

ELYSATOR Case Study

engineering water

Packet Boat Lane Limited

Heat network at Union Park - Uxbridge

Union Park's use of Elysator corrects significant corrosion issues and achieves VDI 2035 water quality in just seven months.

Packet Boat Lane Limited's development of 251 apartments had suffered significant corrosion issues with its district heating system despite only being 18 months old.



Complaint levels had been high with tenants experiencing heating and hot water failures and leaks caused by corrosion bursts and constant blocking of the strainers. With visibility on social media and local press, Packet Lane's priority was to correct the tenant issues and to avoid damage to their reputation. KUT Partnership were bought in to advise on the best corrective method for the water quality and recommended Elysator.

Following a site survey Elysator found that aspects of the design, installation and commissioning required attention. With the developers wish to fix the tenant issues as quickly as possible, an Elysator 100c and Purotap Compenso were fitted in place of the dosing pot and water softener. A specialist team was then put together with Fairheat to correct the design issues, Heat Interface Team for the remedial installation works and Alan O'Reilly of Adobe Consultancy to oversee the corrective works on behalf of the client.

Fairheat's report discovered that the reason for the lack of flow rate during high demand was due to the fact that all HIU's had flow 24 hrs per day. This was found to be a result of the corrosion being so bad that the seats of the Differential Pressure Control Valves in the HIU's had been worn away by the high iron content. This effectively left the valves unable to close so every HIU was working in by-pass robbing the system of flow.



Sample of water taken from an apartment HIU at project start

"Very quickly there was a big improvement in the water quality helping to get residents back on side and proving we were fixing the issues.

Elysator has given us far more reliability on water quality which is good for the resident and therefore good for us"

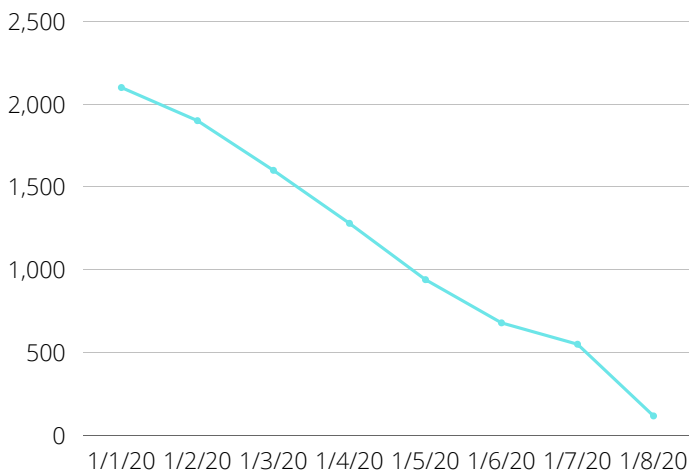
Andrew Caracciolo
Packet Boat Lane Ltd

"Critical for the developer was getting unhappy tenants back on side and Elysator delivered major improvements in the first few weeks. Considering the water quality issues achieving VDI2035 in 7 months was fantastic and we will 100% recommend them"

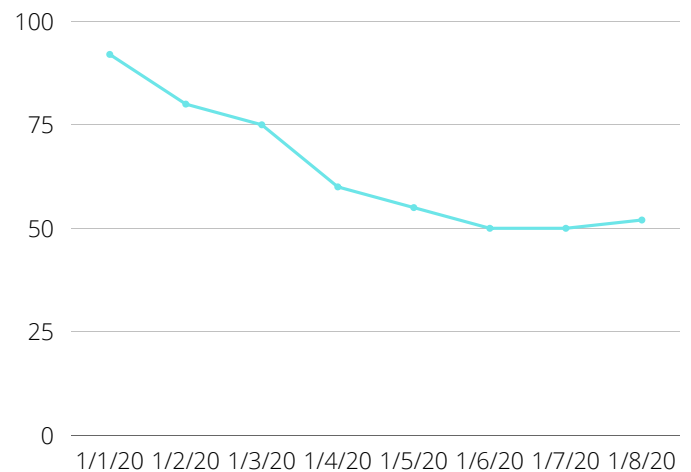
Oliver Ogus Heat Interface Team

The site operated with Viessmann boilers, a CHP, and buffers, all of which state VDI 2035 as the required water quality standard. Without draining the system, or any flushing, the Elysator started to turn the system water into a demineralised state to comply with VDI 2035. The Purotap Compenso ensured that any fresh top up water used during the remedial works was a controlled pH fill at 8.4 with low conductivity using our Nexion resin. An electronic corrosion monitor was used to monitor the corrosive state of the water with results visible within two weeks of installation.

Union Park Conductivity (uS/cm)

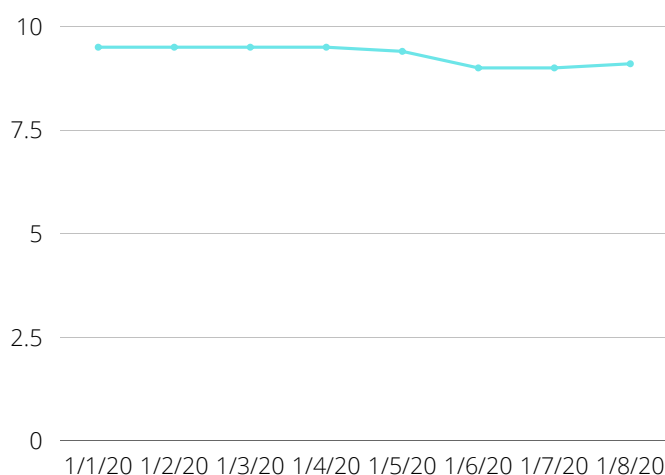


Union Park Hardness (mg/l)

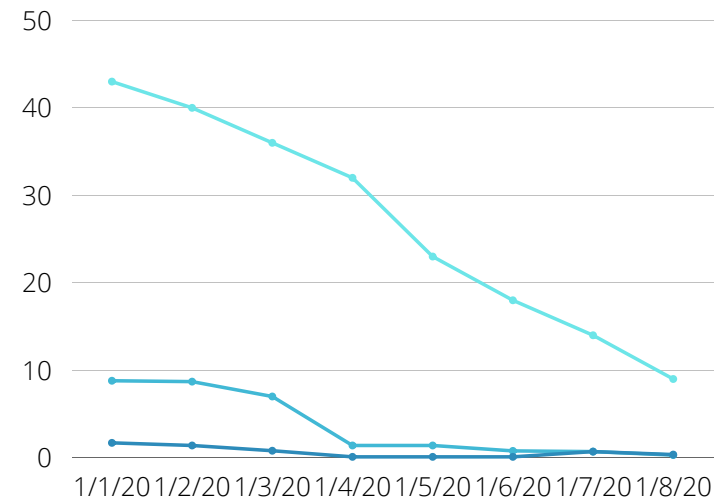


With a conductivity starting point of 2100 uS/cm our target of under 100 uS/cm was achieved at seven months. The Elysator will now continue controlling the water to VDI levels without the need for any type of chemical inhibitor or additive.

Union Park pH



Union Park Chloride Copper Iron (mg/l)



For more information on Elysator's additive free water treatment system please call +44 208 255 2903