Caterpillar Dyed Fuel Update

3406E tested with 30 ppm dyed¹ and un-dyed fuel showed:

- 9% increase in EPA C1 cycle particulates
- 2% increase in NOx+HC on EPA C1 test cycle
- No difference on EPA Transient smoke
- Piston deposit measurements not recorded but expect that deposits would increase.

1 (Unisol Liquid Red B-50 Dye)

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Caterpillar uses NON-DYED/CLEAR diesel fuel for use in testing because:

- Commercial grade fuels differ in quality and specifications.
- Uniformly calibrate test equipment to assure accurate, repeatable data results and performance analysis.
- Permits efficient storage and handling of the fuel for multiple testing programs.
- The potential long-term detrimental effects on oil and engine life is unknown and requires a significant amount of time and resources to quantify.
- Today, federal law requires the use of a clear, low-sulfur fuel in all heavy duty on-highway applications to assure compliance with emissions standards. 1998 -4 million gallons of diesel fuel costing approximately \$x million.
- Caterpillar receives a rebate for the taxes paid on this fuel.

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Test Labs and the TMC should use a similar approach to Caterpillar and continue to use undyed fuel and address refunds on fuel which is allowed in other states (eg Illinois).