DATAGRATION

PETROVISOR APP

Artificial Lift Optimization

Focus on improving mechanical integrity and increase production output for oil and gas operations.

The PetroVisor Artificial Lift Optimization App optimizes the most commonly used artificial lift systems, including electric submersible pumps (ESP), sucker rod pumps (SRP), plunger lift, and gas lift. This app allows E&P companies to reduce downtime and increase overall production and system integrity by automating critical computations with analytical, data-driven, and physics-based processes.

• Electric Submersible Pump Performance Monitoring

Determine system efficiency, head, wear, and head factor calculations are analyzed for all wells to determine current operating conditions. Additionally, the solution provides anomaly detection capabilities using data analysis that tracks when pumps are outside of the predefined or normal operating conditions, and assesses the overall integrity of wells based on available data.

• Sucker Rod Pump Performance Monitoring

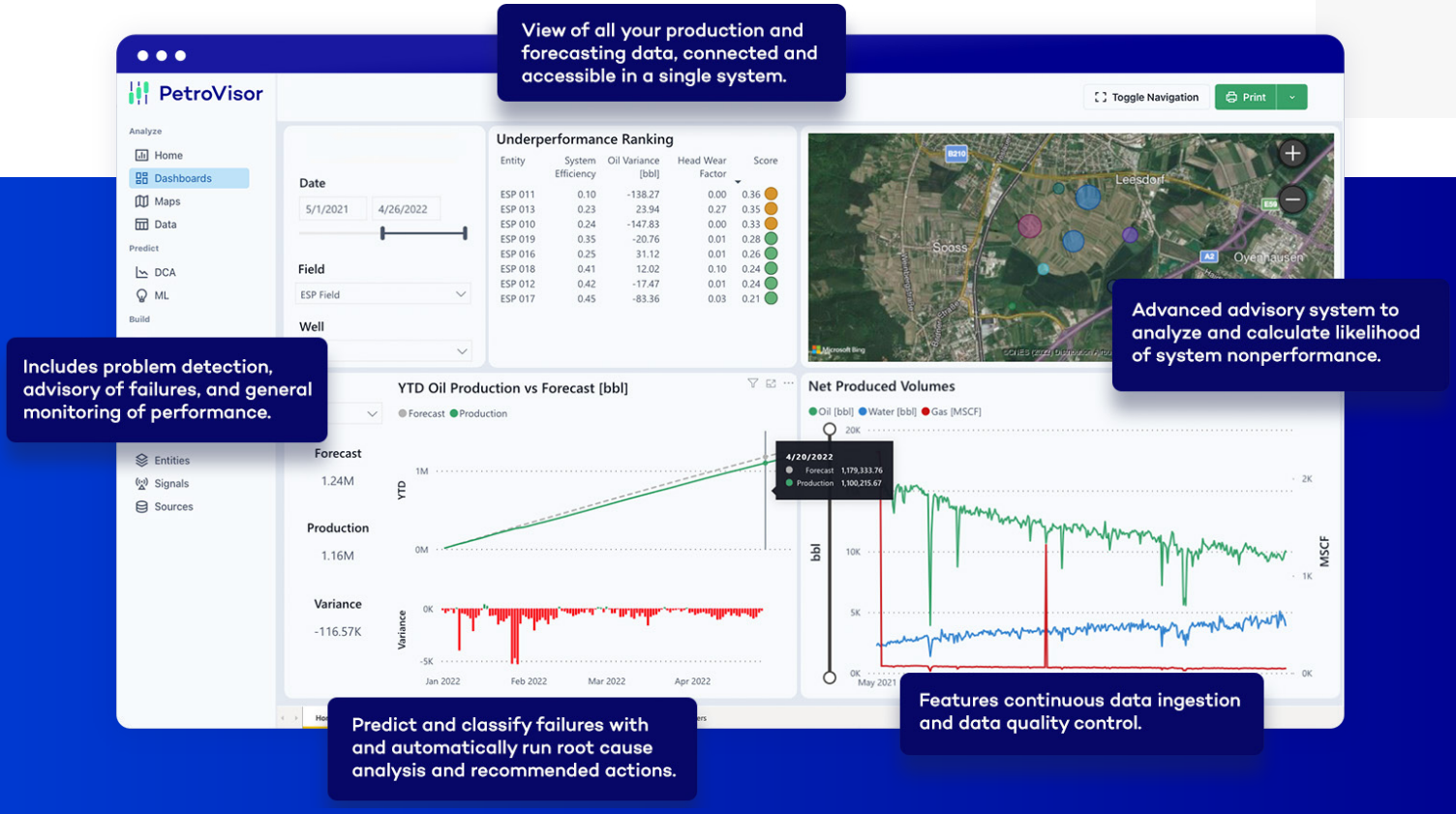
Utilize a database of over 12k dynamometer card data files to identify rod pump problems, estimate production volumes, and perform stress analysis along the rod string. Predict the likelihood of current health status of the downhole card to reveal root cause of underperformance using machine learning and a convolutional neural network model.

- ## Plunger Lift Performance Monitoring

  Analyze each phase of the plunger cycle automatically to optimize removal of liquids while minimizing production loss and mitigate GHG emissions. Combine physics and ML data-driven methods to determine the optimum operational set points to maximize economic production, reduce wear, and support anomaly detection efforts.

- ## Gas Lift Performance Monitoring

  Monitor key gas lift KPIs and use diagnostic tools for gas lift operations, such as target injection differential and well performance factor metrics to detect underperforming gas lift wells. Utilize built-in workflows to monitor the stability of gas lift inflow and pressure depletion responses, and track injection rate deviations to detect multi-point injection problems.



Leverage physics-based and data-driven analysis to improve operational efficiency and increase production.

Corporate-Wide Business Intelligence & Visualizations

Analyze and evaluate your data thoroughly. PetroVisor provides visual data exploration by condensing massive amounts of artificial lift data from any data source into useful dashboards and reports, with fully integrated, built-in business intelligence from Microsoft Power BI.

Fully Optimized / ML Ready

PetroVisor analyzes current and predicted data, such as well performance modeling, fluid characteristics, fluid dynamics, and PVT analysis. The app anticipates production challenges allowing the user to plan the best lift strategy for each well, independent of lift type.

Failure Notifications & Automated Alerts

Avoid substantial production challenges and mechanical failures by early detection of emerging problems that might otherwise go undiscovered for long periods of time. Create proactive measures to mitigate production losses by evaluating potential failures downhole or in surface assets.

Reduce Time Reviewing Wells

Automation capabilities reduce the time and effort of manual well review by providing a smart advisory solution with ranked well candidates that are underperforming and need further investigation.

Integrate Engineering with Performance Goals

Amplify your current investment in technology. PetroVisor, which is endlessly scalable and developed on an open architectural approach, can be integrated with any technology from any engineering application. By integrating all business data, users obtain company-wide data clarity, simplicity, and accountability to reach measurable goals.

Improve Decision Making

Evaluate theoretical versus actual lift performance, connect surface and subsurface related components, and detect root causes of issues as well as potential problems. Streamline and amplify the decision-making process by ranking opportunities for lift improvements and identification of problematic wells.

Find Out More

Learn more about how PetroVisor's Artificial Lift Optimization App can improve mechanical integrity and increase production by reading our Use Cases and Whitepapers.

About Datagration

Datagration provides the world's Oil and Gas companies with the tools they need to integrate and model data into meaningful insights and decisions daily. Our team of data scientists, engineers, and technologists work hand in hand with our customers to build a single source of truth used across the organization for data analysis, benchmarking, internal collaboration, financial analysis, and more.

To learn more about Datagration and the PetroVisor platform, go to **www.datagration.com**.