

Case Study: Diesel Fuel Filtration July 2013

Weatherford Colombia Ltd. Gachanzipa D.C. Colombia

APPLICATION: Diesel Fuel Filtration

PROBLEM: Weatherford Colombia was finding a high level of ferrous contamination in the diesel fuel down to sub-micron in size. This contamination was prematurely wearing their fuel system components, reducing burn efficiency and increasing emissions. The source of this contamination comes from the corrosion and erosion of the pipelines carrying diesel fuel to the end user.

SOLUTION: Luis Bonilla of Filter Master Colombia suggested installing an OEI magnetic scrubber in two locations (before and after existing filtration) as a test to determine the efficiency of the traditional filtration.

RESULTS: Two consecutive filtration tests were conducted by installing the magnetic scrubber before (Test 1, Photo A) and after the conventional filters (Test 2, Photo B). In Test 1 the magnetic scrubber removed a large amount of contamination from the fuel down to sub-micron in size (Photo C). In Test 2 the magnetic filter again removed a similar amount of contamination from the fuel. This clearly identifies the inefficiency of traditional filtration to remove the most damaging contamination (Photo D).

This metal contamination cuts holes in the traditional filtration media (known as worm holing) causing channeling of the fuel. This increases the wear rate of injection fuel systems and may generate particulate matter emissions PM10 & PM2.5.

RECOMMENDATION: The OEI magnetic scrubber ensures a better burning fuel, reduces equipment maintenance cost, and increases the life of the fuel system components. For more information, contact our office at 403-242-4221 or visit our website at www.oneeyeindustries.com



Photo A



Photo B



Photo C- Before traditional filtration

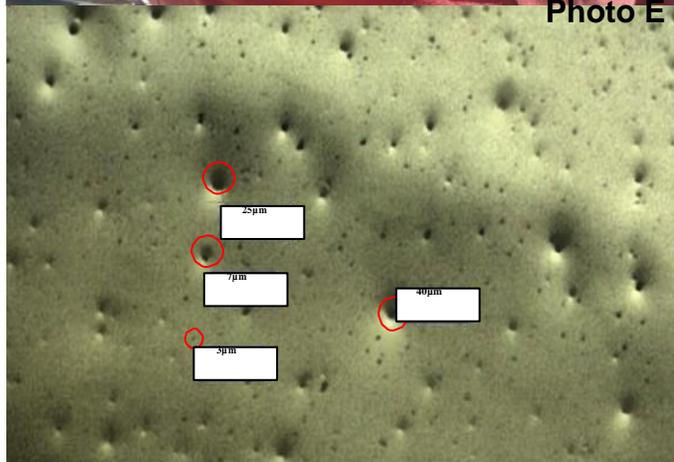


Photo D- After traditional filtration

Photo E

