				07-Apr-2022 08:02	07-Apr-2022 11:51	07-Apr-2022 15:59	07-Apr-2022 16:08	07-Apr-2022 16:15
Compound	CAS Number	LOR	Unit	EM2206457-013	EM2206457-014	EM2206457-015	EM2206457-016	EM2206457-017
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.6	9.7	10.5	9.7	9.7



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220407_20 _03_SS_Primary_ALS	SX_OB_20220408_00 _03_SS_Primary_ALS	SX_OB_20220408_04 _27_SS_Primary_ALS	----	----
Sampling date / time				07-Apr-2022 20:03	08-Apr-2022 00:03	08-Apr-2022 04:27	----	----	
Compound	CAS Number	LOR	Unit	EM2206457-018	EM2206457-019	EM2206457-020	-----	-----	
				Result	Result	Result	----	----	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Final pH	----	0.1	pH Unit	9.5	9.6	9.5	----	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_OB_20220407_08 _20_SR_Rinsate_ALS	SX_OB_20220407_08 _21_SB_Blank_ALS	----	----	----
			Sampling date / time		07-Apr-2022 08:20	07-Apr-2022 08:21	----	----	----
Compound	CAS Number	LOR	Unit	EM2206457-003	EM2206457-004	-----	-----	-----	
				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	0.1	µg/L	<0.1	<0.1	----	----	----	
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_20220407_08 _20_SR_Rinsate_ALS	SX_OB_20220407_08 _21_SB_Blank_ALS	----	----	----
Sampling date / time				07-Apr-2022 08:20	07-Apr-2022 08:21	----	----	----	
Compound	CAS Number	LOR	Unit	EM2206457-003	EM2206457-004	-----	-----	-----	
				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	%	100	96.9	----	----	----	
13C8-PFOA	----	0.02	%	93.8	98.6	----	----	----	



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	: EM2206457	Page	: 1 of 30
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	: 08-Apr-2022
Order number	: ----	Date Analysis Commenced	: 11-Apr-2022
C-O-C number	: 20220408043838-ALS-21	Issue Date	: 19-Apr-2022
Sampler	: Hannah - EP Risk, LR - EP Risk		
Site	: 20220408043838-ALS-21		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 20		
No. of samples analysed	: 20		



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
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC



General Comments

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

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

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

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory 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: 4279356)									
EM2206408-009	Anonymous	EG005T: Nickel	7440-02-0	2	mg/kg	35	# 43	20.8	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	95	101	6.3	0% - 20%
EM2206367-010	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	123	128	4.4	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	167	160	4.2	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	35	44	21.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	59	56	5.8	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	98	87	11.9	0% - 50%
EM2206408-009	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	61	55	10.2	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	44	32	32.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	42	31	32.0	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		
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4284744)									
EM2205834-001	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.8	7.9	1.3	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: 4284744) - continued									
EM2206343-012	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.6	7.7	0.0	0% - 20%
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4284745)									
EM2206457-002	SX_OB_20220407_08_02_ SS_Duplicate_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.6	7.7	0.0	0% - 20%
EM2206486-002	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	6.5	6.5	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4279840)									
EM2206367-006	Anonymous	EA055: Moisture Content	----	0.1	%	32.5	33.0	1.6	0% - 20%
EM2206457-008	SX_OB_20220407_16_15_ SS_Triplicate_ALS	EA055: Moisture Content	----	0.1	%	30.6	30.0	2.3	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4279355)									
EM2206367-010	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2206408-009	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: 4280461)									
EM2206347-014	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2206367-008	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	1.9	1.6	17.8	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4280462)									
EM2206457-007	SX_OB_20220407_16_08_ SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	1.2	1.7	37.7	No Limit
EM2206564-002	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: 4284802)									
EM2206343-021	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2206423-005	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: 4284803)									
EM2206457-010	SX_OB_20220408_00_03_ SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2206501-004	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4280451)									
EM2206347-014	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	250	240	0.0	No Limit
EM2206367-008	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	190	190	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4280452)									
EM2206457-008	SX_OB_20220407_16_15_ SS_Triplicate_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	190	190	0.0	No Limit
EM2206564-003	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	60	140	72.5	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4279246)									
EM2206367-001	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2206457-001	SX_OB_20220407_08_01_ 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: 4279206)									



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 (%)
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4279206) - continued									
EM2206457-001	SX_OB_20220407_08_01_ 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	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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: 4279206)									
EM2206457-001	SX_OB_20220407_08_01_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP074I: Volatile Halogenated Compounds (QC Lot: 4279206)									
EM2206457-001	SX_OB_20220407_08_01_ 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: 4279244)									
EM2206367-001	Anonymous	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: 4279244) - continued									
EM2206367-001	Anonymous	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
EM2206457-001	SX_OB_20220407_08_01_ SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<1.0	<1.0	0.0	No Limit
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4279244)									
EM2206367-001	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	<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
EM2206457-001	SX_OB_20220407_08_01_ SS_Primary_ALS	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4279244)									
EM2206367-001	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



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: 4279244) - continued									
EM2206367-001	Anonymous	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
EM2206457-001	SX_OB_20220407_08_01_ 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: 4279244)									
EM2206367-001	Anonymous	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



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: 4279244) - continued									
EM2206367-001	Anonymous	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
EM2206457-001	SX_OB_20220407_08_01_ 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: 4279206)									
EM2206457-001	SX_OB_20220407_08_01_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4279245)									
EM2206367-001	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



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 Petroleum Hydrocarbons (QC Lot: 4279245) - continued									
EM2206457-001	SX_OB_20220407_08_01_ 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: 4279206)									
EM2206457-001	SX_OB_20220407_08_01_ 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: 4279245)									
EM2206367-001	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EM2206457-001	SX_OB_20220407_08_01_ 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: 4280324)									
EM2206367-001	Anonymous	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
EM2206457-005	SX_OB_20220407_11_51_ 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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4280324)									
EM2206367-001	Anonymous	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



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: 4280324) - continued									
EM2206367-001	Anonymous	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
EM2206457-005	SX_OB_20220407_11_51_ 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		
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4280324)									
EM2206367-001	Anonymous	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
EM2206457-005	SX_OB_20220407_11_51_ 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



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: 4280324) - continued									
EM2206457-005	SX_OB_20220407_11_51_ SS_Primary_ALS	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: 4280324)									
EM2206367-001	Anonymous	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
EM2206457-005	SX_OB_20220407_11_51_ SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4280324)									
EM2206367-001	Anonymous	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
EM2206457-005	SX_OB_20220407_11_51_ 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

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: 4285820)									
EM2206457-003	SX_OB_20220407_08_20_ SR_Rinsate_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



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: 4285820) - continued									
EM2206457-003	SX_OB_20220407_08_20_ SR_Rinsate_ALS	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2206443-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4288465)									
EM2206457-001	SX_OB_20220407_08_01_ 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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4288731)									
EM2206457-012	SX_OB_20220407_08_01_ 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
EM2206501-007	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: 4285820)									
EM2206457-003	SX_OB_20220407_08_20_ SR_Rinsate_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



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: 4285820) - continued									
EM2206457-003	SX_OB_20220407_08_20_ SR_Rinsate_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
EM2206443-001	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 (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: 4288465)									
EM2206457-001	SX_OB_20220407_08_01_ 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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4288731)									
EM2206457-012	SX_OB_20220407_08_01_ 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



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: 4288731) - continued									
EM2206457-012	SX_OB_20220407_08_01_ SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EM2206501-007	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		
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4285820)									
EM2206457-003	SX_OB_20220407_08_20_ SR_Rinsate_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
		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
EM2206443-001	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



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: 4288465)									
EM2206457-001	SX_OB_20220407_08_01_ 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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4288731)									
EM2206457-012	SX_OB_20220407_08_01_ 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
EM2206501-007	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



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: 4288731) - continued									
EM2206501-007	Anonymous	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: 4285820)									
EM2206457-003	SX_OB_20220407_08_20_ SR_Rinsate_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
EM2206443-001	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4288465)									
EM2206457-001	SX_OB_20220407_08_01_ 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: 4288731)									
EM2206457-012	SX_OB_20220407_08_01_ 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
EM2206501-007	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: 4288731) - continued									
EM2206501-007	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
EP231P: PFAS Sums (QC Lot: 4285820)									
EM2206457-003	SX_OB_20220407_08_20_SR_Rinsate_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
EM2206443-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.02	0.02	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4288465)									
EM2206457-001	SX_OB_20220407_08_01_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
EP231P: PFAS Sums (QC Lot: 4288731)									
EM2206457-012	SX_OB_20220407_08_01_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
EM2206501-007	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



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: 4279356)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	101	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	58.2	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	97.4	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	88.2	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	95.4	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	77.8	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	95.3	70.0	130	
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----	
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	85.3	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	102	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	76.4	70.0	130	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4286200)									
EN60-DIa-P: Final pH	----	0.1	pH Unit	6.0	----	----	----	----	
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4284744)									
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	100	98.8	101	
				----	7 pH Unit	100	99.3	101	
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4284745)									
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: 4279355)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	85.2	70.0	130	
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4280461)									
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	79.7	70.0	130	
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4280462)									
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: 4284802)									
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	80.4	70.0	130	
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4284803)									
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	87.0	70.0	130	
EK040T: Fluoride Total (QCLot: 4280451)									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	78.6	75.2	110	
EK040T: Fluoride Total (QCLot: 4280452)									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	75.2	75.2	110	



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	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4279246)									
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	123	67.4	136	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4279206)									
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	102	69.2	116	
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	101	67.7	116	
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	98.6	66.6	115	
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	94.4	65.2	112	
	106-42-3								
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	93.6	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	92.7	68.4	110	
EP074H: Naphthalene (QCLot: 4279206)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	103	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4279206)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	132	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	119	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	102	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	113	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	101	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	103	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	110	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	113	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	104	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	103	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	100	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	102	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	105	71.8	116	
EP074-UT: 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	99.1	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	98.8	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	93.6	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	96.2	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	91.4	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4279244)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	96.4	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	90.9	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	93.2	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	92.2	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	95.9	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	90.2	72.4	128	



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	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4279244) - continued									
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	90.4	69.4	126	
EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/5 8-90-2	0.05	mg/kg	<0.05	4 mg/kg	93.8	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	75.5	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4279244)									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	92.8	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	93.3	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	94.6	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	91.2	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	89.6	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	82.2	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	102	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	89.3	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	91.8	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	90.6	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4279244)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	93.3	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	94.6	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	92.8	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	96.5	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	95.7	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	96.5	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	95.2	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	98.2	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	97.1	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	101	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	96.0	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	99.1	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	98.8	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	98.0	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	98.3	71.3	134	
EP075I: Organochlorine Pesticides (QCLot: 4279244)									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	96.2	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	94.1	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	94.6	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	95.2	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	97.1	76.5	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: 4279244) - continued									
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	88.5	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	95.2	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	93.9	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	93.7	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	94.2	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	96.5	69.4	134	
EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	97.8	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	97.0	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	101	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	88.0	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	99.4	71.4	135	
EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	98.1	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	98.6	70.2	135	
EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	95.9	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	97.6	63.6	135	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4279206)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	104	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4279245)									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	760 mg/kg	90.4	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	3270 mg/kg	90.9	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1550 mg/kg	89.5	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	90.5	70.0	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4279206)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	100	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: 4279245)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1110 mg/kg	89.8	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	4180 mg/kg	89.4	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	290 mg/kg	89.4	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	89.6	70.0	130	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4280324)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	93.8	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	101	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	68.9	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	123	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	103	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	105	59.0	134	



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: 4280324)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	75.1	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.5	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.0	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.3	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	80.8	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.1	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	75.4	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	73.7	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	71.1	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4280324)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	121	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	80.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	71.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.1	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.1	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4280324)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	90.2	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	88.5	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	98.7	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	91.0	70.0	130	
EP231P: PFAS Sums (QCLot: 4280324)									
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: 4285820)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	114	72.0	130	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4285820) - continued									
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	92.5	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	88.5	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	98.9	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	92.0	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	109	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4288465)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	104	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	91.9	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	94.7	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.1	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	97.7	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	100	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4288731)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	95.6	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	86.5	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	90.7	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.6	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	97.7	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	104	53.0	142	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4285820)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	90.4	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	82.3	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	98.3	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	95.9	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.1	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	127	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	99.9	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	94.8	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.5	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: 4288465)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	90.3	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	89.6	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	96.7	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.9	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	92.6	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	92.0	69.0	130	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4288465) - continued									
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	100	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	88.2	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	89.4	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.2	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	102	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4288731)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	87.8	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	89.5	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.3	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	92.6	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	92.2	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	87.8	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	106	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	88.3	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	87.9	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	82.3	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	99.3	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4285820)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	95.6	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	100	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	93.1	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	96.4	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	89.7	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	102	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4288465)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	101	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	94.8	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	91.0	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	92.9	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	102	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	97.6	65.0	136	



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: 4288465) - continued									
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	90.8	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4288731)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	100	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	92.2	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	98.9	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	96.6	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	100	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	92.7	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	89.6	61.0	135	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4285820)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	89.3	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	100.0	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	90.8	67.0	138	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	78.5	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4288465)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	89.7	63.0	143	
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	100	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	105	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	79.5	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4288731)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	95.0	63.0	143	
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	99.6	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	101	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	85.0	70.0	130	
EP231P: PFAS Sums (QCLot: 4285820)									
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: 4288465)									
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: 4288465) - continued								
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 4288731)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report				
				Spike Concentration	Spike Recovery(%) MS	Acceptable Limits (%)		
							Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4279356)								
EM2206408-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	91.4	78.0	124	
		EG005T: Cadmium	7440-43-9	50 mg/kg	91.0	79.7	116	
		EG005T: Chromium	7440-47-3	50 mg/kg	95.0	79.0	121	
		EG005T: Copper	7440-50-8	250 mg/kg	97.0	80.0	120	
		EG005T: Lead	7439-92-1	250 mg/kg	93.6	80.0	120	
		EG005T: Nickel	7440-02-0	50 mg/kg	81.0	78.0	120	
		EG005T: Zinc	7440-66-6	250 mg/kg	84.5	80.0	120	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4279355)								
EM2206408-001	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	81.5	76.0	116	
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4280461)								
EM2206347-015	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	78.8	58.0	114	
EM2206347-015	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	89.4	58.0	114	
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4280462)								
EM2206457-008	SX_OB_20220407_16_15_SS_Triplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	85.4	58.0	114	
EM2206457-008	SX_OB_20220407_16_15_SS_Triplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	94.9	58.0	114	
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4284802)								
EM2206343-024	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	95.4	70.0	130	
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4284803)								
EM2206457-011	SX_OB_20220408_04_27_SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	20 mg/kg	79.4	70.0	130	
EK040T: Fluoride Total (QCLot: 4280451)								
EM2206347-015	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	89.9	70.0	130	



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK040T: Fluoride Total (QCLot: 4280452)							
EM2206457-009	SX_OB_20220407_20_03_SS_Primary_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	81.9	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4279246)							
EM2206367-005	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	113	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4279206)							
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	98.8	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	96.3	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4279206)							
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	104	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	90.6	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	89.0	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4279244)							
EM2206367-002	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	93.2	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	92.8	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	79.5	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4279244)							
EM2206367-002	Anonymous	EP075-EM: Phenol	108-95-2	3 mg/kg	86.0	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	88.6	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4279244)							
EM2206367-002	Anonymous	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	85.8	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	85.8	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4279206)							
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	82.3	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4279245)							
EM2206367-006	Anonymous	EP071-EM: C10 - C14 Fraction	----	760 mg/kg	85.3	71.3	126
		EP071-EM: C15 - C28 Fraction	----	3270 mg/kg	88.1	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1550 mg/kg	87.4	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5580 mg/kg	87.8	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4279206)							
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	79.7	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4279245)							
EM2206367-006	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1110 mg/kg	85.8	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	4180 mg/kg	87.0	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	290 mg/kg	84.9	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5580 mg/kg	87.0	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4280324)							



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
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4280324) - continued							
EM2206367-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	94.7	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	96.8	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	70.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	131	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	102	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	105	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4280324)							
EM2206367-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	73.4	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	103	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	90.3	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	113	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	97.8	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	128	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	82.0	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	87.5	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	69.9	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	67.2	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	78.2	69.0	133		
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4280324)							
EM2206367-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	104	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	113	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	79.1	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	87.6	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	73.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	83.4	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	104	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4280324)							
EM2206367-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	86.0	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	96.2	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	94.2	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	70.4	70.0	130

Sub-Matrix: **WATER**

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



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4285820)							
EM2206457-004	SX_OB_20220407_08_21_SB_Blank_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	108	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	89.2	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	90.2	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	98.3	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	94.4	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	110	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4288465)							
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	107	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	96.3	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	106	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	105	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	96.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	101	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4288731)							
EM2206457-013	SX_OB_20220407_08_02_SS_Duplicate_ALS	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	93.5	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	99.3	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	104	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	95.5	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	102	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4285820)							
EM2206457-004	SX_OB_20220407_08_21_SB_Blank_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	89.2	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	86.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	97.6	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	99.3	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	96.1	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	91.4	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	120	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	99.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	92.9	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	82.7	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	128	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4288465)					
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	94.2	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	90.7	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	102	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	99.8	71.0	133



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: 4288465) - continued							
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	101	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	109	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	91.6	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	92.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	105	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4288731)							
EM2206457-013	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	91.2	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	89.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	98.2	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	101	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	101	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	92.5	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	108	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	95.9	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	92.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	99.0	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4285820)							
EM2206457-004	SX_OB_20220407_08_21_SB_Blank_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	94.9	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	105	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	98.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	96.5	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	91.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	101	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	97.5	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4288465)							
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	102	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	99.5	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	100	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	98.9	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
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4288465) - continued							
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	104	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	101	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	98.1	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4288731)							
EM2206457-013	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	97.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	100	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	93.9	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	99.5	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	105	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	93.7	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	95.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4285820)							
EM2206457-004	SX_OB_20220407_08_21_SB_Blank_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	87.6	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	97.6	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	84.9	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4288465)							
EM2206457-002	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	96.6	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	112	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	82.6	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4288731)							
EM2206457-013	SX_OB_20220407_08_02_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	93.3	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	104	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	104	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	87.6	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2206457	Page	: 1 of 13
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 08-Apr-2022
Site	: 20220408043838-ALS-21	Issue Date	: 19-Apr-2022
Sampler	: Hannah - EP Risk, LR - EP Risk	No. of samples received	: 20
Order number	: ----	No. of samples analysed	: 20

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005(ED093)T: Total Metals by ICP-AES	EM2206408--009	Anonymous	Nickel	7440-02-0	20.8 %	0% - 20%	RPD exceeds LOR based limits

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_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	13-Apr-2022	14-Apr-2022	✓	13-Apr-2022	13-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA001) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	13-Apr-2022	15-Apr-2022	✓	13-Apr-2022	13-Apr-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	----	----	----	11-Apr-2022	21-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	----	----	----	11-Apr-2022	22-Apr-2022	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	04-Oct-2022	✓	11-Apr-2022	04-Oct-2022	✓
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	05-Oct-2022	✓	11-Apr-2022	05-Oct-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_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	05-May-2022	✓	12-Apr-2022	05-May-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	06-May-2022	✓	12-Apr-2022	06-May-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	12-Apr-2022	05-May-2022	✓	13-Apr-2022	19-Apr-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	12-Apr-2022	06-May-2022	✓	13-Apr-2022	19-Apr-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	13-Apr-2022	21-Apr-2022	✓	14-Apr-2022	27-Apr-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	13-Apr-2022	22-Apr-2022	✓	14-Apr-2022	27-Apr-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	12-Apr-2022	05-May-2022	✓	14-Apr-2022	05-May-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	12-Apr-2022	06-May-2022	✓	14-Apr-2022	06-May-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_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	13-Apr-2022	04-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	13-Apr-2022	05-Oct-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_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	13-Apr-2022	04-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	13-Apr-2022	05-Oct-2022	✓	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	21-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	22-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	14-Apr-2022	✓	12-Apr-2022	14-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	14-Apr-2022	✓	12-Apr-2022	14-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022	✓
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	14-Apr-2022	✓	12-Apr-2022	14-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	21-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	22-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	21-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	22-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	21-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	22-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	21-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	22-Apr-2022	✓	11-Apr-2022	21-May-2022	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	14-Apr-2022	✓	12-Apr-2022	14-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	14-Apr-2022	✓	12-Apr-2022	14-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X)								
SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	04-Oct-2022	✓	12-Apr-2022	21-May-2022	✓
HDPE Soil Jar (EP231X)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	05-Oct-2022	✓	12-Apr-2022	21-May-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X)								
SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	04-Oct-2022	✓	12-Apr-2022	21-May-2022	✓
HDPE Soil Jar (EP231X)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	05-Oct-2022	✓	12-Apr-2022	21-May-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X)								
SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	04-Oct-2022	✓	12-Apr-2022	21-May-2022	✓
HDPE Soil Jar (EP231X)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	05-Oct-2022	✓	12-Apr-2022	21-May-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X)								
SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	04-Oct-2022	✓	12-Apr-2022	21-May-2022	✓
HDPE Soil Jar (EP231X)								
SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	05-Oct-2022	✓	12-Apr-2022	21-May-2022	✓



Matrix: **SOIL**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS,	07-Apr-2022	11-Apr-2022	04-Oct-2022	✓	12-Apr-2022	21-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220408_04_27_SS_Primary_ALS	08-Apr-2022	11-Apr-2022	05-Oct-2022	✓	12-Apr-2022	21-May-2022	✓

Matrix: **WATER**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X) SX_OB_20220407_08_20_SR_Rinsate_ALS,	SX_OB_20220407_08_21_SB_Blank_ALS	07-Apr-2022	13-Apr-2022	04-Oct-2022	✓	13-Apr-2022	04-Oct-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS, SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS, SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS	13-Apr-2022	14-Apr-2022	10-Oct-2022	✓	14-Apr-2022	10-Oct-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X) SX_OB_20220407_08_20_SR_Rinsate_ALS,	SX_OB_20220407_08_21_SB_Blank_ALS	07-Apr-2022	13-Apr-2022	04-Oct-2022	✓	13-Apr-2022	04-Oct-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS, SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS, SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS	13-Apr-2022	14-Apr-2022	10-Oct-2022	✓	14-Apr-2022	10-Oct-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) SX_OB_20220407_08_20_SR_Rinsate_ALS,	SX_OB_20220407_08_21_SB_Blank_ALS	07-Apr-2022	13-Apr-2022	04-Oct-2022	✓	13-Apr-2022	04-Oct-2022	✓	
HDPE (no PTFE) (EP231X) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS, SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS, SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS	13-Apr-2022	14-Apr-2022	10-Oct-2022	✓	14-Apr-2022	10-Oct-2022	✓	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
HDPE (no PTFE) (EP231X) SX_OB_20220407_08_20_SR_Rinsate_ALS,	SX_OB_20220407_08_21_SB_Blank_ALS	07-Apr-2022	13-Apr-2022	04-Oct-2022	✓	13-Apr-2022	04-Oct-2022	✓	
HDPE (no PTFE) (EP231X) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS, SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS, SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS	13-Apr-2022	14-Apr-2022	10-Oct-2022	✓	14-Apr-2022	10-Oct-2022	✓	
EP231P: PFAS Sums									
HDPE (no PTFE) (EP231X) SX_OB_20220407_08_20_SR_Rinsate_ALS,	SX_OB_20220407_08_21_SB_Blank_ALS	07-Apr-2022	13-Apr-2022	04-Oct-2022	✓	13-Apr-2022	04-Oct-2022	✓	
HDPE (no PTFE) (EP231X) SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS, SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS,	SX_OB_20220407_08_02_SS_Duplicate_ALS, SX_IB_20220407_15_59_SS_Primary_ALS, SX_OB_20220407_16_15_SS_Triplicate_ALS, SX_OB_20220408_00_03_SS_Primary_ALS, SX_OB_20220407_08_01_SS_Primary_ALS, SX_OB_20220407_11_51_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_16_08_SS_Primary_ALS, SX_OB_20220407_20_03_SS_Primary_ALS, SX_OB_20220408_04_27_SS_Primary_ALS	13-Apr-2022	14-Apr-2022	10-Oct-2022	✓	14-Apr-2022	10-Oct-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	4	39	10.26	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	14	14.29	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	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	4	38	10.53	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	3	20	15.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	39	10.26	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	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	38	5.26	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	20	5.00	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	39	5.13	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	38	5.26	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	20	5.00	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	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	39	10.26	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	38	5.26	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	20	5.00	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	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	45	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	45	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	45	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	45	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard



Brief Method Summaries

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

Analytical Methods	Method	Matrix	Method Descriptions
pH in soil using a 0.01M CaCl 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	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
pH in soil using a 0.01M CaCl 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.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	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.

CHAIN OF CUSTODY DOCUMENTATION				 Australian Laboratory Services Pty Ltd	
CLIENT: Agon Environmental		SAMPLER: Hannah - EP Risk & Brandon - Agon			
ADDRESS / OFFICE: Melbourne		MOBILE 1: +61 400 826 907 (Craig Trimbur)			
PROJECT MANAGER (PM): Craig Trimbur		MOBILE 2: +61 490 411 004 (David Lawson)			
PROJECT ID: JC0927		EMAIL REPORT TO: Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au			
SITE: 20220409044727-ALS-14		P.O. NO.:			
RESULTS REQUIRED (Date): 5 days		QUOTE NO.: ME-150-19 WGTP		EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au	
ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)					

SAMPLE INFORMATION (note: S = Soil, W=Water)							CONTAINER INFORMATION		COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:														
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	Spoil Sample Prep	P16 plus Cr	PFAS 28 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	D1 Leachate PFAS - Extended Suite												
1	SX_OB_20220408_07_59_SS_Primary_ALS	S	8/04/2022	7:59	Bucket	1	x	x	x	x	x												
2	SX_OB_20220408_07_59_SS_Duplicate_ALS	S	8/04/2022	7:59	Bucket	1	x	x	x	x	x												
3	SX_OB_20220408_08_15_SR_Rinsate_ALS	W	8/04/2022	8:15	Bottle	1			x														
4	SX_OB_20220408_08_17_SB_Blank_ALS	W	8/04/2022	8:17	Bottle	1			x														
5	SX_IB_20220408_12_02_SS_Primary_ALS	S	8/04/2022	12:02	Bucket	1	x	x	x	x	x												
6	SX_IB_20220408_15_56_SS_Primary_ALS	S	8/04/2022	15:56	Bucket	1	x	x	x	x	x												
7	SX_IB_20220408_16_02_SS_Triplicate_ALS	S	8/04/2022	16:02	Bucket	1	x	x	x	x	x												
8	SX_OB_20220408_16_08_SS_Primary_ALS	S	8/04/2022	16:08	Bucket	1	x	x	x	x	x												
9	SX_OB_20220408_20_01_SS_Primary_ALS	S	8/04/2022	20:01	Bucket	1	x	x	x	x	x												
10	SX_OB_20220409_00_05_SS_Primary_ALS	S	9/04/2022	00:05	Bucket	1	x	x	x	x	x												
11	SX_OB_20220409_04_16_SS_Primary_ALS	S	9/04/2022	04:16	Bucket	1	x	x	x	x	x												


Environmental Division
Melbourne
Work Order Reference
EM2206562



Telephone : +61-3-8549 9600

12
13
14
15
16
17
18
19
20

09/04 10:15
Carrier:
Received:
C/note:
Temp: 20°C Seal: YEN
Ice / Icebricks: NA



RELINQUISHED BY:		RECEIVED BY:		METHOD OF SHIPMENT	
Name:	Date:	Name:	Date:	Con' Note No:	
Of:	Time:	Of:	Time:	Transport Co:	
Name:	Date:	Name:	Date:		
Of:	Time:	Of:	Time:		

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 = Sulphuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulphuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

CERTIFICATE OF ANALYSIS

Work Order : EM2206562 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 : 20220409044727-ALS-14 Sampler : Hannah - EP Risk & Brandon - Agon Site : ---- Quote number : EN/150/19 -WGTP -Bulk Sample Quote No. of samples received : 20 No. of samples analysed : 20	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-Apr-2022 10:15 Date Analysis Commenced : 11-Apr-2022 Issue Date : 20-Apr-2022 17:13
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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
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 Contact for details.

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

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- 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_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-001	EM2206562-002	EM2206562-005	EM2206562-006	EM2206562-007
				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_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-001	EM2206562-002	EM2206562-005	EM2206562-006	EM2206562-007
				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	%	98.6	100	99.4	96.2	102
13C8-PFOA	----	0.02	%	108	109	106	105	107



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220408_16_08_SS_Primary_ALS	SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220409_00_05_SS_Primary_ALS	SX_OB_20220409_04_16_SS_Primary_ALS	----
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	----
Compound	CAS Number	LOR	Unit	EM2206562-008	EM2206562-009	EM2206562-010	EM2206562-011	-----
				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	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220408_16 _08_SS_Primary_ALS	SX_OB_20220408_20 _01_SS_Primary_ALS	SX_OB_20220409_00 _05_SS_Primary_ALS	SX_OB_20220409_04 _16_SS_Primary_ALS	----
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	----
Compound	CAS Number	LOR	Unit	EM2206562-008	EM2206562-009	EM2206562-010	EM2206562-011	-----
				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	93.2	95.5	102	----
13C8-PFOA	----	0.02	%	103	106	103	106	----



Analytical Results

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

Sample ID

				SX_OB_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-012	EM2206562-013	EM2206562-014	EM2206562-015	EM2206562-016
				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_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-012	EM2206562-013	EM2206562-014	EM2206562-015	EM2206562-016
				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	%	98.0	101	99.1	102	93.2
13C8-PFOA	----	0.02	%	104	100	100	105	106



Analytical Results

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

Sample ID

				SX_OB_20220408_16_08_SS_Primary_ALS	SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220409_00_05_SS_Primary_ALS	SX_OB_20220409_04_16_SS_Primary_ALS	----
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	----
Compound	CAS Number	LOR	Unit	EM2206562-017	EM2206562-018	EM2206562-019	EM2206562-020	-----
				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	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	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_20220408_16 _08_SS_Primary_ALS	SX_OB_20220408_20 _01_SS_Primary_ALS	SX_OB_20220409_00 _05_SS_Primary_ALS	SX_OB_20220409_04 _16_SS_Primary_ALS	----
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	----
Compound	CAS Number	LOR	Unit	EM2206562-017	EM2206562-018	EM2206562-019	EM2206562-020	-----
				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	%	99.4	103	96.5	99.4	----
13C8-PFOA	----	0.02	%	103	102	104	102	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-001	EM2206562-002	EM2206562-005	EM2206562-006	EM2206562-007
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	7.8	7.8	8.0	8.9	7.8
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	30.8	32.3	30.7	35.5	32.4
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	24	33	20	15	19
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	86	125	85	85	95
Copper	7440-50-8	5	mg/kg	49	59	53	59	59
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	152	173	134	155	150
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	75	92	85	100	102
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	150	160	220	210	190
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.4	9.0	9.6	9.4	9.5
After HCl pH	----	0.1	pH Unit	1.2	1.0	1.0	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	5.0	5.0	5.0	5.2	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_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-001	EM2206562-002	EM2206562-005	EM2206562-006	EM2206562-007
				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_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-001	EM2206562-002	EM2206562-005	EM2206562-006	EM2206562-007
				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_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-001	EM2206562-002	EM2206562-005	EM2206562-006	EM2206562-007
				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_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-001	EM2206562-002	EM2206562-005	EM2206562-006	EM2206562-007
				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_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-001	EM2206562-002	EM2206562-005	EM2206562-006	EM2206562-007
				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_20220408_07_59_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02
Compound	CAS Number	LOR	Unit	EM2206562-001	EM2206562-002	EM2206562-005	EM2206562-006	EM2206562-007
				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	%	108	104	108	114	116
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	79.9	90.0	91.7	84.8	90.3
Toluene-D8	2037-26-5	0.1	%	78.2	88.6	91.6	82.7	86.9
4-Bromofluorobenzene	460-00-4	0.1	%	90.6	101	104	96.3	97.1
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	82.4	78.0	82.6	86.4	88.6
2-Chlorophenol-D4	93951-73-6	0.025	%	79.2	75.1	80.5	83.9	85.8
2,4,6-Tribromophenol	118-79-6	0.025	%	70.4	65.4	73.8	76.9	78.4
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	87.8	83.1	86.7	89.4	93.5
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	76.4	72.0	75.5	79.5	81.3
2-Fluorobiphenyl	321-60-8	0.025	%	86.1	81.5	86.3	88.9	91.5
Anthracene-d10	1719-06-8	0.025	%	84.6	80.0	83.0	87.8	89.5
4-Terphenyl-d14	1718-51-0	0.025	%	89.0	84.1	86.9	91.7	93.2
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	109	103	107	110	97.5
13C8-PFOA	----	0.0002	%	104	105	111	106	109



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)		Sample ID		SX_OB_20220408_16 _08_SS_Primary_ALS	SX_OB_20220408_20 _01_SS_Primary_ALS	SX_OB_20220409_00 _05_SS_Primary_ALS	SX_OB_20220409_04 _16_SS_Primary_ALS	SX_OB_20220408_07 _59_SS_Primary_ALS			
Sampling date / time		08-Apr-2022 16:08		08-Apr-2022 20:01		09-Apr-2022 00:05		09-Apr-2022 04:16		08-Apr-2022 07:59	
Compound	CAS Number	LOR	Unit	EM2206562-008	EM2206562-009	EM2206562-010	EM2206562-011	EM2206562-012			
				Result	Result	Result	Result	Result			
EA001: pH in soil using 0.01M CaCl extract											
pH (CaCl ₂)	----	0.1	pH Unit	7.8	7.8	7.8	7.8	----			
EA055: Moisture Content (Dried @ 105-110°C)											
Moisture Content	----	1.0	%	30.6	29.1	28.1	27.6	----			
EG005(ED093)T: Total Metals by ICP-AES											
Arsenic	7440-38-2	5	mg/kg	31	31	30	29	----			
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	----			
Chromium	7440-47-3	5	mg/kg	124	102	110	105	----			
Copper	7440-50-8	5	mg/kg	60	57	56	60	----			
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	182	158	161	167	----			
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	89	86	85	89	----			
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	180	180	180	210	----			
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)											
Initial pH	----	0.1	pH Unit	9.1	9.3	9.4	9.3	----			
After HCl pH	----	0.1	pH Unit	1.1	1.0	1.1	1.1	----			
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	----			
Final pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	----			
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)											
Final pH	----	0.1	pH Unit	----	----	----	----	9.6			
EP066: Polychlorinated Biphenyls (PCB)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	----			
EP074A: Monocyclic Aromatic Hydrocarbons											



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220408_16_08_SS_Primary_ALS	SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220409_00_05_SS_Primary_ALS	SX_OB_20220409_04_16_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Primary_ALS
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	08-Apr-2022 07:59
Compound	CAS Number	LOR	Unit	EM2206562-008	EM2206562-009	EM2206562-010	EM2206562-011	EM2206562-012
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
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	----
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220408_16_08_SS_Primary_ALS	SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220409_00_05_SS_Primary_ALS	SX_OB_20220409_04_16_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Primary_ALS
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	08-Apr-2022 07:59
Compound	CAS Number	LOR	Unit	EM2206562-008	EM2206562-009	EM2206562-010	EM2206562-011	EM2206562-012
				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	----
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	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220408_16 _08_SS_Primary_ALS	SX_OB_20220408_20 _01_SS_Primary_ALS	SX_OB_20220409_00 _05_SS_Primary_ALS	SX_OB_20220409_04 _16_SS_Primary_ALS	SX_OB_20220408_07 _59_SS_Primary_ALS
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	08-Apr-2022 07:59
Compound	CAS Number	LOR	Unit	EM2206562-008	EM2206562-009	EM2206562-010	EM2206562-011	EM2206562-012
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
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	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	<0.30	<0.30	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220408_16_08_SS_Primary_ALS	SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220409_00_05_SS_Primary_ALS	SX_OB_20220409_04_16_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Primary_ALS
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	08-Apr-2022 07:59
Compound	CAS Number	LOR	Unit	EM2206562-008	EM2206562-009	EM2206562-010	EM2206562-011	EM2206562-012
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ 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	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	<5	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220408_16_08_SS_Primary_ALS	SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220409_00_05_SS_Primary_ALS	SX_OB_20220409_04_16_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Primary_ALS
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	08-Apr-2022 07:59
Compound	CAS Number	LOR	Unit	EM2206562-008	EM2206562-009	EM2206562-010	EM2206562-011	EM2206562-012
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
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								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220408_16_08_SS_Primary_ALS	SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220409_00_05_SS_Primary_ALS	SX_OB_20220409_04_16_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Primary_ALS
Sampling date / time				08-Apr-2022 16:08	08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	08-Apr-2022 07:59
Compound	CAS Number	LOR	Unit	EM2206562-008	EM2206562-009	EM2206562-010	EM2206562-011	EM2206562-012
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
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	%	112	113	108	112	----
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	88.7	87.2	76.4	71.1	----
Toluene-D8	2037-26-5	0.1	%	86.6	86.5	73.7	69.3	----
4-Bromofluorobenzene	460-00-4	0.1	%	97.6	99.9	87.5	82.1	----
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	83.2	89.0	78.4	81.4	----
2-Chlorophenol-D4	93951-73-6	0.025	%	80.3	83.3	75.8	78.4	----
2,4,6-Tribromophenol	118-79-6	0.025	%	71.2	75.0	70.9	70.0	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	88.6	93.4	82.4	86.0	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	76.4	78.2	74.1	76.8	----
2-Fluorobiphenyl	321-60-8	0.025	%	86.7	89.2	83.2	86.7	----
Anthracene-d10	1719-06-8	0.025	%	84.6	87.0	81.6	84.5	----
4-Terphenyl-d14	1718-51-0	0.025	%	88.4	90.6	86.5	88.5	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	103	102	112	103	----
13C8-PFOA	----	0.0002	%	103	108	116	113	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220408_07_59_SS_Duplicate_ALS	SX_IB_20220408_12_02_SS_Primary_ALS	SX_IB_20220408_15_56_SS_Primary_ALS	SX_IB_20220408_16_02_SS_Triplicate_ALS	SX_OB_20220408_16_08_SS_Primary_ALS
Sampling date / time				08-Apr-2022 07:59	08-Apr-2022 12:02	08-Apr-2022 15:56	08-Apr-2022 16:02	08-Apr-2022 16:08
Compound	CAS Number	LOR	Unit	EM2206562-013	EM2206562-014	EM2206562-015	EM2206562-016	EM2206562-017
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.5	9.9	10.4	9.9	9.6



Analytical Results

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

Sample ID

				SX_OB_20220408_20 _01_SS_Primary_ALS	SX_OB_20220409_00 _05_SS_Primary_ALS	SX_OB_20220409_04 _16_SS_Primary_ALS	----	----
Sampling date / time				08-Apr-2022 20:01	09-Apr-2022 00:05	09-Apr-2022 04:16	----	----
Compound	CAS Number	LOR	Unit	EM2206562-018	EM2206562-019	EM2206562-020	-----	-----
				Result	Result	Result	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.7	9.6	9.6	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_OB_20220408_08 _15_SR_Rinsate_ALS	SX_OB_20220408_08 _17_SB_Blank_ALS	----	----	----
Sampling date / time			08-Apr-2022 08:15		08-Apr-2022 08:17		----	----	----
Compound	CAS Number	LOR	Unit	EM2206562-003	EM2206562-004	-----	-----	-----	
				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	0.05	µg/L	<0.05	<0.05	----	----	----	
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_20220408_08 _15_SR_Rinsate_ALS	SX_OB_20220408_08 _17_SB_Blank_ALS	----	----	----
Sampling date / time				08-Apr-2022 08:15	08-Apr-2022 08:17	----	----	----	
Compound	CAS Number	LOR	Unit	EM2206562-003	EM2206562-004	-----	-----	-----	
				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	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<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	----	----	----	
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	----	0.10	µg/L	<0.10	<0.10	----	----	----	
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)	----	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	99.6	100	----	----	----	
13C8-PFOA	----	0.02	%	106	106	----	----	----	



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	: EM2206562	Page	: 1 of 30
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-Apr-2022
Order number	: ----	Date Analysis Commenced	: 11-Apr-2022
C-O-C number	: 20220409044727-ALS-14	Issue Date	: 20-Apr-2022
Sampler	: Hannah - EP Risk & Brandon - Agon		
Site	: ----		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 20		
No. of samples analysed	: 20		



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
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: 4287451)									
EM2206562-001	SX_OB_20220408_07_59_ 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	86	93	7.2	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	152	174	13.6	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	24	32	26.6	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	49	58	16.4	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	75	88	15.8	0% - 50%
EM2206583-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	84	90	7.2	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	145	137	5.5	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	16	18	8.4	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	56	56	0.0	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	90	94	3.5	0% - 50%

EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4286317)



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: 4286317) - continued									
EM2206406-007	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	8.2	8.2	0.0	0% - 20%
EM2206476-049	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	6.4	6.5	2.2	0% - 20%
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4286318)									
EM2206562-011	SX_OB_20220409_04_16_ SS_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.8	7.8	0.0	0% - 20%
EM2206583-011	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.6	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4287555)									
EM2206562-001	SX_OB_20220408_07_59_ SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	30.8	32.0	3.9	0% - 20%
EM2206583-002	Anonymous	EA055: Moisture Content	----	0.1	%	26.5	28.6	7.9	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4287452)									
EM2206562-001	SX_OB_20220408_07_59_ SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2206583-001	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: 4287988)									
EM2206562-001	SX_OB_20220408_07_59_ SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2206583-001	Anonymous	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: 4288010)									
EM2206384-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2206384-011	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: 4288011)									
EM2206562-006	SX_IB_20220408_15_56_S S_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2206583-006	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4288001)									
EM2206562-001	SX_OB_20220408_07_59_ SS_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	150	160	0.0	No Limit
EM2206583-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	190	170	11.4	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4284838)									
EM2206384-011	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.4	<0.4	0.0	No Limit
EM2206562-008	SX_OB_20220408_16_08_ 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: 4279207)									
EM2206562-001	SX_OB_20220408_07_59_ 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



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 (%)	
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4279207) - continued										
EM2206562-001	SX_OB_20220408_07_59_ SS_Primary_ALS	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: 4279207)										
EM2206562-001	SX_OB_20220408_07_59_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
EP074I: Volatile Halogenated Compounds (QC Lot: 4279207)										
EM2206562-001	SX_OB_20220408_07_59_ 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: 4284836)										
EM2206384-011	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.14	<0.13	0.0	No Limit	
		EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.14	<0.13	0.0	No Limit	
		EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.14	<0.13	0.0	No Limit	
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.14	<0.13	0.0	No Limit	
		EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.14	<0.13	0.0	No Limit	
		EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.14	<0.13	0.0	No Limit	
		EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.14	<0.13	0.0	No Limit	
		EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.14	<0.13	0.0	No Limit	
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.3	<0.2	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: 4284836) - continued									
EM2206562-008	SX_OB_20220408_16_08_ SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	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: 4284836)									
EM2206384-011	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	<6	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<6	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<6	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<6	<5	0.0	No Limit
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<6	<5	0.0	No Limit		
EM2206562-008	SX_OB_20220408_16_08_ SS_Primary_ALS	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit		
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4284836)									
EM2206384-011	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



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: 4284836) - continued									
EM2206384-011	Anonymous	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
EM2206562-008	SX_OB_20220408_16_08_ 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: 4284836)									
EM2206384-011	Anonymous	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.14	<0.13	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: 4284836) - continued									
EM2206384-011	Anonymous	EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.14	<0.13	0.0	No Limit
		EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.14	<0.13	0.0	No Limit
EM2206562-008	SX_OB_20220408_16_08_ SS_Primary_ALS	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		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: 4279207)									
EM2206562-001	SX_OB_20220408_07_59_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4284837)									
EM2206384-011	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	660	410	45.9	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	270	240	13.1	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	930	650	35.4	0% - 50%
EM2206562-008	SX_OB_20220408_16_08_ SS_Primary_ALS	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit



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 Petroleum Hydrocarbons (QC Lot: 4284837) - continued									
EM2206562-008	SX_OB_20220408_16_08_ SS_Primary_ALS	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: 4279207)									
EM2206562-001	SX_OB_20220408_07_59_ 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: 4284837)									
EM2206384-011	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	820	600	31.8	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	100	110	11.4	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	90	<50	61.3	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	1010	# 710	34.9	0% - 20%
EM2206562-008	SX_OB_20220408_16_08_ SS_Primary_ALS	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4282497)									
EM2206515-001	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	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0008	0.0006	33.1	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2206562-005	SX_IB_20220408_12_02_S S_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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4282497)									
EM2206515-001	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



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: 4282497) - continued									
EM2206515-001	Anonymous	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
EM2206562-005	SX_IB_20220408_12_02_S S_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		
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4282497)									
EM2206515-001	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
EM2206562-005	SX_IB_20220408_12_02_S S_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



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: 4282497) - continued									
EM2206562-005	SX_IB_20220408_12_02_S S_Primary_ALS	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: 4282497)									
EM2206515-001	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
EM2206562-005	SX_IB_20220408_12_02_S S_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4282497)									
EM2206515-001	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0008	0.0006	28.6	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0008	0.0006	28.6	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0008	0.0006	28.6	No Limit
EM2206562-005	SX_IB_20220408_12_02_S S_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
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: 4289812)									
EM2206517-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2206562-009	SX_OB_20220408_20_01_ 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: 4289812) - continued									
EM2206562-009	SX_OB_20220408_20_01_ 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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4289813)									
EM2206517-008	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	0.02	0.02	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
EM2206562-018	SX_OB_20220408_20_01_ 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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4292461)									
EM2206562-003	SX_OB_20220408_08_15_ SR_Rinsate_ALS	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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4289812)									
EM2206517-001	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



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: 4289812) - continued									
EM2206517-001	Anonymous	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
EM2206562-009	SX_OB_20220408_20_01_ 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		
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4289813)									
EM2206517-008	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		
EM2206562-018	SX_OB_20220408_20_01_ 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



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: 4289813) - continued									
EM2206562-018	SX_OB_20220408_20_01_ SS_Primary_ALS	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: 4292461)									
EM2206562-003	SX_OB_20220408_08_15_ SR_Rinsate_ALS	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4289812)									
EM2206517-001	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
EM2206562-009	SX_OB_20220408_20_01_ 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



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: 4289812) - continued									
EM2206562-009	SX_OB_20220408_20_01_ SS_Primary_ALS	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: 4289813)									
EM2206517-008	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
EM2206562-018	SX_OB_20220408_20_01_ 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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4292461)									
EM2206562-003	SX_OB_20220408_08_15_ SR_Rinsate_ALS	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



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: 4292461) - continued									
EM2206562-003	SX_OB_20220408_08_15_ SR_Rinsate_ALS	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4289812)									
EM2206517-001	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
EM2206562-009	SX_OB_20220408_20_01_ 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: 4289813)									
EM2206517-008	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
EM2206562-018	SX_OB_20220408_20_01_ 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: 4292461)									



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: 4292461) - continued									
EM2206562-003	SX_OB_20220408_08_15_ SR_Rinsate_ALS	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
EP231P: PFAS Sums (QC Lot: 4289812)									
EM2206517-001	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
EM2206562-009	SX_OB_20220408_20_01_ 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
EP231P: PFAS Sums (QC Lot: 4289813)									
EM2206517-008	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.02	0.02	0.0	No Limit
EM2206562-018	SX_OB_20220408_20_01_ 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
EP231P: PFAS Sums (QC Lot: 4292461)									
EM2206562-003	SX_OB_20220408_08_15_ SR_Rinsate_ALS	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



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 Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4287451)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	100	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	63.8	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	98.7	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	90.6	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	102	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	96.9	70.0	130
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	83.5	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	109	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	76.6	70.0	130
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4287874)								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.6	----	----	----	----
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4286317)								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	101	98.8	101
					7 pH Unit	101	99.3	101
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4286318)								
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: 4287452)								
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: 4287988)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	81.9	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4288010)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	89.4	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4288011)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	81.1	70.0	130
EK040T: Fluoride Total (QCLot: 4288001)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	83.5	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4284838)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	104	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4279207)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	105	69.2	116



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: 4279207) - continued									
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	103	67.7	116	
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	102	66.6	115	
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	99.4	65.2	112	
	106-42-3								
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	96.6	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	97.8	68.4	110	
EP074H: Naphthalene (QCLot: 4279207)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	91.4	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4279207)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	138	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	112	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	106	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	112	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	108	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	106	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	107	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	109	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	111	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	103	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	106	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	110	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	104	71.8	116	
EP074-UT: 1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	107	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	106	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	102	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	106	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	102	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	108	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4284836)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	79.2	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	79.3	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	79.6	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	82.3	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	75.4	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	75.6	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	75.1	69.4	126	
EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/5 8-90-2	0.05	mg/kg	<0.05	4 mg/kg	81.1	71.9	128	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)	Acceptable Limits (%)	
					Concentration	LCS	Low	High
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4284836) - continued								
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	76.7	54.4	135
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4284836)								
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	80.5	71.5	130
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	78.4	73.4	129
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	78.4	74.3	129
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	77.0	70.9	133
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	76.4	71.8	132
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	75.0	41.0	156
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	89.1	65.3	134
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	79.9	43.6	128
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	80.5	62.0	128
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	77.2	34.5	137
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4284836)								
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	81.5	73.0	131
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	81.6	76.3	130
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	82.7	72.0	135
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	83.0	74.4	131
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	83.3	73.3	130
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	83.1	78.4	127
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	84.2	75.3	132
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	84.4	75.4	130
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	81.8	69.6	133
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	84.4	75.0	133
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	84.0	75.8	133
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	82.9	65.1	130
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	84.8	72.1	134
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	84.6	72.9	135
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	84.0	71.3	134
EP075I: Organochlorine Pesticides (QCLot: 4284836)								
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	83.1	71.0	129
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	83.2	74.8	126
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	83.6	75.7	130
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	84.2	70.8	130
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	85.3	76.5	134
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	82.1	75.5	131
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	83.0	76.8	130
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	84.2	73.6	130



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	High
EP075I: Organochlorine Pesticides (QCLot: 4284836) - continued									
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	85.0	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	84.8	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	# 68.2	69.4	134	
EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	84.4	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	81.9	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	77.0	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	86.9	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	82.5	71.4	135	
EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	83.5	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	82.8	70.2	135	
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	82.3	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	84.1	63.6	135	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4279207)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	98.8	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4284837)									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	760 mg/kg	88.3	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	3270 mg/kg	87.9	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1550 mg/kg	87.8	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	88.0	70.0	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4279207)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	97.1	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTE X	10	mg/kg	<10	----	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4284837)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1110 mg/kg	89.3	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	4180 mg/kg	89.2	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	290 mg/kg	86.0	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	89.1	70.0	130	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4282497)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	91.5	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	91.0	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	72.3	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	97.4	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	92.2	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	81.8	59.0	134	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4282497)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	98.8	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	69.0	132	



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	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4282497) - continued									
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.7	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.9	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.9	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.3	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.5	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.7	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.4	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.3	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	96.5	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4282497)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	98.2	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	101	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	91.6	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.9	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.0	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4282497)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	92.1	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	98.8	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	97.2	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	101	70.0	130	
EP231P: PFAS Sums (QCLot: 4282497)									
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----	
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----	
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----	

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4289812)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	91.6	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	99.0	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	102	68.0	131	



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: 4289812) - continued									
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	91.3	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	78.2	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4289813)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	106	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	115	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	107	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	121	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	102	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	103	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4292461)									
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	102	72.0	130	
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	92.6	71.0	127	
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	93.6	68.0	131	
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	98.2	69.0	134	
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	90.9	65.0	140	
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	103	53.0	142	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4289812)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	83.1	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	96.9	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.1	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	92.4	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	88.8	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	112	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	90.3	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTriDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	87.3	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	88.2	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4289813)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	94.9	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	86.5	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	97.8	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	91.8	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	97.0	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	104	69.0	133	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)	Acceptable Limits (%)	
					Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4289813) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	94.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	115	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4292461)								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	93.4	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	104	72.0	129
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	92.1	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	94.1	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	92.6	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	97.2	69.0	130
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	84.8	71.0	129
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	82.6	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	101	72.0	134
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	80.4	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	95.8	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4289812)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	90.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	101	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	88.0	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	101	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	100	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	89.0	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	77.8	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4289813)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	96.1	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	93.9	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	84.0	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.9	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	91.5	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	86.1	61.0	135



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: 4292461)									
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	102	67.0	137	
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	92.6	68.0	141	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	100	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	92.4	70.0	130	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	99.1	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	106	65.0	136	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	112	61.0	135	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4289812)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	94.4	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	102	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	103	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	94.9	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4289813)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	93.7	63.0	143	
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	114	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	102	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	98.3	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4292461)									
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	99.0	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	114	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	110	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	70.5	70.0	130	
EP231P: PFAS Sums (QCLot: 4289812)									
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: 4289813)									
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: 4292461)									



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: 4292461) - continued								
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	----	----	----	----

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery(%) MS	Acceptable Limits (%)	
				Low	High		
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4287451)							
EM2206562-002	SX_OB_20220408_07_59_SS_Duplicate_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	83.7	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	89.8	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	82.0	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	98.4	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	90.2	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	90.5	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	89.4	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4287452)							
EM2206562-002	SX_OB_20220408_07_59_SS_Duplicate_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	104	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4287988)							
EM2206562-002	SX_OB_20220408_07_59_SS_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	83.2	58.0	114
EM2206562-002	SX_OB_20220408_07_59_SS_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	96.8	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4288010)							
EM2206384-002	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	93.6	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4288011)							
EM2206562-007	SX_IB_20220408_16_02_SS_Triplicate_ALS	EK026SF: Total Cyanide	57-12-5	20 mg/kg	96.3	70.0	130
EK040T: Fluoride Total (QCLot: 4288001)							
EM2206562-002	SX_OB_20220408_07_59_SS_Duplicate_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	74.4	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4284838)							
EM2206384-015	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	102	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4279207)							
EM2206562-002	SX_OB_20220408_07_59_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	91.6	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	90.7	55.1	124



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: 4279207)							
EM2206562-002	SX_OB_20220408_07_59_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	97.3	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	84.2	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	83.3	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4284836)							
EM2206384-013	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	87.8	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	85.4	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	67.3	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4284836)							
EM2206384-013	Anonymous	EP075-EM: Phenol	108-95-2	3 mg/kg	87.8	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	76.6	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4284836)							
EM2206384-013	Anonymous	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	83.6	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	88.0	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4279207)							
EM2206562-002	SX_OB_20220408_07_59_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	74.7	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4284837)							
EM2206384-014	Anonymous	EP071-EM: C10 - C14 Fraction	----	760 mg/kg	92.0	71.3	126
		EP071-EM: C15 - C28 Fraction	----	3270 mg/kg	89.6	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1550 mg/kg	89.3	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5580 mg/kg	89.6	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4279207)							
EM2206562-002	SX_OB_20220408_07_59_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	72.9	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4284837)							
EM2206384-014	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1110 mg/kg	91.6	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	4180 mg/kg	90.8	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	290 mg/kg	89.3	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5580 mg/kg	90.8	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4282497)							
EM2206515-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	89.6	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	79.3	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	94.7	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	110	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	99.7	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	87.9	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4282497)							
EM2206515-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	103	71.0	135



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: 4282497) - continued							
EM2206515-002	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	111	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	97.9	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	97.4	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	91.1	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	97.6	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	92.9	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	88.5	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	97.8	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	96.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	104	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4282497)							
EM2206515-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	89.9	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	111	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	104	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	94.1	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	97.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	114	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	102	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4282497)							
EM2206515-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	86.3	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	115	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	103	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	114	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: 4289812)							
EM2206517-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	105	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	114	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	105	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	120	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	94.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	84.4	53.0	142



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: 4289813)							
EM2206517-009	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	100	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	118	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	104	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	122	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	107	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	78.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4292461)							
EM2206562-004	SX_OB_20220408_08_17_SB_Blank_ALS	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	105	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	112	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	102	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	118	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	91.3	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	108	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4289812)							
EM2206517-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	91.9	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	97.3	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	98.4	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	103	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	94.0	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	94.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	118	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	107	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	89.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	84.9	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	110	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4289813)					
EM2206517-009	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	97.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	89.7	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	103	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	100	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	97.9	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	124	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	105	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	92.9	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	118	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4292461)					



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: 4292461) - continued							
EM2206562-004	SX_OB_20220408_08_17_SB_Blank_ALS	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	95.0	73.0	129
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	93.6	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	97.1	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	97.4	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	92.9	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	95.2	69.0	130
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	97.4	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	81.3	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	94.2	72.0	134
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	81.9	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	95.5	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4289812)							
EM2206517-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	92.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	96.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	103	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	100	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	93.0	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	87.8	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4289813)							
EM2206517-009	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	99.9	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	91.1	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	91.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	103	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	107	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	109	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	112	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4292461)							
EM2206562-004	SX_OB_20220408_08_17_SB_Blank_ALS	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	98.4	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: 4292461) - continued							
EM2206562-004	SX_OB_20220408_08_17_SB_Blank_ALS	EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	91.9	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	103	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	96.6	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	100	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	105	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	111	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4289812)							
EM2206517-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	91.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	105	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	105	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	96.3	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4289813)							
EM2206517-009	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	96.8	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	110	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	99.6	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	70.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4292461)							
EM2206562-004	SX_OB_20220408_08_17_SB_Blank_ALS	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	107	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	115	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	109	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	84.5	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2206562	Page	: 1 of 14
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: CRAIG TRIMBUR	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 09-Apr-2022
Site	: ----	Issue Date	: 20-Apr-2022
Sampler	: Hannah - EP Risk & Brandon - Agon	No. of samples received	: 20
Order number	: ----	No. of samples analysed	: 20

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EP080/071: Total Recoverable Hydrocarbons - NEPM 2	EM2206384--011	Anonymous	>C10 - C40 Fraction (sum)	----	34.9 %	0% - 20%	RPD exceeds LOR based limits
Laboratory Control Spike (LCS) Recoveries							
EP0751: Organochlorine Pesticides	QC-4284836-001	----	Endosulfan 1	959-98-8	68.2 %	69.4-134%	Recovery less than lower control limit

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_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	15-Apr-2022	✓	14-Apr-2022	15-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA001) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	16-Apr-2022	✓	14-Apr-2022	15-Apr-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	----	----	----	14-Apr-2022	22-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	----	----	----	14-Apr-2022	23-Apr-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	05-Oct-2022	✓	14-Apr-2022	05-Oct-2022	✓
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	14-Apr-2022	06-Oct-2022	✓
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	06-May-2022	✓	14-Apr-2022	06-May-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	07-May-2022	✓	14-Apr-2022	07-May-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	06-May-2022	✓	19-Apr-2022	21-Apr-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	07-May-2022	✓	19-Apr-2022	21-Apr-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	22-Apr-2022	✓	19-Apr-2022	28-Apr-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	23-Apr-2022	✓	19-Apr-2022	28-Apr-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	06-May-2022	✓	20-Apr-2022	06-May-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	07-May-2022	✓	20-Apr-2022	07-May-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)							
SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	05-Oct-2022	✓	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)							
SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-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_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	05-Oct-2022	✓	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)							
SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	----	----
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066-EM)							
SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	13-Apr-2022	22-Apr-2022	✓	14-Apr-2022	23-May-2022
Soil Glass Jar - Unpreserved (EP066-EM)							
SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	13-Apr-2022	23-Apr-2022	✓	14-Apr-2022	23-May-2022
EP074A: Monocyclic Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	11-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022
EP074H: Naphthalene							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	11-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	11-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022	✓
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	13-Apr-2022	22-Apr-2022	✓	14-Apr-2022	23-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	13-Apr-2022	23-Apr-2022	✓	14-Apr-2022	23-May-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	13-Apr-2022	22-Apr-2022	✓	14-Apr-2022	23-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	13-Apr-2022	23-Apr-2022	✓	14-Apr-2022	23-May-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	13-Apr-2022	22-Apr-2022	✓	14-Apr-2022	23-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	13-Apr-2022	23-Apr-2022	✓	14-Apr-2022	23-May-2022	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	13-Apr-2022	22-Apr-2022	✓	14-Apr-2022	23-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	13-Apr-2022	23-Apr-2022	✓	14-Apr-2022	23-May-2022	✓



Matrix: SOIL

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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_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	13-Apr-2022	22-Apr-2022	✓	14-Apr-2022	23-May-2022	✓	
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	11-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	13-Apr-2022	23-Apr-2022	✓	14-Apr-2022	23-May-2022	✓	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	11-Apr-2022	15-Apr-2022	✓	12-Apr-2022	15-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	13-Apr-2022	22-Apr-2022	✓	14-Apr-2022	23-May-2022	✓	
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	11-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	13-Apr-2022	23-Apr-2022	✓	14-Apr-2022	23-May-2022	✓	
EP231A: Perfluoroalkyl Sulfonic Acids									
HDPE Soil Jar (EP231X) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	05-Oct-2022	✓	14-Apr-2022	24-May-2022	✓	
HDPE Soil Jar (EP231X) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	14-Apr-2022	24-May-2022	✓	



Matrix: **SOIL**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	05-Oct-2022	✓	14-Apr-2022	24-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	14-Apr-2022	24-May-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	05-Oct-2022	✓	14-Apr-2022	24-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	14-Apr-2022	24-May-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	05-Oct-2022	✓	14-Apr-2022	24-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	14-Apr-2022	24-May-2022	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS,	08-Apr-2022	14-Apr-2022	05-Oct-2022	✓	14-Apr-2022	24-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220409_04_16_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	14-Apr-2022	24-May-2022	✓

Matrix: **WATER**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation



Matrix: **WATER** Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220408_08_15_SR_Rinsate_ALS,	SX_OB_20220408_08_17_SB_Blank_ALS	08-Apr-2022	19-Apr-2022	05-Oct-2022	✓	19-Apr-2022	05-Oct-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220408_08_15_SR_Rinsate_ALS,	SX_OB_20220408_08_17_SB_Blank_ALS	08-Apr-2022	19-Apr-2022	05-Oct-2022	✓	19-Apr-2022	05-Oct-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220408_08_15_SR_Rinsate_ALS,	SX_OB_20220408_08_17_SB_Blank_ALS	08-Apr-2022	19-Apr-2022	05-Oct-2022	✓	19-Apr-2022	05-Oct-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-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		
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
HDPE (no PTFE) (EP231X-INJ)									
SX_OB_20220408_08_15_SR_Rinsate_ALS,	SX_OB_20220408_08_17_SB_Blank_ALS	08-Apr-2022	19-Apr-2022	05-Oct-2022	✓	19-Apr-2022	05-Oct-2022	✓	
HDPE (no PTFE) (EP231X)									
SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-2022	✓	
EP231P: PFAS Sums									
HDPE (no PTFE) (EP231X-INJ)									
SX_OB_20220408_08_15_SR_Rinsate_ALS,	SX_OB_20220408_08_17_SB_Blank_ALS	08-Apr-2022	19-Apr-2022	05-Oct-2022	✓	19-Apr-2022	05-Oct-2022	✓	
HDPE (no PTFE) (EP231X)									
SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS,	SX_OB_20220408_07_59_SS_Duplicate_ALS, SX_IB_20220408_15_56_SS_Primary_ALS, SX_OB_20220408_16_08_SS_Primary_ALS, SX_OB_20220409_00_05_SS_Primary_ALS, SX_OB_20220408_07_59_SS_Primary_ALS, SX_IB_20220408_12_02_SS_Primary_ALS, SX_IB_20220408_16_02_SS_Triplicate_ALS, SX_OB_20220408_20_01_SS_Primary_ALS, SX_OB_20220409_04_16_SS_Primary_ALS	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-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	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	18	11.11	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	2	18	11.11	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	18	5.56	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	18	5.56	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	20	5.00	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	18	5.56	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	18	5.56	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	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	18	5.56	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	18	5.56	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	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	1	7	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	7	14.29	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	7	14.29	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	7	14.29	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.

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CLIENT: Agon Environmental				SAMPLER: Hannah - EP Risk, WOH-Agon, TG-AGON															
ADDRESS / OFFICE: Melbourne				MOBILE 1: +61 400 826 907 (Craig Trimbur)															
PROJECT MANAGER (PM): Craig Trimbur				MOBILE 2: +61 490 411 004 (David Lawson)															
PROJECT ID: JC0927				EMAIL REPORT TO: Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wtp.com.au															
SITE: Spoil Samples 9-11th 2022 WOH P.O. NO.:				EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au															
RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP				ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)															
FOR LABORATORY USE ONLY COOLER SEAL (circle appropriate) Intact: Yes No N/A SAMPLE TEMPERATURE CHILLED: Yes No		COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:					Notes:												
SAMPLE INFORMATION (note: S = Spoil, W=Water) CONTAINER INFORMATION																			
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	Spill Sample Prep	P16 plus Cr	PFAS 28 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	DI Leachate PFAS - Extended Suite								
21	SX_IB_20220409_07_31_SS_Primary_ALS	S	9/04/2022	7:31	Bucket	1	x	x	x	x	x								
22	SX_OB_20220409_07_38_SS_Primary_ALS	S	9/04/2022	7:38	Bucket	1	x	x	x	x	x								
23	SX_OB_20220409_07_40_SS_Duplicate_ALS	S	9/04/2022	7:40	Bottle	1	x	x	x	x	x								
4	SX_OB_20220409_08_37_SR_Rinsate_ALS	W	9/04/2022	8:37	Bottle	1			x										
5	SX_OB_20220409_08_41_SB_Blank_ALS	W	9/04/2022	8:41	Bucket	1			x										
24	SX_OB_20220409_11_58_SS_Primary_ALS	S	9/04/2022	11:58	Bucket	1	x	x	x	x	x								
25	SX_IB_20220409_15_47_SS_Primary_ALS	S	9/04/2022	15:47	Bucket	1	x	x	x	x	x								
26	SX_OB_20220409_15_53_SS_Triplicate_ALS	S	9/04/2022	15:53	Bucket	1	x	x	x	x	x								
27	SX_OB_20220409_15_59_SS_Primary_ALS	S	9/04/2022	15:59	Bucket	1	x	x	x	x	x								
28	SX_OB_20220409_20_19_SS_Primary_ALS	S	9/04/2022	20:19	Bucket	1	x	x	x	x	x								
29	SX_OB_20220410_00_14_SS_Primary_ALS	S	10/04/2022	00:14	Bucket	1	x	x	x	x	x								
30	SX_OB_20220410_04_16_SS_Primary_ALS	S	10/04/2022	04:16	Bucket	1	x	x	x	x	x								
31	SX_OB_20220410_07_57_SS_Primary_ALS	S	10/04/2022	7:57	Bucket	1	x	x	x	x	x								
32	SX_OB_20220410_08_02_SS_Duplicate_ALS	S	10/04/2022	8:02	Bucket	1	x	x	x	x	x								
33	SX_OB_20220410_11_54_SS_Primary_ALS	S	10/04/2022	11:54	Bucket	1	x	x	x	x	x								
34	SX_OB_20220410_15_48_SS_Triplicate_ALS	S	10/04/2022	15:48	Bucket	1	x	x	x	x	x								
35	SX_OB_20220410_15_57_SS_Primary_ALS	S	10/04/2022	15:57	Bucket	1	x	x	x	x	x								
36	SX_OB_20220410_20_03_SS_Primary_ALS	S	10/04/2022	20:03	Bucket	1	x	x	x	x	x								
37	SX_OB_20220411_00_03_SS_Primary_ALS	S	11/04/2022	0:03	Bucket	1	x	x	x	x	x								
38	SX_OB_20220411_04_09_SS_Primary_ALS	S	11/04/2022	3:09	Bucket	1	x	x	x	x	x								
RELINQUISHED BY:				RECEIVED BY:				METHOD OF SHIPMENT:											
Name: Will O'Haire		Date: 11-4-22		Name: MARK		Date:		Con' Note No:											
Of: Agon		Time: AM		Of: 460		Time:													
Name:		Date:		Name:		Date:		Transport Co:											
Of:		Time:		Of:		Time:													

Environmental Divisor
Melbourne
Work Order Reference
EM2206583



Phone - 61-3-8549 9600

mark *RO* *10/4 11:35*

SA 11/4

CERTIFICATE OF ANALYSIS

Work Order : EM2206583 Client : AGON ENVIRONMENTAL PTY LTD Contact : DAVID LAWSON Address : D1.1 63-85 TURNER STREET PORT MELBOURNE 3207 Telephone : ---- Project : JC0927 Order number : ---- C-O-C number : 20220411161944-ALS-8 Sampler : Hannah - EP Risk, TG - AGON, WOH - AGON Site : 20220411161944-ALS-8 Quote number : EN/150/19 -WGTP -Bulk Sample Quote No. of samples received : 38 No. of samples analysed : 38	Page : 1 of 53 Laboratory : Environmental Division Melbourne Contact : Josh Alexander Address : 4 Westall Rd Springvale VIC Australia 3171 Telephone : +61-3-8549 9600 Date Samples Received : 11-Apr-2022 11:35 Date Analysis Commenced : 12-Apr-2022 Issue Date : 20-Apr-2022 17:06
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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
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 Contact for details.

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

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EP075-EM: EM226583_015 Poor surrogate recovery due to matrix effects.
- EG005T: EM2206583 #15 Poor matrix spike recovery for nickel due to sample matrix. Confirmed by re-extraction and re-analysis.
- 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, PFTTrDA 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_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-001	EM2206583-002	EM2206583-003	EM2206583-006	EM2206583-007
				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 (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: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-001	EM2206583-002	EM2206583-003	EM2206583-006	EM2206583-007
				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	%	102	96.8	106	101	102
13C8-PFOA	----	0.02	%	101	99.0	101	99.5	105



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-008	EM2206583-009	EM2206583-010	EM2206583-011	EM2206583-012
				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_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-008	EM2206583-009	EM2206583-010	EM2206583-011	EM2206583-012
				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	%	101	100	102	97.0	95.9
13C8-PFOA	----	0.02	%	101	103	101	102	100



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-013	EM2206583-014	EM2206583-015	EM2206583-016	EM2206583-017
				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: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-013	EM2206583-014	EM2206583-015	EM2206583-016	EM2206583-017
				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	%	97.5	95.6	92.5	101	100
13C8-PFOA	----	0.02	%	99.2	103	97.2	102	98.9



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

		Sampling date / time		SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	----	----
Compound	CAS Number	LOR	Unit	EM2206583-018	EM2206583-019	EM2206583-020	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	----	----
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	----	----
Compound	CAS Number	LOR	Unit	EM2206583-018	EM2206583-019	EM2206583-020	-----	-----
				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	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	97.5	105	96.5	----	----
13C8-PFOA	----	0.02	%	99.2	104	101	----	----



Analytical Results

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

Sample ID

				SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-021	EM2206583-022	EM2206583-023	EM2206583-024	EM2206583-025
				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_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-021	EM2206583-022	EM2206583-023	EM2206583-024	EM2206583-025
				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	101	96.7	99.1	96.8
13C8-PFOA	----	0.02	%	101	102	100	99.2	104



Analytical Results

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

Sample ID

				SX_OB_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-026	EM2206583-027	EM2206583-028	EM2206583-029	EM2206583-030
				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_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-026	EM2206583-027	EM2206583-028	EM2206583-029	EM2206583-030
				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	%	95.5	96.0	106	98.9	96.7
13C8-PFOA	----	0.02	%	100	97.5	105	103	104



Analytical Results

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

Sample ID

				SX_OB_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-031	EM2206583-032	EM2206583-033	EM2206583-034	EM2206583-035
				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_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-031	EM2206583-032	EM2206583-033	EM2206583-034	EM2206583-035
				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	%	87.6	104	97.2	99.9	97.1
13C8-PFOA	----	0.02	%	102	103	100	102	101



Analytical Results

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

Sample ID

				SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	----	----
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	----	----
Compound	CAS Number	LOR	Unit	EM2206583-036	EM2206583-037	EM2206583-038	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



Analytical Results

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

Sample ID

				SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	----	----
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	----	----
Compound	CAS Number	LOR	Unit	EM2206583-036	EM2206583-037	EM2206583-038	-----	-----
				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	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	----	----
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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	104	107	98.4	----	----
13C8-PFOA	----	0.02	%	100	99.9	101	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-001	EM2206583-002	EM2206583-003	EM2206583-006	EM2206583-007
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	8.5	7.7	7.8	7.7	9.9
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	28.9	26.5	24.0	32.0	36.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	16	36	40	42	15
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	84	113	108	138	72
Copper	7440-50-8	5	mg/kg	56	54	54	64	47
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	145	176	164	188	120
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	90	86	88	103	69
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	1.3	<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	190	160	190	150	190
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	10.0	9.3	9.4	9.2	10.2
After HCl pH	----	0.1	pH Unit	1.1	1.0	1.0	1.1	1.4
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.1	5.0	5.0	5.0	5.6
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_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-001	EM2206583-002	EM2206583-003	EM2206583-006	EM2206583-007
				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_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-001	EM2206583-002	EM2206583-003	EM2206583-006	EM2206583-007
				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_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-001	EM2206583-002	EM2206583-003	EM2206583-006	EM2206583-007
				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_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-001	EM2206583-002	EM2206583-003	EM2206583-006	EM2206583-007
				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	120
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	120
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	120
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	220
>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_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-001	EM2206583-002	EM2206583-003	EM2206583-006	EM2206583-007
				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_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS	SX_OB_20220409_07_40_SS_Duplicate_ALS	SX_OB_20220409_11_58_SS_Primary_ALS	SX_IB_20220409_15_47_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:31	09-Apr-2022 07:38	09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47
Compound	CAS Number	LOR	Unit	EM2206583-001	EM2206583-002	EM2206583-003	EM2206583-006	EM2206583-007
				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	%	106	104	110	108	108
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	90.4	96.8	77.5	82.7	81.2
Toluene-D8	2037-26-5	0.1	%	88.5	98.9	76.9	82.0	83.5
4-Bromofluorobenzene	460-00-4	0.1	%	95.7	109	88.3	93.2	94.2
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	88.1	85.7	92.3	89.0	86.7
2-Chlorophenol-D4	93951-73-6	0.025	%	84.4	82.1	88.5	84.8	82.8
2,4,6-Tribromophenol	118-79-6	0.025	%	83.4	80.8	85.7	85.8	76.6
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	97.9	94.5	103	96.7	97.8
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	83.9	80.6	84.4	81.7	82.4
2-Fluorobiphenyl	321-60-8	0.025	%	88.7	87.4	91.8	90.9	86.0
Anthracene-d10	1719-06-8	0.025	%	88.0	84.9	89.0	88.7	86.0
4-Terphenyl-d14	1718-51-0	0.025	%	92.2	89.3	93.3	93.3	89.2
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	103	92.4	101	99.0	113
13C8-PFOA	----	0.0002	%	101	107	100.0	105	106



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-008	EM2206583-009	EM2206583-010	EM2206583-011	EM2206583-012
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	7.7	7.7	7.8	7.7	7.7
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	29.2	29.2	26.6	30.6	33.6
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	68	62	38	43	49
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	134	140	118	136	137
Copper	7440-50-8	5	mg/kg	65	58	58	63	60
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	194	202	183	210	188
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	106	116	89	108	106
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	160	130	160	150	150
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	8.1	8.3	9.2	8.6	9.0
After HCl pH	----	0.1	pH Unit	1.0	0.9	0.9	0.8	0.9
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.0	5.0	5.0	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_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-008	EM2206583-009	EM2206583-010	EM2206583-011	EM2206583-012
				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_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-008	EM2206583-009	EM2206583-010	EM2206583-011	EM2206583-012
				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_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-008	EM2206583-009	EM2206583-010	EM2206583-011	EM2206583-012
				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_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-008	EM2206583-009	EM2206583-010	EM2206583-011	EM2206583-012
				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_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-008	EM2206583-009	EM2206583-010	EM2206583-011	EM2206583-012
				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_20220409_15_53_SS_Triplicate_ALS	SX_OB_20220409_15_59_SS_Primary_ALS	SX_OB_20220409_20_19_SS_Primary_ALS	SX_OB_20220410_00_14_SS_Primary_ALS	SX_OB_20220410_04_16_SS_Primary_ALS
Sampling date / time				09-Apr-2022 15:53	09-Apr-2022 15:59	09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16
Compound	CAS Number	LOR	Unit	EM2206583-008	EM2206583-009	EM2206583-010	EM2206583-011	EM2206583-012
				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	108	110	108	106
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	59.6	74.4	59.1	87.1	88.9
Toluene-D8	2037-26-5	0.1	%	60.7	71.2	63.0	87.8	89.8
4-Bromofluorobenzene	460-00-4	0.1	%	71.5	82.4	70.9	95.2	101
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	98.2	93.6	96.4	96.7	87.8
2-Chlorophenol-D4	93951-73-6	0.025	%	92.2	89.4	91.9	92.2	84.6
2,4,6-Tribromophenol	118-79-6	0.025	%	86.7	84.6	85.4	87.2	81.9
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	106	101	105	103	95.8
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	88.7	86.2	84.6	87.6	80.9
2-Fluorobiphenyl	321-60-8	0.025	%	93.8	91.8	91.3	93.7	87.8
Anthracene-d10	1719-06-8	0.025	%	93.5	90.8	91.6	93.2	86.0
4-Terphenyl-d14	1718-51-0	0.025	%	95.8	93.2	94.3	95.3	88.9
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	112	104	96.0	108	105
13C8-PFOA	----	0.0002	%	107	96.4	105	101	99.2



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-013	EM2206583-014	EM2206583-015	EM2206583-016	EM2206583-017
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	7.7	7.6	7.8	7.8	7.7
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	34.1	33.6	32.9	30.9	32.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	51	38	48	38	48
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	118	87	137	92	117
Copper	7440-50-8	5	mg/kg	56	50	86	58	65
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	136	110	191	148	155
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	81	62	131	81	85
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	160	130	160	150	160
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	8.4	8.8	9.2	9.0	8.9
After HCl pH	----	0.1	pH Unit	1.0	0.9	1.0	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	5.0	5.0	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_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-013	EM2206583-014	EM2206583-015	EM2206583-016	EM2206583-017
				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_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-013	EM2206583-014	EM2206583-015	EM2206583-016	EM2206583-017
				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_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-013	EM2206583-014	EM2206583-015	EM2206583-016	EM2206583-017
				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_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-013	EM2206583-014	EM2206583-015	EM2206583-016	EM2206583-017
				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_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-013	EM2206583-014	EM2206583-015	EM2206583-016	EM2206583-017
				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_20220410_07_57_SS_Primary_ALS	SX_OB_20220410_08_02_SS_Duplicate_ALS	SX_OB_20220410_11_54_SS_Primary_ALS	SX_OB_20220410_15_48_SS_Triplicate_ALS	SX_OB_20220410_15_57_SS_Primary_ALS
Sampling date / time				10-Apr-2022 07:57	10-Apr-2022 08:02	10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57
Compound	CAS Number	LOR	Unit	EM2206583-013	EM2206583-014	EM2206583-015	EM2206583-016	EM2206583-017
				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	%	110	107	79.4	102	115
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	78.4	85.4	81.1	78.5	94.5
Toluene-D8	2037-26-5	0.1	%	80.2	83.6	80.7	77.1	96.6
4-Bromofluorobenzene	460-00-4	0.1	%	89.3	92.7	89.3	87.4	104
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	90.8	92.7	68.3	89.6	96.2
2-Chlorophenol-D4	93951-73-6	0.025	%	86.9	88.6	65.2	86.0	92.1
2,4,6-Tribromophenol	118-79-6	0.025	%	82.7	83.8	62.1	84.1	89.1
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	97.2	100	76.6	97.2	104
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	81.6	84.3	64.6	82.5	89.4
2-Fluorobiphenyl	321-60-8	0.025	%	89.4	90.4	66.0	89.8	95.9
Anthracene-d10	1719-06-8	0.025	%	87.8	88.8	64.6	87.6	93.9
4-Terphenyl-d14	1718-51-0	0.025	%	89.8	91.0	67.4	91.7	98.7
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	94.4	94.2	99.7	100	100.0
13C8-PFOA	----	0.0002	%	97.4	96.1	105	101	107



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	09-Apr-2022 07:31	09-Apr-2022 07:38	
Compound	CAS Number	LOR	Unit	EM2206583-018	EM2206583-019	EM2206583-020	EM2206583-021	EM2206583-022	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl ₂)	----	0.1	pH Unit	7.7	7.7	7.8	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	32.3	31.5	29.6	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	41	45	56	----	----	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	----	
Chromium	7440-47-3	5	mg/kg	124	112	127	----	----	
Copper	7440-50-8	5	mg/kg	55	52	74	----	----	
Lead	7439-92-1	5	mg/kg	<5	<5	<5	----	----	
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	----	----	
Nickel	7440-02-0	5	mg/kg	136	144	163	----	----	
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	----	----	
Silver	7440-22-4	2	mg/kg	<2	<2	<2	----	----	
Tin	7440-31-5	10	mg/kg	<10	<10	<10	----	----	
Zinc	7440-66-6	5	mg/kg	83	79	93	----	----	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<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	----	----	
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	----	----	
EK040T: Fluoride Total									
Fluoride	16984-48-8	100	mg/kg	160	130	140	----	----	
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit	8.9	9.1	8.9	----	----	
After HCl pH	----	0.1	pH Unit	0.9	0.9	1.0	----	----	
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	----	----	
Final pH	----	0.1	pH Unit	5.1	5.0	5.0	----	----	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Final pH	----	0.1	pH Unit	----	----	----	10.2	9.4	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----	
EP074A: Monocyclic Aromatic Hydrocarbons									



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	09-Apr-2022 07:31	09-Apr-2022 07:38
Compound	CAS Number	LOR	Unit	EM2206583-018	EM2206583-019	EM2206583-020	EM2206583-021	EM2206583-022
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	09-Apr-2022 07:31	09-Apr-2022 07:38
Compound	CAS Number	LOR	Unit	EM2206583-018	EM2206583-019	EM2206583-020	EM2206583-021	EM2206583-022
				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	----	----
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	----	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	----	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	----	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	----	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	----	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	----	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	----	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	----	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	----	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	----	----
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	09-Apr-2022 07:31	09-Apr-2022 07:38
Compound	CAS Number	LOR	Unit	EM2206583-018	EM2206583-019	EM2206583-020	EM2206583-021	EM2206583-022
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	----	----
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	<0.30	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	09-Apr-2022 07:31	09-Apr-2022 07:38	
Compound	CAS Number	LOR	Unit	EM2206583-018	EM2206583-019	EM2206583-020	EM2206583-021	EM2206583-022	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----	
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	<0.10	----	----	
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	<0.03	<0.03	<0.03	----	----	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	----	----	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	----	
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	----	----	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	----	----	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	----	----	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	----	----	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	----	----	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----	
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	----	
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	----	----	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	----	----	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	09-Apr-2022 07:31	09-Apr-2022 07:38
Compound	CAS Number	LOR	Unit	EM2206583-018	EM2206583-019	EM2206583-020	EM2206583-021	EM2206583-022
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220410_20_03_SS_Primary_ALS	SX_OB_20220411_00_03_SS_Primary_ALS	SX_OB_20220411_04_09_SS_Primary_ALS	SX_IB_20220409_07_31_SS_Primary_ALS	SX_OB_20220409_07_38_SS_Primary_ALS
Sampling date / time				10-Apr-2022 20:03	11-Apr-2022 00:03	11-Apr-2022 03:09	09-Apr-2022 07:31	09-Apr-2022 07:38	
Compound	CAS Number	LOR	Unit	EM2206583-018	EM2206583-019	EM2206583-020	EM2206583-021	EM2206583-022	
				Result	Result	Result	Result	Result	
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	<10.0	----	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
EP231P: PFAS Sums									
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	----	----	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	----	----	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	98.5	102	119	----	----	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	80.4	76.2	64.7	----	----	
Toluene-D8	2037-26-5	0.1	%	80.0	76.7	63.6	----	----	
4-Bromofluorobenzene	460-00-4	0.1	%	88.6	86.6	74.5	----	----	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	82.6	87.2	97.9	----	----	
2-Chlorophenol-D4	93951-73-6	0.025	%	79.4	83.8	92.9	----	----	
2,4,6-Tribromophenol	118-79-6	0.025	%	77.4	80.8	88.4	----	----	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	90.7	95.6	105	----	----	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	76.8	80.3	89.8	----	----	
2-Fluorobiphenyl	321-60-8	0.025	%	84.0	87.5	98.1	----	----	
Anthracene-d10	1719-06-8	0.025	%	81.1	85.4	94.5	----	----	
4-Terphenyl-d14	1718-51-0	0.025	%	85.3	88.8	98.9	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	105	110	95.4	----	----	
13C8-PFOA	----	0.0002	%	104	98.1	102	----	----	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220409_07 _40_SS_Duplicate_AL S	SX_OB_20220409_11 _58_SS_Primary_ALS	SX_IB_20220409_15_ 47_SS_Primary_ALS	SX_OB_20220409_15 _53_SS_Triplicate_AL S	SX_OB_20220409_15 _59_SS_Primary_ALS
Sampling date / time				09-Apr-2022 07:40	09-Apr-2022 11:58	09-Apr-2022 15:47	09-Apr-2022 15:53	09-Apr-2022 15:59
Compound	CAS Number	LOR	Unit	EM2206583-023	EM2206583-024	EM2206583-025	EM2206583-026	EM2206583-027
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.5	9.4	10.5	9.5	9.1



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220409_20 _19_SS_Primary_ALS	SX_OB_20220410_00 _14_SS_Primary_ALS	SX_OB_20220410_04 _16_SS_Primary_ALS	SX_OB_20220410_07 _57_SS_Primary_ALS	SX_OB_20220410_08 _02_SS_Duplicate_AL S
Sampling date / time				09-Apr-2022 20:19	10-Apr-2022 00:14	10-Apr-2022 04:16	10-Apr-2022 07:57	10-Apr-2022 08:02
Compound	CAS Number	LOR	Unit	EM2206583-028	EM2206583-029	EM2206583-030	EM2206583-031	EM2206583-032
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.5	9.2	9.2	9.3	9.2



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220410_11 _54_SS_Primary_ALS	SX_OB_20220410_15 _48_SS_Triplicate_AL S	SX_OB_20220410_15 _57_SS_Primary_ALS	SX_OB_20220410_20 _03_SS_Primary_ALS	SX_OB_20220411_00 _03_SS_Primary_ALS
Sampling date / time				10-Apr-2022 11:54	10-Apr-2022 15:48	10-Apr-2022 15:57	10-Apr-2022 20:03	11-Apr-2022 00:03
Compound	CAS Number	LOR	Unit	EM2206583-033	EM2206583-034	EM2206583-035	EM2206583-036	EM2206583-037
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.4	9.5	9.4	9.3	9.3



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	SX_OB_20220411_04 _09_SS_Primary_ALS	----	----	----	----
			Sampling date / time	11-Apr-2022 03:09	----	----	----	----
Compound	CAS Number	LOR	Unit	EM2206583-038	-----	-----	-----	-----
				Result	----	----	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.5	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_OB_20220409_08 _37_SR_Rinsate_ALS	SX_OB_20220409_08 _41_SB_Blank_ALS	----	----	----
Sampling date / time			09-Apr-2022 08:37		09-Apr-2022 08:41		----	----	----
Compound	CAS Number	LOR	Unit	EM2206583-004	EM2206583-005	-----	-----	-----	
				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	0.05	µg/L	<0.05	<0.05	----	----	----	
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_20220409_08 _37_SR_Rinsate_ALS	SX_OB_20220409_08 _41_SB_Blank_ALS	----	----	----
Sampling date / time				09-Apr-2022 08:37	09-Apr-2022 08:41	----	----	----	
Compound	CAS Number	LOR	Unit	EM2206583-004	EM2206583-005	-----	-----	-----	
				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	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<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	----	----	----	
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	----	0.10	µg/L	<0.10	<0.10	----	----	----	
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)	----	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	103	97.1	----	----	----	
13C8-PFOA	----	0.02	%	106	104	----	----	----	



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	: EM2206583	Page	: 1 of 37
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	: 11-Apr-2022
Order number	: ----	Date Analysis Commenced	: 12-Apr-2022
C-O-C number	: 20220411161944-ALS-8	Issue Date	: 20-Apr-2022
Sampler	: Hannah - EP Risk, TG - AGON, WOH - AGON		
Site	: 20220411161944-ALS-8		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 38		
No. of samples analysed	: 38		



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
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: 4287451)									
EM2206562-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	86	93	7.2	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	152	174	13.6	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	24	32	26.6	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	49	58	16.4	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	75	88	15.8	0% - 50%
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	84	90	7.2	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	145	137	5.5	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	16	18	8.4	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	56	56	0.0	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	90	94	3.5	0% - 50%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4287454)									



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: 4287454) - continued									
EM2206583-014	SX_OB_20220410_08_02_ SS_Duplicate_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	87	105	18.6	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	110	106	4.4	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	38	36	7.5	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	50	45	9.6	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	<10	<10	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	62	60	3.7	0% - 50%		
EM2206659-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	128	120	6.9	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	155	165	6.4	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	39	41	2.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	60	61	0.0	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	95	98	3.6	0% - 50%		
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4286318)									
EM2206562-011	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.8	7.8	0.0	0% - 20%
EM2206583-011	SX_OB_20220410_00_14_ SS_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.6	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4287555)									
EM2206562-001	Anonymous	EA055: Moisture Content	----	0.1	%	30.8	32.0	3.9	0% - 20%
EM2206583-002	SX_OB_20220409_07_38_ SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	26.5	28.6	7.9	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4287556)									
EM2206583-014	SX_OB_20220410_08_02_ SS_Duplicate_ALS	EA055: Moisture Content	----	0.1	%	33.6	34.2	1.8	0% - 20%
EM2206659-004	Anonymous	EA055: Moisture Content	----	0.1	%	29.5	25.2	15.7	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4287452)									
EM2206562-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4287453)									

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 Work Order : EM2206583
 Client : AGON ENVIRONMENTAL PTY LTD
 Project : JC0927



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 (%)
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4287453) - continued									
EM2206583-014	SX_OB_20220410_08_02_ SS_Duplicate_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2206659-003	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: 4287988)									
EM2206562-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4287989)									
EM2206583-014	SX_OB_20220410_08_02_ SS_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2206659-003	Anonymous	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: 4288011)									
EM2206562-006	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2206583-006	SX_OB_20220409_11_58_ SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4288012)									
EM2206583-017	SX_OB_20220410_15_57_ SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2206623-009	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4288001)									
EM2206562-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	150	160	0.0	No Limit
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	190	170	11.4	No Limit
EK040T: Fluoride Total (QC Lot: 4288002)									
EM2206583-014	SX_OB_20220410_08_02_ SS_Duplicate_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	130	130	0.0	No Limit
EM2206659-003	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	160	180	11.8	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4284833)									
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2206583-013	SX_OB_20220410_07_57_ 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: 4280654)									
EM2206583-001	SX_IB_20220409_07_31_S S_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	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)	
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4280654) - continued										
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	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	
EM2206583-013	SX_OB_20220410_07_57_ 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: 4280654)										
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
EM2206583-013	SX_OB_20220410_07_57_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
EP074I: Volatile Halogenated Compounds (QC Lot: 4280654)										
EM2206583-001	SX_IB_20220409_07_31_S S_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	
EM2206583-013	SX_OB_20220410_07_57_ 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	



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: 4280654) - continued									
EM2206583-013	SX_OB_20220410_07_57_ SS_Primary_ALS	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: 4284835)									
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<1.0	<1.0	0.0	No Limit		
EM2206583-013	SX_OB_20220410_07_57_ SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



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: 4284835) - continued									
EM2206583-013	SX_OB_20220410_07_57_ SS_Primary_ALS	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: 4284835)									
EM2206583-001	SX_IB_20220409_07_31_S S_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
EM2206583-013	SX_OB_20220410_07_57_ 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: 4284835)	SX_IB_20220409_07_31_S S_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



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: 4284835) - continued									
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	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
EM2206583-013	SX_OB_20220410_07_57_ 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: 4284835)									
EM2206583-001	SX_IB_20220409_07_31_S S_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		



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: 4284835) - continued									
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	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
EM2206583-013	SX_OB_20220410_07_57_ 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: 4280654)									
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EM2206583-013	SX_OB_20220410_07_57_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4284834)									
EM2206583-001	SX_IB_20220409_07_31_S S_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
EM2206583-013	SX_OB_20220410_07_57_ 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



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 Petroleum Hydrocarbons (QC Lot: 4284834) - continued									
EM2206583-013	SX_OB_20220410_07_57_ SS_Primary_ALS	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: 4280654)									
EM2206583-001	SX_IB_20220409_07_31_S S_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
EM2206583-013	SX_OB_20220410_07_57_ 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: 4284834)									
EM2206583-001	SX_IB_20220409_07_31_S S_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
EM2206583-013	SX_OB_20220410_07_57_ 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: 4282489)									
EM2206583-001	SX_IB_20220409_07_31_S S_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
EM2206583-013	SX_OB_20220410_07_57_ 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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4282489)									
EM2206583-001	SX_IB_20220409_07_31_S S_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



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: 4282489) - continued									
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	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
		EM2206583-013	SX_OB_20220410_07_57_ SS_Primary_ALS	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050
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: 4282489)									
EM2206583-001	SX_IB_20220409_07_31_S S_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
EM2206583-013	SX_OB_20220410_07_57_ 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



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: 4282489) - continued									
EM2206583-013	SX_OB_20220410_07_57_ SS_Primary_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: 4282489)									
EM2206583-001	SX_IB_20220409_07_31_S S_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EM2206583-013	SX_OB_20220410_07_57_ SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4282489)									
EM2206583-001	SX_IB_20220409_07_31_S S_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
EM2206583-013	SX_OB_20220410_07_57_ 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

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: 4289893)									



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: 4289893) - continued									
EM2206583-001	SX_IB_20220409_07_31_S S_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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4290066)									
EM2206583-026	SX_OB_20220409_15_53_ SS_Triplicate_ALS	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2206583-036	SX_OB_20220410_20_03_ 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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4290070)									
EM2206583-011	SX_OB_20220410_00_14_ 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
EM2206659-007	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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4292461)									
EM2206562-003	Anonymous	EP231X-INJ: 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: 4292461) - continued									
EM2206562-003	Anonymous	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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4289893)									
EM2206583-001	SX_IB_20220409_07_31_S S_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		
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4290066)									
EM2206583-026	SX_OB_20220409_15_53_ SS_Triplicate_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		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		
EM2206583-036	SX_OB_20220410_20_03_ 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



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: 4290066) - continued									
EM2206583-036	SX_OB_20220410_20_03_ SS_Primary_ALS	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: 4290070)									
EM2206583-011	SX_OB_20220410_00_14_ 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
EM2206659-007	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: 4292461)									
EM2206562-003	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



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: 4292461) - continued									
EM2206562-003	Anonymous	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4289893)									
EM2206583-001	SX_IB_20220409_07_31_S S_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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4290066)									
EM2206583-026	SX_OB_20220409_15_53_ SS_Triplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2206583-036	SX_OB_20220410_20_03_ 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: 4290066) - continued									
EM2206583-036	SX_OB_20220410_20_03_ 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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4290070)									
EM2206583-011	SX_OB_20220410_00_14_ 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
EM2206659-007	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4292461)									
EM2206562-003	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4292461) - continued									
EM2206562-003	Anonymous	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4289893)									
EM2206583-001	SX_IB_20220409_07_31_S S_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: 4290066)									
EM2206583-026	SX_OB_20220409_15_53_ SS_Triplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2206583-036	SX_OB_20220410_20_03_ 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: 4290070)									
EM2206583-011	SX_OB_20220410_00_14_ 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



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: 4290070) - continued									
EM2206583-011	SX_OB_20220410_00_14_SS_Primary_ALS	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
EM2206659-007	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4292461)									
EM2206562-003	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
EP231P: PFAS Sums (QC Lot: 4289893)									
EM2206583-001	SX_IB_20220409_07_31_S 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
EP231P: PFAS Sums (QC Lot: 4290066)									
EM2206583-026	SX_OB_20220409_15_53_SS_Triplicate_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit
EM2206583-036	SX_OB_20220410_20_03_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



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: 4290070)									
EM2206583-011	SX_OB_20220410_00_14_ 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
EM2206659-007	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
EP231P: PFAS Sums (QC Lot: 4292461)									
EM2206562-003	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



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: 4287451)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	100	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	63.8	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	98.7	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	90.6	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	102	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	96.9	70.0	130	
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----	
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	83.5	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	109	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	76.6	70.0	130	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4287454)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	108	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	70.1	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	109	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	106	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	97.5	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	83.0	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	104	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	89.1	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	102	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	81.9	70.0	130	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4287874)									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.6	----	----	----	----	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4287875)									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.6	----	----	----	----	
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4286318)									
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: 4287452)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	91.4	70.0	130	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4287453)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	112	70.0	130	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4287988)									
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	81.9	70.0	130	
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4287989)									
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	85.9	70.0	130	
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4288011)									
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	81.1	70.0	130	
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4288012)									
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	101	70.0	130	
EK040T: Fluoride Total (QCLot: 4288001)									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	83.5	75.2	110	
EK040T: Fluoride Total (QCLot: 4288002)									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	75.7	75.2	110	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4284833)									
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	105	67.4	136	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4280654)									
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	99.0	69.2	116	
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	96.3	67.7	116	
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	94.7	66.6	115	
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	91.1	65.2	112	
	106-42-3								
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	93.6	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	90.1	68.4	110	
EP074H: Naphthalene (QCLot: 4280654)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	90.1	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4280654)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	122	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	110	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	101	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	110	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	102	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	99.8	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	103	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	105	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	101	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	100	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	97.4	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	102	71.8	116	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	High
EP074I: Volatile Halogenated Compounds (QCLot: 4280654) - continued									
EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	96.0	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	89.2	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	97.6	70.3	113	
EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	91.5	62.6	113	
EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	95.6	70.8	110	
EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	91.1	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4284835)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	86.2	74.5	126	
EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	80.2	72.7	126	
EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	80.9	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	80.8	72.8	128	
EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	79.5	73.3	134	
EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	80.5	72.4	128	
EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	80.8	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	4 mg/kg	83.3	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	81.0	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4284835)									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	88.2	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	85.0	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	86.7	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	79.6	70.9	133	
EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	73.6	71.8	132	
EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	91.0	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	85.8	65.3	134	
EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	81.4	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	82.6	62.0	128	
EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	80.4	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4284835)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	82.6	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	84.8	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	82.4	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	84.3	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	84.5	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	83.4	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	84.2	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	84.9	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	87.2	69.6	133	



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	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4284835) - continued								
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	88.2	75.0	133
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	88.9	75.8	133
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	88.3	65.1	130
EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	88.4	72.1	134
EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	87.9	72.9	135
EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	89.5	71.3	134
EP075I: Organochlorine Pesticides (QCLot: 4284835)								
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	82.6	71.0	129
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	84.5	74.8	126
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	84.0	75.7	130
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	83.4	70.8	130
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	84.7	76.5	134
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	83.3	75.5	131
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	81.2	76.8	130
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	86.0	73.6	130
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	84.2	75.0	133
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	84.7	75.3	131
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	72.3	69.4	134
EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	87.7	71.0	132
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	86.0	78.0	133
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	79.7	69.0	143
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	84.8	55.7	145
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	85.7	71.4	135
EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	87.7	74.8	134
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	86.1	70.2	135
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	84.8	77.7	133
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	86.8	63.6	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4280654)								
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	98.6	61.1	119
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4284834)								
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	680 mg/kg	81.7	74.4	129
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2830 mg/kg	104	81.0	123
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1340 mg/kg	106	81.8	121
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	4850 mg/kg	102	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4280654)								
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	97.4	59.9	119



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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4280654) - continued								
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4284834)								
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	980 mg/kg	93.9	75.4	132
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3210 mg/kg	117	80.8	120
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	270 mg/kg	84.6	73.3	136
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5580 mg/kg	87.8	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4282489)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	97.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	89.1	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	76.7	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	101	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	92.4	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	93.6	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4282489)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	87.8	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.4	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.6	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	95.0	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.9	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.3	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.7	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	75.4	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.9	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4282489)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.5	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	84.9	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	98.3	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.8	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	85.9	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.4	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	61.0	139



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4282489)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	92.2	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	95.5	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	98.3	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	89.4	70.0	130	
EP231P: PFAS Sums (QCLot: 4282489)									
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	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4289893)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	111	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	110	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	104	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	112	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	99.3	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	99.1	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4290066)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	99.7	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	100	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	97.2	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	104	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	112	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4290070)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	97.5	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	94.4	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	90.7	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.6	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	105	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	108	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4292461)									
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	102	72.0	130	
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	92.6	71.0	127	
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	93.6	68.0	131	
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	98.2	69.0	134	



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	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4292461) - continued									
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	90.9	65.0	140	
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	103	53.0	142	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4289893)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.4	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	85.5	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	98.2	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	97.6	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	117	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.9	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	94.5	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.9	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	105	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4290066)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	92.2	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	81.2	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	99.3	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	98.9	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	120	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	95.0	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.8	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.0	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	110	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4290070)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	93.6	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	84.5	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	97.8	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	91.8	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	114	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.8	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	97.3	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	95.5	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	104	71.0	132	



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: 4292461)									
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	93.4	73.0	129	
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	104	72.0	129	
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	92.1	72.0	129	
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	94.1	72.0	130	
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	92.6	71.0	133	
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	97.2	69.0	130	
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	84.8	71.0	129	
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	82.6	69.0	133	
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	101	72.0	134	
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	80.4	65.0	144	
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	95.8	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4289893)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	95.8	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	106	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	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.0	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	98.2	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	99.5	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	82.3	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4290066)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	106	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	123	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	108	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.6	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	102	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	95.8	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	94.5	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4290070)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	103	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	102	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	91.3	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: 4290070) - continued									
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	95.5	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	100	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	89.0	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	92.7	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4292461)									
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	102	67.0	137	
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	92.6	68.0	141	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	100	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	92.4	70.0	130	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	99.1	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	106	65.0	136	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	112	61.0	135	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4289893)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	91.8	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	110	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	104	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	85.9	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4290066)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	93.5	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	107	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	109	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	99.4	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4290070)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	99.3	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	116	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	118	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	99.2	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4292461)									
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	99.0	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	114	64.0	140	



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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4292461) - continued								
EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.48 µg/L	110	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	70.5	70.0	130
EP231P: PFAS Sums (QCLot: 4289893)								
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: 4290066)								
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: 4290070)								
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: 4292461)								
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	----	----	----	----

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
				MS	Low	High	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4287451)							
EM2206562-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	83.7	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	89.8	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	82.0	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	98.4	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	90.2	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	90.5	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	89.4	80.0	120



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4287454)							
EM2206583-015	SX_OB_20220410_11_54_SS_Primary_ALS	EG005T: Nickel	7440-02-0	50 mg/kg	# 25.6	78.0	120
EM2206583-015	SX_OB_20220410_11_54_SS_Primary_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	90.6	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	96.0	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	119	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	96.9	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	96.3	80.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	86.1	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4287452)							
EM2206562-002	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	104	76.0	116
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4287453)							
EM2206583-015	SX_OB_20220410_11_54_SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	114	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4287988)							
EM2206562-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	83.2	58.0	114
EM2206562-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	96.8	58.0	114
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4287989)							
EM2206583-015	SX_OB_20220410_11_54_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	86.8	58.0	114
EM2206583-015	SX_OB_20220410_11_54_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	96.7	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4288011)							
EM2206562-007	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	96.3	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4288012)							
EM2206583-018	SX_OB_20220410_20_03_SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	20 mg/kg	96.3	70.0	130
EK040T: Fluoride Total (QCLot: 4288001)							
EM2206562-002	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	74.4	70.0	130
EK040T: Fluoride Total (QCLot: 4288002)							
EM2206583-015	SX_OB_20220410_11_54_SS_Primary_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	97.1	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4284833)							
EM2206583-003	SX_OB_20220409_07_40_SS_Duplicate_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	106	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4280654)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	66.4	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	77.8	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4280654)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	43.2	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	66.2	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	77.7	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4284835)							



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
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4284835) - continued							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	94.0	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	93.8	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	89.4	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4284835)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP075-EM: Phenol	108-95-2	3 mg/kg	94.4	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	89.5	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4284835)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	90.8	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	92.2	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4280654)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	74.0	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4284834)							
EM2206583-006	SX_OB_20220409_11_58_SS_Primary_ALS	EP071-EM: C10 - C14 Fraction	----	760 mg/kg	75.4	71.3	126
		EP071-EM: C15 - C28 Fraction	----	3270 mg/kg	84.1	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1550 mg/kg	84.9	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5580 mg/kg	82.9	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4280654)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	72.0	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4284834)							
EM2206583-006	SX_OB_20220409_11_58_SS_Primary_ALS	EP071-EM: >C10 - C16 Fraction	----	1110 mg/kg	78.0	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	4180 mg/kg	84.9	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	290 mg/kg	81.7	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5580 mg/kg	83.1	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4282489)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	98.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	73.3	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	94.2	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	121	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	87.9	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	111	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4282489)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	86.2	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	74.8	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	98.3	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	92.9	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	91.8	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
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4282489) - continued							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	88.4	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	112	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	90.9	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	84.2	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	73.9	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	100.0	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4282489)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	99.5	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	84.3	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	93.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	89.6	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	88.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	91.1	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	94.7	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4282489)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	86.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	106	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	94.6	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	78.6	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: 4289893)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	97.9	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	99.0	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	101	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	111	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	96.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4290066)							
EM2206583-027	SX_OB_20220409_15_59_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	100	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	96.7	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	95.0	68.0	131



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: 4290066) - continued							
EM2206583-027	SX_OB_20220409_15_59_SS_Primary_ALS	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	102	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	99.2	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	92.1	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4290070)							
EM2206583-012	SX_OB_20220410_04_16_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	104	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	96.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	96.3	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	105	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	102	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	105	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4292461)							
EM2206562-004	Anonymous	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	105	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	112	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	102	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	118	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	91.3	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	108	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4289893)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.7	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	89.9	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	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	96.8	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	109	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	99.2	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	94.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	108	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4290066)					
EM2206583-027	SX_OB_20220409_15_59_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	93.1	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	83.7	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	96.2	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	97.2	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	91.3	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	115	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	99.4	69.0	133



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: 4290066) - continued							
EM2206583-027	SX_OB_20220409_15_59_SS_Primary_ALS	EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	93.5	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.25 µg/L	90.7	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	104	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4290070)							
EM2206583-012	SX_OB_20220410_04_16_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	92.4	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	91.2	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	94.7	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	100	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	92.4	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	116	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	97.3	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	96.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.25 µg/L	86.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	105	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4292461)							
EM2206562-004	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	95.0	73.0	129
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	93.6	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	97.1	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	97.4	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	92.9	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	95.2	69.0	130
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	97.4	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	81.3	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	94.2	72.0	134
		EP231X-INJ: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.5 µg/L	81.9	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	95.5	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4289893)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	98.9	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	97.7	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	95.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	107	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	98.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	99.2	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: 4289893) - continued							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	85.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4290066)							
EM2206583-027	SX_OB_20220409_15_59_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	96.0	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	96.7	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	97.4	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	96.0	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	97.5	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	93.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4290070)							
EM2206583-012	SX_OB_20220410_04_16_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	99.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	100	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	99.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	102	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	100	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	95.3	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	97.9	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4292461)							
EM2206562-004	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	98.4	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	91.9	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	103	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	96.6	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	100	70.0	130



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Spike	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4292461) - continued							
EM2206562-004	Anonymous	EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	105	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	111	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4289893)							
EM2206583-002	SX_OB_20220409_07_38_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	97.6	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	116	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	85.6	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4290066)							
EM2206583-027	SX_OB_20220409_15_59_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	102	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	104	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	85.3	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4290070)							
EM2206583-012	SX_OB_20220410_04_16_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	92.3	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	112	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	107	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	88.5	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4292461)							
EM2206562-004	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	107	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	115	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	109	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	84.5	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2206583	Page	: 1 of 20
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 11-Apr-2022
Site	: 20220411161944-ALS-8	Issue Date	: 20-Apr-2022
Sampler	: Hannah - EP Risk, TG - AGON, WOH - AGON	No. of samples received	: 38
Order number	: ----	No. of samples analysed	: 38

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EG005(ED093)T: Total Metals by ICP-AES	EM2206583--015	SX_OB_20220410_11_54_SS	Nickel	7440-02-0	25.6 %	78.0-120%	Recovery less than lower data quality objective

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP075T: Base/Neutral Extractable Surrogates (Waste C	EM2206583-015	SX_OB_20220410_11_54_SS	2-Fluorobiphenyl	321-60-8	66.0 %	68.9-131 %	Recovery less than lower data quality objective
EP075T: Base/Neutral Extractable Surrogates (Waste C	EM2206583-015	SX_OB_20220410_11_54_SS	Anthracene-d10	1719-06-8	64.6 %	69.6-133 %	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_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	16-Apr-2022	✓	14-Apr-2022	15-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA001) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	17-Apr-2022	✓	14-Apr-2022	15-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA001) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	18-Apr-2022	✓	14-Apr-2022	15-Apr-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	----	----	----	14-Apr-2022	23-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	----	----	----	14-Apr-2022	24-Apr-2022	✓
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	----	----	----	14-Apr-2022	25-Apr-2022	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	14-Apr-2022	06-Oct-2022	✓
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	07-Oct-2022	✓	14-Apr-2022	07-Oct-2022	✓
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	08-Oct-2022	✓	14-Apr-2022	08-Oct-2022	✓
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	07-May-2022	✓	14-Apr-2022	07-May-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	08-May-2022	✓	14-Apr-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	09-May-2022	✓	14-Apr-2022	09-May-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	07-May-2022	✓	19-Apr-2022	21-Apr-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	08-May-2022	✓	19-Apr-2022	21-Apr-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	09-May-2022	✓	19-Apr-2022	21-Apr-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	23-Apr-2022	✓	19-Apr-2022	28-Apr-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	24-Apr-2022	✓	19-Apr-2022	28-Apr-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	25-Apr-2022	✓	19-Apr-2022	28-Apr-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	07-May-2022	✓	20-Apr-2022	07-May-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	08-May-2022	✓	20-Apr-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	09-May-2022	✓	20-Apr-2022	09-May-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	07-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_OB_20220411_00_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	08-Oct-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_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	06-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	07-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P) SX_OB_20220411_00_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	08-Oct-2022	✓	----	----	----
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066-EM) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	23-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	24-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM) SX_OB_20220411_00_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	25-Apr-2022	✓	14-Apr-2022	24-May-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis				
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation		
EP074A: Monocyclic Aromatic Hydrocarbons									
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220409_07_31_SS_Primary_ALS, SX_IB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_IB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	12-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	12-Apr-2022	17-Apr-2022	✓	12-Apr-2022	17-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	12-Apr-2022	18-Apr-2022	✓	12-Apr-2022	18-Apr-2022	✓	
EP074H: Naphthalene									
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220409_07_31_SS_Primary_ALS, SX_IB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_IB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	12-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	12-Apr-2022	17-Apr-2022	✓	12-Apr-2022	17-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	12-Apr-2022	18-Apr-2022	✓	12-Apr-2022	18-Apr-2022	✓	
EP074I: Volatile Halogenated Compounds									
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220409_07_31_SS_Primary_ALS, SX_IB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_IB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	12-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	12-Apr-2022	17-Apr-2022	✓	12-Apr-2022	17-Apr-2022	✓	
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	12-Apr-2022	18-Apr-2022	✓	12-Apr-2022	18-Apr-2022	✓	



Matrix: SOIL

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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_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	23-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	24-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	25-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	23-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	24-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	25-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	23-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	24-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	25-Apr-2022	✓	14-Apr-2022	24-May-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	23-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	24-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	25-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	12-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	23-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	12-Apr-2022	17-Apr-2022	✓	12-Apr-2022	17-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	24-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	12-Apr-2022	18-Apr-2022	✓	12-Apr-2022	18-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	25-Apr-2022	✓	14-Apr-2022	24-May-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	12-Apr-2022	16-Apr-2022	✓	12-Apr-2022	16-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	14-Apr-2022	23-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	12-Apr-2022	17-Apr-2022	✓	12-Apr-2022	17-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	14-Apr-2022	24-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	12-Apr-2022	18-Apr-2022	✓	12-Apr-2022	18-Apr-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	14-Apr-2022	25-Apr-2022	✓	14-Apr-2022	24-May-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	15-Apr-2022	06-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	15-Apr-2022	07-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	15-Apr-2022	08-Oct-2022	✓	15-Apr-2022	25-May-2022	✓



Matrix: SOIL

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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_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	15-Apr-2022	06-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	15-Apr-2022	07-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	15-Apr-2022	08-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	15-Apr-2022	06-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	15-Apr-2022	07-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	15-Apr-2022	08-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	15-Apr-2022	06-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	15-Apr-2022	07-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	15-Apr-2022	08-Oct-2022	✓	15-Apr-2022	25-May-2022	✓



Matrix: **SOIL**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS	09-Apr-2022	15-Apr-2022	06-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS,	SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS	10-Apr-2022	15-Apr-2022	07-Oct-2022	✓	15-Apr-2022	25-May-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220411_04_09_SS_Primary_ALS	11-Apr-2022	15-Apr-2022	08-Oct-2022	✓	15-Apr-2022	25-May-2022	✓

Matrix: **WATER**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X-INJ) SX_OB_20220409_08_37_SR_Rinsate_ALS,	SX_OB_20220409_08_41_SB_Blank_ALS	09-Apr-2022	19-Apr-2022	06-Oct-2022	✓	19-Apr-2022	06-Oct-2022	✓
HDPE (no PTFE) (EP231X) SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS, SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS, SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-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_20220409_08_37_SR_Rinsate_ALS,	SX_OB_20220409_08_41_SB_Blank_ALS	09-Apr-2022	19-Apr-2022	06-Oct-2022	✓	19-Apr-2022	06-Oct-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS, SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS, SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-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_20220409_08_37_SR_Rinsate_ALS, SX_OB_20220409_08_41_SB_Blank_ALS	09-Apr-2022	19-Apr-2022	06-Oct-2022	✓	19-Apr-2022	06-Oct-2022	✓	
HDPE (no PTFE) (EP231X)								
SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS, SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS,	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-2022	✓	
SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS, SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS								



Matrix: WATER

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220409_08_37_SR_Rinsate_ALS, SX_OB_20220409_08_37_SR_Rinsate_ALS	SX_OB_20220409_08_41_SB_Blank_ALS	09-Apr-2022	19-Apr-2022	06-Oct-2022	✓	19-Apr-2022	06-Oct-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS, SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS, SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-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_20220409_08_37_SR_Rinsate_ALS,	SX_OB_20220409_08_41_SB_Blank_ALS	09-Apr-2022	19-Apr-2022	06-Oct-2022	✓	19-Apr-2022	06-Oct-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS, SX_IB_20220409_07_31_SS_Primary_ALS, SX_OB_20220409_07_40_SS_Duplicate_ALS, SX_IB_20220409_15_47_SS_Primary_ALS, SX_OB_20220409_15_59_SS_Primary_ALS, SX_OB_20220410_00_14_SS_Primary_ALS, SX_OB_20220410_07_57_SS_Primary_ALS, SX_OB_20220410_11_54_SS_Primary_ALS, SX_OB_20220410_15_57_SS_Primary_ALS, SX_OB_20220411_00_03_SS_Primary_ALS,	SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS, SX_OB_20220409_07_38_SS_Primary_ALS, SX_OB_20220409_11_58_SS_Primary_ALS, SX_OB_20220409_15_53_SS_Triplicate_ALS, SX_OB_20220409_20_19_SS_Primary_ALS, SX_OB_20220410_04_16_SS_Primary_ALS, SX_OB_20220410_08_02_SS_Duplicate_ALS, SX_OB_20220410_15_48_SS_Triplicate_ALS, SX_OB_20220410_20_03_SS_Primary_ALS, SX_OB_20220411_04_09_SS_Primary_ALS	14-Apr-2022	16-Apr-2022	11-Oct-2022	✓	16-Apr-2022	11-Oct-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	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	11.11	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	18	11.11	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	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	5.56	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	18	5.56	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	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	18	5.56	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	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	18	5.56	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	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	18	5.56	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	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	3	37	8.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	18	5.56	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	5	45	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	45	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	45	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	45	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	14.29	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.