



Case Study

Food & Beverage Industry

Effluent treatment & recovery plant



Problem Statement

Our client is a leading manufacturer of edible oils in South Africa. The edible oil manufacturing process produces large volumes of oil-contaminated wastewater that needs to be transported off-site for treatment since it poses serious environmental risks.

Solution

Watericon designed, built and commissioned a two-phase effluent treatment & recovery plant. The first phase consisted of settling and DAF to remove solids. The second phase involved polishing the filtrate from phase 1 for use in the boilers, cooling towers, and as process water.



Typical plant feed

- SOG>1 000 mg/L
- SS >100 mg/l
- TDS >10 000 mg/l
- COD >20 000 mg/l
- 30m³/h



Performance Target

- SOG> 0 mg/L
- SS < 0 mg/l
- TDS <100 mg/l
- COD < 0mg/l
- 25m³/h



Process

- pH Correction
- Coagulation & Flocculation
- Settling
- Dissolved Air Flotation
- Media Filtration
- Reverse Osmosis



Innovation

Our process drastically reduced the client's waste volumes, as well as eliminating client's reliance on municipal water supply. Our client can now utilize their RO to treat water from an existing borehole to supplement their usage.



Reference letter - Willowton



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21st February 2020

WaterIcon
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Attention: Mr Stanton Govender

Dear Sir,

As previously communicated we are very pleased with the level of service received from the WaterIcon Team led by yourself. From the very outset the Team demonstrated professionalism and commitment to delivering a quality product. This was no doubt seen in the end result of our new functional Effluent Treatment Plant.

We have already commended you and your Team for the approach to this project at the proposal phase which resulted in the award going to Water Icon. The same commitment and work ethic was apparent during the installation and commissioning of the plant resulting a handover that was merely a formality.

We would like commend Mr Duran Govender for his part in the process. Duran was on-site for a while and was involved in upskilling our staff before the handover. His commitment and knowledge of the process was evident hence he was able to train our staff successfully.

We would also like to commend the entire KZN Team of Water Icon for their role in setting up a successful Effluent Treatment Plant for the Willowton Group.

Our satisfaction with the Water Icon Teams service and delivery led to your appointment for the installation of the Reverse Osmosis Plant that is adding significant efficiencies to our water usage. We are truly proud of this RO Plant that Water Icon so professionally delivered and which has added significant value to our company.

Yours faithfully,

Mr MI Moosa
Engineering Manager

