

Micro Motion® Coriolis Meters Reduce Salt Water Disposal Operation Costs by 50%

BENEFITS

- Monthly operating costs (\$80,000) were reduced by 50%
- Ensured compliance with internal and government regulations
- Less than one year payback



APPLICATION

Upstream Production – Water Treatment – Salt Water Disposal

Produced water from different well pad collection sites was being collected and transported by trucks to an offloading Salt Water Disposal (SWD) facility. The collected fluids were then disposed of through injection into an underground storage facility.

CHALLENGE

The fluids received from the oil wells may contain a variety of contaminants, such as condensate, drilling fluids and compressor lube oil, which cannot be injected into the disposal system.

To meet regulatory compliance for disposal, all fluids must be manually separated and appropriately processed prior to disposal of the salt water. Both internal company and Department of Transportation (DOT) regulations restrict the transport of any fluid other than water to the offloading facility, so ensuring compliance with the regulations was difficult to achieve.

The variety of fluids received were also damaging filters and equipment at the SWD facility.

SOLUTION

Motion Coriolis meters were installed at the SWD facility to provide volume measurement of the liquids received. The multivariable outputs (mass, volume, density and temperature) from the meters contributed to a more accurate volume balancing of the fluids, which led to reduced operating costs. By continuously monitoring the

www.micromotion.com



Well pad collection site



Transport truck



For more information:
www.EmersonProcess.com/solutions/oilgas
www.micromotion.com



density of fluids that were offloaded from each truck, it was now possible to automatically terminate the offloading if any contaminants were detected in the water.

Stopping the offloading helped to reduce operation costs associated with processing undesirable fluids and damage to filters and equipment at the SWD facility. Non-water liquids were now processed at the point of origin.

The continuous monitoring of fluid density eliminated the need to obtain manual samples to check fluid quality and the costs associated with lab analysis. This also provided a record of fluid quality offloaded to ensure company and DOT safety compliance.



SWD offloading site