



# WASTEWATER SOLUTIONS FOR BREWERY INDUSTRY

COLOMBIAN CENTRAL CERVECERIA  
SESQUILÉ, COLOMBIA

# INDUSTRIAL INTERNET OF THINGS (IIOT) ENABLED WASTEWATER TREATMENT TECHNOLOGY IN COLOMBIAN CENTRAL CERVECERIA DE COLOMBIA

LOCATION	Sesquilé, Colombia
BREWING CAPACITY	3,2 million hl/y
SCOPE	D&B of IIoT enabled WWTP: Treatment of wastewater, autolyzed yeast, sanitary water and reject water from process water production O&M support (SLA)
CAPACITY	2.400 m <sup>3</sup> /day

Central Cerveceria de Colombia (CCC) is a joint venture between Chilean brewer Compania Cervecerias Unidas (CCU) and Columbian soft drinks producer Postobón, Colombia's market leader in non-alcoholic beverages. The CCC Joint Venture has erected a 3,2 million hl brewery in Sesquilé, for the production of the Heineken, Tecate and Coors Light brands.

## A SOLUTION TO TREAT DIFFERENT WASTEWATERS AS WELL AS AUTOLYZED YEAST

The CCC brewery is equipped with an Industrial Internet of Things (IIoT) enabled wastewater treatment plant for the treatment of different wastewater streams:

- Brewery wastewater
- Autolyzed yeast
- Sanitary wastewater
- UF backwash and RO concentrates from process water production

## A PLUG & PLAY TREATMENT PROCESS

The treatment facility includes state of the art Waterleau water technology:

- BIOTIM® UASB anaerobic treatment
- BIOTIM® WET AD for autolyzed yeast digestion
- LUCAS® aerobic with bio N/P removal
- ATLANTIS® MBR treatment and disinfection of sanitary wastewater
- AQUALITY® Ultrafiltration
- BELGAS® biogas H<sub>2</sub>S removal

## AN EARTHQUAKE PROOF CONSTRUCTION

The Sesquilé region is vulnerable to seismographic activity. The wastewater treatment facility and all its equipment has been designed and thoroughly to withstand seismographic activity up to Ri 8.2.

## SMARTLAB IIOT ENABLED DESIGN FOR DIGITAL OPERATION AND SUPPORT

The Sesquilé wastewater treatment plant is IIoT enabled allowing distance support from Waterleau's HQ control room. Waterleau's SmartLab digital service plan ensures maximal efficiency at minimal OPEX. The Waterleau Service+ program allows CCC to focus on beer production while relying on Waterleau's environmental expertise for operating the wastewater treatment plant.



## LIMITING THE ENVIRONMENTAL FOOTPRINT

The state of the art treatment facility will cut discharge fees, provide green power limiting energy costs as well as provide dewatered sludge limiting sludge volume, transport and landfill cost.

- Maximized biogas production (4,1 kWh/HL)
- Optimized energy consumption (1,89 kWh/HL)
- Reduction of surcharges to the river eco system

## DISCHARGED WASTEWATER CHARACTERISTICS

- Max 35 mg BOD/l
- Max TSS: 10ppm
- Max phosphor: 1.5 ppm
- Max nitrates: 7 mg/l
- Max nitrites: 10 mg/l



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