

Oil Producer Reduces Production Loss with Smart Wireless Technology

RESULTS

- Reduced production loss through increased visibility of well production
- Reduced operations and maintenance costs
- Decreased health, safety, and environmental risks



Smart Wireless allowed this customer to be more proactive in production management and decrease production loss.

APPLICATION

Gross oil production flow monitoring

CUSTOMER

Independent oil and gas producer

CHALLENGE

Being able to measure the gross oil production at a site is extremely important to understanding the performance of a given well. This customer used portable meter skids to measure well performance on a monthly or semi-annual basis. When the skid was not on-site, the last tested measurement was assumed until the portable meter skid returned to the site. Because the flow measurement was assumed, the company was guessing that the well was performing at the same level during the duration the skid was not on location.

Other than the routine portable skid measurement, no measurement was made at these sites because of the costs associated with installing measurement points. Labor and infrastructure costs including RTU's, cabling, batteries, and radios made it cost prohibitive to replace the portable skids system.

By not having measurement on the well site, this company could not quickly identify where production problems were arising. This resulted in reactive operations, lower well production, and increased safety risks.

SOLUTION

The customer installed a Smart Wireless self-organizing network from Emerson Process Management. The Rosemount 3051S Wireless Pressure Transmitter and Rosemount 648 Wireless Temperature Transmitter were installed for gross oil monitoring. Smart Wireless allowed the client to keep track of individual well production at all times.

The self-organizing network provided greater than 99% data reliability so that well problems could be identified near real-time. Extended range communication of up to a half mile provided a stronger network with many devices communicating into a gateway from multiple wells.



The Rosemount 3051S Wireless Pressure Transmitter Installed

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Process Management

Communication reliability is only as strong as the reliability of the devices and the quality of data they provide. The Rosemount 3051S Wireless Pressure Transmitter and Rosemount 648 Wireless Temperature Transmitter lead the industry in both reliability and performance, making them ideal for this remote oilfield application.

By using the Smart Wireless solution, gross production levels could now be monitored near real-time for well production management to prevent production loss. Skid rental costs were eliminated, as were the safety and environmental risks associated with skid relocation such as driving, spills, lifting, and working with high pressure lines.

Capital costs to install the Smart Wireless network were also much less than if the customer chose the traditional architecture with RTUs, batteries, and radios. For this application, a Smart Wireless architecture eliminated all the infrastructure and wiring normally associated with oilfield automation.

RESOURCES

Emerson Smart Wireless

<http://www.emersonprocess.com/rosemount/smartwireless/index.html>

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**Emerson Process Management
Rosemount Measurement**
8200 Market Boulevard
Chanhassen MN 55317 USA
Tel (USA) 1 800 999 9307
Tel (International) +1 952 906 8888
Fax +1 952 949 7001

Emerson Process Management
Blegistrasse 23
P.O. Box 1046
CH 6341 Baar
Switzerland
Tel +41 (0) 41 768 6111
Fax +41 (0) 41 768 6300

Emerson FZE
P.O. Box 17033
Jebel Ali Free Zone
Dubai UAE
Tel +971 4 811 8100
Fax +971 4 886 5465

Emerson Process Management Asia Pacific Pte Ltd
1 Pandan Crescent
Singapore 128461
Tel +65 6777 8211
Fax +65 6777 0947
Service Support Hotline : +65 6770 8711
Email : Enquiries@AP.EmersonProcess.com

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For more information:
www.rosemount.com


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