



EAGLE
FIELD TECH

FIELDFLOW

Tech-Based Water Hauling:

Accountability Through Transparency

Whitepaper

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Introduction

Producers and water haulers alike suffer from the antiquated processes of hauling and disposing of produced water. Produced water management remains one of the highest contributors to Lease Operating Expense (LOE). As production continues to increase, the need to haul water to and from well sites will continue for years to come. Current water management practices are expensive, inefficient, prone to delayed invoicing, and vulnerable to safety and environmental incidents.

4X

TYPICAL ROI

With FieldFlow™ from Eagle Field Tech, we can generate transparency and efficiency for both the production and hauling sides of this vital industry, and as a result, eliminate the requirement to manually gauge water tanks to obtain hauled volumes. FieldFlow is a technology-based solution that provides precise volume measurements to ensure accurate electronic tickets captured through the integrated driver application. For office personnel, FieldFlow provides a full dashboard for KPI tracking, a real-time map, and efficient dispatching to keep costs down for both parties. FieldFlow is revolutionizing water hauling practices by generating transparency, reducing costs, and enhancing the oil and gas industry's social license to operate.



1. THE PROBLEM

Traditional water hauling methods are outdated, difficult to track and vulnerable to safety and environmental concerns with contractors and employees climbing on top of tanks to obtain manual gauge values.

Producers lack visibility into their water management process and transported volumes, resulting in millions of dollars a year in lost revenue to support this process that remains one of the highest contributors to LOE in the industry. Additionally, the following problems remain a top concern for producers:

- **Safety remains at the forefront of focus for the industry, and as a result, there's an increasing need and desire amongst producers to keep contractors off tanks.**
- **Manual gauging is prone to inaccuracy, making it difficult to reconcile hauled volumes with production reports.**
- **The invoice approval process results in several hours a day lost towards simply approving invoices from the several different service providers with which they do business. In addition, an invoice that requires disputes results in even more lost time.**
- **Lack of visibility into high-value KPI's means lack of knowledge into the problem areas of the business. If you can't measure it, you can't manage it. For water management departments, this results in lack of efficiency and missing out on targeting areas of cost reduction.**

For **water haulers**, there are similar concerns, most notably invoice delays, forcing haulers to consider options like invoice factoring in order to keep up with the significant delay in invoice approval and payment. Additionally, water haulers are faced with the following challenges:

- **A saturated market of water haulers exists in all basins, and it can be difficult to differentiate against the competition.**
- **Inefficient dispatching leads to wasted time and as a result, lower potential income.**
- **Lack of visibility into driver and fleet performance metrics in a market that's continually scrutinized means that haulers don't know where the money is seeping through the cracks.**
- **Increasing scrutiny from government organizations like the DOT and EPA have water haulers continually trying to figure out how to keep up with regulations while maintaining business as usual for their customers.**

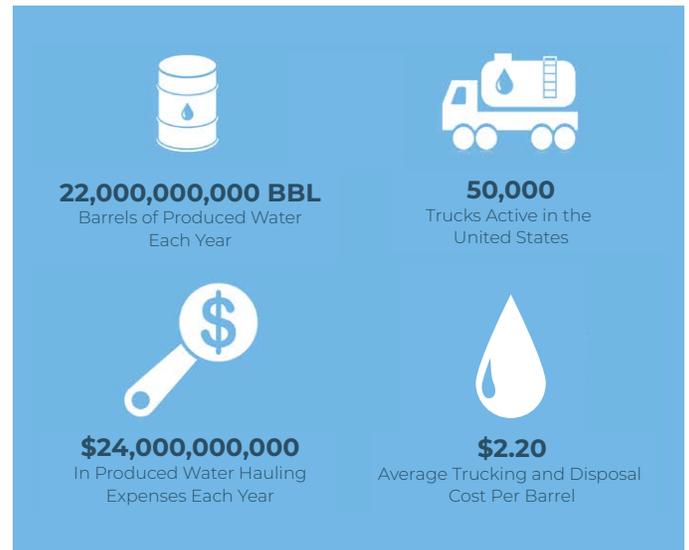


2. THE OPTIONS

E-ticketing has been the primary option for E&P companies and water haulers seeking to streamline the process. E-Ticketing offerings focus on eliminating the paper ticket by putting an app in the driver's hands. These solutions typically come with various levels of sophistication in their dispatch and reporting capabilities but provide drivers with an electronic means to capture data and transmit that data back to the office for use.

E-Ticketing solutions, however, still don't solve the core problems of what remains a manual process. Drivers are still required to manually enter volumes by capturing them via some other means- either by manual tank gauging (a safety concern), or by using a flow meter (an accuracy concern).

Through our extensive research, we discovered that while alternatives exist to paper tickets, no other solution combines automated e-ticketing, accurate and robust hardware, and a real-time dashboard into one cohesive, fully-integrated system for maximum value to both water haulers and producers.



3. BEST PRACTICES: THE PREFERRED SOLUTION

FieldFlow is the future of the water hauling industry.

FieldFlow technology captures and automates the entire water hauling process into one easily managed procedure that provides transparency that the typical e-ticketing solution lacks. By installing rugged sensors and reliable data transmitting technology on a water hauling truck connected to a driver mobile application, FieldFlow automates the process of measuring volumes when loading, transporting and offloading water. FieldFlow is the only solution on the market today that makes water hauling a closed loop system from well site to disposal well.



Accurate Measurement in the Tanks

- Ensure accurate and efficient hauling with our in-tank measurement solution that's integrated with a driver app that has a 3-click user interface to fully automate the field ticket creation process.
- Producers quickly gain confidence in the accurate tickets that FieldFlow facilitates, essentially eliminating the need for ticket disputes.
- No manual tank gauging required.



End-to-end Solution

- Provide drivers with an app that creates field tickets with ease. No more fat-fingering tickets!
- Full technical and mechanical hardware installation and support available through our partner company, Eagle Automation.



Safety and Environment

- Avoid liability by keeping employees and contractors off the tanks and thief hatches closed. Sensor-based technology on the trucks prevent overfilling, mitigating the risk of accidental spills on location.



Real-time Dashboard Promotes Transparency

- See in real time where drivers are, what site they're headed to, and how full their tank is.
- Avoid time delays in dispatching to get more jobs completed.
- Producers and haulers both have access, limiting the amount of time required to transmit data that comes in from completed jobs.



Social License to Operate

- Prove to the world that you are following sound environmental practices.
- Avoid weight regulation violations.



Data-Driven Analytics, KPIs, and Integration

- High-value KPIs and hauling analytics support on-going efficiency improvements and cost reduction targets.
- Dashboard improves visibility into full fleet resources and availability for short notice hauling needs.
- Digital data captured once at source can be fully integrated with production, accounting, and billing systems of both producer and the service company.



GET IN TOUCH WITH US

Eagle Field Tech is based in Denver, Colorado and was created in early 2019 with the mission of solving the important and growing problem of accurately monitoring and tracking produced water in the Oil and Gas Industry. We believe in the goal of creating transparency and efficiency in a process that has been left antiquated for far too long. Our proven technology provides a level of accuracy the produced water management process has never seen before.

Call Eagle Field Tech to schedule a meeting today to learn how we can help you become more efficient in your water management. Whether you're a water hauler or a producer looking to improve business operations, we can help you implement a solution that we can guarantee will improve your bottom line.

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