



HUMAN HEALTH

ENVIRONMENTAL HEALTH

## LABWORKS GREENLIMS FOR BIOFUEL PRODUCTION

### Streamlined operations from feed to fuel

#### Problem

##### Ethanol Production

The promotion of ethanol as a viable alternative fuel is dependent on keeping its production low cost, and green. The amount of energy as well as cost associated with feedstock and technique suggest that the ability to record and report what works and what doesn't will help companies find their formula for success.

##### Biodiesel Production

Monitoring the key quality indicators in a blended Biodiesel manufacturing process is critical to producing a consistent quality product. Bad blends or high glycerin content can result in build-up in fuel tanks, clogged fuel systems, injector deposits and filter plugging. This ultimately results in loss of revenue for both the company and the consumer. Superior product quality and efficient manufacturing depends on your laboratory's abilities to handle any number of samples, monitor plant functions, and control the entire laboratory process from start to finish.

#### Approach

Purchase a Laboratory Information Management System (LIMS) and automate the key components of your quality management programs. Use of scheduling software, direct instrument interfacing, automated product evaluation, and integration with other plant systems will streamline operations while establishing the quality profile for your products.

## Recommendations

Select PerkinElmer greenLIMS™ to capture, organize, and monitor both operations and product quality. PerkinElmer greenLIMS enables efficient monitoring and reporting of critical data throughout the distillation or purification process. Its comprehensive functionality ensures effective sample management, tracking and visibility, which lead to better control of product consistency and quality. The greenLIMS bundle delivers the core flexibility and reliability of LABWORKS™ LIMS, with a suite of productivity modules designed to manage work, capture lab data, and generate Certificates of Analysis for product shipment. PerkinElmer greenLIMS provides an affordable but scalable solution that can be implemented quickly, returning immediate productivity benefits.

- Assess the current data systems' capability in terms of connectivity, productivity and quality, using LABWORKS Discovery methodology.
- Partner with PerkinElmer. With over 20 years of experience providing successful LIMS and CDS implementations in process industries, PerkinElmer also has a dedicated team of experts to support the biofuels industry. We help laboratories across the world navigate compliance standards for biofuels, and we provide applications support, training and maintenance management.
- Leverage instrument interfacing technology to automate analytical data capture.
- Provide immediate visual feedback on processes for timely control.

## Results

In-process and finished product testing is quickly evaluated allowing for timely adjustments to processes. By controlling the process, products stay in specification and revenues increase.

- Designed to handle test and evaluation requirements for raw, intermediate, and final product testing without custom code, for faster implementation and lower cost of ownership.
- Laboratory instrument interfacing automates the capture of analytical results, and executes any additional calculations as part of an efficient workflow.
- Automatic transfer of actual analytical results to plant operations as they become available allows adjustments and corrections to take place in near real time.
- Analytical data are also available through slide shows that rotate between control points and show the most recent data in graphical form.
- Site-specific reports and Certificates of Analysis are automatically generated.
- The zero-footprint WebTop interface for greenLIMS provides wireless access to your laboratory and quality information through an internet browser, making it even easier for decision-makers to stay informed.



## Key Benefits of greenLIMS

- Automated Certificate of Analysis (COA) generation.
- Organize work orders for regularly repeated tests.
- Monitor lab performance by tracking all sample status changes.
- Low entry price.
- Fast implementation.
- Expandable to grow with your lab.

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