

AMPOL AMPLIFY DIESEL HD

How we helped a large hard rock quarry operator reduce fuel use by 8%



Post-pandemic supply chains, building material shortages and ambitious corporate sustainability targets put pressure on operational efficiency across diverse fleets.

See how a trial across six different vehicles at a hard rock quarry in NSW found Ampol's Amplify Diesel HD is a smart choice for increased fuel efficiency and reduced CO₂ emissions.

The Mission

Hard rock quarries operate a diverse fleet of mobile equipment including excavators, dump trucks and water tankers. Quarries may be located near built-up areas and operate under strict environmental controls.

Protect injectors for optimum performance
The heavy-duty diesel engines of the quarry site vehicles are designed to use less fuel, to reduce operating costs and emissions. While fleet maintenance in optimum condition cuts costs and downtime, these HD engines are still sensitive to deposits

forming in or on fuel injectors. Left unchecked, these injector deposits affect fuel flow into the combustion chamber. This results in increased noise, rough running, power loss or a HD engine that won't start. Other impacts can include oil dilution, EGR line fouling, increased emissions, and reduced efficiency of CO₂ emission control systems.

Why injectors?

The Worldwide Fuel Charter¹ confirms that the cleanliness of injectors is key to the performance of modern engines across power, fuel consumption and emissions. Amplify Diesel HD is designed to clean and protect engines. It uses a powerful deposit control additive to attack deposits that form on the tip and internal moving parts of fuel injectors.

Our mission? To conduct a trial to measure the effect of Amplify Diesel HD on fuel consumption compared to regular diesel.

¹ 2019, Worldwide Fuel Charter Gasoline and Diesel Fuel 6th Edition, WWFC Committee

The Action

The vehicles

Six different specification vehicles to broadly represent the total fleet. The vehicles were monitored for five weeks using regular diesel to create a baseline.

The trial

The test vehicles were switched to Ampol Amplify Diesel HD for five weeks.

To maintain consistency during the trial, the vehicles were only refuelled using the site bulk fuel tanks. They kept the same drivers and covered similar mileage under similar load conditions. The customer collected the fuel use data and sent it to Ampol for analysis.

The trial was extended for five weeks after the customer noted fuel efficiency benefits.

The Result



After ten weeks of using Ampol Amplify Diesel HD, the customer noted an average fuel consumption **decrease of 8%** (see Appendix 1)



The Bottom Line

Amplify Diesel HD's proven cleaning power helps keep modern HD diesel engines free from deposits impacting fuel injector performance.

- Amplify Diesel HD cleans the fuel system for an improved combustion process
- Improved internal combustion results in reduced fuel consumption
- Clean injectors optimise fuel delivery for efficient combustion and power restoration
- Amplify Diesel HD cleans the fuel injectors and keeps them clean
- Reduced fuel consumption supports reduced CO₂ emission targets

Amplify Diesel HD also contains:

- Corrosion inhibitors to protect the engine from abrasive rust particles
- Foam inhibitors for faster and cleaner refuelling

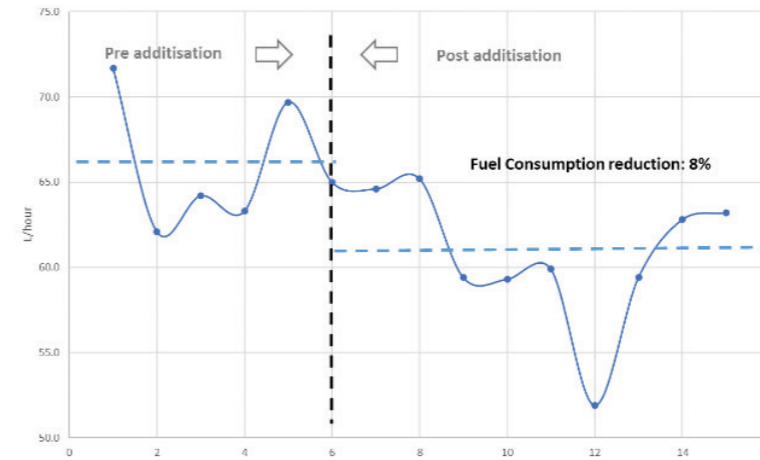
Capturing fuel consumption

Fuel consumption was calculated using the ECU data captured and distributed by the customer.

Note that all the results may vary depending on the engine itself, environmental conditions, and factors like engine load factor and driver behaviour.

Appendix

1. TR08 - Fuel Consumption Reduction



2. Raw Data

EQUIPMENT	BEFORE TRIAL (AVERAGE)	AFTER TRIAL (AVERAGE)	FUEL CONSUMPTION REDUCTION
DT01	42.42	41.39	-2%
LO01	94.16	88.46	-6%
LO07	38.98	33.49	-14%
TR06	61.58	56.78	-8%
TR07	66.98	61.75	-8%
TR08	66.20	61.07	-8%



Ready to reduce fuel consumption?

Ask us about Ampol Amplify HD

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