Oil and gas producers figure odds better than professional blackjack players. They have to. Balancing costs of production against risks and probabilities, and betting or folding based on their firms’ efficiency, know-how, and equipment involves much higher stakes than any game played with cards.

Analysis of data from the “digital oilfield” and other sources across the enterprise is clearly the key. But without adequate analytics, users struggle to evaluate performance consistently across all wells and fields, in addition to assessing issues such as plant and facility availability and comparing competitor performance. Questions such as how would a one percent improvement in recovery affect the bottom line are impossible to answer.

Obsolete analytics platforms also thwart collaboration with cumbersome sharing. Perhaps worse, knowledge the firm once took for granted escaped as crucial staff members left. The old software shared or retained none of the old experts’ easy recollection of assets and procedures.

Modern oil and gas production optimization calls for a modern analytic platform, one that performs in several critical areas.
ANSWERS START WITH PUTTING ALL RELEVANT DATA IN ONE VIEW
Untapped “big data” is about as useful to decision makers as unattainable reserves in the ground. But an analytics platform made to drill and analyze data helps support a wide variety of decisions. Questions get answered with precision and confidence that weren’t before.

An enterprise analytics platform unlocks the data and puts it into users’ hands. Without waiting for IT help, business users create their own data mashups from multiple, disparate sources such as spreadsheets, data warehouses, and enterprise applications. They explore ideas, questions, and hunches in dimension-free data exploration, revealing relationships in the data that no one expected.

IMPROVE OPERATIONAL EFFICIENCY WITH DATA MASHUPS AND CONTEXTUAL COLLABORATION
The pressure is on for ever greater efficiency in production operations. Non-productive time must be slashed, mean times between equipment failure must be understood more exactly, and unplanned events must be prevented.

Insight for these and other knotty problems often begins with data mashups. In richly visualized data, users can more quickly contextualize and follow a fast chain of questions and answers. They may run root cause analyses, boosted by predictive and event-driven analytics, to prevent recurring, unplanned events and even failures. They optimize plant availability to meet both maintenance and production targets.

In contextual collaboration, users from across the operation and enterprise share the analysis in secure, role-based views to capture and socialize insights for new visibility into the unknown.

IMPROVE PRODUCTION MANAGEMENT
Evaluating outlying fields, calculating and optimizing ultimate recovery, and profiling field life-cycles gets a strong boost with predictive and event-driven analytics. Powerful models and predictive analytics blend smoothly into the interactive user experience. Opportunities and risks show up in greater relief than ever.

The effect of such analysis multiplies across the enterprise on an enterprise-grade analytics platform that scales up to let a wide variety of experts and non-experts make use of the data analysis by others. They collaborate to capture and socialize moments of insight, ideas, and hypotheses with peers, advisers, and partners to make informed and transparent decisions faster. Decisions are secure, auditable at will, and preserved over time.

Captured knowledge, which is often at risk from outsourcing and staff changes, also helps preserve and propagate knowledge.
CONCLUSIONS
Oil and gas producers today need an enterprise-class analytics platform for optimal production, improved recovery, and new efficiencies.

Spreading the power of data analysis tools across the enterprise gives producers the insight when they need it to answer difficult questions: How much do we have in reserves in each field? What are the key drivers that indicate recovery rates? Which recovery technique will work best? And many more, unanticipated questions that need answers almost as quickly as they arise.

Managers monitor progress in a holistic view, their finger on the pulse of recovery to ensure maximum effectiveness. When necessary, they make adjustments on the fly.

Equipment failure is minimized when managers better understand the effect on production optimization and targets of preventive maintenance.

For deeper, faster answers they also use contextual collaboration with others across the enterprise to quickly socialize, crystallize, and record insights.

In an industry where mere days, minutes, or even seconds count, the competitor with the Two-Second Advantage® gets the oil, the gas, and the competitive edge.