

**BABELEGI
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEPT '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (Mℓ)		53.489	44.53	41.971	54.579	71.694	87.45
Daily Average (Mℓ / day)	4.7 Mℓ / day	1.725	1.436	1.399	1.761	2.390	2.821

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DEC 2009
Date		2009/07/06	2009/07/23	2009/08/05	2009/08/17	2009/09/03	2009/09/16	2009/10/09	2009/10/19	2009/11/04	2009/11/17	2009/12/09
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 8,5 ≤ 8,5	7.18	7.69	7.93	7.95	6.57	8.18	8.08	7.98		8.04	7.76
Electrical Conductivity (mS/m)	≤ 80mS/m	235.9	215.9	245.1	266.8	287.2	285.8	177.50	243.70	224.5	211.3	209
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	0.16	0.95	1.45	3.72	2.98	4.58	4.28	3.57	3.29	1.01	2.33
Nitrate (as N) mg/l	≤ 6 mg/l	0.03	0.13	0.09	0.35	0.91	1.36	1.59	4.03	4.95	0.3	0.41
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	2.97	1.52	1.3	1.87	9.61	6.71	7.38	7.26	6.17	0.63	4.32
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	222	144	86	138	73	88	35	69	36	46	51
Suspended solids mg/l	≤ 10 mg/l	14.8	4.8	22	14.6	14.6	4.2	18.60	4.60	5.2	4.6	12.2

(Grab Sample)	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		800	1000	540	480	0	100	0	40	60	50	10	60
Maximum		5000000	5000000	800000	800000	500000	2640000	500000	71000	50000	50000	50000	50000
Average	≤ 1000 CFU/100 ml	1132413	973913	88389	107015	45073	198323	32022	10088	8481	7330	10381	10689
% of Compliance		10%	4%	26%	43%	43%	32%	60%	64%	53%	57%	68%	60%
95 Percentile		49000000	5000000	6500000	500000	2665000	1494400	170500	50000	50000	50000	50000	50000
Nr of Samples		31	23	31	21	30	22	30	22	30	21	31	15

**BAVIAANSPOORT
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEPT '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (Mℓ)		1457.213	1244.671	1165.555	1351.048	1606.077	1751.850
Daily Average (Mℓ / day)	58 Mℓ / day	47.007	40.151	38.852	43.582	53.536	56.511

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DEC 2009
Date		2009/07/07	2009/07/20	2009/08/02	2009/08/20	2009/09/09	2009/09/22	2009/10/06	2009/10/21	2009/11/03	2009/11/16	2009/12/02
Sample Nr		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 6,5 ≤ 8,5	7.39	7.42	7.44	7.8	7.5	7.61	7.71	7.98	7.56	7.42	7.57
Electrical Conductivity (mS/m)	≤ 80 mS/m	56.6	49	58	59.1	65.2	65.7	64.20	62.10	51.3	56	49.8
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	4.31	2.57	5.16	1.76	2.17	7.7	8.35	12.60	1.08	1.28	1.64
Nitrate (as N) mg/l	≤ 6 mg/l	7.66	6.88	8.84	6.93	2.85	1.4	0.60	0.73	5.61	2.27	6.11
Orthophosphate (as P) mg/l	≤ 0,9 mg/l	0.6	0.15	0.3	0.31	0.25	0.5	5.31	1.27	0.39	0.64	2.42
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	25	198	110	58	54	165	376	33	55	55	26
Suspended solids mg/l	≤ 10 mg/l	11.2	169.6	84.8	27.8	17.4	75.2	265.20	11.30	6.8	6.6	3.8

(Grab Sample)	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	0	0	0	0	0	0	0	0	0
Maximum		42000	39000	25000	7000	20000	290000	500000	500000	50000	50000	50000	50000
Average	≤ 1000 CFU/100 ml	6479	5713	3227	409	737	15912	48650	25003	1960	5520	3272	6853
% of Compliance		74%	78%	81%	95%	97%	85%	84%	73%	90%	76%	90%	73%
95 Percentile		25000	34900	25000	635	646	37300	500000	29100	3385	50000	25000	32500
Nr of Samples		31	23	31	20	30	20	31	22	30	21	31	15

**DASPOORT
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEPT '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (Mℓ)	Mℓ	1153.899	1217.555	1145.414	1273.842	1227.33	1279.1
Daily Average (Mℓ / day)	60 Mℓ / day	37.223	39.276	38.180	41.092	40.911	41.261

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLES)
Compliance Point**

	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOV 2009	DEC 2009
Date		2009/07/01	2009/07/14	2009/08/04	2009/08/16	2009/09/13	2009/09/28	2009/10/13	2009/10/27	2009/11/12	2009/12/07
Sample Number		1	2	3	4	5	6	7	8	9	10
pH	≥ 6,5 ≤ 8,5	7.73	7.74	6.4	7.54	8	7.62	7.83	8.00	7.73	8.16
Electrical Conductivity (mS/m)	≤ 80 mS/m	46.2	47	50.8	56.9	55.8	53.6	51.60	53.30	54.3	51.7
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	0.43	0.37	1.92	0.93	2.78	3.04	0.64	0.28	0.44	0.47
Nitrate (as N) mg/l	≤ 6 mg/l	5.26	6.01	5.43	7.13	6.24	7.04	5.96	6.16	5.29	4.15
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	0.39	0.39	0.09	0.41	1.42	0.22	0.46	0.42	0.66	0.834
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	26	23	38	13	21	29	21	34	39	43
Suspended solids mg/l	≤ 10 mg/l	7	4.8	7.6	7.4	3.8	9.4	7.4	15.2	5.4	6.4

(Grab Sample)	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal coliforms													
Minimum		0	0	0	0	0	0	0	0	0	0	0	0
Maximum		25000	25000	25000	25000	940	560	2200	1900	25000	25000	25000	25000
Average	≤ 1000 CFU/100 ml	1256	1157	823	1354	86	86	111	109	1684	2402	4742	8079
% of Compliance		90%	96%	97%	90%	100%	100%	97%	95%	93%	90%	70%	47%
95 Percentile		5520	437	65	2665	472	330	480	156	13844	25000	25000	25000
Nr of Samples		30	23	31	20	29	21	10	15	30	21	30	15

**KLIPGAT
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEPT '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (Mℓ)		998.316	982.201	925.923	949.764	1187.882	1362.800
Daily Average (Mℓ / day)	55 Mℓ / day	32.204	31.684	30.864	30.638	39.596	43.961

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2009		AUG 2009	SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DEC 2009
Date		2009/07/13	2009/07/29	2009/08/25	2009/09/10	2009/09/29	2009/10/12	2009/10/28	2009/11/11	2009/11/26	2009/12/08
Sample Number		1	2	3	4	5	6	7	8	9	10
pH	≥ 6,5 ≤ 8,5	7.5	7.52	7.64	7.49	7.77	7.79	7.78	7.46	7.65	7.56
Electrical Conductivity (mS/m)	≤ 80mS/m	63.1	71.4	78.3	86	70.8	81.30	83.70	87.7	54.3	66.1
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	1.28	3.74	0.8	0.29	5.32	2.70	2.88	0.9	0.73	1.6
Nitrate (as N) mg/l	≤ 6 mg/l	3.45	6.3	10.07	3.84	3.71	2.96	3.73	3.26	3.32	5.94
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	3.02	5.1	1.33	1.87	9.41	3.22	0.53	3.45	8.32	2.96
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	40	51	60	48	74	59	39	46	30	31
Suspended solids mg/l	≤ 10 mg/l	4	12.8	4.4	9.4	24.4	5.60	36	17.2	9.6	6

(Grab Sample)	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	120	0	0	0	0	0	120	0	0	0	120
Maximum		25000	9600	4600	25000	32100	3600	50000	50000	50000	50000	50000	50000
Average	≤ 1000 CFU/100 ml	894	566	202	914	1523	467	9822	13791	7935	6799	12139	7862
% of Compliance		97%	94%	97%	97%	86%	81%	63%	38%	71%	81%	65%	67%
95 Percentile		900	3200	586	664	4280	2538	50000	50000	50000	47300	50000	50000
Nr of Samples		31	31	30	29	29	27	30	29	28	27	31	21

**RIETGAT
WASTE WATER TREATMENT**

1. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEPT '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (Mℓ)		470.841	448.847	555.932	467.90	497.811	532.840
Daily Average (Mℓ / day)	27 Ml / day	15.188	14.479	18.531	15.094	16.594	17.188

2. EFFLUENT DISCHARGE MONITORING

**2.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPT 2009		OCT 2009		NOVEMBER 2009		DEC 2009
Date		2009/07/13	2009/07/29	2009/08/13	2009/08/25	2009/09/10	2009/09/29	2009/10/12	2009/10/28	2009/11/09	2009/11/26	2009/12/01
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 5,5 ≤ 8,5	7.22	7.56	7.25	7.25	7.76	6.3	7.68	7.40	6.76	7.21	7.41
Electrical Conductivity (mS/m)	≤ 80 mS/m	49.3	47.4	57.4	62.9	85.9	59.1	47.10	62.30	57.6	54.5	77.9
Free & saline ammonia (as N) mg/t	≤ 1 mg/t	0.18	1.12	1.57	2.63	0.44	1.14	1.53	1.27	0.92	0.4	0.53
Nitrate (as N) mg/t	≤ 15 mg/t	10	6.95	10.7	25.72	10.2	14.1	0.26	6.59	12.7	0.03	7.46
Orthophosphate (as P) mg/t	≤ 0,9 mg/t	0.39	0.66	0.62	0.64	1.47	0.3	1.95	0.69	0.79	8.96	0.64
Chemical Oxygen demand (as O) mg/t	≤ 65 mg/t	100	19	36	27	38	28	38	18	25	28	14
Suspended solids mg/t	≤ 15 mg/t	114.8	5	8.4	9	15.4	6.6	6.60	37.00	1.6	2	2.8

(Grab Sample)	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	0	0	0	0	0	0	0	0	0
Maximum		25000	25000	3200	1040	280	960	80000	80000	2560	10400	50000	25000
Average	≤ 1000 CFU/100 ml	6771	7719	262	214	40	118	4503	4223	131	474	2124	1545
% of Compliance		87%	56%	93%	97%	100%	100%	93%	86%	97%	93%	93%	95%
95 Percentile		25000	25000	1491	736	112	556	28789	18400	251	944	2040	3076
Nr of Samples		27	27	30	29	29	29	30	28	30	29	28	19

**ROOIWAL
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEPT '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (ME)		6291.292	7901.16	7286.6	6942.676	7171.53	6128.06
Daily Average (ME / day)	245 MI / day	202.945	254.876	242.887	223.957	239.051	197.679

3. EFFLUENT DISCHARGE MONITORING

3.1 LABORATORY RESULTS (COMPOSITE SAMPLES)
Compliance Point

	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DEC 2009
Date		2009/07/09	2009/07/22	2009/08/11	2009/08/24	2009/09/06	2009/09/21	2009/10/08	2009/10/20	2009/11/02	2009/11/18	2009/12/01
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 6,5 ≤ 8,5	7.98	7.93	7.64	7.69	7.6	7.79	7.92	7.86	7.82	7.9	7.64
Electrical Conductivity (mS/m)	≤ 80mS/m	66.4	65.3	71.7	70.5	77.6	72.3	70.20	68.40	69.7	71.6	67.8
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	4.7	3.65	1.96	2.25	9.03	3.9	1.93	0.90	0.42	1.7	3.22
Nitrate (as N) mg/l	≤ 6 mg/l	3.07	3.97	4.12	5.65	3	5.9	4.97	5.08	4.72	5.19	2.52
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	3.25	2.3	4.99	4.94	8.8	1.58	3.48	4.12	6.97	2.56	3.89
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	86	300	135	34	641	162	57	96	37	22	161
Suspended solids mg/l	≤ 10 mg/l	40	77.6	83.4	46.6	141.2	107.6	12	32.4	9.2	5.8	96.8

(Grab Sample)	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	0	0	0	0	0	0	0	100	60
Maximum		25000	50000	440000	800000	3600000	1600000	50000	50000	94000	420000	680000	1160000
Average	≤ 1000 CFU/100 ml	3608	8446	45156	30891	188220	75381	7200	6655	9517	30147	108447	179494
% of Compliance		79%	59%	48%	69%	53%	57%	80%	87%	72%	73%	10%	14%
95 Percentile		25000	40000	304000	38800	957500	170600	50000	50000	50000	193900	398500	518000
Nr of Samples		29	29	29	29	30	30	30	30	29	30	30	22

**SANDSPRUIT
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEPT '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (Mℓ)		257.171	260.832	262.012	265.068	333.574	395.13
Daily Average (Mℓ / day)	20 MI / day	8.296	8.414	8.734	8.551	11.119	12.746

3. EFFLUENT DISCHARGE MONITORING

3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point

	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DEC 2009
Date		2009/07/13	2009/07/29	2009/08/13	2009/08/25	2009/09/10	2009/09/29	2009/10/12	2009/10/28	2009/11/09	2009/11/27	2009/12/08
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 5,5 ≤ 8,0	7.72	7.73	7.13	7.93	7.65	7.74	7.49	7.90	7.38	7.56	7.46
Electrical Conductivity (mS/m)	< 80 mS/m	58.9	68.8	63.1	69.4	93.1	66.9	65.20	64.50	80.7	73.7	66.5
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	6.42	21.8	0.32	8.89	4.36	16.7	4.83	3.80	16.4	16.4	6.47
Nitrate (as N) mg/l	≤ 15 mg/l	0.32	0.17	3.36	0.96	0.14	3.21	10.75	9.14	1.25	0.89	4.32
Orthophosphate (as P) mg/l	≤ 0,9 mg/l	1.55	9.9	1.94	2.85	4.9	4.23	8.23	4.43	2.98	15.8	5.6
Chemical Oxygen demand (as O) mg/l	≤ 65 mg/l	34	122	43	41	70	54	130.00	36.00	55	41	56
Suspended solids mg/l	≤ 15 mg/l	12	29	6	15.2	77	18.4	5.00	32.00	13.8	138.1	20.78

(Grab Sample)	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	0	0	0	0	0	0	0	20	20
Maximum		500000	5800000	50000	50000	7400000	3600000	78000	78000	50000	50000	250000	330000
Average	≤ 1000 CFU/100 ml	38969	17835	10916	13445	73935	312930	23103	16689	19428	12805	129028	106039
% of Compliance		45%	67%	58%	58%	17%	23%	19%	26%	20%	47%	10%	13%
95 Percentile		277500	5570	50000	50000	5845000	2020000	52500	50000	50000	50000	250000	250000
Nr of Samples		31	30	31	31	30	30	31	31	30	30	31	24

**SUNDERLAND RIDGE
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEP '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (Mℓ)	Mℓ	1731.46	1769.93	1696.77	1849.16	2010.92	2072.53
Daily Average (Mℓ / day)	45 Mℓ / day	55.854	57.095	56.559	59.650	67.031	66.856

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2009	AUG 2009	SEPT 2009	OCT 2009	NOV 2009	DEC 2009				
Date		2009/07/15	2009/08/06	2009/08/19	2009/09/01	2009/09/14	2009/10/02	2009/10/27	2009/11/10	2009/11/23	2009/12/06
Sample Number		1	2	3	4	5	6	7	8	9	10
pH	6.5 ≤ 8.5	7.62	7.48	7.75	7.61	7.61	7.67	7.76	7.57	7.72	7.51
Electrical Conductivity (mS/m)	≤ 80 mS/m	70.4	81.5	85.9	78.8	76.7	78.10	73.60	67.4	60.4	57.5
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	23.5	22.1	27.1	26.9	20.3	5.60	16.10	15.9	6.86	6.17
Nitrate (as N) mg/l	≤ 6 mg/l	8.62	10	8.62	6.87	8.7	5.80	7.56	6.73	4.03	3.8
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	1.76	6.48	3.37	2.14	2.9	2.35	1.38	3.78	1.69	1.03
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	207	132	86	423	287	69.00	112.00	47	137	67
Suspended solids mg/l	≤ 15 mg/l	163.2	55.2	54.4	167.6	17.8	17.80	29.50	106.4	78.2	98

(Grab Sample)	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		90	180	100	801	200	100	200	300	30	50	30	20
Maximum		560000	800000	800000	520000	480000	2300000	580000	660000	260000	760000	500000	420000
Average	≤ 1000 CFU/100 ml	62674	59593	43832	143993	44659	133424	131203	171287	26824	67333	24225	61858
% of Compliance		58%	43%	26%	10%	17%	21%	20%	17%	50%	53%	58%	42%
95 Percentile		430000	252500	127000	500000	198000	472000	522000	50000	90000	401000	78000	339000
Nr of Samples		31	30	31	30	29	29	30	30	30	30	31	19

TEMBA
WASTE WATER TREATMENT WORKS

2. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEPT '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (Mℓ)		188.648	248.735	221.354	271.956	305.11	248.07
Daily Average (Mℓ / day)	12.5 Mℓ / day	6.085	8.024	7.376	8.773	10.170	8.002

3. EFFLUENT DISCHARGE MONITORING

3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point

	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DEC 2009
Date		2009/07/08	2009/07/23	2009/08/05	2009/08/17	2009/09/04	2009/09/17	2009/10/09	2009/10/19	2009/11/04	2009/11/17	2009/12/09
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 6,5 ≤ 8,5	7.92	7.62	8.2	7.81	8.46	7.99	8.04	7.84	7.76	8.2	7.61
Electrical Conductivity (mS/m)	≤ 80mS/m	87	86.1	100.5	101.1	74.7	83.6	89.30	89.00	85.6	63	76.3
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	3.8	0.91	2.3	0.42	0.44	4.7	0.90	0.20	4.78	0.29	0.31
Nitrate (as N) mg/l	≤ 6 mg/l	2.07	7.56	4.45	10.6	4.28	5.4	3.48	7.83	0.44	8.3	8.1
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	2.71	3.27	4.57	5.1	2.79	6.3	3.30	6.50	1.78	5.46	3.95
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	40	22	43	28	85	44	59	28	18	26	36
Suspended solids mg/l	≤ 10 mg/l	6.8	6.8	14	14.4	21.8	3.2	6.80	2.60	6	2.6	20.8

(Grab Sample)	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	0	0	0	0	0	0	0	0	0
Maximum		25000	25000	2800	25000	2200	840	50000	50000	50000	50000	50000	28000
Average	≤ 1000 CFU/100 ml	1750	1282	311	1061	245	100	2347	2068	10286	8674	12426	4192
% of Compliance		90%	93%	90%	93%	93%	100%	78%	89%	50%	59%	37%	67%
95 Percentile		14254	6504	1320	2056	1159	382	3080	1628	50000	50000	50000	14200
Nr of Samples		30	30	29	29	29	30	180	100	28	27	30	21

**ZEEKOEGAT
WASTE WATER TREATMENT WORKS**

1. INFLOW

	DESIGN CAPACITY	JUL '09	AUG '09	SEPT '09	OCT '09	NOV '09	DEC '09
FLOW: Total for the Month (Mℓ)		1393.678	1382.046	1335.342	1492.246	1570.812	1678.13
Daily Average (Mℓ / day)	30 Mℓ / day	44.957	44.582	44.511	48.137	52.360	54.133

2. EFFLUENT DISCHARGE MONITORING

2.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point

Date Sample Number	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DEC 2009
		2009/07/07 1	2009/07/20 2	2009/08/02 3	2009/08/20 4	2009/09/09 5	2009/09/22 6	2009/10/06 7	2009/10/21 8	2009/11/03 9	2009/11/16 10	2009/12/02 11
pH	≥ 6,5 ≤ 8,5	7.3	7.36	7.5	7.69	7.45	7.44	7.409	7.77	7.21	6.84	7.42
Electrical Conductivity (mS/m)	≤ 80mS/m	48.7	49	54	56.2	55	55.9	55	54.5	54.2	54.8	51.7
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	0.14	0.17	0.51	0.55	0.38	0.39	1.17	0.349	0.6	0.72	0.64
Nitrate (as N) mg/l	≤ 6 mg/l	7.16	8.54	6.19	6.32	6.32	13.8	6.09	5.179	5	6.03	5.38
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	0.65	0.6	0.09	0.17	0.55	0.53	0.69	0.37	0.67	0.99	0.67
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	21	46	20	53	43	42	31	37	27	28	50
Suspended solids mg/l	≤ 10 mg/l	9.4	15	10.8	13.6	15.4	9	12.2	10.8	7.2	19.6	1.4

(Grab Sample) Time of day	PERMIT LIMITS	JULY 2009		AUGUST 2009		SEPTEMBER 2009		OCTOBER 2009		NOVEMBER 2009		DECEMBER 2009	
		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	20	20	0	0	0	0	0	20	20
Maximum		180	240	210	320	800	300	1080	1380	160	720	1100	980
Average	≤ 1000 CFU/100 ml	27	26	57	75	110	84	97	109	48	105	139	150
% of Compliance		100%	100%	100%	100%	100%	100%	97%	95%	100%	100%	97%	100%
95 Percentile		110	136	135	187	300	160	345	159	130	480	560	602
Nr of Samples		31	22	31	20	30	21	31	22	30	21	31	15