Executive Insights

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2019 Oil & Gas Study: A Tale of Two Halves?

Robust oil patch activity through the summer of 2018 had analysts and companies in September calling for $100 per WTI barrel. However, in true cyclical form, the market saw price reversion to a mean overshoot and landed at an 18-month low of $42 to end the year, in what we at L.E.K. Consulting coined a tale of two halves.

Despite the uncertainty at the start of 2019, operators are optimistic on commodity prices, capital investment and development costs, according to the L.E.K. Consulting North America Oil & Gas Survey conducted in February 2019 with 200 exploration and production (E&P) companies. The positive market sentiment aligns with the recent first-quarter price gains but raises a question: Can 2019 maintain a rally and avoid another tale of two halves?

Our survey results suggest it can. Most operators see oil prices stabilizing in the $55-$60 per barrel range this year, with some thinking $65-$75 is more likely. A far cry from $100, but high enough, respondents believe, to maintain capital spend throughout the year or even drive growth relative to 2018.

What about cost inflation? Transport and logistics scored highest on importance and percentage of cost change, underscoring a skepticism for pipeline capacity debottlenecking this year despite recent narrowing of the Midland-Cushing spread. Aside from last-mile constraints, development-related costs that troubled E&Ps during the upcycle's acceleration period are presumably unlikely to pose much of a problem. Sand, water, pumping services and drilling all scored low on percentage of cost change, but what's good for the E&P is not good for the service sector, and this sentiment could mean a year without pricing support for services.

While the near-term outlook is perceived favorably, there may be an underlying fear for the sector's long-term viability using the current unconventional development model. Advanced recovery techniques scored high on both development importance — beating out the Permian — and on areas for new technology improvement.

In this *Executive Insights*, we take a closer look at the survey results across three areas: pricing and capital investment decisions, costs, and technology. Given the results, we further examine potential implications for E&P and oil service companies, as well as for investors looking at the sector.

Resilience through 2019

Our findings suggest 2019 oil and gas prices will run about flat or modestly higher than 2018's respective $65 per WTI barrel and $3.17 per MMBTU averages (see Figure 1). E&Ps expecting a $55-$65 oil range, with upside for $65-$75, appear confident these levels can grow capital spend versus 2018, although more than 50% of respondents indicate needing three to four quarters of sustained pricing before adjusting their budgets. Budget restraint is a sign of the times, perhaps — today's E&Ps must live within cash flows and manage price volatility — as E&Ps historically needed only one to two quarters to feel confident about capital budgets.

Survey results contradict recently announced E&P guidance — Simmons Energy's summary of drilling and completion capital

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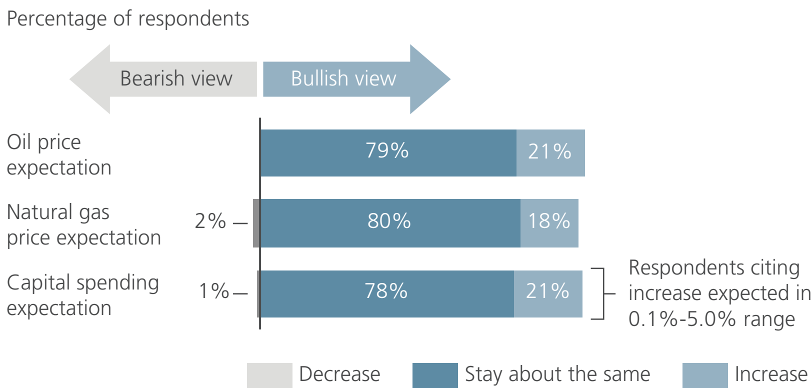
Figure 1
Prices and capital spending



Source: L.E.K. 2019 North America Oil & Gas Survey

expenditure for ~45 U.S. E&Ps suggests spending could be down ~10% year over year — although public guidance excludes private companies, or 40% of the U.S. rig count. Another potential explanation is that E&Ps coming off a $45 December may be taking a disciplined approach, leaving the door open for budget revisions later this year. Either case suggests operators may maintain resilience through the year and avoid 2018's year-end capital exhaustion.

Operational costs in focus

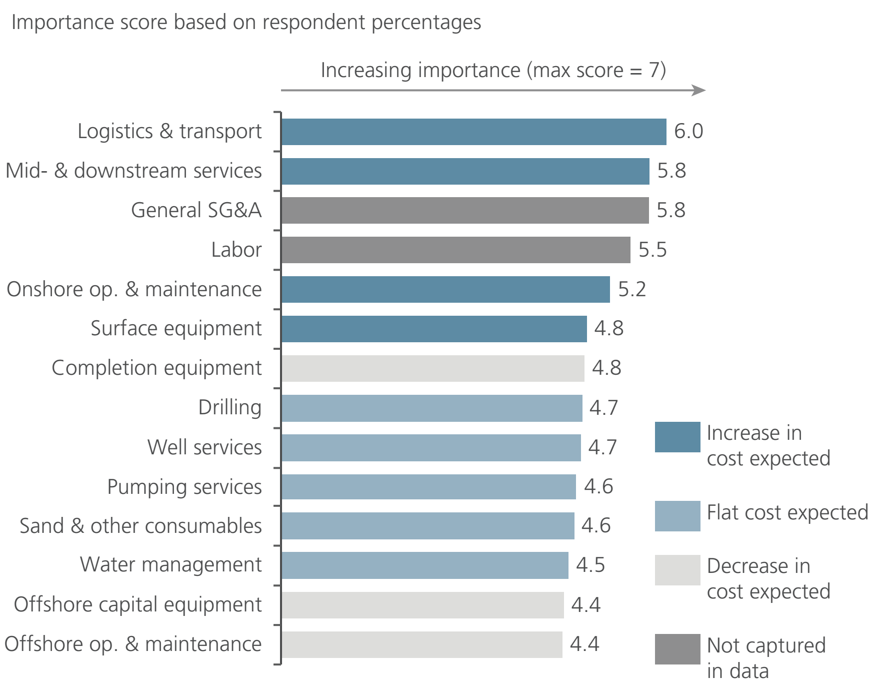
Nearly 80% of the E&P operator sample expect stable costs for 2019, with the remainder calling for increases — though modest — of up to 5%. Categories scoring highest on percentage of cost change are notably all driven by ongoing operations, rather than development, with transportation and logistics costs selected as most likely to increase. In response to the most important cost drivers for 2019, E&Ps again place greater importance on operational categories such as transportation and logistics, SG&A, direct labor, and onshore operations and maintenance (see Figure 2). Development- or capital-related costs score lower on both cost change and importance in driving cost.

The importance of operations — namely, transportation and logistics costs — we believe suggests three issues are coming to bear.

The first is cash flow enhancement. E&Ps seek life within cash flows in an uncertain pricing environment, and pulling key operational levers, including labor, may offer the best opportunity for improving revenue-to-cash flow conversion. This brings us to the second issue: Services and equipment are presumably not expected to constrain development, nor are they viewed as critical cash flow levers. This may mean oil service companies are unlikely to see pricing improvement this year, which reflects the structural challenges — fragmentation and capacity overhangs — known to be facing the sector today. Finally, the transport and logistics focus may imply sentiment for longer-than-expected takeaway constraints in the Permian. Recent capacity expansions from PAA's Sunrise, the BridgeTex Pipeline and Enterprise's Midland-to-Echo systems — approximately 635,000 barrels per day — explain E&P netbacks, but respondents may be indicating more skepticism than price spreads suggest.

While it is unclear how each respondent approached the survey, we suspect last-mile delivery of critical well-site inputs, such as sand and water, may have been considered part of transportation

Figure 2
Cost driver importance and expected change



Source: L.E.K. 2019 North America Oil & Gas Survey

and logistics. Through our market discussions this quarter, it's clear the last mile remains a pinch point in the supply chain and a critical driver of well cost.

Improving recovery during frac and beyond

An examination of technology considerations suggests well-optimization solutions through frac and drilling enhancement are the most critical technologies today. Specifically, fracturing/stimulation, reservoir recovery optimization and drilling categories scored highest in importance of current technology. Looking forward, operators indicate that technology solutions must shift focus and improve longer-term productivity, as enhanced oil recovery (EOR)/improved oil recovery (IOR) was selected as both the most important play for investment and the most important new area for technology improvement. This is an unexpected result — to say the least — given the limited applications of advanced recovery techniques to tight and shale reservoirs (see Figure 3).

Digital solutions also ranked highly, with logistics tracking, drone technology and the catch-all-bucket of oilfield digital identified as important (see Figure 4).

Regarding the significance of advanced recovery technology, further research is needed to dissect and make sense of the results. However, if the results are valid, the sentiment of EOR/IOR as important new areas for tech improvement may reflect one of two beliefs in the market today. First, the draconian one, is about the longer-term viability of the unconventional development business model and the E&P's unrelenting need for capital to drive growth. Investors already penalize the public E&P that outspends cash generated, but there may also be skepticism about the ability to generate sustainable returns on a sharply declining asset without a large and stable production base behind it — a particular point of issue for small-to-mid-market-cap E&Ps. The focus on advanced recovery may just be the market's suggested solution to what it sees as not working today. The second belief may be a simpler reflection that a balance is needed in the global portfolio between short-life unconventional and long-life conventional or offshore assets. EOR/IOR might not drive production growth today, but perhaps there is renewed support for its role in the oil market's ecosystem.

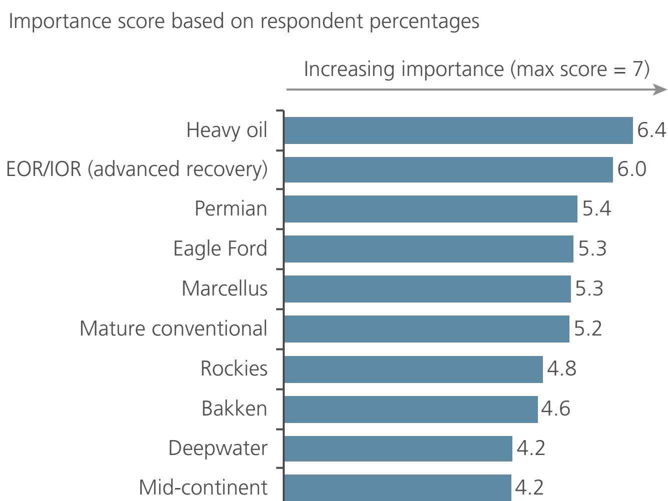
Implications

The positive sentiment reflected in the survey supports the view that the market can maintain its hot start to the year and avoid a cool second half. But given the results across pricing and capital investment decisions, costs, and technology, what actions should players consider in an effort to outperform their peers?

E&P operators

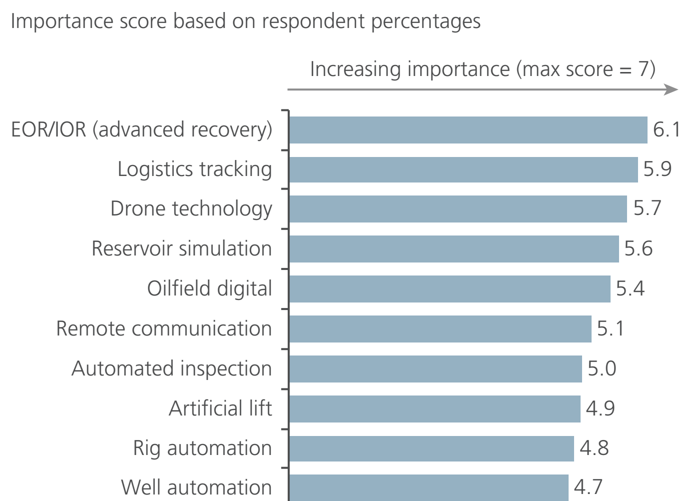
E&Ps may consider ways to maintain budget flexibility; identify — and pull — meaningful operational cost levers, including digital solutions; and shape a sustainable and balanced asset strategy. Consolidation, as evidenced by the Chevron acquisition of Anadarko Petroleum, we believe accomplishes the above goals and should remain a strategic consideration for at-scale E&Ps.

Figure 3
Importance of plays for investment



Source: L.E.K. 2019 North America Oil & Gas Survey

Figure 4
Importance of new areas for tech improvement



Source: L.E.K. 2019 North America Oil & Gas Survey

Oilfield service companies

Oilfield service sector structural challenges are further apparent in the survey results, but the oil service winners will undoubtedly focus on service quality, develop new technology to separate from the pack, align with the likely E&P winners, and form a solutions-provider mindset that includes consideration of long-term well performance.

Investors

Despite the hot start, oil and gas deals — excluding Chevron/Anadarko — have fallen to a 10-year low. The first quarter of 2019 recorded only $1.6 billion in deal value, with U.S. oil and gas mergers down 93% compared to the same period in 2018. However, the deal market's paralysis is not North America-driven, but rather a consequence of global uncertainty. On the one hand, Venezuela, Iran and trust in Saudi Arabia are weighing positively on prices, but on the other hand, demand factors including a slowing Chinese economy, energy transition initiatives and unclear U.S. fiscal policy are leaving the market cautious. It remains to be seen if the Chevron deal is an aberration or an indication the market is comfortable with the uncertainty, but in either case we believe consolidation across onshore E&P and oilfield services is both necessary and inevitable.

For investors, finding value may require greater diligence than in years past. Survey findings suggest there is potential for investing in service sector themes such as efficiency across ongoing well operations and long-term well productivity improvement.

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