



Water Detection Field Test Instructions

For the detection of suspended and separated free water, and particulates in diesel, biodiesel, biodiesel blends, off-road fuel, jet fuel, heating oil, and kerosene

Instructions:

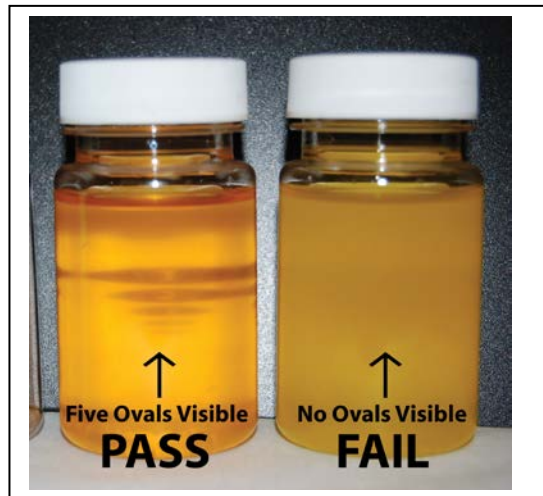
Part 1 Visual Inspection

- Step 1. Open test bottle and remove the small tube of indicator solution. **Discard desiccant packet.**
- Step 2. Fill test bottle to the shoulder with fuel. Replace cap and tighten securely.
- Step 3. Shake vigorously for 5 seconds, then wait one minute.
- Step 4. Closely examine the sample looking at the ovals through the bottle.

Interpreting the results

PASS: Clear and bright fuel, with numbers and ovals clearly visible through the fuel.

FAIL: Cloudy fuel with numbers and ovals not clearly visible, may indicate the presence of contaminants.



Note: DO NOT DISPOSE OF THE FUEL; it will be used in the next part of the test.

Part 2 Water Detection

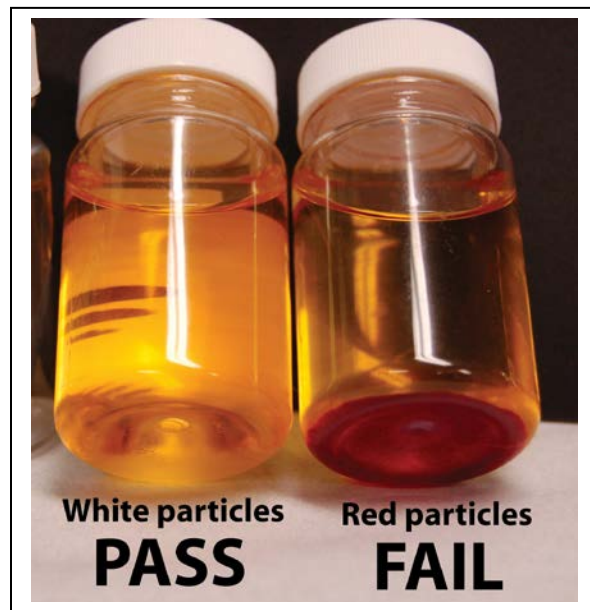
- Step 1. Vigorously shake or flick the small tube of indicator solution until completely mixed.
- Step 2. Open the test bottle containing fuel, and pour in the indicator solution (from small tube).
- Step 3. Replace and tighten the cap of test bottle and vigorously shake for 5 seconds.
- Step 4. Let the sample stand for 3 minutes.
- Step 5. Holding the bottle upright, examine the contents and the bottom of bottle.

Interpreting the results

You will see particles from the indicator settling on the bottom.

PASS: Particles are white.

FAIL: Particles turn red (dark purple in dyed fuel).
Fuel likely contains water exceeding 200-500ppm.



CONTENTS

Test Bottle
Desiccant packet
Tube of water Indicator solution

Disclaimer and Warranty

All Fleet Biodiesel and Fleet Fuel Testing Field and Lab Tests are offered only as general indicators of fuel quality. All commercial tests – even analytical tests performed according to ASTM specifications – are subject to error due to sampling techniques, unique fuel attributes, as well as statistical anomaly. Failed test should be verified by repetition or more detailed analytical testing. No warranties, either expressed or implied, are made regarding the accuracy of the tests or the quality of fuel that is tested.



Microbial Contamination Field Test

For the detection of microbial growth in diesel fuels

CONTENTS

Yeast and mold test strip
Bacteria test strip
Small tube with distilled water
Disposable dropper

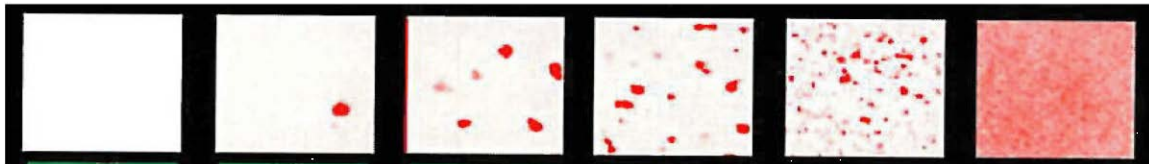
Instructions:

Note: When handling test strips, try to limit touching the pad surface by holding the test strip near the label.

1. Obtain your fuel sample from vehicle, storage tank or filler nozzle.
2. Remove test strips from ziplock bags (save bags), labeled Bacteria and Yeast and Mold.
3. Use dropper and water in small vial to moisten the pad end on the test strip.
4. Dip pad end of test strip into fuel sample for 5-10 seconds.
5. Remove strip from sample and gently shake off excess fuel.
6. Place test strips back in separate small ziplock bags for incubation. Seal the bags.
7. Store the bags in a warm place (75°- 85° for best results) for 36 - 72 hours.

Interpret the results as indicated below.

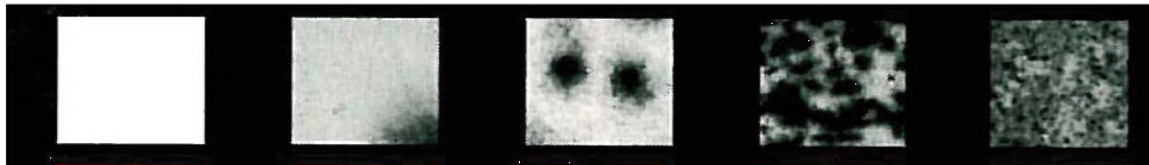
Bacterial Contamination Chart



Read results after 24 - 36 hours

PASS ---> <--- **FAIL**

Yeast and Mold Contamination Chart



Read results after 24 - 36 hours

PASS ---> <--- **FAIL**

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Degraded Fuel Test Instructions

For the detection of high Acid Number in diesel, biodiesel fuel blends, and heating oil

Degraded Fuel Test Instructions

1. Obtain Diesel or Biodiesel sample from tank or filler nozzle.
**** Note: Use appropriate safety precautions for handling fuel. ****
2. Fill the Test Kit bottle to the shoulder with the fuel sample taken in Step 1.
3. Replace the Test Kit bottle cap and tighten it securely.
4. Shake the Test Kit bottle **vigorously** for 30 seconds.
5. Interpret and record the results.

Interpreting results

If the contents of the sample bottle turn yellow, the acid number that exceeds the threshold of the test kit. High Acid Number is an indicator of fuel degradation. Prolonged use of degraded fuel can cause engine damage.

If the sample remains pink/purple, the fuel has an acid number that is lower than the threshold of the kit. The threshold for this test is approximately 0.3mg +/- .05 mg KOH/g of fuel.

Pink/purple color indicates that the fuel passes the test.



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