



## Executive Summary

**Synopsis:** The treatment of Sewage Water has been conventionally carried out using Aerobic Process with different systems being applied based on the technology, space and capital budgets for a project in line with the intended use of the treated water. The Aerobic Process thus requires equipment's that can ensure the creation of Aerobic environment for the process. The process engineer also has the option to have more retention time for the process thus ensuring that the selected technology can provide the desired results. The Biological Oxygen Demand for the sewage from the water analysis is the standard that is used for ascertaining the amount of air that would be required for treated the influent sewage water. Henry's law along with the nature of contaminants play a pivotal role in making appropriate selection of equipment's and retention time for obtaining the desired results.

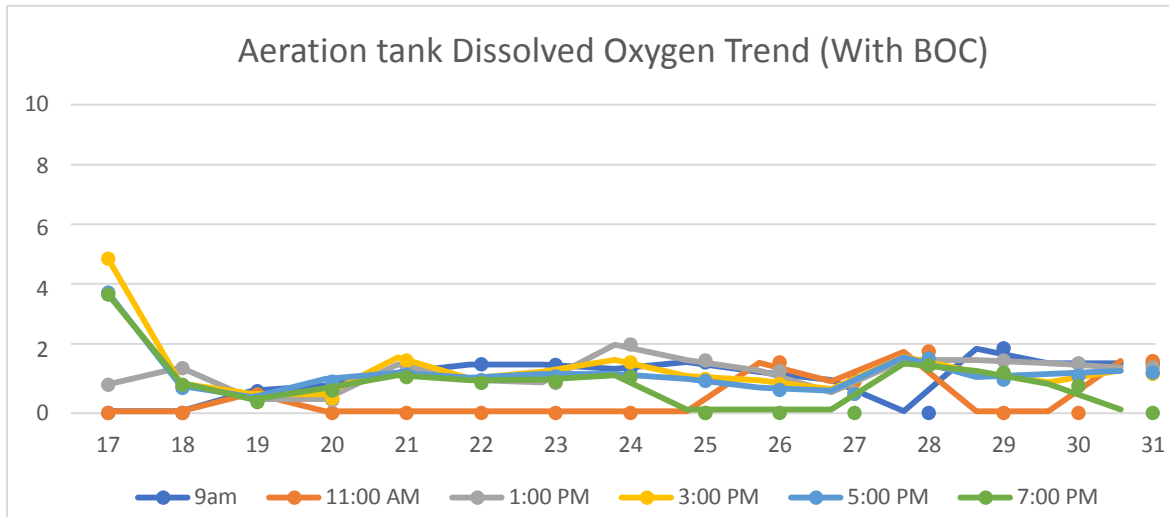
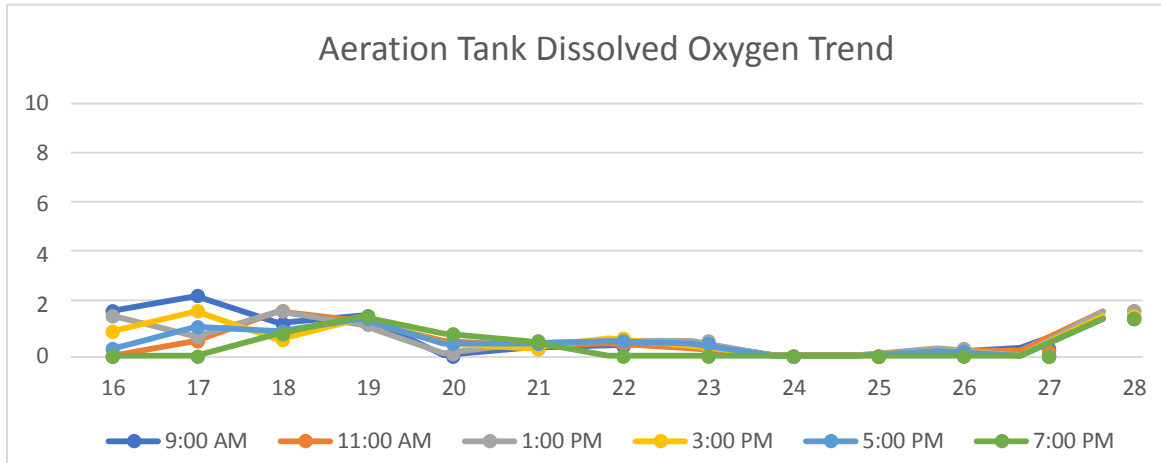
**Methodology:** The Bio Organic Catalyst (BOC) renders a technological advancement in creating a oxygen rich Aerobic process by enducing a better oxygen transfer rate. The addition of BOC helps in increasing the Dissolved oxygen in the Influent thus helping in reducing the BOD loads of the incoming sewage water.

**Dosing Plan:** The additon of BOC at 1ppm per 100 BOD load to the volume of water helps in improving the Dissolved Oxygen of the plant. The DO readings were obtained using hand held monitors over a period of time to review the current DO trends and then compared with the DO trends after addtion of BOC.

### Results:

- ✓ There has been consideratble increase in the Dissolve Oxygen Readings with the usage of BOC
- ✓ The increase in Dissolved Oxygen is consistent with no impact due to periodic loading to the plant at different time intervals.
- ✓ The increase in Dissolved Oxygen is always consistent with no impact on the ambient temperature the plant being operated at.

## Dissolved Oxygen Analysis



	Dissolved Oxygen readings												
<b>Without BOC</b>	0.78	1.13	1.24	1.48	0.43	0.43	0.47	0.38	0.1	0.1	0.17	0.08	1.62
<b>With BOC</b>	3.41	1.48	1.5	1.58	1.16	0.95	0.99	1.27	0.91	0.99	0.66	1.45	1.83
<b>% Increase</b>	↑ 337%	↑ 31%	↑ 21%	↑ 7%	↑ 170%	↑ 121%	↑ 111%	↑ 234%	↑ 810%	↑ 890%	↑ 288%	↑ 1713%	↑ 13%

## Case Study Completed By Bio Catalyst Middle East



Warehouse no. 4 Opposite Union Cement, Dubai Investment Park 2,  
Dubai, UAE. P.O. Box no 625827 Tel no +971 4 5461676,  
[info@biocatalystme.com](mailto:info@biocatalystme.com), [www.biocatalystme.com](http://www.biocatalystme.com)