



## **BAY TREE FOOD COMPANY EFFLUENT TREATMENT CASE STUDY**

**XCEL BIO DOSING START DATE - 27th APRIL 2018**

### **BAY TREE FOOD COMPANY SAMPLE TEST RESULTS**

	<b>COD mg/l</b>
1 SWW average 01/03/17- 09/01/18	5725 Calculated ave. Max and min removed
2 SAMPLE COLLECTED 30/05/18	6870 Spot NRM test
3 SAMPLE COLLECTED 06/08/18	4450 Spot NRM test

So effectively the COD values reduced by 35% from the sample taken at the end of May to the sample taken in August.

### **SOUTH WEST WATER TEST RESULTS**

<b>DATE</b>	<b>COD mg/l</b>	<b>pH</b>
09/05/18*	13540	5.40
06/06/18	4590	6.50
13/06/18	3492	6.20

#### **Caustic dosing:**

During the period from 27th April 2018, when the Xcelbio dosing commenced, until the meeting on 8th August 2018, it was reported by Darren McCabe, Production and Projects Manager for Bay Tree, that the usage of Causdeta had reduced.

This was from an average of around 11 litres per week, before Xcelbio was introduced, to an average of around 4 litres per week.

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## Summary:

The dosing of Xcelbio appears to have produced a positive effect in overall reduction of COD values, increasing the CFU from  $10^3$  up to  $10^7$ . Additionally, the requirement for adding caustic to ensure pH compliance has drastically reduced.

\*The sample collected by SWW on 09/05/18 was unexpectedly high.

Bay Tree and Ecoton were able to investigate and it was found that an unusual, high in COD, spillage into the waste stream had occurred.

Measures were put in place by Bay Tree to prevent repetition of this event. It was reported, by Darren McCabe, that some 'fatbergs' were found in the interceptor on 16th July. It appeared that this was 'old fat' that had been eroded by the increased biological activity stimulated by the Xcelbio (see picture below).

## Continued improvement:

Monitoring of the effluent will continue and auto-dosing of caustic is currently being investigated prior to the anticipated trial.

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