



CASE STUDY

Drilling for Success with RFID

Revolutionizing Drill Pipe Tracking with RFID Technology

BACKGROUND

JPL RFID is a project logistics and freight forwarding company with a strong focus on the oil and gas industry. Owner Jackson Pitcock was familiar with RFID technology and wanted to implement it into an application for tracking drill pipes. However, JPL's existing RFID supplier failed to meet performance expectations, prompting the company to seek a more reliable solution.

CHALLENGE

The traditional method of tracking drill pipes involved engraving identification numbers directly onto the pipes. This process presented significant challenges:

- **Safety Risks:** Heavy drill pipes required manual turning to read the engraved numbers, risking injuries such as smashed fingers.
- **Readability Issues:** Mud and debris often obscured the engraved numbers, making them difficult to read.
- **Manual Errors and Inefficiency:** Manual data entry was prone to human error and slowed the tracking process significantly.

Pitcock recognized RFID's potential to address these issues but needed a reliable, cost-effective and durable RFID solution capable of withstanding harsh conditions.

SOLUTION

JPL RFID turned to Iowa-based Metalcraft, Inc. and their Onsite Printable Universal Mini RFID Tag, which offered an affordable, durable and high-performing option for their application. The tags worked seamlessly with SATO printers, a collaboration Pitcock appreciated.

- **Affordability:** Declining costs of RFID tags made the technology more accessible and viable.
- **Durability:** Metalcraft's tags, paired with epoxy for added protection, proved capable of withstanding the harsh oil and gas environments.
- **Performance:** The tags performed exceptionally well in the proof of concept, enabling quick, accurate and risk-free tracking.

Using RFID eliminated the need for line-of-sight tracking, reducing safety risks and increasing operational speed. The tags were programmed to track critical pipe information, including location.

RESULT

Metalcraft's RFID solution transformed JPL RFID's approach to drill pipe tracking:

- **Enhanced Safety:** Eliminated the need for manual turning of heavy pipes, reducing the risk of injury.
- **Improved Efficiency:** RFID allowed simultaneous reading of multiple items, significantly speeding up inventory processes.
- **Accurate Tracking:** Minimized human error through automated data collection.

Jason Pitcock expressed satisfaction with the solution, stating, "They have a product that really works. The simulations demonstrated exceptional results, showcasing RFID's potential in the industry".

While the oil and gas sector has been slow to adopt RFID technology, Pitcock remains optimistic. With continued education and success stories like this, he anticipates broader adoption of RFID for drill pipe tracking and beyond.

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JASON
PITCOCK

- Owner
of JPL RFID