Monthly Water Quality Monitoring Results Cabbage Tree Road Sand Quarry, NSW

November 2022 Monitoring Event

NCA22R147875

5 December 2022

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Williamtown Sand Syndicate (WSS)
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Attention: Darren Williams

Subject: Monthly Water Quality Monitoring Results Cabbage Tree Road Sand Quarry, NSW
November 2022 Monitoring Event

Please find enclosed the quarterly water quality monitoring results for the November 2022 monitoring event undertaken by Kleinfelder at the Cabbage Tree Road Sand Quarry, NSW (herein referred to as the 'site').

1 SCOPE OF WORK

The scope of work presented in this report includes the results from the monthly surface and groundwater monitoring event with the additional quarterly scope undertaken in accordance with the NSW Environment Protection Authority (EPA) and Department of Planning and Environment (DPE) requirements for monthly water quality monitoring at the quarry. **Figure 1** (**Attachment 1**) presents the surface water and groundwater sampling locations.

The scheduled November 2022 quarterly monitoring event included gauging of all available monitoring wells (a total of 14 wells), recording of field parameters for groundwater and surface water, and sampling from eight monitoring wells and four surface water locations. Furthermore, a wash plant fines and wash plant water sample were taken as part of the quarterly water monitoring program outlined in the Soil and Water Management Plan (SWMP, 2021).

Site work

The quarterly monitoring round was conducted on the 18th of November 2022 and comprised:

- Gauging of fourteen (14) monitoring wells (BH1A, BH2, BH4, BH5, BH6, BH7, BH8, BH9, BH9A, BH10, BH11, BH12A, MS239D & MW239S).
- Groundwater sampling from eight (8) monitoring wells (BH2, BH4, BH6, BH7, BH8, BH9A, BH11 & MW239S) as summarised in **Table 5** and detailed in **Attachment 2**.
- Surface water sampling from four (4) locations (SW1, SW2, SW3 & SW4) as summarised in **Table 6** and detailed in **Attachment 2.**
- One (1) wash plant fines sample (WPF) as summarised in **Table 7** and detailed in **Attachment 2.**
- One (1) wash plant water sample (WPW) as summarised in **Table 8** and detailed in **Attachment 2.**

Each well location was gauged using a water level meter to determine groundwater depth (relative to the top of the well casing) and the total depth of the well in order to determine potential sand/silt inundation and potential maintenance requirements. Following gauging, a HydraSleeve was placed into the well, ensuring the top of the sleeve was located midway into the water column to be sampled, and suspended in place while all remaining wells were gauged. Each HydraSleeve was then removed from the well and representative groundwater samples taken.

The surface water and wash plant water samples were taken directly into laboratory supplied sample containers using a gloved hand. Where access was deemed unsafe, a telescopic sampling pole was used.

Wash plant fines were collected directly into laboratory supplied sample containers. All samples collected were placed into an ice chilled esky and then submitted to a NATA accredited laboratory under a chain of custody (COC) for the analytical schedule as per **Table 1**.

Table 1: Summary of Quarterly Water Quality Analysis (November 2022)

Analysis	Number of Samples				
	Primary	Intra-lab (Duplicate)	Inter-lab (Triplicate)	Transport Blank	Rinsate Blank
Hydrocarbons*	12	1	0	1	1
Metals**	14 (8 x GW, 4 x SW, 1 x WPW & 1 x WPF)	0	0	1	1
PFAS (28 analytes, standard level)	14	2	0	1	1

* TRH (C6 – C40) (Silica Gel Clean Up)
** Metals Suite (dissolved) –

- Groundwater (GW)- Arsenic (As), Barium (Ba), Chromium (Cr), Copper (Cu), Iron (Fe), Manganese (Mn), Nickel (Ni), Zinc (Zn)
- Surface Water (SW) – As, Ba, Boron (B), Cr, Cobalt (Co), Cu, Fe, Mn, Ni, Zn
- Wash Plant Water (WPW) – As, Fe, Mn
- Wash Plant Fines (WPF) – As, Ba, Cr, Cu, Fe, Mn, Ni, Zn

Table 2 provides a summary of the gauging data for November 2022. The full set of gauging data for each monitoring location is provided in **Table 5**, **Attachment 2**. Additionally, Watershed HydroGeo (2019) outlined a Trigger Action and Response Plan (TARP) to mitigate groundwater elevations that may potentially impact Cabbage Tree Road Sand Quarry operations (primarily sand excavation depths). Based on these recommendations, groundwater elevation has been shaded to correspond to triggers and actions outlined in **Table 3.**

As monitoring wells BH1A, BH2, BH10 and BH11 have triggered the TARP rules outlined below in **Table 3**, weekly monitoring of groundwater levels is required at these locations until water levels decline to below inferred maximum historical levels listed in **Table 2**. WSS have taken over the weekly gauging of the affected wells as of 17 June 2022, therefore, groundwater elevation data is being collected by WSS directly following the June GME. It is also recommended that the Minimum Extraction Level (MEL) be re-analysed and reviewed for BH1A, BH2, BH10 and BH11, in accordance with their respective TARP Level 1, Level 2 and Level 3 trigger responses.

Table 2: Summary of Gauging Data for November 2022

Well ID	Top of Casing (mAHD)	Depth to Water (mBTOC)	Ground-water Elevation (mAHD)	Well Total Depth Current (mBTOC)	Well Total Depth 2014 (mBTOC)	Inferred Max GW Elevation (mAHD)[1]	Difference Between Inferred Max and Measured GW Elevation (mAHD)	Comment
BH1A	8.98	4.17	4.81	12.29	NA	4.5[2]	-0.31	Gauge only
BH2	7.79	4.38	3.41	9.95	9.45	3.8	0.39	Light brown, no odour / sheen, well in good condition
BH4	3.06	0.95	2.11	6.01	6.45	3.0[3]	0.89	Clear, no odour / sheen, well in good condition
BH5	7.36	5.191	2.169	8.82	9.28	4.0	1.831	Gauge only
BH6	3.62	0.805	2.815	4.54	4.95	4.4	2.215	Cloudy, low sulfur odour, no sheen,

Well ID	Top of Casing (mAHD)	Depth to Water (mBTOC)	Ground-water Elevation (mAHD)	Well Total Depth Current (mBTOC)	Well Total Depth 2014 (mBTOC)	Inferred Max GW Elevation (mAHD)[1]	Difference Between Inferred Max and Measured GW Elevation (mAHD)	Comment
								well in good condition
BH7	2.98	1.09	1.89	5.50	4.95	3.7	1.81	Light brown, low sulfur odour, no sheen, well in good condition
BH8	3.88	1.825	2.055	6.04	6.28	4.0	1.945	Gauge only
BH9	17.75	15.459	2.291	16.32	18.8	3.0[3]	0.709	Gauge only, well in good condition
BH9A	10.75	8.521	2.229	12.43	16.16	3.0[3]	0.771	Brown, No odour / sheen, well in good condition
BH10	6.69	2.09	4.6	3.48	5.45	4.9	0.3	Gauge only
BH11	6.63	1.18	5.45	5.29	5.95	5.5	0.05	Yellow, moderate sulfur odour, no sheen, well in good condition
BH12A	5.62	2.43	3.19	7.39	NA	4.0[5]-	0.81	Gauge Only
MW239S	3.04	0.76	2.28	3.82	4.0	3.9[4]	1.62	Cloudy, low sulfur odour, no sheen, well in good condition
MW239D	3.04	0.74	2.3	20.49	20.49	3.9[3]	1.6	Gauge only
SW01*	N/A	-	N/A	N/A	N/A	N/A	N/A	Light brown, low sulfur odour, no sheen
SW02*	N/A	-	N/A	N/A	N/A	N/A	N/A	Clear, low sulfur odour, no sheen
SW03*	N/A	-	N/A	N/A	N/A	N/A	N/A	Light brown, low sulfur odour, no sheen
SW04*	N/A	-	N/A	N/A	N/A	N/A	N/A	Clear, low sulfur odour no sheen

* Surface water levels representing depth of water as read at time of sampling from an installed measuring tape (when dry number is ground elevation AHD).

[1] – Sourced from Watershed HydroGeo ,2019, *Maximum Extraction Depth Management Plan, Cabbage Tree Road Sand Quarry*, May 2019.

[2] – Inferred Max Groundwater level based on former adjacent well (BH1)
[3] – Inferred Max Groundwater level based on adjacent wells (BH4 & BH9)
[4] – Inferred Max Groundwater level based on adjacent well (MW239S)
[5] – Inferred Max Groundwater level based on former adjacent well (BH12).
N/A – Not applicable

Table 3: Groundwater Level Monitoring TARP Rules (Watershed HydroGeo, 2019)

Level	Trigger	Action and Response	Report / Response Actions
0	Groundwater levels more than 0.5 m below *inferred* maximum historical level at BH1 and BH10. (**Table 2**).	Standard operations – monthly dipping of operational on-site monitoring bores.	N/A
1	Groundwater levels within 0.5 m below *inferred* maximum historical level (**Table 2**) at any on-site bore.	Weekly (or more frequent) monitoring (dipping) of groundwater levels until water level declines to below high frequency level bores listed in **Table 2**.	Internal and environmental consultant. Include note in Annual Report.
2	Groundwater levels within 0.25 m of *inferred* maximum historical level (**Table 2**) at any on-site bore.	Weekly (or more frequent) monitoring (dipping) of groundwater levels. Re-analysis and review of Minimum Extraction Level (MEL).	WSS to issue letter to DPIE, documenting groundwater level and rainfall trends, review and make recommendations regarding MEL.
3	Groundwater levels within resource area rise above previously *inferred* maximum groundwater level (**Table 2**).	Analysis of recent data by hydrogeologist, including site data and data from local HWC wells and local Defence wells (if available). Revision of MEL. Remediation of earlier excavations to revised MEL if required by DPIE.	WSS to issue letter to DPIE, DoI Water and HWC, documenting groundwater level trends, and revision (if necessary) of MEL. Letter to outline remedial options, considering access, vegetation condition in previously rehabilitated areas. Re-grading of previously rehabilitated areas if required by DPIE.

Table 4 provides a summary of the field parameters taken during the November 2022 monitoring event. All field parameters for each monitoring location are detailed in the field sheets provided in **Attachment 2**. All values excluding BH6 were found to be within the trigger value range outlined in the SWMP (7 July 2021). The pH for BH6 (4.14) was found to be slightly outside of the site-specific trigger value range (4.2-6.5) noting BH6 is considered upgradient from current site operations.

Table 4: Summary of Field Measurements

Borehole	Turbidity (NTU)	Temp (^{0}C)	DO (mg/L)	EC (µc/cm)	TDS (mg/L)	pH	Redox (mV)
BH1A	ND	ND	ND	ND	ND	ND	ND
BH2	52.26	19	1.90	73.2	54	4.70	213.9
BH4	20.29	16.8	3.57	80.2	62	5.32	170.6
BH5	ND	ND	ND	ND	ND	ND	ND
BH6	73.96	21.7	2.29	224.4	156	4.14	-85.2
BH7	22.45	22.1	3.35	78.4	54	4.75	-92.5
BH8	128.9	20.7	3.40	98.5	69	4.66	-97.2
BH9	ND	ND	ND	ND	ND	ND	ND
BH9A	46.51	18.1	2.04	112	84	4.79	86.3
BH10	ND	ND	ND	ND	ND	ND	ND
BH11	14.15	18.8	2.01	120.7	89	4.47	-100.5
BH12A	ND	ND	ND	ND	ND	ND	ND
MW239S	52.37	22	1.93	97.3	67	4.74	-113.0
MW239D	ND	ND	ND	ND	ND	ND	ND
SW1	6.20	15.9	0.89	99.5	78	5.45	154.6
SW2	13.67	18.4	2.49	82.5	61	4.62	122.0
SW3	17.11	19.5	3.09	227.1	164	5.62	80.4
SW4	3.96	22.4	3.50	217.9	149	4.43	130.2
WPW	23.44	24.33	8.57	253.6	167	4.77	209.5

ND: No Data – no sample taken

Table 5 and **Table 6** below presents a summary of the water monitoring results for key analytes found to be elevated above the laboratory limit of reporting (LOR) for groundwater and surface water. **Table 8** presents a summary of the wash plant sampling results for PFAS analytes in both water and fines. Recently approved and updated groundwater and surface water criteria outlined in the SWMP (7 July 2021) have been applied to this quarterly report including a comparison of results with previous data.

Full results summary tables, including quality control sample analyses, are provided in **Tables 1 – 5**, **Attachment 2**. Based on a review of the QA/QC Compliance Assessment provided by ALS, the overall data quality is considered acceptable for interpretive use. Copies of the final NATA endorsed laboratory reports, including internal QA/QC results and chain-of-custody documentation for both laboratories are provided in **Attachment 3**.

Table 5: Groundwater Results and Screening Criteria for November 2022

Analyte	Metals									Discussion of results relative to previous monitoring (details on specific data trends provided in Section 3 below)
	Arsenic	Barium	Chromium	Copper	Cobalt	Iron	Manganese	Nickel	Zinc	
LOR	0.001	0.001	0.001	0.001	0.001	0.05	0.001	0.001	0.005	
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Adopted Site Specific Trigger Values (SWMP 2021)	0.003	0.07	0.004	0.083	0.006	4.1 (8.84 for BH1)	0.136	0.02	0.085 (0.1 for BH1)	
Sample ID	Groundwater									
BH1A	NS	NS	NS	NS	NS	NS	NS	NS	NS	Metals for BH1A were not analysed - no sample, gauge only.
BH2	<0.001	0.004	<0.001	0.002	0.001	0.14	0.05	<0.001	0.086	Metal concentrations were generally consistent with historical results and remain below the adopted criteria, except for zinc (0.086 mg/L) which has remained slightly above the adopted criteria (0.085 mg/L) for four consecutive months. However, concentrations have shown a decreasing trend since first detected in the August 22 monitoring event. BH2 is located marginally down hydraulic gradient from the current quarry operations footprint.
BH4	<0.001	0.012	<0.001	0.006	<0.001	0.13	0.016	<0.001	0.011	Metal concentrations were generally consistent with historical variations and remain below the adopted criteria. BH4 is located down hydraulic gradient (approximately 700 m) from current quarry operations and on the southernmost boundary of the site adjacent to Cabbage Tree Road.
BH6	<0.001	0.009	<0.001	<0.001	<0.001	4.39	0.006	0.002	0.005	Metal concentrations are generally consistent with historical results and remain below the adopted criteria, except for Iron (4.39 mg/L) which was detected slightly above the adopted criteria. BH6 is considered up hydraulic gradient (approximately 860 m) from current quarry operations and the most north-eastern location at the Site.
BH7	0.001	0.002	0.002	<0.001	<0.001	0.43	0.001	0.001	0.009	Metal concentrations were generally consistent with historical results and are below the adopted criteria. BH7 is located (approximately 960 m) east of the current quarry operations.
BH8	0.002	0.004	0.002	<0.001	<0.001	1.16	0.001	<0.001	0.008	Metal concentrations were consistent with historical results and below adopted criteria. BH8 is located (approximately 974m) east of the current quarry operations on Site.

Analyte	Metals									Discussion of results relative to previous monitoring (details on specific data trends provided in Section 3 below)
	Arsenic	Barium	Chromium	Copper	Cobalt	Iron	Manganese	Nickel	Zinc	
LOR	0.001	0.001	0.001	0.001	0.001	0.05	0.001	0.001	0.005	
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Adopted Site Specific Trigger Values (SWMP 2021)	0.003	0.07	0.004	0.083	0.006	4.1 (8.84 for BH1)	0.136	0.02	0.085 (0.1 for BH1)	
BH9	NS	NS	NS	NS	NS	NS	NS	NS	NS	Metals for BH9 were not analysed - no sample collected, gauge only.
BH9A	<0.001	0.007	<0.001	<0.001	<0.001	0.56	0.034	0.002	0.012	Metal concentrations were generally consistent with historical results and below the adopted criteria. BH9A is down gradient (approximately 700m) from current quarry operations and is on the southernmost boundary of the Site adjacent to Cabbage Tree Road.
BH10	NS	NS	NS	NS	NS	NS	NS	NS	NS	Metals for BH10 were not analysed - no sample collected, gauge only.
MW239S	<0.001	0.003	0.001	<0.001	<0.001	0.28	0.002	0.002	0.006	Metal concentrations were generally consistent with historical results and below the adopted criteria. MW239S is located approximately 800 m east of the current quarry operations.
BH11	<0.001	0.002	0.003	<0.001	<0.001	1.06	0.003	0.003	0.042	Metal concentrations were generally consistent with historical results and below the adopted criteria. BH11 is located approximately 460 m from current quarry operations and at the north-western most point of the Site.
BH12A	NS	NS	NS	NS	NS	NS	NS	NS	NS	Metals for BH12A were not analysed - no sample collected.

Notes:
< - Less than laboratory limit of reporting

Table 6: Surface Water Results and Screening Criteria for November 2022

Analyte	Metals									Discussion of results relative to previous monitoring (details on specific data trends provided in Section 3 below)
	Arsenic	Barium	Chromium**[1]	Copper**	Cobalt	Iron	Manganese**	Nickel	Zinc**	
LOR	0.001	0.001	0.001	0.001	0.001	0.05	0.001	0.001	0.005	
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Site Specific Trigger Values (SWMP 2021)	0.006	0.08	0.004	0.033	0.017	7.25 (32 for SW3 & SW4)	0.841	0.02	0.535	
Sample Name	Surface Water									
SW1	<0.001	0.010	<0.001	<0.001	0.001	2.89	0.038	<0.001	0.022	Metal concentrations were generally in line with historical variations and below the Site Specific Trigger Values. SW1 is located on the southernmost boundary of the quarry adjacent to Cabbage Tree Road
SW2	<0.001	0.004	<0.001	<0.001	<0.001	0.45	0.011	<0.001	0.031	SW2 was previously dry during all sampling periods from 2019 – February 2021. Metal concentrations detected at SW2 during the November monitoring event were all below the Site Specific Trigger Values, consistent with the previous August 2022 GME. SW2 is the most northern located surface water monitoring point directly adjacent or central to current quarry operations.
SW3	0.001	0.012	<0.001	0.002	0.002	7.82	0.05	<0.001	<0.005	Metal concentrations were generally consistent with historical variations. SW3 is located within a drainage channel that travels from west to east along the south-eastern perimeter of the quarry. SW3 is approximately 476 m east of the current quarry operations.
SW4	0.002	0.013	0.002	0.003	0.001	19.6	0.084	0.001	<0.005	Metal concentrations at SW4 appear to be stable across all analytes. SW4 is located downstream of SW3 on the eastern most perimeter of the quarry.

Notes:
< - Less than laboratory limit of reporting

Table 7: Wash Plant Fines Sample Results and Screening Criteria

Analyte	PFAS		Discussion of results
	PFOA	Sum of PFOS + PFHxS	
LOR	0.0002	0.0002	
Units	mg/kg	mg/kg	
Site Specific Trigger Values (SWMP 2021)	0.1	0.01	
Sample Name	**Sand Wash Plant**		
WPF	<0.0002	<0.0002	PFAS was not detected above LOR levels at this location during this sampling round. PFOA concentrations have decreased from the last reporting round in August 2022 where 0.0006 mg/kg was detected.

Notes:
< - Less than laboratory limit of reporting

Table 8: Wash Plant Water Sample Results and Screening Criteria

Analyte	PFAS				Discussion of results
	PFOA	PFOS	PFHxS	Sum of PFOS + PFHxS	
LOR	0.01	0.01	0.01	0.01	
Units	µg/L	µg/L	µg/L	µg/L	
Site Specific Trigger Values (SWMP 2021)	0.56	N/A	N/A	0.07	
Sample Name	**Sand Wash Plant**				
WPW	0.01	0.02	0.02	0.04	PFOA, PFOS and PFHxS were detected at this location at concentrations below the adopted criteria. The findings are generally consistent with historical results.

Notes:
< - Less than laboratory limit of reporting

2 RAINWATER DATA

Table 9 presents the rainfall data from Williamtown RAAF base (Station Number: 061078, Latitude: 32.79°S; Longitude: 151.84°E; Elevation: 8 m) for the period 2021/22. The total monthly rainfall for November 2022 fell below the monthly mean, breaking the trend from the previous two months rainfall data. Based on current rainfall data (mean and monthly totals) for November 2022, it is expected that surface and groundwater elevations will begin to decrease which is consistent with groundwater trend data.

Table 9: 2021-2022 Rainfall data (12-month period)

Date	Dec (21)	Jan (22)	Feb (22)	Mar (22)	Apr (22)	May (22)	Jun (22)	Jul (22)	Aug (22)	Sep (22)	Oct (22)	Nov (22)
1st	0	0	0	18.2	13.6	2.0	0	0	0	2.0	4.4	9
2nd	0.2	0	7.6	25.2	1.4	0	0	14.6	0.2	0	0	0
3rd	0	0	13.0	32.2	0	0	0	42.0	0	28.0	0	0
4th	0.2	1.0	32.8	55.4	ND	0	1.6	59.8	0	4.2	0	0.4
5th	0	7.6	7.2	0.2	0.2	4.0	0	49.8	12.0	0.4	0	0
6th	0	2.2	4.4	11.6	0.2	ND	0	36.6	0	0	23.4	0
7th	2.8	1.0	1.4	5.4	0	0	0	37.0	0	0.2	0.2	0
8th	0.6	10.4	2.0	11.8	36.2	0	0	0	0	0	6.6	0
9th	10.0	9.2	0.6	68.0	1.2	0	0	0	1.4	0.2	32.6	0
10th	0.8	0	0	0.6	2.0	1.8	0	3.2	18.4	2.2	0	0
11th	0	0	0	3.8	0.2	15.8	0	44.2	0.2	0	1.2	0
12th	0	0	39.4	0.6	8.4	8.8	0	0.2	0	0	0.2	0
13th	0	0.4	1.0	0.2	15.8	5.8	0	0	5.2	0	0	2.8
14th	0	0	0	0	10.8	4.0	0	12.4	0.2	0.6	0.2	24.2
15th	0	0	0	0.8	1.2	0	0	12.0	0	0.2	0.2	-
16th	0.2	5.4	0	0.8	0.2	0	0	0	0	5.4	0	-
17th	1.8	0.2	0	0.2	0	0	0	0	0	0	0.4	0
18th	0	0	8.6	0	0	0	1.0	0	0	0	0	0
19th	0	32.0	0.2	2.2	0	0	18.4	0.2	0	0	0	0
20th	0.6	13.2	0	0.4	0.2	2.6	7.4	7.8	0	0	1.6	0
21st	0.2	0.2	0	0	0	15.0	0.2	0.4	0	0	4	0
22nd	0	0	0	0	14.6	4.4	0	2.0	0	7.2	3.4	0
23rd	0	0	25.2	0	6.4	33.0	0	0	0	5.4	2.2	0
24th	0.4	6.8	3.2	35.6	10.0	8.0	0	1.8	0.6	0.4	3.4	0
25th	0	0	6.0	29.4	0.2	4.6	0	1.4	0	4.6	5.6	0
26th	0	0	6.0	14.4	0.2	0	0	1.2	0	0.2	0.4	1.6
27th	0	0	2.6	6.8	0.2	0	0	0.6	0	0	0	0
28th	2.4	0	0.2	0.8	0.6	0.2	0	0	0.2	0.2	0.8	12
29th	-	0	-	2.4	0.2	0	0	0	0	0	0	0

Date	Dec (21)	Jan (22)	Feb (22)	Mar (22)	Apr (22)	May (22)	Jun (22)	Jul (22)	Aug (22)	Sep (22)	Oct (22)	Nov (22)
30th	0.2	0	-	12.2	0	0	0	0.2	0	13.0	0	0
31st	0	0	-	14.8	-	4.2	-	0	0	-	0	-
Total	20.4	89.6	161.4	354.0	124.0	114.2	28.6	327.4	38.4	74.4	90.8	50.0
Historical Mean	78.6	99.5	118.3	125.2	109.5	108.6	124.6	72.6	72.8	60.6	75.9	82.9

Notes:
ND – no data retrieved.

3 DATA TRENDS

Data trends, taken from analyses undertaken throughout the duration of the sampling program (January 2019 – current), are provided as **Attachment 4.** Generally, groundwater elevations have been steadily increasing over the last 3-4 years with a notable spike in elevation following the March 2021 GME. A general increase of groundwater elevations across the site are predominantly due to the above average rainfalls recorded for most months this year up to the most recent GME undertaken in November 2022.

Groundwater elevations have historically triggered the Groundwater Level Monitoring TARP Rules (**Table 3**) at BH1, BH2, BH9, BH9A, BH10 and BH11 between the months of April 2022 to August 2022. As a result, weekly gauging has been carried out at the affected locations to closely monitor elevation changes. During the current month, BH1A, BH2, BH10 and BH11 have recorded groundwater elevations that trigger the Level 1, Level 2 and Level 3 TARP Rules. It is recommended that the Minimum Extraction Level (MEL) be re-analysed and reviewed for these four locations, in accordance with their respective TARP trigger response.

Overall, groundwater levels for the current month generally appear to be decreasing, in line with the recent below-average rainfall noted in **Section 2**. Based on these trends, groundwater elevations are likely to stabilise and decrease across the quarry.

Notable changes in data trends were observed for the following analytes:

- Zinc – Concentrations of zinc at BH2 have remained above the site-specific criteria for four (4) consecutive months triggering a groundwater investigation. Since the exceedance was noted concentrations of zinc at BH2 have shown a general downward trend with the most recent results only marginally higher (0.086µg/L) than the site-specific criteria (0.085µg/L) for the second month in a row.
- Iron – Concentrations of Iron at BH6 (4.39 mg/L) were found to be slightly above the site-specific criteria (4.1 mg/L) and have exceeded the site-wide maximum recorded at BH8 (4.23 mg/L) during the November 2021 GME. BH6 is considered up gradient from site operations and is therefore more inducive to background concentrations, likely to be related to changes in pH combined with a reducing environment.
- pH – The pH of BH6 (4.14) was found to be marginally below the adopted site-specific range (4.2-6.5) for the second consecutive month. This is the second time this has occurred within the last 12 months with the first occurrence during the February and March GME's (3.68 & 3.49)
- PFAS – PFAS was not detected in the WPF sample. However, PFOA, PFOS and PFhxS were detected in the WPW sample during the current November 2022 sampling round. These analytes were within the range expected from historical results. It was noted that the wash plant was non-operational during the sampling this round.

4 CLOSING

Due to BH1A, BH6, BH10 and BH11 exceeding their respective TARP Level 1, Level 2 and Level 3 triggers, it is recommended that the Minimum Extraction Level (MEL) be re-analysed and reviewed by WSS, as they have taken over the weekly gauging activities, in accordance with the respective TARP response.

Concentrations of zinc at BH2 have shown a general downward trend since the August 2022 sampling round when the first exceedance was detected. However, concentrations remain marginally above the Site-Specific Trigger Value for the fourth consecutive month. According to the SWMP:

"Where two consecutive samples are:

a. ABOVE the adopted trigger value, BUT LESS than previous data, this may suggest an incorrectly set trigger value that does not fully account for seasonal changes. Consider updating trigger value at next management plan update.

b. ABOVE the adopted trigger value AND previous data this may indicate a more significant change in water quality and a Water Trigger Investigation will be undertaken in accordance with Section 8.6.4."

A water trigger investigation was undertaken in September 2022 due to the two months of increased zinc concentrations at BH2, outlined in the SWMP requirements above. Based on the localised concentrations of zinc and steady decline in concentrations, it was concluded that Newcastle Sands should continue the on-going monitoring program, including trend analysis of zinc at BH2. The water Trigger Investigation, provided in **Attachment 5**, was submitted to HWC, EPA and DPE as outlined in the SWMP. Due to the stabilising of zinc concentrations, it is suggested that the current trigger value does not fully account for seasonal changes and that considerations be made in updating the trigger value at the next management plan update as per the SWMP.

The abnormal results obtained for pH and Iron at BH6 are most likely related to environmental conditions, not to quarrying activities, stemming from a low pH, high reducing environment where there is a greater mobilisation of metals such as Iron. Due to the distance and upgradient location of this borehole this is more indicative of the natural background conditions. As stated in the SWMP above this result, may suggest an incorrectly set trigger value that does not fully account for seasonal changes and consideration needs to be made to update this value at the next management plan update. According to the SWMP for Iron exceedance:

"Where the 72 hour follow-up sampling is not required (not considered related to quarrying activities), but the result is above trigger value, re-sample location and elevated analyte in the following monitoring round to gauge if the previous exceedance was an isolated occurrence potentially due to unknown sampling error, laboratory error, an isolated natural change or may be symptomatic of broader changes in water quality."

Overall, the results suggest that since quarry operations began in August 2019, there has been negligible change in analytical results across the sampled locations. We trust that the above report meets with your requirements. If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

Kleinfelder Australia Pty Ltd

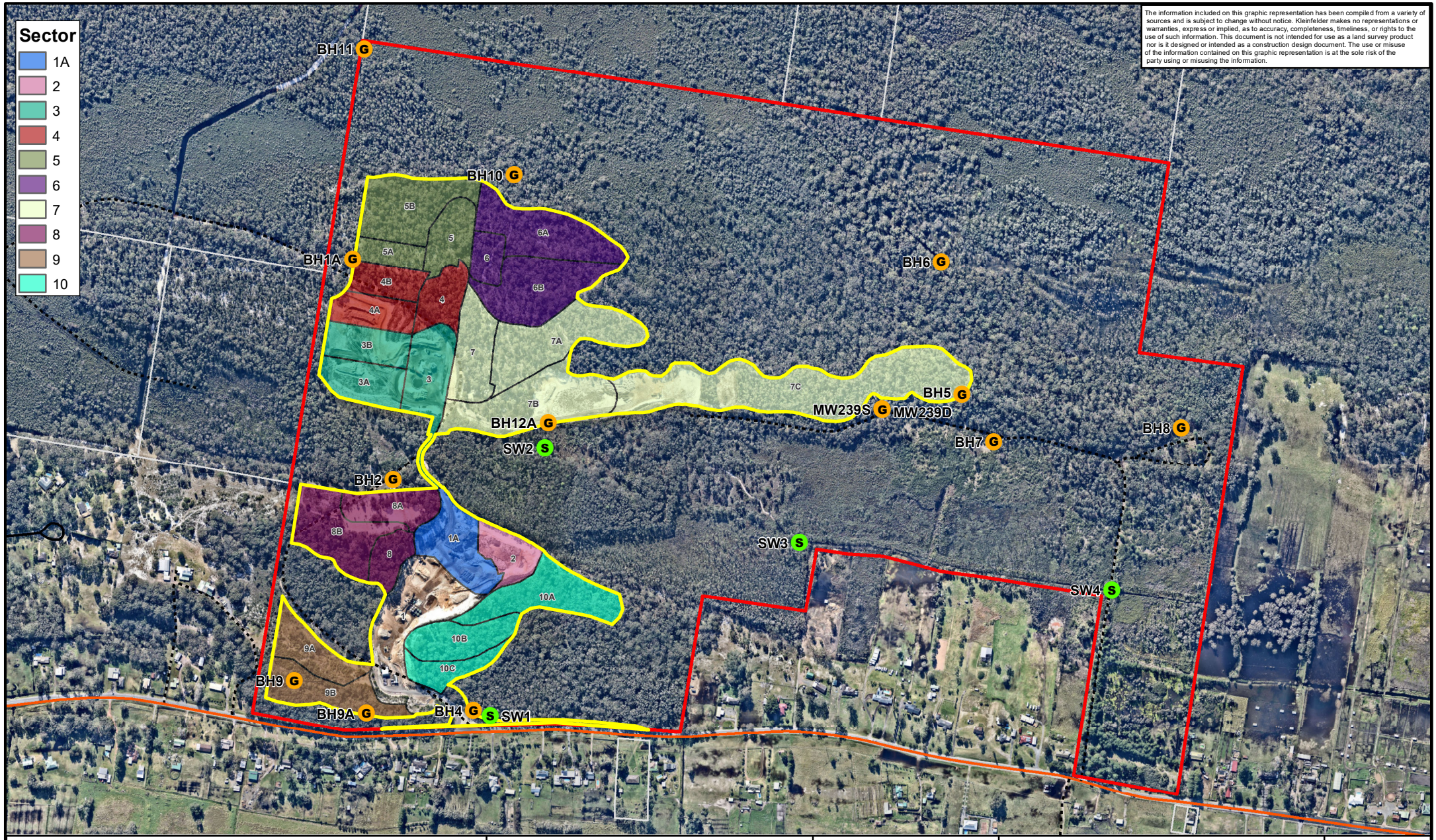
Aaron King

Graduate Environmental Scientist
Contaminated Land Management
AKing@kleinfelder.com
Mobile: 0455 981 953

Attachments

Attachment 1: Figures
Attachment 2: Results tables and field records
Attachment 3: Lab results
Attachment 4: Data Trends

ATTACHMENT 1: FIGURES



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Legend

- G Groundwater Sample Site
- S Surface Water Sample Site
- Quarry Project Area
- Subject Land Boundary
- Arterial Road
- Local Road
- Track

Metres
0 50 100 200 300 400 500
N

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PROJECT REFERENCE: 20232071
DATE DRAWN: 7/10/2022 14:16 Version 1
DRAWN BY: CMiskell
DATA SOURCE:
NSW DFSI - 2017
Nearmap - 2022

Monthly Monitoring Locations

Williamtown Sand Syndicate
Proposed Sand Quarry
398 Cabbage Tree Road, Williamtown

FIGURE:
1

J:\00 CLIENT FILES\126863_TrusteeForWSS_UnitTrust\20170448_Williamtown\Mapping\20232071_WMP_D20221007_Fig01_MonthlyWaterMonitoring.mxd

ATTACHMENT 2: RESULTS TABLES AND FIELD RECORDS

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QA/QC SAMPLE REGISTER

Project Number:	Site Name:	Site Address:
20232071		

Date:	Field Manager:
18/11/22	

Date Sampled	Field Staff	QC Sample ID	QC Sample Type	Primary Sample	Rinsate Item (Hand auger, low flow pump etc.)	Rinsate Water Batch	Analysing Lab	Analysis Requested
18/11/22	JR	QC01	Duplicate	BH2	—	—	ALS	BTEXN, TRH, Metals, PFAS
		QC01A	Triplicate	BH2	—	—	Eurofins	
		QC02	Dup	WPW	—	—	ALS	PFAS
		QC02A	Trip	WPW	—	—	Eurofins	PFAS
		RB02	Rinsate	—	IP	—	ALS	
		TB_181122	Transport Blank	—			ALS	

COMMENTS:

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GAUGING LOG

Project Number:	Site Name:	Site Address:
20232071	VSS	

Date:	Field Manager:

Time	Monitoring Well ID	Well Diameter (mm)	PID Reading (ppm)	Depth to PSH* (mBTOC)	Depth to Water (mBTOC)	PSH Thickness (m)	Well Total Depth (mBTOC)	Detailed Description of Well Condition & Any Repairs Required	Comments: HC Sheen, PSH Appearance & Thickness, Odour, Water Appearance
BH1A					4.17		12.29		
BH2					4.38		[illegible]		
BH4					0.95		6.01		
BH5					5.191		8.82		
BH6					0.805		4.54		
BH7					1.09		5.507		
BH8					1.825		6.04		
BH9					15.459		16.32		
BH9A					8.521		12.43		
BH10					2.09		3.48		
BH11					1.18		5.29		
BH12A					2.43		7.39		
MW239S					0.76		3.82		
MW239D					0.74		20.49		

COMMENTS:

NOTES:
TOC = Top of PVC Casing
mBTOC = Metres Below Top of PVC Casing
* = If PSH is gauged as present, visually confirm presence and thickness using a bailer. Record detailed description of the PSH.

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HYDRASLEEVE™ SAMPLING LOG

Project Number:	Date:	Site Address:
20232071		

Site Name:	Field Manager:	Weather Observations:
WSS		

Field Measurements												
Well ID	Sample Time	DTW (mbTOC)	Total Depth (mbTOC)	Sample Depth (mbTOC)	Temp (°C)	DO (mg/L)	EC (µc/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Description (Odour, Colour, Sheen)
BH2					19.0	1.90	73.2	54	4.70	213.9	52.26	light brown, N/O, N/S
BH4					16.8	3.57	80.2	62	5.32	170.6	20.29	clear, N/O, N/S
BH6					21.7	2.29	224.4	156	4.14	-85.2	73.96	cloudy, Low HS odour, N/S
BH7					22.1	3.35	78.4	54	4.75	-92.5	22.45	light brown, Low HS odour, N/S
BH8					20.7	3.40	98.5	69	4.66	-97.2	128.90	cloudy, low HS odour, N/S
BH9A					18.1	2.04	112	84	4.79	86.3	466.51	brown, N/O, N/S
BH11					18.8	2.01	120.7	89	4.47	-100.5	14.15	yellow, Mod HS odour, N/S
~~BH~~ MW2395					22.0	1.93	97.3	67	4.74	-113.0	52.37	cloudy, Low HS odour, N/S
SW1					15.9	0.89	99.5	78	5.45	154.6	6.20	light brown, Low HS odour, N/S
SW2					18.4	2.49	82.5	61	4.62	122.0	13.67	clear, low HS odour, N/S
SW3					19.5	3.09	227.1	164	5.62	80.4	17.11	light brown, Low HS odour, N/S
SW4					22.4	3.50	217.9	149	4.43	130.2	3.96	clear, Low HS odour, N/S
WPW					24.3	8.57	253.6	167	4.77	209.5	23.44	clear, N/O, N/S

Damaged wells (identify how damaged):

*Sample Depth is reported as bottom of hydrasleeve depth

KENNARDS HIRE

EQUIPMENT CERTIFICATION REPORT

PGN9003871 WATER QUALITY METER – MULTIFUNCTION (YSI)

Plant Number: 1073158

SENSOR	CONCENTRATION	SPAN 1	SPAN 2	TRACEABILITY	PASS
pH	pH 4	pH 4		# 371300	☑
pH	pH 7	pH 7		# 384001	☑
Conductivity	12.88 mS/cm	12.88 mS/cm		# 381242	☑
Dissolvent Oxygen	Sodium Sulphite / Air	0.0ppm in Sodium Sulphite	ppm Saturation in Air	# 11897	☑
ORP	240mV	240mV		# 375760 374424	☑
Turbidity	0 NTU	0 NTU			☑
Turbidity	90 NTU	90 NTU		# 386473	☑

Battery Status 100 (%)	Temperature 19.8 °C
Electrical Test & Tag (AS/NZS 3760)	Electrodes Cleaned and Checked

Note: Calibration solution traceability information is available upon request.

Please clean/decontaminate instrument and accessories before returning. A minimum 'Cleaning Fee' $55.00 (Inc GST) may apply if instrument is returned contaminated.

Checked By: Jacob Arnott Date: 11 / 11 / 22 Signed: [signature]

Accessories List:

User's Manual	pH and ORP Storage Solution	Transit Case

Analyte		BTEXN								Total Petroleum Hydrocarbons					Total Petroleum Hydrocarbons - Silica Clean-up				Total Recoverable Hydrocarbons							Total Recoverable Hydrocarbons - Silica Clean-up				
		Benzene	Toluene	Ethylbenzene	meta- & para-Xylene	ortho-Xylene	Total Xylenes	Naphthalene	Sum of BTEX	C_6 - C_9	C_{10} - C_{14}	C_{15} - C_{28}	C_{29} - C_{36}	C_{10} - C_{36} sum	C_{10}-C_{14} - Silica Cleanup	C_{15}-C_{28} - Silica Cleanup	C_{29}-C_{36} - Silica Cleanup	C_{10}-C_{36} Sum - Silica Cleanup	C_6 - C_{10}	C_6 - C_{10} minus BTEX (F1)	>C_{10} - C_{16}	>C_{10} - C_{16} minus Naphthalene (F2)	>C_{16} - C_{34}	>C_{34} - C_{40}	>C_{10} - C_{40} (sum)	>C_{10}-C_{16} - Silica Cleanup	F2 - Silica Cleanup	>C_{16}-C_{34} - Silica Cleanup	>C_{34}-C_{40} - Silica Cleanup	>C_{10}-C_{40} - Silica Cleanup
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Adopted Site Specific Trigger Values (SWMP 2021)		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20	20	100	--	100	100	--	--	--	--	--	--
Sample Name	Sample Date																													
	15-Mar-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	**1,710**	-	-	-	-	< 50	< 100	< 50	< 50	**1,690**	**1,690**	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	23-Apr-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	**40**	< 50	< 100	< 50	< 50	-	-	-	-	**30**	**30**	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-May-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	14-Jun-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Jul-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Aug-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-Sep-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Oct-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
BH1	16-Oct-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	22-Sep-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 100	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	-	< 100	< 100	< 100	< 100
	13-Oct-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	22-Feb-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Mar-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	23-Apr-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-May-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	14-Jun-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Jul-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Aug-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-Sep-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Oct-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
BH4	16-Oct-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	**340**	< 50	**340**	< 20	< 20	-	-	-	-	-	< 100	< 100	**370**	< 100	**370**
	27-May-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	12-Aug-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
BH5	22-Feb-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	22-Feb-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Mar-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	23-Apr-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-May-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	14-Jun-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Jul-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Aug-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-Sep-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Oct-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
BH7	16-Oct-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100

	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	27-May-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	12-Aug-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	21-Feb-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Mar-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	23-Apr-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-May-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	14-Jun-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Jul-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Aug-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-Sep-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Oct-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
BH8	16-Oct-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	27-May-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	12-Aug-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Oct-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	22-Sep-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	13-Oct-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	06-Mar-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
BH12	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	22-Sep-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	13-Oct-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	22-Feb-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Mar-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	23-Apr-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-May-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	14-Jun-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Jul-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Aug-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-Sep-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Oct-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
MW239S	16-Oct-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	27-May-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	12-Aug-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
µg/L - Micrograms per litre
BTEXN - Benzene, toluene, ethylbenzene, total xylenes, naphthalene
Bold indicates a detection above the laboratory limit of reporting
Highlighting indicates an exceedance of the corresponding criteria (highlighting corresponds to the guideline with the highest criteria value where analytical result exceeds more than one guideline)

Criteria:
SWMP 2021 - Soil and Water Management Plan, July 2021

Analyte		Anions and Cations																		Alkalinity					Inorganics				
		Sodium	Calcium	Magnesium	Potassium	Sulphate	Chloride	Fluoride	Reactive phosphorus as P	Total Phosphorus	Nitrite as N	Nitrate as N	Nitrite + Nitrate as N	Ammonia as N	Total Nitrogen as N	Total Kjeldahl Nitrogen as N	Total Cations	Total Anions	Sodium Adsorption Ratio	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Total Alkalinity as CaCO3	Total Hardness as CaCO3	Electrical Conductivity @ 25ºC	Total Dissolved Solids	Total suspended solids	pH	Turbidity
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	-	mg/L	mg/L	mg/L	mg/L	mg/L	µS/cm	mg/L	mg/L	pH units	NTU
Adopted Site Specific Trigger Values (SWMP 2021)		77	5.0	11	2.0	70	148	0.2	--	2.0	--	--	--	0.5	5.9	--	--	--	--	--	--	--	--	--	500	--	--	4.2-6.5	--
Sample Name	Sample Date																												
BH1	15-Mar-19	11	2.0	1.0	< 1.0	< 1.0	25	< 0.1	-	-	-	-	-	-	-	-	0.66	0.88	-	9.0	< 1.0	< 1.0	9.0	9.0	104	68	78	5.67	-
	23-Apr-19	14	1.0	2.0	< 1.0	4.0	25	< 0.1	-	-	-	-	-	-	-	-	0.82	0.99	-	10	< 1.0	< 1.0	10	11	84	97	248	5.83	-
	16-May-19	12	< 1.0	2.0	< 1.0	5.0	25	< 0.1	0.03	< 0.01	< 0.01	< 0.01	< 0.01	0.11	0.3	0.3	0.69	1.01	1.7	10	< 1.0	< 1.0	10	8.0	105	164	80	5.82	-
	14-Jun-19	10	< 1.0	2.0	< 1.0	3.0	24	< 0.1	-	-	-	-	-	-	-	-	0.6	0.94	-	10	< 1.0	< 1.0	10	8.0	99	72	39	5.52	-
	16-Jul-19	15	< 1.0	2.0	< 1.0	4.0	23	< 0.1	-	-	-	-	-	-	-	-	0.82	0.95	-	11	< 1.0	< 1.0	11	8.0	102	84	26	5.62	-
	15-Aug-19	14	< 1.0	2.0	< 1.0	2.0	21	< 0.1	-	-	-	-	-	-	-	-	0.77	0.91	-	14	< 1.0	< 1.0	14	8.0	128	82	181	6.22	-
	16-Sep-19	13	< 1.0	2.0	< 1.0	2.0	20	< 0.1	< 0.01	0.06	< 0.01	< 0.01	< 0.01	0.12	0.3	0.3	0.73	0.76	1.84	8.0	< 1.0	< 1.0	8.0	8.0	102	88	108	5.44	-
	15-Oct-19	13	< 1.0	2.0	< 1.0	2.0	21	< 0.1	-	-	-	-	-	-	-	-	0.73	0.71	-	4.0	< 1.0	< 1.0	4.0	8.0	98	64	-	5.5	-
	18-Nov-19	16	< 1.0	2.0	< 1.0	3.0	23	0.1	< 0.01	< 0.01	< 0.01	-	0.01	0.13	0.3	0.3	0.86	1.19	2.26	24	< 1.0	< 1.0	24	8.0	126	82	-	6.29	-
	16-Sep-20	13	< 1.0	2.0	< 1.0	2.0	21	< 0.1	-	-	-	-	-	-	-	-	0.73	0.81	-	9.0	< 1.0	< 1.0	9.0	8.0	95	81	58	5.87	-
	16-Oct-20	14	< 1.0	2.0	< 1.0	4.0	21	< 0.1	-	-	-	-	-	-	-	-	0.77	0.84	-	8.0	< 1.0	< 1.0	8.0	8.0	88	57	-	5.7	-
	16-Nov-20	11	< 1.0	2.0	< 1.0	5.0	18	< 0.1	< 0.01	0.02	< 0.01	< 0.01	< 0.01	0.07	0.2	0.2	1.02	1.05	1.55	22	< 1.0	< 1.0	22	8.0	120	78	41	5.98	-
	16-Dec-20	13	< 1.0	2.0	1.0	6.0	22	< 0.1	-	-	-	-	-	-	-	-	0.93	1.16	-	21	< 1.0	< 1.0	21	8.0	134	87	-	5.76	-
	14-Jan-21	12	< 1.0	2.0	< 1.0	5.0	23	< 0.1	-	-	-	-	-	-	-	-	0.96	1.07	-	16	< 1.0	< 1.0	16	8.0	124	81	-	5.63	-
	16-Feb-21	14	< 1.0	2.0	1.0	5.0	25	< 0.1	< 0.01	< 0.01	< 0.01	0.02	0.02	0.05	< 0.1	< 0.1	0.8	1.05	1.98	12	< 1.0	< 1.0	12	8.0	116	75	20	5.57	-
	17-Mar-21	14	1.0	2.0	< 1.0	4.0	23	< 0.1	-	-	-	-	-	-	-	-	0.82	0.95	-	11	< 1.0	< 1.0	11	11	111	72	-	6.02	-
	13-Oct-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.66	98
	24-Feb-22	14	1.0	3.0	< 1.0	10	23	< 0.1	-	< 0.01	-	-	0.02	0.11	0.2	0.2	0.9	1.18	-	-	< 1.0	< 1.0	16	15	127	82	-	5.95	-
BH2	22-Feb-19	12	2.0	2.0	< 1.0	6.0	22	0.1	< 0.01	0.28	< 0.01	2.76	2.76	0.05	4.0	1.2	0.79	0.74	1.44	< 1.0	< 1.0	< 1.0	< 1.0	13	91	128	376	4.87	-
	15-Mar-19	10	3.0	2.0	< 1.0	7.0	23	< 0.1	-	-	-	-	-	-	-	-	0.75	0.79	-	< 1.0	< 1.0	< 1.0	< 1.0	16	101	66	352	4.71	-
	23-Apr-19	14	2.0	2.0	< 1.0	6.0	23	< 0.1	-	-	-	-	-	-	-	-	0.87	0.77	-	< 1.0	< 1.0	< 1.0	< 1.0	13	70	84	575	4.82	-
	16-May-19	12	2.0	2.0	< 1.0	21	22	< 0.1	< 0.01	0.26	< 0.01	0.38	0.38	0.01	1.3	0.9	0.79	1.06	1.44	< 1.0	< 1.0	< 1.0	< 1.0	13	94	144	111	4.85	-
	14-Jun-19	11	1.0	2.0	< 1.0	5.0	23	< 0.1	-	-	-	-	-	-	-	-	0.69	0.75	-	< 1.0	< 1.0	< 1.0	< 1.0	11	91	51	215	4.76	-
	16-Jul-19	13	2.0	2.0	< 1.0	9.0	20	< 0.1	-	-	-	-	-	-	-	-	0.83	0.75	-	< 1.0	< 1.0	< 1.0	< 1.0	13	90	63	92	4.84	-
	15-Aug-19	12	1.0	2.0	< 1.0	8.0	20	< 0.1	-	-	-	-	-	-	-	-	0.74	0.73	-	< 1.0	< 1.0	< 1.0	< 1.0	11	110	61	310	5.2	-
	16-Sep-19	11	2.0	2.0	< 1.0	8.0	18	< 0.1	< 0.01	0.28	< 0.01	1.07	1.07	0.04	2.7	1.6	0.74	0.67	1.32	< 1.0	< 1.0	< 1.0	< 1.0	13	96	60	216	4.72	-
	15-Oct-19	12	2.0	2.0	< 1.0	5.0	20	< 0.1	-	-	-	-	-	-	-	-	0.79	0.67	-	< 1.0	< 1.0	< 1.0	< 1.0	13	102	66	-	5.06	-
	18-Nov-19	14	2.0	1.0	< 1.0	7.0	19	< 0.1	< 0.01	0.21	< 0.01	-	1.01	0.05	2.1	1.1	0.79	0.68	2.02	< 1.0	< 1.0	< 1.0	< 1.0	9.0	102	66	-	5.47	-
	16-Sep-20	11	2.0	2.0	< 1.0	7.0	17	< 0.1	-	-	-	-	-	-	-	-	0.74	0.62	-	< 1.0	< 1.0	< 1.0	< 1.0	13	99	76	356	4.85	-
	16-Oct-20	11	2.0	2.0	< 1.0	6.0	16	< 0.1	-	-	-	-	-	-	-	-	0.74	0.58	-	< 1.0	< 1.0	< 1.0	< 1.0	13	90	58	-	5.07	-
	16-Nov-20	11	2.0	2.0	< 1.0	9.0	16	< 0.1	< 0.01	0.48	< 0.01	2.88	2.88	< 0.01	4.8	1.9	0.74	0.7	1.32	3.0	< 1.0	< 1.0	3.0	13	119	77	952	5.09	-
	16-Dec-20	11	2.0	2.0	< 1.0	7.0	15	< 0.1	-	-	-	-	-	-	-	-	0.74	0.57	-	< 1.0	< 1.0	< 1.0	< 1.0	13	105	68	-	4.66	-
	14-Jan-21	9.0	2.0	2.0	< 1.0	7.0	13	< 0.1	-	-	-	-	-	-	-	-	0.66	0.57	-	3.0	< 1.0	< 1.0	3.0	13	93	60	-	5.04	-
	16-Feb-21	12	1.0	1.0	< 1.0	8.0	12	< 0.1	< 0.01	0.15	< 0.01	2.58	2.58	< 0.01	3.5	0.9	0.65	0.5	2.03	< 1.0	< 1.0	< 1.0	< 1.0	7.0	89	58	86	4.84	-
	17-Mar-21	10	2.0	2.0	< 1.0	7.0	13	< 0.1	-	-	-	-	-	-	-	-	0.7	0.53	-	1.0	< 1.0	< 1.0	1.0	13	88	57	-	5.28	-
	19-Aug-21	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13-Oct-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.09	101
	16-Nov-21	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	24-Feb-22	8.0	2.0	1.0	< 1.0	7.0	14	< 0.1	-	0.06	-	-	0.05	0.01	0.4	0.3	0.53	0.6	-	-	< 1.0	< 1.0	3.0	9.0	70	46	-	5.18	-
	12-Apr-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	462
	27-May-22	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3	21-Feb-19	4.0	4.0	1.0	< 1.0	4.0	10	< 0.1	< 0.01	2.76	< 0.01	0.78	0.78	0.3	5.9	5.1	0.46	0.54	0.46	9.0	< 1.0	< 1.0	9.0	14	60	438	3,800	5.55	-
BH4	21-Feb-19	8.0	2.0	1.0	1.0	5.0	17	< 0.1	< 0.01	0.19	< 0.01	0.35	0.35	0.04	0.6	0.3	0.56	0.7	1.15	6.0	< 1.0	< 1.0	6.0	9.0	73	96	122	5.4	-
	15-Mar-19	9.0	2.0	< 1.0	< 1.0	5.0	18	< 0.1	-	-	-	-	-	-	-	-	0.49	0.61	-	< 1.0	< 1.0	< 1.0	< 1.0	5.0	77	50	45	5.12	-
	23-Apr-19	10	2.0	1.0	1.0	3.0	19	< 0.1	-	-	-	-	-	-	-	-	0.64	0.6	-	< 1.0	< 1.0	< 1.0	< 1.0	9.0	54	61	147	5.05	-
	16-May-19	9.0	2.0	1.0	1.0	22	19	< 0.1	< 0.01	0.97	< 0.01	0.29	0.29	< 0.01	1.0	0.7	0.6	0.99	1.3	< 1.0	< 1.0	< 1.0	< 1.0	9.0	73	100	44	4.99	-
	14-Jun-19	6.0	1.0	1.0	< 1.0	4.0	18	< 0.1	-	-	-	-	-	-	-	-	0.39	0.59	-	< 1.0	< 1.0	< 1.0	< 1.0	7.0	69	36	186	4.84	-
	16-Jul-19	10	2.0	2.0	1.0	6.0	18	< 0.1	-	-	-	-	-	-	-	-	0.72	0.63	-	< 1.0	< 1.0	< 1.0	< 1.0	13	75	42	74	4.96	-
	15-Aug-19	8.0	2.0	1.0	1.0	5.0	16	< 0.1	-	-	-	-	-	-	-	-	0.56	0.56	-	< 1.0	< 1.0	< 1.0	< 1.0	9.0	85	49	30	5.01	-
	16-Sep-19	11	2.0	2.0	< 1.0	8.0	19	< 0.1	< 0.01	0.4	< 0.01	0.24	0.24	0.02	0.6	0.4	0.74	0.7	1.32	< 1.0	< 1.0	< 1.0	< 1.0	13	95	58	49	4.83	-
	15-Oct-19	10	1.0	1.0	< 1.0	4.0	18	< 0.1	-	-	-	-	-	-	-	-	0.57	0.59	-	< 1.0	< 1.0	< 1.0	< 1.0	7.0	85	55	-	4.93	-
	18-Nov-19	11	1.0	1.0	< 1.0	6.0	18	< 0.1	< 0.01	0.08	< 0.01	-	0.29	< 0.01	0.3	< 0.1	0.61	0.63	1.86	< 1.0	< 1.0	< 1.0	< 1.0	7.0	86	56	-	5.34	-
	16-Sep-20	20	< 1.0	2.0	< 1.0	11	31	< 0.1	-	-	-	-	-	-	-	-	1.03	1.1	-	< 1.0	< 1.0	< 1.0	< 1.0	8.0	148	74	24	4.66	-
	16-Oct-20	19	1.0	3.0	< 1.0	10	34	< 0.1	-	-	-	-	-	-	-	-	1.12	1.21	-	2.0	< 1.0	< 1.0	2.0	15	133	86	-	5.21	-
	16-Nov-20	18	< 1.0	2.0	< 1.0	12	27	< 0.1	< 0.01	0.06	< 0.01	0.1	0.1	< 0.01	0.1	< 0.1	0.95	1.03	2.54	1.0	< 1.0	< 1.0	1.0	8.0	146	95	15	4.98	-
	16-Dec-20	25	1.0	4.0	< 1.0	15	43	< 0.1	-	-	-	-	-	-	-	-	1.47	1.58	-	3.0	< 1.0	< 1.0	3.0	19	193	125	-	4.81	-
	14-Jan-21	36	1.0	4.0	< 1.0	23	54	< 0.1	-	-	-	-	-	-	-	-	1.94	2.02	-	1.0	< 1.0	< 1.0	1.0	19	258	168	-	5.23	-
	16-Feb-21	69	2.0	9.0	1.0	32	111	< 0.1	< 0.01	0.11	< 0.01	< 0.01	< 0.01	0.03	< 0.1	< 0.1	3.87	3.82	4.63	1.0	< 1.0	< 1.0	1.0	42	445	289	56	4.86	-
	17-Mar-21	77	2.0	11	1.0	26	128	< 0.1	-	-	-	-	-	-	-	-	4.38	4.21	-	3.0	< 1.0	< 1.0	3.0	50	501	326	-	5.07	-
	19-Aug-21	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13-Oct-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.51	56
	24-Feb-22	7.0	1.0	2.0	< 1.0	7.0	15	< 0.1	-	0.3	-	-	0.21	0.01	0.6	0.4	0.52	0.61	-	-	< 1.0	< 1.0	2.0	11	74	48	-	5.07	-
	12-Apr-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61
	27-May-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5	22-Feb-19	42	< 1.0	6.0	1.0	19	69	0.2	< 0.01	0.34	< 0.01	< 0.01	< 0.01	0.09	3.0	3.0	2.35	2.34	3.59	< 1.0	< 1.0	< 1.0	< 1.0	25	250	211	458	4.87	-
	24-Feb-22	40	< 1.0	8.0	< 1.0	42	60	< 0.1	-	0.29	-	-	0.02	0.21	1.2	1.2	2.4	2.63	-	-	< 1.0	< 1.0	3.0	33	276	179	-	4.67	-
BH6	22-Feb-19	28	3.0	4.0	1.0	28	42	< 0.1	< 0.01	0.05	< 0.01	0.09	0.09	0.14	0.5	0.4	1.72	1.77	2.49	< 1.0	< 1.0	< 1.0	< 1.0	24	177	144	41	4.37	-
	14-Mar-19	23	2.0	4.0	1.0	17	37	< 0.1	-	-	-	-	-	-	-	-	1.46	1.44	-	2.0	< 1.0	< 1.0	2.0	21	179	116	144	4.95	-
	23-Apr-19	25	3.0	4.0	1.0	18	42	< 0.1	-	-	-	-	-	-	-	-	1.59	1.56	-	< 1.0	< 1.0	< 1.0	< 1.0	24	136	115	62	4.64	-
	16-May-19	23	3.0	4.0	1.0	18	45	< 0.1	< 0.01	0.13	< 0.01	< 0.01	< 0.01	0.14	0.6	0.6	1.5	1.64	2.04	< 1.0	< 1.0	< 1.0	< 1.0	24	175	214	106	4.88	-
	14-Jun-19	20	2.0	4.0	1.0	16	42	< 0.1	-	-	-	-	-	-	-	-	1.32	1.52	-	< 1.0	< 1.0	< 1.0	< 1.0	21	174	90	32	4.82	-
	16-Jul-19	23	2.0	4.0	1.0	20	35	< 0.1	-	-	-	-	-	-	-	-	1.46	1.4	-	< 1.0	< 1.0	< 1.0	< 1.0	21	161	82	23	4.73	-
	15-Aug-19	23	2.0	3.0	1.0	21	38	< 0.1	-	-	-	-	-	-	-	-	1.37	1.51	-	< 1.0	< 1.0	< 1.0	< 1.0	17	201	104	16	4.87	-
	16-Sep-19	25	3.0	3.0	1.0	21	38	< 0.1	< 0.01	0.15	< 0.01	0.07	0.07	0.19	0.8	0.7	1.51	1.55	2.44	2.0	< 1.0	< 1.0	2.0	20	197	124	71	4.68	-
	15-Oct-19	25	2.0	4.0	1.0	13	41	< 0.1	-	-	-	-	-	-	-	-	1.54	1.43	-	< 1.0	< 1.0	< 1.0	< 1.0	21	202	131	-	5.17	-
	18-Nov-19	27	3.0	3.0	1.0	18	45	< 0.1	< 0.01	0.06	< 0.01	-	< 0.01	0.23	0.4	0.4	1.6	1.64	2.64	< 1.0	< 1.0	< 1.0	< 1.0	20	204	133	-	5.32	-
	16-Sep-20	36	2.0	4.0	1.0	16	55	< 0.1	-	-	-	-	-	-	-	-	2.02	1.9	-	1.0	< 1.0	< 1.0	1.0	21	273	121	49	4.98	-
	16-Oct-20	36	2.0	5.0	1.0	12	64	< 0.1	-	-	-	-	-	-	-	-	2.1	2.14	-	4.0	< 1.0	< 1.0	4.0	26	249	162	-	5.3	-
	16-Nov-20	37	3.0	5.0	2.0	23	61	< 0.1	0.01	0.08	< 0.01	0.01	0.01	0.22	0.3	0.3	2.22	2.2	3.04	< 1.0	< 1.0	< 1.0	< 1.0	28	321	209	12	4.45	-
	16-Dec-20	46	3.0	6.0	2.0	15	75	< 0.1	-	-	-	-	-	-	-	-	2.7	2.43	-	< 1.0	< 1.0	< 1.0	< 1.0	32	321	209	-	4.63	-
	14-Jan-21	39	3.0	5.0	2.0	21	73	< 0.1	-	-	-	-	-	-	-	-	2.31	2.5	-	< 1.0	< 1.0	< 1.0	< 1.0	28	332	216	-	4.33	-
	16-Feb-21	43	3.0	6.0	2.0	18	72	< 0.1	< 0.01	0.1	< 0.01	< 0.01	< 0.01	0.25	< 0.1	< 0.1	2.56	2.46	3.3	3.0	< 1.0	< 1.0	3.0	32	316	205	20	4.89	-
	17-Mar-21	51	4.0	9.0	1.0	25	80	< 0.1	-	-	-	-	-	-	-	-	3.18	2.82	-	2.0	< 1.0	< 1.0	2.0	47	358	233	-	5.07	-
	19-Aug-21	-	-	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13-Oct-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	51
	24-Feb-22	30	< 1.0	4.0	< 1.0	10	61	< 0.1	-	0.11	-	-	0.02	0.04	0.4	0.4	1.63	1.93	-	-	< 1.0	< 1.0	< 1.0	16	241	157	-	3.92	-
	12-Apr-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
	27-May-22	-	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH7	22-Feb-19	34	< 1.0	5.0	2.0	12	64	0.2	< 0.01	0.13	< 0.01	0.02	0.02	0.34	2.2	2.2	1.94	2.06	3.16	< 1.0	< 1.0	< 1.0	< 1.0	20	213	196	152	4.76	-
	14-Mar-19	36	< 1.0	6.0	2.0	16	61	< 0.1	-	-	-	-	-	-	-	-	2.11	2.05	-	< 1.0	< 1.0	< 1.0	< 1.0	25	271	176	149	4.73	-
	23-Apr-19	38	< 1.0	6.0	2.0	17	62	< 0.1	-	-	-	-	-	-	-	-	2.2	2.1	-	< 1.0	< 1.0	< 1.0	< 1.0	25	205	185	20	4.51	-
	16-May-19	35	< 1.0	5.0	2.0	15	68	0.2	< 0.01	0.06	< 0.01	< 0.01	< 0.01	0.27	0.9	0.9	1.98	2.23	3.26	< 1.0	< 1.0	< 1.0	< 1.0	20	235	310	29	4.87	-
	14-Jun-19	31	< 1.0	4.0	2.0	11	56	0.1	-	-	-	-	-	-	-	-	1.73	1.81	-	< 1.0	< 1.0	< 1.0	< 1.0	16	213	145	39	4.91	-
	16-Jul-19	36	< 1.0	5.0	2.0	12	46	< 0.1	-	-	-	-	-	-	-	-	2.03	1.55	-	< 1.0	< 1.0	< 1.0	< 1.0	20	202	164	61	5.0	-
	15-Aug-19	32	< 1.0	4.0	2.0	15	49	0.1	-	-	-	-	-	-	-	-	1.77	1.85	-	8.0	< 1.0	< 1.0	8.0	16	232	168	44	5.53	-
	16-Sep-19	27	< 1.0	4.0	1.0	13	53	< 0.1	< 0.01	0.09	< 0.01	0.06	0.06	0.2	1.2	1.1	1.53	1.86	2.79	5.0	< 1.0	< 1.0	5.0	16	222	181	44	5.07	-
	15-Oct-19	34	< 1.0	5.0	2.0	12	53	< 0.1	-	-	-	-	-	-	-	-	1.94	1.74	-	< 1.0	< 1.0	< 1.0	< 1.0	20	252	164	-	4.95	-
	18-Nov-19	31	< 1.0	5.0	1.0	15	56	0.1	< 0.01	0.02	< 0.01	-	< 0.01	0.17	0.5	0.5	1.78	1.89	2.89	< 1.0	< 1.0	< 1.0	< 1.0	20	239	155	-	4.97	-
	16-Sep-20	33	< 1.0	5.0	2.0	12	62	0.1	-	-	-	-	-	-	-	-	1.9	2.0	-	< 1.0	< 1.0	< 1.0	< 1.0	20	248	140	24	4.81	-
	16-Oct-20	34	< 1.0	5.0	2.0	9.0	64	< 0.1	-	-	-	-	-	-	-	-	1.94	1.99	-	< 1.0	< 1.0	< 1.0	< 1.0	20	243	158	-	4.87	-
	16-Nov-20	30	< 1.0	5.0	2.0	9.0	54	0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.3	0.6	0.6	1.77	1.71	2.79	< 1.0	< 1.0	< 1.0	< 1.0	20	245	159	6.0	4.57	-
	16-Dec-20	30	< 1.0	6.0	2.0	9.0	58	0.1	-	-	-	-	-	-	-	-	1.85	1.82	-	< 1.0	< 1.0	< 1.0	< 1.0	25	265	172	-	4.34	-
	14-Jan-21	31	< 1.0	5.0	2.0	10	63	0.1	-	-	-	-	-	-	-	-	1.81	1.98	-	< 1.0	< 1.0	< 1.0	< 1.0	20	267	174	-	4.62	-
	16-Feb-21	34	< 1.0	6.0	2.0	12	64	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.3	0.6	0.6	2.02	2.06	2.9	< 1.0	< 1.0	< 1.0	< 1.0	25	270	176	9.0	4.54	-
	17-Mar-21	36	< 1.0	7.0	2.0	11	68	< 0.1	-	-	-	-	-	-	-	-	2.19	2.15	-	< 1.0	< 1.0	< 1.0	< 1.0	29	279	181	-	4.9	-

	19-Aug-21	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13-Oct-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.22	170
	24-Feb-22	17	< 1.0	2.0	1.0	8.0	25	< 0.1	-	0.12	-	-	0.02	0.08	1.0	1.0	0.93	0.87	-	-	< 1.0	< 1.0	< 1.0	8.0	124	81	-	4.43	-
	12-Apr-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
	27-May-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH8	21-Feb-19	52	< 1.0	6.0	< 1.0	11	90	< 0.1	< 0.01	1.97	< 0.01	< 0.01	< 0.01	0.5	2.4	2.4	2.76	2.77	4.44	< 1.0	< 1.0	< 1.0	< 1.0	25	352	258	438	4.46	-
	14-Mar-19	45	< 1.0	6.0	< 1.0	6.0	76	< 0.1	-	-	-	-	-	-	-	-	2.45	2.27	-	< 1.0	< 1.0	< 1.0	< 1.0	25	319	207	138	4.77	-
	23-Apr-19	53	< 1.0	7.0	< 1.0	8.0	89	< 0.1	-	-	-	-	-	-	-	-	2.88	2.68	-	< 1.0	< 1.0	< 1.0	< 1.0	29	264	223	121	4.76	-
	16-May-19	47	< 1.0	4.0	< 1.0	6.0	81	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.12	0.4	0.4	2.37	2.43	4.86	1.0	< 1.0	< 1.0	1.0	16	302	354	312	4.9	-
	14-Jun-19	47	< 1.0	5.0	< 1.0	4.0	89	< 0.1	-	-	-	-	-	-	-	-	2.46	2.59	-	< 1.0	< 1.0	< 1.0	< 1.0	20	315	194	83	4.82	-
	16-Jul-19	57	< 1.0	5.0	< 1.0	70	121	0.1	-	-	-	-	-	-	-	-	2.89	4.87	-	< 1.0	< 1.0	< 1.0	< 1.0	20	353	226	145	4.78	-
	15-Aug-19	42	< 1.0	3.0	< 1.0	4.0	63	< 0.1	-	-	-	-	-	-	-	-	2.07	1.86	-	< 1.0	< 1.0	< 1.0	< 1.0	12	260	140	98	5.0	-
	16-Sep-19	46	< 1.0	3.0	< 1.0	4.0	70	< 0.1	< 0.01	0.43	< 0.01	< 0.01	< 0.01	0.13	1.1	1.1	2.25	2.06	5.43	< 1.0	< 1.0	< 1.0	< 1.0	12	293	206	79	4.85	-
	15-Oct-19	45	< 1.0	4.0	< 1.0	4.0	70	< 0.1	-	-	-	-	-	-	-	-	2.29	2.06	-	< 1.0	< 1.0	< 1.0	< 1.0	16	303	197	-	5.02	-
	18-Nov-19	49	< 1.0	4.0	< 1.0	8.0	80	< 0.1	< 0.01	0.58	< 0.01	-	0.01	0.17	1.3	1.3	2.46	2.42	5.06	< 1.0	< 1.0	< 1.0	< 1.0	16	316	205	-	5.12	-
	16-Sep-20	58	< 1.0	4.0	< 1.0	9.0	109	< 0.1	-	-	-	-	-	-	-	-	3.1	3.26	-	< 1.0	< 1.0	< 1.0	< 1.0	16	391	216	34	4.79	-
	16-Oct-20	43	< 1.0	4.0	< 1.0	12	70	< 0.1	-	-	-	-	-	-	-	-	2.2	2.22	-	< 1.0	< 1.0	< 1.0	< 1.0	16	268	174	-	5.01	-
	16-Nov-20	48	< 1.0	6.0	< 1.0	10	76	< 0.1	< 0.01	0.14	< 0.01	< 0.01	< 0.01	0.13	0.6	0.6	2.58	2.35	4.1	< 1.0	< 1.0	< 1.0	< 1.0	25	341	222	14	4.75	-
	16-Dec-20	35	< 1.0	4.0	< 1.0	14	56	< 0.1	-	-	-	-	-	-	-	-	1.85	1.87	-	< 1.0	< 1.0	< 1.0	< 1.0	16	256	166	-	4.82	-
	14-Jan-21	44	< 1.0	5.0	< 1.0	13	77	< 0.1	-	-	-	-	-	-	-	-	2.32	2.44	-	< 1.0	< 1.0	< 1.0	< 1.0	20	317	206	-	4.76	-
	16-Feb-21	50	< 1.0	6.0	< 1.0	17	79	< 0.1	< 0.01	0.14	< 0.01	< 0.01	< 0.01	0.12	< 0.1	< 0.1	2.67	2.58	4.27	< 1.0	< 1.0	< 1.0	< 1.0	25	335	218	63	4.68	-
	17-Mar-21	50	< 1.0	6.0	< 1.0	19	75	< 0.1	-	-	-	-	-	-	-	-	2.67	2.51	-	< 1.0	< 1.0	< 1.0	< 1.0	25	329	214	-	4.57	-
	19-Aug-21	-	-	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16-Nov-21	-	-	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	24-Feb-22	55	< 1.0	5.0	< 1.0	54	70	< 0.1	-	0.3	-	-	0.72	0.13	1.7	1.0	2.8	3.2	-	-	< 1.0	< 1.0	5.0	20	329	214	-	4.67	-
	27-May-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH9A	16-Sep-20	35	5.0	5.0	1.0	41	38	< 0.1	-	-	-	-	-	-	-	-	2.21	2.06	-	7.0	< 1.0	< 1.0	7.0	33	276	310	1,060	5.78	-
	16-Oct-20	32	3.0	6.0	1.0	33	48	< 0.1	-	-	-	-	-	-	-	-	2.06	2.06	-	1.0	< 1.0	< 1.0	1.0	32	237	154	-	5.15	-
	16-Nov-20	23	2.0	4.0	1.0	23	35	< 0.1	< 0.01	0.11	< 0.01	2.35	2.35	< 0.01	2.8	0.5	1.46	1.51	2.16	2.0	< 1.0	< 1.0	2.0	21	195	127	2,220	4.93	-
	16-Dec-20	23	1.0	3.0	1.0	9.0	37	< 0.1	-	-	-	-	-	-	-	-	1.32	1.23	-	< 1.0	< 1.0	< 1.0	< 1.0	15	175	114	-	4.83	-
	14-Jan-21	24	1.0	3.0	1.0	15	43	< 0.1	-	-	-	-	-	-	-	-	1.37	1.52	-	< 1.0	< 1.0	< 1.0	< 1.0	15	196	127	-	4.96	-
	16-Feb-21	25	1.0	3.0	1.0	12	40	< 0.1	< 0.01	1.74	< 0.01	< 0.01	< 0.01	0.15	5.1	5.1	1.41	1.42	2.82	2.0	< 1.0	< 1.0	2.0	15	181	118	2,030	4.72	-
	17-Mar-21	25	1.0	3.0	< 1.0	12	35	< 0.1	-	-	-	-	-	-	-	-	1.38	1.32	-	4.0	< 1.0	< 1.0	4.0	15	164	107	-	5.23	-
	19-Aug-21	25	1.0	3.0	1.0	14	37	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.8	0.8	1.41	1.42	2.82	4.0	< 1.0	< 1.0	4.0	15	180	117	-	5.03	-
	22-Sep-21	22	1.0	2.0	1.0	12	35	< 0.1	< 0.01	0.16	< 0.01	0.03	0.03	0.25	1.0	1.0	1.2	1.36	2.92	6.0	< 1.0	< 1.0	6.0	11	172	112	-	4.99	-
	13-Oct-21	24	< 1.0	2.0	1.0	11	38	< 0.1	< 0.01	0.13	< 0.01	< 0.01	< 0.01	0.31	0.9	0.9	1.23	1.46	3.39	8.0	< 1.0	< 1.0	8.0	8.0	156	101	-	5.21	105
	16-Nov-21	24	2.0	3.0	1.0	17	32	< 0.1	< 0.01	0.05	< 0.01	0.04	0.04	0.21	1.1	1.1	1.42	1.36	2.51	5.0	< 1.0	< 1.0	5.0	-	163	106	-	5.51	-
	24-Feb-22	21	2.0	4.0	1.0	17	32	< 0.1	-	0.19	-	-	< 0.01	0.25	1.0	1.0	1.37	1.26	-	-	< 1.0	< 1.0	< 1.0	21	164	107	-	4.85	-
	12-Apr-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	289
	27-May-22	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	21-Feb-19	48	< 1.0	10	< 1.0	24	80	0.1	< 0.01	0.03	< 0.01	0.04	0.04	0.06	1.8	1.8	2.91	2.76	3.21	< 1.0	< 1.0	< 1.0	< 1.0	41	346	278	144	4.67	-
	15-Mar-19	26	< 1.0	2.0	< 1.0	2.0	52	< 0.1	-	-	-	-	-	-	-	-	1.3	1.51	-	< 1.0	< 1.0	< 1.0	< 1.0	8.0	186	121	152	4.82	-
	23-Apr-19	32	< 1.0	5.0	< 1.0	2.0	57	< 0.1	-	-	-	-	-	-	-	-	1.8	1.65	-	< 1.0	< 1.0	< 1.0	< 1.0	20	150	135	112	4.99	-
	16-May-19	29	< 1.0	4.0	< 1.0	2.0	55	< 0.1	< 0.01	0.01	< 0.01	< 0.01	< 0.01	0.12	0.4	0.4	1.59	1.59	3.0	< 1.0	< 1.0	< 1.0	< 1.0	16	188	216	156	4.91	-
	14-Jun-19	26	< 1.0	3.0	< 1.0	< 1.0	53	< 0.1	-	-	-	-	-	-	-	-	1.38	1.5	-	< 1.0	< 1.0	< 1.0	< 1.0	12	175	107	136	4.84	-
	16-Jul-19	49	< 1.0	8.0	< 1.0	8.0	73	0.2	-	-	-	-	-	-	-	-	2.79	2.22	-	< 1.0	< 1.0	< 1.0	< 1.0	33	318	192	223	4.68	-
	15-Aug-19	28	< 1.0	3.0	< 1.0	4.0	47	< 0.1	-	-	-	-	-	-	-	-	1.46	1.41	-	< 1.0	< 1.0	< 1.0	< 1.0	12	197	135	303	4.88	-
	16-Sep-19	27	< 1.0	3.0	< 1.0	5.0	46	< 0.1	< 0.01	0.12	< 0.01	< 0.01	< 0.01	0.15	0.7	0.7	1.42	1.4	3.18	< 1.0	< 1.0	< 1.0	< 1.0	12	195	140	533	4.66	-
	15-Oct-19	28	< 1.0	3.0	< 1.0	3.0	44	< 0.1	-	-	-	-	-	-	-	-	1.46	1.3	-	< 1.0	< 1.0	< 1.0	< 1.0	12	194	126	-	4.92	-
	18-Nov-19	28	< 1.0	3.0	< 1.0	< 1.0	53	< 0.1	< 0.01	2.11	< 0.01	-	0.06	0.18	5.9	5.8	1.46	1.5	3.3	< 1.0	< 1.0	< 1.0	< 1.0	12	193	125	-	5.12	-
	16-Sep-20	29	< 1.0	5.0	< 1.0	6.0	48	< 0.1	-	-	-	-	-	-	-	-	1.67	1.48	-	< 1.0	< 1.0	< 1.0	< 1.0	20	223	111	136	4.61	-
	16-Oct-20	29	< 1.0	6.0	< 1.0	4.0	61	< 0.1	-	-	-	-	-	-	-	-	1.76	1.8	-	< 1.0	< 1.0	< 1.0	< 1.0	25	218	142	-	4.8	-
	16-Nov-20	27	< 1.0	5.0	< 1.0	5.0	50	< 0.1	< 0.01	0.06	< 0.01	< 0.01	< 0.01	0.08	0.5	0.5	1.58	1.51	2.51	< 1.0	< 1.0	< 1.0	< 1.0	20	217	141	100	4.81	-
	16-Dec-20	31	< 1.0	6.0	< 1.0	7.0	60	< 0.1	-	-	-	-	-	-	-	-	1.84	1.84	-	< 1.0	< 1.0	< 1.0	< 1.0	25	249	162	-	4.74	-
	14-Jan-21	32	< 1.0	6.0	< 1.0	12	63	< 0.1	-	-	-	-	-	-	-	-	1.88	2.03	-	< 1.0	< 1.0	< 1.0	< 1.0	25	264	172	-	4.41	-
	16-Feb-21	32	< 1.0	5.0	1.0	12	55	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.08	< 0.1	< 0.1	1.83	1.8	2.98	< 1.0	< 1.0	< 1.0	< 1.0	20	235	153	386	4.73	-
	17-Mar-21	29	< 1.0	6.0	< 1.0	17	48	< 0.1	-	-	-	-	-	-	-	-	1.76	1.71	-	< 1.0	< 1.0	< 1.0	< 1.0	25	223	145	-	4.66	-
	19-Aug-21	58	< 1.0	7.0	< 1.0	9.0	110	0.1	< 0.01	0.08	< 0.01	< 0.01	< 0.01	< 0.01	1.4	1.4	3.1	3.29	4.6	< 1.0	< 1.0	< 1.0	< 1.0	29	403	262	-	4.38	-
	22-Sep-21	49	< 1.0	6.0	< 1.0	12	101	0.1	< 0.01	0.01	< 0.01	0.01	0.01	0.01	0.8	0.8	3.01	3.1	4.18	< 1.0	< 1.0	< 1.0	< 1.0	25	382	248	-	4.47	-
	13-Oct-21	51	< 1.0	8.0	< 1.0	29	90	< 0.1	< 0.01	0.03	< 0.01	< 0.01	< 0.01	< 0.01	0.8	0.8	2.88	3.14	3.79	< 1.0	< 1.0	< 1.0	< 1.0	33	373	242	-	4.27	18
	16-Nov-21	37	< 1.0	8.0	< 1.0	24	55	< 0.1	< 0.01	0.03	< 0.01	< 0.01	< 0.01	< 0.01	0.9	0.9	2.27	2.05	2.75	< 1.0	< 1.0	< 1.0	< 1.0	-	268	174	-	4.54	-
	24-Feb-22	41	< 1.0	6.0	< 1.0	4.0	80	< 0.1	-	< 0.01	-	-	< 0.01	0.02	0.6	0.6	2.28	2.4	-	-	< 1.0	< 1.0	3.0	25	260	169	-	4.57	-
	06-Mar-22	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Apr-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
	18-Nov-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	16-Sep-20	24	< 1.0	7.0	1.0	22	38	< 0.1	-	-	-	-	-	-	-	-	1.64	1.57	-	2.0	< 1.0	< 1.0	2.0	29	206	118	446	5.37	-
	16-Nov-20	22	< 1.0	4.0	1.0	11	41	< 0.1	< 0.01	< 0.01	< 0.01	0.02	0.02	< 0.01	0.2	0.2	1.31	1.52	2.27	7.0	< 1.0	< 1.0	7.0	16	190	124	438	5.92	-
	13-Oct-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.75	398
	24-Feb-22	20	< 1.0	4.0	2.0	18	28	< 0.1	-	0.12	-	-	0.01	0.01	0.4	0.4	1.25	1.2	-	-	< 1.0	< 1.0	2.0	16	148	96	-	5.03	-
MW239S	22-Feb-19	61	< 1.0	6.0	< 1.0	6.0	104	< 0.1	< 0.01	0.56	< 0.01	< 0.01	< 0.01	0.18	3.9	3.9	3.15	3.06	5.21	< 1.0	< 1.0	< 1.0	< 1.0	25	329	234	149	4.89	-
	14-Mar-19	64	< 1.0	6.0	< 1.0	2.0	126	< 0.1	-	-	-	-	-	-	-	-	3.28	3.64	-	2.0	< 1.0	< 1.0	2.0	25	410	266	504	5.02	-
	23-Apr-19	64	< 1.0	7.0	1.0	9.0	97	< 0.1	-	-	-	-	-	-	-	-	3.38	2.92	-	< 1.0	< 1.0	< 1.0	< 1.0	29	294	208	385	4.92	-
	16-May-19	52	< 1.0	6.0	< 1.0	13	88	< 0.1	< 0.01	0.43	< 0.01	< 0.01	< 0.01	0.09	1.7	1.7	2.76	2.75	4.44	< 1.0	< 1.0	< 1.0	< 1.0	25	327	320	371	4.87	-
	14-Jun-19	50	< 1.0	6.0	< 1.0	13	87	< 0.1	-	-	-	-	-	-	-	-	2.67	2.86	-	7.0	< 1.0	< 1.0	7.0	25	334	220	427	5.39	-
	16-Jul-19	52	< 1.0	7.0	1.0	16	73	< 0.1	-	-	-	-	-	-	-	-	2.86	2.39	-	< 1.0	< 1.0	< 1.0	< 1.0	29	353	188	70	4.85	-
	15-Aug-19	54	< 1.0	7.0	< 1.0	11	88	< 0.1	-	-	-	-	-	-	-	-	2.92	2.71	-	< 1.0	< 1.0	< 1.0	< 1.0	29	359	195	363	4.83	-
	16-Sep-19	55	< 1.0	6.0	1.0	14	85	< 0.1	< 0.01	0.32	< 0.01	< 0.01	< 0.01	0.1	1.4	1.4	2.91	2.69	4.7	< 1.0	< 1.0	< 1.0	< 1.0	25	373	224	179	4.66	-
	15-Oct-19	58	< 1.0	6.0	< 1.0	8.0	108	< 0.1	-	-	-	-	-	-	-	-	3.02	3.21	-	< 1.0	< 1.0	< 1.0	< 1.0	25	404	263	-	4.86	-
	18-Nov-19	63	< 1.0	6.0	1.0	8.0	118	< 0.1	< 0.01	0.23	< 0.01	-	< 0.01	0.17	1.2	1.2	3.26	3.5	5.38	< 1.0	< 1.0	< 1.0	< 1.0	25	419	272	-	4.76	-
	16-Sep-20	53	< 1.0	8.0	1.0	36	86	0.1	-	-	-	-	-	-	-	-	2.99	3.24	-	3.0	< 1.0	< 1.0	3.0	33	390	244	350	5.2	-
	16-Oct-20	76	< 1.0	9.0	1.0	17	148	< 0.1	-	-	-	-	-	-	-	-	4.14	4.57	-	2.0	< 1.0	< 1.0	2.0	37	458	298	-	4.73	-
	16-Nov-20	68	< 1.0	9.0	2.0	37	125	< 0.1	< 0.01	0.59	< 0.01	< 0.01	< 0.01	0.01	2.6	2.6	4.21	4.3	4.78	< 1.0	< 1.0	< 1.0	< 1.0	37	489	318	562	4.55	-
	16-Dec-20	68	< 1.0	10	1.0	24	126	< 0.1	-	-	-	-	-	-	-	-	3.81	4.05	-	< 1.0	< 1.0	< 1.0	< 1.0	41	484	315	-	4.68	-
	14-Jan-21	58	< 1.0	9.0	2.0	37	102	< 0.1	-	-	-	-	-	-	-	-	3.31	3.65	-	< 1.0	< 1.0	< 1.0	< 1.0	37	430	280	-	4.44	-
	16-Feb-21	66	< 1.0	11	2.0	38	124	< 0.1	< 0.01	0.58	< 0.01	< 0.01	< 0.01	0.06	2.5	2.5	4.03	4.29	4.21	< 1.0	< 1.0	< 1.0	< 1.0	45	488	317	346	4.61	-
	17-Mar-21	49	< 1.0	7.0	1.0	38	70	< 0.1	-	-	-	-	-	-	-	-	2.73	2.76	-	< 1.0	< 1.0	< 1.0	< 1.0	29	343	223	-	4.73	-
	13-Oct-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.87	295
	24-Feb-22	24	< 1.0	3.0	< 1.0	15	33	< 0.1	-	0.33	-	-	0.16	0.04	1.8	1.6	1.29	1.3	-	-	< 1.0	< 1.0	3.0	12	159	103	-	4.67	-
	12-Apr-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104
	27-May-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
LOR - Laboratory limit of reporting
mg/L - Milligrams per litre
µS/cm - Microsiemens per centimeter
Bold indicates a detection above the laboratory limit of reporting
Highlighting indicates an exceedance of the corresponding criteria (highlighting corresponds to the guideline with the highest criteria value where analytical result exceeds more than one guideline)

Criteria:
SWMP 2021 - Soil and Water Management Plan, July 2021

Analyte		Metals															
		Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium	Zinc
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Adopted Site Specific Trigger Values (SWMP 2021)		0.003	0.07	0.002	0.1	0.0002	0.004	0.006	0.083	4.1 (8.84 for BH1)	0.001	0.136	0.0001	0.02	0.01	0.01	0.085 (0.1 for BH1)
Sample Name	Sample Date																
BH1	15-Mar-19	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	**0.004**	< 0.001	< 0.001	**13**	< 0.001	**0.014**	< 0.0001	< 0.001	< 0.01	< 0.01	**1.27**
	23-Apr-19	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	**0.004**	< 0.001	**0.002**	**10**	**0.001**	**0.015**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.363**
	16-May-19	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	< 0.001	**8.33**	< 0.001	**0.009**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.132**
	14-Jun-19	< 0.001	**0.001**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.001**	**6.31**	< 0.001	**0.009**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.074**
	16-Jul-19	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	**0.002**	**7.35**	< 0.001	**0.01**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.116**
	15-Aug-19	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	**0.002**	**7.96**	< 0.001	**0.008**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.023**
	16-Sep-19	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	**0.004**	< 0.001	**0.001**	**8.84**	< 0.001	**0.009**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.034**
	15-Oct-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	**0.006**	-	< 0.001	**0.007**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.037**
	18-Nov-19	< 0.001	**0.001**	< 0.001	< 0.05	< 0.0001	**0.004**	< 0.001	< 0.001	**11**	< 0.001	**0.008**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.012**
	16-Sep-20	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.005**	**5.48**	< 0.001	**0.01**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.016**
	16-Oct-20	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.001**	**5.55**	< 0.001	**0.009**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.017**
	16-Nov-20	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	**0.001**	**7.05**	< 0.001	**0.012**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.045**
	16-Dec-20	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.008**	**3.21**	< 0.001	**0.011**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.077**
	14-Jan-21	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.001**	**5.21**	< 0.001	**0.013**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.032**
	16-Feb-21	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.001**	**3.24**	< 0.001	**0.015**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.652**
	17-Mar-21	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**4.0**	< 0.001	**0.027**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.596**
	24-Feb-22	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**7.7**	< 0.001	**0.018**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.106**
BH2	22-Feb-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.002**	**0.14**	< 0.001	**0.021**	< 0.0001	**0.015**	< 0.01	< 0.01	**0.006**
	15-Mar-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.003**	< 0.05	< 0.001	**0.02**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	23-Apr-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.004**	**0.19**	< 0.001	**0.018**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.008**
	16-May-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.001**	**0.06**	< 0.001	**0.014**	< 0.0001	**0.001**	< 0.01	< 0.01	< 0.005
	14-Jun-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.004**	**0.08**	< 0.001	**0.009**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	16-Jul-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.008**	**0.05**	< 0.001	**0.013**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.006**
	15-Aug-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.012**	**0.08**	< 0.001	**0.011**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	16-Sep-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.008**	**0.26**	< 0.001	**0.014**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.007**
	15-Oct-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.006**	-	< 0.001	**0.011**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.007**
	18-Nov-19	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.013**	**0.08**	< 0.001	**0.011**	< 0.0001	**0.007**	< 0.01	< 0.01	**0.028**
	16-Sep-20	< 0.001	**0.012**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.026**	**0.07**	< 0.001	**0.016**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.006**
	16-Oct-20	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.013**	< 0.05	< 0.001	**0.015**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	16-Nov-20	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.02**	**0.36**	< 0.001	**0.015**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.018**
	16-Dec-20	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.011**	< 0.05	< 0.001	**0.014**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	14-Jan-21	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.006**	< 0.05	< 0.001	**0.016**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	16-Feb-21	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.021**	< 0.05	< 0.001	**0.009**	< 0.0001	**0.007**	< 0.01	< 0.01	**0.017**
	17-Mar-21	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.003**	< 0.05	< 0.001	**0.016**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.006**
	19-Aug-21	< 0.001	**0.003**	-	-	-	< 0.001	-	**0.007**	< 0.05	-	**0.015**	-	< 0.001	-	-	< 0.005
	22-Sep-21	< 0.001	-	-	-	-	-	-	-	< 0.05	-	**0.013**	-	-	-	-	-
	13-Oct-21	< 0.001	-	-	-	-	-	-	-	**0.08**	-	**0.012**	-	-	-	-	-
	16-Nov-21	< 0.001	**0.003**	-	-	-	< 0.001	-	**0.006**	< 0.05	-	-	-	< 0.001	-	-	< 0.005
	15-Dec-21	< 0.001	-	-	-	-	-	-	-	**0.05**	-	**0.008**	-	-	-	-	-
	18-Jan-22	< 0.001	-	-	-	-	-	-	-	**0.49**	-	**0.012**	-	-	-	-	-
	24-Feb-22	**0.002**	**0.003**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.001	**0.009**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	12-Apr-22	**0.001**	-	-	-	-	-	-	-	**0.25**	-	**0.009**	-	-	-	-	-
	27-May-22	< 0.001	**0.002**	-	-	-	< 0.001	-	**0.004**	< 0.05	-	-	-	< 0.001	-	-	**0.005**
	17-Jun-22	< 0.001	-	-	-	-	-	-	-	< 0.05	-	**0.007**	-	-	-	-	-
	27-Jul-22	< 0.001	-	-	-	-	-	-	-	< 0.05	-	**0.008**	-	-	-	-	-
	12-Aug-22	< 0.001	**0.005**	-	-	-	< 0.001	-	**0.012**	< 0.05	-	**0.012**	-	**0.001**	-	-	**0.169**
	16-Sep-22	< 0.001	-	-	-	-	-	-	-	**0.15**	-	**0.009**	-	-	-	-	**0.125**
	24-Oct-22	< 0.001	-	-	-	-	-	-	-	< 0.05	-	**0.005**	-	-	-	-	**0.086**
	18-Nov-22	< 0.001	**0.004**	-	-	-	< 0.001	**0.001**	**0.002**	**0.14**	-	**0.005**	-	< 0.001	-	-	**0.086**
BH3	21-Feb-19	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.06**	< 0.001	**0.005**	< 0.0001	**0.053**	< 0.01	< 0.01	< 0.005
	21-Feb-19	< 0.001	**0.014**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.002**	**0.16**	< 0.001	**0.039**	< 0.0001	**0.018**	< 0.01	< 0.01	**0.014**
	15-Mar-19	< 0.001	**0.014**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.001**	< 0.05	< 0.001	**0.014**	< 0.0001	**0.022**	< 0.01	< 0.01	**0.043**
	23-Apr-19	< 0.001	**0.013**	< 0.001	**0.05**	< 0.0001	< 0.001	< 0.001	**0.002**	**0.99**	< 0.001	**0.045**	< 0.0001	**0.007**	< 0.01	< 0.01	**0.008**
	16-May-19	< 0.001	**0.013**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.27**	< 0.001	**0.022**	< 0.0001	**0.022**	< 0.01	< 0.01	**0.011**
	14-Jun-19	< 0.001	**0.012**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.038**	< 0.05	< 0.001	**0.014**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.005**
	16-Jul-19	< 0.001	**0.013**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.046**	< 0.05	< 0.001	**0.019**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.007**
	15-Aug-19	< 0.001	**0.013**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.026**	< 0.05	< 0.001	**0.018**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.007**
	16-Sep-19	< 0.001	**0.012**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.051**	**0.19**	< 0.001	**0.026**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.005**
	15-Oct-19	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.011**	-	< 0.001	**0.136**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.014**
	18-Nov-19	< 0.001	**0.011**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.005**	< 0.05	< 0.001	**0.013**	< 0.0001	**0.001**	< 0.01	< 0.01	< 0.005
	16-Sep-20	< 0.001	**0.013**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.078**	**0.06**	< 0.001	**0.012**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.006**
	16-Oct-20	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.003**	**0.25**	< 0.001	**0.021**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.018**

BH4	16-Nov-20	< 0.001	**0.008**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.005**	**0.18**	< 0.001	**0.008**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.005**
	16-Dec-20	< 0.001	**0.011**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.002**	**0.46**	< 0.001	**0.027**	< 0.0001	**0.003**	< 0.01	< 0.01	< 0.005
	14-Jan-21	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.012**	**0.27**	< 0.001	**0.012**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.006**
	16-Feb-21	< 0.001	**0.02**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.002**	**0.94**	< 0.001	**0.023**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.008**
	17-Mar-21	< 0.001	**0.027**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.006**	**1.39**	< 0.001	**0.029**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.019**
	19-Aug-21	< 0.001	**0.011**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.001**	**0.198**	**0.14**	< 0.001	**0.022**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.013**
	22-Sep-21	< 0.001	**0.009**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.172**	**0.1**	< 0.001	**0.02**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.006**
	13-Oct-21	< 0.001	**0.009**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.026**	**1.65**	< 0.001	**0.019**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	16-Nov-21	< 0.001	**0.009**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.012**	**0.38**	< 0.001	**0.021**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.006**
	15-Dec-21	< 0.001	-	-	-	-	-	-	-	**0.69**	-	**0.016**	-	-	-	-	-
	18-Jan-22	< 0.001	-	-	-	-	-	-	-	**0.52**	-	**0.018**	-	-	-	-	-
	24-Feb-22	< 0.001	**0.009**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.62**	< 0.001	**0.017**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.008**
	12-Apr-22	< 0.001	-	-	-	-	-	-	-	**0.27**	-	**0.017**	-	-	-	-	-
	27-May-22	< 0.001	**0.011**	-	-	-	< 0.001	-	**0.097**	< 0.05	-	-	-	< 0.001	-	-	< 0.005
	17-Jun-22	< 0.001	-	-	-	-	-	-	**0.082**	< 0.05	-	**0.014**	-	-	-	-	-
	27-Jul-22	< 0.001	-	-	-	-	-	-	-	**0.09**	-	**0.014**	-	-	-	-	-
	12-Aug-22	< 0.001	**0.013**	-	-	-	< 0.001	-	**0.05**	< 0.05	-	**0.013**	-	< 0.001	-	-	**0.013**
	16-Sep-22	< 0.001	-	-	-	-	-	-	-	**0.11**	-	**0.014**	-	-	-	-	-
	24-Oct-22	< 0.001	-	-	-	-	-	-	-	**0.19**	-	**0.016**	-	-	-	-	-
	18-Nov-22	< 0.001	**0.012**	-	-	-	< 0.001	< 0.001	**0.006**	**0.13**	-	**0.016**	-	< 0.001	-	-	**0.011**
BH5	22-Feb-19	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**1.4**	< 0.001	**0.005**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.008**
	24-Feb-22	< 0.001	**0.024**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**1.64**	< 0.001	**0.005**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
BH6	22-Feb-19	< 0.001	**0.03**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**1.03**	< 0.001	**0.014**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.019**
	14-Mar-19	< 0.001	**0.027**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**1.9**	< 0.001	**0.01**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.012**
	23-Apr-19	< 0.001	**0.03**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.001**	**0.96**	< 0.001	**0.01**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.022**
	16-May-19	< 0.001	**0.029**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**2.57**	< 0.001	**0.009**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	14-Jun-19	< 0.001	**0.027**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.001**	**2.86**	< 0.001	**0.008**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.008**
	16-Jul-19	< 0.001	**0.026**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.002**	**2.41**	< 0.001	**0.008**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.005**
	15-Aug-19	< 0.001	**0.026**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.001**	**2.19**	< 0.001	**0.008**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.007**
	16-Sep-19	< 0.001	**0.034**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.008**	**2.08**	< 0.001	**0.012**	< 0.0001	**0.007**	< 0.01	< 0.01	**0.035**
	15-Oct-19	< 0.001	**0.026**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	-	< 0.001	**0.009**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.006**
	18-Nov-19	< 0.001	**0.03**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**1.58**	< 0.001	**0.009**	< 0.0001	**0.008**	< 0.01	< 0.01	**0.073**
	16-Sep-20	< 0.001	**0.047**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.002**	**1.78**	< 0.001	**0.01**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.006**
	16-Oct-20	< 0.001	**0.04**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**1.84**	< 0.001	**0.011**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.007**
	16-Nov-20	< 0.001	**0.061**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**1.72**	< 0.001	**0.014**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.01**
	16-Dec-20	< 0.001	**0.07**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**1.64**	< 0.001	**0.014**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.007**
	14-Jan-21	< 0.001	**0.054**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.011**	**1.06**	< 0.001	**0.014**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.025**
	16-Feb-21	< 0.001	**0.048**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.013**	**1.18**	< 0.001	**0.012**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.012**
	17-Mar-21	< 0.001	**0.068**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**1.39**	< 0.001	**0.012**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.006**
	19-Aug-21	**0.005**	**0.037**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.55**	< 0.001	**0.004**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	22-Sep-21	**0.002**	**0.02**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.55**	< 0.001	**0.005**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	13-Oct-21	**0.002**	**0.014**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.65**	< 0.001	**0.004**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	16-Nov-21	< 0.001	**0.013**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.83**	< 0.001	**0.004**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	15-Dec-21	< 0.001	-	-	-	-	-	-	-	**0.66**	-	**0.002**	-	-	-	-	-
	18-Jan-22	< 0.001	-	-	-	-	-	-	-	**0.7**	-	**0.003**	-	-	-	-	-
	24-Feb-22	< 0.001	**0.011**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.55**	< 0.001	**0.001**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.031**
	12-Apr-22	< 0.001	-	-	-	-	-	-	-	**3.24**	-	**0.016**	-	-	-	-	-
	27-May-22	< 0.001	**0.007**	-	-	-	< 0.001	-	< 0.001	**3.45**	-	-	-	< 0.001	-	-	< 0.005
	17-Jun-22	< 0.001	-	-	-	-	-	-	-	**2.7**	-	**0.005**	-	-	-	-	-
	27-Jul-22	< 0.001	-	-	-	-	-	-	-	**2.38**	-	**0.001**	-	-	-	-	-
	12-Aug-22	< 0.001	**0.008**	-	-	-	< 0.001	-	< 0.001	**2.38**	-	**0.002**	-	< 0.001	-	-	**0.008**
	16-Sep-22	**0.001**	-	-	-	-	-	-	-	**3.45**	-	**0.002**	-	-	-	-	-
	24-Oct-22	< 0.001	-	-	-	-	-	-	-	**3.44**	-	**0.002**	-	-	-	-	-
	18-Nov-22	< 0.001	**0.009**	-	-	-	< 0.001	< 0.001	< 0.001	**4.39**	-	**0.006**	-	**0.002**	-	-	**0.005**
BH7	22-Feb-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.003**	< 0.001	**1.8**	< 0.001	**0.026**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.019**
	14-Mar-19	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	**0.001**	**0.003**	< 0.001	**1.8**	< 0.001	**0.02**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.009**
	23-Apr-19	< 0.001	**0.012**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.003**	< 0.001	**2.0**	< 0.001	**0.026**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.01**
	16-May-19	< 0.001	**0.008**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.003**	< 0.001	**2.32**	< 0.001	**0.035**	< 0.0001	**0.005**	< 0.01	< 0.01	**0.013**
	14-Jun-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	< 0.001	**2.06**	< 0.001	**0.03**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.006**
	16-Jul-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	< 0.001	**1.66**	< 0.001	**0.025**	< 0.0001	**0.003**	< 0.01	< 0.01	< 0.005
	15-Aug-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	< 0.001	**1.54**	< 0.001	**0.023**	< 0.0001	**0.003**	< 0.01	< 0.01	< 0.005
	16-Sep-19	< 0.001	**0.016**	< 0.001	**0.06**	< 0.0001	**0.002**	**0.002**	**0.007**	**1.42**	**0.001**	**0.024**	< 0.0001	**0.02**	< 0.01	< 0.01	**0.085**
	15-Oct-19	< 0.001	**0.009**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	**0.003**	-	< 0.001	**0.018**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.011**
	18-Nov-19	< 0.001	**0.016**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	< 0.001	**1.1**	< 0.001	**0.015**	< 0.0001	**0.013**	< 0.01	< 0.01	**0.053**
	16-Sep-20	< 0.001	**0.013**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	< 0.001	**1.67**	< 0.001	**0.021**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.006**
	16-Oct-20	< 0.001	**0.009**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	< 0.001	**1.49**	< 0.001	**0.015**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.015**
	16-Nov-20	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.003**	< 0.001	**1.72**	< 0.001	**0.023**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.006**
	16-Dec-20	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	< 0.001	**1.79**	< 0.001	**0.024**	< 0.0001	**0.003**	< 0.01	< 0.01	< 0.005
	14-Jan-21	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	**0.004**	**1.65**	< 0.001	**0.025**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.017**
	16-Feb-21	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.002**	**0.002**	**1.74**	< 0.001	**0.025**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.013**
	17-Mar-21	< 0.001	**0.009**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.003**	< 0.001	**2.28**	< 0.001	**0.028**	< 0.0001	**0.005**	< 0.01	< 0.01	< 0.005

	19-Aug-21	**0.003**	**0.004**	< 0.001	< 0.05	< 0.0001	**0.003**	**0.001**	< 0.001	**0.79**	< 0.001	**0.006**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.006**
	22-Sep-21	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	< 0.001	**0.62**	< 0.001	**0.005**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	13-Oct-21	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	< 0.001	**0.69**	**0.002**	**0.005**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	16-Nov-21	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	< 0.001	**0.39**	< 0.001	**0.003**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.007**
	15-Dec-21	< 0.001	-	-	-	-	-	-	-	**0.47**	-	**0.002**	-	-	-	-	-
	18-Jan-22	< 0.001	-	-	-	-	-	-	-	**0.45**	-	**0.002**	-	-	-	-	-
	24-Feb-22	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	< 0.001	**0.66**	< 0.001	**0.003**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	12-Apr-22	< 0.001	-	-	-	-	-	-	-	**0.43**	-	**0.004**	-	-	-	-	-
	27-May-22	< 0.001	**0.003**	-	-	-	**0.003**	-	< 0.001	**0.52**	-	-	-	**0.002**	-	-	**0.005**
	17-Jun-22	< 0.001	-	-	-	-	-	-	-	**0.56**	-	**0.004**	-	-	-	-	-
	27-Jul-22	< 0.001	-	-	-	-	-	-	-	**0.51**	-	**0.004**	-	-	-	-	-
	12-Aug-22	< 0.001	**0.003**	-	-	-	**0.002**	-	**0.003**	**0.56**	-	**0.004**	-	**0.002**	-	-	< 0.005
	16-Sep-22	**0.001**	-	-	-	-	-	-	-	**0.54**	-	**0.004**	-	-	-	-	-
	24-Oct-22	< 0.001	-	-	-	-	-	-	-	**0.5**	-	**0.003**	-	-	-	-	-
	18-Nov-22	**0.001**	**0.002**	-	-	-	**0.002**	< 0.001	< 0.001	**0.43**	-	**0.001**	-	**0.001**	-	-	**0.009**
	21-Feb-19	< 0.001	**0.011**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**4.1**	< 0.001	**0.012**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.005**
	14-Mar-19	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**3.25**	< 0.001	**0.008**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	23-Apr-19	**0.001**	**0.008**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**3.2**	< 0.001	**0.009**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.008**
	16-May-19	**0.003**	**0.01**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**3.0**	< 0.001	**0.01**	< 0.0001	**0.003**	< 0.01	< 0.01	< 0.005
	14-Jun-19	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**2.5**	< 0.001	**0.005**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.006**
	16-Jul-19	**0.001**	**0.012**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**2.6**	< 0.001	**0.004**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	15-Aug-19	**0.001**	**0.008**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**1.72**	< 0.001	**0.004**	< 0.0001	**0.001**	< 0.01	< 0.01	< 0.005
	16-Sep-19	**0.001**	**0.01**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**2.06**	< 0.001	**0.005**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	15-Oct-19	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.002**	-	< 0.001	**0.009**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.011**
	18-Nov-19	< 0.001	**0.012**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.002**	**2.49**	< 0.001	**0.01**	< 0.0001	**0.013**	< 0.01	< 0.01	**0.053**
	16-Sep-20	< 0.001	**0.014**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.035**	**3.35**	**0.001**	**0.009**	< 0.0001	**0.009**	< 0.01	< 0.01	**0.039**
BH8	16-Oct-20	**0.001**	**0.009**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**3.03**	< 0.001	**0.007**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.012**
	16-Nov-20	< 0.001	**0.013**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**3.48**	< 0.001	**0.008**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	16-Dec-20	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.001**	**2.98**	< 0.001	**0.01**	< 0.0001	**0.001**	< 0.01	< 0.01	< 0.005
	14-Jan-21	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.002**	**2.71**	< 0.001	**0.01**	< 0.0001	**0.005**	< 0.01	< 0.01	**0.009**
	16-Feb-21	**0.001**	**0.009**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.004**	**2.99**	< 0.001	**0.01**	< 0.0001	**0.006**	< 0.01	< 0.01	**0.013**
	17-Mar-21	< 0.001	**0.012**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**3.86**	< 0.001	**0.01**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	19-Aug-21	**0.003**	**0.008**	-	-	-	**0.002**	-	< 0.001	**3.72**	-	-	-	**0.002**	-	-	< 0.005
	16-Nov-21	**0.001**	**0.01**	-	-	-	**0.002**	-	< 0.001	**4.23**	-	-	-	**0.002**	-	-	< 0.005
	16-Dec-21	-	-	-	-	-	-	-	-	**3.78**	-	-	-	-	-	-	-
	24-Feb-22	**0.001**	**0.009**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**2.98**	< 0.001	**0.007**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.012**
	27-May-22	**0.001**	**0.004**	-	-	-	**0.002**	-	< 0.001	**1.1**	-	-	-	**0.001**	-	-	< 0.005
	12-Aug-22	**0.001**	**0.006**	-	-	-	**0.002**	-	< 0.001	**1.54**	-	**0.003**	-	**0.001**	-	-	**0.007**
	18-Nov-22	**0.002**	**0.004**	-	-	-	**0.002**	< 0.001	< 0.001	**1.16**	-	**0.001**	-	< 0.001	-	-	**0.008**
BH9	16-Nov-21	< 0.001	-	-	-	-	-	-	-	< 0.05	-	**0.014**	-	-	-	-	-
	16-Sep-20	< 0.001	**0.028**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.002**	**0.004**	**0.14**	< 0.001	**0.076**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.02**
	16-Oct-20	< 0.001	**0.001**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.001**	**0.001**	**0.06**	< 0.001	**0.042**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.016**
	16-Nov-20	< 0.001	**0.001**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.001**	**0.001**	**0.11**	< 0.001	**0.03**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.011**
	16-Dec-20	< 0.001	**0.001**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	**0.001**	**0.31**	< 0.001	**0.024**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.006**
	14-Jan-21	< 0.001	**0.002**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.017**	**0.14**	< 0.001	**0.025**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.011**
	16-Feb-21	< 0.001	**0.001**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.001**	< 0.001	**0.35**	< 0.001	**0.024**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.006**
	17-Mar-21	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.27**	< 0.001	**0.024**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.01**
	19-Aug-21	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.26**	< 0.001	**0.03**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.006**
	22-Sep-21	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.32**	< 0.001	**0.027**	< 0.0001	**0.003**	< 0.01	< 0.01	< 0.005
	13-Oct-21	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	**0.51**	< 0.001	**0.033**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.021**
BH9A	16-Nov-21	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.001**	< 0.001	**0.33**	< 0.001	**0.025**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.031**
	15-Dec-21	< 0.001	-	-	-	-	-	-	-	**0.48**	-	**0.025**	-	-	-	-	-
	18-Jan-22	< 0.001	-	-	-	-	-	-	-	**0.44**	-	**0.03**	-	-	-	-	-
	24-Feb-22	< 0.001	**0.008**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.001**	< 0.001	**0.5**	< 0.001	**0.042**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.006**
	12-Apr-22	< 0.001	-	-	-	-	-	-	-	**0.48**	-	**0.038**	-	-	-	-	-
	27-May-22	< 0.001	**0.007**	-	-	-	< 0.001	-	< 0.001	**0.35**	-	-	-	**0.003**	-	-	< 0.005
	17-Jun-22	< 0.001	-	-	-	-	-	-	-	**0.42**	-	**0.032**	-	-	-	-	-
	27-Jul-22	< 0.001	-	-	-	-	-	-	-	**0.16**	-	**0.019**	-	-	-	-	-
	12-Aug-22	< 0.001	**0.009**	-	-	-	< 0.001	-	**0.004**	**0.53**	-	**0.025**	-	**0.004**	-	-	**0.008**
	16-Sep-22	< 0.001	-	-	-	-	-	-	-	**0.54**	-	**0.031**	-	-	-	-	-
	24-Oct-22	< 0.001	-	-	-	-	-	-	-	**0.27**	-	**0.022**	-	-	-	-	-
	18-Nov-22	< 0.001	**0.007**	-	-	-	< 0.001	< 0.001	< 0.001	**0.56**	-	**0.034**	-	**0.002**	-	-	**0.012**
	21-Feb-19	< 0.001	**0.008**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.001**	< 0.001	**0.26**	< 0.001	**0.003**	< 0.0001	**0.005**	< 0.01	< 0.01	**0.031**
	15-Mar-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**1.49**	< 0.001	**0.007**	< 0.0001	**0.037**	< 0.01	< 0.01	**0.016**
	23-Apr-19	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.98**	< 0.001	**0.007**	< 0.0001	**0.07**	< 0.01	< 0.01	**0.04**
	16-May-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.97**	< 0.001	**0.006**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.024**
	14-Jun-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**0.98**	< 0.001	**0.005**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.005**
	16-Jul-19	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.47**	< 0.001	**0.003**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.007**
	15-Aug-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.001**	**0.87**	< 0.001	**0.007**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.005**
	16-Sep-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**0.79**	< 0.001	**0.008**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.012**
	15-Oct-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.004**	-	< 0.001	**0.006**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.016**

BH11	18-Nov-19	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.95**	< 0.001	**0.008**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	16-Sep-20	< 0.001	**0.014**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.005**	**0.9**	< 0.001	**0.008**	< 0.0001	< 0.001	< 0.01	< 0.01	**0.009**
	16-Oct-20	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**1.06**	< 0.001	**0.009**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.01**
	16-Nov-20	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**0.84**	< 0.001	**0.011**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.016**
	16-Dec-20	< 0.001	**0.008**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**1.0**	< 0.001	**0.009**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.008**
	14-Jan-21	< 0.001	**0.008**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.025**	**0.56**	< 0.001	**0.006**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.018**
	16-Feb-21	< 0.001	**0.008**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.018**	**0.59**	< 0.001	**0.008**	< 0.0001	**0.007**	< 0.01	< 0.01	**0.03**
	17-Mar-21	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**0.2**	< 0.001	**0.002**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.014**
	19-Aug-21	**0.001**	**0.009**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	< 0.001	**0.62**	< 0.001	**0.003**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.047**
	22-Sep-21	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.72**	< 0.001	**0.003**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.042**
	13-Oct-21	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.69**	< 0.001	**0.005**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.037**
	16-Nov-21	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	< 0.001	**0.92**	< 0.001	**0.002**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.036**
	15-Dec-21	< 0.001	-	-	-	-	-	-	-	**0.92**	-	**0.003**	-	-	-	-	-
	18-Jan-22	< 0.001	-	-	-	-	-	-	-	**1.06**	-	**0.003**	-	-	-	-	-
	24-Feb-22	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	**0.003**	< 0.001	< 0.001	**1.25**	< 0.001	**0.003**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.036**
	06-Mar-22	< 0.001	**0.004**	-	-	-	**0.002**	-	< 0.001	**1.27**	-	-	-	**0.002**	-	-	**0.028**
	12-Apr-22	< 0.001	-	-	-	-	-	-	-	**1.06**	-	**0.004**	-	-	-	-	-
	17-Jun-22	< 0.001	-	-	-	-	-	-	-	**1.24**	-	**0.004**	-	-	-	-	-
	27-Jul-22	< 0.001	-	-	-	-	-	-	-	**1.03**	-	**0.004**	-	-	-	-	-
	16-Sep-22	< 0.001	-	-	-	-	-	-	-	**1.14**	-	**0.004**	-	-	-	-	-
	24-Oct-22	< 0.001	-	-	-	-	-	-	-	**1.14**	-	**0.003**	-	-	-	-	-
	18-Nov-22	< 0.001	**0.002**	-	-	-	**0.003**	< 0.001	< 0.001	**1.06**	-	**0.003**	-	**0.003**	-	-	**0.042**
BH12	16-Nov-20	< 0.001	-	-	-	< 0.0001	**0.002**	-	**0.002**	-	< 0.001	-	< 0.0001	**0.002**	-	-	**0.017**
	24-Feb-22	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.33**	< 0.001	**0.006**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
MW239S	22-Feb-19	< 0.001	**0.007**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**1.11**	< 0.001	**0.003**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.006**
	14-Mar-19	< 0.001	**0.008**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**1.25**	< 0.001	**0.005**	< 0.0001	**0.005**	< 0.01	< 0.01	**0.008**
	23-Apr-19	< 0.001	**0.008**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**1.01**	< 0.001	**0.004**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.007**
	16-May-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.87**	< 0.001	**0.003**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	14-Jun-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.002**	**0.8**	< 0.001	**0.003**	< 0.0001	**0.001**	< 0.01	< 0.01	< 0.005
	16-Jul-19	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.87**	< 0.001	**0.003**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	15-Aug-19	< 0.001	**0.006**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**1.0**	< 0.001	**0.004**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	16-Sep-19	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.002**	**0.94**	< 0.001	**0.006**	< 0.0001	**0.006**	< 0.01	< 0.01	**0.032**
	15-Oct-19	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.003**	-	< 0.001	**0.004**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.011**
	18-Nov-19	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**1.1**	< 0.001	**0.004**	< 0.0001	**0.008**	< 0.01	< 0.01	**0.03**
	16-Sep-20	< 0.001	**0.016**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.002**	**0.51**	< 0.001	**0.008**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.006**
	16-Oct-20	< 0.001	**0.009**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**1.17**	< 0.001	**0.009**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.005**
	16-Nov-20	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	**0.001**	**0.3**	< 0.001	**0.011**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.021**
	16-Dec-20	< 0.001	**0.01**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**1.06**	< 0.001	**0.011**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	14-Jan-21	< 0.001	**0.011**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	**0.005**	**0.77**	< 0.001	**0.012**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.011**
	16-Feb-21	< 0.001	**0.011**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.001**	**0.01**	**0.92**	< 0.001	**0.012**	< 0.0001	**0.009**	< 0.01	< 0.01	**0.014**
	17-Mar-21	< 0.001	**0.011**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.95**	< 0.001	**0.01**	< 0.0001	**0.004**	< 0.01	< 0.01	**0.009**
	19-Aug-21	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**0.53**	< 0.001	**0.006**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	22-Sep-21	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.001**	< 0.001	< 0.001	**0.65**	< 0.001	**0.004**	< 0.0001	**0.001**	< 0.01	< 0.01	**0.005**
	13-Oct-21	< 0.001	**0.003**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.79**	< 0.001	**0.008**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.016**
	16-Nov-21	< 0.001	**0.005**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.68**	< 0.001	**0.006**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.01**
	15-Dec-21	< 0.001	-	-	-	-	-	-	-	**0.77**	-	**0.005**	-	-	-	-	-
	18-Jan-22	< 0.001	-	-	-	-	-	-	-	**0.48**	-	**0.003**	-	-	-	-	-
	24-Feb-22	< 0.001	**0.004**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**0.55**	< 0.001	**0.004**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.006**
	12-Apr-22	< 0.001	-	-	-	-	-	-	-	**0.93**	-	**0.007**	-	-	-	-	-
	27-May-22	< 0.001	**0.004**	-	-	-	**0.002**	-	< 0.001	**0.56**	-	-	-	**0.001**	-	-	**0.009**
	17-Jun-22	< 0.001	-	-	-	-	-	-	-	**0.36**	-	**0.004**	-	-	-	-	-
	27-Jul-22	< 0.001	-	-	-	-	-	-	-	**0.43**	-	**0.004**	-	-	-	-	-
	12-Aug-22	< 0.001	**0.002**	-	-	-	**0.002**	-	< 0.001	**0.4**	-	**0.005**	-	**0.001**	-	-	< 0.005
	16-Sep-22	< 0.001	-	-	-	-	-	-	-	**0.44**	-	**0.006**	-	-	-	-	-
	24-Oct-22	< 0.001	-	-	-	-	-	-	-	**0.38**	-	**0.004**	-	-	-	-	-
	18-Nov-22	< 0.001	**0.003**	-	-	-	**0.001**	< 0.001	< 0.001	**0.28**	-	**0.002**	-	**0.002**	-	-	**0.006**

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
mg/L - Milligrams per litre
Bold indicates a detection above the laboratory limit of reporting
Highlighting indicates an exceedance of the corresponding criteria (highlighting corresponds to the guideline with the highest criteria value where analytical result exceeds more than one guideline)

Criteria:
SWMP 2021 - Soil and Water Management Plan, July 2021

Analyte		PFAS Compounds																												Sum of PFAS		
Analyte		Perfluorooctane sulfonamide (FOSA)	N-Methyl-perfluorooctane sulfonamide (MeFOSA)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	Perfluorobutanoic acid (PFBA)	Perfluoro-n-pentanoic aicd (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoate (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonate (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	4:2 Fluorotelomer Sulfonate (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonate (8:2 FtS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Adopted Site Specific Trigger Values (SWMP 2021)		--	--	--	--	--	--	--	--	--	--	--	0.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.07	--	--
Sample Name	Sample Date																															
BH1	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH2	22-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH3	21-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH4	21-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	15-Mar-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	23-Apr-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-May-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jun-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Jul-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	15-Aug-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	**0.02**	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	**0.02**
	15-Oct-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	**0.15**	< 0.05	< 0.05	< 0.01	**0.15**	**0.15**
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	**0.06**	< 0.05	< 0.05	< 0.01	**0.06**	**0.06**
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH5	22-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH6	22-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Mar-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	23-Apr-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-May-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jun-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Jul-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	15-Aug-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	15-Oct-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH7	22-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Mar-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	23-Apr-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-May-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jun-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Jul-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	15-Aug-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	15-Oct-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH8	21-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Mar-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	23-Apr-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-May-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jun-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Jul-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	15-Aug-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	15-Oct-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH9A	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	22-Sep-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	13-Oct-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH11	21-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	22-Sep-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	13-Oct-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01

	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	06-Mar-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH12	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	**0.07**	< 0.05	< 0.05	< 0.01	**0.07**	**0.07**
MW239S	22-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	22-Sep-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	13-Oct-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
µg/L - Micrograms per litre
Bold indicates a detection above the laboratory limit of reporting

Criteria:
SWMP 2021 - Soil and Water Management Plan, July 2021

Analyte		BTEXN								Total Petroleum Hydrocarbons					Total Petroleum Hydrocarbons - Silica Clean-up				Total Recoverable Hydrocarbons							Total Recoverable Hydrocarbons - Silica Clean-up				
		Benzene	Toluene	Ethylbenzene	meta- & para-Xylene	ortho-Xylene	Total Xylenes	Naphthalene	Sum of BTEX	C_6 - C_9	C_{10} - C_{14}	C_{15} - C_{28}	C_{29} - C_{36}	C_{10} - C_{36} sum	C_{10}-C_{14} - Silica Cleanup	C_{15}-C_{28} - Silica Cleanup	C_{29}-C_{36} - Silica Cleanup	C_{10}-C_{36} Sum - Silica Cleanup	C_6 - C_{10}	C_6 - C_{10} minus BTEX (F1)	>C_{10} - C_{16}	>C_{10} - C_{16} minus Naphthalene (F2)	>C_{16} - C_{34}	>C_{34} - C_{40}	>C_{10} - C_{40} (sum)	>C_{10}-C_{16} - Silica Cleanup	F2 - Silica Cleanup	>C_{16}-C_{34} - Silica Cleanup	>C_{34}-C_{40} - Silica Cleanup	>C_{10}-C_{40} - Silica Cleanup
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Adopted Site Specific Trigger Values (SWMP 2021)		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20	20	100	--	100	100	--	--	--	--	--	--
Sample Name	Sample Date																													
SW1	23-Apr-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-May-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	14-Jun-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Jul-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Aug-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-Sep-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Oct-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Oct-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	27-May-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	12-Aug-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
SW2	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	22-Sep-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	13-Oct-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	27-May-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	12-Aug-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
SW3	22-Feb-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Mar-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	23-Apr-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-May-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	14-Jun-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Jul-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Aug-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-Sep-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Oct-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Oct-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	**2.0**	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	**2.0**	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	27-May-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	12-Aug-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
SW4	23-Apr-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-May-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	14-Jun-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Jul-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Aug-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	-	-	-	-	< 20	< 20	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	16-Sep-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	15-Oct-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-19	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Sep-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Oct-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Dec-20	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	14-Jan-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Feb-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	17-Mar-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	19-Aug-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	16-Nov-21	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	24-Feb-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	27-May-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	12-Aug-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100
	18-Nov-22	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	-	-	-	-	< 50	< 100	< 50	< 50	< 20	< 20	-	-	-	-	-	< 100	< 100	< 100	< 100	< 100

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
µg/L - Micrograms per litre
BTEXN - Benzene, toluene, ethylbenzene, total xylenes, naphthalene
Bold indicates a detection above the laboratory limit of reporting

Criteria:
SWMP 2021 - Soil and Water Management Plan, July 2021

Analyte		Anions and Cations																		Alkalinity					Inorganics				
		Sodium	Calcium	Magnesium	Potassium	Sulphate	Chloride	Fluoride	Reactive phosphorus as P	Total Phosphorus	Nitrite as N	Nitrate as N	Nitrite + Nitrate as N	Ammonia as N	Total Nitrogen as N	Total Kjeldahl Nitrogen as N	Total Cations	Total Anions	Sodium Adsorption Ratio	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Total Alkalinity as CaCO3	Total Hardness as CaCO3	Electrical Conductivity @ 25ºC	Total Dissolved Solids	Total suspended solids	pH	Turbidity
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	-	mg/L	mg/L	mg/L	mg/L	mg/L	µS/cm	mg/L	mg/L	pH units	NTU
Adopted Site Specific Trigger Values (SWMP 2021)		142	40	52	8.0	324	234	0.8	--	0.17	--	--	--	0.2	5.9	--	--	--	--	--	--	--	--	--	500	--	--	4.2-6.5	--
Sample Name	Sample Date																												
SW1	23-Apr-19	94	34	52	6.0	310	95	0.5	-	-	-	-	-	-	-	-	10	9.13	-	< 1.0	< 1.0	< 1.0	< 1.0	299	893	707	32	4.01	-
	16-May-19	86	24	42	6.0	324	112	0.3	< 0.01	0.13	< 0.01	< 0.01	< 0.01	< 0.01	1.8	1.8	8.94	9.9	2.45	< 1.0	< 1.0	< 1.0	< 1.0	233	947	715	59	4.6	-
	14-Jun-19	77	20	34	5.0	182	112	0.4	-	-	-	-	-	-	-	-	7.27	6.95	-	< 1.0	< 1.0	< 1.0	< 1.0	190	847	512	26	4.5	-
	16-Jul-19	90	20	35	4.0	240	130	0.4	-	-	-	-	-	-	-	-	7.9	8.66	-	< 1.0	< 1.0	< 1.0	< 1.0	194	876	568	17	4.42	-
	15-Aug-19	97	18	32	4.0	212	134	0.4	-	-	-	-	-	-	-	-	7.85	8.19	-	< 1.0	< 1.0	< 1.0	< 1.0	177	813	548	5.0	4.53	-
	16-Sep-19	117	21	39	4.0	244	193	0.7	< 0.01	0.05	< 0.01	0.02	0.02	< 0.01	1.2	1.2	9.45	11	3.49	< 1.0	< 1.0	< 1.0	< 1.0	213	1,080	689	15	4.32	-
	15-Oct-19	124	16	31	3.0	127	191	0.6	-	-	-	-	-	-	-	-	8.82	8.03	-	< 1.0	< 1.0	< 1.0	< 1.0	168	1,050	682	-	5.32	-
	18-Nov-19	142	14	30	4.0	165	234	0.5	< 0.01	0.02	< 0.01	-	< 0.01	0.03	1.1	1.1	9.45	10	4.91	< 1.0	< 1.0	< 1.0	< 1.0	158	1,090	708	-	5.06	-
	16-Sep-20	9.0	16	3.0	3.0	< 1.0	< 1.0	0.1	-	-	-	-	-	-	-	-	1.51	1.1	-	55	< 1.0	< 1.0	55	52	137	152	8.0	6.5	-
	16-Oct-20	12	40	4.0	4.0	< 1.0	16	0.2	-	-	-	-	-	-	-	-	2.95	2.69	-	112	< 1.0	< 1.0	112	116	268	174	-	7.29	-
	16-Nov-20	8.0	13	2.0	3.0	< 1.0	10	< 0.1	< 0.01	0.03	< 0.01	0.04	0.04	< 0.01	0.6	0.6	1.24	1.12	0.54	42	< 1.0	< 1.0	42	41	127	82	< 5.0	6.5	-
	16-Dec-20	10	19	2.0	3.0	5.0	12	0.1	-	-	-	-	-	-	-	-	1.62	1.68	-	62	< 1.0	< 1.0	62	56	171	111	-	7.01	-
	14-Jan-21	10	18	2.0	3.0	< 1.0	13	0.1	-	-	-	-	-	-	-	-	1.57	1.46	-	55	< 1.0	< 1.0	55	53	154	100	-	6.71	-
	16-Feb-21	10	15	2.0	3.0	< 1.0	12	0.1	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.5	0.5	1.42	1.36	0.64	51	< 1.0	< 1.0	51	46	141	92	6.0	6.93	-
	17-Mar-21	10	15	2.0	2.0	< 1.0	13	0.1	-	-	-	-	-	-	-	-	1.4	1.26	-	45	< 1.0	< 1.0	45	46	139	90	-	6.63	-
	19-Aug-21	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13-Oct-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.82	3.3
	16-Nov-21	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	24-Feb-22	6.0	9.0	2.0	2.0	< 1.0	10	< 0.1	-	0.11	-	-	< 0.01	0.02	1.0	1.0	0.92	0.8	-	-	< 1.0	< 1.0	26	31	89	58	-	6.38	-
	27-May-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW2	17-Mar-21	12	2.0	2.0	< 1.0	6.0	16	0.2	-	-	-	-	-	-	-	-	0.79	0.58	-	< 1.0	< 1.0	< 1.0	< 1.0	13	83	54	-	5.08	-
	19-Aug-21	12	< 1.0	1.0	< 1.0	6.0	22	< 0.1	< 0.01	0.07	< 0.01	< 0.01	< 0.01	0.17	1.2	1.2	0.6	0.74	2.25	< 1.0	< 1.0	< 1.0	< 1.0	4.0	103	67	-	4.21	-
	22-Sep-21	14	2.0	2.0	2.0	16	30	0.1	< 0.01	0.08	< 0.01	1.77	1.77	< 0.01	3.0	1.2	0.92	1.18	1.67	< 1.0	< 1.0	< 1.0	< 1.0	13	235	153	-	3.55	-
	13-Oct-21	10	< 1.0	1.0	< 1.0	6.0	18	< 0.1	< 0.01	0.03	< 0.01	0.02	0.02	< 0.01	0.6	0.6	0.52	0.63	1.88	< 1.0	< 1.0	< 1.0	< 1.0	4.0	77	50	-	4.58	4.7
	16-Nov-21	10	2.0	2.0	< 1.0	7.0	16	0.1	< 0.01	0.09	< 0.01	< 0.01	< 0.01	< 0.01	1.8	1.8	0.7	0.6	1.2	< 1.0	< 1.0	< 1.0	< 1.0	-	93	60	-	4.39	-
	24-Feb-22	10	1.0	1.0	< 1.0	2.0	21	0.1	-	0.63	-	-	< 0.01	0.31	7.5	7.5	0.57	0.63	-	-	< 1.0	< 1.0	< 1.0	7.0	97	63	-	4.32	-
	27-May-22	-	-	< 1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW3	22-Feb-19	40	4.0	4.0	1.0	16	82	< 0.1	< 0.01	0.06	< 0.01	< 0.01	< 0.01	0.16	1.0	1.0	2.55	2.87	3.38	11	< 1.0	< 1.0	11	26	262	228	58	6.21	-
	14-Mar-19	45	6.0	6.0	2.0	44	64	< 0.1	-	-	-	-	-	-	-	-	2.8	2.8	-	4.0	< 1.0	< 1.0	4.0	40	344	224	34	5.42	-
	23-Apr-19	37	8.0	6.0	1.0	42	53	< 0.1	-	-	-	-	-	-	-	-	2.53	2.37	-	< 1.0	< 1.0	< 1.0	< 1.0	45	220	190	9.0	5.2	-
	16-May-19	35	7.0	5.0	< 1.0	34	54	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.1	0.1	2.28	2.25	2.47	1.0	< 1.0	< 1.0	1.0	38	271	300	14	5.24	-
	14-Jun-19	32	7.0	6.0	< 1.0	41	55	< 0.1	-	-	-	-	-	-	-	-	2.24	2.4	-	< 1.0	< 1.0	< 1.0	< 1.0	42	300	170	12	4.58	-
	16-Jul-19	46	8.0	12	< 1.0	104	57	0.2	-	-	-	-	-	-	-	-	3.39	3.77	-	< 1.0	< 1.0	< 1.0	< 1.0	69	451	246	7.0	4.47	-
	15-Aug-19	38	6.0	7.0	< 1.0	54	56	0.1	-	-	-	-	-	-	-	-	2.53	2.7	-	< 1.0	< 1.0	< 1.0	< 1.0	44	338	192	< 5.0	4.47	-
	16-Sep-19	42	7.0	8.0	< 1.0	48	57	0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.1	0.1	2.83	2.61	2.57	< 1.0	< 1.0	< 1.0	< 1.0	50	374	201	7.0	4.3	-
	15-Oct-19	40	5.0	7.0	< 1.0	42	57	0.2	-	-	-	-	-	-	-	-	2.56	2.48	-	< 1.0	< 1.0	< 1.0	< 1.0	41	383	249	-	4.75	-
	18-Nov-19	36	5.0	5.0	< 1.0	29	56	< 0.1	< 0.01	0.04	< 0.01	-	0.01	0.03	0.6	0.6	2.23	2.18	2.72	< 1.0	< 1.0	< 1.0	< 1.0	33	278	181	-	5.39	-
	16-Sep-20	39	3.0	8.0	< 1.0	65	55	0.1	-	-	-	-	-	-	-	-	3.12	2.9	-	< 1.0	< 1.0	< 1.0	< 1.0	40	402	224	6.0	4.41	-
	16-Oct-20	40	4.0	6.0	< 1.0	40	63	< 0.1	-	-	-	-	-	-	-	-	2.73	2.61	-	< 1.0	< 1.0	< 1.0	< 1.0	35	333	216	-	4.15	-
	16-Nov-20	34	2.0	5.0	< 1.0	67	53	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.3	0.3	2.6	2.89	2.92	< 1.0	< 1.0	< 1.0	< 1.0	26	460	299	< 5.0	3.95	-
	16-Dec-20	36	1.0	5.0	1.0	27	61	< 0.1	-	-	-	-	-	-	-	-	2.05	2.3	-	1.0	< 1.0	< 1.0	1.0	23	303	197	-	4.8	-
	14-Jan-21	27	< 1.0	2.0	< 1.0	26	54	< 0.1	-	-	-	-	-	-	-	-	1.82	2.06	-	< 1.0	< 1.0	< 1.0	< 1.0	8.0	301	196	-	4.06	-
	16-Feb-21	30	2.0	3.0	< 1.0	21	56	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.5	0.5	1.65	2.02	3.13	< 1.0	< 1.0	< 1.0	< 1.0	17	273	177	< 5.0	4.15	-
	17-Mar-21	29	< 1.0	2.0	< 1.0	15	51	< 0.1	-	-	-	-	-	-	-	-	1.43	1.75	-	< 1.0	< 1.0	< 1.0	< 1.0	8.0	237	154	-	4.65	-
	19-Aug-21	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16-Nov-21	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	24-Feb-22	27	< 1.0	2.0	< 1.0	8.0	53	< 0.1	-	0.03	-	-	< 0.01	0.02	0.9	0.9	1.34	1.7	-	-	< 1.0	< 1.0	2.0	8.0	183	119	-	4.59	-
	27-May-22	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW4	23-Apr-19	39	5.0	5.0	< 1.0	60	64	0.1	-	-	-	-	-	-	-	-	2.36	3.05	-	< 1.0	< 1.0	< 1.0	< 1.0	33	293	198	< 5.0	4.0	-
	16-May-19	41	5.0	5.0	< 1.0	41	59	< 0.1	0.01	< 0.01	< 0.01	0.05	0.05	< 0.01	0.2	0.2	2.44	2.52	3.1	< 1.0	< 1.0	< 1.0	< 1.0	33	331	288	13	4.08	-
	14-Jun-19	40	5.0	5.0	< 1.0	39	60	< 0.1	-	-	-	-	-	-	-	-	2.4	2.5	-	< 1.0	< 1.0	< 1.0	< 1.0	33	316	163	< 5.0	4.31	-
	16-Jul-19	46	7.0	7.0	< 1.0	67	56	0.2	-	-	-	-	-	-	-	-	2.93	2.97	-	< 1.0	< 1.0	< 1.0	< 1.0	46	367	207	6.0	4.46	-
	15-Aug-19	40	5.0	5.0	< 1.0	43	55	0.1	-	-	-	-	-	-	-	-	2.4	2.45	-	< 1.0	< 1.0	< 1.0	< 1.0	33	308	160	< 5.0	4.48	-
	16-Sep-19	45	7.0	6.0	< 1.0	45	58	0.1	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.1	0.1	2.8	2.57	3.01	< 1.0	< 1.0	< 1.0	< 1.0	42	360	208	< 5.0	4.47	-
	15-Oct-19	44	6.0	6.0	< 1.0	38	57	0.1	-	-	-	-	-	-	-	-	2.71	2.4	-	< 1.0	< 1.0	< 1.0	< 1.0	40	365	237	-	4.48	-
	18-Nov-19	41	4.0	5.0	< 1.0	41	64	0.2	< 0.01	< 0.01	< 0.01	-	0.02	< 0.01	0.2	0.2	2.76	2.66	3.22	< 1.0	< 1.0	< 1.0	< 1.0	30	348	226	-	4.48	-
	16-Sep-20	45	6.0	7.0	< 1.0	58	59	0.1	-	-	-	-	-	-	-	-	2.83	2.87	-	< 1.0	< 1.0	< 1.0	< 1.0	44	421	228	< 5.0	4.16	-
	16-Oct-20	43	5.0	5.0	< 1.0	40	67	0.1	-	-	-	-	-	-	-	-	2.53	2.72	-	< 1.0	< 1.0	< 1.0	< 1.0	33	355	231	-	3.94	-
	16-Nov-20	37	8.0	6.0	2.0	42	54	0.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.1	0.1	2.55	2.4	2.41	< 1.0	< 1.0	< 1.0	< 1.0	45	338	220	6.0	4.21	-
	16-Dec-20	43	4.0	4.0	2.0	24	70	0.2	-	-	-	-	-	-	-	-	2.45	2.79	-	16	< 1.0	< 1.0	16	26	323	210	-	6.15	-
	14-Jan-21	36	16	4.0	2.0	15	58	0.8	-	-	-	-	-	-	-	-	2.74	2.69	-	37	< 1.0	< 1.0	37	56	316	205	-	6.38	-
	16-Feb-21	37	6.0	4.0	2.0	14	61	0.3	< 0.01	0.03	< 0.01	< 0.01	< 0.01	0.02	1.2	1.2	2.29	2.15	2.87	7.0	< 1.0	< 1.0	7.0	31	267	174	48	5.91	-
	17-Mar-21	36	10	4.0	2.0	10	54	0.4	-	-	-	-	-	-	-	-	2.44	2.25	-	26	< 1.0	< 1.0	26	41	271	176	-	6.23	-
	19-Aug-21	-	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13-Oct-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.86	8.6
	16-Nov-21	-	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	24-Feb-22	35	3.0	4.0	< 1.0	27	63	< 0.1	-	< 0.01	-	-	< 0.01	< 0.01	0.3	0.3	2.0	2.34	-	-	< 1.0	< 1.0	< 1.0	24	275	179	-	3.96	-
	27-May-22	-	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-Aug-22	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18-Nov-22	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- - Not analysed
< - Less than laboratory limit of reporting
LOR - Laboratory limit of reporting
mg/L - Milligrams per litre
µS/cm - Microsiemens per centimeter
Bold indicates a detection above the laboratory limit of reporting
Highlighting indicates an exceedance of the corresponding criteria (highlighting corresponds to the guideline with the highest criteria value where analytical result exceeds more than one guideline)

Criteria:
SWMP 2021 - Soil and Water Management Plan, July 2021

Analyte		Metals															
		Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium	Zinc
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Adopted Site Specific Trigger Values (SWMP 2021)		0.006	0.08	0.002	0.1	0.0002	0.004	0.006	0.033	7.25 (32 for SW3 & SW4)	0.003	0.841	0.0001	0.02	0.01	0.01	0.535
Sample Name	Sample Date																
SW1	23-Apr-19	< 0.001	0.043	< 0.001	0.14	< 0.0001	< 0.001	0.017	0.002	4.16	< 0.001	0.841	< 0.0001	0.02	< 0.01	< 0.01	0.356
	16-May-19	< 0.001	0.029	< 0.001	0.1	< 0.0001	< 0.001	0.01	0.003	7.25	< 0.001	0.666	< 0.0001	0.012	< 0.01	< 0.01	0.077
	14-Jun-19	< 0.001	0.029	< 0.001	0.09	0.0002	< 0.001	0.009	0.006	2.75	< 0.001	0.595	< 0.0001	0.011	< 0.01	< 0.01	0.535
	16-Jul-19	< 0.001	0.032	< 0.001	0.08	0.0001	< 0.001	0.007	0.003	1.86	< 0.001	0.59	< 0.0001	0.008	< 0.01	< 0.01	0.239
	15-Aug-19	< 0.001	0.027	< 0.001	0.09	< 0.0001	< 0.001	0.005	0.003	2.15	< 0.001	0.482	< 0.0001	0.005	< 0.01	< 0.01	0.075
	16-Sep-19	< 0.001	0.056	< 0.001	0.09	0.0002	0.001	0.008	0.012	2.45	0.001	0.587	< 0.0001	0.014	< 0.01	< 0.01	0.282
	15-Oct-19	< 0.001	0.036	< 0.001	0.07	< 0.0001	< 0.001	0.005	0.003	-	< 0.001	0.383	< 0.0001	0.005	< 0.01	< 0.01	0.055
	18-Nov-19	< 0.001	0.042	< 0.001	0.11	< 0.0001	0.001	0.003	< 0.001	1.14	< 0.001	0.366	< 0.0001	0.003	< 0.01	< 0.01	0.026
	16-Sep-20	< 0.001	0.021	< 0.001	< 0.05	< 0.0001	0.001	< 0.001	0.005	0.87	0.001	0.096	< 0.0001	0.002	< 0.01	< 0.01	0.061
	16-Oct-20	0.001	0.021	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	0.001	0.76	< 0.001	0.15	< 0.0001	0.001	< 0.01	< 0.01	0.005
	16-Nov-20	< 0.001	0.02	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	0.005	0.18	< 0.001	0.017	< 0.0001	< 0.001	< 0.01	< 0.01	0.03
	16-Dec-20	< 0.001	0.015	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	0.003	0.18	< 0.001	0.058	< 0.0001	< 0.001	< 0.01	< 0.01	0.013
	14-Jan-21	< 0.001	0.012	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	0.02	0.35	< 0.001	0.04	< 0.0001	0.006	< 0.01	< 0.01	0.037
	16-Feb-21	< 0.001	0.011	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	0.12	< 0.001	0.028	< 0.0001	< 0.001	< 0.01	< 0.01	0.024
	17-Mar-21	< 0.001	0.013	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	0.16	< 0.001	0.036	< 0.0001	< 0.001	< 0.01	< 0.01	0.04
	19-Aug-21	< 0.001	0.011	-	< 0.05	-	0.001	< 0.001	0.002	0.86	-	-	-	0.002	-	-	0.056
	16-Nov-21	< 0.001	0.006	-	< 0.05	-	< 0.001	< 0.001	0.002	1.0	-	-	-	0.001	-	-	0.036
	24-Feb-22	< 0.001	0.01	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	0.12	< 0.001	0.025	< 0.0001	< 0.001	< 0.01	< 0.01	0.014
	27-May-22	< 0.001	0.01	-	< 0.05	-	0.003	0.001	< 0.001	4.39	-	-	-	0.002	-	-	0.047
	12-Aug-22	< 0.001	0.007	-	< 0.05	-	0.003	< 0.001	0.001	2.92	-	0.057	-	0.002	-	-	0.019
	18-Nov-22	< 0.001	0.01	-	< 0.05	-	< 0.001	0.001	< 0.001	2.89	-	0.038	-	< 0.001	-	-	0.022
SW2	17-Mar-21	< 0.001	0.005	< 0.001	< 0.05	< 0.0001	0.001	0.002	< 0.001	0.62	< 0.001	0.11	< 0.0001	0.004	< 0.01	< 0.01	0.097
	19-Aug-21	< 0.001	0.004	< 0.001	< 0.05	< 0.0001	< 0.001	0.001	< 0.001	0.55	< 0.001	0.045	< 0.0001	0.002	< 0.01	< 0.01	0.022
	22-Sep-21	< 0.001	0.007	< 0.001	< 0.05	< 0.0001	< 0.001	0.003	< 0.001	1.11	< 0.001	0.087	< 0.0001	0.005	< 0.01	< 0.01	0.134
	13-Oct-21	< 0.001	0.004	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	0.88	< 0.001	0.049	< 0.0001	0.002	< 0.01	< 0.01	0.06
	16-Nov-21	0.001	0.005	< 0.001	< 0.05	< 0.0001	0.001	0.002	< 0.001	5.59	< 0.001	0.064	< 0.0001	0.004	< 0.01	< 0.01	0.083
	24-Feb-22	< 0.001	0.008	< 0.001	< 0.05	< 0.0001	0.002	0.002	< 0.001	16	< 0.001	0.032	< 0.0001	0.006	< 0.01	< 0.01	0.099
	27-May-22	< 0.001	0.005	-	< 0.05	-	0.001	0.001	< 0.001	1.7	-	-	-	0.002	-	-	0.111
	12-Aug-22	< 0.001	0.005	-	< 0.05	-	0.001	< 0.001	< 0.001	2.79	-	0.03	-	0.001	-	-	0.09
	18-Nov-22	< 0.001	0.004	-	< 0.05	-	< 0.001	< 0.001	< 0.001	0.45	-	0.011	-	< 0.001	-	-	0.031
SW3	22-Feb-19	0.003	0.075	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	4.84	< 0.001	0.033	< 0.0001	0.002	< 0.01	< 0.01	0.016
	14-Mar-19	0.006	0.08	< 0.001	< 0.05	< 0.0001	< 0.001	0.003	< 0.001	9.26	< 0.001	0.048	< 0.0001	0.002	< 0.01	< 0.01	0.009
	23-Apr-19	< 0.001	0.043	< 0.001	< 0.05	< 0.0001	< 0.001	0.003	0.001	2.01	< 0.001	0.046	< 0.0001	0.004	< 0.01	< 0.01	0.016
	16-May-19	< 0.001	0.034	< 0.001	< 0.05	< 0.0001	< 0.001	0.002	< 0.001	1.78	< 0.001	0.038	< 0.0001	0.003	< 0.01	< 0.01	0.012
	14-Jun-19	< 0.001	0.035	< 0.001	< 0.05	< 0.0001	< 0.001	0.003	< 0.001	1.68	< 0.001	0.038	< 0.0001	0.003	< 0.01	< 0.01	0.016
	16-Jul-19	< 0.001	0.055	< 0.001	< 0.05	< 0.0001	< 0.001	0.007	0.002	1.25	< 0.001	0.043	< 0.0001	0.006	< 0.01	< 0.01	0.029
	15-Aug-19	< 0.001	0.035	< 0.001	< 0.05	< 0.0001	< 0.001	0.003	0.002	1.16	< 0.001	0.036	< 0.0001	0.003	< 0.01	< 0.01	0.013
	16-Sep-19	< 0.001	0.045	< 0.001	< 0.05	< 0.0001	< 0.001	0.004	0.02	0.69	0.001	0.036	< 0.0001	0.017	< 0.01	< 0.01	0.094
	15-Oct-19	< 0.001	0.034	< 0.001	< 0.05	< 0.0001	< 0.001	0.005	0.002	-	< 0.001	0.027	< 0.0001	0.005	< 0.01	< 0.01	0.022
	18-Nov-19	< 0.001	0.031	< 0.001	< 0.05	< 0.0001	0.001	< 0.001	< 0.001	2.6	< 0.001	0.026	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	16-Sep-20	< 0.001	0.034	< 0.001	< 0.05	< 0.0001	< 0.001	0.007	0.007	3.49	< 0.001	0.029	< 0.0001	0.007	< 0.01	< 0.01	0.031
	16-Oct-20	< 0.001	0.028	< 0.001	< 0.05	< 0.0001	< 0.001	0.004	0.003	7.09	< 0.001	0.027	< 0.0001	0.004	< 0.01	< 0.01	0.019
	16-Nov-20	< 0.001	0.029	< 0.001	< 0.05	< 0.0001	< 0.001	0.009	0.002	4.79	< 0.001	0.032	< 0.0001	0.009	< 0.01	< 0.01	0.03
	16-Dec-20	0.002	0.015	< 0.001	< 0.05	< 0.0001	0.001	0.002	0.005	16	< 0.001	0.023	< 0.0001	0.004	< 0.01	< 0.01	0.054
	14-Jan-21	0.002	0.015	< 0.001	< 0.05	< 0.0001	< 0.001	0.004	0.02	8.28	< 0.001	0.026	< 0.0001	0.01	< 0.01	< 0.01	0.025
	16-Feb-21	0.004	0.014	< 0.001	< 0.05	< 0.0001	0.002	0.003	0.001	11	< 0.001	0.015	< 0.0001	0.004	< 0.01	< 0.01	0.011
	17-Mar-21	0.004	0.013	< 0.001	< 0.05	< 0.0001	0.001	0.002	< 0.001	12	< 0.001	0.016	< 0.0001	0.003	< 0.01	< 0.01	0.007
	19-Aug-21	0.001	0.005	-	< 0.05	-	< 0.001	< 0.001	< 0.001	7.14	-	-	-	< 0.001	-	-	< 0.005
	16-Nov-21	0.001	0.006	-	< 0.05	-	< 0.001	< 0.001	< 0.001	4.89	-	-	-	< 0.001	-	-	< 0.005
	24-Feb-22	0.004	0.004	< 0.001	< 0.05	< 0.0001	0.002	< 0.001	< 0.001	10	< 0.001	0.015	< 0.0001	< 0.001	< 0.01	< 0.01	0.005
	27-May-22	< 0.001	0.01	-	< 0.05	-	0.001	0.002	< 0.001	13	-	-	-	0.002	-	-	< 0.005
	12-Aug-22	< 0.001	0.012	-	< 0.05	-	0.001	0.003	< 0.001	9.73	-	0.053	-	0.004	-	-	0.007
	18-Nov-22	0.001	0.012	-	< 0.05	-	< 0.001	0.002	0.002	7.82	-	0.05	-	< 0.001	-	-	< 0.005
	23-Apr-19	< 0.001	0.059	< 0.001	< 0.05	< 0.0001	< 0.001	0.003	0.003	2.09	< 0.001	0.037	< 0.0001	0.005	< 0.01	< 0.01	0.03
	16-May-19	< 0.001	0.047	< 0.001	< 0.05	< 0.0001	< 0.001	0.002	< 0.001	1.12	< 0.001	0.03	< 0.0001	0.003	< 0.01	< 0.01	0.019
	14-Jun-19	< 0.001	0.041	< 0.001	< 0.05	< 0.0001	< 0.001	0.002	0.003	0.79	< 0.001	0.034	< 0.0001	0.003	< 0.01	< 0.01	0.014
	16-Jul-19	< 0.001	0.044	< 0.001	< 0.05	< 0.0001	< 0.001	0.002	0.002	0.96	< 0.001	0.043	< 0.0001	0.003	< 0.01	< 0.01	0.014
	15-Aug-19	< 0.001	0.04	< 0.001	< 0.05	< 0.0001	< 0.001	0.001	0.001	0.57	< 0.001	0.032	< 0.0001	0.002	< 0.01	< 0.01	0.009
	16-Sep-19	< 0.001	0.046	< 0.001	< 0.05	< 0.0001	< 0.001	0.002	0.02	0.7	0.001	0.039	< 0.0001	0.017	< 0.01	< 0.01	0.085
	15-Oct-19	< 0.001	0.037	< 0.001	< 0.05	< 0.0001	< 0.001	0.002	0.004	-	< 0.001	0.031	< 0.0001	0.003	< 0.01	< 0.01	0.018
	18-Nov-19	< 0.001	0.035	< 0.001	< 0.05	< 0.0001	< 0.001	< 0.001	< 0.001	6.32	< 0.001	0.032	< 0.0001	0.002	< 0.01	< 0.01	< 0.005

	16-Sep-20	< 0.001	**0.041**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.004**	**0.005**	**0.97**	< 0.001	**0.053**	< 0.0001	**0.005**	< 0.01	< 0.01	**0.02**
	16-Oct-20	< 0.001	**0.03**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.002**	**0.001**	**2.26**	< 0.001	**0.042**	< 0.0001	**0.003**	< 0.01	< 0.01	**0.007**
SW4	16-Nov-20	< 0.001	**0.031**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.004**	**0.001**	**1.93**	< 0.001	**0.074**	< 0.0001	**0.005**	< 0.01	< 0.01	**0.016**
	16-Dec-20	< 0.001	**0.017**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.001**	**0.002**	**32**	< 0.001	**0.035**	< 0.0001	**0.002**	< 0.01	< 0.01	< 0.005
	14-Jan-21	**0.002**	**0.028**	< 0.001	< 0.05	< 0.0001	**0.002**	**0.003**	**0.026**	**20**	< 0.001	**0.171**	< 0.0001	**0.005**	< 0.01	< 0.01	**0.013**
	16-Feb-21	**0.003**	**0.02**	< 0.001	< 0.05	< 0.0001	**0.003**	**0.001**	< 0.001	**27**	< 0.001	**0.054**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.01**
	17-Mar-21	**0.002**	**0.02**	< 0.001	< 0.05	< 0.0001	**0.002**	< 0.001	< 0.001	**16**	< 0.001	**0.057**	< 0.0001	< 0.001	< 0.01	< 0.01	< 0.005
	19-Aug-21	< 0.001	**0.022**	-	< 0.05	-	< 0.001	**0.001**	< 0.001	**2.13**	-	-	-	**0.001**	-	-	**0.005**
	16-Nov-21	< 0.001	**0.016**	-	< 0.05	-	< 0.001	**0.001**	< 0.001	**6.59**	-	-	-	< 0.001	-	-	< 0.005
	24-Feb-22	< 0.001	**0.03**	< 0.001	< 0.05	< 0.0001	< 0.001	**0.002**	< 0.001	**1.19**	< 0.001	**0.034**	< 0.0001	**0.002**	< 0.01	< 0.01	**0.011**
	27-May-22	< 0.001	**0.021**	-	< 0.05	-	< 0.001	**0.001**	< 0.001	**0.68**	-	-	-	**0.001**	-	-	< 0.005
	12-Aug-22	< 0.001	**0.022**	-	< 0.05	-	**0.002**	**0.003**	< 0.001	**0.39**	-	**0.044**	-	**0.004**	-	-	**0.011**
	18-Nov-22	**0.002**	**0.013**	-	< 0.05	-	**0.002**	**0.001**	**0.003**	**20**	-	**0.084**	-	**0.001**	-	-	< 0.005

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
mg/L - Milligrams per litre
Bold indicates a detection above the laboratory limit of reporting
Highlighting indicates an exceedance of the corresponding criteria (highlighting corresponds to the guideline with the highest criteria value where analytical result exceeds more than one guideline)

Criteria:
SWMP 2021 - Soil and Water Management Plan, July 2021

Analyte		PFAS Compounds																													Sum of PFAS		
		Perfluorooctane sulfonamide (FOSA)	N-Methyl-perfluorooctane sulfonamide (MeFOSA)	N-Ethyl perfluorooctane sulfonamide (EtfOSA)	N-Methyl perfluorooctane sulfonamidoethano l (MeFOSE)	N-Ethyl perfluorooctane sulfonamidoethano l (EtFOSE)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	Perfluorobutanoic acid (PFBA)	Perfluoro-n-pentanoic aicd (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoate (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonate (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	4:2 Fluorotelomer Sulfonate (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonate (8:2 FtS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Adopted Site Specific Trigger Values (SWMP 2021)		--	--	--	--	--	--	--	--	--	--	--	0.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.07	--	--
Sample Name	Sample Date																																
SW1	16-May-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	**0.01**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.01**	**0.01**	**0.01**
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	22-Sep-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	13-Oct-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
SW2	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	22-Sep-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	13-Oct-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
SW3	22-Feb-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-May-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-19	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Oct-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	**0.02**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.02**	**0.02**	**0.02**
	16-Dec-20	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	**0.02**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.02**	**0.02**	**0.02**
	14-Jan-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	**0.03**	< 0.02	**0.04**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.07**	**0.07**	**0.07**
	16-Feb-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	**0.03**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.03**	**0.03**	**0.03**
	17-Mar-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	**0.02**	< 0.02	**0.02**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.04**	**0.04**	**0.04**
	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	22-Sep-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	13-Oct-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
µg/L - Micrograms per litre
Bold indicates a detection above the laboratory limit of reporting

Criteria:
SWMP 2021 - Soil and Water Management Plan, July 2021

Analyte		Metals		
		Arsenic	Iron	Manganese
Units		mg/L	mg/L	mg/L
Sample Name	Sample Date			
WPW	19-Aug-21	< 0.001	< 0.05	**0.062**
	22-Sep-21	< 0.001	**0.08**	**0.051**
	13-Oct-21	< 0.001	**0.22**	**0.079**
	16-Nov-21	< 0.001	**0.29**	**0.045**
	15-Dec-21	< 0.001	**0.2**	**0.078**
	18-Jan-22	< 0.001	**0.56**	**0.038**
	24-Feb-22	< 0.001	**1.02**	**0.084**
	12-Apr-22	< 0.001	**0.44**	**0.042**
	27-May-22	< 0.001	**0.07**	**0.038**
	17-Jun-22	< 0.001	**0.94**	**0.061**
	27-Jul-22	< 0.001	**0.27**	**0.038**
	12-Aug-22	< 0.001	**0.17**	**0.026**
	16-Sep-22	< 0.001	**0.58**	**0.069**
	24-Oct-22	**0.002**	**2.22**	**0.118**
	18-Nov-22	< 0.001	**0.56**	**0.066**

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
mg/L - Milligrams per litre
Bold indicates a detection above the laboratory limit of reporting

Analyte		Perfluoroalkyl Sulfonamides							Perfluoroalkyl Carboxylic Acids		Perfluoroalkyl Carboxylic Acids			Perfluoroalkyl Carboxylic Acids							Perfluoroalkyl Sulfonic Acids		Perfluoroalkyl Sulfonic Acids							(n:2) Fluorotelomer Sulfonic Acids	Sum of PFAS		
		Perfluorooctane sulfonamide (FOSA)	N-Methyl-perfluorooctane sulfonamide (MeFOSA)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	Perfluorobutanoic acid (PFBA)	Perfluoro-n-pentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoate (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonate (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	4:2 Fluorotelomer Sulfonate (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonate (8:2 FtS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFHxS and PFOS	Sum of PFAS (WADER List)	Sum of PFAS
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample Name	Sample Date																																	
INPUT	22-Sep-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
WPW	19-Aug-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	22-Sep-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	13-Oct-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	**0.01**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.01**	**0.01**	**0.01**
	16-Nov-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	15-Dec-21	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	**0.03**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.03**	**0.03**	**0.03**
	18-Jan-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	**0.03**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.03**	**0.03**	**0.03**
	24-Feb-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	**0.01**	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.01**	**0.01**	**0.01**
	12-Apr-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-May-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	17-Jun-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	27-Jul-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	**0.01**	< 0.02	**0.02**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.03**	**0.03**	**0.03**
	12-Aug-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	16-Sep-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
	24-Oct-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	**0.01**	< 0.02	**0.02**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.03**	**0.03**	**0.03**
	18-Nov-22	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	**0.01**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	**0.02**	< 0.02	**0.02**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.04**	**0.05**	**0.05**

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
µg/L - Micrograms per litre
Bold indicates a detection above the laboratory limit of reporting

Analyte		Metals							
		Arsenic	Barium	Chromium	Copper	Iron	Manganese	Nickel	Zinc
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Name	Sample Date								
WPF	19-Aug-21	**10**	**20**	**83**	**9.0**	**57,700**	-	**6.0**	**28**
	24-Feb-22	< 1.0	-	-	-	**19,100**	< 10	-	-
	27-May-22	**8.0**	**10**	**73**	< 5.0	**40,000**	-	**5.0**	**13**
	12-Aug-22	**6.0**	< 10	**64**	**5.0**	**42,100**	-	**6.0**	**24**
	18-Nov-22	< 5.0	< 10	< 2.0	< 5.0	**970**	-	< 2.0	< 5.0

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
mg/kg - Milligrams per kilogram
Bold indicates a detection above the laboratory limit of reporting

Analyte		PFAS Compounds																													Sum of PFAS		
		Perfluorooctane sulfonamide (FOSA)	N-Methyl-perfluorooctane sulfonamide (MeFOSA)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	Perfluorobutanoic acid (PFBA)	Perfluoro-n-pentanoic aicd (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoate (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonate (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	4:2 Fluorotelomer Sulfonate (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonate (8:2 FtS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFHxS and PFOS	Sum of PFAS (WADER List)	Sum of PFAS
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Name	Sample Date																																
RFS	22-Sep-21	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.0002
WASHED	22-Sep-21	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.0002
WPF	19-Aug-21	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	< 0.0002	< 0.0002	< 0.0002	**0.0006**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	**0.0006**	**0.0006**
	22-Sep-21	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.0002
	24-Feb-22	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	**0.0002**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002	< 0.0002	**0.001**	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.001**	**0.0012**	**0.0012**
	27-May-22	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002	< 0.0002	**0.0012**	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0012**	**0.0012**	**0.0012**
	12-Aug-22	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002	< 0.0002	**0.0006**	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0006**	**0.0006**	**0.0006**
	18-Nov-22	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.0002

Notes:
< - Less than laboratory limit of reporting
mg/kg - Milligrams per kilogram
Bold indicates a detection above the laboratory limit of reporting

Analyte			BTEXN								Total Petroleum Hydrocarbons	Total Petroleum Hydrocarbons - Silica Clean-up				Total Recoverable Hydrocarbons		Total Recoverable Hydrocarbons - Silica Clean-up				
			Benzene	Toluene	Ethylbenzene	meta- & para-Xylene	ortho-Xylene	Total Xylenes	Naphthalene	Sum of BTEX	C_6 - C_9	C_{10}-C_{14} - Silica Cleanup	C_{15}-C_{28} - Silica Cleanup	C_{29}-C_{36} - Silica Cleanup	C_{10}-C_{36} Sum - Silica Cleanup	C_6 - C_{10}	C_6 - C_{10} minus BTEX (F1)	>C_{10}-C_{16} - Silica Cleanup	F2 - Silica Cleanup	>C_{16}-C_{34} - Silica Cleanup	>C_{34}-C_{40} - Silica Cleanup	>C_{10}-C_{40} - Silica Cleanup
Units			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample Name	Sample Date	Sample Type																				
TB_181122_18112022	18-Nov-22	Trip Blank	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	< 20	< 20	< 100	< 100	< 100	< 100	< 100
RB02_18112022	18-Nov-22	Rinsate	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	< 20	< 20	< 100	< 100	< 100	< 100	< 100
BH2_18112022	18-Nov-22	Primary	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	< 20	< 20	< 100	< 100	< 100	< 100	< 100
QC03ARECEIVED AS QC01A_18112022	18-Nov-22	Duplicate	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 20	< 50	< 100	< 50	< 50	< 20	< 20	< 100	< 100	< 100	< 100	< 100
Relative Percentage Difference			NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Notes:
< - Less than laboratory limit of reporting
NC - Not calculated
µg/L - Micrograms per litre
BTEXN - Benzene, toluene, ethylbenzene, total xylenes, naphthalene

Analyte			Metals								
			Arsenic	Barium	Boron	Chromium	Cobalt	Copper	Iron	Nickel	Zinc
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample Name	Sample Date	Sample Type									
TB_181122_18112022	18-Nov-22	Trip Blank	< 0.001	< 0.001	< 0.05	< 0.001	< 0.001	< 0.001	< 0.05	< 0.001	< 0.005
RB02_18112022	18-Nov-22	Rinsate	< 0.001	< 0.001	< 0.05	< 0.001	< 0.001	< 0.001	< 0.05	< 0.001	< 0.005

Notes:
- - Not analysed
< - Less than laboratory limit of reporting
mg/L - Milligrams per litre

Analyte			PFAS Compounds																												Sum of PFAS		
			Perfluorooctane sulfonamide (FOSA)	N-Methyl-perfluorooctane sulfonamide (MeFOSA)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	Perfluorobutanoic acid (PFBA)	Perfluoro-n-pentanoic aicd (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoate (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPnS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonate (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	4:2 Fluorotelomer Sulfonate (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonate (8:2 FtS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
Units			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample Name	Sample Date	Sample Type																															
TB_181122_18112022	18-Nov-22	Trip Blank	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
RB02_18112022	18-Nov-22	Rinsate	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
BH2_18112022	18-Nov-22	Primary	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
QC03ARECEIVED AS QC01A_18112022	18-Nov-22	Duplicate	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.01	< 0.02	< 0.01	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01
Relative Percentage Difference			NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
WPW_18112022	18-Nov-22	Primary	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	**0.01**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	**0.02**	< 0.02	**0.02**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.04**	**0.05**	**0.05**
QC04_18112022	18-Nov-22	Duplicate	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	**0.01**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	**0.02**	< 0.02	**0.02**	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	**0.04**	**0.05**	**0.05**
Relative Percentage Difference			NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	**0%**	NC	NC	NC	NC	NC	NC	NC	NC	**0%**	NC	**0%**	NC	NC	NC	NC	NC	**0%**	**0%**	**0%**

Notes:
< - Less than laboratory limit of reporting
NC - Not calculated
µg/L - Micrograms per litre
Bold indicates a detection above the laboratory limit of reporting

Location	Date	TOC (mAHD)	DTW (mBTOC)	Well Depth (m)	Water Table Elevation (mAHD)	Remark	Technician
BH1	27-Jul-22	8.64	3.836	8.21	4.804		M Ferguson
	12-Aug-22	8.64	--	--	--		M Ferguson
BH1A	16-Sep-22	8.98	3.95	12.4	5.03		J Roby
	24-Oct-22	8.98	3.946	12.266	5.034		J Roby
	18-Nov-22	8.98	4.17	12.29	4.81	Gauge only	J. Roby
BH2	27-Jul-22	7.79	3.893	8.94	3.897	Clear	M Ferguson
	12-Aug-22	7.79	4.055	8	3.735	Clear	M Ferguson
	16-Sep-22	7.79	4.119	8.997	3.671	Dark brown	J Roby
	24-Oct-22	7.79	4.182	9.952	3.608	Clear	J Roby
	18-Nov-22	7.79	4.38	9.45	3.41	Light brown, NO, NS	J. Roby
BH4	27-Jul-22	3.06	0.764	5.98	2.296	Clear	M Ferguson
	12-Aug-22	3.06	0.799	5	2.261	Clear	M Ferguson
	16-Sep-22	3.06	0.826	5.99	2.234	Light brown	J Roby
	24-Oct-22	3.06	0.821	6.05	2.239	Clear	J Roby
	18-Nov-22	3.06	0.95	6.01	2.11	Clear, NO/NS	J. Roby
BH5	12-Aug-22	7.36	5.04	0	2.32		M Ferguson
	18-Nov-22	7.36	5.191	8.82	2.169	Gauge only	J. Roby
BH6	27-Jul-22	3.62	0.706	4.51	2.914	Odor, Clear	M Ferguson
	12-Aug-22	3.62	0.711	4	2.909	Odor, Clear	M Ferguson
	16-Sep-22	3.62	0.716	4.58	2.904	Odor, Clear	J Roby
	24-Oct-22	3.62	0.75	4.554	2.87	Odor, Clear	J Roby
	18-Nov-22	3.62	0.805	4.54	2.815	Cloudy, low sulfur odour, NS	J. Roby
BH7	27-Jul-22	2.98	0.906	4.5	2.074	Weak Odor, Light yellow	M Ferguson
	12-Aug-22	2.98	0.945	4	2.035	Light yellow	M Ferguson
	16-Sep-22	2.98	0.953	4.499	2.027	Yellow	J Roby
	24-Oct-22	2.98	0.94	4.53	2.04	Odor, Brown	J Roby
	18-Nov-22	2.98	1.09	5.5	1.89	Light brown, low sulfur odour, NS	J. Roby
BH8	12-Aug-22	3.88	1.689	0	2.191	Strong Odor, Milky white	M Ferguson
	18-Nov-22	3.88	1.825	6.04	2.055	Cloudy, low sulfur odour, NS	J. Roby
BH9	27-Jul-22	17.75	15.041	16.19	2.709		M Ferguson
	12-Aug-22	17.75	15.15	16	2.6		M Ferguson
	16-Sep-22	17.75	15.256	16.145	2.494		J Roby
	24-Oct-22	17.75	15.279	16	2.471		J Roby
	18-Nov-22	17.75	15.459	16.32	2.291	Gauge only	J. Roby
BH9A	27-Jul-22	10.75	8.202	12.44	2.548	Weak Odor, Clear	M Ferguson
	12-Aug-22	10.75	8.295	12	2.455	Light yellow	M Ferguson
	16-Sep-22	10.75	8.355	12.283	2.395	Odor, Light brown	J Roby
	24-Oct-22	10.75	8.366	12.42	2.384	Clear	J Roby
	18-Nov-22	10.75	8.521	12.43	2.229	Brown, NO/NS	J. Roby
BH10	12-Aug-22	6.69	1.699	0	4.991		M Ferguson
	18-Nov-22	6.69	2.09	3.48	4.6	Gauge only	J. Roby
BH11	27-Jul-22	6.63	0.793	5.28	5.837	Strong Odor, Light yellow	M Ferguson
	16-Sep-22	6.63	0.847	5.304	5.783	Odor, Yellow	J Roby
	24-Oct-22	6.63	0.87	4.315	5.76	Odor, Yellow	J Roby
	18-Nov-22	6.63	1.18	5.29	5.45	Yellow, moderate sulfur odour, NS	J. Roby
BH12A	16-Sep-22	5.62	2.298	7.337	3.322		J Roby
	24-Oct-22	5.62	2.291	7.34	3.329	Light brown	J Roby
	18-Nov-22	5.62	2.43	7.39	3.19	Gauge only	J. Roby
MW239D	18-Nov-22	3.04	0.74	20.49	2.3	Gauge only	J. Roby
MW239S	27-Jul-22	3.04	0.53	3.8	2.51	Strong Odor, Light yellow	M Ferguson
	12-Aug-22	3.04	0.595	3	2.445	Odor, Cloudy yellow	M Ferguson
	16-Sep-22	3.04	0.62	3.82	2.42	Odor, Yellow	J Roby
	24-Oct-22	3.04	0.61	3.62	2.43	Odor, Clear	J Roby
	18-Nov-22	3.04	0.76	3.82	2.28	Cloudy, low sulfur odour, NS	J. Roby
WPW	27-Jul-22	--	--	--	--	Dark cloudy brown	M Ferguson
	12-Aug-22	--	--	--	--	Light brown	M Ferguson
	16-Sep-22	--	--	--	--	Brown	J Roby
	24-Oct-22	--	--	--	--	Dark brown	J Roby

Notes:
DTW = Depth to water
mBTOC = Metres below top of casing
m = Metres
ND = Not detected

		DO	ORP	PH	SC	TDS	TEMP	TURB
Location	Date	mg/L	mV	pH units	uS/cm	mg/L	deg C	NTU
BH2	27/07/2022	5.85	223	4.13	87.6		15.6	131
	12/08/2022	4.34	269.7	4.52	53		16.7	15.58
	16/09/2022	3.28	262.7	4.76	80.7	60	18.1	710.34
	24/10/2022	4.55	218.8	4.71	73.6	55	18.5	33.87
	18/11/2022	1.9	213.9	4.7	73.2	54	19	52.26
BH4	27/07/2022	3	190.7	4.6	90.2		14.1	121
	12/08/2022	3.25	236	4.86	77		15.5	10.2
	16/09/2022	5.35	163.8	5.29	75.2	60	15.4	34.07
	24/10/2022	3.52	162.3	5.45		57	17.8	45.42
	18/11/2022	3.57	170.6	5.32	80.2	62	16.8	20.29
BH6	27/07/2022	4.75	-104	4.76	225		14.2	16.8
	12/08/2022	3.94	-80	5.1	217		14.2	156
	16/09/2022	2.64	-112.5	5.18	229.4	71	18.1	101.53
	24/10/2022	1.75	-66.8	4.01	84.3	171	18.3	65.7
	18/11/2022	2.29	-85.2	4.14	224.4	156	21.7	73.96
BH7	27/07/2022	4.21	26	4.43	117		14.3	489
	12/08/2022	3.98	11	4.84	110		14.9	110.4
	16/09/2022	2.92	65.6	4.78	94.1	71	17.6	101.6
	24/10/2022	3.52	-93.2	4.72	81.9	62	17.7	68.09
	18/11/2022	3.35	-92.5	4.75	78.4	54	22.1	22.45
BH8	12/08/2022	4.2	-67.9	4.81	135		14.7	782
	18/11/2022	3.4	-97.2	4.66	98.5	69	20.7	128.9
BH9A	27/07/2022	4.93	208.5	4.11	182.8		16.6	52
	12/08/2022	3.96	249	4.46	186		17.6	41.5
	16/09/2022	3.65	241.4	4.69	132	99	18	45.22
	24/10/2022	2.84	196.2	4.76	118	87	19	36.09
	18/11/2022	2.04	86.3	4.79	112	84	18.1	466.51
BH11	27/07/2022	4.74	-39	4.2	158		14	9.7
	16/09/2022	2.46	-63.9	4.54	118.4	89	18	26.3
	24/10/2022	2.12	-92.9	4.37	120.3	90	18.1	23.72
	18/11/2022	2.01	-100.5	4.47	120.7	89	18.8	14.15
BH12A	24/10/2022	2.94	141.5	4.95	120.8	89	18.8	146
MW239S	27/07/2022	4	-71	4.32	125		14.2	175
	12/08/2022	2.73	-69	4.6	115		15.2	310
	16/09/2022	3.65	-79.71	4.83	102.4	77	17.9	129.37
	24/10/2022	2.33	-117.7	4.72	86.5	65	18	83.71
	18/11/2022	1.93	-113	4.74	97.3	67	22	52.37
SW1	12/08/2022	2.97	182	5.18	140		12.6	4.3
	18/11/2022	0.89	154.6	5.45	99.5	78	15.9	6.2
SW2	12/08/2022	1.11	-40	4.95	88.2		12.9	23
	18/11/2022	2.49	122	4.62	82.5	61	18.4	13.67
SW3	12/08/2022	1.4	41.1	3.99	259.8		11.9	2.8
	18/11/2022	3.09	80.4	5.62	227.1	164	19.5	17.11
SW4	12/08/2022	3.75	224	4.57	214		11.3	1.34
	18/11/2022	3.5	130.2	4.43	217.9	149	22.4	3.96
WPW	12/08/2022	10.09	210	5.06	255		14.7	205
	16/09/2022	9.42	174.5	4.7	208.2	149	20	1000.34
	24/10/2022	9.11	145.4	4.73	199.4	143	20.2	4120.3
	18/11/2022	8.57	209.5	4.77	253.6	167	24.3	23.44

ATTACHMENT 3: LAB RESULTS

KLEINFELDER AUSTRALIA PTY LTD

COC number:

KLEINFELDER
Bright People. Right Solutions.

Client:
Kleinfelder Australia Pty Ltd
Suite 3, 240-244 Pacific Hwy
Charlestown,
NSW 2290
Phone: 02 4949 5200

SITE, COC AND CONTACT DATA

Site Name:	WSS - Quarterly GME - November 2022	Sampler Name:	Jai Roby
QUOTE NUMBER		Contact Number:	0401 499 275
Job No.:	20232071	Contact e-mail:	JRoby@kleinfelder.com
Required TAT:	24 hrs 48 hrs 3 days 5 days 7 days	PM e-mail:	DKousbroek@kleinfelder.com
Data QA level:	LAB minimum unless specified	EDD Format	KLF_EFWEDD

Laboratory:
ALS
5/585 Maitland Rd
Mayfield West,
Newcastle NSW 2304
Phone: (02) 4014 2500

CHAIN OF CUSTODY

Relinquished by (print): Jai Roby	Received by (print): Joshua N	Relinquished: JM	Received by: A.Y.
(sign):	(sign):	(sign):	(sign): A.K.
Date / Time: 18/11/22 2:24pm	Date / Time: 18.11.22	Date / Time: 18.11.22 1200h	Date / Time: 18.11.22 7:30pm
Notes:	Temp. (°C): 4.2	Notes:	Temp. (°C):
	Notes: ice present / no ice; seals intact / no seal *		Notes: ice present / no ice; seals intact / no seal

Send Results to:
JRoby@Kleinfelder.com, DKousbroek@kleinfelder.com, MFerguson@kleinfelder.com

Suite 3, 240 - 244 Pacific Highway
Charlestown, NSW 2290
Phone: 02 4949 5200

Sample ID	Lab ID	Sample Point	Sample Type	Date	Start Depth	End Depth	Units	# Containers	Organic Analytes: W-04 SG TRH SG/BTEX	TRH with silica gel (EP080 / EP071SG)								Metals: 10 Metals Dissolved (As, B, Ba, Co, Cr, Cu, Fe, Mg, Ni & Zn)	3 Metals (As, Fe, Mn)	8 Metals Dissolved (As, Ba, Cr, Cu, Fe, Mg, Ni & Zn)	Other Analytes:		NT 14 - Extended Water Suite		EP231X PFAS (28 analytes, standard level)	Comments
BH2			WG	18/11/22				6		X										X					X		
BH4			WG					6		X										X					X		
BH6			WG					6		X										X					X		
BH7			WG					6		X										X					X		
BH8			WG					6		X										X					X		
BH9A			WG					6		X										X					X		
11 BH11			WG					6		X										X					X		
S MW23S			WG					6		X										X					X		
SW1			WS					6		X								X							X		
SW2			WS					6		X								X							X		
SW3			WS					6		X								X							X		
SW4			WS					6		X								X							X		
WPW			WS					3											X						X		
WPF			SE					3												X					X		
QC03			WQ					5		X															X		
QC03A			WQ					5		X															X		
QC04			WQ					2																	X		
QC04A			WQ					2																	X		
RB02			WQ					6		X								X							X		
TB_181122			WQ					6		X								X							X		

NT14 - Extended water suite B

LAB OF ORIGIN:
NEWCASTLE

RECEIVED

Environmental Division
Sydney
Work Order Reference
ES2241866

Telephone : +61-2-8784 8555

CERTIFICATE OF ANALYSIS

Work Order	: **ES2241866**	Page	: 1 of 22
Amendment	: **1**		
Client	: **KLEINFELDER AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: J Roby	Contact	: Graeme Jablonskas
Address	: 95 MITCHELL ROAD CARDIFF NSW 2285	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +6138549 9609
Project	: 20232071	Date Samples Received	: 18-Nov-2022 14:44
Order number	: ----	Date Analysis Commenced	: 21-Nov-2022
C-O-C number	: ----	Issue Date	: 30-Nov-2022 19:11
Sampler	: Jai Roby		
Site	: WSS - Quarterly GME - November 2022		
Quote number	: EN/222		
No. of samples received	: 20		
No. of samples analysed	: 20		

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.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

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

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

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

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

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

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

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

- 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.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EG005T: Poor precision was obtained for Barium on sample ES2241842 # 004. Confirmed by re-digestion and reanalysis.
- EP231X: Positive result for various analytes on sample ES2241866_013,017,018 has been confirmed by re-extraction and re-analysis.
- Amendment (30/11/2022): This report has been amended and re-released to allow the reporting of additional analytical data.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- 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.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	WPF	----	----	----	----
			Sampling date / time	18-Nov-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2241866-014	--------	--------	--------	--------
				Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**25.1**	----	----	----	----
ED093S: Soluble Major Cations								
Magnesium	7439-95-4	10	mg/kg	<10	----	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	----	----	----	----
Barium	7440-39-3	10	mg/kg	<10	----	----	----	----
Chromium	7440-47-3	2	mg/kg	<2	----	----	----	----
Copper	7440-50-8	5	mg/kg	<5	----	----	----	----
Iron	7439-89-6	50	mg/kg	**970**	----	----	----	----
Nickel	7440-02-0	2	mg/kg	<2	----	----	----	----
Zinc	7440-66-6	5	mg/kg	<5	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	WPF	----	----	----	----
			Sampling date / time	18-Nov-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2241866-014	--------	--------	--------	--------
				Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	----	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	WPF	----	----	----	----
			Sampling date / time	18-Nov-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2241866-014	--------	--------	--------	--------
				Result	----	----	----	----
EP231P: PFAS Sums - Continued								
Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	92.5	----	----	----	----
13C8-PFOA	----	0.0002	%	88.5	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	BH2	BH4	BH6	BH7	BH8
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-001	ES2241866-002	ES2241866-003	ES2241866-004	ES2241866-005
				Result	Result	Result	Result	Result
ED093F: Dissolved Major Cations								
Magnesium	7439-95-4	1	mg/L	1	2	3	1	1
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	0.001	0.002
Barium	7440-39-3	0.001	mg/L	0.004	0.012	0.009	0.002	0.004
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	0.002	0.002
Cobalt	7440-48-4	0.001	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	0.002	0.006	<0.001	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.005	0.016	0.006	0.001	0.001
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.002	0.001	<0.001
Zinc	7440-66-6	0.005	mg/L	0.086	0.011	0.005	0.009	0.008
Iron	7439-89-6	0.05	mg/L	0.14	0.13	4.39	0.43	1.16
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
C10 - C14 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	<50	<50	<50	<50
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup								
>C10 - C16 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	<100	<100	<100	<100
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	<20	<20	<20
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	<20	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	<20	<20	<20	<20
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	<1	<1	<1
Toluene	108-88-3	2	µg/L	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	<2	<2	<2

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	BH2	BH4	BH6	BH7	BH8
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-001	ES2241866-002	ES2241866-003	ES2241866-004	ES2241866-005
				Result	Result	Result	Result	Result
EP080: BTEXN - Continued								
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	<2	<2
^ Total Xylenes	----	2	µg/L	<2	<2	<2	<2	<2
^ Sum of BTEX	----	1	µg/L	<1	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L	<5	<5	<5	<5	<5
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								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	BH2	BH4	BH6	BH7	BH8
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-001	ES2241866-002	ES2241866-003	ES2241866-004	ES2241866-005
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	2	%	**115**	**123**	**121**	**137**	**117**
Toluene-D8	2037-26-5	2	%	**88.4**	**107**	**96.2**	**117**	**103**
4-Bromofluorobenzene	460-00-4	2	%	**92.1**	**106**	**101**	**111**	**108**
EP231S: PFAS Surrogate								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	BH2	BH4	BH6	BH7	BH8
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-001	ES2241866-002	ES2241866-003	ES2241866-004	ES2241866-005
				Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued								
13C4-PFOS	----	0.02	%	107	103	94.0	115	98.0
13C8-PFOA	----	0.02	%	102	102	96.0	96.9	95.9

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	BH9A	BH11	MW239S	SW1	SW2
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-006	ES2241866-007	ES2241866-008	ES2241866-009	ES2241866-010
				Result	Result	Result	Result	Result
ED093F: Dissolved Major Cations								
Magnesium	7439-95-4	1	mg/L	2	2	1	1	2
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.007	0.002	0.003	0.010	0.004
Chromium	7440-47-3	0.001	mg/L	<0.001	0.003	0.001	<0.001	<0.001
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.034	0.003	0.002	0.038	0.011
Nickel	7440-02-0	0.001	mg/L	0.002	0.003	0.002	<0.001	<0.001
Zinc	7440-66-6	0.005	mg/L	0.012	0.042	0.006	0.022	0.031
Boron	7440-42-8	0.05	mg/L	----	----	----	<0.05	<0.05
Iron	7439-89-6	0.05	mg/L	0.56	1.06	0.28	2.89	0.45
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
C10 - C14 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	<50	<50	<50	<50
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup								
>C10 - C16 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	<100	<100	<100	<100
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	<20	<20	<20
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	<20	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	<20	<20	<20	<20
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	<1	<1	<1
Toluene	108-88-3	2	µg/L	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L	<2	<2	<2	<2	<2

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	BH9A	BH11	MW239S	SW1	SW2
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-006	ES2241866-007	ES2241866-008	ES2241866-009	ES2241866-010
				Result	Result	Result	Result	Result
EP080: BTEXN - Continued								
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	<2	<2
^ Total Xylenes	----	2	µg/L	<2	<2	<2	<2	<2
^ Sum of BTEX	----	1	µg/L	<1	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L	<5	<5	<5	<5	<5
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								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	BH9A	BH11	MW239S	SW1	SW2
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-006	ES2241866-007	ES2241866-008	ES2241866-009	ES2241866-010
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	2	%	117	116	118	116	103
Toluene-D8	2037-26-5	2	%	94.4	87.1	108	110	117
4-Bromofluorobenzene	460-00-4	2	%	100	87.5	107	101	106
EP231S: PFAS Surrogate								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	BH9A	BH11	MW239S	SW1	SW2
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-006	ES2241866-007	ES2241866-008	ES2241866-009	ES2241866-010
				Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued								
13C4-PFOS	----	0.02	%	94.5	97.5	105	86.6	99.1
13C8-PFOA	----	0.02	%	93.4	97.8	95.3	97.4	101

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	SW3	SW4	WPW	QC03 received as QC01	QC03A received as QC01A
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-011	ES2241866-012	ES2241866-013	ES2241866-015	ES2241866-016
				Result	Result	Result	Result	Result
ED093F: Dissolved Major Cations								
Magnesium	7439-95-4	1	mg/L	**3**	**3**	----	----	----
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	**0.001**	**0.002**	<0.001	----	----
Barium	7440-39-3	0.001	mg/L	**0.012**	**0.013**	----	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	**0.002**	----	----	----
Cobalt	7440-48-4	0.001	mg/L	**0.002**	**0.001**	----	----	----
Copper	7440-50-8	0.001	mg/L	**0.002**	**0.003**	----	----	----
Manganese	7439-96-5	0.001	mg/L	**0.050**	**0.084**	**0.066**	----	----
Nickel	7440-02-0	0.001	mg/L	<0.001	**0.001**	----	----	----
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	----	----	----
Boron	7440-42-8	0.05	mg/L	<0.05	<0.05	----	----	----
Iron	7439-89-6	0.05	mg/L	**7.82**	**19.6**	**0.56**	----	----
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
C10 - C14 Fraction	----	50	µg/L	<50	<50	----	<50	<50
C15 - C28 Fraction	----	100	µg/L	<100	<100	----	<100	<100
C29 - C36 Fraction	----	50	µg/L	<50	<50	----	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	<50	----	<50	<50
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup								
>C10 - C16 Fraction	----	100	µg/L	<100	<100	----	<100	<100
>C16 - C34 Fraction	----	100	µg/L	<100	<100	----	<100	<100
>C34 - C40 Fraction	----	100	µg/L	<100	<100	----	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	<100	----	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	<100	----	<100	<100
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	----	<20	<20
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	----	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	<20	----	<20	<20
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	----	<1	<1
Toluene	108-88-3	2	µg/L	<2	<2	----	<2	<2
Ethylbenzene	100-41-4	2	µg/L	<2	<2	----	<2	<2

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	SW3	SW4	WPW	QC03 received as QC01	QC03A received as QC01A
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-011	ES2241866-012	ES2241866-013	ES2241866-015	ES2241866-016
				Result	Result	Result	Result	Result
EP080: BTEXN - Continued								
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	----	<2	<2
ortho-Xylene	95-47-6	2	µg/L	<2	<2	----	<2	<2
^ Total Xylenes	----	2	µg/L	<2	<2	----	<2	<2
^ Sum of BTEX	----	1	µg/L	<1	<1	----	<1	<1
Naphthalene	91-20-3	5	µg/L	<5	<5	----	<5	<5
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	**0.02**	<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	**0.02**	<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								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	SW3	SW4	WPW	QC03 received as QC01	QC03A received as QC01A
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-011	ES2241866-012	ES2241866-013	ES2241866-015	ES2241866-016
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	**0.05**	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	**0.04**	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	**0.05**	<0.01	<0.01
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	2	%	**94.4**	**116**	**----**	**97.7**	**91.4**
Toluene-D8	2037-26-5	2	%	**110**	**120**	**----**	**110**	**94.5**
4-Bromofluorobenzene	460-00-4	2	%	**105**	**104**	**----**	**105**	**89.0**
EP231S: PFAS Surrogate								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	SW3	SW4	WPW	QC03 received as QC01	QC03A received as QC01A
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00
Compound	CAS Number	LOR	Unit	ES2241866-011	ES2241866-012	ES2241866-013	ES2241866-015	ES2241866-016
				Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued								
13C4-PFOS	----	0.02	%	91.9	103	90.0	94.8	95.0
13C8-PFOA	----	0.02	%	94.9	101	97.6	98.2	102

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	QC04	QC04A	RB02	TB_181122	----
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	----
Compound	CAS Number	LOR	Unit	ES2241866-017	ES2241866-018	ES2241866-019	ES2241866-020	--------
				Result	Result	Result	Result	----
ED093F: Dissolved Major Cations								
Magnesium	7439-95-4	1	mg/L	----	----	<1	<1	----
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	----	----	<0.001	<0.001	----
Barium	7440-39-3	0.001	mg/L	----	----	<0.001	<0.001	----
Chromium	7440-47-3	0.001	mg/L	----	----	<0.001	<0.001	----
Cobalt	7440-48-4	0.001	mg/L	----	----	<0.001	<0.001	----
Copper	7440-50-8	0.001	mg/L	----	----	<0.001	<0.001	----
Nickel	7440-02-0	0.001	mg/L	----	----	<0.001	<0.001	----
Zinc	7440-66-6	0.005	mg/L	----	----	<0.005	<0.005	----
Boron	7440-42-8	0.05	mg/L	----	----	<0.05	<0.05	----
Iron	7439-89-6	0.05	mg/L	----	----	<0.05	<0.05	----
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
C10 - C14 Fraction	----	50	µg/L	----	----	<50	<50	----
C15 - C28 Fraction	----	100	µg/L	----	----	<100	<100	----
C29 - C36 Fraction	----	50	µg/L	----	----	<50	<50	----
^ C10 - C36 Fraction (sum)	----	50	µg/L	----	----	<50	<50	----
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup								
>C10 - C16 Fraction	----	100	µg/L	----	----	<100	<100	----
>C16 - C34 Fraction	----	100	µg/L	----	----	<100	<100	----
>C34 - C40 Fraction	----	100	µg/L	----	----	<100	<100	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L	----	----	<100	<100	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	----	----	<100	<100	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	----	----	<20	<20	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	----	----	<20	<20	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	----	----	<20	<20	----
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	----	----	<1	<1	----
Toluene	108-88-3	2	µg/L	----	----	<2	<2	----
Ethylbenzene	100-41-4	2	µg/L	----	----	<2	<2	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	----	----	<2	<2	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	QC04	QC04A	RB02	TB_181122	----
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	----
Compound	CAS Number	LOR	Unit	ES2241866-017	ES2241866-018	ES2241866-019	ES2241866-020	--------
				Result	Result	Result	Result	----
EP080: BTEXN - Continued								
ortho-Xylene	95-47-6	2	µg/L	----	----	<2	<2	----
^ Total Xylenes	----	2	µg/L	----	----	<2	<2	----
^ Sum of BTEX	----	1	µg/L	----	----	<1	<1	----
Naphthalene	91-20-3	5	µg/L	----	----	<5	<5	----
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	**0.02**	<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	**0.02**	**0.02**	<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								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	QC04	QC04A	RB02	TB_181122	----
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	----
Compound	CAS Number	LOR	Unit	ES2241866-017	ES2241866-018	ES2241866-019	ES2241866-020	--------
				Result	Result	Result	Result	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**0.05**	**0.03**	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**0.04**	**0.02**	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	**0.05**	**0.03**	<0.01	<0.01	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	2	%	----	----	**81.9**	**112**	----
Toluene-D8	2037-26-5	2	%	----	----	**86.8**	**102**	----
4-Bromofluorobenzene	460-00-4	2	%	----	----	**82.8**	**98.8**	----
EP231S: PFAS Surrogate								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	QC04	QC04A	RB02	TB_181122	----
			Sampling date / time	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	18-Nov-2022 00:00	----
Compound	CAS Number	LOR	Unit	ES2241866-017	ES2241866-018	ES2241866-019	ES2241866-020	--------
				Result	Result	Result	Result	----
EP231S: PFAS Surrogate - Continued								
13C4-PFOS	----	0.02	%	92.2	98.7	89.9	102	----
13C8-PFOA	----	0.02	%	96.1	96.4	95.1	95.2	----

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2241866**	Page	: 1 of 11
Amendment	: **1**		
Client	: **KLEINFELDER AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: J Roby	Contact	: Graeme Jablonskas
Address	: 95 MITCHELL ROAD CARDIFF NSW 2285	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +6138549 9609
Project	: 20232071	Date Samples Received	: 18-Nov-2022
Order number	: ----	Date Analysis Commenced	: 21-Nov-2022
C-O-C number	: ----	Issue Date	: 30-Nov-2022
Sampler	: Jai Roby		
Site	: WSS - Quarterly GME - November 2022		
Quote number	: EN/222		
No. of samples received	: 20		
No. of samples analysed	: 20		

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 Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

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: 4720518)									
ES2241842-004	Anonymous	EG005T: Barium	7440-39-3	10	mg/kg	1700	# 2090	20.5	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	25	26	7.4	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	12	11	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	22	21	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	24	22	6.2	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	32900	30100	8.7	0% - 20%
ES2241842-017	Anonymous	EG005T: Barium	7440-39-3	10	mg/kg	340	340	0.0	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	20	19	9.4	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	6	7	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	6	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	17	18	6.6	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	17	21	21.7	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	30600	29000	5.1	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4720525)									
ES2241842-008	Anonymous	EA055: Moisture Content	----	0.1	%	15.5	14.2	8.7	0% - 50%
ES2241900-002	Anonymous	EA055: Moisture Content	----	0.1	%	6.3	5.0	23.3	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4716847)									
ES2241538-005	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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4716847)									
ES2241538-005	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4716847)									
ES2241538-005	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: 4716847)									
ES2241538-005	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

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
ED093F: Dissolved Major Cations (QC Lot: 4716916)									
ES2241840-014	Anonymous	ED093F: Magnesium	7439-95-4	1	mg/L	3	3	0.0	No Limit
ES2241866-006	BH9A	ED093F: Magnesium	7439-95-4	1	mg/L	2	2	0.0	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4716917)									

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4716917) - continued									
ES2241840-014	Anonymous	EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.016	0.015	8.0	0% - 50%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.002	0.002	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.025	0.026	4.5	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.003	48.2	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
		EG020A-F: Boron	7440-42-8	0.05	mg/L	<0.05	<0.05	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.78	0.79	0.0	0% - 50%
ES2241866-006	BH9A	EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.007	0.007	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.034	0.032	8.0	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.012	0.010	12.0	No Limit
		EG020A-F: Boron	7440-42-8	0.05	mg/L	<0.05	<0.05	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.56	0.53	6.7	0% - 50%
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4722048)									
ES2241866-001	BH2	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
ES2241866-011	SW3	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4722048)									
ES2241866-001	BH2	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
ES2241866-011	SW3	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP080: BTEXN (QC Lot: 4722048)									
ES2241866-001	BH2	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit
ES2241866-011	SW3	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	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 (%)*
EP080: BTEXN (QC Lot: 4722048) - continued									
ES2241866-011	SW3	EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	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			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4720518)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	99.1	88.0	113
EG005T: Barium	7440-39-3	10	mg/kg	<10	90.5 mg/kg	108	65.0	136
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	111	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	106	89.0	111
EG005T: Iron	7439-89-6	50	mg/kg	<50	31660 mg/kg	107	89.0	112
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	101	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	93.9	66.0	133
ED093S: Soluble Major Cations (QCLot: 4720515)								
ED093S: Magnesium	7439-95-4	10	mg/kg	<10	250 mg/kg	104	85.0	119
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4716847)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.2	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.6	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.4	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4716847)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	90.2	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.2	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.0	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.2	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4716847)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	112	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	104	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	68.7	130

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	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4716847) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	110	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4716847)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	99.2	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	99.6	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	107	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	104	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED093F: Dissolved Major Cations (QCLot: 4716916)								
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	92.8	90.0	116
EG020F: Dissolved Metals by ICP-MS (QCLot: 4716917)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	99.3	85.0	114
EG020A-F: Barium	7440-39-3	0.001	mg/L	<0.001	0.1 mg/L	97.1	82.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	88.8	85.0	111
EG020A-F: Cobalt	7440-48-4	0.001	mg/L	<0.001	0.1 mg/L	93.8	82.0	112
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	92.6	81.0	111
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	91.8	82.0	110
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	96.6	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	108	81.0	117
EG020A-F: Boron	7440-42-8	0.05	mg/L	<0.05	0.5 mg/L	87.8	85.0	115
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	101	82.0	112
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup (QCLot: 4714619)								
EP071SG: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	68.3	55.8	112
EP071SG: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	95.4	71.6	113
EP071SG: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	93.5	56.0	121
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup (QCLot: 4714619)								
EP071SG: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	70.6	57.9	119
EP071SG: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	96.0	62.5	110
EP071SG: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	95.8	61.5	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4722048)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	102	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4722048)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4722048) - continued								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	103	75.0	127
EP080: BTEXN (QCLot: 4722048)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	112	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	102	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	102	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	102	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	105	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	102	70.0	120
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4715714)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	94.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	91.4	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	96.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	97.4	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	88.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4715714)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	107	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	105	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	102	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	101	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	104	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4715714)								
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	93.5	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	76.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	109	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4715714) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	83.6	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4715714)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	104	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	111	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	111	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	94.6	71.4	144

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4720518)							
ES2241842-004	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	87.0	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	96.7	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	94.3	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	94.8	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	90.7	66.0	133
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4716847)							
ES2241538-005	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	90.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	115	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	105	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	109	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	104	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	104	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4716847)							
ES2241538-005	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	99.0	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	102	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	116	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	116	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	115	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	100	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	107	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	121	69.0	135

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4716847) - continued							
ES2241538-005	Anonymous	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	95.6	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	125	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4716847)							
ES2241538-005	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	122	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	127	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	118	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	125	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	118	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	118	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	126	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4716847)							
ES2241538-005	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	110	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	116	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	114	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	114	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4716917)							
ES2241840-015	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	106	70.0	130
		EG020A-F: Barium	7440-39-3	1 mg/L	102	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	94.5	70.0	130
		EG020A-F: Cobalt	7440-48-4	1 mg/L	107	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	101	70.0	130
		EG020A-F: Manganese	7439-96-5	1 mg/L	96.4	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	96.1	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	103	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4722048)							
ES2241866-001	BH2	EP080: C6 - C9 Fraction	----	325 µg/L	116	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4722048)							
ES2241866-001	BH2	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	115	70.0	130
EP080: BTEXN (QCLot: 4722048)							

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080: BTEXN (QCLot: 4722048) - continued							
ES2241866-001	BH2	EP080: Benzene	71-43-2	25 µg/L	105	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	111	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	110	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	108	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	109	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	104	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2241866**	Page	: 1 of 10
Amendment	: **1**		
Client	: **KLEINFELDER AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: J Roby	Telephone	: +6138549 9609
Project	: 20232071	Date Samples Received	: 18-Nov-2022
Site	: WSS - Quarterly GME - November 2022	Issue Date	: 30-Nov-2022
Sampler	: Jai Roby	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

- **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	ES2241842--004	Anonymous	**Barium**	7440-39-3	20.5 %	0% - 20%	**RPD exceeds LOR based limits**

Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Cations - soluble by ICP-AES	0	1	0.00	10.00	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	0	19	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Total Recoverable Hydrocarbons - Silica Gel Cleanup	0	16	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	0	19	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Total Recoverable Hydrocarbons - Silica Gel Cleanup	0	16	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method	*Sample Date*	*Extraction / Preparation*			*Analysis*		
Container / Client Sample ID(s)		*Date extracted*	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055) WPF	**18-Nov-2022**	**----**	----	----	**23-Nov-2022**	02-Dec-2022	✓
ED093S: Soluble Major Cations							
Soil Glass Jar - Unpreserved (ED093S) WPF	**18-Nov-2022**	**23-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	17-May-2023	✓
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T) WPF	**18-Nov-2022**	**23-Nov-2022**	17-May-2023	✓	**23-Nov-2022**	17-May-2023	✓

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
EP231A: Perfluoroalkyl Sulfonic Acids							
Soil Glass Jar - Unpreserved (EP231X)							
WPF	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
Soil Glass Jar - Unpreserved (EP231X)							
WPF	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓
EP231C: Perfluoroalkyl Sulfonamides							
Soil Glass Jar - Unpreserved (EP231X)							
WPF	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
Soil Glass Jar - Unpreserved (EP231X)							
WPF	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓
EP231P: PFAS Sums							
Soil Glass Jar - Unpreserved (EP231X)							
WPF	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓

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
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Nitric Acid; Filtered (ED093F)							
BH2, BH4, BH6, BH7, BH8, BH9A, BH11, MW239S, SW1, SW2, SW3, SW4, RB02, TB_181122	**18-Nov-2022**	**----**	----	----	**22-Nov-2022**	16-Dec-2022	✓
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
BH2, BH4, BH6, BH7, BH8, BH9A, BH11, MW239S, SW1, SW2, SW3, SW4, WPW, RB02, TB_181122	**18-Nov-2022**	**----**	----	----	**22-Nov-2022**	17-May-2023	✓

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
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
Amber Glass Bottle - Unpreserved (EP071SG)								
BH2,	BH4,	**18-Nov-2022**	**21-Nov-2022**	25-Nov-2022	✓	**23-Nov-2022**	31-Dec-2022	✓
BH6,	BH7,							
BH8,	BH9A,							
BH11,	MW239S,							
SW1,	SW2,							
SW3,	SW4,							
QC03 - received as QC01,	QC03A - received as QC01A,							
RB02,	TB_181122							
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup								
Amber Glass Bottle - Unpreserved (EP071SG)								
BH2,	BH4,	**18-Nov-2022**	**21-Nov-2022**	25-Nov-2022	✓	**23-Nov-2022**	31-Dec-2022	✓
BH6,	BH7,							
BH8,	BH9A,							
BH11,	MW239S,							
SW1,	SW2,							
SW3,	SW4,							
QC03 - received as QC01,	QC03A - received as QC01A,							
RB02,	TB_181122							
EP080/071: Total Petroleum Hydrocarbons								
Amber VOC Vial - Sulfuric Acid (EP080)								
BH2,	BH4,	**18-Nov-2022**	**24-Nov-2022**	02-Dec-2022	✓	**24-Nov-2022**	02-Dec-2022	✓
BH6,	BH7,							
BH8,	BH9A,							
BH11,	MW239S,							
SW1,	SW2,							
SW3,	SW4,							
QC03 - received as QC01,	QC03A - received as QC01A,							
RB02,	TB_181122							
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Amber VOC Vial - Sulfuric Acid (EP080)								
BH2,	BH4,	**18-Nov-2022**	**24-Nov-2022**	02-Dec-2022	✓	**24-Nov-2022**	02-Dec-2022	✓
BH6,	BH7,							
BH8,	BH9A,							
BH11,	MW239S,							
SW1,	SW2,							
SW3,	SW4,							
QC03 - received as QC01,	QC03A - received as QC01A,							
RB02,	TB_181122							

Matrix: **WATER**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
BH2, BH4, BH6, BH7, BH8, BH9A, BH11, MW239S, SW1, SW2, SW3, SW4, QC03 - received as QC01, QC03A - received as QC01A, RB02, TB_181122	**18-Nov-2022**	**24-Nov-2022**	02-Dec-2022	✓	**24-Nov-2022**	02-Dec-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
BH2, BH4, BH6, BH7, BH8, BH9A, BH11, MW239S, SW1, SW2, SW3, SW4, WPW, QC03 - received as QC01, QC03A - received as QC01A, QC04, QC04A, RB02, TB_181122	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**23-Nov-2022**	17-May-2023	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
BH2, BH4, BH6, BH7, BH8, BH9A, BH11, MW239S, SW1, SW2, SW3, SW4, WPW, QC03 - received as QC01, QC03A - received as QC01A, QC04, QC04A, RB02, TB_181122	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**23-Nov-2022**	17-May-2023	✓

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)							
BH2, BH4, BH6, BH7, BH8, BH9A, BH11, MW239S, SW1, SW2, SW3, SW4, WPW, QC03 - received as QC01, QC03A - received as QC01A, QC04, QC04A, RB02, TB_181122	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**23-Nov-2022**	17-May-2023	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
BH2, BH4, BH6, BH7, BH8, BH9A, BH11, MW239S, SW1, SW2, SW3, SW4, WPW, QC03 - received as QC01, QC03A - received as QC01A, QC04, QC04A, RB02, TB_181122	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**23-Nov-2022**	17-May-2023	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
BH2, BH4, BH6, BH7, BH8, BH9A, BH11, MW239S, SW1, SW2, SW3, SW4, WPW, QC03 - received as QC01, QC03A - received as QC01A, QC04, QC04A, RB02, TB_181122	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**23-Nov-2022**	17-May-2023	✓

Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Cations - soluble by ICP-AES	ED093S	0	1	0.00	10.00	×	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	10	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
Laboratory Control Samples (LCS)							
Cations - soluble by ICP-AES	ED093S	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	10	10.00	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
Method Blanks (MB)							
Cations - soluble by ICP-AES	ED093S	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	10	10.00	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
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	10	10.00	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

Matrix: **WATER**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	19	0.00	10.00	×	NEPM 2013 B3 & ALS QC Standard
TRH - Total Recoverable Hydrocarbons - Silica Gel Cleanup	EP071SG	0	16	0.00	10.00	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Total Recoverable Hydrocarbons - Silica Gel Cleanup	EP071SG	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	19	5.26	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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB) - Continued							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Total Recoverable Hydrocarbons - Silica Gel Cleanup	EP071SG	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	19	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Total Recoverable Hydrocarbons - Silica Gel Cleanup	EP071SG	0	16	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

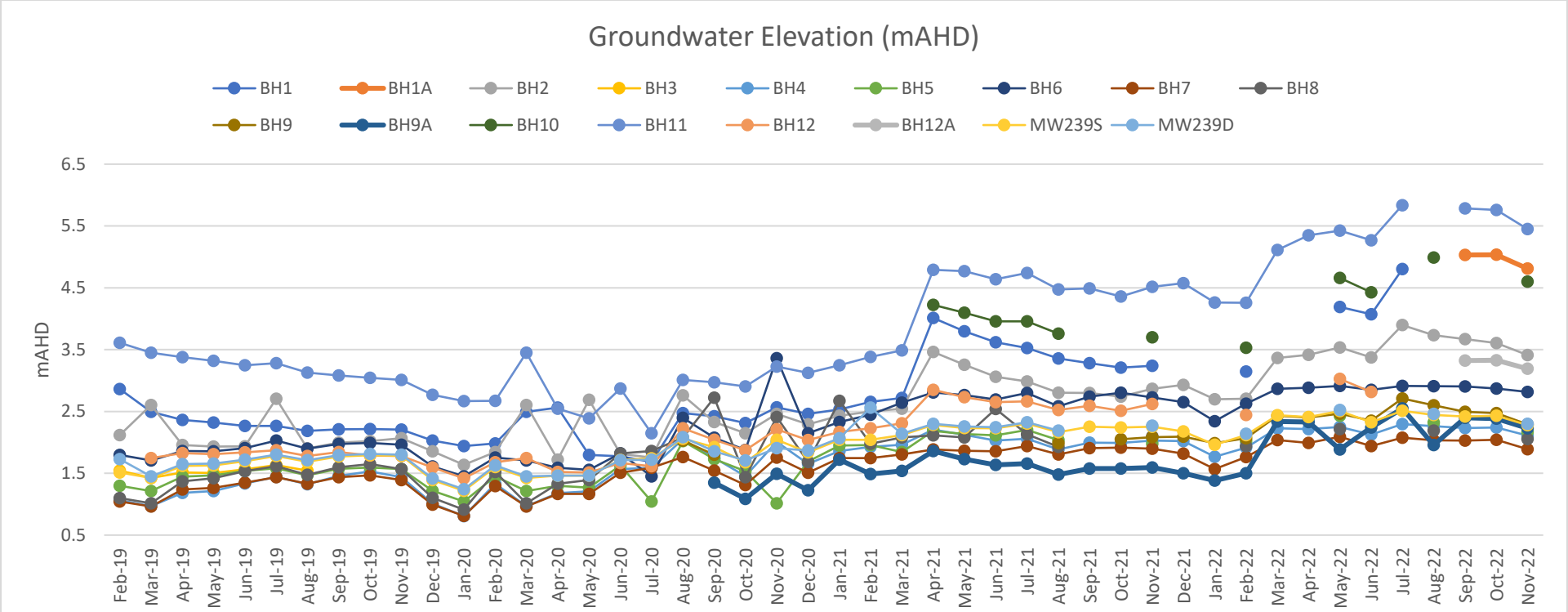
The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The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

Analytical Methods	Method	Matrix	Method Descriptions
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).
Cations - soluble by ICP-AES	ED093S	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010 (ICPAES) Water extracts of the soil are analyzed for major cations by ICPAES. 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 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)
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.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
TRH - Total Recoverable Hydrocarbons - Silica Gel Cleanup	EP071SG	WATER	In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM Schedule B(3).
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
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
1:5 solid / water leach for soluble analytes	EN34	SOIL	10 g of soil is mixed with 50 mL of reagent grade water and tumbled end over end for 1 hour. Water soluble salts are leached from the soil by the continuous suspension. Samples are settled and the water filtered off for analysis.
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).
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.
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.
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.

ATTACHMENT 4: DATA TRENDS


Groundwater Elevation (mAHD)
BH1
BH1A
BH2
BH3
BH4
BH5
BH6
BH7
BH8
BH9
BH9A
BH10
BH11
BH12
BH12A
MW239S
MW239D
mAHD
6.5
5.5
4.5
3.5
2.5
1.5
0.5
Feb-19
Mar-19
Apr-19
May-19
Jun-19
Jul-19
Aug-19
Sep-19
Oct-19
Nov-19
Dec-19
Jan-20
Feb-20
Mar-20
Apr-20
May-20
Jun-20
Jul-20
Aug-20
Sep-20
Oct-20
Nov-20
Dec-20
Jan-21
Feb-21
Mar-21
Apr-21
May-21
Jun-21
Jul-21
Aug-21
Sep-21
Oct-21
Nov-21
Dec-21
Jan-22
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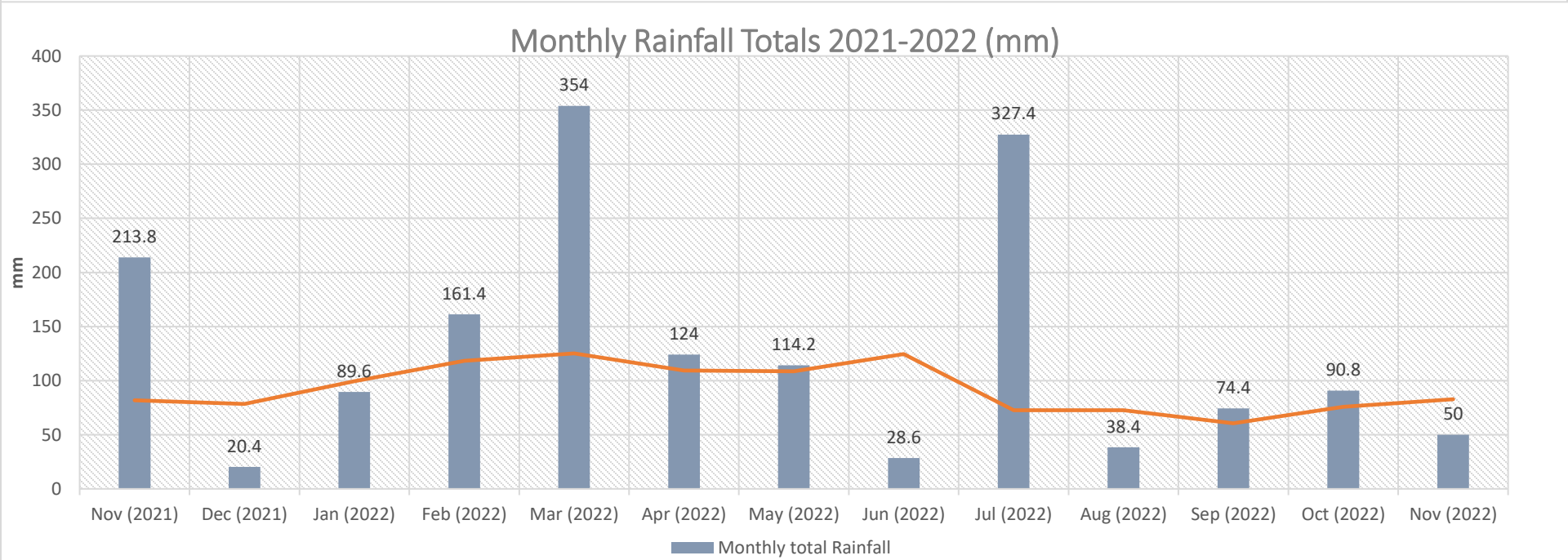
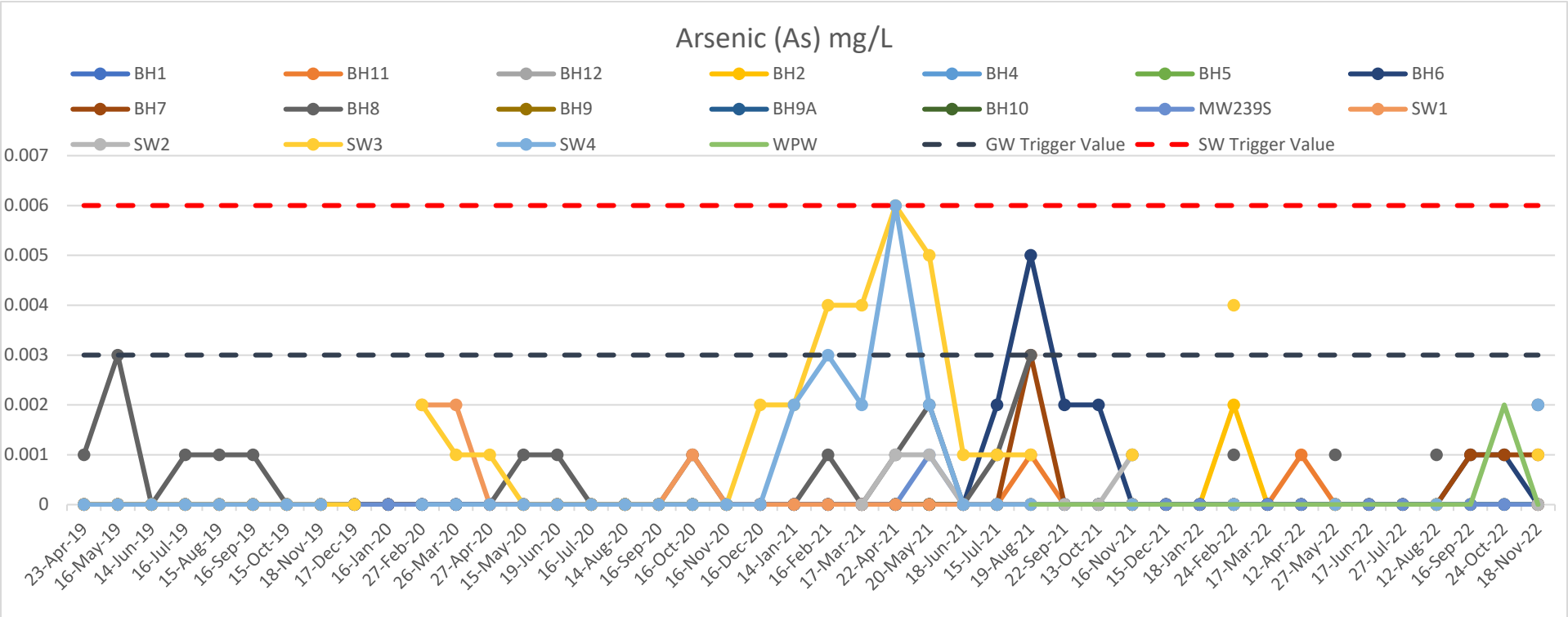
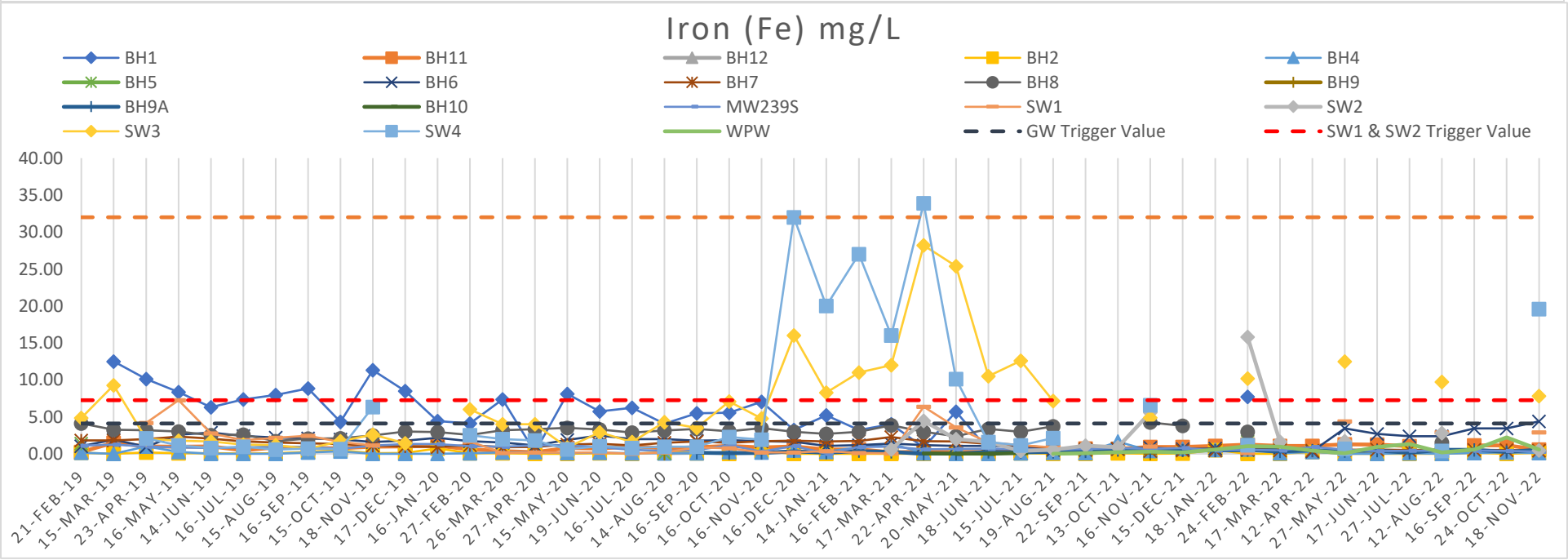
Apr-22
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22


Monthly Rainfall Totals 2021-2022 (mm)
mm
400
350
300
250
200
150
100
50
0
213.8
20.4
89.6
161.4
354
124
114.2
28.6
327.4
38.4
74.4
90.8
50
Nov (2021)
Dec (2021)
Jan (2022)
Feb (2022)
Mar (2022)
Apr (2022)
May (2022)
Jun (2022)
Jul (2022)
Aug (2022)
Sep (2022)
Oct (2022)
Nov (2022)
Monthly total Rainfall


Arsenic (As) mg/L
BH1
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
WPW
GW Trigger Value
SW Trigger Value
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
23-Apr-19
16-May-19
14-Jun-19
16-Jul-19
15-Aug-19
16-Sep-19
15-Oct-19
18-Nov-19
17-Dec-19
16-Jan-20
27-Feb-20
26-Mar-20
27-Apr-20
15-May-20
19-Jun-20
16-Jul-20
14-Aug-20
16-Sep-20
16-Oct-20
16-Nov-20
16-Dec-20
14-Jan-21
16-Feb-21
17-Mar-21
22-Apr-21
20-May-21
18-Jun-21
15-Jul-21
19-Aug-21
22-Sep-21
13-Oct-21
16-Nov-21
15-Dec-21
18-Jan-22
24-Feb-22
17-Mar-22
12-Apr-22
27-May-22
17-Jun-22
27-Jul-22
12-Aug-22
16-Sep-22
24-Oct-22
18-Nov-22


Iron (Fe) mg/L
BH1
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
WPW
GW Trigger Value
SW1 & SW2 Trigger Value
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
21-FEB-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
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18-NOV-19
17-DEC-19
16-JAN-20
27-FEB-20
26-MAR-20
27-APR-20
15-MAY-20
19-JUN-20
16-JUL-20
14-AUG-20
16-SEP-20
16-OCT-20
16-NOV-20
16-DEC-20
14-JAN-21
16-FEB-21
17-MAR-21
22-APR-21
20-MAY-21
18-JUN-21
15-JUL-21
19-AUG-21
22-SEP-21
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15-DEC-21
18-JAN-22
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17-MAR-22
12-APR-22
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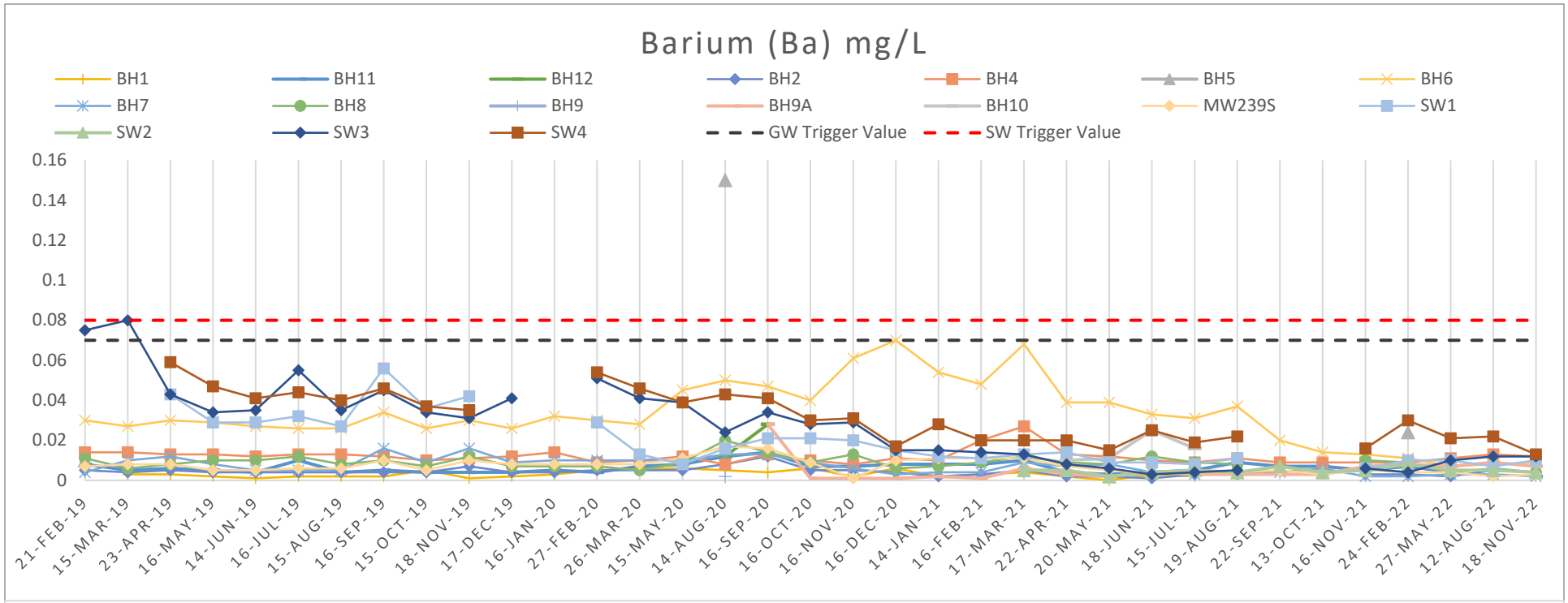
12-AUG-22
16-SEP-22
24-OCT-22
18-NOV-22


Barium (Ba) mg/L
BH1
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
GW Trigger Value
SW Trigger Value
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
21-FEB-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
15-OCT-19
18-NOV-19
17-DEC-19
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27-FEB-20
26-MAR-20
15-MAY-20
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16-NOV-20
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18-JUN-21
15-JUL-21
19-AUG-21
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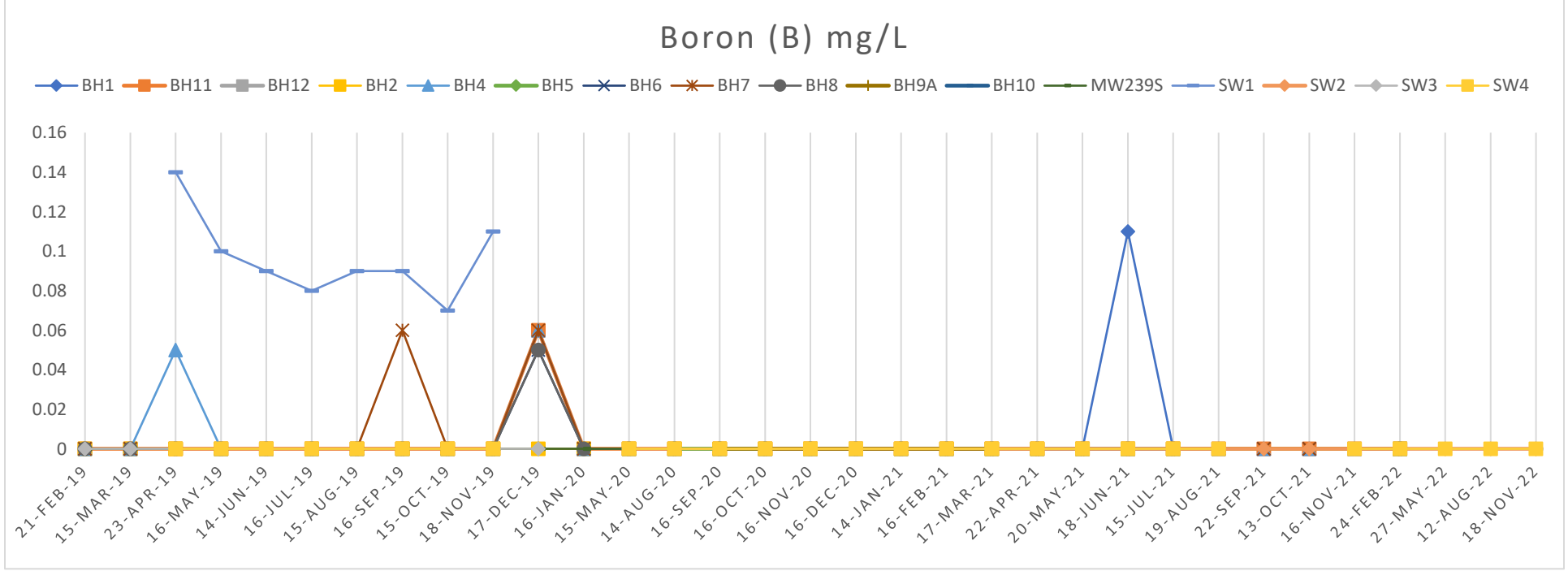
24-FEB-22
27-MAY-22
12-AUG-22
18-NOV-22


Boron (B) mg/L
BH1
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
21-FEB-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
15-OCT-19
18-NOV-19
17-DEC-19
16-JAN-20
15-MAY-20
14-AUG-20
16-SEP-20
16-OCT-20
16-NOV-20
16-DEC-20
14-JAN-21
16-FEB-21
17-MAR-21
22-APR-21
20-MAY-21
18-JUN-21
15-JUL-21
19-AUG-21
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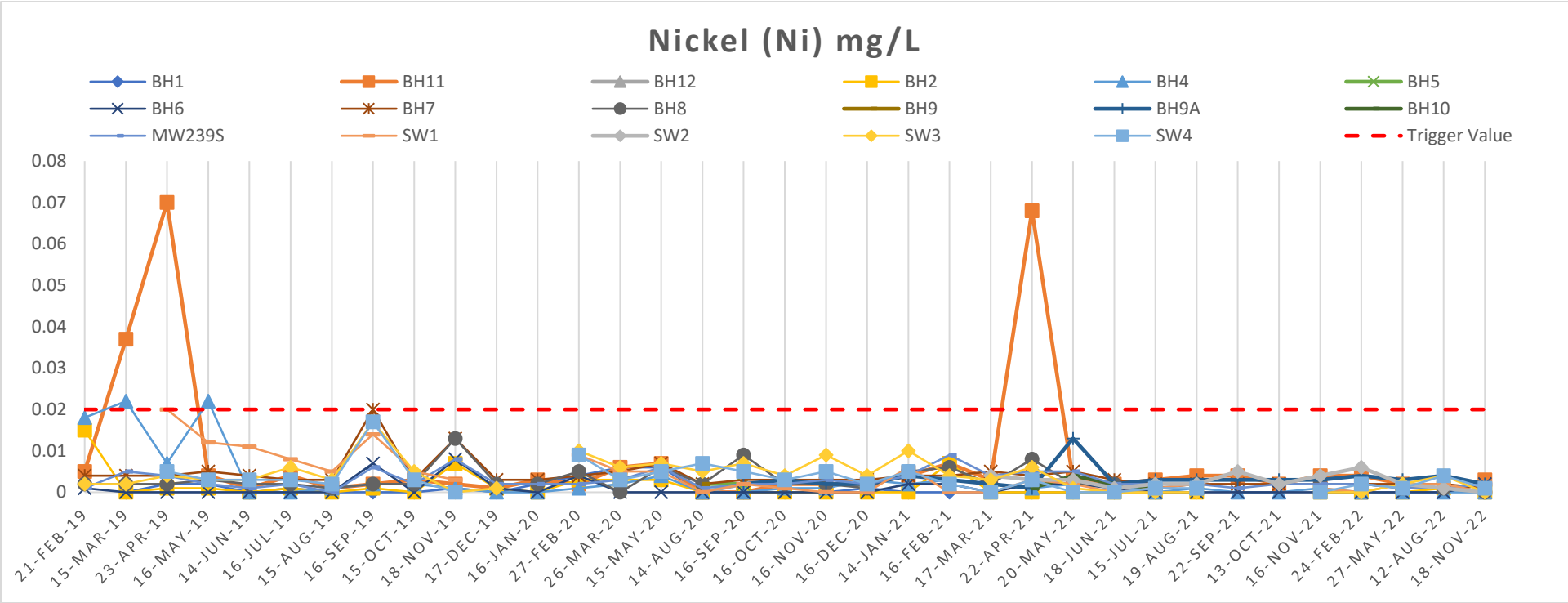
16-NOV-21
24-FEB-22
27-MAY-22
12-AUG-22
18-NOV-22


Nickel (Ni) mg/L
BH1
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
Trigger Value
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
21-FEB-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
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26-MAR-20
15-MAY-20
14-AUG-20
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16-NOV-20
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15-JUL-21
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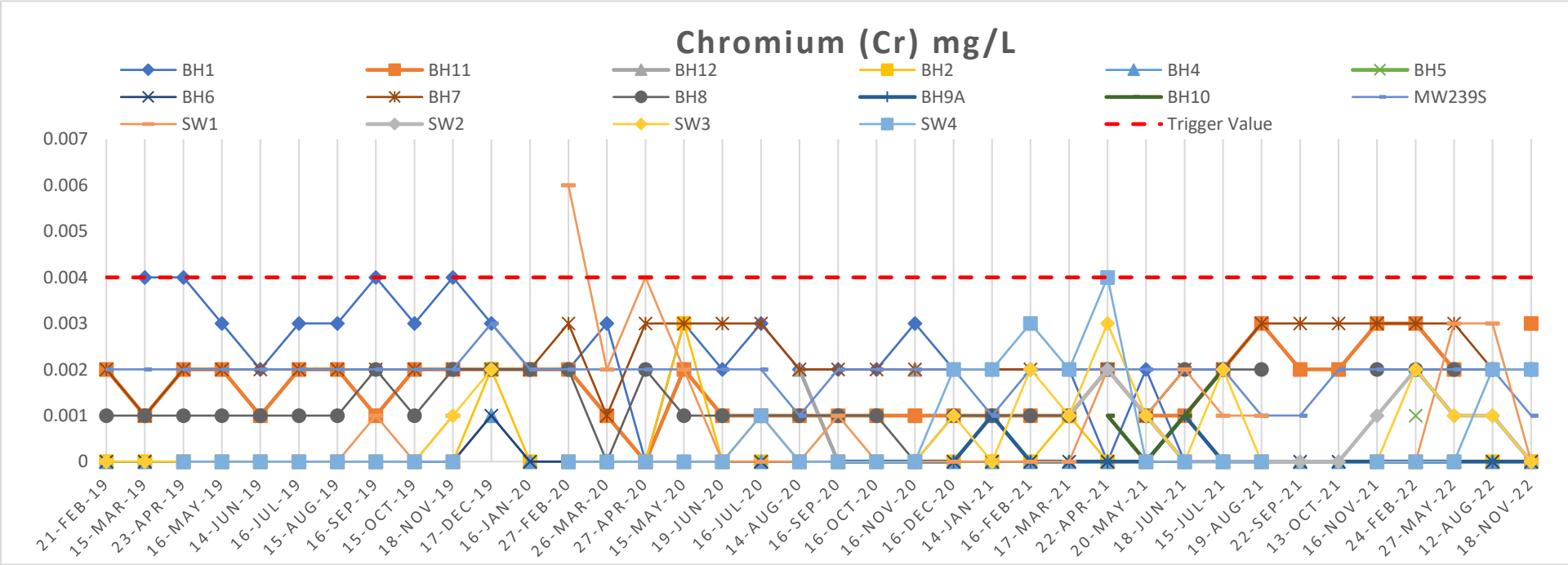
12-AUG-22
18-NOV-22


Chromium (Cr) mg/L
BH1
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
Trigger Value
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
21-FEB-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
15-OCT-19
18-NOV-19
17-DEC-19
16-JAN-20
27-FEB-20
26-MAR-20
27-APR-20
15-MAY-20
19-JUN-20
16-JUL-20
14-AUG-20
16-SEP-20
16-OCT-20
16-NOV-20
16-DEC-20
14-JAN-21
16-FEB-21
17-MAR-21
22-APR-21
20-MAY-21
18-JUN-21
15-JUL-21
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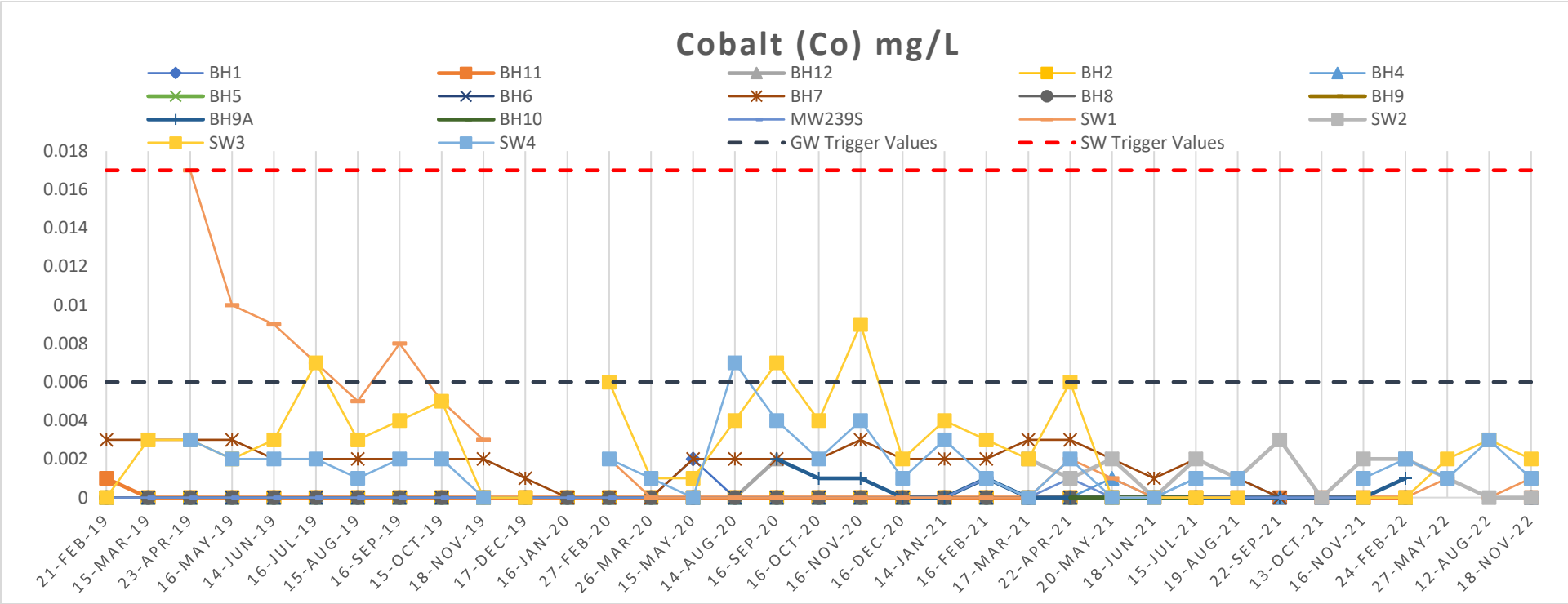
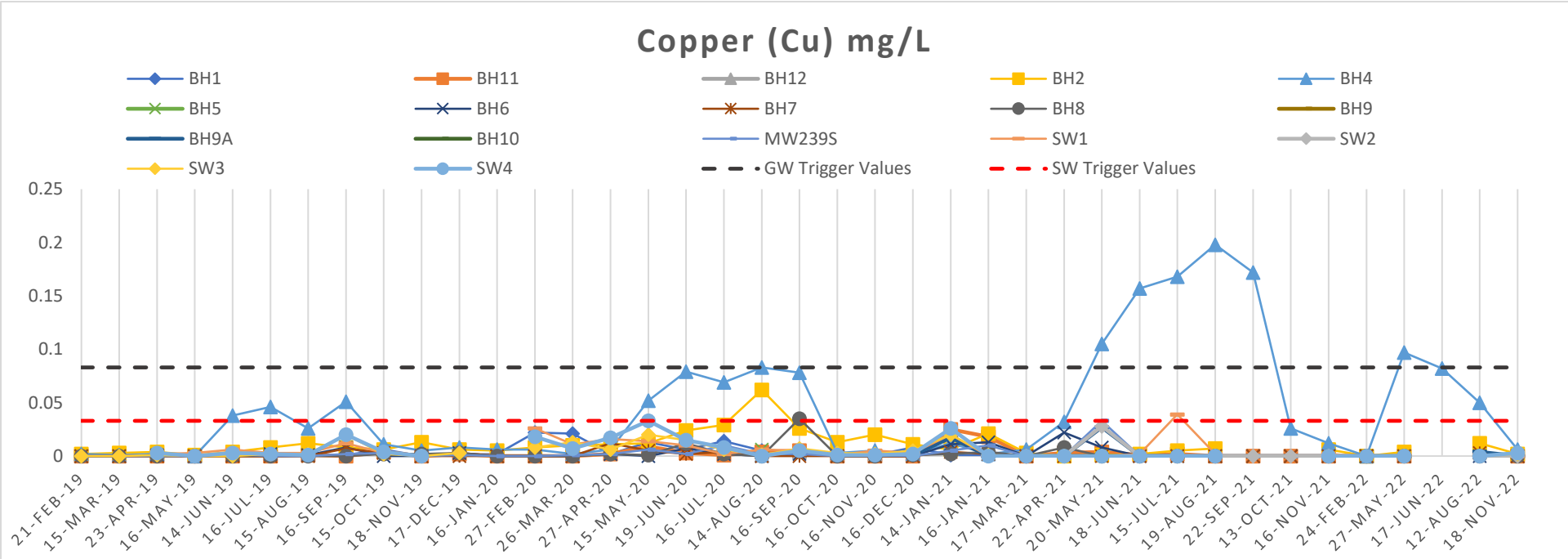
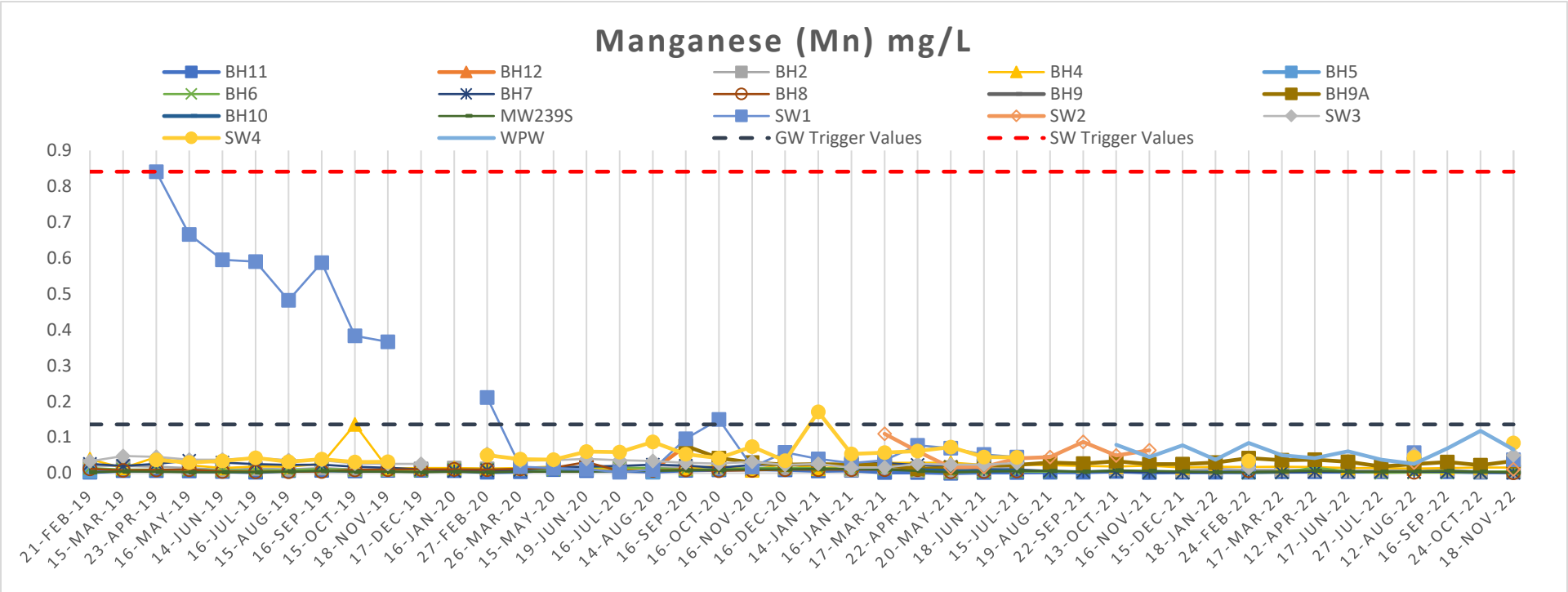
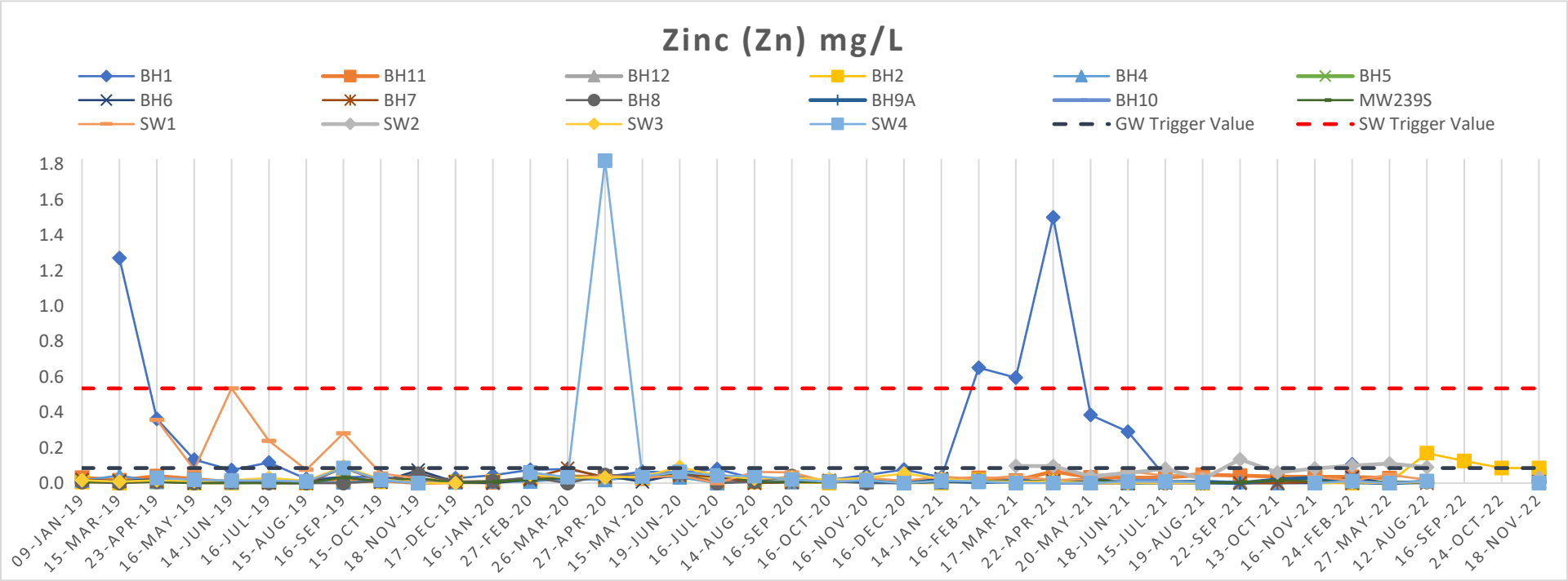
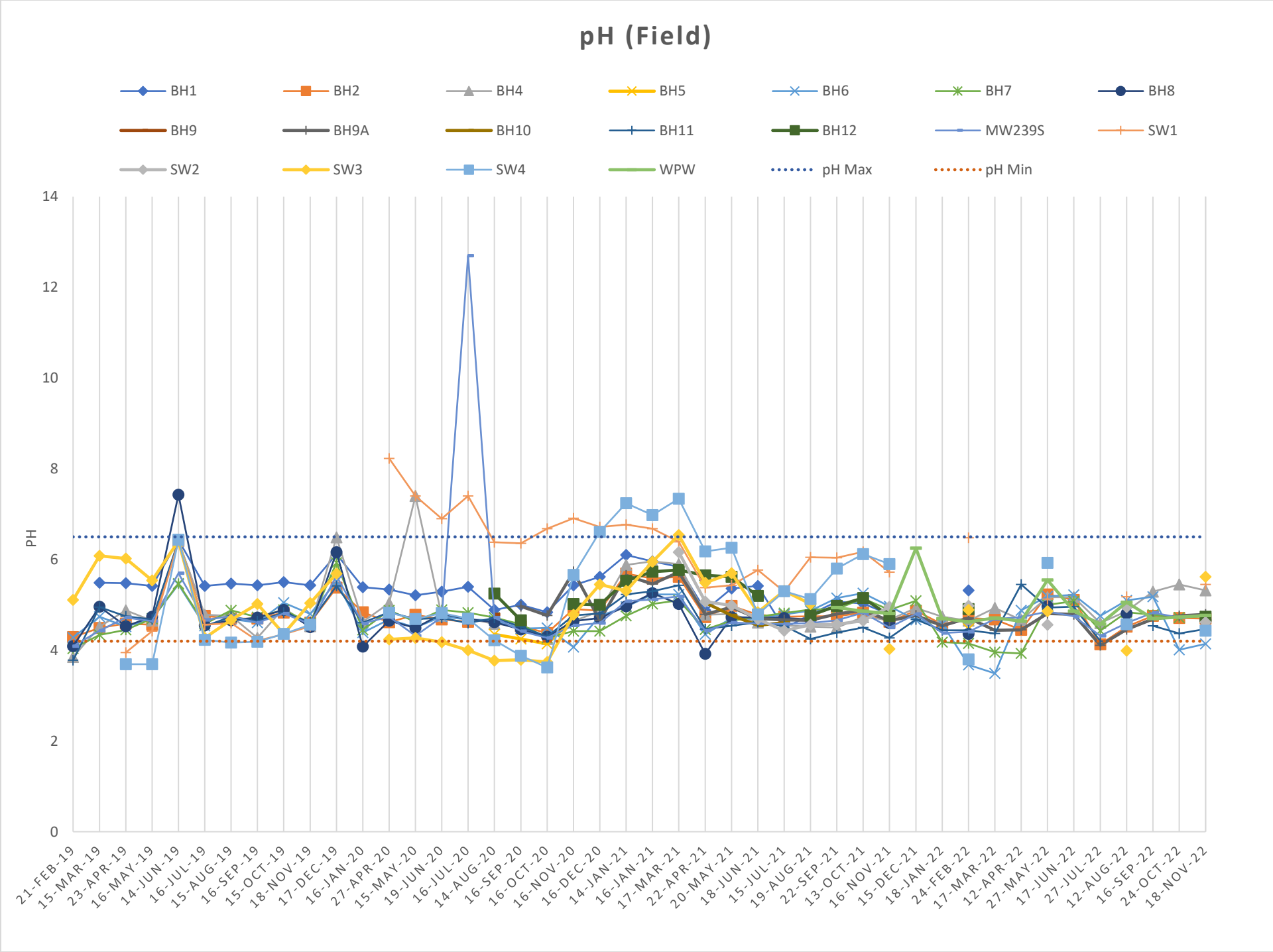
18-NOV-22


Cobalt (Co) mg/L
BH1
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
GW Trigger Values
SW Trigger Values
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
21-FEB-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
15-OCT-19
18-NOV-19
17-DEC-19
16-JAN-20
27-FEB-20
26-MAR-20
15-MAY-20
14-AUG-20
16-SEP-20
16-OCT-20
16-NOV-20
16-DEC-20
14-JAN-21
16-FEB-21
17-MAR-21
22-APR-21
20-MAY-21
18-JUN-21
15-JUL-21
19-AUG-21
22-SEP-21
13-OCT-21
16-NOV-21
24-FEB-22
27-MAY-22
12-AUG-22
18-NOV-22


Copper (Cu) mg/L
BH1
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
GW Trigger Values
SW Trigger Values
0.25
0.2
0.15
0.1
0.05
0
21-FEB-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
15-OCT-19
18-NOV-19
17-DEC-19
16-JAN-20
27-FEB-20
26-MAR-20
27-APR-20
15-MAY-20
19-JUN-20
16-JUL-20
14-AUG-20
16-SEP-20
16-OCT-20
16-NOV-20
16-DEC-20
14-JAN-21
16-JAN-21
17-MAR-21
22-APR-21
20-MAY-21
18-JUN-21
15-JUL-21
19-AUG-21
22-SEP-21
13-OCT-21
16-NOV-21
24-FEB-22
27-MAY-22
17-JUN-22
12-AUG-22
18-NOV-22


Manganese (Mn) mg/L
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
WPW
GW Trigger Values
SW Trigger Values
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
21-FEB-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
15-OCT-19
18-NOV-19
17-DEC-19
16-JAN-20
27-FEB-20
26-MAR-20
15-MAY-20
19-JUN-20
16-JUL-20
14-AUG-20
16-SEP-20
16-OCT-20
16-NOV-20
16-DEC-20
14-JAN-21
16-JAN-21
17-MAR-21
22-APR-21
20-MAY-21
18-JUN-21
15-JUL-21
19-AUG-21
22-SEP-21
13-OCT-21
16-NOV-21
15-DEC-21
18-JAN-22
24-FEB-22
17-MAR-22
12-APR-22
17-JUN-22
27-JUL-22
12-AUG-22
16-SEP-22
24-OCT-22
18-NOV-22


Zinc (Zn) mg/L
BH1
BH11
BH12
BH2
BH4
BH5
BH6
BH7
BH8
BH9A
BH10
MW239S
SW1
SW2
SW3
SW4
GW Trigger Value
SW Trigger Value
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
09-JAN-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
15-OCT-19
18-NOV-19
17-DEC-19
16-JAN-20
27-FEB-20
26-MAR-20
27-APR-20
15-MAY-20
19-JUN-20
16-JUL-20
14-AUG-20
16-SEP-20
16-OCT-20
16-NOV-20
16-DEC-20
14-JAN-21
16-FEB-21
17-MAR-21
22-APR-21
20-MAY-21
18-JUN-21
15-JUL-21
19-AUG-21
22-SEP-21
13-OCT-21
16-NOV-21
24-FEB-22
27-MAY-22
12-AUG-22
16-SEP-22
24-OCT-22
18-NOV-22


pH (Field)
BH1
BH2
BH4
BH5
BH6
BH7
BH8
BH9
BH9A
BH10
BH11
BH12
MW239S
SW1
SW2
SW3
SW4
WPW
pH Max
pH Min
PH
14
12
10
8
6
4
2
0
21-FEB-19
15-MAR-19
23-APR-19
16-MAY-19
14-JUN-19
16-JUL-19
15-AUG-19
16-SEP-19
15-OCT-19
18-NOV-19
17-DEC-19
16-JAN-20
27-APR-20
15-MAY-20
19-JUN-20
16-JUL-20
14-AUG-20
16-SEP-20
16-OCT-20
16-NOV-20
16-DEC-20
14-JAN-21
16-JAN-21
17-MAR-21
22-APR-21
20-MAY-21
18-JUN-21
15-JUL-21
19-AUG-21
22-SEP-21
13-OCT-21
16-NOV-21
15-DEC-21
18-JAN-22
24-FEB-22
17-MAR-22
12-APR-22
27-MAY-22
17-JUN-22
27-JUL-22
12-AUG-22
16-SEP-22
24-OCT-22
18-NOV-22