



Documentation for  
Grease and Odor Control Project  
using



**PROJECT** - Grease Control in Somerset, TX  
**CLIENT** – San Antonio River Authority  
**LOCATION** – K Street Lift Station

Jim Doersam – Senior Engineer  
Terry Ploetz – Utilities Assistant Development Superintendent  
Ricky Carrasco-Industrial Waste Inspector II/Utilities Operations



San Antonio River Authority  
100 East Guenther  
P.O. Box 839980  
San Antonio, Texas 78283-9980

June 8, 2018

Re: Project Documentation for Grease Control Using Micro-Solve Solubilizer-Demulsifier/Bacteria Accelerator

Gentlemen,

This reports purpose is to document the progress of Micro-Solve at the 'K' Street Lift Station between the dates of May 30, 2012 and August 23, 2012.

We really appreciate all the time and effort that has been put into observing the project. Hopefully this report gives some insight on the project and will allow you to evaluate Micro-Solve's progress and all the benefits received.



### **K Street Lift Station:**

May 30, 2012 – First Application

The above photos were taken of the wet well at the K Street Lift Station in Somerset, Texas on May 2<sup>nd</sup> (left) and May 30<sup>th</sup> (right).

Even though the lift station appears to be vacced out regularly, in both of these photos we can visually see the calcified grease that has collected around the walls, floats and pipes that are in contact with the water. In most experiences if there is a calcified build-up that is visible on or above the water line, then there will also be a build up of debris and sludge below the surface of the water.

Issues: This area is being fed a large amount of grease from an upstream community center. The lift station is said to need vaccing every 3 months. The lift station is having issues setting off alarms, which in turn is requiring an on-call employee to tend to the emergency. Mr. Ploetz confirmed that grease is getting caught in the pump and is the primary cause of the issue.

We have also agreed to treat the downstream collection line to clean out any grease that has built up in the collection line. After the initial camera inspection of that line we realized that the grease in the line was minimal, so we are going to monitor the WWTP's master lift station for progress. That lift station is said to be over 2 miles downstream.

Dosage: 5 gallons per week in the lift station. 5 gallons per week in the downstream collection line.



### **K Street Lift Station:**

June 14, 2013 and June 21, 2013

The above photos were taken of the wet well at the K Street Lift Station in Somerset, Texas on June 14<sup>th</sup> (left) and June 21<sup>st</sup> (right).

At this point we have been treating the area for 2 and 3 weeks and it can be seen that there is a large amount of grease chunks that are starting to appear on the surface. Also, the lip around the wall is beginning to develop large craters that are now holding water. Micro-Solve<sup>®</sup> has begun to erode the calcified lip around the wet well and we can also notice that the fresh grease that is entering the area is being digested by the facultative aerobes and anaerobes. The floats are staying clean and you can see from one week to the next the incoming pipe on the lower right hand corner becomes visible.

Dosage: 5 gallons per week in the lift station. 5 gallons per week in the downstream collection line.



### **K Street Lift Station:**

July 9, 2012 and July 19, 2012

The above photos were taken of the wet well at the K Street Lift Station in Somerset, Texas on July 9<sup>th</sup> (left) and July 19<sup>th</sup> (right).

At this point we have been treating the area for 6 and 7 weeks, respectively. In these two photos, the lips around the pipes are gone and we can begin to see that there is an incoming line directly under the pipe on the left hand corner at water level. In the second photo the lip around the wall on the top of the photo has fallen off and is floating near the lower group of floats.

Dosage: 5 gallons per week in the lift station.





### WWTP Master Lift Station:

June 21, 2012 and July 9, 2012

The above photos were taken at the Somerset Wastewater Treatment Plant's Master Lift Station in Somerset, Texas on June 21<sup>st</sup> (left) and July 19<sup>th</sup> (right).

This lift station wasn't being treated directly, but it was the nearest downstream lift station, over 2 miles downstream. In the picture on the right you can see that a good portion of the grease has a light brown color and a light fluffy texture. A positive sign that the Micro-Solve<sup>®</sup> is working its way to the plant and the facultative bacteria are beginning to thrive. As a result of a TCEQ inspection, Ricky Carrasco scheduled a vaccing out. Ted's crew and Ricky both confirmed that the lift station typically had a lot more grease and needed to be cleaned out every three months. Ricky also confirmed that 'gum ball' sized grease chunks that he typically fished-out of the clarifier were now only the size of pebbles.

Dosage: 5 gallons per week in the 'K' Street Lift Station that is located 2 miles upstream.



## **K Street Lift Station:**

August 23, 2012

The above photo was taken of the wet well at the K Street Lift Station in Somerset, Texas on August 23, 2012.

During the last month of the pilot we noticed that all the pipe-shaped 'logs' of grease that were dislodged from the inside of the submerged pipes were nearly 100% gone. The grease lip around the wall that had previously built up, and was not even able to be removed by the vac truck, is at least 80% - 90% gone. The grease around the incoming pipe is fresh, soft and already partially digested. It has no properties to bind itself to any floats, pumps or pipes and cause issues associated with grease build up.

Mr. Jim Doersam came to visit the lift station and confirmed with Mr. Terry Ploetz that the lift station does typically develop a grease cake across the top and that it typically needs to be vacced-out every three months. Mr. Ploetz cameraed to the downstream collection line and confirmed that none of the grease had resolidified downstream.

Dosage: 3 gallons per week maintenance.



EGSW appreciates the opportunity accorded by San Antonio River Authority to perform this project. Micro-Solve® has a proven record of grease and odor bioremediation as a cost effective alternative to other mechanical or chemical methods. No matter if it is Grease or Odor, Micro-Solve® assists with all the common problems associated with the handling of sewage, keeping collection lines, lift stations, pumps, floats free of problematic Grease and Odor build-up.

Respectfully,

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