

Mecserflex Ltd  
Unit4  
Cheney Manor Industrial Estate  
Swindon  
SN2 2UD

FAO Mr David Llewlynn

Ref: 85500/1/2/GL (SWW02636)

**Scientifics Limited**  
**Environmental Division**  
**Swindon Laboratory**  
**Bristol Street**  
**Swindon**  
**SN1 5ET**

Tel 01793-714714  
Fax 01793-714715  
*E.mail: swindon@scientifics.com*

25<sup>th</sup> October 2007

## **Analysis of Water Before and After Addition of Calcium Hypochlorite Solution – Sagewash Sanitiser Unit**

At your request a representative of *Scientifics* Ltd Swindon laboratory visited Mecserflex on the 24<sup>th</sup> and 25<sup>th</sup> October 2007, to carry out chemical analysis of water in conjunction with the use of the Sagewash Sanatiser unit.

Full results of the analysis are given in the enclosed report. Should you require any further information on this or any other matter, please do not hesitate to contact this laboratory.

Yours sincerely

Georgina Lafferty BSc (Hons)  
Laboratory Technologist  
Direct Line: 01793 714726  
E-mail: georgina.lafferty@scientifics.com

**Report Number:** 85500/1/2/GL (SWW02636)  
**Issue Date:** 25<sup>th</sup> October 2007  
**Copy Number:** 1

## **Analysis of Water Before and After Addition of Calcium Hypochlorite Solution**

**Author:**

.....  
G. Lafferty  
Laboratory Technologist

**Prepared By:**

*Scientifics* Limited  
Environmental Division (South)  
Swindon Laboratory  
Bristol Street  
Swindon  
SN1 5ET

**Authorised By:**

.....  
J.S Harries  
Business Manager – Environmental

**Prepared For:**

Mecserflex Ltd  
Unit4  
Cheney Manor  
Industrial Estate  
Swindon  
SN2 2UD

© Copyright 2007 *Scientifics* Ltd.

This document was supplied to Mecserflex Ltd under the terms of a contract. The information contained in it is confidential and shall not be divulged without the permission of Mecserflex Ltd. The document or the information in it shall not be used for any purpose outside the terms of the contract without the express permission of *Scientifics* Ltd.

## **1. Introduction**

At the request of Mecserflex, a representative of *Scientifics* Ltd Swindon laboratory visited Mecserflex on the 24<sup>th</sup> and 25<sup>th</sup> October 2007.

The purpose of the visit in conjunction with the use of the Sagewash Sanitizer unit was to record temperature, pH and Oxygen Reduction Potential of the water before and after addition of the hypochlorite tablet.

## **2. Observations**

On the 24<sup>th</sup> of October 2007 the water was run through an empty Sagewash Sanitizer unit that is without the calcium hypochlorite tablet. This water was collected in bucket and the temperature, pH and Oxygen Reduction Potential recorded.

The second water run through the Sagewash Sanitizer unit was with the calcium hypochlorite tablet. This water was collected in bucket and the temperature, pH and Oxygen Reduction Potential recorded.

These runs were repeated again on the 24<sup>th</sup> of October 2007 and on the 25<sup>th</sup> of October 2007. On the 25<sup>th</sup> of October 2007 the chlorine level of the waters was also analysed.

## **3. Results**

Full results of the analysis are given in table one.

## **4. Discussion**

The Oxygen Reduction Potential of the water dispensed with the calcium hypochlorite tablet in the Sagewash Sanitizer unit increases by over 100mv from the water dispensed through the empty Sagewash Sanitizer unit.

The pH of the water dispensed with the calcium hypochlorite tablet in the Sagewash Sanitizer unit increases by 0.3 of a pH unit from the water dispensed through the empty Sagewash Sanitizer unit.

Free Available Chlorine analysis reveals an increase to 70ppm in the water dispensed with the calcium hypochlorite tablet in the Sagewash Sanitizer unit from the water dispensed through the empty Sagewash Sanitizer unit.

**Table One:** Readings Day One, Run One – Mecserflex Ltd

| <b>Sample Description</b>       | Empty Sagewash Sanitizer unit | Calcium hypochlorite tablet in the Sagewash Sanitizer unit |
|---------------------------------|-------------------------------|--|
| <b>Analysis Date</b>            | 24/10/07                      | 24/10/07   |
| <b>Sample Ref No.</b>           | SWW02636/1                    | SWW02636/2   |
| pH                              | 7.6                           | 7.9  |
| Oxygen-Reduction Potential (mV) | 663                           | 763  |
| Temperature (°C)                | 19.1                          | 14.3   |

**Table Two:** Readings Day One, Run Two – Mecserflex Ltd

| <b>Sample Description</b>       | Empty Sagewash Sanitizer unit | Calcium hypochlorite tablet in the Sagewash Sanitizer unit |
|---------------------------------|-------------------------------|--|
| <b>Analysis Date</b>            | 24/10/07                      | 24/10/07   |
| <b>Sample Ref No.</b>           | SWW02636/3                    | SWW02636/4   |
| pH                              | 7.6                           | 7.9  |
| Oxygen-Reduction Potential (mV) | 653                           | 772  |
| Temperature (°C)                | 14.2                          | 14.8   |

**Table Two:** Readings Day Two, Run One – Mecserflex Ltd

| <b>Sample Description</b>       | Empty Sagewash Sanitizer unit | Calcium hypochlorite tablet in the Sagewash Sanitizer unit |
|---------------------------------|-------------------------------|--|
| <b>Analysis Date</b>            | 25/10/07                      | 25/10/07   |
| <b>Sample Ref No.</b>           | SWW02636/5                    | SWW02636/6   |
| pH                              | 7.6                           | 7.9  |
| Oxygen-Reduction Potential (mV) | 665                           | 796  |
| Temperature (°C)                | 16.1                          | 13.9   |
| Free Available Chlorine (ppm)   | <0.5                          | 70   |

## DISTRIBUTION LIST

Report No. 85500/1/2/GL (SWW02636)  
Title Analysis of Water before and after Addition of Calcium Hypochlorite Solution

| <u>Copy No.</u> | <u>Recipient</u>   |
|-----------------|--------------------|
| 1               | Mecserflex Ltd.    |
| 2               | Swindon Laboratory |

Authorised for distribution to the above list.

J.S Harries  
Business Manager – Environmental

## CONFIDENTIALITY

The information contained in this report shall not be disclosed outside *Scientifics* without the permission of the client.

In addition to those named on the distribution list above, the information contained in this report will be restricted to:

| Category of Restriction |                                       |
|-------------------------|---------------------------------------|
|                         | <i>Scientifics</i> Ltd (Unrestricted) |
|                         | Environmental Division                |
| ✓                       | Distribution List Only                |