

The Power of Nature ...Working for You



Grease Trap Bacterial Dosing Case Study: Wellington Catering Firm

Background Information

This project was initiated by the maintenance engineer of a catering firm in Wellington. This catering firm has a 3-chamber grease trap. The grease trap has a capacity of 1200 Litres. They had previously tried other commonly used grease trap additives with little to no result. The grease trap is and has been periodically cleaned out as per the City Council's guide to best practice.

The Problem

The catering firm wants to be consistently well under City Council discharge limits for Suspended Solids (SS), Biological Oxygen Demand (BOD) and for Fats, Oils & Grease (FOG). They had previously paid high discharge costs for exceeding the allowable discharge limits SS, BOD and FOG.

The Solution

Ecogreen met with the owner at the site and examined every aspect of the problem to ensure that they fully understood the situation. After careful consideration with Ecogreen NZ's Australian based in-house microbiologist and technical staff, a dosing schedule of Ecogreen BioTab's was recommended to provide the most effective solution. As odour was not a concern, an automatic dosing unit for Ecogreen liquid Grease Trap Treatment was not recommended.

Dosing

April 21st, 2011 - An initial dose of 3 Commercial BioTab's was added to the first chamber of the grease trap. This is to 'kick-start' the beneficial bacteria count and in turn accelerate the natural degradation process of the waste material. It was recommended that a weekly dose of 2 Commercial BioTab's be dosed into the first chamber for ongoing maintenance of the grease trap.

Mid September - The catering firm's supply of BioTab's had run out and so the dosing of the grease trap was stopped.

November 1st - The City Council conducted its three-monthly sampling of the discharge from the grease trap. The analysis of this sampling was sent to the catering firm the following week.

November 17th - Upon noticing the increased levels for SS, BOD and FOG in the City Council's latest three-monthly analysis, the maintenance engineer ordered more BioTabs and resumed dosing the grease trap with them.

February 1st & May 1st - The City Council conducts three-monthly sampling and analysing of the grease trap discharge. Regular weekly dosing of 2 BioTab's continues.



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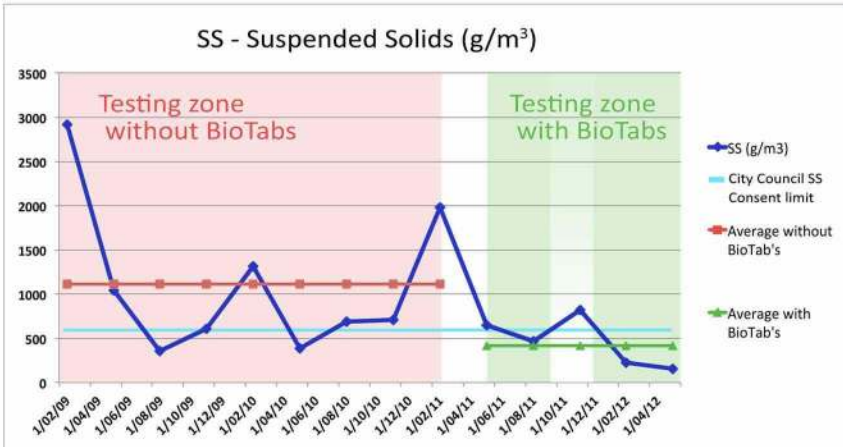
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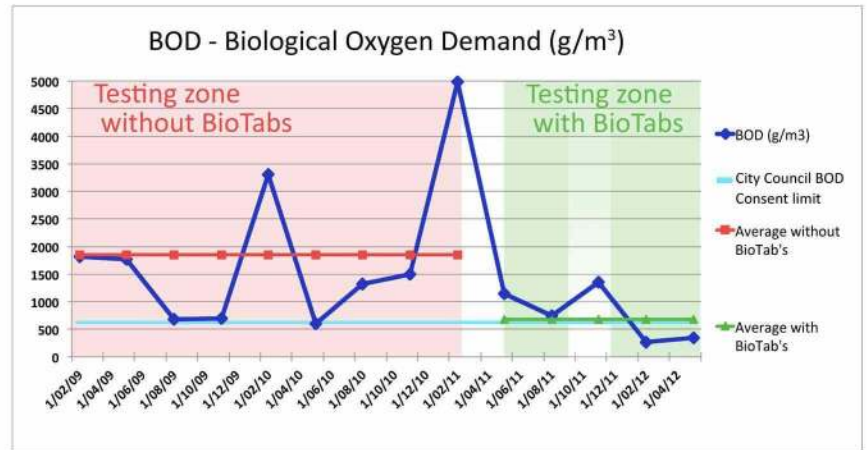


Grease Trap Analysis

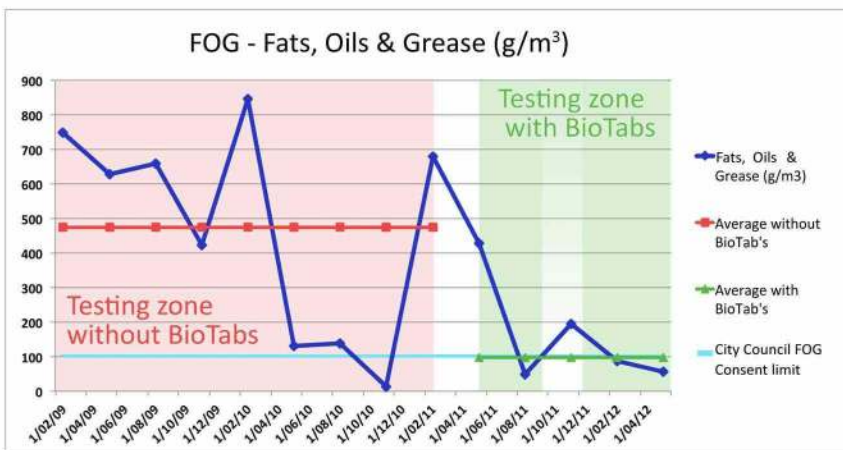


The pink zone is where Ecogreen BioTab's were not added to the grease trap although a commonly used biological additive had been consistently used. The period in green is where testing has been conducted while dosing with BioTab's. Midway through the white zone is where Ecogreen BioTab's were first dosed.

Midway through the green zone there was a rise in all levels as the catering firm had run out of BioTab's in mid-September and resumed dosing after the November 1st sample analysis was received. They have continued dosing with BioTab's ever since.



The average levels for Suspended Solids (SS), Biological Oxygen Demand (BOD) and Fats, Oils & Grease (FOG) were all considerable lower while using BioTab's especially for the Fats, Oils & Grease.



NB - All graphs shown are from analysis conducted by the independent IANZ accredited test lab contracted to sample and analyse this site's trade waste by the Wellington City Council.

Conclusion

As the above results clearly show, Ecogreen BioTab's have been tremendously effective in improving the wastewater quality of the grease trap by significantly reducing the Suspended Solids (SS), Fats, Oils & Grease (FOG) and the Biological Oxygen Demand (BOD) of the discharge. Without the interruption in dosing of BioTab's in September, the catering firm would probably have stayed under the City Council's discharge limits. They can now maintain a cleaner grease trap discharge and not have to face the costs they have in the past, for exceeding those limits.