



# Real-Time Drilling Data Management Monitoring

**Client**

Independent Drilling  
Contractor in North Dakota

**Industry**

Oil Gas Drilling Services

**Solution**

Real-Time Drilling Data  
Platform Monitoring System

## Challenge

Independent drilling contractor operating multiple drilling rigs faced manual data collection processes requiring daily reports compilation, limited real-time visibility into drilling parameters across active wells, difficulty sharing drilling data between rig site and office operations, inconsistent drilling performance monitoring and optimization, and challenges maintaining drilling records for regulatory compliance and client reporting requirements.

## AI Consulting Approach

- **Drilling Operations Assessment:** Drilling technology consultants analyzed existing data collection processes, communication systems, and performance monitoring to identify automation opportunities using real-time drilling data and monitoring technologies.
- **Integrated Data Platform Implementation:** System collecting drilling parameters, operational data, and performance metrics to provide real-time visibility and improve drilling efficiency.

## AI Solution

- **Real-Time Data Collection:** Platform gathering drilling parameters including weight on bit, rotary speed, mud flow rates, and downhole conditions with automated data logging and validation
- **Drilling Performance Monitoring:** System tracking drilling progress, penetration rates, and operational efficiency with performance benchmarking and trend analysis
- **Remote Operations Support:** Platform enabling real-time data sharing between rig sites and operations centers with collaborative decision-making capabilities
- **Drilling Records Management:** System maintaining comprehensive drilling logs, daily reports, and regulatory documentation with automated report generation



## Implementation (20 weeks total)

- Operations Assessment (4 weeks)
- Data Platform Development (8 weeks)
- Rig Integration (6 weeks)
- Testing Training (2 weeks)

## Key Results

### Data Management:

- 85% reduction in manual data compilation time, improved drilling parameter visibility, enhanced real-time decision-making capabilities

### Operational Efficiency:

- 60% improvement in drilling performance monitoring, better coordination between rig sites and operations centers, enhanced drilling optimization

### Business Impact:

- Substantial operational cost savings, improved drilling efficiency and safety, 195% consulting ROI, strengthened client relationships through better reporting

### Technologies:

- Real-time data collection systems
- drilling monitoring platforms
- remote operations tools
- drilling records management
- performance analytics dashboards