

Year	2022
Quarter	4

First day of quarter 01/10/2022

Last day of quarter 31/12/2022

Date of first Sunday for which 4 or more days in the following week fall within the quarter 02/10/2022

Date of last Sunday for which 4 or more days in the following week fall within the quarter 25/12/2022

Number of weeks within quarter 13

W1 Concentrations

Weeks run from Sunday to the following Saturday - all weeks with four or more days within the quarter are reported
Uncertainty of measurement only applied to values exceeding permitted limit.

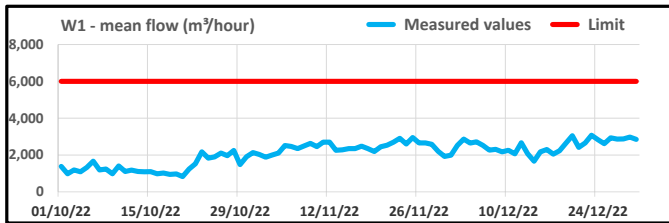
Parameter	Weekly average concentrations in mg/l, reported as measured and with uncertainty at limit removed																														
	Suspended Solids	Suspended Solids - Unc.	COD	COD - Unc.	BOD	BOD - Unc.	Sulphides	Sulphides - Unc.	Thiocyanate	Thiocyanate - Unc.	Cyanide	Cyanide - Unc.	PAH	PAH - Unc.	Phenols	Phenols - Unc.	Ammonia + Nitrite + Nitrate	Ammonia + Nitrite + Nitrate - Unc.	Iron	Iron - Unc.	Lead	Lead - Unc.	Zinc	Zinc - Unc.	Nickel	Nickel - Unc.	Total Chromium	Total Chromium - Unc.	Total Hydrocarbons	Total Hydrocarbons - Unc.	
	Limit	150			220			0.1		4		0.1		0.05		0.5		50		5		0.5		2		0.5		0.5		5	
	Uncertainty (at limit)	54		23.6		17.90%		0.01		0.4		0.01				0.05		5		0.5		0.05		0.09		0.05		0.05		1	
Week commencing																															
02 October 2022	41		46		17.2		0.01		0.11		0.02		0.005		0.02		31		4.01		0.09		0.9		0.08		0.07		5.1		
09 October 2022	43		45		14.9		0.01		0.17		0.04		0.008		0.01		24		4.14		0.09		0.8		0.09		0.09		4.0		
16 October 2022	53		47		22.4		0.01		0.53		0.11		0.005		0.01		26		3.17		0.09		1.3		0.09		0.09		4.4		
23 October 2022	42		37		5.5		0.02		0.54		0.06		0.003		0.02		25		1.99		0.08		1.3		0.09		0.09		3.3		
30 October 2022	34		30		8.0		0.01		0.05		0.02		0.004		0.01		26		2.31		0.07		1.6		0.06		0.07		1.9		
06 November 2022	59		37		9.8		0.04		0.24		0.04		0.010		0.02		17		4.27		0.09		0.7		0.08		0.08		7.2	6.16	
13 November 2022	28		45		6.8		0.02		0.12		0.04		0.004		0.01		14		3.69		0.16		1.4		0.04		0.04		9.3	8.25	
20 November 2022	38		49		11.0		0.01		0.13		0.03		0.002		0.01		22		3.40		0.08		0.6		0.08		0.08		8.9	7.91	
27 November 2022	39		46		14.8		0.01		0.32		0.11		0.017		0.01		16		5.15		0.09		2.6	2.53	0.08		0.08		2.8		
04 December 2022	28		36		15.0		0.02		1.90		0.05		0.004		0.01		19		2.50		0.06		2.0		0.03		0.03		1.4		
11 December 2022	27		63		20.8		0.07		1.97		0.04		0.004		0.01		12		3.22		0.06		1.1		0.05		0.04		2.1		
18 December 2022	31		44		2.5		0.01		3.96		0.02		0.004		0.03		13		2.96		0.07		0.4		0.07		0.07		2.8		
25 December 2022	31		48		2.6		0.01		2.61		0.02		0.000		0.01		17		2.61		0.02		0.7		0.03		0.02		2.0		
Number > Limit + Unc.		0		0		0		0		0		0		0		0		0		0		0		1		0		0		3	

* The following Part A Notifications have been submitted for Q4:

Part A	Breach	Week Commencing	Date submitted
SSN_22_76A	W1 LSO Oil weekly average limit breach	06/11/2022	14/11/2022
SSN_22_77A	W1 LSO Oil weekly average limit breach	13/11/2022	21/11/2022
SSN_22_78A	W1 LSO Oil weekly average limit breach	20/11/2022	28/11/2022
SSN_22_81A	W1 LSO Zn weekly average limit breach	27/11/2022	06/12/2022

W1 Flow

		Average flow	
Daily mean	Minimum	826	m³/hour
	Maximum	3,073	m³/hour
	Limit	6,000	m³/hour
	No. > Limit	0	



Date	Parameter Average flow	
	Units	m³/hour
	Limit	6,000
01 October 2022	1,378	6,000
02 October 2022	978	6,000
03 October 2022	1,187	6,000
04 October 2022	1,086	6,000
05 October 2022	1,323	6,000
06 October 2022	1,666	6,000
07 October 2022	1,185	6,000
08 October 2022	1,241	6,000
09 October 2022	981	6,000
10 October 2022	1,405	6,000
11 October 2022	1,105	6,000
12 October 2022	1,178	6,000
13 October 2022	1,104	6,000
14 October 2022	1,085	6,000
15 October 2022	1,097	6,000
16 October 2022	976	6,000
17 October 2022	1,020	6,000
18 October 2022	951	6,000
19 October 2022	971	6,000
20 October 2022	828	6,000
21 October 2022	1,238	6,000
22 October 2022	1,521	6,000
23 October 2022	2,176	6,000
24 October 2022	1,827	6,000
25 October 2022	1,894	6,000
26 October 2022	2,103	6,000
27 October 2022	1,966	6,000
28 October 2022	2,248	6,000
29 October 2022	1,479	6,000
30 October 2022	1,908	6,000
31 October 2022	2,132	6,000
01 November 2022	2,030	6,000
02 November 2022	1,883	6,000
03 November 2022	1,995	6,000
04 November 2022	2,106	6,000
05 November 2022	2,518	6,000
06 November 2022	2,468	6,000
07 November 2022	2,346	6,000
08 November 2022	2,487	6,000
09 November 2022	2,628	6,000
10 November 2022	2,453	6,000
11 November 2022	2,700	6,000
12 November 2022	2,701	6,000
13 November 2022	2,259	6,000
14 November 2022	2,280	6,000
15 November 2022	2,345	6,000
16 November 2022	2,344	6,000
17 November 2022	2,485	6,000
18 November 2022	2,347	6,000
19 November 2022	2,192	6,000
20 November 2022	2,445	6,000
21 November 2022	2,535	6,000
22 November 2022	2,700	6,000
23 November 2022	2,903	6,000
24 November 2022	2,600	6,000
25 November 2022	2,947	6,000
26 November 2022	2,654	6,000
27 November 2022	2,658	6,000
28 November 2022	2,578	6,000
29 November 2022	2,200	6,000
30 November 2022	1,924	6,000
01 December 2022	1,991	6,000
02 December 2022	2,519	6,000
03 December 2022	2,861	6,000
04 December 2022	2,651	6,000
05 December 2022	2,713	6,000
06 December 2022	2,524	6,000
07 December 2022	2,267	6,000
08 December 2022	2,309	6,000
09 December 2022	2,170	6,000
10 December 2022	2,253	6,000
11 December 2022	2,065	6,000
12 December 2022	2,668	6,000
13 December 2022	2,070	6,000
14 December 2022	1,664	6,000
15 December 2022	2,177	6,000
16 December 2022	2,299	6,000
17 December 2022	2,050	6,000
18 December 2022	2,235	6,000
19 December 2022	2,646	6,000
20 December 2022	3,048	6,000
21 December 2022	2,414	6,000
22 December 2022	2,654	6,000
23 December 2022	3,073	6,000
24 December 2022	2,832	6,000
25 December 2022	2,614	6,000
26 December 2022	2,934	6,000
27 December 2022	2,863	6,000
28 December 2022	2,870	6,000
29 December 2022	2,973	6,000
30 December 2022	2,852	6,000
31 December 2022	2,727	

W3 Concentrations

Weeks run from Sunday to the following Saturday - all weeks with four or more days within the quarter are reported.

Uncertainty of measurement only applied to values exceeding permitted limit.

Only sampled when flow present (generally after heavy rain).

Weekly average concentrations in mg/l, reported as measured (uncertainty not taken into account)				
Parameter	Suspended Solids	Suspended solids - Unc	Total Hydrocarbons	Total Hydrocarbons - Unc
Limit	200		20	
Uncertainty (at limit)	72		4.4	
Week commencing				
02 October 2022	28		11.9	
09 October 2022	64		5.2	
16 October 2022				***
23 October 2022	31		10.4	
30 October 2022	36		7.4	
06 November 2022	33		9.6	
13 November 2022	14		7.3	
20 November 2022	20		4.8	
27 November 2022	14		2.0	
04 December 2022	16		1.9	
11 December 2022	19		2.3	
18 December 2022	18		2.9	
25 December 2022	19		2.2	
Number > Limit		0		0

*** No samples taken during this week;
due to low flow conditions effluent did not overtip weir to Abbey Beach Outfall.

W4 Concentrations

Only sampled when flow present (generally after heavy rain).

Parameter	Values reported as measured (uncertainty not taken into account)				
	pH	Suspended solids (mg/l)	Total Fe (mg/l)	Soluble Fe (mg/l)	Oil and grease
Date					
03 October 2022	8.5	18	0.2	<0.1	2.8
06 October 2022	8.6	30	0.8	0.5	0.5
17 October 2022	9.1	22	0.4	0.3	1.6
31 October 2022	9.0	16	0.8	0.3	0.1
01 November 2022	9.8	492	2.1	0.2	0.1
02 November 2022	9.7	148	1.0	0.1	<0.1
03 November 2022	9.8	2,140	7.4	0.1	<0.1
04 November 2022	8.3	4	0.4	0.3	3.0
07 November 2022	9.4	12	3.4	0.9	3.6
08 November 2022	10.6	920	10.3	4.9	7.0
09 November 2022	10.8	873	6.3	3.8	6.9
15 December 2022	8.7	2	1.8	0.6	0.3

W5 Concentrations

Uncertainty of measurement only applied to values exceeding permitted limit.

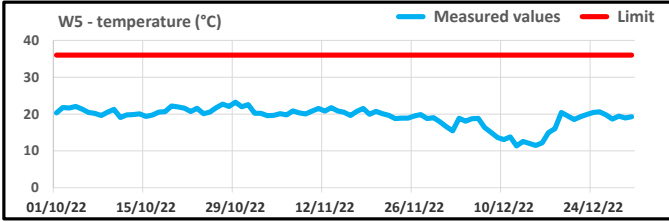
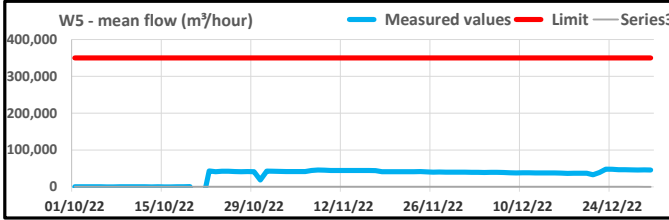
Suspended solids concentrations in mg/l, reported as measured (uncertainty not taken into account)				
Parameter	Inlet	Outlet	Difference	Difference - Unc.
Limit			20	
Uncertainty (at limit)			4.4	
Date				
06 October 2022	2	-	-	***
13 October 2022	1	-	-	***
19 October 2022	3	-	-	***
26 October 2022	2	1	-1	*
02 November 2022	3	3	0	
09 November 2022	3	3	0	
16 November 2022	4	4	0	
24 November 2022	11	11	0	
01 December 2022	2	3	1	
09 December 2022	1	1	0	
14 December 2022	0	0	0	
21 December 2022	6	6	0	
30 December 2022	2	4	2	
Number > Limit				0

* Difference is compliant where inlet concentrations exceed outlet concentrations.

*** 3TA down for essential maintenance, hence no 3TA return water sample received.

W5 Flow and Temperature

Daily mean	Daily mean flow		Temperature	
	Minimum	-52,055 m ³ /hour	11	°C
	Maximum	47,968 m ³ /hour	23	°C
	Limit	350,000 m ³ /day	36	°C
	No. > Limit	0	0	



*** 3TA on shutdown for essential maintenance for 4 weeks from 20th September, hence no return flow to the Docks.

Date	Parameter Average flow		Temperature	
	Units	m ³ /day	°C	
	Limit	350,000	36	
*** 01 October 2022	266	350,000	20.3	36
*** 02 October 2022	177	350,000	21.8	36
*** 03 October 2022	35	350,000	21.6	36
*** 04 October 2022	303	350,000	22.1	36
*** 05 October 2022	118	350,000	21.4	36
*** 06 October 2022	-141	350,000	20.5	36
*** 07 October 2022	-22	350,000	20.2	36
*** 08 October 2022	159	350,000	19.6	36
*** 09 October 2022	95	350,000	20.5	36
*** 10 October 2022	16	350,000	21.3	36
*** 11 October 2022	24	350,000	19.1	36
*** 12 October 2022	58	350,000	19.8	36
*** 13 October 2022	-2	350,000	19.8	36
*** 14 October 2022	72	350,000	20.1	36
*** 15 October 2022	-26	350,000	19.3	36
*** 16 October 2022	-34	350,000	19.7	36
*** 17 October 2022	264	350,000	20.5	36
*** 18 October 2022	8	350,000	20.7	36
*** 19 October 2022	715	350,000	22.2	36
*** 20 October 2022	-52,055	350,000	22.0	36
*** 21 October 2022	-38,433	350,000	21.6	36
22 October 2022	43,120	350,000	20.7	36
23 October 2022	41,269	350,000	21.6	36
24 October 2022	42,246	350,000	20.1	36
25 October 2022	42,179	350,000	20.5	36
26 October 2022	41,573	350,000	21.7	36
27 October 2022	41,275	350,000	22.7	36
28 October 2022	41,388	350,000	22.1	36
29 October 2022	41,138	350,000	23.2	36
30 October 2022	18,582	350,000	22.0	36
31 October 2022	42,880	350,000	22.6	36
01 November 2022	42,232	350,000	20.2	36
02 November 2022	41,857	350,000	20.2	36
03 November 2022	41,348	350,000	19.6	36
04 November 2022	41,353	350,000	19.6	36
05 November 2022	41,419	350,000	20.1	36
06 November 2022	41,330	350,000	19.8	36
07 November 2022	44,432	350,000	20.8	36
08 November 2022	45,511	350,000	20.3	36
09 November 2022	45,288	350,000	20.0	36
10 November 2022	44,496	350,000	20.8	36
11 November 2022	44,322	350,000	21.5	36
12 November 2022	44,307	350,000	20.8	36
13 November 2022	44,304	350,000	21.7	36
14 November 2022	44,433	350,000	20.9	36
15 November 2022	44,385	350,000	20.5	36
16 November 2022	44,224	350,000	19.6	36
17 November 2022	43,799	350,000	20.7	36
18 November 2022	41,112	350,000	21.5	36
19 November 2022	41,148	350,000	19.9	36
20 November 2022	41,206	350,000	20.7	36
21 November 2022	41,155	350,000	20.1	36
22 November 2022	41,195	350,000	19.6	36
23 November 2022	41,154	350,000	18.8	36
24 November 2022	41,377	350,000	18.9	36
25 November 2022	40,831	350,000	18.9	36
26 November 2022	40,011	350,000	19.5	36
27 November 2022	40,417	350,000	19.9	36
28 November 2022	39,964	350,000	18.8	36
29 November 2022	39,874	350,000	19.0	36
30 November 2022	39,784	350,000	17.9	36
01 December 2022	39,682	350,000	16.6	36
02 December 2022	39,536	350,000	15.4	36
03 December 2022	39,534	350,000	18.8	36
04 December 2022	39,096	350,000	18.1	36
05 December 2022	39,293	350,000	18.7	36
06 December 2022	39,313	350,000	18.8	36
07 December 2022	38,817	350,000	16.3	36
08 December 2022	38,339	350,000	15.0	36
09 December 2022	37,790	350,000	13.6	36
10 December 2022	38,002	350,000	13.1	36
11 December 2022	38,046	350,000	13.8	36
12 December 2022	37,915	350,000	11.3	36
13 December 2022	37,946	350,000	12.6	36
14 December 2022	37,737	350,000	12.0	36
15 December 2022	37,597	350,000	11.5	36
16 December 2022	37,428	350,000	12.2	36
17 December 2022	36,687	350,000	15.0	36
18 December 2022	36,866	350,000	16.0	36
19 December 2022	36,799	350,000	20.4	36
20 December 2022	37,097	350,000	19.5	36
21 December 2022	32,548	350,000	18.5	36
22 December 2022	38,906	350,000	19.3	36
23 December 2022	47,968	350,000	19.9	36
24 December 2022	47,730	350,000	20.4	36
25 December 2022	46,710	350,000	20.6	36
26 December 2022	46,322	350,000	19.8	36
27 December 2022	45,953	350,000	18.7	36
28 December 2022	45,848	350,000	19.4	36
29 December 2022	45,892	350,000	19.0	36
30 December 2022	45,485	350,000	19.3	36
31 December 2022	45,188	350,000	19.6	36
		350,000		36
		350,000		36
		350,000		36