

Loss Prevention Strategy around LACT Units Saves \$19.7M with Emerson Solution

RESULTS

- Improved measurement accuracy via Coriolis meters reduces lost volume
- Operator gets paid for all he can produce
- Reducing manual intervention cuts OPEX expenses



APPLICATION

Lease Automatic Custody Transfer (LACT) units to improve measurement accuracy of crude oil transfer

CUSTOMER

Major crude oil producer in the Eagle Ford Shale Play of Texas

CHALLENGE

High H²S content and dynamic tank levels made it impossible to follow the API MPMS Chapter 18 standard for the sale of crude oil via manual tank gauging. The operator was forced to rely on third-party drivers – using the float level in a truck tank and manual grind out techniques for Basic Sediment & Water (BS&W) determination. There was an estimated 3 to 7 barrels of volume lost per truck load. In addition, manually entered ticket data was time-consuming and error-prone.

The operator needed to implement a Loss Prevention Strategy around their truck LACT sites in order to minimize the economic impacts of inaccurate measurements and manual effort.

“At \$90/bbl crude 20 Million Dollars in savings was always welcomed. At \$45/bbl crude, even 10 million Dollars per year is a blessing.”

SOLUTION

Each Central Delivery Point was automated with a LACT unit for truck loading based upon a Micro Motion Coriolis meter, a BS&W probe, and Rosemount pressure and temperature instrumentation. A ROC800-Series flow computer using the Tank Manager application software automated all aspects of the LACT unit including the local HMI. Volume accuracy was improved to a hundredth of a barrel.

Using the company SCADA system, data from the ROC800 was routed directly to the production accounting system. The consequent elimination of manual entry of tickets and time reconciling associated errors resulted in hundreds of hours saved per month. At \$90.00 bbl oil, the project savings were expected to be a nominal \$20 million annually.

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