

# **Fuel Water Separation - Droplet Size Analysis and Performance Evaluation**

**By**

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## **Abstract**

Water removal poses a significant challenge in light of modern ultralow sulfur diesel fuels and high pressure common rail fuel systems. How well do existing industry standard fuel water separation tests reflect these conditions? Are the results meaningful when the tests were developed based on antiquated fuel systems and fuels no longer in use? This paper seeks to address these questions by analyzing the size and concentrations of water droplets, both on a vehicle with modern HPCR fuel system and under laboratory conditions of standard laboratory fuel water separation tests. Additionally, a comparison between actual FWS field performance and that predicted by SAE J1488 is discussed.