



## I need to get rid of the grease in my lift station. I heard about using bacterial products. How do I know if they are working?



Lift stations commonly end up with build-ups of grease that can create a ring around the lift station; collection build-up on pumps, chains, floats, sidewalls. Etc. This can cause mechanical problems, cause plugging, interrupt service and cause terrible odors. Operators know what that means: jetting the lines, pumping & hauling off the grease at high costs, or even digging up and replacing a wet well and/or feeder lines at extremely high capital costs.

**Fats, oils and grease** are typically the cause of many problems. Grease is "hydrophobic," which means it prefers to cling to surfaces that are free of water. Large amounts of oil and grease in the wastewater that goes down a drain can cause sewer lines to clog, sewer lift station failures, wastewater treatment plant problems and environmental concerns. Grease typically will

build from the top down or around the sidewalls and at the water level in the sewer line while heavier debris may collect on the bottom as the wastewater flows through the sewer line. Grease can continue to build up and restrict the flow of wastewater. Sometimes, a layer may break off and large pieces can create plugging downstream. Eventually, grease will form a total blockage in the sewer line if left untreated.

Grease is one waste that the sewer system cannot handle and therefore needs to be kept out of the system, but most often is not. An additional concern is that since the government raised the temperature required by restaurants and food establishments from 180° F to ~210° F, grease traps are not working as designed and grease that used to be trapped onsite is now washing through the lines until the temperature of the water cools down and then hardens later on. This usually happens somewhere in the lines or in the lift station.

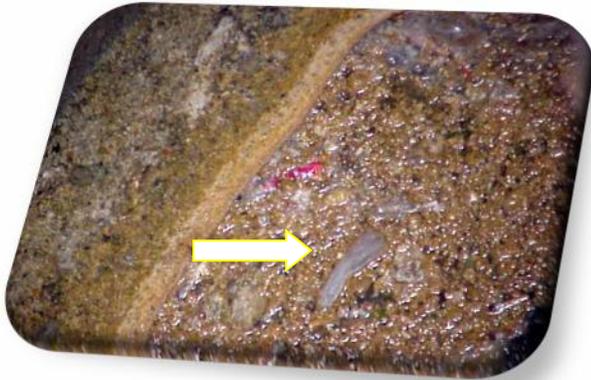


**Biological additives** are a safe, natural, environmental friendly way to help assist in the cleaning up of a lift station, but they are not miracle workers. There is a limit to what they can do, how they do it and when they will work. Bacteria can naturally degrade the fats, oils and grease, as well as any other organic materials that enter a lift station of pipe. They actually consume these as a food source, as opposed to traditional methods of surfactants, enzymes or chemicals that may have eliminated the grease in the lift station, but just transferred them down the pipe and eventually into the wastewater treatment plant and can cause upset conditions. Biological products cannot in a realistic time degrade some of the solids such as plastics, floatables, etc. that wind up in the lift station. Some of these eventually build up and must be mechanically removed.



Bacteria not only clean the lift stations if properly applied, they can help clean up the lines and can lighten the load at the treatment plant and reduce solids or help with BOD and TSS loading. Again, it is all in the program addition; conditions





such as flow, temperature and loading that impact whether a program will impact just the lift station, the pipes or the treatment plant. The correct dosing and application will impact different variables and determine the impact on all three places. In the past, bacterial vendors or sanitary workers worried only about the lift station. Cleaning up the grease and quickly was the only concern. High levels of bacteria were added to the lift station. This may have cleaned up the lift station, but it just moved the grease down the pipes, clogged up the lines and caused high foaming at the treatment plant. Newer more conservative methods are now used to successfully dose a biological program in a lift station. Slower is better, although many people are anxious and say the product is not working.



What are signs that the product is working- Foaming in the lift station- white foam at first shows the bugs are in a high growth phase, as the foam turns to a light brown, they are getting a little older.

**Are there signs of the grease softening?**

**Are there visible signs of cracks in what was once a solid surface?**

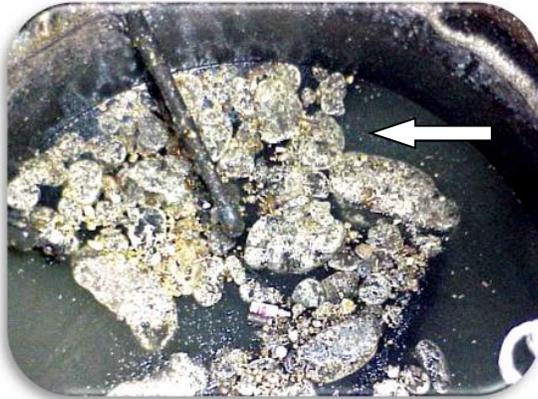
Make sure the biological product is in the water and not just sitting on top of the grease shelf. The product cannot jump out of the water-soluble bag. It needs some access to the water in order to move around, below and above the grease. Try adjusting the water levels in the lift station and move the float a bit higher.

If there is a grease ledge, this is very important, since the water level must be a bit higher for a short period of time to allow the bacteria access to this grease and not just during high flows.

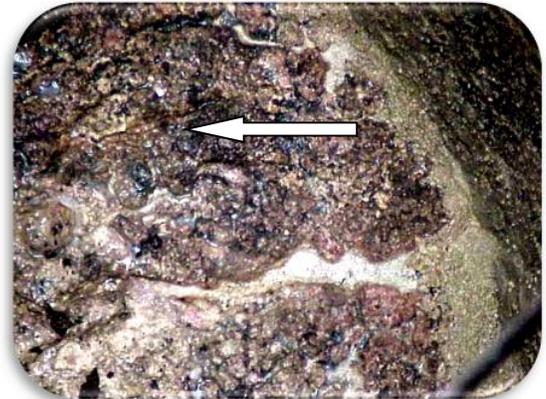
Spaces between the grease, white coloring of the water, some softening and foaming show the product is starting to work.

More free space in the lift station, cleaner lines and floats show the product is doing a good job and on the way to a cleaner lift station.





10lb. MicroBlock™



These have been called "Floating Turtles"- Hard solid formations that float around in the lift station. These can interfere with the pumps and can clog the pipes. Sometimes using a liquid product to spray on these can help reduce their size and shrink them faster.

Raising or lowering the float will not impact situations with turtle.

Cracks starting to form in thick hardened grease



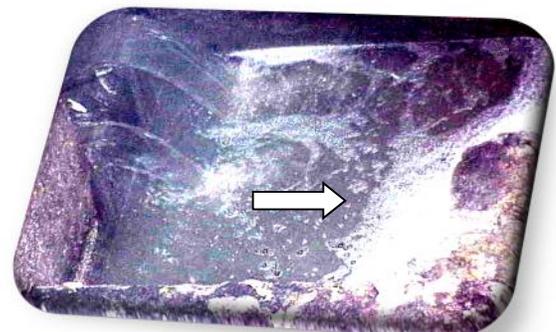
Application of product is improper here, pink product all over the top of the grease and not really in contact with the water



White milky water indicating bacteria is starting to work, cracks are starting to form in the grease; it is starting to soften and a little foaming is present.

**Start your biological program today & go from Grease and solids build-up to free flowing water with very little grease Today! Email [Elfenvironmental@aol.com](mailto:Elfenvironmental@aol.com) or call from phone number below.**

**Ask about MicroBlock™ our slow release bioaugmentation product.**





This lift station in top 2 images, before bacterial product (bioaugmentation) was introduced. There were thick solids built up in the corner & grease crust ledges.

Here is how it looks now after using Environmental Leverage's bacterial products to remove the grease. Proper flow & movement now.

This is a 5 Million Gallon a Day lift station that was filled with years of grease build-up.

Except for a little bit of solids in the upper left corner, most of the grease and solids build-up are gone. Here is the upper right corner- clean and free flowing water as opposed to the above picture prior to addition of our biological products. The grease ledge is gone, the solids and chunks of grease are dissolved and there is circulation of water and better mixing.



MicroClear BOD/TSS Reduction Control

MicroBlock Solid for FOG



FOG Control MicroClear® 207

Slow Bacterial Release MicroBlock™

To reach our friendly staff for support & products call 630-906-9791 or email us at [elfenvironmental@aol.com](mailto:elfenvironmental@aol.com)



1-lb. Water Soluble Bio-Pouch

