

Discharge Limit Exceeded	
Missing data	

1 Discharge Limits - Monthly Tests from Oxidation Pond 2

JULY / NOVEMBER - REFERS TO OLD CONSENT - 951126

DECEMBER / JUNE - REFERS TO NEW CONSENT - 119647

Parameter	Unit	Consent value		JULY / NOVEMBER - REFERS TO OLD CONSENT - 951126				JULY / NOVEMBER - REFERS TO OLD CONSENT - 951126					DECEMBER / JUNE - REFERS TO NEW CONSENT - 119647				DECEMBER / JUNE - REFERS TO NEW CONSENT - 119647								
		Median	90 Percentile	Median	90 Percentile	Average	Maximum	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Consent value Median	Consent value 90 Percentile	Median	90 Percentile	Average	Maximum	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
pH Between 9 & 6				7.4	8.72	7.82	9.00	8.3	7.22	7.14	7.43	9			7.5	7.79	7.54	7.82	7.82	7.49	7.55		7.46	7.19	7.75
Ammoniacal Nitrogen (med from 10)	g/cum	40	30	1.0	4.80	2.00	6.04	0.036	0.03	1.9		6.04	20	20	0.1	4.61	1.67	11.00	11	0.01	0.355	0.163	0.0267	0.0126	0.131
Total Nitrogen	g/cum	40		8.1	11.42	7.90	12.10	10.4	8.1	7.5	1.385	12.1	25	25	13.8	15.64	13.27	16.60	16.6	13.8	15	10.7	13.2	14.32	9.3
Total Phosphorus	g/cum	8		2.5	3.13	2.67	3.40	3.4	2.3	2.5		2.47	8	8	2.7	3.35	2.67	3.57	3.2	2.71	3.57	2.67	2.31	2.32	1.92
cBOD5 (median from 10)	g/cum	30	90	18.0	24.60	19.65	27.00	27	19	17		15.6	30	60	21.8	28.28	22.67	29.90	15.1	29.9	16.5	26.6	27.2	21.8	21.6
Suspended Solids (median from 10)	g/cum	90	150	61.0	73.20	59.75	75.00	75	53	42		69	40	100	90.0	106.20	91.07	114.00	67.5	81	89	101	114	95	90
E.coli	MPN/100l	3500		2400.0	11520.00	5300.00	17000.00	17000	2300	3300		2400	1500	126	9000.0	16000.00	8971.43	19000.00	9800	2700	4000	4300	19000	9000	14000

*From 1 Dec 2012 SS consent value median should not exceed 40 g/cum

** Ecoli sampled weekly from November 2011. Highest result entered on this page. See individual monthly pages for all results.

The result of 4300 should be treated with caution as the sample temperature was >8 deg C
 HCC took over sampling from 1/10/12. Some teething problems with missed samples in the first instance

2 Characterisation Values - Monthly Tests from Oxidation Pond 2

Parameter	Units
Conductivity	g/cum
Temp	°C

Median	10 Percentile	90 Percentile	Average	Maximum	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
401	313	489.0	410.5	530.0	386	313	307	354	401	475	416	488		530	489	356
18.0	11.0	20.5	16.8	22.4	9.6	12.6	15	14.6		20.5	20.5	22.4	20.2	20.5	18	11

3 Characterisation Values - monthly grab sample from Oxidation Pond 2

Parameter	Units
DO	grab sample

2/7/12 @ 2pm	1/8/12 @ 12.30pm	3/9/12 @ 14.20	2/10/12 @ 12.15pm	6/11/12 @ 10.40am	5/12/12 @ 10.10am	3/1/13 @ 9.35am	5/2/13 @ 9.35am	6/03/2013 @ 9.30am	3/04/2013 @ 9.20am	2/5/13 @ 10.20am	28/6/13 @ 12.15pm
14.14	6.23	4.69	4.49	15.60	5.34	3.95	2.45		2.52	4.91	11

4 Characterisation Values - Daily Total In Flows

Parameter	Units
Minimum Daily Flow	
Average Daily Flow	
Maximum Daily Flow	
Monthly Total	

Median	10 Percentile	90 Percentile	Average	Maximum	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
1772	1654	2099	1836	2372	2098	2372	2099	1929	1827	1653	1679	1717	1659	1232	1691	2078
2192	1782	4148	2594	4357	4357	4225	2821	2331	1966	2052	1776	1840	1766	1981	2560	3452
3584	2063	8708	4596	9116	8832	9116	4306	3392	2104	2764	1950	2237	2058	3776	7031	7590
67942	53446	124433	77799	135055	135055	126753	84629	72264	55044	63620	53268	51520	55631	55457	76790	103556

5 Characterisation Values - Daily Total Out Flows

Consent limit cum/day	Units
11500	
Minimum Daily Flow	
Average Daily Flow	
Maximum Daily Flow	
Monthly Total	

Median	10 Percentile	90 Percentile	Average	Maximum	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
1722	349	2818	1773	4503	2127	2824	1956	1903	1540	1346	300	225	1007	789	2762	4503
2800	1200	5098	2966	6214	3825	3802	3150	2249	2000	1656	1149	708	2907	2693	5240	6214
4125	1683	7723	4152	7937	6130	4074	4176	2547	2642	1890	1660	989	4677	5196	7937	7900
83172	37194	118512	84192	186407	118585	117859	94495	69727	59991	51346	35622	19814	90111	80793	85551	186407

6 Characterisation Values - Average Nutrient Loading Discharged to Waikato River

Parameter	Units	Max Kg/day
Total Nitrogen	kg/day	57
Total Phosphorus	kg/day	17.3

Median	10 Percentile	90 Percentile	Average	Maximum	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
29	11.14	55.99	31.14	75.03	39.78	30.80	23.62	3.10	24.20	26.21	15.85	10.61	31.10	35.5	75.0	57.8
8	3.11	12.16	7.57	13.01	13.01	8.74	7.87		4.94	5.05	3.11	2.53	7.76	6.2	12.2	11.9

7 Characterisation Values - Oxidation Ponds Outlet Comparison 2008-12 Results

Parameter	Units
cBOD5	g/m3
SS	g/m3
TP	g/m3
Ammoniacal Nitrogen	g/m3

2008-09	2009-10	2010-11	2011-12	2012-13
21	18	17.5	23.5	18.0
89	86	75	81.0	61.0
5.9	6.5	4.3	3.9	2.5
0.045	0.260	0.090	0.029	0.968

8 Median Summer Total Nitrogen/Phosphorus

Parameter	Units
Summer Total Nitrogen (Hun)	g/m3
Summer Total Nitrogen (Nga)	g/m3
Summer Total Phosphorus (Hun)	g/m3
Summer Total Phosphorus (Nga)	g/m3

Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13
16.6	13.8	15	10.7	13.2	14.32
17.30	15.0	19.70	19.70	18.60	17.98
3.2	2.71	3.57	2.67	2.31	2.32
3.32	3.28	3.82	4.08	4.34	3.74

9 Summer Flows

Parameter	Units
Huntly	
Ngaruawahia	

Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13
51346	35622	19814	90111	80793	85551
41438	37266	36562	30893	42098	58549

Combined Summer Mass Load - Huntly + Ngaruawahia

Parameter	Units
Huntly Total Nitrogen	kg/day
Ngaruawahia Total Nitrogen	kg/day
Combined Total Nitrogen	kg/day
Huntly Total Phosphorus	kg/day
Ngaruawahia Total Phosphorus	kg/day
Combined Total Phosphorus	kg/day

Consent value	Actual Value	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13
Median	Median						
		27.49	15.86	9.59	31.10	34.40	39.52
		23.13	18.03	23.23	19.63	25.26	33.96
		57	50.7	50.62	33.89	32.82	59.66
		10.16	9.79	5.62	8.10	7.48	10.77
		6.76	6.18	4.65	6.3	3.7	5.8
		17.3	15.2	16.92	15.97	10.27	14.42

Characterisation Values - Oxidation Ponds Outlet Comparison 2008-12 Results

Parameter	Units
cBOD5	g/m3
SS	g/m3
TP	g/m3
Ammoniacal Nitrogen	g/m3

2008-09	2009-10	2010-11	2011-12
21	18	17.5	0.0
89	86	75	401.0
5.9	6.5	4.3	0.0
0.045	0.260	0.090	0.000