Customer Data

Company: Cerâmica Stéfani S/A
Address: Av. Major Hilario T. Pinto, 1388
City: Jaboticabal
State: São Paulo
Post code: 14871-900
Requested by: Mr. Emílio Garcia Neto
MHC Reference Code: F-0059/08

Free Chlorine Reduction Efficiency Test

Sampling Data - Free Chlorine Reduction Efficiency Test

Collection Responsibility: The Customer
Collection date: Not available
Sample identification: Traditional Stéfani Filter
Receiving date: 02/13/2008
Receiving notes: 1 (one) sample of gravity equipment for water quality improvement. Export Model. Sample duly sealed and without breaking signal.

Reference data of Free Chlorine Reduction Efficiency Test

Product Description: Gravity Filter
Installation Place: Not applicable
Model: Exportation
Work Flow: Not applicable
Declared Flow: 1,2 Liters/hour (0,317 gal/hour)
Work pressure: Not applicable
Life Time: 700 Liters (184,92 gal)
Internal volume: 6,0 Liters (1,58 gal)
Water volume discarded: 12 Liters (3,17 gal)
Test period: from 02/19/2008 up to 04/11/2008.

Principles and Methods Used

The test consists of passage a high chlorine concentration water through the equipment that has granulated coal, in block or powder and verifying its efficiency as for free chlorine reduction, according to NBR 15176:2004 and Internal Methodology MILFP-003.

Measurements Traceability

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Calibrated by</th>
<th>Certificate N°</th>
<th>Calibration Date</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL.01</td>
<td>Espectrophotometer</td>
<td>Senai/Cetiqt</td>
<td>R-1837</td>
<td>09/25/07</td>
<td>set-08</td>
</tr>
<tr>
<td>pH.02</td>
<td>pHmeter</td>
<td>Visomes</td>
<td>LV 17534/07</td>
<td>09/24/07</td>
<td>set-08</td>
</tr>
<tr>
<td>TR.01</td>
<td>Turbidimeter</td>
<td>Hexis</td>
<td>005034_01</td>
<td>12/19/07</td>
<td>out-08</td>
</tr>
<tr>
<td>TD.01</td>
<td>Indication / Temperature Controller</td>
<td>Visomes</td>
<td>LV 16894/07</td>
<td>9/10/07</td>
<td>set-08</td>
</tr>
</tbody>
</table>
Test Report N° F-0059/08
Laboratory Tests Filters and Purifiers

Ambient Conditions
Test was carried out at an ambient temperature of (21 ± 0) ºC / (69,8 ± 0) ºF.

Result of the Test of Efficiency of Free Chlorine Reduction

<table>
<thead>
<tr>
<th>Classification</th>
<th>Average of the results (mg/L)</th>
<th>Average of the results (%)</th>
<th>Specified (%)</th>
<th>Expanded uncertainty (U) (mg/L)</th>
<th>Extending Factor k</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0,75</td>
<td>75,25</td>
<td>≥ 75</td>
<td>0,012</td>
<td>4,53</td>
</tr>
</tbody>
</table>

The equipment tested is in accordance with the NBR 15176:2004 specification.

Bacteriological Efficiency Test

Sampling Data - Bacteriological Efficiency Test
Collection Responsibility: The Customer
Collection date: Not available
Sample identification: Traditional Stéfani Filter
Receiving date: 02/13/2008
Receiving notes: 1 (one) sample of gravity equipment for water quality improvement. Export Model. Sample duly sealed and without breaking signal.

Reference data of Bacteriological Efficiency Test
Product Description: Gravity Filter
Installation Place: Not applicable
Model: Exportation
Declared Flow: 1,2 Liters/hour (0,317 gal/hour)
Work Flow: Not applicable
Work pressure: Not applicable
Life Time: 700 Liters (184,92 gal)
Internal volume: 6,0 Liters (1,58 gal)
Water volume discarded: 12 Liters (3,17 gal)
Test period: from 02/25/2008 up to 04/24/2008.

Principles and Methods Used
Laboratory tests were carried out to evaluate the equipment capacity of reducing the bacteria number. The efficiency is evaluated by a logarithmic reduction of the initial bacteria number in the water, according to NBR 15176:2004 and internal methodology MILFP-004.

Measurements Traceability
Not Applicable to test Bacteriological Efficiency.
Environment Conditions

The Test was carried out at a ambient temperature of (25 ± 0) °C / (77 ± 0) °F.

Bacteriological Efficiency Results

<table>
<thead>
<tr>
<th>Samples</th>
<th>Results UFC / 100 mL</th>
<th>Specified</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start v.µ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Concentration in UFC / 100 mL of water</td>
<td>6,2 x 10⁵</td>
<td>Least 10⁵, High 10⁶</td>
</tr>
<tr>
<td>Outflow</td>
<td>&lt;1</td>
<td>Reducing minimum of 2 logs</td>
</tr>
<tr>
<td><strong>After 95% v.µ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Concentration in UFC / 100 mL of water</td>
<td>3,4 x 10⁵</td>
<td>Least 10⁵, High 10⁶</td>
</tr>
<tr>
<td>Outflow</td>
<td>&lt;1</td>
<td>Minimum Reduction of 2 logs</td>
</tr>
</tbody>
</table>

According to the results, the equipment tested is according with the NBR 15176:2004 specification.

Microbiological Level Control Test

Sampling Data - Microbiological Level Control Test

Collection Responsability: The Customer

Sample identification: Traditional Stéfani Filter

Receiving date: 02/13/2008

Receiving notes: 1 (one) sample of gravity equipment for water quality improvement. Export Model. Sample duly sealed and without breaking signal.

Reference data of Microbiological Level Control Test

Product Description: Gravity Filter

Installation Place: Not applicable

Model: Exportation

Declared Flow: 1,2 Liter/hour (0,317 gal/hour)

Work Flow: Not applicable

Work pressure: Not applicable

Life Time: 700 Liters (184,92 gal)

Internal volume: 6,0 Liters (1,58 gal)

Water volume discarded: 12 Liters (3,17 gal)

Test period: from 03/03/2008 to 04/28/2008.

Principles and Methods Used

Activities laboratory, experimental, to evaluate the equipment point of use, by measuring its ability to inhibit growth, limit the passage of bacteria or both, as NBR 15176:2004 and Methodology Internal MILFP-005.
Measurements Traceability

Not Applicable to test of Control Level Microbiological.

Environment Conditions

The Test was carried out at an ambient temperature of (25 ± 0) °C / (77 ± 0) °F.

Microbiological Level Control Test Results

<table>
<thead>
<tr>
<th>Samples</th>
<th>Results UFC / 100 mL</th>
<th>Specified</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start v.µ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>initial Concentration in UFC / 100 mL of water</td>
<td>1,9 x 10^5</td>
<td>Least 10^4&lt;br&gt;High 10^5</td>
</tr>
<tr>
<td>Outflow</td>
<td>≤1</td>
<td>≤ Initial concentration, with a superior tolerance up to 10%</td>
</tr>
<tr>
<td><strong>After 95% v.µ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>initial Concentration in UFC / 100 mL of water</td>
<td>2,3 x 10^5</td>
<td>Least 10^4&lt;br&gt;High 10^5</td>
</tr>
<tr>
<td>Outflow</td>
<td>4,3 x 10^3</td>
<td>≤ Initial concentration, with a superior tolerance up to 10%</td>
</tr>
</tbody>
</table>

According to the results, the equipment tested is according with the NBR 15176:2004 specification.

Extractable Determination Test

Sampling Data - Extractable Determination Test

Collection Responsability: The Customer
Collection date: Not available

Sample identification: Traditional Stéfani Filter
Receiving date : 02/13/2008

Receiving notes: 1 (one) sample of gravity equipment for water quality improvement. Export Model. Sample duly sealed and without breaking signal.

Reference data of Extractable Determination Test

Product Description: Gravity Filter
Installation Place: Not applicable

Model: Exportation

Declared Flow : 1,2 Liters/hour (0,317 gal/hour)
Work Flow: Not applicable

Work pressure: Not applicable
Life Time: 700 Liters (184,92 gal)

Internal volume: 6,0 Liters (1,58 gal)
Water volume discarded : 12 Liters (3,17 gal)

Test period: from 03/04/2008 to 03/24/2008.
Principles and Methods Used

The objective of the test is to verify if the construction materials of the equipment are adequate to contact with the water for human being consumption according to NBR 15176:2004 and Internal Methodologies MILFP-006. Analyses Methodologies references are described in the Bioagri Analyses Report Nº 21393/2008-0.

Measurements Traceability

According to the Bioagri Analysis Report Nº 21393/2008-0.

Environment Conditions

Test was carried out at an ambient temperature of $(21 \pm 0)^\circ C / (69,8 \pm 0)^\circ F$.

Extractable Determination Test Results

The Analysis results are described below according to the Bioagri Analysis Report No 21393/2008-0.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Analytical Results</th>
<th>Allowed Maximum Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium (Al)</td>
<td>$0,0122 \text{ mg/L}$</td>
<td>$0,2 \text{ mg/L}$</td>
</tr>
<tr>
<td>Ammonia (NH$_3$)</td>
<td>$&lt;0,1 \text{ mg/L}$</td>
<td>$1,5 \text{ mg/L}$</td>
</tr>
<tr>
<td>Cadmium (Cd)</td>
<td>$&lt;0,0001 \text{ mg/L}$</td>
<td>$0,005 \text{ mg/L}$</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>$&lt;0,0005 \text{ mg/L}$</td>
<td>$0,01 \text{ mg/L}$</td>
</tr>
<tr>
<td>Chloride (Cl$^-$)</td>
<td>$26 \text{ mg/L}$</td>
<td>$250 \text{ mg/L}$</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>$&lt;0,0001 \text{ mg/L}$</td>
<td>$2 \text{ mg/L}$</td>
</tr>
<tr>
<td>Apparent Color</td>
<td>$&lt;5,0 \text{ uH}$</td>
<td>$15 \text{ uH}$</td>
</tr>
<tr>
<td>Total Chromium (Cr)</td>
<td>$&lt;0,0001 \text{ mg/L}$</td>
<td>$0,05 \text{ mg/L}$</td>
</tr>
<tr>
<td>Hardness (CaCO$_3$)</td>
<td>$60 \text{ mg/L}$</td>
<td>$500 \text{ mg/L}$</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>$&lt;0,001 \text{ mg/L}$</td>
<td>$0,2 \text{ mg/L}$</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>$0,0150 \text{ mg/L}$</td>
<td>$0,3 \text{ mg/L}$</td>
</tr>
<tr>
<td>Manganese (Mn)</td>
<td>$&lt;0,0001 \text{ mg/L}$</td>
<td>$0,1 \text{ mg/L}$</td>
</tr>
<tr>
<td>Monochlorobenzene</td>
<td>$&lt;0,001 \text{ mg/L}$</td>
<td>$0,12 \text{ mg/L}$</td>
</tr>
<tr>
<td>Silver (Ag)</td>
<td>$&lt;0,0001 \text{ mg/L}$</td>
<td>$0,05 \text{ mg/L}$</td>
</tr>
<tr>
<td>Sódium (Na)</td>
<td>$9,74 \text{ mg/L}$</td>
<td>$200 \text{ mg/L}$</td>
</tr>
<tr>
<td>Dissolved Total Solids (TDS)</td>
<td>$131 \text{ mg/L}$</td>
<td>$1000 \text{ mg/L}$</td>
</tr>
<tr>
<td>Sulphate (SO$_4^{2-}$)</td>
<td>$13,7 \text{ mg/L}$</td>
<td>$250 \text{ mg/L}$</td>
</tr>
<tr>
<td>Hydrogen Sulfide (H$_2$S)</td>
<td>$&lt;0,05 \text{ mg/L}$</td>
<td>$0,05 \text{ mg/L}$</td>
</tr>
<tr>
<td>Surfactants (LAS)</td>
<td>$&lt;0,1 \text{ mg/L}$</td>
<td>$0,5 \text{ mg/L}$</td>
</tr>
<tr>
<td>Toluene</td>
<td>$&lt;0,001 \text{ mg/L}$</td>
<td>$0,17 \text{ mg/L}$</td>
</tr>
<tr>
<td>Turbidity</td>
<td>$0,24 \text{ UT}^2$</td>
<td>$5 \text{ UT}^3$</td>
</tr>
<tr>
<td>Xylene</td>
<td>$&lt;0,003 \text{ mg/L}$</td>
<td>$0,3 \text{ mg/L}$</td>
</tr>
<tr>
<td>Zinc (Zn)</td>
<td>$0,0353 \text{ mg/L}$</td>
<td>$5 \text{ mg/L}$</td>
</tr>
</tbody>
</table>

1) Hazen Unit (mg Pt-Co/L).
2) Unit of Turb.

According to the results, the equipment tested is according with the NBR 15176:2004 specification.
Genneral Observations

The results presented in this Test Report are exclusively to the product tested, and are not extensive to other lots, even if they are similar.

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Test period: from 02/19/2008 up to 04/28/2008.

Responsible for the Physical-Chemical Tests:

Responsible for the Microbiological tests and the Filters and Purifiers Tests Laboratory:

End of Report