

# Large Refinery Saves \$49,200 in Regulatory Compliance Costs with 8714i Meter Verification Diagnostic

## RESULTS

- Reduced maintenance costs
- Improved ease of regulatory compliance
- Reduced spare inventory requirements

## APPLICATION

Well water flows

## CUSTOMER

A large refinery located in the United States

## CHALLENGE

As part of the state Environmental Protection Agency (EPA) requirements, this customer is required to accurately account for the amount of well water they extract from the ground. This is accomplished by using magnetic flowmeter technology to measure and totalize the amount of water consumption from each of their seven water wells. In order to confirm that the meters are measuring accurately, the state EPA requires that the meter calibration be verified on an annual basis. In order to satisfy the EPA requirements, this customer would have to send their meters to a flow lab each year to ensure that the calibration had not changed, thus verifying the usage being reported to the state was accurate. This required two Instrument Technicians to remove each meter and ship it to a flow lab for calibration, which increased maintenance costs. A spare meter was required to be installed while the flowmeter was being calibrated in the flow lab. Since some of the wells were the same size, a total of four spare meters were used on a rotating basis, which increased inventory costs.

## SOLUTION

In order to reduce the costs associated with meter verification, it was recommended that this customer use Rosemount E-Series magnetic flowmeters with 8714i in-situ meter verification diagnostic capabilities. The 8714i meter verification diagnostic performed a full meter verification of the sensor by taking a baseline signature of the sensor when it was first installed. Running the 8714i meter verification compared the original signature to the current measurements. Since the values were within the user set parameters, the flowmeter was within specification. The 8714i meter verification diagnostic ran in minutes, without the need to remove the flowmeter from the line.



*By using 8714i meter verification diagnostics, this customer satisfied their state EPA meter verification requirements without having to remove the flowmeter from the line or maintain any spare meters.*



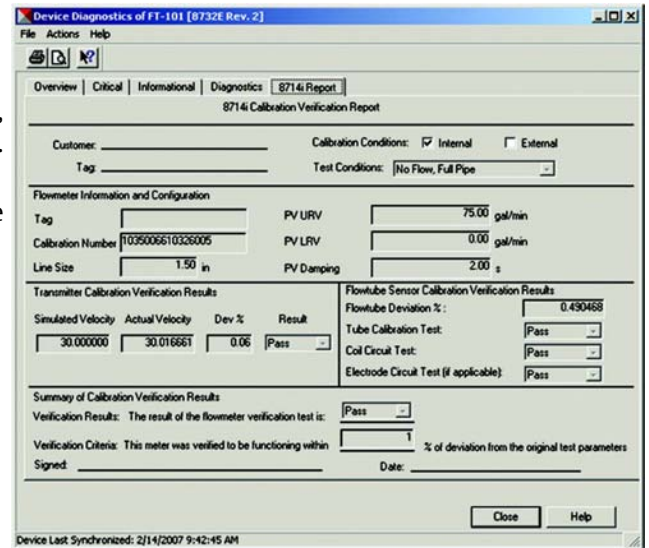
*The Rosemount E-Series Flowmeter*

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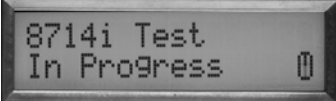
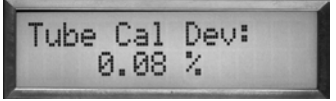
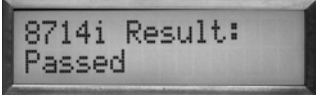
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Process Management

By using 8714i meter verification diagnostics, this customer satisfied their state EPA meter verification requirements without having to remove the flowmeter from the line or maintain any spare meters. By not having to send the meters out for calibration, the customer eliminated flow lab costs, maintenance costs, and shipping costs, resulting in a \$49,200 cost savings. A meter verification report can be printed from AMS® Suite: Intelligent Device Manager. Alternatively, the calibration values can be taken from the local operator interface or field communicator and written into the report by hand. The report can then be submitted to any regulatory agency to certify that the meter calibration has not changed, satisfying verification requirements.



8714i meter verification report in AMS Device Manager

 <p>8714i Calibration Verification checks transmitter and flowtube sensor characteristics.</p>	 <p>Deviation from baseline values are reported.</p>	 <p>Meter Calibration is verified.</p>
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**RESOURCES**

**Rosemount 8732E Transmitter**

<http://www.emersonprocess.com/rosemount/products/flow/m8732e.html>

**Rosemount 8732E Product Data Sheet**

<http://www.emersonprocess.com/rosemount/document/pds/8700.pdf>

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