

Fuel Authentication Solution

Authentication solution combatting commingling achieves a seven percent decrease in failure rate for a major U.S. fuel marketer.

THE CHALLENGE

In the early 2000s, our customer, a major Fortune 20 fuel marketer, acquired the retail operations of another large fuel marketer. This purchase increased our customer's retail operations footprint substantially.

The acquisition added new complexities to the fuel marketer's supply chain, including:

- Adding over 10,000 stations to the retail network
- Consolidating two branded additives to one third-party additive package
- Using more than 100 unmonitored, third-party fuel terminals
- Continued divestiture of company-owned stations to franchise ownership

THE NEED

Consequently, the company became concerned about the integrity of their combined gasoline supply chain, the possibility of commingling, and of fuel terminals running out of gasoline.

The fuel marketer required that any fuel marker selected to combat commingling meet all U.S. E.P.A. standards, as well as more rigorous California E.P.A. Air Resource Board (CARB) standards. This required a marker chemistry that would not harm the environment or cause adverse health effects through combustion and evaporative emissions.

Able to meet all requirements, Authentix has been the fuel authentication solutions partner since 2002 for this company, which today involves nearly 15,000 branded sites in the United States.

RESULTS

- 7% average decrease in failure rate since program inception
- >1500% ROI from program cost to revenue recovered
- Increased consumer brand confidence and competitive advantage

THE SOLUTION

The Authentix fuel authentication solution developed for this large fuel marketer is an advanced solution that includes a fuel marking system consisting of physical markers added to fuel; information systems including proprietary software, data collection, and reporting; and services including:

- Lab testing and sample analysis
- Program management and sampling oversight
- Results analysis and reporting
- Sample collection in the field



The Authentix solution uses a mass differentiated molecular marker with gas chromatography-mass spectrometry (GC-MS) analyzers, considered to be the gold standard for forensic analysis. At the additive facility, the marker is added to the customer's additive package. It is then shipped to over 100 terminal facilities across the country, where it is injected into the base fuel according to prescribed treat rates.

Samples from approximately 400 retail stations are delivered to the Authentix Analytical Laboratory for analysis. Using three Agilent GC-MS analyzers, a sample analysis is conducted for the customer's fuel and additive.

THE OUTCOME

Since developing and implementing the fuel authentication program in 2002, Authentix has marked more than 200 billion gallons of gasoline to all 50 states with outstanding results:

- Decrease of seven percent in failure rate directly attributed to a reduction in the commingling of non-branded gasoline with branded product
- Greater integrity within the complex fuel supply chain
- Increase in consumer brand confidence and competitive advantage across the U.S.

ABOUT

As the authority in authentication solutions, Authentix helps customers thrive in supply and distribution chain complexity. We provide advanced authentication solutions for governments, central banks and commercial products, ensuring local economies grow, banknote security remains intact and commercial products have robust market opportunities. Our partnership approach and proven sector expertise inspires proactive innovation, helping customers mitigate risks to promote revenue growth and gain competitive advantage.

Is your company struggling with fuel commingling? Are you considering implementing a fuel authentication solution?

IF SO, LET US HELP YOU.
Contact us at info@authentix.com