Tank level measurement for oil transfer
XSeries and *X*CORE applications

The measurement of tank levels to determine oil transfer provides two operational benefits from one measurement system.

Measurement made easy

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01 Totalflow applications can be used with etiher a Totalflow XSeries device, or a Totalflow *X*CORE device.

Automation objective

Correct measurement of produced oil is a goal of every production company. Company success can be directly related to the value placed on accurate oil transfer. The measurement of tank levels to determine oil transfer provides two operational benefits from one measurement system: tank level monitoring and accurate fluid measurement.

Automation solution

The Totalflow Oil Transfer Application can be operated in any Totalflow XSeries or *X*CORE product. Level measurement transfer accuracies of +/- 0.1 inch (+/-0.05 inch optional) are made possible when using the Totalflow LevelMaster level sensor. Dual floats measure both the oil and water in a production tank and an integral temperature sensor measures the fluid temperature.

Upon completion of a truck load the Oil Application builds an electronic run ticket by using a strapping table and API VCF temperature correction. Optional inputs of density and BS&W can be utilized by the Oil Transfer Application to provide corrected volume. Production reports, alarms, tank measurement trends and inventory management can be monitored remotely by Totalflow WinCCU software or SCADAvantage™.

Recommended equipment

Qty 1 – XSeries FCU/RTU or *X*CORE RTU with solar panel
Qty 1 – LevelMaster level sensor
Qty 1 – PCCU Laptop communication software

Options – Radio for remote communications; WinCCU remote host software

Solution benefits

Personnel safety
Eliminate climbing on tanks; avoid entering unsafe H2S environments.

Cost reduction
Fewer site trips to monitor liquid production; awareness of theft; more efficient scheduling of truck runs; no two-man gauging at H2S wells; never needs calibration.

Environmental protection
Prevention of tank over runs; instant notification of tank spills; emergency shutdown.

Alarm notification
High/low level and temperature; unauthorized movement; emergency shutdown.

Improved inventory control
+/- 0.1 inch level accuracy; Oil transfer algorithm; Electronic Run Ticket; automated control of pump and valves.

Easy installation
Mount XSeries/*X*CORE; install LevelMaster; connect solar panel; connect wiring to valves.

Simple start-up
Enter initialization requirements with PCCU software or WinCCU software.

Low power electronics
Helps extend battery life, reduces maintenance expense, allows for more run time.

Extendable
Any XSeries/*X*CORE product can also provide flow measurement, alarming, data logging, level measurement, remote communications, and plunger optimization, and nomination control while performing valve control.