



Test Reports

The below extracts are taken from the full report 'Report on the treatment efficiency test according to EN 12566-3 of the small wastewater treatment plant'. WPL is now WCS Environmental Engineering.

Diamond DMS2

Test report of the small wastewater treatment plant Diamond DMS2 by WPL Limited / November 2009

5.2 Evaluation of the test sequences

The EN 12566 Part 3 requires the evaluation of the nominal loading sequences, i.e. 20 samples taken in the sequences 1, 3, 5, 7 and 9.

Means, minima and maxima as well as the standard deviations are shown hereunder in Table 9 and Table 10.

Table 9: treatment efficiencies for the nominal test sequences (100%)

Efficiency [%]	Mean*	Minimum	Maximum	Standard deviation
COD	91.7	84.8	97.4	3.9
BOD ₅	96.8	90.3	99.1	2.3
N _{tot}	52.2	20.1	89.2	18.8
NH ₄ -N	75.0	0.0	99.6	20.7
P _{tot}	52.0	25.9	81.9	13.6
SS	94.1	81.7	99.8	5.1

Table 10: effluent characteristics for the nominal test sequences (100%)

Effluent	Mean	Minimum	Maximum	Standard deviation
COD [mg/l]	54	19	100	25.4
BOD ₅ [mg/l]	10	2	21	6.3
N _{tot} [mg/l]	25	8	44	8.8
NH ₄ -N [mg/l]	8.7	< 1	30.5	6.7
NO ₃ -N [mg/l]	12.9	< 1	33.6	10.0
N _{inorg} [mg/l]	22.8	7.7	37.3	7.9
P _{tot} [mg/l]	3.8	1.5	7.0	1.1
SS [mg/l]	21	< 1	59	17.2
Settleable solids [ml/l]	0.5	< 0.1	3.0	0.8

* Efficiency ratio for the treatment efficiency declaration according to EN 12566-3 chapter 6.3



Diamond DMS5

Test report of the small wastewater plant Diamond DMS5 by WPL Ltd. / July 2014

6.2 Evaluation of the test sequences

The EN 12566-3 requires the evaluation of the nominal loading sequences, i.e. 20 samples taken in the sequences 1, 3, 5, 7 and 9.

Means, minima and maxima as well as the standard deviations are shown hereunder in Table 9 and Table 10.

Table 9: Treatment efficiencies under nominal loading conditions (100 %)

Efficiency [%]	Mean*	Minimum	Maximum	Standard deviation
COD	91.7	86.8	95.8	2.3
BOD ₅	96.0	93.3	98.3	1.1
NH ₄ -N	69.4	29.5	90.4	17.0
SS	95.2	90.1	99.2	2.5

Table 10: Treated effluents characteristics under nominal loading conditions (100 %)

Effluent	Mean	Minimum	Maximum	Standard deviation
COD [mg/l]	61	39	81	11.7
BOD ₅ [mg/l]	14	9	23	2.9
NH ₄ -N [mg/l]	11.9	3.5	24.8	6.1
SS [mg/l]	18	< 5	28	8.1
Settleable solids [ml/l]	0.2	< 0.1	1.8	0.4

*Efficiency ratio for the treatment efficiency declaration according to EN 12566-3 chapter 6.3