



**TRINITY**

OIL, FUEL, AND WATER SOLUTIONS

# Trinity RSS

Class 6 Truck Case Study

# Who is Trinity?



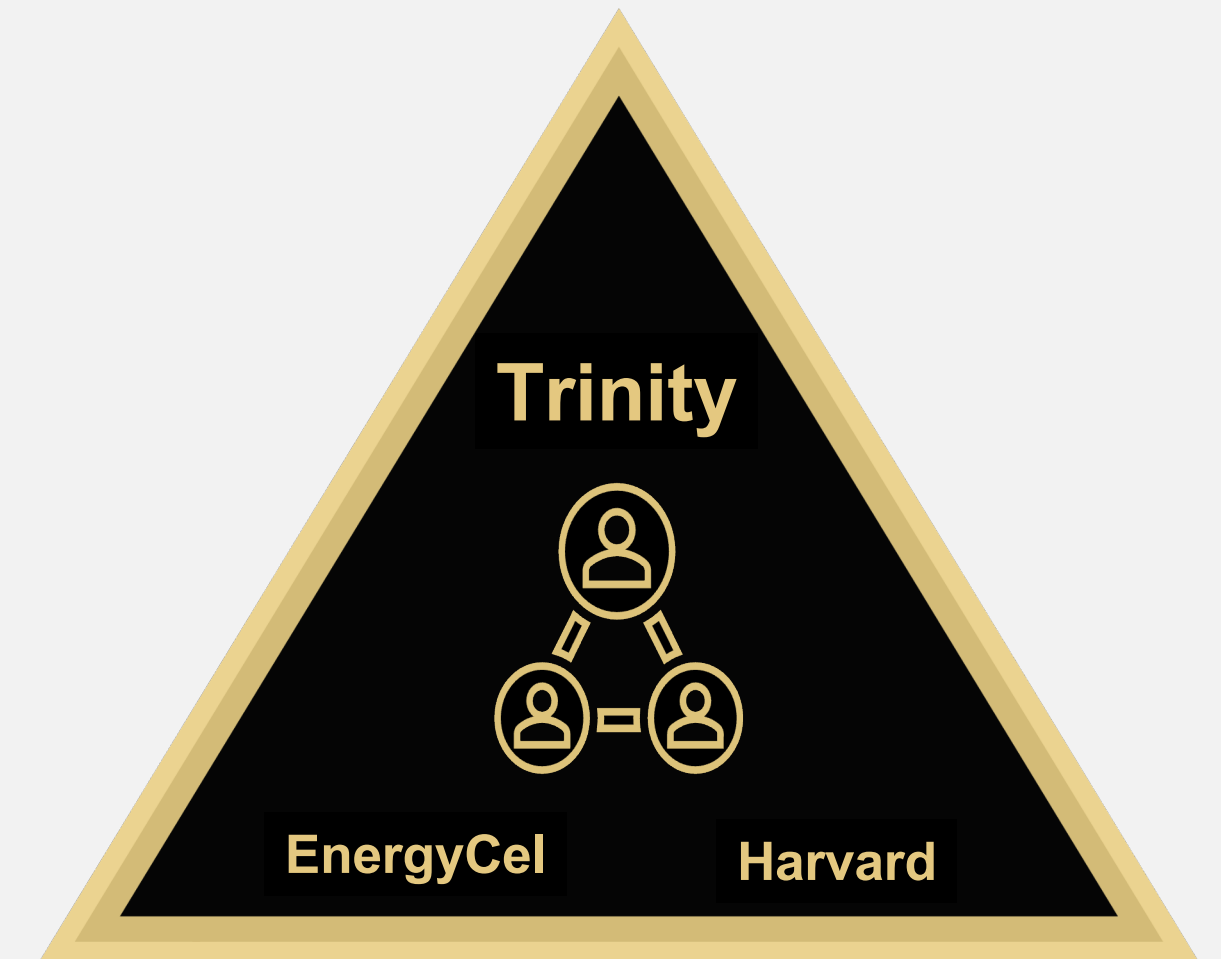
Harvard, Inc.  $\oplus$  EnergyCel LLC

**1st Generation**  
Filters and conditioners  
30+ years of experience  
Over 1,000,000 filters  
500,000 fuel conditioners  
Global application



**Trinity Refining & Safety Systems**

**2nd Generation**  
Magnetically enhanced filter  
Increase the filter's functional life by 67%  
Combine fuel conditioning and filtering  
Industry unique combination  
Enhanced performance



Exclusive Licensing Agreement

Owner partners  
30+ years of experience  
Over 1,000,000 filters  
500,000 fuel conditioners  
Across multiple industries  
Global reach



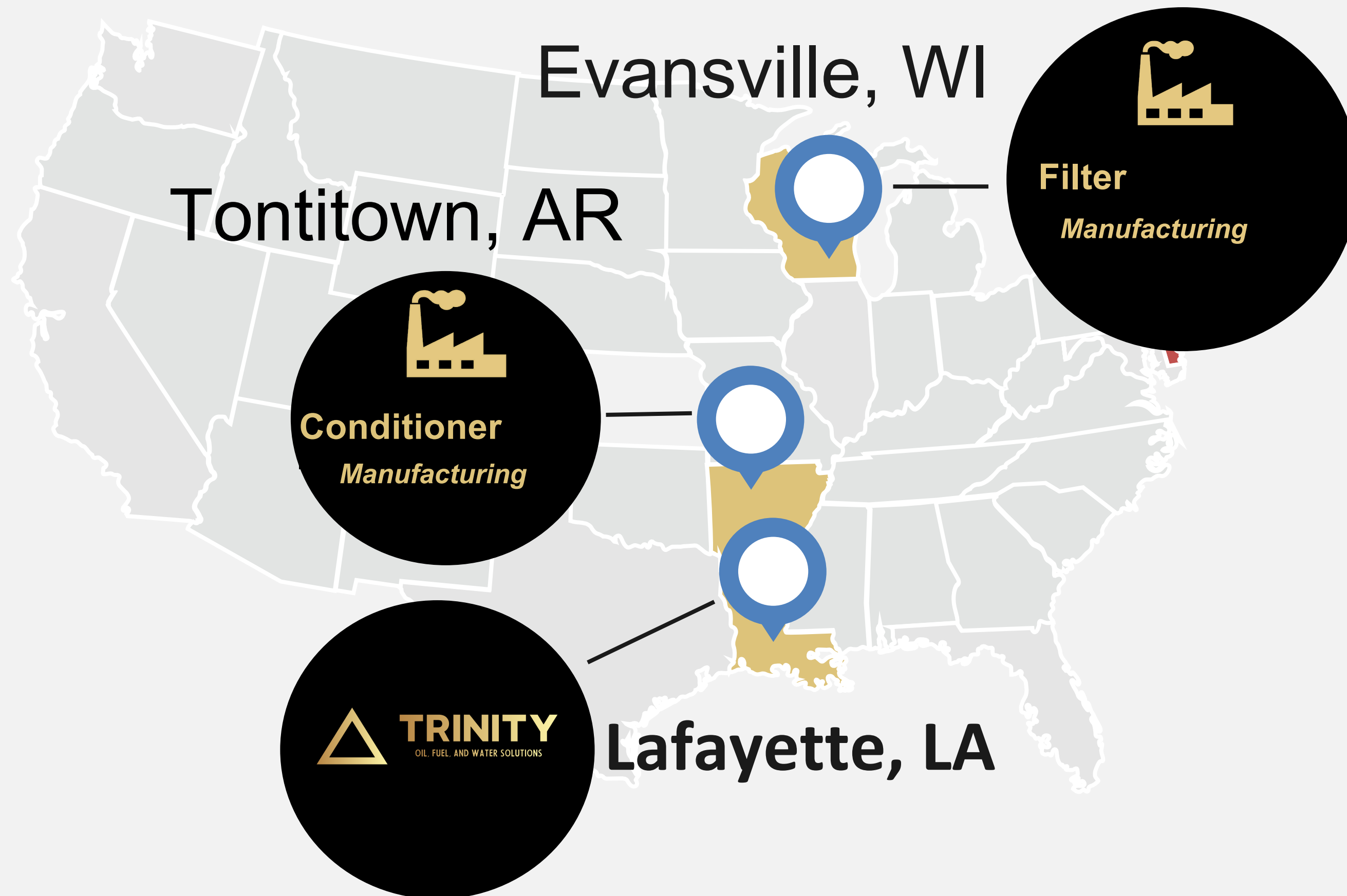
## Capability Statement

Trinity RSS specializes in oil and fuel filtering and conditioning for consumer, commercial, and industrial equipment.

## Value Proposition

Reduce operating costs by extending equipment lubricant and fluid life, generating cleaner and more efficient fuels while reducing maintenance downtime and repairs and extending the life of the equipment.

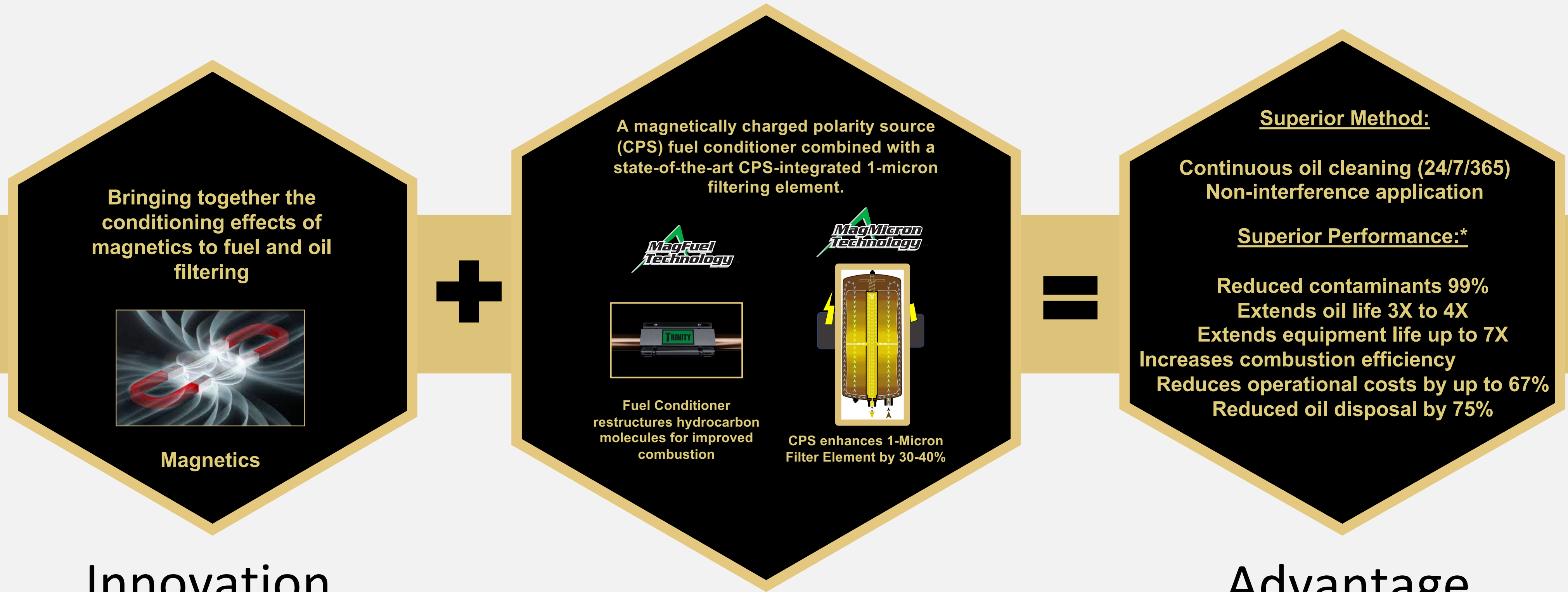
“A hydrocarbon bridge to alternative energy solutions”



Trinity RSS HQs and Manufacturing Locations

# The Trinity RSS System

*“A Unique and Innovative Solution to Oil and Fuel Conditioning and Filtering”*

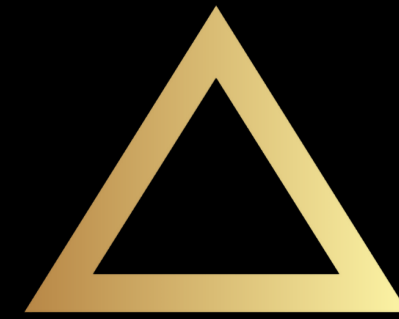


Innovation

Technology

Advantage

\* Based on landfill generator engine case studies



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# Class 6 Vehicle Test Results

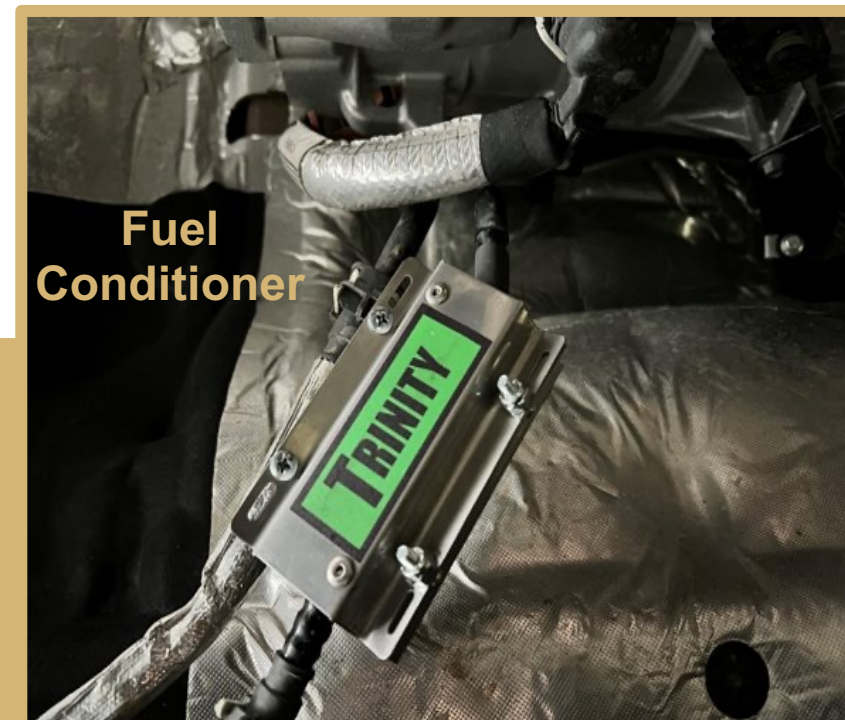


**Products**  
Bypass filter system  
Fuel conditioner



**Vehicles**  
F450/550  
Dodge 4500  
International MV670

**Lubricants**  
Oil  
Transmission Fluid



Independent third-party lab  
Predictive Maintenance Services, Inc.



**Fuels**  
Diesel  
Gasoline

**Parameters**  
Average of 10,000 miles/mo  
Oil Samples at 7500 miles  
14-week Trial

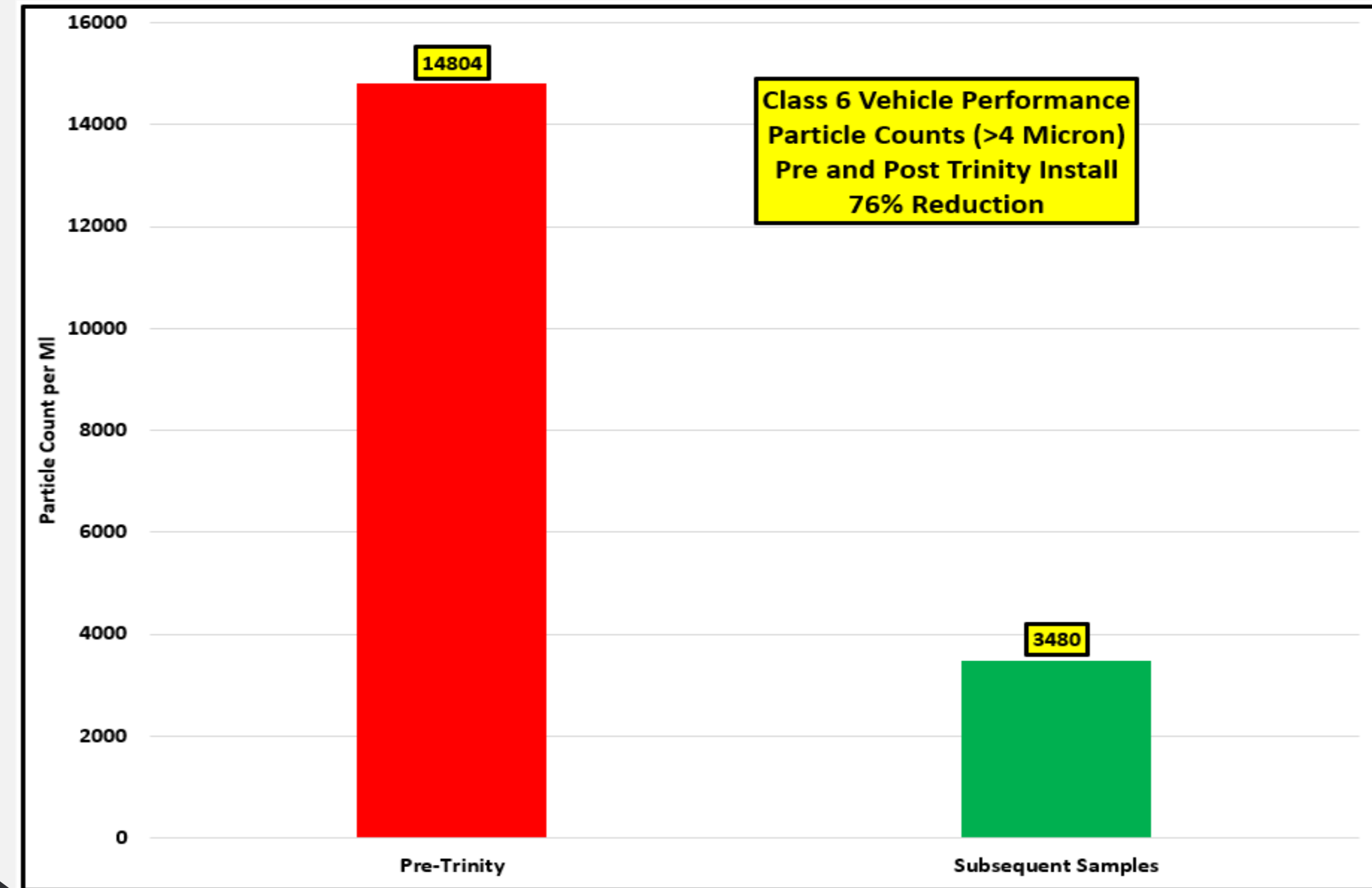
# Test Conditions and Environment





# Oil Results

- ▶ Extended oil service interval 3X-4X (>25,000 miles)
- ▶ 76% Reduction in Particles
- ▶ 35% reduction in wear metals (DL/DS)
- ▶ 29% reduction in water (Ave of 323 ppm)
- ▶ Maintained acids <3.5 mg KOH/g
- ▶ Maintained base >2.0 mg KOH/g



# Value Proposition

**Average  
Improvement at  
25,000 miles**

**Particle count (77%)  
Water content (28%)  
Wear particle content (26%)**

**Holds Acid Number <3.5 mg KOH/g  
Holds water below 400 PPM  
Particle count is better than new oil up  
Wear metal counts better than new oil**

\* Based on in-progress case studies with ten class 6 vehicles, F450/550 and International MV670 Cummins with an average of 10,000 monthly mileage. The test is six weeks in progress. Combustion efficiency based on European standards. Doubling the oil life from 7500 to 15,000 miles (early results). Per ECOM J2KN Emissions testing data. Extended engine life based on Noria Corp Equipment life extension tables.

\*\* Combustion efficiency is "how well the fuel being burned is utilized in the combustion process.."



# Transmission Results

- ▶ Extended transmission service interval 3X
- ▶ 86% Reduction in Particles
- ▶ 63% reduction in wear metals (DL/DS)
- ▶ 27% reduction in water (Ave of 142 ppm)
- ▶ Maintained acids <2.0 mg KOH/g



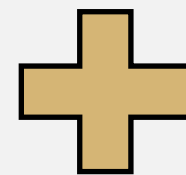
# Value Proposition

Performance  
Value\*

Lower operational costs by 22%  
Extended oil service intervals b 3X  
Reduce disposal by 67%  
Increase combustion efficiency by 5%\*\*  
Extend equipment life and overhauls by 2X\*  
Improved mileage by 28%\*\*

Cost  
Value\*

**Oil**  
Save \$4300 per truck per yr.  
Save \$65,000 per 15-vehicle fleet\*\*\*



**Fuel**  
Save \$9000 per truck per yr.  
Save \$135,000 for a 15-vehicle fleet.



**Total Savings**  
\$200,000/Year

**Transmission**

TBD due to extended drain intervals and timeline

\* Based on in-progress case studies with ten class 6 vehicles, F450/550 and International MV670 Cummins with an average of 10,000 monthly mileage. The test is six weeks in progress. Combustion efficiency based on European standards. Tripling the oil life from 7500 to 25,000 miles (early results). Per ECOM J2KN Emissions testing data. Extended engine life based on Noria Corp Equipment life extension tables.

\*\* ECOM J2KN Emissions tester. Combustion efficiency is "how well the fuel being burned is utilized in combustion. Mileage based on OD2B sensors

\*\*\* Assuming downtime of \$107/hr, labor, and materials.

# Value Proposition

**Green  
Value**  
(Fossil Fuels)

## Fuel Saved per Year\*

Save 2656 gallons of fuel per truck  
Save 39,840 gallons of fuel per 15-truck per fleet

## Oil Saved per Year\*

Save 40 gallons or .95 barrels of oil per truck.  
Save 600 gallons or 14 barrels of oil per 15-Truck fleet.

## Combustion\*\*

Improve combustion efficiency by 5%

\* Based on in-progress case studies with ten class 6 vehicles, F450/550 and International MV670 Cummins with an average of 10,000 monthly mileage. The test is six weeks in progress. Combustion efficiency based on European standards. Doubling the oil life from 7500 to 15,000 miles (early results). Per ECOM J2KN Emissions testing data. Extended engine life based on Noria Corp Equipment life extension tables.

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# Value Proposition

**Green  
Value**

(Green House Gases)

## CO2 Saved per Year\*

### Fuel\*\*

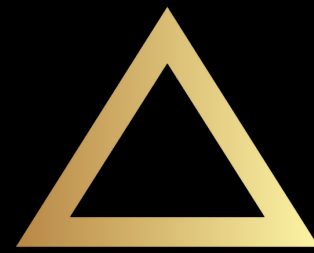
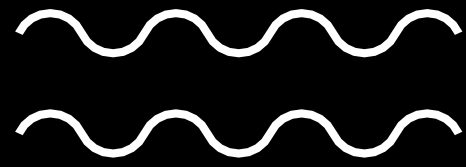
**Saved 58K lbs or 26 metric tons per truck**  
**Save 876K lbs or 397 metric tons per 15-truck per fleet**

### Oil\*\*

**Saved 901 lbs of CO2 per truck per yr.**  
**Save 13.5K lbs or 6 metric tons per 15-Truck fleet.**

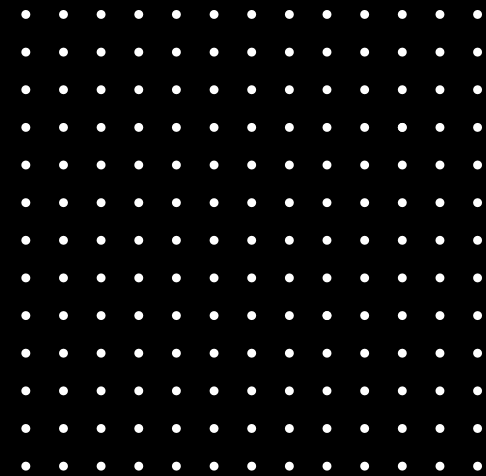
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\*\* Based on EPA **Greenhouse Gases Equivalencies Calculator**



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# DISCUSSION

**Trinity Refining & Safety Systems**

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**<https://www.trinityrss.com/>**