



NHS Greater Glasgow & Clyde - Fernbank Health Centre Water Quality Testing Results

The NHS sector adhere strictly to the Health & Safety Executive guidelines around L8 compliance and constantly circulate the water around the secondary return DHW system 24 hours a day.

Initially this prevented any trial being installed with NHS Greater Glasgow & Clyde (NHSGCC), but once CircoSense provided information on how the technology worked and the process for allowing the client to manage their L8 risk, it was agreed that a trial could be installed.

Fernbank Health Centre was selected as the trial site. There were no historical issues for this site around L8 compliance and as such the site was deemed as low risk.

CircoSense was installed in Fernbank Health Centre Glasgow in January 2017. For Measurement & Verification (M&V) purposes, an ultrasonic flow meter was fitted to the primary flow pipework to allow an accurate validation of the consumption and savings. Dataloggers were also fitted as standard for the trial to allow monitoring of flow and return water temperatures.

While any energy savings would be greatly received by NHSGCC, it was widely acknowledged that the safety and wellbeing of staff and patients alike was of paramount importance. Before NHSGCC and CircoSense could move forward with these results, water quality sampling would be required to be completed across the site.

For the first 2 weeks of the trial the CircoSense3000 was set to bypass mode. This allowed the flow meter to gather baseline information for M&V purposes. After 2 weeks, the CircoSense3000 was switched from bypass to active mode. The unit was switched to active on 6th February and interim readings were taken during February and March. The final readings were taken on Friday 10th March, following which CircoSense3000 continued to function and provide savings while independent water tests were carried out.

The energy reduction achieved as a result of the CircoSense3000 solution was identified as a 53% saving on previous gas usage for the domestic hot water (DHW) on site.

NHSGCC instructed their external water safety contractor to undertake comprehensive water quality sampling over a 6-week period and provide NHSGCC with a report on the findings. This report showed there was no impact on water quality at the site while CircoSense was active - see overleaf for more information.

Contact information for NHSGCC is available on request.



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Timeline for Water Quality Testing

- 1 CircoSense submits trial findings and M&V report to NHSGGC
- 2 NHSGGC instruct independent contractor to undertake water sampling
- 3 Independent contractor completes water sampling twice per week over 6 weeks
- 4 Independent contractor submits report to NHSGGC - **No Impact**

Test Procedure

The test procedure started on 4th April and finished on 19th May 2017. Water samples were collected two times per week from 6 outlets and were analysed for Legionella.

11 th April	No impact	2 nd May	No impact
14 th April	No impact	5 th May	No impact
18 th April	No impact	9 th May	No impact
21 st April	No impact	12 th May	No impact
25 th April	No impact	16 th May	No impact
28 th April	No impact	19 th May	No impact

There was **no Legionella growth** found in any of the 12 water samples collected.



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