

# Oil and Gas Producer Improves Spill Prevention Program and Reduces Field Operating Costs

## RESULTS

- Lowered field operating costs for production tank measurement
- Decreased risk of environmental spills
- Diminished health and safety risks to operators



## APPLICATION

Production tanks at new or existing oil and gas producing wellsites

## CUSTOMER

Leading independent oil and gas producer

## CHALLENGE

A leading oil and gas producer has over 5,500 producing wells in the U.S. Rocky Mountain region, with a majority of the wells having production tanks that temporarily hold produced water and condensate. These wellsites are located where the temperature can fall to -40° F (-40° C) and mechanical measurements could create enormous maintenance costs from sticking.

The spill prevention program required routine hand-dip measurements by field operators. The customer believed that there was no technology on the market that could provide a reliable measurement with little maintenance. Routine wellsite visits to hand measure the level in the production tanks were increasing Health, Safety, and Environment (HSE) risks and operating costs because each wellsite required the field operator to drive to the wellsite and climb on top of the tank. These two dangerous tasks, combined with not knowing the tank level, increased the risk of an environmental spill and made HSE risks intolerable. Additionally, operating costs have risen more than 100% over the last four years for this oil and gas producer, with rising labor rates and fuel costs as major contributors.

## SOLUTION

The Rosemount 3300 Guided Wave Radar was easy to install and provided a reliable method to prevent spills by monitoring the tank levels remotely. This eliminated the routine hand-dipped measurements on production tanks.

By using the Modbus communication available with the Rosemount 3300, the customer was able to adapt to existing SCADA communication protocol as well as reduce wiring on the wellsite with multi-dropping measurements. The tank level data, from up to four tanks, is then transmitted to a local RTU using short range radios. By using the low power

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**SOLUTION (CONTINUED)**

Modbus radar gauges and the short range radios, the customer eliminated trenching from the tank batteries to the RTU. This resulted in a large reduction in installation costs and the elimination of the work normally associated with obtaining certain permits required by the U.S. Bureau of Land Management and local governments. The rugged and virtually maintenance-free design of the Rosemount 3300 fit perfectly into their spill prevention program by providing a dependable level measurement with  $\pm 0.2$  in. accuracy.

By monitoring the production tank levels with the Rosemount 3300, they were able to reduce the HSE risks and operating costs. The customer's field office had around-the-clock visibility of every tank level which strengthened their spill prevention program and decreased significantly the risk of environmental spills. Operators no longer had to drive to the wellsites and enter hazardous areas, thereby reducing safety risks, in addition to labor and fuel costs.

**RESOURCES**

Rosemount 3300

<http://www.emersonprocess.com/rosemount/products/level/m3300b.html>.

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