



SITECADDY WATER TREATMENT · WT-002

Cooling Tower / Evaporative System Water Treatment Report

Inspection, Sampling & Treatment Record

CLIENT

Caledonia Property Management

BUILDING / AREA

Roof Plant Area

ENGINEER

R. Mackay

SITE

Riverside Business Park, Unit 4

SYSTEM / TOWER REFERENCE

CT-01

DATE

22 June 2026 · 09:40

Observation

SYSTEM

SYSTEM TYPE

Cooling Tower

LOCATION

Roof plant area, north elevation

OPERATIONAL STATUS

Operating

SYSTEM / TOWER REFERENCE

CT-01

NUMBER OF CELLS

2

TREATMENT PROGRAMME / PRODUCTS

Oxidising biocide (bromine) dosed continuously via controller.
Scale and corrosion inhibitor dosed proportional to make-up.
Non-oxidising biocide shot-dosed weekly.

INSPECTION

Item	Condition
Basin / Sump Condition	Sediment / Debris
Pack / Fill Condition	Satisfactory
Drift Eliminators	Satisfactory
Distribution / Spray System	Requires Cleaning
Make-Up / Float Valve	Satisfactory
Bleed / Blowdown	Satisfactory
Strainers / Filters	Requires Cleaning
Chemical Dosing Equipment	Satisfactory

WATER SAMPLES

Sample 1

SAMPLE POINT / REFERENCE Tower basin (Cell 1)	SAMPLE TYPE Recirculating / Tower Water	TEMPERATURE 24.5 °C
PH 8.6	CONDUCTIVITY 1480 µS/cm	TDS 960 mg/L
TOTAL HARDNESS 420 mg/L CaCO₃	CALCIUM HARDNESS 310 mg/L CaCO₃	ALKALINITY 280 mg/L CaCO₃
CHLORIDE 145 mg/L	BIOCIDE RESIDUAL 0.8 mg/L	BIOCIDE / RESIDUAL TYPE Free bromine
CYCLES OF CONCENTRATION 4		

Sample 2

SAMPLE POINT / REFERENCE Make-up tank outlet	SAMPLE TYPE Make-Up Water	TEMPERATURE 12.1 °C
PH 7.6	CONDUCTIVITY 370 µS/cm	TDS 240 mg/L
TOTAL HARDNESS 105 mg/L CaCO₃	CALCIUM HARDNESS 78 mg/L CaCO₃	ALKALINITY 70 mg/L CaCO₃
CHLORIDE 36 mg/L		

MICROBIOLOGY

DIP SLIDE TAKEN? Yes	DIP SLIDE RESULT 10³ cfu/ml (read at 48 hours)
LABORATORY SAMPLE TAKEN? Yes	SAMPLE TYPE TVC, Legionella
LAB REFERENCE LAB-26-04417	

LABORATORY RESULT / NOTES

Samples taken from the tower basin in neutralised bottles and sent the same day to a UKAS-accredited laboratory. Results to follow.

TREATMENT ACTIVITY

TREATMENT ACTIVITY COMPLETED? Yes	TREATMENT TYPE Non-Oxidising Biocide, Bleed Adjustment
CHEMICAL PRODUCT Isothiazolinone non-oxidising biocide	QUANTITY / DOSE 2.5 L
CONTROLLER SETPOINT / ADJUSTMENT Bleed setpoint lowered from 1,600 to 1,500 µS/cm	

TREATMENT NOTES

Weekly non-oxidising biocide shot dose added to the basin with the system circulating. Bleed setpoint lowered after the conductivity reading.

ASSESSMENT

OVERALL STATUS

Observation

ENGINEER INTERPRETATION

The system was operating with treatment and control equipment working. Tower water readings were recorded against the make-up supply, giving 4 cycles of concentration. Light sediment was found in the basin, with partial blockage of two spray nozzles and debris in the strainer basket.

RECOMMENDATIONS / CORRECTIVE ACTIONS

1. Clean the basin and remove sediment at the next scheduled shutdown.
2. Clean the two partially blocked spray nozzles and the strainer basket.
3. Review the laboratory results on receipt and record them against this visit.
4. Re-check tower conductivity at the next visit following the bleed adjustment.

DECLARATION

ENGINEER
R. Mackay

DATE
22 June 2026

OVERALL STATUS

Observation