

Lincoln County Fire District

Eric Holt District Chief

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Lincoln County Fire District Reference Letter – Ferox Fleet Demonstration

To Whom It May Concern:

The Lincoln County Fire District participated in a real-world evaluation of the Ferox combustion catalyst to assess its impact on fuel efficiency and fleet performance under normal operating conditions.

The demonstration included five frontline diesel trucks operating in regular county service. Vehicle performance during the February–March 2026 baseline period was compared with performance following the introduction of Ferox in April 2026. The evaluation utilized operational telematics, fuel consumption records, accumulated mileage, and time-series analysis. Fuel consumption was normalized by distance traveled, operating time, and vehicle speed to ensure comparisons were made under equivalent operating conditions rather than total fuel usage alone.

An important aspect of the study was that the vehicles maintained essentially the same duty cycles and operating profiles throughout the evaluation. Time spent within each operating speed range remained consistent, allowing the analysis to isolate changes in fuel consumption under identical operating conditions. The results demonstrated lower fuel consumption across every operating speed band, indicating improved combustion efficiency rather than changes in driver behavior, routing, or workload.

Across all five trucks, average fuel efficiency improved by approximately **8.14%**, with individual vehicle improvements ranging from **5.9% to 10.5%**. The largest reductions in fuel consumption occurred during steady-state operation between **35 and 55 mph**, where fuel-rate reductions ranged from approximately **7% to 13.5%**. Similar improvements were observed during lower-speed and transient operating conditions, demonstrating consistent performance across the vehicles' operating envelope.

The statistical analysis produced a high level of confidence, with most primary operating speed bands yielding **p-values below 0.01**, including several as low as **0.0003**. The

consistent results across five independent vehicles using the same analytical methodology provide strong evidence that the observed improvements are repeatable and not attributable to normal operational variation.

Based on our operational experience and the supporting analysis, the Ferox demonstration produced measurable improvements in fleet fuel efficiency while maintaining normal vehicle operation. The results also indicate corresponding reductions in fuel consumption, operating costs, and diesel emissions, providing a practical and data-driven approach to improving fleet efficiency.

We appreciate the opportunity to participate in this evaluation and believe these findings demonstrate the value of objective, operationally based validation when assessing technologies intended to improve fleet performance.

Sincerely,

Eric Holt
District Chief
Lincoln County Fire Protection District

A handwritten signature in blue ink, appearing to be "EH", enclosed within a large, stylized oval loop.