OLIVER WYMAN

Oil and Gas

Opportunities in Oilfield Services: Contract Drilling Case Example

Value Growth Business Designs

The oilfield services industry currently is demonstrating strong fundamentals, above average performance, and solid growth. Most oilfield service companies price-to-book and price-to-sales ratios are at levels not seen in nearly a decade and this trend seems to be growing in segments ranging from contract drilling to seismic services. While this strong performance is well known to most investors, historic trends by themselves are unlikely to help identify superior investment opportunities in oilfield services. Oliver Wyman's experience suggests that an analysis of business designs and selected market trends can help investors quickly uncover opportunities in oilfield services capable of generating strong returns.

This commentary focuses on the drilling segment of the industry as a case study to demonstrate possible paths to identifying superior opportunities. The case study pinpoints the forces and strategic patterns reshaping the oilfield services market, identifies emerging customer priorities, and provides an overview of the business designs of winning enterprises.

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Industry analysts are being asked whether the US oilfield services industry has reached its peak. Recent data, however, shows that oil and gas producers are continuing to invest heavily in new exploration and production (E&P) projects and to rely on oilfield services companies to help them achieve their ambitious production goals.

Recent trends underscore the strength of the sector:

- Since late 2001, the price-to-book and price-to-sales ratios for oilfield services companies have more than doubled, from 1.8 to 3.6 and from 1.4 to 2.9, respectively.

- Price-to-book and price-to-sales ratio increases have not been driven by lofty expectations for future earnings growth—forward price/earnings multiples for many oilfield services companies have fallen by almost 50 percent.

- The leading indicators of oilfield services activity—from rotary rig counts to capital spending for E&P—have reached levels not seen since the early 1980s.

- The rapid and sustained run-up in oil and gas prices has benefited the entire oilfield services industry. Activity in every segment is on the upswing—from engineering and construction to equipment manufacturing, from drilling to reservoir information services.

Strong market performance has benefited investors, many of which rely on Oilfield Services Index (OSX) companies. Oliver Wyman estimates that every dollar invested in the OSX in 2002 or 2003 has since generated average compounded annual returns in excess of 25 percent.

Going forward, however, Oliver Wyman's ongoing analysis suggests the OSX may not be a sufficient gauge of industry attractiveness. In particular, the next wave of superior investment opportunities in oilfield services will require greater diligence to mitigate risks in the event of an oil price downturn. Different segments and business designs within the industry are showing markedly different performance even during the current oil price run up. It thus becomes crucial for investors to understand the specific roles of companies operating in the oil and gas exploration and production value chain and hence their potential to deliver superior returns.

Drilling Down into the Oilfield Services Industry

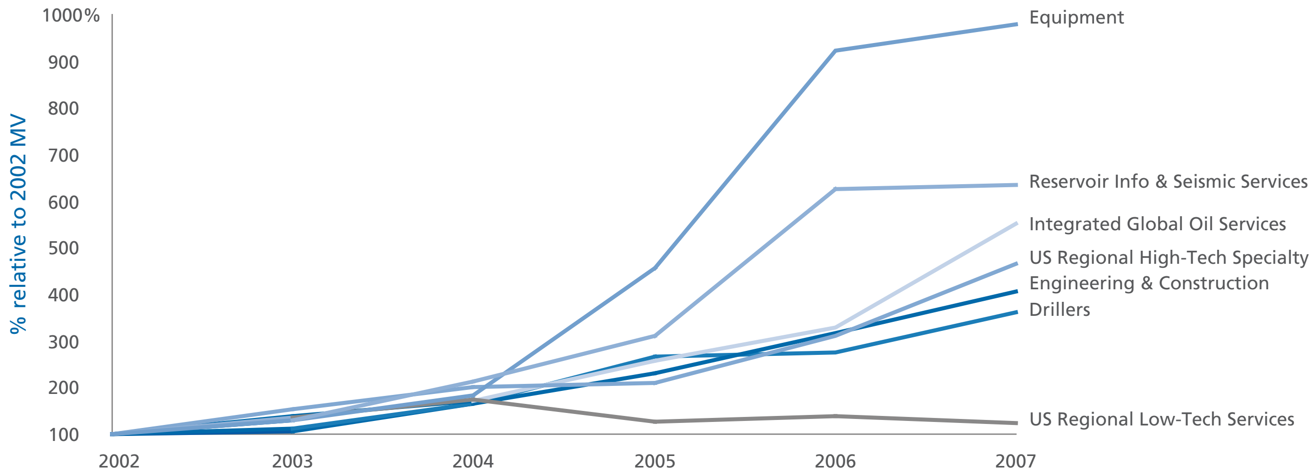
The OSX aggregates values across several segments that make up the oilfield services industry and will not likely illuminate required distinctions among the segments and among business designs. That deficiency means investors have limited insights about how a particular segment within the oilfield services industry has performed in the past—and is likely to perform in the future. An opportunity assessment must drill deeper into the nuances within the industry and company by company.

As noted above, rising oil prices do not benefit every segment of oilfield services equally. Over the past few years, for example, equipment manufacturing and reservoir information and seismic services firms have enjoyed spectacular increases in market value and EBIT. At the same time, however, results from some of the other oilfield segments have been lukewarm at best (Exhibit 1). These include lower-tech well servicers and pressure-pumping service providers who cater primarily to the US onshore E&P industry. Over time, the ratio of market value to sales—a key indicator of value flows—has also varied considerably from segment to segment (Exhibit 2).

What drives these value flows? Oliver Wyman's experience suggests that winning oilfield services companies benefit from forward looking and flexible business designs that allow them to anticipate shifting market trends and customer priorities and quickly adapt. Business designs are made up of the interlinked set of deliberate choices that a company makes on which customers to

Exhibit 1 **Market Value Growth in Oilfield Services Segments**

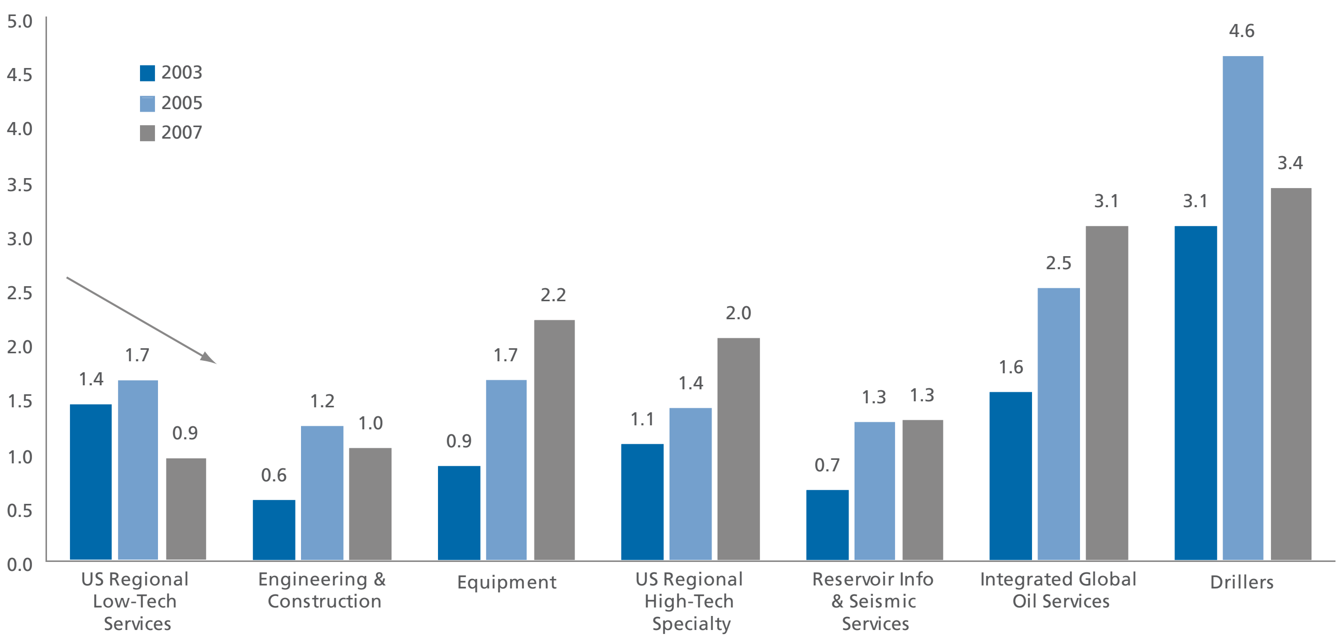
As a percent of 2002 weighted average market value, aggregated by segment



Source: Compustat, Oliver Wyman analysis.

Note: Weighted average is based on market value.

Exhibit 2 **Market Value/Sales Ratio Changes: 2003, 2005, and 2007**



Source: Compustat, Oliver Wyman estimates and analysis.

target, what products and services to offer, which models to employ to make money, and how to protect future profits against competitive pressures, as shown in Exhibit 3. Well constructed business designs position companies to stay ahead of market changes, satisfy customers' key priorities, and weather even the most volatile business cycles. Successful designs are also supported by the company's organizational system, which includes everything from structures and processes to people development practices and culture.

Identifying Investment Opportunities: US Onshore Contract Drilling Case Example

Oliver Wyman recently conducted extensive research into how market opportunities and winning business designs can be identified and developed in specific oilfield services segments. Herein we present an analysis of one such segment: US onshore contract drilling.

Currently, contract drillers are working through a bottleneck that first formed in 2005 when high-spec rigs were "locked up" by the big independent oil and gas producers looking to exploit new plays in a number of geological basins. When smaller E&P companies went looking for rigs from their traditional sources, they were turned away. Some responded by acquiring their own rig fleets. Contract drilling and E&P are two very different businesses, however, and in recent months, some of the companies that had purchased drilling rigs have decided to focus on their core competencies and have started to divest themselves of these assets.

A climate of divestiture often breeds opportunities —but investors interested in acquiring and managing such assets first need a baseline understanding of contract drilling market dynamics and underlying trends to make business design choices.

Drilling contractors vary widely in their business designs in terms of the customers they serve, the services they provide, the kinds of contracts they require, the degree of specialization they offer, and the assets they own. As noted previously, they also differ widely in their performance. For

Exhibit 3 **Oilfield Services Business Design Choices**

- What customers and market segments is the company targeting?
  – e.g., NOCs, major oil companies, independent operators
- With what differentiated offers and customer value proposition?
  – e.g., low-cost, high-tech, fastest service/availability
- What is the company's marketing geographic focus?

- How does the company generate profits and value?
  – e.g., turnkey, dayrate, footage

- What does the company do to differentiate itself from others and protect profits?
  – e.g., basin knowledge superiority, superior operator relationships

- What activities, assets, and capabilitie are core to executing on the business model choices?
  – e.g., focused service lines vs. bundle comprehensive suite of services

- How does the company's organizational system support the business model choices?
  – Structure and processes (e.g., geographic business units vs. functional groups)
  – People development
  – Informal organization and culture building

example, in addition to those using high-spec rigs, drillers specializing in deepwater applications have enjoyed markedly better market value growth than companies specializing in other areas (Exhibit 4).

The contract drilling segment has always been volatile, subject to the cycles of oil and gas prices and E&P spending. But the prolonged upswing in prices has begun to reshape the segment, prompting service providers to carefully consider how they can respond to these changes and prosper in an era of sustained high prices. Key market considerations and strategic patterns for the US onshore contract drilling segment include the following:

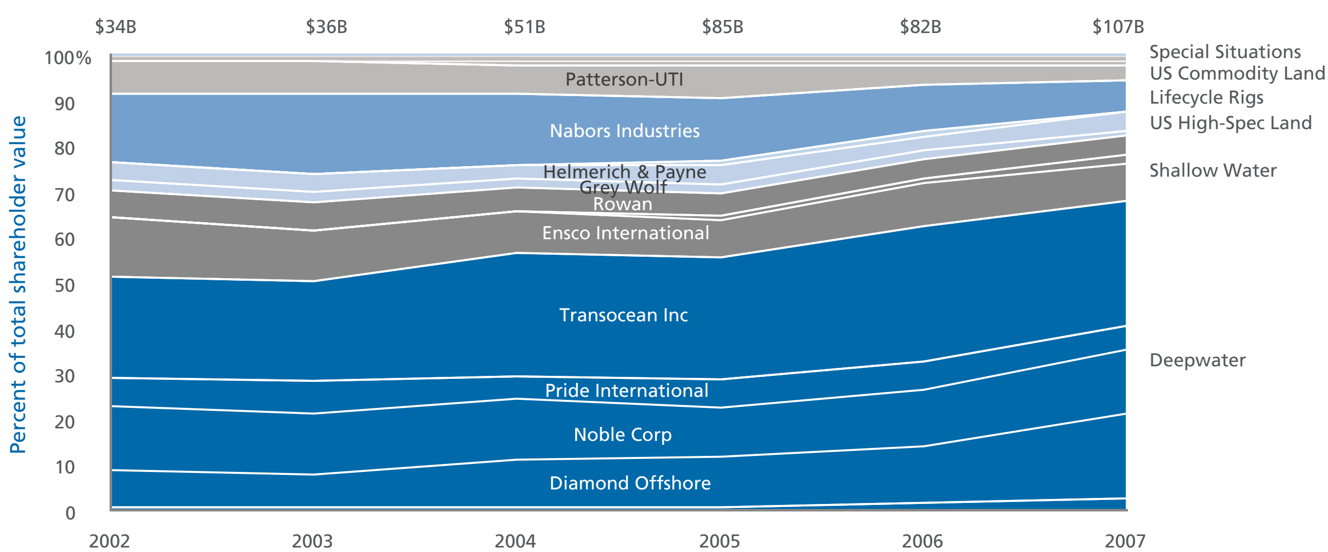
- **Rise in rig count.** Owing to spikes in oil and natural gas prices, independent producers have stepped up exploration efforts in the United States. In July 2008, the US onshore oil rig count reached its highest level in nearly 10 years—more than 1,800—versus about 400 in 1999.

- **From oil to natural gas:** In the past 20 years, the number of *producing* crude oil wells has plummeted, as the size of the average discovery continues to decline. Over the same time period, the number of natural gas producing wells has jumped from just over 250,000 in 1990 to over 450,000 today. As of this year, the drilling of natural gas exploration and development wells made up about 70 percent of all US onshore drilling activity. "Unconventional" natural gas projects carry a very different set of technical requirements than oil projects—and service providers have scrambled to match their equipment inventories to the needs of their customers.

- **Fluctuating margin squeeze.** The rapid expansion in rig count has created a tighter market, with overall fleet utilization approaching the 80 percent threshold that traditionally triggers significant increases in dayrates—the daily work rates that drillers charge their producer customers. Operating expenses have also been rising at a rapid pace. In the past two years, contract drillers have navigated their way through a prolonged margin squeeze by

Exhibit 4 **Market Value Increases for Contract Drilling Business Models, 2002-2007**

Percentage of market value by company



Source: Compustat, Oliver Wyman analysis.
Note: Analysis includes 17 publicly traded drilling companies.

deploying new technologies that enable their E&P clients to unlock gas reserves from "tight shales" and other formations that previously proved difficult to develop.

- **Hints of consolidation.** To diversify, drive growth, and improve profitability, some contract drillers have merged with well servicing companies. Although drilling and well servicing traditionally have been provided by different companies in the United States, these mergers suggest that some drillers are seeking to enhance their performance by capturing revenue synergies through cross-selling.

- **Specialization.** Other drillers have adopted a different strategy, preferring to distinguish themselves as specialists. For example, some firms are focusing on providing the directional (horizontal and angled versus straight hole) drilling required to navigate shale and other unique geological features of the North American landmass. Indeed, directional drilling has grown faster than conventional drilling. According to Baker Hughes Incorporated, the horizontal and angled drilling rig count stood at roughly 50 percent of total drilling activity in mid-2008, compared to just over 30 percent a decade ago.

Investors that are contemplating investments in drilling companies or rig fleets can learn much by analyzing the business designs of winning rig contractors—and determining precisely how they differ from less successful business designs. Oliver Wyman's research suggests that a single variable—*the characteristics of a company's rig assets*—is the key component of the best business designs in the US onshore contract drilling industry. Successful companies offer higher-spec, fit-for-purpose rig fleets, are typically larger than their competitors, and focus on serving major oil producers or large independent E&P firms that are interested in long-term contractual relationships. The business designs of these top performers have allowed them to achieve maximum utilization of their rig fleets even during downturns in oil and gas prices, resulting in greater market value growth and more favorable market value/sales ratios than their peers (Exhibit 5).

By contrast, drilling contractors who have been less successful at creating market value cater

Exhibit 5 **Onshore Drilling Business Design Comparison**

Company	Long-Term MV increase (Jan '01 - Jul '08)	Medium-Term MV increase (Jan '06 - Jul '08)	Short-Term MV increase (Jan '08 - Jul '08)	MV/sales (EOY '07)	High-spec equipment	Scale; Regional leadership; Visibility of future revenues
Helmerich & Payne	374%	122%	70%	2.5		
Nabors	73%	25%	74%	1.6		
Grey Wolf	60%	13%	61%	1.1		
Patterson-UTI	113%	10%	76%	1.4		
Pioneer	555%	1%	45%	1.9		
Union	na	42%	33%	1.2		
Bronco	na	(23)%	20%	1.3		

= Highest levels

= Lowest levels

Source: Compustat, company reports, Land Rig Newsletter, Oliver Wyman analysis and estimates.

primarily to smaller independents and do not offer specialized services. Moreover, they are trapped in a difficult situation: unable to win premium contracts because they lack the technology and experience producers want—but also unable to afford the technology or acquire the experience without first gaining a premium contract. It's a classic Catch-22, and it works to prevent market entry by would-be competitors.

Will the business designs of top-performing drilling companies continue to generate superior returns in the future? Our analysis strongly suggests that the answer is "yes"—and the proof is in fleet utilization rates. Although the overall rate stands at nearly 80 percent—close to a record high—the broader market figure masks a distinct shortage of high-spec rigs, which is good news for drilling companies that have stocked up on this specialized machinery. Why? Partly because low-spec land rigs can be fabricated virtually anywhere a drilling company can find welders. But high-spec equipment requires more sophisticated design and fabrication as well as drilling contractor crews who know how to outfit and commission the rigs. When new projects demand high-spec rigs, E&P companies have no choice but to find a contractor who can supply them—and pay the hefty dayrates they command.

A Closer Look at One Investment Opportunity

When the unique characteristics of the drilling segment are combined with recent market data from oil and gas producers that have owned rig fleets, a scenario of interest takes shape. As noted earlier, E&P executives have realized that running a drilling operation differs markedly from running an E&P operation. According to Tom Wingerter, President of Express Drilling Services, LLC (the drilling subsidiary of CDX Gas LLC): "It's important to recognize the mindset differences and skill levels between an exploration and development company and a service company. If you can get the right folks in each skill set, you can be very successful at doing both. If you try to run one like the other, it will never work."[1] But even with the right drilling personnel and assets, an oil and gas producer cannot expect a return on its investment until a rig is fully assembled and working.

CEOs of publicly traded E&P companies also are keenly interested in the financial trading multiples of the various divisions within their firms. E&Ps are trading at 2008 EBITDA multiples of about 5x, while small-cap contract drilling companies are trading at multiples of 4x to 8x-plus. This suggests that drilling rigs may be worth more to a pure-play contract driller than to an oil and gas producer. If on top of this not owning rigs will not greatly impact the producer's drilling programs, it may then move to divest any rigs it does own.

These trends could offer investors an opportunity to create a contract drilling company built from divested rig fleets. A "road map" for such a play could include the following strategies:

- **Assemble the right leadership team.** Identify experienced contract drilling managers and bring them together as a team to lead the new company.

- **Acquire the right assets.** Acquire 30 or more high-spec, fit-for-purpose rigs. The best potential sellers are producers who have learned that the challenges of running a contract drilling business are greater than they had previously considered. Position the rigs in basins where drilling activity is increasing and where the new company can quickly establish a "top three" market share position. This will enable the company to achieve the economies of scale needed to ensure equipment availability, to lower overall costs, and to boost the bottom line.

- **Ask for long-term contracts.** Forge long-term (3-plus years) agreements with oil and gas producers, such as firms that are considering divesting their rigs. These firms will value the secure availability of the new company's services, and the new drilling contractor will benefit from the stability of guaranteed cash flow.

1. Source: *Oil and Gas Investor This Week*, January 1, 2007.

- **Anticipate growth.** The newly created company will benefit from a well-designed growth strategy. Such a plan can be developed by determining where value is migrating in the market and then building a business design around these insights, backed by an organizational system and culture than can properly support the company's strategic goals over the long term.

The oilfield services industry will always be volatile. But "volatility" does not necessarily translate into a negative—especially for investors with the ability to identify new possibilities and forge them into profitable enterprises. The critical requirement is to make the right choices across business design elements and focus company execution on staying consistent and true to those choices.

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Oliver Wyman's Oil and Gas Practice assists clients across the breadth of strategic, organizational, and operational issues, delivering value growth strategies and improved operations with *measurable results* to clients. Our professionals help investors with deal targeting, assessment/diligence, and post-acquisition integration and growth strategy development.

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About Oliver Wyman

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