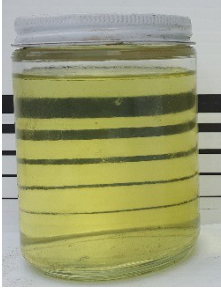


BIOBOR JF[®] Visual Fuel Assessment Guide

Negligible Visual Contamination



REGULAR



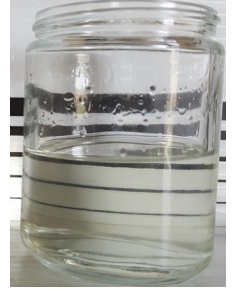
PREMIUM



ULSD

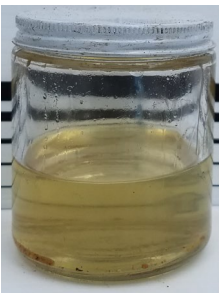


OFF ROAD



KEROSINE

Moderate Visual Contamination



REGULAR



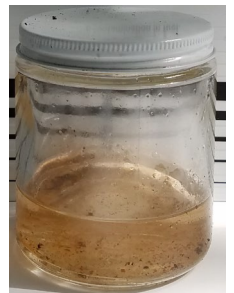
PREMIUM



ULSD



OFF ROAD



KEROSINE

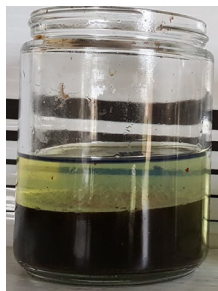
Heavy Visual Contamination



REGULAR



PREMIUM



ULSD



OFF ROAD



KEROSINE

Refer to Treatment Options for Specific Instructions

Test...Treat...PROTECT

Treatment Options

When Negligible Visual Contamination 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 Visual Contamination is Found

- ✓ Test for MBG using Biobor® Hum-Bug Detection® Kit
- ✓ 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
- ✓ Allow for the 24-36 hours of 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 Contamination 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
- ✓ Allow for 48-72 hours soak time prior to polishing fuel or cleaning tank.
- ✓ 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
- ✓ Consider additional fuel quality testing and remediate fuel quality issues using Biobor Fuel Additives
- ✓ 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



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