Prüfinstitut für Abwassertechnik GmbH

Prüfeinrichtung des Prüf- und Entwicklungsinstituts für Abwassertechnik an der RWTH Aachen









Report on the treatment efficiency test according to EN 12566-7 of the small tertiary wastewater treatment plant

Fosforfilter Polonite®

Bioptech AB

Test report – No PIA2015-T7-265S13.02

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Dipl.-Ing. Elmar Lancé

PIA GmbH Prüfinstitut für Abwassertechnik Hergenrather Weg 52074 Aach en No 1720 GO

Table 1: Treatment efficiencies under nominal loading conditions (100%)

| Efficiency [%] | Mean* | Minimum | Maximum | Standard deviation |
|------------------|-------|---------|---------|--------------------|
| COD | 25.4 | 0 | 53.1 | 15.9 |
| BOD ₅ | 68.0 | 0 | 90.0 | 24.8 |
| P _{tot} | 92.7 | 71.3 | 99.1 | 8.5 |
| SS | 12.9 | 0 | 50.0 | 17.2 |

Table 2: Treated effluent characteristics under nominal loading conditions (100%)

| Effluent | | Mean | Minimum | Maximum | Standard deviation |
|-------------------|--------|------|---------|---------|--------------------|
| COD | [mg/l] | 31 | < 15 | 55 | 11 |
| BOD ₅ | [mg/l] | 2 | < 3 | 6 | 1 |
| P _{tot} | [mg/l] | 0.7 | 0.1 | 2.4 | 0.7 |
| SS | [mg/l] | 17 | 6 | 48 | 11 |
| Settleable solids | [ml/l] | 0.1 | < 0.1 | 0.2 | 0.1 |

Table 3: Bacterial results from 8 weeks consecutive sampling

| Test schedule | Test sequence Loading | | 1 | 5 100 % |
|-------------------------|--------------------------|-----------|------------|------------|
| | | | 100 % | |
| | Date | | 21.05.2015 | 16.07.2015 |
| Air Temperature min/max | | [°C] | 5/14 | 17 / 24 |
| Influent: | | | | |
| Total Coliforms | | [1/100ml] | 98.000 | 8.600 |
| E.coli | | [1/100ml] | 1.000 | 3.100 |
| Enterococci | | [1/100ml] | 1.800 | 311 |
| Effluent: | | | | |
| Total Coliforms | | [1/100ml] | 1.000 | < 1 |
| E.coli | | [1/100ml] | < 1 | <1 |
| Enterococci | | [1/100ml] | 320 | 116 |



