Annex F4

Effluent Quality Monitoring Results

Table F4.1 Effluent Monitoring Results

		1 Jan 22	2 Jan 22	3 Jan 22	4 Jan 22	5 Jan 22	6 Jan 22	7 Jan 22	8 Jan 22	9 Jan 22	10 Jan 22	11 Jan 22
On-site Measurements												
Temperature	°C	27.2	28.1	27.1	28.2	26.8	29.4	29.5	29	28.7	21.0	25.7
pH Value	pH Unit	8.4	8.4	8.4	8.4	8.4	8.5	8.4	8.4	8.6	8.6	8.5
Volume Discharged	m^3	1194	810	588	1363	1230	1235	1392	1273	804	616	1229
Laboratory Analysis												
Suspended Solids (SS)	mg/L	75	24.7	23.8	24.2	22.1	22.9	21.1	29.1	23.6	16.2	21.6
Alkalinity	mg/L	2240	2260	2300	2330	2310	2240	2250	2270	2260	2270	2280
Ammoniacal-nitrogen	mg/L	0.3	0.27	0.56	0.43	0.46	0.49	0.47	0.51	0.36	1.2	0.3
Chloride	mg/L	2070	2110	2080	1980	2320	2130	2290	2230	2280	2370	2410
Nitrite-nitrogen	mg/L	0.14	0.17	0.55	0.19	0.32	0.19	0.23	0.37	0.39	0.88	0.2
Phosphate	mg/L	7.99	8.34	8.82	8.7	8.31	9.53	8.95	8.45	7.76	8.13	8.07
Sulphate	mg/L	92	94	94	100	103	108	108	100	94	97	96
Total Nitrogen	mg/L	114	99.3	98.4	93.1	101	105	119	124	121	118	114
Nitrate-nitrogen	mg/L	56.6	50.2	52.5	48.3	52.7	59.2	61.9	66.9	65.1	61.2	57.9
Total Inorganic Nitrogen	mg/L	57.0	50.6	53.6	48.9	53.5	59.9	62.6	67.8	65.9	63.3	58.4
Biochemical Oxygen Demand (BOD)	mg/L	14	10	8	9	9	15	9	14	9	20	6
Chemical Oxygen Demand (COD)	mg/L	1090	999	1010	1090	892	957	948	1080	984	993	1010
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	360	391	356	349	358	375	385	373	394	366	359
Boron	µg/L	5680	5440	5590	5760	5730	5380	5400	5240	5760	5380	5160
Calcium	mg/L	13.4	15.4	15.3	14.2	16.5	17.3	16.5	16.4	15.1	14.8	18.1
Iron	mg/L	1.04	1.25	1.26	1.15	1.64	1.35	1.43	1.47	1.19	1.26	1.56
Magnesium	mg/L	14.9	16.1	16.1	16.7	25.2	23.2	24.8	26.2	22.4	22.9	28.9
Potassium	mg/L	890	883	888	845	907	930	971	975	899	892	828
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	131	125	125	127	143	134	133	130	123	121	144
Copper	µg/L	22	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nickel	µg/L	118	115	113	122	132	127	122	122	120	118	128
Zinc	µg/L	64	46	50	52	64	57	50	48	54	48	52

		12 Jan 22	13 Jan 22	14 Jan 22	15 Jan 22	16 Jan 22	17 Jan 22	18 Jan 22	19 Jan 22	20 Jan 22	21 Jan 22	22 Jan 22
On-site Measurements												
Temperature	°C	24.6	25	25.5	25.3	29.8	27	27	27.8	28	21.7	28.3
pH Value	pH Unit	8.5	8.6	8.5	8.5	8.6	8.6	8.5	8.5	8.5	8.5	8.5
Volume Discharged	m^3	1041	825	1052	1144	1182	1090	1251	1186	1444	836	1034
Laboratory Analysis												
Suspended Solids (SS)	mg/L	22.7	13.8	23.5	15.4	24.9	17.6	13.6	17.9	17.7	16.2	35.8
Alkalinity	mg/L	2270	2270	2300	2290	2250	2270	2280	2290	2280	2360	2310
Ammoniacal-nitrogen	mg/L	0.35	0.36	0.34	0.3	0.34	0.35	0.35	0.32	0.3	4.74	0.38
Chloride	mg/L	2310	2220	2320	2360	2370	2330	2250	2230	2310	2270	2360
Nitrite-nitrogen	mg/L	0.23	0.3	0.2	0.15	0.28	0.36	0.29	0.3	0.21	0.63	0.19
Phosphate	mg/L	7.56	8.9	9.81	9.52	8.98	9.32	9.48	8.5	8.64	9.6	8.37
Sulphate	mg/L	100	94	94	102	101	96	97	101	100	106	102
Total Nitrogen	mg/L	112	114	118	110	117	120	120	119	125	123	109
Nitrate-nitrogen	mg/L	59.3	60.2	57	58.9	63.3	65	68.4	66.3	72.1	61.5	56.4
Total Inorganic Nitrogen	mg/L	59.9	60.9	57.5	59.4	63.9	65.7	69.0	66.9	72.6	66.9	57.0
Biochemical Oxygen Demand (BOD)	mg/L	8	7	9	8	10	8	8	13	13	18	15
Chemical Oxygen Demand (COD)	mg/L	1040	1020	989	943	1010	943	1050	1070	1050	1090	1050
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	373	353	376	337	391	354	351	356	363	392	379
Boron	µg/L	5300	5610	5540	5400	5830	6380	6060	5990	5890	6100	6220
Calcium	mg/L	20	15.8	15.3	16.8	14.4	15.4	16.7	12.5	13.5	22	19.8
Iron	mg/L	1	1.3	1.27	1.23	1.34	1.34	1.24	1.25	1.26	1.58	1.36
Magnesium	mg/L	30	26.6	25.6	26.2	26.6	27.6	27.4	20.4	21.1	26.9	25.1
Potassium	mg/L	990	962	879	906	1010	996	944	696	706	1010	974
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	144	125	130	121	144	136	131	139	130	139	132
Copper	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nickel	µg/L	128	118	122	119	126	126	124	127	122	129	129
Zinc	µg/L	49	45	51	47	49	50	50	49	48	51	49

		23 Jan 22	24 Jan 22	25 Jan 22	26 Jan 22	27 Jan 22	28 Jan 22	29 Jan 22	30 Jan 22	31 Jan 22
On-site Measurements										
Temperature	°C	33.5	28.9	29.5	27.1	30.7	27.9	32.6	27.2	25.5
pH Value	pH Unit	8.5	8.4	8.5	8.5	8.3	8.5	8.5	8.5	8.5
Volume Discharged	m^3	819	597	930	1220	1109	1136	1089	1059	791
Laboratory Analysis										
Suspended Solids (SS)	mg/L	38.5	20.5	19.2	36.1	23.4	19.8	30	38.2	20.5
Alkalinity	mg/L	2310	2380	2310	2290	2310	2290	2280	2320	2300
Ammoniacal-nitrogen	mg/L	0.57	0.59	0.4	0.34	0.45	0.98	0.39	0.42	0.38
Chloride	mg/L	2440	2430	2200	2230	2310	2290	2290	2260	2290
Nitrite-nitrogen	mg/L	0.27	0.41	0.25	0.22	0.3	0.55	0.19	0.22	0.26
Phosphate	mg/L	8.27	8.22	7.96	8.41	8.43	9.25	8.89	9.47	8.94
Sulphate	mg/L	113	113	113	127	98	100	98	86	99
Total Nitrogen	mg/L	117	110	98.1	99.9	119	122	127	128	119
Nitrate-nitrogen	mg/L	57.7	55	47.7	48.6	62.8	67.3	66.6	66.5	62.3
Total Inorganic Nitrogen	mg/L	58.5	56.0	48.4	49.2	63.6	68.8	67.2	67.1	62.9
Biochemical Oxygen Demand (BOD)	mg/L	13	13	9	10	9	13	14	16	9
Chemical Oxygen Demand (COD)	mg/L	1040	1000	948	975	992	993	1050	1080	1000
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	369	370	380	406	445	438	394	386	381
Boron	µg/L	5640	5840	5190	5270	4830	4720	5040	5100	5010
Calcium	mg/L	21.4	22	19.8	19.7	16.8	16.5	19.2	16.6	14.3
Iron	mg/L	1.38	1.34	1.4	1.52	1.52	1.5	1.47	1.56	1.43
Magnesium	mg/L	26.1	26.1	28.8	31.2	28.4	28.2	29.3	28.2	25.9
Potassium	mg/L	979	1000	913	891	887	862	937	807	875
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	130	132	129	143	130	132	127	128	127
Copper	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nickel	µg/L	130	132	122	138	122	122	122	123	121
Zinc	µg/L	50	47	51	57	43	43	49	47	50

		3 Feb 22	4 Feb 22	5 Feb 22	6 Feb 22	7 Feb 22	8 Feb 22	9 Feb 22	10 Feb 22	11 Feb 22	12 Feb 22	13 Feb 22
On-site Measurements												
Temperature	°C	23.5	23.8	25	22.7	22.3	24.5	24.8	28.1	27	28.6	24.2
pH Value	pH Unit	8.5	8.6	8.6	8.6	8.5	8.6	8.5	8.6	8.5	8.5	8.5
Volume Discharged	m^3	508	1256	819	772	385	1297	1235	1346	1495	1386	762
Laboratory Analysis												
Suspended Solids (SS)	mg/L	35.1	35.2	49.2	52.9	30.7	24.9	17.1	21.4	23.6	33.1	27.6
Alkalinity	mg/L	2360	2390	2360	2330	2350	2370	2330	2260	2250	2200	2070
Ammoniacal-nitrogen	mg/L	2.73	0.31	0.3	0.26	0.4	0.36	0.38	0.27	0.44	0.3	0.3
Chloride	mg/L	2160	2230	2250	2240	2210	2150	2380	2250	2270	2220	2160
Nitrite-nitrogen	mg/L	0.67	0.19	0.18	0.25	0.17	0.18	0.19	0.18	0.1	0.17	0.17
Phosphate	mg/L	9.32	9.41	8	8.06	8.01	7.9	7.88	7.92	8.52	8.74	8.38
Sulphate	mg/L	100	109	116	115	112	123	118	119	112	110	126
Total Nitrogen	mg/L	118	101	98.2	95.8	92.9	92.3	101	103	111	120	126
Nitrate-nitrogen	mg/L	56.8	45.2	43.7	41.6	41.7	39.1	47.1	53.1	59.8	65.2	67.8
Total Inorganic Nitrogen	mg/L	60.2	45.7	44.2	42.1	42.3	39.6	47.7	53.6	60.3	65.7	68.3
Biochemical Oxygen Demand (BOD)	mg/L	22	9	12	10	10	10	9	10	9	15	10
Chemical Oxygen Demand (COD)	mg/L	1070	1050	1090	1030	984	1040	1030	856	967	893	800
Oil & Grease	mg/L	<5	<5	<5	<5	<5	6	6	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	398	424	407	389	389	409	477	457	498	469	416
Boron	µg/L	5790	5410	6180	5750	5830	5690	6010	5890	5470	5310	5030
Calcium	mg/L	16.9	18	19.1	17.8	17.6	16.8	16.1	16.8	20.3	20	19
Iron	mg/L	1.53	1.65	1.66	1.62	1.48	1.65	1.61	1.4	1.49	1	1.2
Magnesium	mg/L	27.2	31.2	33.2	32.2	30.7	32.3	32.2	28.1	30.8	29	25.6
Potassium	mg/L	801	877	880	906	855	832	928	852	977	856	807
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	142	140	139	140	137	139	137	128	132	127	122
Copper	µg/L	<10	<10	<10	68	<10	<10	<10	<10	<10	<10	56
Nickel	µg/L	125	123	123	121	122	127	128	126	123	118	112
Zinc	µg/L	54	62	59	92	60	57	57	52	53	54	79

Notes:

Effluent monitoring was suspended on 1 and 2 Feb 2022 as the Leachate Treatment Plant (LTP) was not in operation and no treated effluent was discharged from the on-site LTP to the foul sewer leading to Tseung Kwan O Sewage Treatment Works (TKO STW) on 1 and 2 Feb 2022.

		14 Feb 22	15 Feb 22	16 Feb 22	17 Feb 22	18 Feb 22	19 Feb 22	20 Feb 22	21 Feb 22	22 Feb 22	23 Feb 22	24 Feb 22
On-site Measurements												
Temperature	°C	26	26.3	27.4	26.7	24.5	26.3	15.3	13.2	18.2	21	21.8
pH Value	pH Unit	8.5	8.5	8.5	8.6	8.6	8.3	8.4	8.6	8.4	8.3	8.3
Volume Discharged	m^3	821	1221	1434	1475	1352	1445	1274	747	1492	1492	1492
Laboratory Analysis												
Suspended Solids (SS)	mg/L	22.3	28.5	26.4	49.6	40.1	40.4	16.5	13.6	32	20.3	20.3
Alkalinity	mg/L	2250	2080	2320	2240	2180	2210	1940	2030	1650	20.3	20.3
Ammoniacal-nitrogen	mg/L	0.32	0.22	0.28	0.25	0.3	0.26	0.25	0.26	0.14	20.3	20.3
Chloride	mg/L	2280	1820	2170	2120	2120	2090	1660	1920	1670	20.3	20.3
Nitrite-nitrogen	mg/L	0.33	0.19	0.21	0.21	0.24	0.22	0.18	0.29	0.14	20.3	20.3
Phosphate	mg/L	9.39	8.58	8.84	8.93	8.63	8.52	7.17	8.33	6.55	20.3	20.3
Sulphate	mg/L	106	130	127	121	120	96	138	107	121	20.3	20.3
Total Nitrogen	mg/L	132	124	121	129	134	128	106	119	102	20.3	20.3
Nitrate-nitrogen	mg/L	72.8	65.2	63.7	67.5	71.3	63.7	53.4	71	58.8	20.3	20.3
Total Inorganic Nitrogen	mg/L	73.5	65.6	64.2	68.0	71.8	64.2	53.8	71.6	59.1	45.2	38.9
Biochemical Oxygen Demand (BOD)	mg/L	9	10	11	15	14	15	8	15	9	20.3	20.3
Chemical Oxygen Demand (COD)	mg/L	837	982	1040	1040	1060	1000	718	915	753	20.3	20.3
Oil & Grease	mg/L	5	<5	<5	<5	<5	<5	<5	<5	<5	20.3	20.3
Total Organic Carbon (TOC)	mg/L	470	426	490	449	431	449	363	421	325	20.3	20.3
Boron	µg/L	5560	5280	5780	5390	5570	5720	4770	4980	4560	20.3	20.3
Calcium	mg/L	17.2	19.5	18.7	20.1	20	18.4	20.1	17.1	24.1	20.3	20.3
Iron	mg/L	1.36	1.37	1.54	1.73	1.68	1.54	1.24	1.29	1.05	20.3	20.3
Magnesium	mg/L	26.7	26.3	28.8	29	28.4	27.2	24	24	22	20.3	20.3
Potassium	mg/L	895	790	908	893	919	812	755	825	699	20.3	20.3
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	20.3	20.3
Chromium	µg/L	129	126	138	135	132	135	115	118	102	20.3	20.3
Copper	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	21	20.3	20.3
Nickel	µg/L	116	112	124	119	123	120	105	107	92	20.3	20.3
Zinc	µg/L	47	48	55	50	53	56	58	67	85	20.3	20.3

		25 Feb 22	26 Feb 22	27 Feb 22	28 Feb 22
On-site Measurements					
Temperature	°C	26.5	25.1	25.6	27.5
pH Value	pH Unit	8.2	8.3	8.3	8.3
Volume Discharged	m^3	1496	1495	1495	1140
Laboratory Analysis					
Suspended Solids (SS)	mg/L	20	44	33.7	20.2
Alkalinity	mg/L	1400	1540	1560	1560
Ammoniacal-nitrogen	mg/L	0.32	0.25	0.28	0.27
Chloride	mg/L	1330	1470	1500	1480
Nitrite-nitrogen	mg/L	0.2	0.11	0.1	0.1
Phosphate	mg/L	4.09	4.37	4.2	4.61
Sulphate	mg/L	203	194	196	192
Total Nitrogen	mg/L	84.5	86.4	87.9	72
Nitrate-nitrogen	mg/L	39.7	38.9	37.4	35.6
Total Inorganic Nitrogen	mg/L	40.2	39.3	37.8	36.0
Biochemical Oxygen Demand (BOD)	mg/L	9	11	9	6
Chemical Oxygen Demand (COD)	mg/L	910	1000	764	619
Oil & Grease	mg/L	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	288	302	296	284
Boron	µg/L	3680	3870	4100	4030
Calcium	mg/L	55	54.3	58.9	54.6
Iron	mg/L	0.86	1.06	1.46	0.93
Magnesium	mg/L	21.4	24.4	24.4	21.5
Potassium	mg/L	544	640	670	633
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	80	92	100	94
Copper	µg/L	<10	<10	<10	<10
Nickel	µg/L	77	89	93	92
Zinc	µg/L	68	76	76	62

		1 Mar 22	2 Mar 22	3 Mar 22	4 Mar 22	5 Mar 22	6 Mar 22	7 Mar 22	8 Mar 22	9 Mar 22	10 Mar 22	11 Mar 22
On-site Measurements												
Temperature	°C	30.1	30	27.8	30.1	28.9	24.9	27.7	28.7	28.5	32.7	32.6
pH Value	pH Unit	8.3	8.4	8.4	8.4	8.4	8.5	8.5	8.5	8.4	8.4	8.5
Volume Discharged	m^3	1341	1496	1496	1498	1372	678	644	1367	1497	1380	950
Laboratory Analysis												
Suspended Solids (SS)	mg/L	27	38.7	16.7	18.3	19.2	17.1	14.2	23.9	20.4	31.5	22.6
Alkalinity	mg/L	1460	1540	1520	1470	1530	1750	1830	1670	1980	2070	2260
Ammoniacal-nitrogen	mg/L	0.35	0.29	0.35	0.31	0.35	0.38	0.47	0.31	0.34	0.37	0.33
Chloride	mg/L	1420	1550	1400	1390	1520	1690	1780	1610	1850	1700	1910
Nitrite-nitrogen	mg/L	0.11	0.11	0.11	0.13	0.16	0.15	0.44	0.11	0.14	0.14	0.16
Phosphate	mg/L	4.41	4.98	5.29	5.47	5.98	6.82	7.25	6.95	9	9.8	10.1
Sulphate	mg/L	199	157	181	182	181	163	164	175	164	128	122
Total Nitrogen	mg/L	69.6	96.4	87.9	96.3	98.6	91.4	84.2	78.5	84.7	100	116
Nitrate-nitrogen	mg/L	32.3	46.7	49.6	56	57.2	45	37.5	37.6	37.3	48.7	61.4
Total Inorganic Nitrogen	mg/L	32.8	47.1	50.1	56.4	57.7	45.5	38.4	38.0	37.8	49.2	61.9
Biochemical Oxygen Demand (BOD)	mg/L	8	9	13	13	10	6	7	9	6	7	7
Chemical Oxygen Demand (COD)	mg/L	710	692	983	619	856	902	826	790	826	1190	544
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	334	314	313	311	326	334	333	341	390	395	387
Boron	µg/L	3560	4380	4190	4330	4520	4690	4590	4340	5140	5040	5200
Calcium	mg/L	56.5	56	53.7	58.5	51.6	50.9	47.2	37.4	29.4	32.4	26.7
Iron	mg/L	0.86	1.08	0.99	1.01	1.05	1.19	1.08	1.14	1.14	1.24	1.31
Magnesium	mg/L	21.3	22.6	22.3	22.4	21.6	24.9	23.8	21.1	21.2	24	23.9
Potassium	mg/L	561	665	686	689	691	709	776	652	697	777	877
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	88	88	88	86	90	105	102	92	106	126	134
Copper	µg/L	<10	23	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nickel	µg/L	85	85	84	80	86	107	108	100	110	118	125
Zinc	µg/L	59	76	52	46	48	56	54	61	61	54	56

		12 Mar 22	13 Mar 22	14 Mar 22	15 Mar 22	16 Mar 22	17 Mar 22	18 Mar 22	19 Mar 22	20 Mar 22	21 Mar 22	22 Mar 22	23 Mar 22
On-site Measurements													
Temperature	°C	29.3	30.9	31.7	29.7	28.9	31.9	31.9	29.1	25.8	29.9	29.7	25.1
pH Value	pH Unit	8.5	8.4	8.4	8.5	8.4	8.5	8.5	8.4	8.4	8.5	8.5	8.5
Volume Discharged	m^3	730	665	366	764	1143	1141	1125	1178	793	357	1033	1341
Laboratory Analysis													
Suspended Solids (SS)	mg/L	23.4	84.8	10.7	14.6	20.4	21.8	31.6	12.5	14.7	19.5	19.2	20.2
Alkalinity	mg/L	2300	2310	2310	2100	1750	1860	2020	1950	2040	2320	2170	2230
Ammoniacal-nitrogen	mg/L	0.34	0.31	1.39	0.59	0.33	0.37	0.33	0.32	0.34	0.39	0.36	0.35
Chloride	mg/L	1970	2060	2080	1800	1570	1650	1720	1690	1740	2150	1910	1950
Nitrite-nitrogen	mg/L	0.19	0.23	1.12	1.18	0.14	0.16	0.18	0.18	0.18	0.29	0.18	0.18
Phosphate	mg/L	10.2	9.97	10.4	9.55	8.23	8.3	8.5	8.1	7.89	9.96	8.53	8.43
Sulphate	mg/L	121	118	116	140	177	170	152	153	139	114	133	130
Total Nitrogen	mg/L	112	120	112	104	78	83.9	102	96.7	94.4	107	106.0	110.0
Nitrate-nitrogen	mg/L	57.3	61.1	60.8	55	37.8	39.2	45.7	47.7	45.6	51.5	53.8	55.4
Total Inorganic Nitrogen	mg/L	57.8	61.6	63.3	56.8	38.3	39.7	46.2	48.2	46.1	52.2	54.3	55.9
Biochemical Oxygen Demand (BOD)	mg/L	7	12	8	8	11	9	12	8	7	8	7	10
Chemical Oxygen Demand (COD)	mg/L	516	590	982	1010	892	964	903	1050	1090	1130	993	1050
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	488	418	410	350	332	355	394	372	418	497	412	404
Boron	µg/L	5370	5530	5320	5170	3830	4390	4900	4950	4930	5530	5480	5570
Calcium	mg/L	26	24.6	22.9	23.9	26.3	22.9	21.8	21.5	20.3	18.9	19.5	20.4
Iron	mg/L	1	1.42	1.27	1.28	1.18	1.19	1.4	1.33	1.46	1.46	1.54	1.63
Magnesium	mg/L	24	24.4	23.2	24	24.2	22.6	23.9	24.7	24.5	26.9	25.9	27.6
Potassium	mg/L	882	888	900	820	622	707	784	735	774	922	836	874
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	140	143	141	127	104	107	121	109	112	126	123	134
Copper	µg/L	<10	23	<10	<10	<10	<10	15	<10	<10	<10	<10	<10
Nickel	µg/L	130	130	127	119	98	103	112	101	107	122	115	119
Zinc	µg/L	62	100	67	73	97	102	113	106	104	69	99	102

		1 Apr 22	2 Apr 22	3 Apr 22	4 Apr 22	5 Apr 22	6 Apr 22	7 Apr 22	8 Apr 22	9 Apr 22	10 Apr 22	11 Apr 22
On-site Measurements												
Temperature	°C	28.7	21.2	22.6	27.8	26.7	28.6	29.9	32	26.8	27.4	30.9
pH Value	pH Unit	8.6	8.7	8.7	8.6	8.7	8.6	8.6	8.7	8.6	8.6	8.6
Volume Discharged	m^3	952	1109	865	438	869	374	1285	695	88	299	443
Laboratory Analysis												
Suspended Solids (SS)	mg/L	30.6	56.4	52.6	21.8	37.3	20.4	26.4	23.5	19.1	53.6	32.7
Alkalinity	mg/L	2220	2180	2120	2230	2190	2340	2280	2280	2400	2350	2320
Ammoniacal-nitrogen	mg/L	0.3	0.26	0.3	0.52	0.3	0.47	0.31	0.31	0.39	0.94	0.58
Chloride	mg/L	2210	2070	1850	1930	1910	2010	2350	2380	2210	2560	2480
Nitrite-nitrogen	mg/L	0.17	0.19	0.14	0.45	0.21	0.45	0.21	0.19	0.38	0.26	0.47
Phosphate	mg/L	9.6	8.84	8.41	9.35	7.83	9.53	8.08	9.5	10.2	9.6	9.28
Sulphate	mg/L	151	147	123	123	133	121	150	152	144	152	155
Total Nitrogen	mg/L	103	116	127	119	113	93.9	103	98.4	91.7	108	99.2
Nitrate-nitrogen	mg/L	51	57.3	72.1	64.6	57.9	41.7	48.6	45.1	42.8	47.9	45.4
Total Inorganic Nitrogen	mg/L	51.47	57.75	72.54	65.57	58.41	42.62	49.12	45.6	43.57	49.1	46.45
Biochemical Oxygen Demand (BOD)	mg/L	14	14	33	9	15	9	10	10	6	12	9
Chemical Oxygen Demand (COD)	mg/L	1200	1140	1180	1180	1010	1040	1160	1230	1200	1350	1160
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	428	484	362	475	349	350	453	449	466	445	439
Boron	µg/L	5160	5030	5040	5150	5460	5650	5640	5540	5790	5790	5410
Calcium	mg/L	28.2	33.1	27.3	25.2	30.3	26.6	32.1	28.5	27.3	26	25.9
Iron	mg/L	1.71	1.77	1.6	1.63	1.68	1.79	2.11	2.09	2.04	2	2.05
Magnesium	mg/L	30	30.7	25.3	26.4	28	26.5	31.4	31	31.3	28.6	29.6
Potassium	mg/L	898	955	785	846	836	816	932	921	947	885	892
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	131	135	137	136	120	129	132	135	132	134	134
Copper	µg/L	<10	<10	44	<10	<10	<10	<10	<10	<10	24	<10
Nickel	µg/L	120	122	121	122	118	126	124	129	127	130	128
Zinc	µg/L	75	88	111	69	88	70	81	80	71	95	82

		12 Apr 22	13 Apr 22	14 Apr 22	15 Apr 22	16 Apr 22	17 Apr 22	18 Apr 22	19 Apr 22	20 Apr 22	21 Apr 22	22 Apr 22	23 Apr 22
On-site Measurements													
Temperature	°C	32.4	30.3	31.5	27.3	27.7	27.3	26.7	26.5	29.2	29	32	29.4
pH Value	pH Unit	8.6	8.5	8.6	8.5	8.5	8.6	8.6	8.6	8.7	8.6	9	8.5
Volume Discharged	m^3	580	227	242	1225	1064	648	368	1001	265	337	815	1137
Laboratory Analysis													
Suspended Solids (SS)	mg/L	39.6	17.6	16.5	18.9	23.7	19.9	30.2	11.7	15.4	12.7	36.1	41
Alkalinity	mg/L	2320	2350	2430	2320	2360	2320	2360	2440	2440	2400	2410	2390
Ammoniacal-nitrogen	mg/L	0.34	0.82	0.46	0.38	0.4	0.31	0.37	0.34	0.35	0.51	0.24	0.2
Chloride	mg/L	2120	2110	2120	2150	2190	2160	2190	2160	2220	2170	2620	2510
Nitrite-nitrogen	mg/L	0.18	0.61	0.55	0.22	0.23	0.23	0.32	0.21	0.21	0.46	0.17	0.17
Phosphate	mg/L	8.93	9.23	9.9	8.98	8.87	8.94	8.92	8.85	8.98	9.02	9.58	9.21
Sulphate	mg/L	161	157	144	164	154	144	144	136	140	130	140	142
Total Nitrogen	mg/L	101	96.4	84.6	95	97.8	110	105	87.4	83.1	79	85.1	89.2
Nitrate-nitrogen	mg/L	45.1	42.8	34.8	42.7	46.8	55	53.7	36.6	32.7	31.1	33.1	34.5
Total Inorganic Nitrogen	mg/L	45.62	44.23	35.81	43.3	47.43	55.54	54.39	37.15	33.26	32.07	33.51	34.87
Biochemical Oxygen Demand (BOD)	mg/L	14	5	6	12	10	10	8	7	6	10	5	5
Chemical Oxygen Demand (COD)	mg/L	1210	1090	1070	1230	1150	1120	1070	1070	1040	1120	1160	1150
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	457	420	553	426	431	409	530	441	425	438	439	391
Boron	µg/L	5940	6110	5640	5660	5900	5980	6080	6080	5830	5700	5630	5700
Calcium	mg/L	25	26.1	22.2	24.5	22.8	21.5	20.6	19.9	21.5	21.8	23	23.3
Iron	mg/L	2	2.29	2.05	2.29	2.21	2.04	1.92	2.05	1.95	1.92	2.06	2.19
Magnesium	mg/L	32	32.9	31.1	32.8	33.8	33.3	33.8	32.6	31.6	32.2	31.6	34.6
Potassium	mg/L	911	920	916	908	926	936	954	922	908	914	891	970
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	138	134	140	139	139	140	139	141	140	137	136	140
Copper	µg/L	40	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	47
Nickel	µg/L	131	133	136	132	133	136	134	139	128	126	127	132
Zinc	µg/L	97	84	79	93	91	91	80	86	80	80	74	96

		24 Apr 22	25 Apr 22	26 Apr 22	27 Apr 22	28 Apr 22	29 Apr 22	30 Apr 22
On-site Measurements								
Temperature	°C	32.1	33.6	35.3	35.2	33.9	33.6	29.9
pH Value	pH Unit	8.6	8.5	8.5	8.4	8.4	8.4	8.4
Volume Discharged	m^3	627	244	757	216	277	218	806
Laboratory Analysis								
Suspended Solids (SS)	mg/L	52.8	12	30.7	16	16.3	14.6	27.5
Alkalinity	mg/L	2400	2450	2430	2400	2400	2380	2410
Ammoniacal-nitrogen	mg/L	0.29	0.54	0.34	0.36	0.56	0.5	0.22
Chloride	mg/L	2480	2390	2200	2230	2080	2180	2300
Nitrite-nitrogen	mg/L	0.19	0.4	0.18	0.19	0.63	0.49	0.3
Phosphate	mg/L	9.32	9.44	9.07	9.14	8.73	9.06	9.35
Sulphate	mg/L	153	139	145	149	143	146	150
Total Nitrogen	mg/L	96.1	90.5	92.4	92.5	90.9	97.3	96.4
Nitrate-nitrogen	mg/L	39.2	37.3	39.8	40.9	41.4	44.3	44.4
Total Inorganic Nitrogen	mg/L	39.68	38.24	40.32	41.45	42.59	45.29	44.92
Biochemical Oxygen Demand (BOD)	mg/L	10	4	7	8	6	9	10
Chemical Oxygen Demand (COD)	mg/L	1040	1150	1200	1150	1110	1070	1080
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	466	382	356	382	394	396	374
Boron	µg/L	5520	5680	5980	5650	5620	5860	5850
Calcium	mg/L	21.2	22.5	23.7	24.1	23.4	23.4	22.8
Iron	mg/L	1.95	1.81	1.91	1.81	1.84	1.86	1.8
Magnesium	mg/L	32.5	31.6	35.2	33.6	32.3	33.4	33.2
Potassium	mg/L	914	924	1000	958	924	949	942
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	137	130	134	135	134	132	130
Copper	µg/L	53	<10	<10	<10	19	<10	<10
Nickel	µg/L	131	123	131	125	124	124	122
Zinc	µg/L	105	69	76	77	86	76	77

		1 May 22	2 May 22	3 May 22	4 May 22	5 May 22	6 May 22	7 May 22	8 May 22	9 May 22	10 May 22	11 May 22
On-site Measurements												
Temperature	°C	27.1	21.5	27.8	29.4	30.2	27.7	27.7	31.0	30.2	29.3	27.2
pH Value	pH Unit	8.4	8.4	8.4	8.3	8.2	8.3	8.3	8.3	8.3	8.3	8.2
Volume Discharged	m^3	970	948	665	196	130	235	976	1,219	456	390	767
Laboratory Analysis												
Suspended Solids (SS)	mg/L	26.6	52.0	49.8	14.5	11.1	10.9	11.5	26.8	17.0	10.5	14.8
Alkalinity	mg/L	2490	2390	2230	2250	2240	2260	2210	2320	2310	2320	2330
Ammoniacal-nitrogen	mg/L	0.27	0.26	0.33	0.29	0.34	0.28	0.30	0.27	0.23	0.30	0.44
Chloride	mg/L	2440	2380	2150	2070	2020	2140	2200	2140	2420	2300	1980
Nitrite-nitrogen	mg/L	0.19	0.15	0.23	0.21	0.28	0.26	0.28	0.16	0.17	0.28	0.21
Phosphate	mg/L	8.91	8.73	8.28	8.11	7.95	8.30	8.43	8.38	7.73	7.87	7.84
Sulphate	mg/L	143	151	143	143	144	124	142	131	127	131	150
Total Nitrogen	mg/L	80.1	89.1	94.9	95.1	87.2	97.6	88.0	71.2	81.1	80.4	76.0
Nitrate-nitrogen	mg/L	30.0	36.4	43.4	45.8	40.3	40.4	37.8	19.3	28.6	27.0	27.2
Total Inorganic Nitrogen	mg/L	30.46	36.81	43.96	46.30	40.92	40.94	38.38	19.73	29.00	27.58	27.85
Biochemical Oxygen Demand (BOD)	mg/L	9	11	7	11	4	5	8	8	9	10	5
Chemical Oxygen Demand (COD)	mg/L	1130	1100	978	971	863	935	989	836	980	941	1030
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	381	384	353	340	385	379	464	404	4340	407	405
Boron	µg/L	5790	5660	5940	5240	5090	5240	5170	5460	5660	5820	5540
Calcium	mg/L	23.3	22.0	24.3	27.9	30.0	28.3	28.1	28.3	27.5	27.1	25.3
Iron	mg/L	1.92	1.86	1.72	1.72	1.66	1.78	1.75	1.94	1.88	1.87	1.77
Magnesium	mg/L	35.0	31.1	30.9	30.1	31.6	34.5	34.5	35.6	38.2	37.3	32.1
Potassium	mg/L	951	874	851	824	860	842	826	838	902	880	882
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	133	133	124	123	118	123	121	138	137	137	130
Copper	µg/L	<10	40	40	<10	<10	<10	<10	<10	<10	<10	<10
Nickel	µg/L	127	124	114	111	107	111	108	124	129	126	122
Zinc	µg/L	79	100	129	88	84	83	81	75	72	72	68

		12 May 22	13 May 22	14 May 22	15 May 22	16 May 22	17 May 22	18 May 22	19 May 22	20 May 22	21 May 22	22 May 22	23 May 22
On-site Measurements													
Temperature	°C	30.4	33.0	29.0	22.8	28.1	33.5	33.5	34.9	32.4	32.1	28.4	34.4
pH Value	pH Unit	8.3	8.1	8.0	8.0	8.1	7.9	7.8	8.0	7.8	8.0	7.9	7.9
Volume Discharged	m^3	1,479	1,496	1,495	1,495	1,496	1,492	1,496	1,496	1,495	1,490	1,495	1,496
Laboratory Analysis													
Suspended Solids (SS)	mg/L	22.8	17.3	14.7	47.8	4.2	18.0	20.7	24.1	23.2	22.7	30.2	53.4
Alkalinity	mg/L	1950	1610	1270	1060	937	856	766	767	784	783	816	962
Ammoniacal-nitrogen	mg/L	0.54	0.36	0.39	0.35	0.36	0.61	0.58	0.64	0.47	0.57	0.01	0.40
Chloride	mg/L	1760	1510	1190	1190	1100	863	857	925	924	889	1270	1160
Nitrite-nitrogen	mg/L	0.13	0.13	0.26	0.07	0.09	0.06	0.08	0.05	0.04	<0.10	<0.10	<0.10
Phosphate	mg/L	6.56	4.69	2.90	1.61	0.79	0.47	0.20	0.57	0.92	0.99	1.02	1.95
Sulphate	mg/L	181	230	320	429	455	492	604	634	632	650	627	548
Total Nitrogen	mg/L	70.8	88.0	95.5	136.0	100.0	110.0	108.0	105.0	100.0	96.1	107.0	127.0
Nitrate-nitrogen	mg/L	25.2	39.8	48.4	53.9	61.0	64.4	64.9	62.6	59.7	57.4	68.4	81.8
Total Inorganic Nitrogen	mg/L	25.87	40.29	49.05	54.32	61.45	65.07	65.56	63.29	60.21	58.07	68.51	82.30
Biochemical Oxygen Demand (BOD)	mg/L	7	13	14	12	9	4	8	8	8	8	9	11
Chemical Oxygen Demand (COD)	mg/L	802	762	629	576	516	436	424	410	427	444	495	615
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	335	297	272	229	211	182	163	177	151	171	192	220
Boron	µg/L	4540	4140	3550	3180	2880	2570	2580	2600	2840	2680	2740	3190
Calcium	mg/L	44.1	61.6	96.8	133.0	158.0	183.0	182.0	188.0	200.0	176.0	156.0	135.0
Iron	mg/L	1.53	1.20	1.49	0.81	0.61	0.63	0.50	0.49	0.52	0.47	0.58	0.87
Magnesium	mg/L	26.3	26.6	26.0	30.0	32.9	36.8	35.8	37.3	39.4	35.8	35.7	35.1
Potassium	mg/L	679	603	505	465	423	417	365	384	395	359	402	471
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	114	96	78	68	59	57	51	53	50	48	56	65
Copper	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	11
Nickel	µg/L	104	88	70	58	50	45	38	37	36	34	47	56
Zinc	µg/L	79	81	71	66	62	63	56	56	56	55	72	93

		24 May 22	25 May 22	26 May 22	27 May 22	28 May 22	29 May 22	30 May 22	31 May 22
On-site Measurements									
Temperature	°C	29.1	28.6	31.5	30.5	32.6	31.5	33.6	32.5
pH Value	pH Unit	8.0	8.1	8.3	8.2	8.2	8.3	8.3	8.4
Volume Discharged	m^3	1,434	1,275	1,186	798	569	1,046	1,035	1,160
Laboratory Analysis									
Suspended Solids (SS)	mg/L	37.5	35.2	44	44	79.8	67.2	40.2	34.6
Alkalinity	mg/L	1130	1270	1360	1430	1490	1490	1660	1750
Ammoniacal-nitrogen	mg/L	0.43	0.38	0.37	0.3	0.75	0.24	0.22	0.59
Chloride	mg/L	1200	1300	1400	1500	1570	1750	1880	1730
Nitrite-nitrogen	mg/L	0.10	0.13	0.07	0.13	0.31	0.12	0.12	0.11
Phosphate	mg/L	2.53	2.56	2.83	3.13	4.93	5.05	5.23	5.75
Sulphate	mg/L	527	508	400	377	338	342	290	275
Total Nitrogen	mg/L	117.0	102.0	90.9	98.9	104.0	96.8	98.1	101.0
Nitrate-nitrogen	mg/L	67.5	46.2	41.5	43.6	52.7	45.6	48.7	51.5
Total Inorganic Nitrogen	mg/L	68.03	46.71	41.94	44.03	53.76	45.96	49.04	52.20
Biochemical Oxygen Demand (BOD)	mg/L	9	10	9	9	17	13	10	10
Chemical Oxygen Demand (COD)	mg/L	632	748	682	825	856	790	883	922
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	247	278	271	298	298	315	329	336
Boron	µg/L	3320	3770	3670	3810	4160	3800	4460	4600
Calcium	mg/L	118.0	121.0	109	98.6	87.2	81.2	65.4	57.8
Iron	mg/L	0.96	1.20	1.28	1.43	1.41	1.34	1.32	1.28
Magnesium	mg/L	32.3	35.5	34.5	34.4	33.5	29.2	27.8	27
Potassium	mg/L	499	576	591	647	674	644	693	712
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	68	76	79	80	86	88	89	94
Copper	µg/L	<10	<10	11	14	23	17	13	11
Nickel	µg/L	61	70	73	77	81	88	96	101
Zinc	µg/L	98	102	105	129	168	116	104	99

		1 Jun 22	2 Jun 22	3 Jun 22	4 Jun 22	5 Jun 22	6 Jun 22	7 Jun 22	8 Jun 22	9 Jun 22	10 Jun 22	11 Jun 22
On-site Measurements												
Temperature	°C	34.8	34.3	34.2	36.6	33.1	31.1	33.8	31.2	29.4	29.4	29.4
pH Value	pH Unit	8.4	8.4	8.4	8.4	8.5	8.5	8.4	8.4	8.3	8.3	8.3
Volume Discharged	m^3	1,048	1,027	990	1,200	1,136	1,133	1,091	1,496	1,495	1,496	1,495
Laboratory Analysis												
Suspended Solids (SS)	mg/L	39.9	30.1	23.3	109.0	14.1	16.2	19.2	28.0	33.7	307.0	23.7
Alkalinity	mg/L	1760	1810	1820	1900	2010	2010	2050	1970	1550	1610	1260
Ammoniacal-nitrogen	mg/L	0.45	0.33	0.41	0.48	0.42	0.35	0.28	0.31	0.25	0.43	0.40
Chloride	mg/L	1830	1970	1910	1940	1950	1900	1830	1700	1650	1710	1360
Nitrite-nitrogen	mg/L	0.13	0.14	0.14	0.13	0.14	0.15	0.16	0.14	0.12	0.13	0.08
Phosphate	mg/L	5.93	5.79	5.92	6.14	6.71	6.85	7.05	5.88	5.49	4.76	2.89
Sulphate	mg/L	228	228	227	198	194	177	174	156	208	214	321
Total Nitrogen	mg/L	111.0	115.0	118.0	110.0	74.7	127.0	126.0	101.0	112.0	136.0	102.0
Nitrate-nitrogen	mg/L	57	65.2	64.7	52.7	59.2	68.6	69.6	57.9	64.6	68.7	55.6
Total Inorganic Nitrogen	mg/L	57.58	65.67	65.25	53.31	59.76	69.10	70.04	58.35	64.97	69.26	56.08
Biochemical Oxygen Demand (BOD)	mg/L	6	7	8	24	10	9	7	9	7	38	8
Chemical Oxygen Demand (COD)	mg/L	910	930	906	1010	966	1080	934	957	836	1020	689
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	329	345	355	414	388	390	400	400	314	329	258
Boron	µg/L	3980	4430	4430	5060	5170	4960	5010	5030	3480	3720	3230
Calcium	mg/L	47.5	44.4	43.8	38.7	41.3	39.1	32.8	31.8	43.0	43.8	59.4
Iron	mg/L	1.40	1.40	1.38	1.66	1.49	1.58	1.59	1.61	1.33	1.76	1.03
Magnesium	mg/L	25.6	24.6	25.3	25.0	25.4	25.0	23.5	22.4	22.2	23.2	23.8
Potassium	mg/L	703	712	725	788	828	846	816	790	689	709	587
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	102	103	104	119	126	124	126	113	92	113	81
Copper	µg/L	11	11	11	10	<10	10	<10	<10	<10	50	<10
Nickel	µg/L	103	105	105	114	121	118	118	109	87	97	74
Zinc	µg/L	102	102	100	112	98	94	87	108	86	161	79

		12 Jun 22	13 Jun 22	14 Jun 22	15 Jun 22	16 Jun 22	17 Jun 22	18 Jun 22	19 Jun 22	20 Jun 22	21 Jun 22	22 Jun 22	23 Jun 22
On-site Measurements													
Temperature	°C	35.0	31.7	32.4	35.1	33.0	34.6	29.0	31.9	34.1	35.7	35.1	37.7
pH Value	pH Unit	8.2	8.3	8.2	8.1	8.1	8.1	8.5	8.2	8.2	8.2	8.3	8.3
Volume Discharged	m^3	1,495	1,496	1,495	1,495	1,347	1,033	1,108	1,152	1,177	1,107	1,048	1,043
Laboratory Analysis													
Suspended Solids (SS)	mg/L	19.0	11.2	16.7	18.7	20.6	21.6	11.2	24.0	12.8	20.5	18.6	15.3
Alkalinity	mg/L	917	847	706	626	680	676	765	911	545	1210	1430	1510
Ammoniacal-nitrogen	mg/L	0.26	0.42	0.46	0.50	0.77	0.53	0.31	0.49	0.31	0.40	0.39	0.25
Chloride	mg/L	1070	999	930	941	831	863	975	1170	633	1380	1500	1570
Nitrite-nitrogen	mg/L	0.09	0.07	0.11	0.14	0.10	0.08	0.05	0.08	0.12	0.11	0.11	0.11
Phosphate	mg/L	1.80	1.48	1.34	1.21	1.25	1.38	1.40	1.60	1.28	2.49	2.21	2.70
Sulphate	mg/L	394	419	472	478	491	477	517	412	219	336	322	313
Total Nitrogen	mg/L	90.1	87.3	98.7	103.0	109.0	108.0	119.0	132.0	74.8	133.0	114.0	113.0
Nitrate-nitrogen	mg/L	52.7	51.5	65.4	67.9	72.9	76.1	76.8	94.4	51.1	89.6	69.8	67.6
Total Inorganic Nitrogen	mg/L	53.05	51.99	65.97	68.54	73.77	76.71	77.16	94.97	51.53	90.11	70.30	67.96
Biochemical Oxygen Demand (BOD)	mg/L	7	6	7	6	7	7	7	9	6	12	10	7
Chemical Oxygen Demand (COD)	mg/L	509	427	464	431	537	463	524	563	316	774	761	774
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	198	201	166	163	192	203	222	256	129	306	328	310
Boron	µg/L	2420	2320	2430	2250	2810	2910	3050	3370	2000	4110	4290	4480
Calcium	mg/L	86.6	91.8	80.7	78.8	69.2	72.5	66.6	57.3	40.5	48.2	45.5	42.1
Iron	mg/L	0.71	0.58	0.55	0.60	0.67	0.73	0.80	1.04	0.66	1.44	1.50	1.53
Magnesium	mg/L	28.7	29.3	27.6	28.0	26.2	28.8	28.3	25.8	15.2	26.0	26.4	23.7
Potassium	mg/L	483	450	418	403	427	436	458	487	311	624	664	677
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	59	54	51	51	56	57	58	72	41	87	89	97
Copper	µg/L	19	15	<10	<10	<10	15	<10	19	21	<10	<10	<10
Nickel	µg/L	51	46	43	41	45	48	51	66	40	82	85	92
Zinc	µg/L	85	59	55	55	66	91	77	109	48	89	88	87

		24 Jun 22	25 Jun 22	26 Jun 22	27 Jun 22	28 Jun 22	29 Jun 22	30 Jun 22
On-site Measurements								
Temperature	°C	35.0	34.4	35.1	36.1	31.9	34.6	30.2
pH Value	pH Unit	8.2	8.4	8.3	8.3	8.4	8.3	8.4
Volume Discharged	m^3	1,098	677	34	44	44	49	708
Laboratory Analysis								
Suspended Solids (SS)	mg/L	16.1	50.2	13.4	6.5	15.2	12.2	22.5
Alkalinity	mg/L	1540	1720	1670	1790	1760	1800	1790
Ammoniacal-nitrogen	mg/L	0.36	0.33	0.28	1.04	0.51	0.98	0.75
Chloride	mg/L	1610	1650	1640	1750	1710	1770	1670
Nitrite-nitrogen	mg/L	0.13	0.12	0.12	0.56	1.05	0.97	0.7
Phosphate	mg/L	2.75	3.53	2.92	3.58	3.69	3.52	4.24
Sulphate	mg/L	335	337	284	318	305	291	291
Total Nitrogen	mg/L	111.0	109.0	114.0	96.8	99.4	98.8	99.4
Nitrate-nitrogen	mg/L	67.8	57.7	64.2	48.5	47.6	46	46.8
Total Inorganic Nitrogen	mg/L	68.29	58.15	64.60	50.10	49.16	47.95	48.25
Biochemical Oxygen Demand (BOD)	mg/L	6	14	12	12	6	8	8
Chemical Oxygen Demand (COD)	mg/L	942	1040	983	955	839	876	847
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	322	327	335	347	558	340	342
Boron	µg/L	4370	4970	4370	4480	4480	4600	4810
Calcium	mg/L	42.2	38.5	40.9	40.6	40.8	40.8	38.8
Iron	mg/L	1.45	1.65	1.62	1.72	1.82	1.95	1.76
Magnesium	mg/L	24.7	24.3	25.4	26.5	26.9	27.3	24.1
Potassium	mg/L	706	734	751	787	786	836	760
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	98	110	109	107	107	106	104
Copper	µg/L	<10	17	<10	<10	<10	<10	<10
Nickel	µg/L	91	101	99	99	104	103	96
Zinc	µg/L	89	112	84	82	84	92	93

		1 Jul 22	3 Jul 22	4 Jul 22	5 Jul 22	6 Jul 22	7 Jul 22	8 Jul 22	9 Jul 22	11 Jul 22	12 Jul 22	13 Jul 22
On-site Measurements												
Temperature	°C	30.8	30.3	25.0	34.3	33.0	35.3	34.3	34.8	31.2	34.6	32.5
pH Value	pH Unit	8.4	8.3	8.4	8.4	8.4	8.4	8.4	8.4	8.6	8.4	8.2
Volume Discharged	m^3	1,227	1,552	1,051	905	1,059	1,073	926	793	364	41	46
Laboratory Analysis												
Suspended Solids (SS)	mg/L	17.9	61.8	15.6	20.8	21.4	27.1	20.3	38.9	7.6	17.0	15.2
Alkalinity	mg/L	1790	1260	1080	1300	1360	1470	1500	1600	1700	1720	1730
Ammoniacal-nitrogen	mg/L	1.05	0.31	0.42	0.45	0.37	0.16	0.26	0.29	0.29	0.33	0.53
Chloride	mg/L	1730	1450	1210	1490	1500	1580	1660	1740	1820	1620	1600
Nitrite-nitrogen	mg/L	1.23	0.08	0.16	0.08	0.10	0.08	0.09	0.15	0.28	0.34	0.32
Phosphate	mg/L	4.04	4.18	2.47	1.96	2.49	2.50	3.22	3.23	2.87	3.00	4.44
Sulphate	mg/L	290	281	340	470	459	458	390	339	315	276	282
Total Nitrogen	mg/L	101.0	110.0	103.0	88.0	90.7	93.0	105.0	91.1	95.1	105.0	108.0
Nitrate-nitrogen	mg/L	45.1	68.5	60.7	46.4	61.6	46.9	62.1	49.5	53.3	61.4	59.6
Total Inorganic Nitrogen	mg/L	47.38	68.89	61.28	46.93	62.07	47.14	62.45	49.94	53.87	62.07	60.45
Biochemical Oxygen Demand (BOD)	mg/L	5	10	9	7	6	9	5	7	8	8	11
Chemical Oxygen Demand (COD)	mg/L	861	739	608	671	639	702	709	674	758	779	739
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	344	280	252	186	284	290	286	317	309	254	260
Boron	µg/L	4820	3930	3500	3770	3880	3840	3860	4060	4440	4610	4580
Calcium	mg/L	39.6	46.0	64.0	60.8	57.6	53.9	49.6	47.1	43.4	43.0	43.1
Iron	mg/L	1.72	1.28	1.04	1.06	1.17	1.27	1.30	1.37	1.24	1.39	1.37
Magnesium	mg/L	25.0	25.8	24.6	25.3	26.3	26.9	26.8	26.3	25.1	26.2	26.2
Potassium	mg/L	782	624	524	589	634	639	665	682	714	737	737
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	103	79	67	75	80	86	88	91	93	90	89
Copper	µg/L	<10	<10	<10	<10	<10	<10	<10	21	<10	20	11
Nickel	µg/L	96	71	62	74	84	84	88	91	95	100	102
Zinc	µg/L	79	79	62	65	72	70	68	94	70	104	104

		14 Jul 22	15 Jul 22	16 Jul 22	17 Jul 22	18 Jul 22	19 Jul 22	20 Jul 22	21 Jul 22	22 Jul 22	23 Jul 22	24 Jul 22	25 Jul 22
On-site Measurements													
Temperature	°C	33.8	33.7	35.0	35.0	34.0	32.0	36.5	36.9	30.8	30.4	30.4	38.1
pH Value	pH Unit	8.3	8.3	8.2	8.2	8.3	8.3	8.3	8.3	8.5	8.6	8.6	8.5
Volume Discharged	m^3	108	1,197	1,176	1,126	830	789	1,077	1,303	1,309	1,312	1,316	1,192
Laboratory Analysis													
Suspended Solids (SS)	mg/L	7.8	26.0	26.8	95.2	18.3	24.1	24.4	18.8	25.8	14.5	61.0	19.5
Alkalinity	mg/L	1730	1700	1800	1820	1940	2000	2100	2050	2150	2120	2110	2230
Ammoniacal-nitrogen	mg/L	0.52	0.42	0.29	0.70	0.26	0.25	0.34	0.65	0.32	0.33	0.34	0.50
Chloride	mg/L	1640	1680	1800	1870	1870	1700	1760	1870	2000	2030	1950	2020
Nitrite-nitrogen	mg/L	0.47	0.12	0.12	0.13	0.14	0.11	0.11	0.12	0.14	0.16	0.12	0.16
Phosphate	mg/L	4.54	4.72	4.94	5.14	5.41	5.46	5.58	5.83	5.11	5.40	5.33	5.44
Sulphate	mg/L	303	283	258	274	220	162	172	202	186	198	176	182
Total Nitrogen	mg/L	97.2	90.6	92.2	99.4	98.0	92.1	95.0	97.4	109.0	106.0	111.0	111.0
Nitrate-nitrogen	mg/L	53.2	47.7	45.8	46.4	49.1	46.4	43.2	49.5	54.7	50.7	52.6	54.1
Total Inorganic Nitrogen	mg/L	54.19	48.24	46.21	47.23	49.50	46.76	43.65	50.27	55.16	51.19	53.06	54.76
Biochemical Oxygen Demand (BOD)	mg/L	11	11	12	8	6	9	8	3	6	4	13	7
Chemical Oxygen Demand (COD)	mg/L	641	739	770	746	840	832	899	837	887	940	953	997
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	304	309	320	359	354	348	380	374	366	380	394	401
Boron	µg/L	4620	4620	4680	4530	4920	4790	5040	5160	5570	5220	5970	6020
Calcium	mg/L	41.0	44.3	40.5	39.2	32.2	36.1	33.5	36.5	29.0	30.6	33.0	29.6
Iron	mg/L	1.24	1.46	1.39	1.60	1.40	1.57	1.55	1.52	1.56	1.67	1.74	1.79
Magnesium	mg/L	23.8	29.4	30.5	30.4	27.7	27.8	29.1	30.1	26.1	27.5	29.4	27.4
Potassium	mg/L	711	738	739	734	740	789	829	849	786	828	858	923
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	89	92	97	104	106	104	105	106	114	123	122	133
Copper	µg/L	<10	<10	11	<10	<10	<10	<10	<10	17	63	64	<10
Nickel	µg/L	98	96	104	103	108	104	105	107	114	120	119	127
Zinc	µg/L	70	72	82	88	73	76	69	74	81	105	108	78

		26 Jul 22	27 Jul 22	28 Jul 22	29 Jul 22	30 Jul 22	31 Jul 22	1 Aug 22	2 Aug 22	3 Aug 22	7 Sep 22
On-site Measurements											
Temperature	°C	38.1	37.8	35.7	35.5	34.9	32.5	37.0	37.0	36.7	32.9
pH Value	pH Unit	8.2	8.2	8.4	8.4	8.5	8.5	8.3	8.4	8.3	8.4
Volume Discharged	m^3	1,192	1,010	1,074	1,273	1,086	1,127	831	918	1,202	1,251
Laboratory Analysis											
Suspended Solids (SS)	mg/L	33.5	45.5	40.5	41.6	37.9	40.8	27.0	24.5	26.8	25.4
Alkalinity	mg/L	2220	2310	2320	2310	2270	2310	2460	2470	2280	1980
Ammoniacal-nitrogen	mg/L	0.54	0.49	0.35	0.59	0.49	0.55	0.30	0.44	0.32	0.29
Chloride	mg/L	1920	2070	2000	1990	2000	2000	2060	2090	2000	1730
Nitrite-nitrogen	mg/L	0.16	0.13	0.14	0.14	0.16	0.16	0.16	0.14	0.16	0.11
Phosphate	mg/L	5.7	5.41	5.74	6.4	6.53	5.72	6.47	6.55	7.28	5.73
Sulphate	mg/L	157	165	174	171	197	186	193	167	163	149
Total Nitrogen	mg/L	104.0	103	100.0	103.0	107.0	110.0	92.6	94.2	99.5	86.5
Nitrate-nitrogen	mg/L	55	56.8	47.5	48.1	49.2	48.9	37.8	36.6	48.1	45.7
Total Inorganic Nitrogen	mg/L	55.70	57.42	47.99	48.83	49.85	49.61	38.26	37.18	48.58	46.10
Biochemical Oxygen Demand (BOD)	mg/L	9	10	10	8	7	8	10	10	8	8
Chemical Oxygen Demand (COD)	mg/L	990	1040	963	973	978	953	921	1030	1000	1110
Oil & Grease	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	382	434	424	395	394	412	426	410	340	273
Boron	µg/L	5570	5260	5100	5560	5550	5620	5900	5880	5500	4850
Calcium	mg/L	28.1	23.8	27.3	26.6	27.4	26.4	25.7	25.7	24.9	29.2
Iron	mg/L	1.93	1.7	1.77	1.85	1.82	1.83	1.92	1.95	1.80	1.38
Magnesium	mg/L	29.8	23.4	26.3	25.8	26.6	26.4	27.8	28.1	26.6	19.5
Potassium	mg/L	871	794	904	877	900	890	968	983	919	785
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	µg/L	129	124	115	122	126	127	134	129	115	109
Copper	µg/L	<10	15	<10	<10	<10	<10	<10	<10	<10	<10
Nickel	µg/L	126	114	109	113	116	118	124	118	106	108
Zinc	µg/L	84	84	64	68	66	69	71	67	59	58

		7 Oct 22	8 Nov 22	6 Dec 22
On-site Measurements				
Temperature	°C	35.3	30.6	20.4
pH Value	pH Unit	8.2	8.1	8.3
Volume Discharged	m^3	1,124	1,374	1,995
Laboratory Analysis				
Suspended Solids (SS)	mg/L	49.0	25.8	51.2
Alkalinity	mg/L	1070	1650	1540
Ammoniacal-nitrogen	mg/L	0.44	0.33	0.16
Chloride	mg/L	1220	1390	2200
Nitrite-nitrogen	mg/L	0.07	0.09	0.32
Phosphate	mg/L	2.45	2.94	12.70
Sulphate	mg/L	385	179	97
Total Nitrogen	mg/L	101.0	70.2	128.0
Nitrate-nitrogen	mg/L	65.4	33.3	41.0
Total Inorganic Nitrogen	mg/L	65.91	33.72	41.48
Biochemical Oxygen Demand (BOD)	mg/L	8	9	25
Chemical Oxygen Demand (COD)	mg/L	484	676	1600
Oil & Grease	mg/L	<5	<5	<5
Total Organic Carbon (TOC)	mg/L	205	226	622
Boron	µg/L	3400	3880	4380
Calcium	mg/L	66.0	59.3	33.6
Iron	mg/L	0.73	1.20	3.33
Magnesium	mg/L	26.4	23.7	33.5
Potassium	mg/L	529	670	1020
Cadmium	µg/L	<1.0	<1.0	<1.0
Chromium	µg/L	74	88	343
Copper	µg/L	<10	<10	29
Nickel	µg/L	74	92	163
Zinc	µg/L	100	66	234