



Documentation for
Grease and Odor Control Project
Using:

Micro-Solve[®]
bioremediation

with



PROJECT – Collection Line Grease Control with Micro-Solve[®]
CLIENT – City of Victoria, Texas
LOCATION – John Stockbauer Dr. at the Creekstone Ranch Apartments



Donald Reese – Deputy Public Works Director
Richard Saucier – Manager – Distribution and Collections
Alberto Cervantes – Utility Supervisor
David Mansfield – Utility Supervisor
Curtis Davis – WWTP Chief Operator
Larry Huebner – Lift Station Supervisor

700 Main, Suite 108
P.O. Box 1758
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Re: Final project documentation for grease control using Micro-Solve®, solubilizer, demulsifier and bacteria accelerator.

Gentlemen,

Happy New Year! 2015 was a good one, especially with having finished up the collection line 'grease control' project with the City of Victoria. Most importantly, we've been getting some positive feedback from all the team members that took time to observe our pilot and gather the facts. Mr. Albert Cervantes, Mr. Mansfield, Big Steve, Juan, Jose, Mr. Garcia, Ronnie and the elusive "safety enforcer", Thank you. Mr. Reese and Mr. Saucier, for the opportunity.

This report includes information related to the collection lines that was previously choking on a monthly basis in the City of Victoria.



10/1/1



11/5/15



12/19/15

Creekstone Ranch Manhole: December 19, 2015

The collection line that runs along John Stockbauer Dr. is an 8" line that has two 90° turns within the first 1000ft. After the second 90° turn, the line runs approximately one mile to Hallettsville Lift Station, which is said to receive half of the city before feeding the WWTP. The point of application itself is in a close proximity to the actual beginning of the line, which gives us a nice controlled area for this initial project.

Issues: The primary issue with this line is its tendency to choke. After discussing the area with Juan Robles, there is a general consensus that the line has a "Belly" between the point of application and the second manhole, located next to Halepaska's Bakery. He confirmed the line had been videoed.

Progress: The photos above were taken on 10/1, 11/5 and 12/19 respectively. Early on in the project, there was a "choke" and even on one visit the area was surcharged due to large pieces of freed up grease, acting as a baffle slowing up flows (see following page). Since the flow was being restricted on the 11/5 photo, you can get a glimpse of the digestion process at work with the change of color and texture of the grease in the area. At the point of the last photo (12/19), it had been two months since the area had been surcharged. In my opinion a major indication Micro-Solve® is working well at this location.

Current Dosage: Maintenance Dosage of 5 gallons every other week.



10/15/15



11/5/15



12/3/15

Manhole at Halepaska's Bakery:

December 3, 2015

Progress: These three photos are of the manhole next to the bakery and were taken on 10/15, 11/5 and 12/3. As you can see in the first two photos (10/15 and 11/5), Micro-Solve® is not only breaking down the large logs of grease, but also all the fresh grease coming in from the bakery, at the bottom of the photo.

Current Dosage: None at this location.



11/19/15



12/3/15



12/19/15

Hallettsville Lift Station:

December 19, 2015

Progress: As we pointed out in our initial report, we've been seeing an increased amount of large chunks of grease entering the area. The point that should be made is that the texture of the grease is changing, the mass of those large chunks is starting to disperse and those large chunks are now able to be digested by the increased populations of facultative microorganisms. At this point we recommend to agitate this wet well or add a mixing unit to help speed up the process a bit, more oxygen increase the appetites of all those naturally occurring bacteria. Since we're having some effect on this area, with consistent use and some agitation, I predict continued improvement in this wet well in the near future. Micro-Solve® is NOT a quick-fix product. Micro-Solve® is a bioremediation tool.

Current Dosage: None at this location.

Benefits:

- Reduced SSO's
- Reduced lift station O&M costs
- Reduced call-outs
- Relief of awkward politics associated with residents coming in contact with H₂S
- Significant reduction in fats, oils and grease in the collection line and WWTP
- Significant reduction of jetting and vaccing as it relates to grease
- Reduction in the use of polymers and other chemical at the WWTP
- Reduction in the amount of drying bed sludge
- Reduction in electricity and time treating wastewater
- Increased facultative microorganisms
- Risk management – reduced risk in dealing with hazardous gases



Remember that Micro-Solve® is NOT an enzyme, a bacteria or a quick fix emulsifier. Micro-Solve® aids in phase oil separation, making hard grease loose and soluble. This releases bound oxygen and trapped micronutrients that become better able to be utilized by the microorganisms that already live in the system. This increases the facultative microorganism populations and anaerobic and aerobic populations. All these benefits accelerate the bioremediation process at point of application and downstream and will not re-solidify. This process sends the treatment plant more microorganisms with food that is in a better state to be bioremediated.

With regular applications, Micro-Solve® eliminates grease and sludge build-up in the collection and treatment system and will save you money. Micro-Solve® is 100% biodegradable!

Thanks for your time and consideration. Ounce of prevention, worth a pound of cure.

Regards,

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