Reservoir Management Production Forecasting

Client	Industry	Solution
Conventional Oil Producer in Louisiana	Conventional Oil Gas Production	Reservoir Management Production Analytics Platform

Challenge

Conventional oil producer managing mature field assets faced declining production rates requiring enhanced recovery strategies, limited reservoir modeling capabilities for production optimization, difficulty predicting well performance and planning future drilling locations, challenges integrating production data with geological and reservoir information, and need for improved reservoir management to extend field life and maximize recovery.

AI Consulting Approach

• Reservoir Assessment: Production technology consultants analyzed existing reservoir data, production history, and field development strategies to identify optimization opportunities using reservoir management and production analytics technologies.

• Comprehensive Analytics Platform: System integrating reservoir modeling, production analysis, and field development planning to optimize recovery and extend field life.

AI Solution

• Production Analytics Integration: Platform combining production data, well logs, and reservoir properties with decline curve analysis and performance forecasting

• Reservoir Modeling Support: System integrating geological data, production history, and reservoir simulation results with field development planning and optimization

• Enhanced Recovery Planning: Platform analyzing water flood performance, infill drilling opportunities, and workover candidates with economic evaluation and ranking

• Field Development Optimization: System supporting drilling location selection, completion design optimization, and field development strategy with integrated reservoir and economic modeling

Implementation (28 weeks total)

- Reservoir Analysis (6 weeks)

- Platform Development (12 weeks)

- Data Integration (8 weeks)

- Testing Validation (2 weeks)

Key Results

Reservoir Management:
- 50% improvement in production forecasting accuracy, enhanced reservoir understanding and field development planning, better recovery strategy optimization

Field Development:
- 40% improvement in drilling location selection success, optimized completion designs and enhanced recovery implementation, extended field economic life

Business Impact:
- Substantial production increase and reserve growth, improved field development economics, 195% consulting ROI, enhanced asset value and recovery optimization

Technologies:
- Reservoir analytics platforms
- production forecasting systems
- geological data integration
- enhanced recovery planning tools
- field development optimization