



SEPTIC SYSTEM & INSTITUTIONAL WASTE TREATMENT

If properly maintained, a well-designed septic system will last for decades, however, if it is neglected, it can back up and clog which can result in an expensive excavation and even a complete replacement that could cost thousands of dollars.

The septic tank is the key component of the septic system. It serves as a settling basin where waste solids accumulate and gradually get broken down and solubilized by bacterial action. Some of the organic waste, also known as the organic fraction gets liquefied by natural bacterial decomposition, however, the rest of the waste accumulates in the bottom of the tank as a layer of sludge. A small percentage of the waste, mostly fats and oils, may float to the top of the tank to form a layer of semi-solid scum.

MicrobeLift is a proprietary formula of live bacteria effective in breaking down the organic fraction of sewage and wastewater. **MICROBE-LIFT®** is highly successful in maintaining septic tanks and systems in optimal conditions. By breaking down the solids quickly and effectively, **MICROBE-LIFT®** significantly reduces costly maintenance to the system which includes tank pumping and system backup. When used regularly, the septic system will function properly and avoid costly repair and/or replacement. Microbelift will remediate percolation problems in the drainage field soil and assure constant filtration back to the environment.

When added to the septic system, the bacteria in **MICROBE-LIFT®** accelerate the natural degradation process of the waste and maintain the system in good working order, free from clogging and backup. This can ultimately save the customer thousands of dollars in expensive maintenance and repair costs associated with a non-functioning system.

Unlike chemicals that are harmful to the environment, **MICROBE-LIFT®** is 100% natural and completely safe for the environment. The bacterial populations have been determined by repetitive plate count to be in excess of 350 million organisms per milliliter, making **MICROBE-LIFT®** one of the most concentrated and effective products on the market.



For more information on **MICROBE-LIFT®** Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15000



WASTE WATER TREATMENT - INDUSTRIAL SEPTIC SYSTEM & INSTITUTIONAL WASTE

- 15100 **Septic Systems, Residential & Institutional Systems, Portable Toilets**
- 15101 **PRO-PUMP®/HC Removes Grease Balls from Large Grease & Septic Effluent Collection Tank**
- 15102 **PRO-PUMP® is the Key to Making On-Site Wastewater Systems Work for Florida Contractor**
- 15103 **Service Company Provides Absorption Field Recovery with PRO-PUMP®**
- 15104 **Septic Supply Company Confirms that PRO-PUMP® Remediation Restores Drain Fields Every Time**
- 15105 **PRO-PUMP® Drain Field Remediation Resolves Plugged Filter Bed and Helps Homeowner Complete the Sale of Her Home**
- 15106 **Restaurant Uses PRO-PUMP® to Resolve Cesspool Capacity Problem**
- 15107 **PRO-PUMP® Improves Effectiveness and Efficiency for Sanitation Service Company**
- 15108 **Successful Septic Service Business Relies on PRO-PUMP® to Help Resolve Customer Problems**
- 15109 **Successful PRO-PUMP® Remediation Saves Customer from Having to Rebuild Septic System**
- 15110 **PRO-PUMP® Restores Impacted Drain Field Eliminating Back-ups**
- 15111 **Drain Field Remediation Program Helps Two Homeowners Avoid Expensive Reconstructions with PRO-PUMP®**
- 15112 **Septic Tanks Cleaned & Drain Fields Remediated with PRO-PUMP® in Wasilla, Alaska**
- 15113 **PRO-PUMP® Remediation Resolves Long-standing Problems with Homeowner's Septic Drain Field**
- 15114 **MICROBE-LIFT® Technology Helps Commercial System Meet Discharge Permit Requirements**



The case study results listed above were achieved with MICROBE-LIFT® Technology and products, formulated and manufactured by Ecological Laboratories Inc., with technical support for administering the products provided by Ecological Laboratories Inc., in support of their worldwide representatives.

For more information on **MICROBE-LIFT®** Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

15100





PRO-PUMP® /HC Removes Grease Balls from Large Grease & Septic Effluent Collection Tank

Location: Whay Sanitation Company, Weems, VA

Background: Whay Sanitation Company operates a large septic collection facility to break down septic and restaurant grease trap waste (30,000 gallons per day). They have been a PRO-PUMP® user for several years. Recently they developed a new program for PRO-PUMP®

Objective: Their septic waste receiving station consists of a 1000-gallon dump station and screen area with discharge to a 500-gallon distribution tank that distributes the waste to two 10,000-gallon biological tanks. The 500-gallon distribution tank had a continued problem with heavy grease accumulation on its surface with collection of large grease balls that Mr. Whay described as being the size of watermelons.

Based on recent results seen with PRO-PUMP® /HC in grease traps, Henry and his maintenance supervision decided to add one gallon of PRO-PUMP® /HC to the 500 gallon distribution tank to see what effect PRO-PUMP® /HC would have on the surface grease mat.

Results Achieved: The following day they inspected the tank and were amazed to find there were no more large grease balls or grease chunks. With the benefits they had witnessed they decided to add an additional gallon to the 500 gallon tank to determine what this effect would be.

Again, the following day they found the tanks completely grease free with no trace of surface grease in the waste receiving distribution tank. Henry advises that PRO-PUMP® 's performance is simply amazing.

He states, *"I have never seen anything work like PRO-PUMP® "*.

Based on MICROBE-LIFT® technology, PRO-PUMP® contains a proprietary consortium of microbial strains with highly effective long chain fatty acid degradation capability under aerobic and anaerobic conditions. No other product degrades grease and other organics as quickly or effectively as this vegetative consortium.

For more information on MICROBE-LIFT® Technology contact
Ecological Laboratories Inc.
www.EcologicalLabs.com
CS15101



PRO-PUMP® is the Key to Making On-Site Wastewater Systems Work for Florida Contractor

Location: Cocker Plumbing, Homestead, FL

Background: John Cocker operates Cocker Plumbing located in Homestead, Florida. John's business services commercial properties, food facilities, apartment complexes, and residential systems. John routinely provides service that includes the maintenance of facility effluent lines, grease traps and absorption fields (drain fields).

John was a past user of PRO-PUMP® and then switched to a competitive supplier (Bio-One) based on a relationship with the salesman, lower cost and information that the product would out perform PRO-PUMP®. After comparing performance of the two products, John has returned to using PRO-PUMP®. John stated that during the period he used the competitive bio-product he saw no system benefits what-so-ever from the bio-formulation's use. He had used the competitive bio-product in the same applications and at the same feed rates as previously used with PRO-PUMP®.

Objective: John has numerous applications that are key to his company's success. With PRO-PUMP® he can save time on services, remediate failed drain field systems, and provide cost effective grease trap system maintenance.

Results Achieved: John advised that he successfully uses PRO-PUMP® to reduce his service time in system clean out and pump-out of both septic tanks and grease traps. He also uses PRO-PUMP® to assist in maintaining effluent flow to absorption field in commercial operations where the systems are organically and hydraulically overloaded. He applies PRO-PUMP® at the time of pumping, and again if the system requires service.

For example, John services a major BBQ facility with an effluent flow of 10,000 gallons/day. He modified the effluent treatment system that had consisted of a single 750/gal grease trap and 1,500 gallon septic tank, by adding three additional grease traps prior to the septic tank. The current system has a 750gal/ GT, 900gal/GT, 1,5000 gal/GT, 1,500/galGT and 1,500 septic tank, with effluent to an absorption field.

John adds one quart of PRO-PUMP® to each of the systems tanks every time he pumps the grease traps and septic tank. He advised that the use of PRO-PUMP® controls or eliminates the hard surface grease on all tanks, and eliminates or reduces the build up of grease balls and grease chunks. He claims that PRO-PUMP® makes a significant difference in the systems conditions at the time of service. (According to John, the competitive product used at the same rate in the same systems had no impact for solids or grease control.)

In another example, John services an eight-unit apartment complex in a low-income area outside Miami. A massive amount of solids and grease are contributed to the system by the 8 apartment buildings and its 40 inhabitants. The facility's on-site wastewater system is inadequate to handle the process waste as the system equipment consists of only one 2000-gallon septic tank and 800 feet of absorption field.

To remedy the system overload, John must pump the septic tank every three weeks to reduce surface solids and grease accumulations in the septic tank. Even with an aggressive pumping schedule, John believes that PRO-PUMP plays a key role in his ability to maintain the on-site wastewater system in working order. John applies two gallons of PRO-PUMP® following each pump-out. PRO-PUMP® reduces grease and solids build up in the 2000-gallon septic tank, and more importantly has reduced the effluent discharge water level at the tanks outlet, indicating improvement in field flow capabilities.

John is a firm believer in the benefits of PRO-PUMP®. It reduces solids accumulation in grease traps and septic tanks,

improves septic field absorption, and provides labor savings on clean-outs. **Welcome back John!**

For more information on MICROBE-LIFT® Technology contact
Ecological Laboratories Inc.
www.EcologicalLabs.com
CS15102



Service Company Provides Absorption Field Recovery with PRO-PUMP®

Location: Danny Miller Plumbing, Gulfport, MS

Background: Mr. Danny Miller advised that his firm is often asked to help recover failed septic system absorption fields that have lost their flow resulting in surface seepage.

Objective: As an example, Danny Miller Plumbing was contacted by Mr. Jay Manett of Pass Christian, MS to resolve problems in his system.

When Danny inspected the on-site residential system he determined that the problems were the result of a failed leach field. Further inspection determined that the field was constructed of clam and oyster shells that were heavily fouled with organic sludge.

This old style absorption bed was about 50 years old and had lost the majority of flow capacity. The system media was fouled with heavy black sludge from top to bottom.

Danny advised that replacement of the failed absorption field was not an option due to the field's location and town regulations. In addition, a heavy chemical application could not be considered, as that would destroy the field's construction.

Based on his experience, Danny recommended recovering the absorption field using PRO-PUMP®. The septic tank was pumped and two gallons of PRO-PUMP® was added directly to the junction box. In addition one gallon was applied each week for the first three weeks.

Results Achieved: The absorption field recovered quite rapidly with improvements noted within 14 days and full flow was established within 90 days of treatment with PRO-PUMP®. The fields' clam and oyster shell media was fully restored to its original white color and flow capacity returned to full capacity. The process involved only the application of PRO-PUMP®; mechanical cleaning was not conducted and no chemicals were used to improve field conditions.

This customer continues to use PRO-PUMP® as recommended by Danny Miller to avoid future problems.

Danny advised that the application of PRO-PUMP® had recovered normal flow in all systems where he had applied PRO-PUMP® to treat problem drain-fields.

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15103



Septic Supply Company Confirms that PRO-PUMP® Remediation Restores Drain Fields Every Time

Location: Austin Septic Supply Company, Austin, TX

Background: Austin Septic Supply has distributed PRO-PUMP®/HC and PRO-PUMP® products to its customers for over 10 years. They supply pumpers and excavators a full line of necessary materials to meet their service requirements.

Objective: The most serious and potentially expensive problem that occurs in a septic system is drain field failure where the septic field loses its ability to percolate wastewater and systems start oozing effluent on the ground and causing wastewater back-ups into the home.

Mr. Wayne Dolezal, the owner of Austin Septic Supply, has promoted the use of PRO-PUMP®/HC for drain field system recovery for several years with numerous successful applications. Wayne's customers attest that the product works every time they use it. Wayne has never experienced any reports of failure.

Results Achieved: Wayne supplies eleven septic service companies that rely on the use of PRO-PUMP®/HC for field recovery. The application for system recovery incorporates PRO-PUMP®/OX in combination with PRO-PUMP® at a rate of two gallons of PRO-PUMP® and two pounds of OX for each system recovery application. Systems are first serviced and pumped prior to product addition to the distribution or junction box, or discharge side of the septic tank.

Wayne recently had a satisfied homeowner stop to thank him for recommending PRO-PUMP® to her pumper. She advised that she had not been able to wash even one load without a system back-up and that had always been a wet spot on her lawn. Now, after her service company applied PRO-PUMP® remediation, she is able to do her laundry without problems as often as she wants and the wet spot is no longer there.

More recently, based on **Ecological Laboratories'** recommendation, Wayne now markets the new PRO-PUMP® Bio-remediation Kit, and has sold over 40 Kits within a short period of time. Wayne advised that his customers appreciated the market support the kit's design offers, as well as, the information the kit offers on why systems fail, how remediation works, and most importantly the kit's application instructions.

For more information on MICROBE-LIFT® Technology contact
Ecological Laboratories Inc.
www.EcologicalLabs.com
CS15104



PRO-PUMP® Drain Field Remediation Resolves Plugged Filter Bed and Helps Homeowner Complete the Sale of Her Home

Location: County Side Service, Medina, OH

Background: Homeowner Georgine Krudelback in Medina, OH had a neglected septic system that had started ponding. She contacted County Side Service to help her restore her system.

Objective: This homeowner needed to restore her system quickly so that it could pass inspection for the sale of her home.

Results Achieved: When County Side personnel inspected the system they determined that the system was not discharging. The filter bed was plugged causing ponding on the surface and in the yard. An aerator in the system was not functioning and a distinct foul odor was evident. A system in this condition makes it difficult to successfully sell a home.

To remediate the system, County Side Service first jetted all lines and pumped tanks empty. Then on May 23, 2003 they dosed one gallon of PRO-PUMP® into the septic tank and installed the PRO-PUMP® Bioremediation kit into the distribution box.

Less than 3 weeks later, on June 12, 2003, the water level had lowered enough to re-install the aerator motor.

The system continued to improve and less than a month later on July 7, 2003 the septic system passed inspection for the sale of the home. The homeowner, who had been concerned regarding a very expensive and lengthy rebuilding of her system, was extremely pleased with this fast, low-cost solution that allowed her to close on the sale of her property.

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15105



Restaurant Uses PRO-PUMP® to Resolve Cesspool Capacity Problem

Location: Restaurant, Cedarville, NJ

Background: Mr. John Dino, owner of a restaurant in Cedarville, NJ, lost his restaurant to fire about 14 to 15 years ago when the building was burned to the ground. He rebuilt the facility and installed a complete new septic system consisting of a 500-gallon grease trap, a 1,500-gallon septic tank, distribution box, and four cesspools.

Objective: Robert Lore, Jr. of Lores Cesspool Service was contracted to maintain the restaurant's on-site wastewater system since it was put on-line. His service includes monthly pumping of the grease trap, and quarterly pumping of the septic tank. Several years ago Robert determined that the four cesspools were losing capacity and were getting full.

Results Achieved: To resolve the cesspool water capacity problem, Robert developed a remediation program. He placed valves on all discharge lines at the distribution box going to the cesspools. He closed all the valves except one, taking the remaining cesspools off-line for an extended period. Each 30 days he takes the active cesspool offline, treats the system with one gallon of PRO-PUMP® and puts a different cesspool in service. His monthly inspection of the system has determined that the cesspool placed in service is completely empty and carries the effluent water loading for the full 30 days without a problem. In addition, Robert treats the grease trap with 8 ounces of PRO-PUMP® Grease Trap Maintainer weekly.

Robert advises that this system modification and monthly use of PRO-PUMP® resolved the early cesspool drainage problem recovering an effective flow rate and has kept the commercial on-site absorption system in good working order for well over seven years. Robert strongly believes PRO-PUMP®/HC is a significant factor in maintaining cesspool flow for this commercial wastewater system.

Recently, Robert enhanced the system by installing a pump for PRO-PUMP® to expedite overall grease reduction and increase overall system performance allowing increased capacity.

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15106



PRO-PUMP® Improves Effectiveness and Efficiency for Sanitation Service Company

Location: M&O Sanitation, Poughkeepsie, NY

Background: Mr. Butch Cimorell, of M & O Sanitation Inc. is located in Poughkeepsie, NY. M&O Sanitation services commercial facilities, food facilities, and residential systems.

Butch has been a long-term user of PRO-PUMP® dating back 7 to 9 years. During this period he has experienced excellent results from PRO-PUMP® improving conditions in grease traps, septic systems and absorption fields.

Objective: Butch successfully uses PRO-PUMP® to reduce his service time in grease trap system clean out, and pump-outs, as well as to assist in maintaining effluent flow to absorption fields in commercial on-site systems.

For grease trap service, Butch adds from one quart to one gallon of PRO-PUMP® (based on system size and conditions) to each grease trap every time he pumps the trap. PRO-PUMP® controls or eliminates hard surface grease on the majority of grease traps as noted on his return service visit. He claims that PRO-PUMP® makes a significant difference in the systems' conditions at the time of service.

For on-site waste treatment systems, Butch has established a standard procedure for absorption system recovery that includes the application of PRO-PUMP®. Following system pumping and cleaning, they uncover and clean the distribution box; then they jet or Terri lift the system and add two gallons of PRO-PUMP® to the distribution box. Butch claims that PRO-PUMP® makes a significant difference in field recovery.

Results Achieved: Butch stated he has used several products over the years and believes PRO-PUMP® offers performance that is superior to the majority of the products he has evaluated.

In summary, Butch advised that PRO-PUMP® has proven to be effective in reducing grease and solids build up in grease traps, saves time on grease trap and septic tank cleaning, and improves efficacy of absorption fields.

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15107



Successful Septic Service Business Relies on PRO-PUMP® to Help Resolve Customer Problems

Location: Swartout Construction Company, Boonville, NY

Background: Mr. Mark Swartout's company uses PRO-PUMP® in their septic business for system maintenance, as well as to resolve difficult absorption system drainage problems. To demonstrate his success with PRO-PUMP®/HC Mark submitted two case histories specific to the products performance in absorption flow recovery.

Objective: In one case, the William McLachian home in Eagle Bay NY, Mr. McLachian contacted Swartout Construction to resolve problems in his septic system and drain field. This home is located on a lake front property with a 1000-gallon septic tank and drain field. The field had failed and was ponding seepage water.

Mark inspected and evaluated the field's pooling. Based on Mark's past remediation success with PRO-PUMP®/HC he advised the owner that PRO-PUMP® offered a low cost alternative to system replacement. His recommendation was to use PRO-PUMP® as a first measure to resolve the problem.

The septic tank was pumped, the distribution box was uncovered and cleaned, and the drain field was jetted and vacuumed. One gallon of PRO-PUMP® was then added directly to the junction box, and one additional gallon was added to the septic tank. The customer was then advised to go easy on the system (watch and consider what goes down the drain) to assure long-term on-site system operation.

Results achieved: The absorption field recovered in approximately three weeks from date of treatment, and remains trouble free to date.

Objective: In another residential application, the Roy Hess home in Forestport, NY, the on site wastewater system consisted of a 1,000 gallon septic tank followed by a 6 X 6 dry well. The dry well had lost its absorption capacity and would no longer take water causing the entire system to fail.

Mark again developed a remediation program. The systems septic tank and dry well were pumped, and the dry well was washed down with a garden hose. The dry well was treated with two gallons of PRO-PUMP®/HC and one gallon was added to the septic tank.

Results achieved: The application of the three gallons of PRO-PUMP®/HC restored the dry well absorption flow capacity within four weeks from the date of treatment and has stayed problem free from the date of treatment. Mark has used PRO-PUMP®/HC for a number of years to resolve on site system problems, to include the recovery of failed absorption capacity in many applications similar to those listed above.

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15108



Successful PRO-PUMP® Remediation Saves Customer from Having to Rebuild Septic System

Location: Ready Freddy Inc., Cedar City, UT

Background: Mr. John Tveit of Ready Freddy Inc. is a strong supporter of PRO-PUMP® having used PRO-PUMP® / HC for several years with excellent results. Applications include regular septic system maintenance after pump-out; grease trap applications to assist in the removal of hard grease caps (add one gallon, wait one week and pump), and for the recovery of flow in slow and failed absorption fields.

Objective: In a typical application John responded to a call for assistance from Mr. Gary D. Seaman in Kalispell, UT to resolve a reported septic system alarm problem. The home is a three-story construction located in a lake resort community, on the top of a hill with a decline to the waterfront. The on-site wastewater incorporates a 1000-gallon septic tank and a 500-gallon pump pit to transfer waste to the absorption field. The homeowner had reported alarm problems that result in the loss of power to the system waste effluent pump to the drain field.

The initial inspection of the system indicated a potential problem with the pump-pit electrical system, such as normal wire corrosion at the pump pit connections.

To determine the problem, the septic tank and pump pit were cleaned. In addition, a riser was installed on the septic tank, a filter installed on the septic effluent line, and the electrical connections replaced at the pump pit electrical box. Following the system corrections, it was determined the problem was with the pump's long cycle time that resulted in pump overheating. This would trip the electrical breaker shutting down the effluent pump. The transfer pump was requiring 45 minutes to lift the waste to the absorption field, and satisfy the low level pump shut off while the normal pump time should be approximately 7 minutes.

John determined that the excessive run time was due to reduced absorption field capacity, requiring a longer pump cycle time to transfer the pit waste to the absorption field.

Based on John's past experience with PRO-PUMP® in resolving absorption field flow problems, combined with the systems construction and location, John advised the homeowner that he recommended they first attempt flow recovery using PRO-PUMP® rather than system replacement.

Two gallons of PRO-PUMP® were added directly to the pump pit, one gallon to the septic tank, and one gallon each every week for two weeks.

Results Achieved: The absorption field recovery required three weeks to show dramatic results. The drain field flow was recovered and the pump cycle time was reduced from 45 minutes to 7 minutes. The problem was resolved with full flow restored to the absorption field.

The flow recovery process involved only the application of PRO-PUMP®. Mechanical cleaning was not conducted and no chemicals were used to improve field conditions.

The customer continues to use PRO-PUMP® once a year, as recommended by John. John claims that this was one of their most successful applications based on the system's location and specific problems.

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15109



PRO-PUMP® Restores Impacted Drain Field Eliminating Back-ups

Location: A/1 Excavation Septic Service, Austin, MN

Background: Mr. Rusty Peck advises that his company has used PRO-PUMP® in their septic business for several years with good results. In addition to regular septic system maintenance, his company has successfully used PRO-PUMP®/HC to restore flow capacity to two failed residential absorption fields. The systems recovered with PRO-PUMP®/HC had lost water retention capacity and were leaching septic waters on the surface. A/1 Septic Service has determined PRO-PUMP®/HC has the capability to recover failed septic absorption fields.

Objective: In one case, Rusty's firm was contacted by Mr. Bruce Ulland of Austin, MN to resolve a problem with their septic system. Mr. Ulland advised that they could not wash their laundry without experiencing a system back-up. They needed assistance!

Upon inspection, Rusty determined that the absorption drainage system was constructed in tight clay soil and was heavily impacted with organic sludge. The owner was advised the problem was related to drain field failure. Further inspection indicated that flow recovery in the tight clay soil might be difficult to restore based on the field's design, location and clay structure.

Rusty evaluated the field's location, its tight clay environment and potential failure of a similar replacement field. Based on past remediation success with PRO-PUMP®/HC he advised the owner that PRO-PUMP®/HC offered a low cost alternative to system replacement. His recommendation was to use PRO-PUMP®/HC as a first measure to resolve the problem.

This recommendation is based on Rusty's past experience with absorption field recovery with PRO-PUMP®. Bioremediation with PRO-PUMP® is an excellent first measure prior to system replacement.

In this case, the septic tank was pumped, and one gallon of PRO-PUMP® was added directly to the junction box. In addition, one gallon was applied to the septic tank two weeks later.

Results achieved: The absorption field recovered rapidly with improvements noted after the first week (7 days), and full flow restored following the addition of the second gallon of PRO-PUMP® two weeks later in about 7 to 14 days following application. The field capacity was fully restored after several weeks. PRO-PUMP®'s high rate of organic degradation literally removed the organics that had impacted the drain field restoring percolation and free flow of liquid. This absorption system has remained trouble free for over 24 months.

The on-site wastewater system's flow was fully recovered by the application of PRO-PUMP®. No mechanical cleaning of any kind was conducted, and no chemicals were used to improve field conditions.

The customer continues to use PRO-PUMP® from A/1 Excavation, as recommended by Rusty Peck. Rusty advised that due to the type of soil, this application was a tough challenge and remains their most dramatic result with PRO-PUMP® to date.

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15110



Drain Field Remediation Program Helps Two Homeowners Avoid Expensive Reconstructions with PRO-PUMP®

Location: Homeowner Septic Systems, Patterson, NY

Background: As leach fields start to fail due to soil impaction or poor drainage, owners often see water ponding on the surface of the field. This is generally an indication of the potential for more serious problems such as system back-ups, nutrient leaching, and malodors. In New York State, the State Dept. of Environmental Protection (DEP) closely monitors septic systems for potential nutrient leaching and will cite homeowners for failing systems, often requiring expensive renovations.

Objective: With two homes in Patterson, NY, the drain fields had started pooling and the owners needed to quickly remediate the systems before the state required more expensive resolutions. Learning of Ecological Laboratories bioremediation technology, they followed product recommendations and utilized a combination of PRO-PUMP® and PRO-PUMP®/OX to restore degradation to remove excess organics and restore soil activity and percolation.

Results Achieved: Jack Miller summarized his experience as follows:

"Last spring the septic field in the back of my property was ponding up badly. I used PRO-PUMP® and PRO-PUMP®/OX for the period of time and according the schedule supplied. I no longer have the problem and am satisfied it was the PRO-PUMP® products that made the difference."

Based on this success he recommended the product to a friend. Jack's friend, Peter Soumakis explains his results:

"I had a problem with my septic system. The fields were ponding up. A field agent for the New York State DEP observed the problem and I was sent a letter, which stated the problem had to be corrected. After I used PRO-PUMP® and PRO-PUMP® /OX, the DEP performed a followup test on my property and said it was satisfied that the problem had been corrected."

Both of these homeowners were extremely pleased to have resolved their problems quickly and cost effectively with PRO-PUMP® bioremediation technology.

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15111



Septic Tanks Cleaned & Drain Fields Remediated with PRO-PUMP® in Wasilla, Alaska

Location: Wal-Mart, Wasilla, Alaska

Background: The Wasilla Wal-Mart in Mat-Su Valley, Alaska, north of Anchorage, had a 4000- gallon tank that failed in the first six months of business. Duane Neitzey, owner of the local septic service company, had his team clean the tank as well as possible but the front compartment was still half full of solid waste that was so solid “you could walk on and not make tracks”.

Objective: Mr. Neitzey then inoculated the tank with 2 gallons of PRO-PUMP® returned the system to service, and waited three weeks.

Results Achieved: When Mr. Neitzey inspected the tank again after three weeks, PRO-PUMP® had liquefied the contents of the tank and they were able to easily clean the tank to the bottom. Thereafter, PRO-PUMP® was used regularly to help maintain the tank in good working order.

Mr. Neitzey’s company has been using PRO-PUMP® bacterial products for about nine years in the Mat-Su Valley of Alaska.

“We use it to open drain fields that are plugged and not draining. We also use PRO-PUMP® for cleaning tanks that are not cleanable by mixing and back flushing. In addition, our service has returned hundreds of our customers' leach fields to work properly and cleaned up their tanks,” says Duane Neitzey, who became a regular user of PRO-PUMP® .

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15112



PRO-PUMP® Remediation Resolves Long-standing Problems with Homeowner's Septic Drain Field

Location: Homeowner - Austin, TX

Background: Marika Brown had a six-year-old septic system but she had experienced problems with it for "quite some time". They had experienced effluent seeping into their drain field, commonly called pooling, and had tried everything that had been recommended to fix the problem. Finally after adding 13 yards of loam to their yard, cleaning the tanks, and having the lines hydro-jetted without successfully resolving the problem they were unsure if there was any hope for the repair of their system.

Objective: Then they heard about the PRO-PUMP® drain field remediation system and ordered it through Austin Septic Supply. "Austin Septic Supply was kind enough to even do the installation for us. They put the bacteria into our tank and flushed it into the drain field" she stated. After several weeks the problem was resolved.

Results Achieved:

"It was with great joy that I realized that this treatment has solved our problems at last!" stated Marika. She has not seen or smelled seepage in over eight months after treatment which is "an absolute relief".

For more information on MICROBE-LIFT® Technology contact

Ecological Laboratories Inc.

www.EcologicalLabs.com

CS15113



MICROBE-LIFT® Technology Helps Commercial System Meet Discharge Permit Requirements

Location: WS Treatment Service, Bridgeport, WV

Background: James Honce, Jr. manages WS Treatment Service, a company that services wastewater treatment package plants and large-scale septic systems for commercial sites such as shopping malls.

Objective: One of their commercial accounts was having difficulty meeting their discharge requirements. **Ecological Laboratories'** (EL) technical staff recommended application of **MICROBE-LIFT®/IND** to increase biological degradation to lower effluent BOD, COD, and TSS to meet their permit limits. The system consisted of two 2000-gallon tanks in a package waste treatment system. The effluent from both tanks were monitored with initial results in January at 646 mg/l BOD and 944 mg/l COD for the first tank and 597 mg/l BOD and 662 mg/l COD for the second. The treatment plan called for addition of one gallon **MICROBE-LIFT®/IND** per day for several days followed by one gallon per week for a total of six weeks.

Results Achieved: After six weeks of treatment the effluents were assayed with BOD levels of 303 mg/l and 202 mg/l, results that met effluent permit limits. The COD level remained high, then requiring additional treatment of one quart per week to both tanks maintain BOD levels and further reduce COD. With the added product along with some minor change to the sand filter, the system successfully met permit limits.

In the words of James Honce,

"these products do what they are supposed to do. Whether it's improving activity in waste digesters, draining filters of standing water, or restoring seriously overloaded septic tanks. I have used them for years with excellent results."

For more information on **MICROBE-LIFT®** Technology contact
Ecological Laboratories Inc.
www.EcologicalLabs.com
CS15114