GE’s InSight* Technology Provides Operational Efficiency & Cost Savings for Middle East Oil & Gas Operator

Challenge

A Middle East oil & gas operator significantly enhanced its heavy oil recovery by utilizing steam injection. This method of extracting heavy crude oil requires a supply of water that meets certain levels of quality and sustainability.

Through a long term contract, the operator engaged GE Water & Process Technologies at several of its sites to help optimize their water treatment operations.

Solution

As part of the solution, GE Water & Process Technologies recommended InSight*, GE’s Industrial Internet solution, for data management and online automation tools. The customer was initially hesitant to adopt a new platform in a remote location, citing compatibility issues with existing systems, data security, and willingness to share the data outside of the existing portals.

That hesitation was overcome after detailed information about the features and benefits of GE’s InSight solution was disclosed.
InSight utilizes multiple sources of data – from manual data entry to automatic entry through wireless sensors and integrated controllers – to provide a complete picture of an operation. Once the data is captured, it is securely stored on GE’s Industrial Internet, enabling users to visualize, diagnose, alert and report on the wide array of information from their sites. This data is easily accessible from mobile phones, tablets, and computers to provide visibility whenever and wherever needed. It can be part of a new setup or can be easily retrofitted to any existing plant, either on land or offshore.

In addition, GE provides professional monitoring services to help ease the burden of data monitoring for our customers. We offer centralized monitoring with 24/7 support through our Service Reliability Center (SRC), as well as dedicated monitoring with a team of GE process analysts focused on each account.

To help prove the system’s capabilities, GE implemented manual data entry setups for two of the customer’s sites. To address the highlighted concerns, GE worked closely with the customer’s IT security team and ultimately received approval by demonstrating a high level of data security afforded by GE-secured Internet clouds.

In taking the system further, the next step of implementation was an automatic data entry portal to enable the upload of various field instrument parameters into InSight. This gave the oil & gas operator the ability to report, trend, and manage the data in a well-organized structure.

Results

The implementation of GE’s InSight on the customer’s sites has simplified and standardized the daily, weekly, and monthly reporting structures, eliminating the need for a number of redundant daily reports. It facilitated the creation of a system to monitor the chemical stocks on site, optimizing chemical usage, and providing improved control. Along with providing the total cost of operation (TCO), InSight also helped in identifying cost reduction opportunities (CRO) and full implementation of GE’s value generation plan tracker, which is now an indispensable part of GE’s interaction with the customer. Moreover, it helped improve the value of man hours spent on site, including the automation of routine site work through online tools and instruments.

Full implementation of GE’s InSight platform has allowed for more efficient troubleshooting and data accessibility from anywhere and at any time. Additionally, the powerful alarm generation capability helps alert the operational team to any issues, even when they may be away from the site.

The trending and graphing function helps compare the various parameters over a period of time, making it easier to highlight process improvement or optimization opportunities to operations and management teams.

Since its implementation, InSight has become an integral part of customer’s facilities, delivering efficiency and cost savings. Process improvements have ensured less downtime, enabling more water treatment, more steam generation, and ultimately more oil production. The success of the platform has provided justification for the customer to push for automation across its other sites.