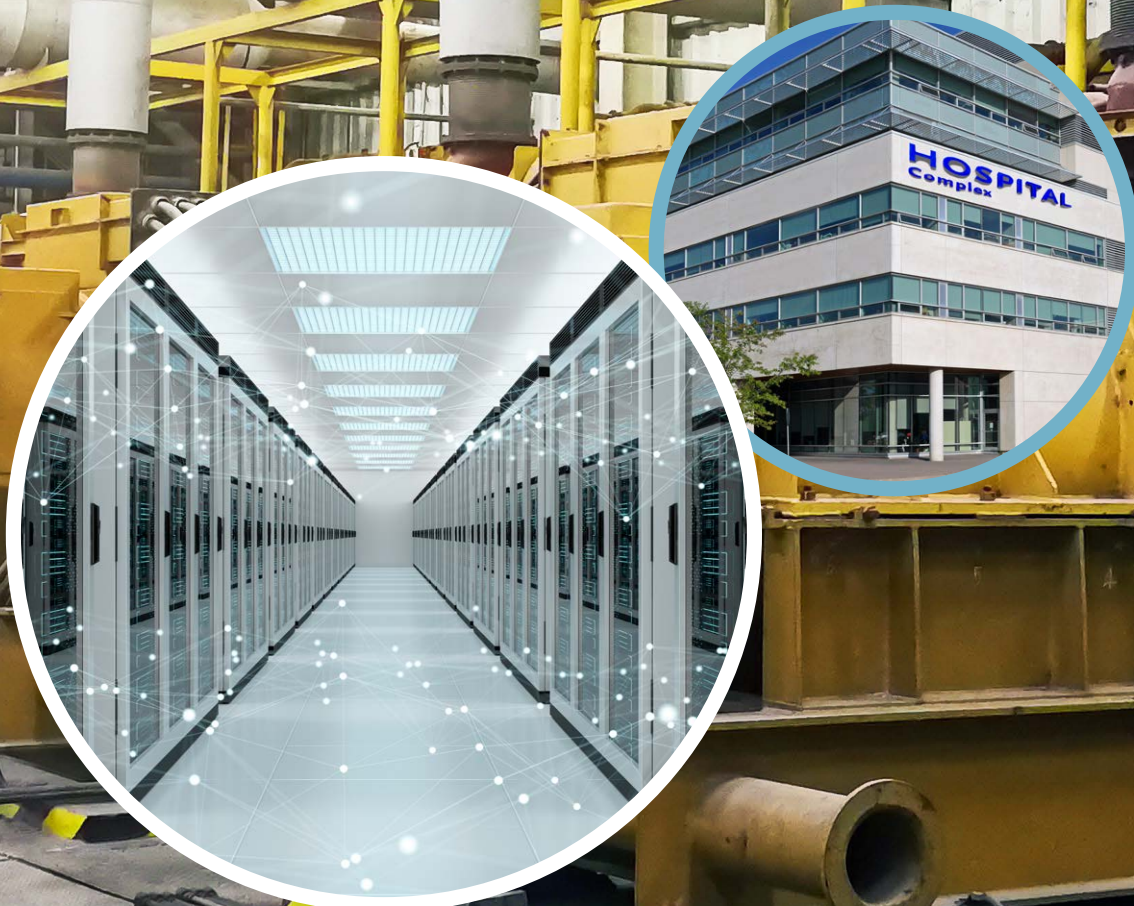


# RAPID DETECTION OF MICROBIAL CONTAMINATION IN FUEL

Backup Power Generation





## Backup Power Generation Microbial Fuel Contamination

- Does your fuel contain dangerous levels of contamination?
- FUELSTAT® can quickly help you find out!

The performance of vital backup power generation assets can only be determined when they are required most, in times of main power supply failure. As such it is highly important that the fuel supplying such important equipment is maintained to the highest quality.

One of the biggest risks to diesel fuel is contamination from microbiological growth. There are certain species of micro-organisms that are robust enough to survive in diesel fuel and their life is sustained by even the smallest amount of water. Water gets into fuel mainly from condensation, even in well maintained tanks, from temperature fluctuations night to day, hot to cold etc.



### FUELSTAT® Instant Results for Microbial Contamination in Diesel Without Delays. Make Informed Decisions on the Spot

The introduction of FAME (Fatty Acid Methyl Ester), or otherwise referred to as bio-content, to modern diesel has been referred to in standards from many countries such as British Standard (BS 5410-3:2016) as having an adverse effect on the quality and life expectancy of fuel and as such makes recommendations regarding the testing of fuel servicing critical,

backup power generators. Whilst it indicates that equipment with permanent fuel polishing equipment attached should be tested every six months it recommends that those without such equipment should be tested quarterly. **Can you really afford to take the risk of a backup power failure?**

Diesel “bug” microbial contamination creates a slime called a biofilm or biomass that can induce several issues. If left for a prolonged period of time without treatment, it can cause:

- Blocked filters
- Increased injector wear
- Increased fuel consumption
- Engine failures
- Fuel starvation

#### Is sending samples to a lab for microbial fuel tests worthwhile or economical?

Traditionally, diesel fuel testing methods have depended on fuel samples being sent to a specialist laboratory for analysis. The next step is a waiting period of up to 10 days to get the results.

Sending the fuel samples to the lab isn't simple. ASTM D6469 highlights that if a sample is to be tested for microbial contamination and cannot be tested on-site, it should be transported on ice and tested within 24hrs or the sample may no longer be a true representation of the environment from which it came. FUELSTAT® testing is done right at the tank, so informed decisions can be made almost instantly in one visit.

Why take the risk?...  
**FUELSTAT® solution**  
**Test. Result. Report**  
within 15 minutes



# FUELSTAT®

## FUELSTAT® Plus

- Ultra simple test that requires **4 drops** of sample
- **15 minutes** to result as opposed to 4-7 days!

FUELSTAT® is based on immunoassay technology, which is widely used in the medical industry to rapidly and accurately detect such things as pregnancy, prostate cancer and hypoglycaemia. Put simply FUELSTAT® only searches for the specific micro-organisms that are known to thrive and do damage in diesel and jet fuel.

FUELSTAT® is simple to use and learn with little that can go wrong on-site, simply add the sample to the bottle provided with the test kit, shake it, place 4 drops onto a piece of tissue to remove any fuel or particles trapped in the nozzle before adding 4 drops to each of the sample wells on the test paddle and wait 10 minutes for the results to appear. FUELSTAT® requires little instruction and little in way of rigid sterility controls except for a clean sampling jar. The components of the test kit are also recyclable; however, the fuel sample must be disposed of as per each individual organisation's own protocol.



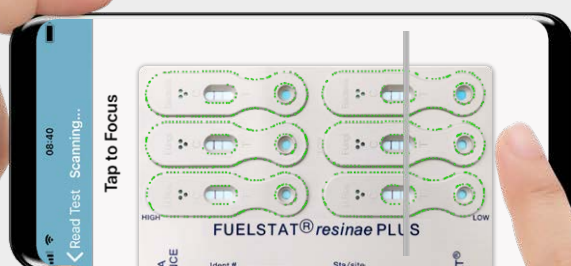
## FUELSTAT® Result

- Reduces risk of misinterpretation
- Immediate visual verification of result
- No need for additional equipment other than a smartphone
- Fully detailed report can be instantly produced in PDF format

If you want instant verification of the result which can be sent to or received by Headquarters within minutes, then the free to download app, FUELSTAT® Result, will tell you in seconds on your smartphone device.

FUELSTAT® Result will also enable a fully transparent and traceable audit trail to track trends and hotspots, but also provide accurate information to enable effective and more cost-efficient maintenance programs to be undertaken. It may also assist in identifying assets which are more susceptible to microbial contamination, thus aiding increased risk management, provide greater warranty protection against fuel related issues and more importantly reduce potential downtime of assets

Over 100,000 FUELSTAT® tests are used every year all over the globe in many highly regulated industries to monitor microbial contamination in middle distillate fuels. It is compliant with the ASTM D8070 International Standard and is used by organisations the world over from airlines to major fuel operators, from militaries to data centres to keep assets protected.



FUELSTAT® ANALYSIS REPORT		
Company name: Standard Address Inputted From Portal/Registered User: Engineers Name		
Address: Input from Portal/Registered Address		
Post code: From Portal	Test date: 24-JAN-2019	
Country: United Kingdom	GPS location:	
Customer reference: 124 - Portal Template	Fuelstat result number: 3,361	
	Printout date: 24-JAN-2019	
Identity: Example Test		
Asset: Jet 1	Bacteria: Negligible	
Tank: Wing	Fungi: Heavy	
Fuel lot: 4	Hormoconis resiniae: Negligible	
Fuelstat test lot: HR 2 411	Overall result: Heavy	
	Test method: ASTM D8070-16	
Documents		
Annual Maintenance Check		
Data interpretation and guidance		
Level	Phase	Target antigen limits
Low	Fuel	Up to 350 µg/L
Low	Water	Up to 33 µg/L
Medium	Fuel	Between 350-750 µg/L
Medium	Water	Between 33-166 µg/L
High	Fuel	Greater than 750 µg/L
High	Water	Greater than 166 µg/L
Apple		Portal version: 1.2.2
Phone 6s		Analysis approved by:
designed for use with tests which are fully compliant with ASTM D8070-16		
FUELSTAT® Result is currently outside the scope of ASTM D8070-16		
Test results as per ASTM D8070-16		
Dependent on the accuracy of the sample provided.		
Conidia Bioscience Ltd. website www.conidia.com		
Line: +44 (0)1483 828102		
Business Centre, Northbarrow Road, Cosham, Portsmouth, PO6 3TG, United Kingdom		
Number: 760 2156 55   www.conidia.com		

find out more:  
[www.conidia.com](http://www.conidia.com)



## FUELSTAT®

### Who we are:

FUELSTAT® fuel tests are developed, manufactured and marketed by Conidia Bioscience Limited. Based in UK, Conidia Bioscience Limited was founded in early 2000's by experts in immunoassay techniques and holds the internationally patented intellectual property for FUELSTAT®.

### Where to find us:

FUELSTAT is distributed globally by a network of specialist distributors covering the major sectors. Contact [info@conidia.com](mailto:info@conidia.com) who will arrange for a distributor to support you.



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