

Annex F6

## Effluent Quality Monitoring Results

**Table F6.1 Effluent Monitoring Results**

		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
<b>On-site Measurements</b>												
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	m³	1,048	1,027	990	1,200	1,136	1,133	1,091	1,496	1,495	1,496	1,495
<b>Laboratory Analysis</b>												
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
<b>On-site Measurements</b>													
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	m³	1,495	1,496	1,495	1,495	1,347	1,033	1,108	1,152	1,177	1,107	1,048	1,043
<b>Laboratory Analysis</b>													
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 <sup>(a)</sup>	29 Jun 22 <sup>(a)</sup>	30 Jun 22 <sup>(a)</sup>
<b>On-site Measurements</b>								
Temperature	°C	35.0	34.4	35.1	36.1			
pH Value	pH Unit	8.2	8.4	8.3	8.3			
Volume Discharged	m <sup>3</sup>	1,098	677	34	44			
<b>Laboratory Analysis</b>								
Suspended Solids (SS)	mg/L	16.1	50.2	13.4	6.5			
Alkalinity	mg/L	1540	1720	1670	1790			
Ammoniacal-nitrogen	mg/L	0.36	0.33	0.28	1.04			
Chloride	mg/L	1610	1650	1640	1750			
Nitrite-nitrogen	mg/L	0.13	0.12	0.12	0.56			
Phosphate	mg/L	2.75	3.53	2.92	3.58			
Sulphate	mg/L	335	337	284	318			
Total Nitrogen	mg/L	111.0	109.0	114.0	96.8			
Nitrate-nitrogen	mg/L	67.8	57.7	64.2	48.5			
Total Inorganic Nitrogen	mg/L	68.29	58.15	64.60	50.10			
Biochemical Oxygen Demand (BOD)	mg/L	6	14	12	12			
Chemical Oxygen Demand (COD)	mg/L	942	1040	983	955			
Oil & Grease	mg/L	<5	<5	<5	<5			
Total Organic Carbon (TOC)	mg/L	322	327	335	347			
Boron	µg/L	4370	4970	4370	4480			
Calcium	mg/L	42.2	38.5	40.9	40.6			
Iron	mg/L	1.45	1.65	1.62	1.72			
Magnesium	mg/L	24.7	24.3	25.4	26.5			
Potassium	mg/L	706	734	751	787			
Cadmium	µg/L	<1.0	<1.0	<1.0	<1.0			
Chromium	µg/L	98	110	109	107			
Copper	µg/L	<10	17	<10	<10			
Nickel	µg/L	91	101	99	99			
Zinc	µg/L	89	112	84	82			

Note:

(a) Pending from the laboratory and to be supplemented in subsequent revision.