CASE STUDY

Well Production Optimization Monitoring

Client	Industry	Solution
Shale Oil Producer in West Texas	Unconventional Oil Gas Production	Well Production Optimization Real-Time Monitoring Platform

Challenge

Shale oil producer managing extensive well portfolio faced manual production monitoring requiring daily field visits, difficulty optimizing production across wells with varying reservoir characteristics, limited visibility into artificial lift performance and downhole conditions, challenges identifying production declines and equipment issues early, and inefficient allocation of field personnel and maintenance resources across multiple well pads.

AI Consulting Approach

• Production Operations Assessment: Production technology consultants analyzed existing monitoring processes, well performance data, and operational workflows to identify optimization opportunities using production monitoring and well optimization technologies.

• Comprehensive Monitoring Implementation: Platform integrating production data, artificial lift monitoring, and well performance analytics to optimize production and reduce operational costs.

AI Solution

• Real-Time Production Monitoring: Platform collecting production rates, pressures, and equipment status from wells with automated data validation and performance tracking

• Artificial Lift Optimization: System monitoring ESP, rod pump, and gas lift performance with optimization recommendations for operating parameters and maintenance scheduling

• Well Performance Analytics: Platform analyzing production trends, decline curves, and reservoir performance with comparative analysis across well groups and completion types

• Field Operations Coordination: System prioritizing field activities, maintenance schedules, and resource allocation based on production impact and equipment conditions

Implementation (22 weeks total)

- Production Assessment (4 weeks)
- Platform Development (9 weeks)
- Well Integration (7 weeks)
- Testing Training (2 weeks)

Key Results

Production Optimization:
- 45% reduction in manual monitoring time, 12% improvement in overall production rates, enhanced artificial lift performance and reliability

Operational Efficiency:
- 60% improvement in field personnel utilization, better maintenance scheduling and resource allocation, reduced production downtime

Business Impact:
- Substantial production increase and cost reduction, improved well performance management, 185% consulting ROI, enhanced field operations efficiency

Technologies:
- Production monitoring systems
- artificial lift optimization platforms
- well performance analytics
- field operations management
- SCADA integration