

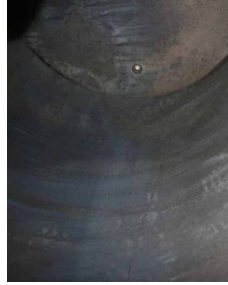
Negligible Visible Corrosion



STP



Riser



Tanks



Component



Component

Moderate Visible Corrosion



STP



Riser



Tanks



Component



Component

Heavy Visible Corrosion



STP



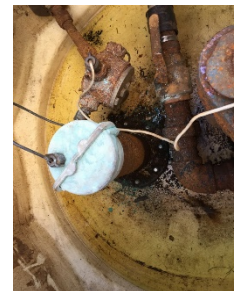
Riser



Tanks



Component



Component

Refer to Treatment Options for Specific Instructions

Treatment Options

When Negligible Visible Corrosion is Found

- ✓ Test for microbiological growth (MBG) using Biobor® Hum-Bug Detection® Kit or FUELSTAT® test even if corrosion is minimal and fuel is visibly clear
- ✓ Verify results. Treat with Biobor®JF. If no MBG is indicated, use the Periodic 270ppmw Maintenance Treatment. If MBG is indicated use the Curative – 270ppmw Shock Treatment
- ✓ To maintain clean fuel and system, use the Preventative 135ppmw Continuous Treatment method or treat quarterly using the Periodic 270ppmw Maintenance Treatment method to reduce maintenance costs and ongoing MBG issues
- ✓ Continue to monitor fuel and system regularly for changes that may require additional treatment or remediation

When Moderate Visible Corrosion is Found

- ✓ Test for MBG using Biobor® Hum-Bug Detection® Kit or FUELSTAT® even if fuel is visibly clear
- ✓ Verify results. Treat with Biobor®JF. If no MBG is indicated, use the Periodic 270ppmw Maintenance Treatment If MBG is indicated use the Curative – 270ppmw Shock Treatment
- ✓ If fuel is contaminated, allow for the proper biocide soak time prior to polishing the fuel
- ✓ To maintain clean fuel and system, use the Preventative 135ppmw Continuous Treatment method or treat quarterly using the Periodic 270ppmw Maintenance Treatment method to reduce maintenance costs and ongoing MBG issues
- ✓ Continue to monitor fuel and system regularly for changes that may require additional treatment or remediation

When Heavy Visible Corrosion is Found

- ✓ Test for MBG using Biobor® Hum-Bug Detection® Kit even if fuel is visibly clear
- ✓ Verify results. Treat with Biobor®JF. If no MBG is indicated, use the Periodic 270ppmw Maintenance Treatment If MBG is indicated use the Curative – 270ppmw Shock Treatment
- ✓ If fuel is contaminated, allow for the proper soak time prior to polishing the fuel and cleaning the tank
- ✓ To maintain clean fuel and system, use the Preventative 135ppmw Continuous Treatment method or treat quarterly using the Periodic 270ppmw Maintenance Treatment method to reduce maintenance costs and ongoing MBG issues
- ✓ Remediate fuel system damage and use Biobor Fuel Additives to remediate fuel quality issues.
- ✓ Continue to monitor fuel and system regularly for changes that may require additional treatment or remediation

Curative Treatment

Curative – 270ppmw Shock Treatment - For fuel systems that have tested positive for microbiological growth (MBG) or shows signs of contamination, treat with a 270ppmw dosage of Biobor®JF to remediate existing growth. The system should be allowed a minimum of 24-36 hours of soak time to give the biocide time to kill active MBG. **Drain or pump off water bottoms prior to treatment** and regularly **remove water post-treatment** to help remove any dead microbes. Additionally, monitor fuel filters after initial operations resume. *Dead microbes clog filters for a period of time after treatment.*

Preventative Treatments

Periodic 270ppmw Maintenance Treatment - When treating a fuel system that has not been tested and presumably does not indicate MBG, or has been tested and the test does not indicate MBG, treat with a 270ppmw dosage of Biobor®JF to ensure microbial free fuel. This is the preventative and periodic treatment of fuel, not to be confused with using Biobor®JF in all the fuel all the time. Unlike the curative treatment, no minimum soak times are required. By treating the system with Biobor®JF, the goal is to prevent future MBG, protect the equipment, preserve the fuel and kill any MBG that may be present but inaccessible for sampling. As long as the fuel contains the proper level of biocide, MBG will be inhibited and the fuel protected. We recommend **draining or pumping off water bottoms prior to treatment** and **regularly removing water post-treatment**, inspect water bottoms for any potential dead MBG and monitoring fuel filters after treatment.

Preventative 135ppmw Continuous Treatment - This preventative treatment is specifically for the consistent, continuous treatment of all fuel, all of the time in order to maintain a sterile system. The Preventative 135ppmw Maintenance Treatment is ONLY for use with the regular treatment of fuel 100% of the time. It is not meant for the periodic treatment of fuel. For systems not previously treated, the initial treatment of 270ppmw dosage should be applied. Following the initial treatment, treat additional fuel with a dosage of 135ppmw unless MBG is verified by testing. If MBG is identified, use the 270ppmw dosage until subsequent testing verifies the absence of MBG. Always **draining or pump off water bottoms prior to treatment** and **regularly remove water between treatment applications**, inspect water bottoms for any potential dead MBG, periodically



HAMMONDS FUEL ADDITIVES
Houston, Texas

www.biobor.com

sales@biobor.com
or call us for distributor opportunities
(800) 548-9166