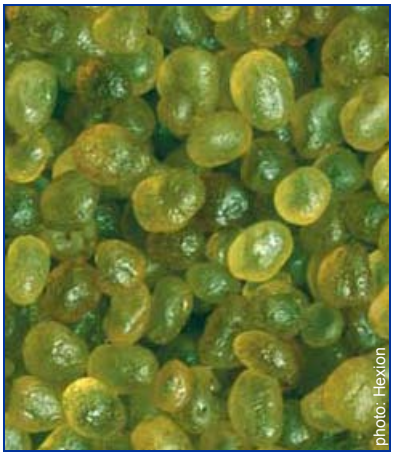

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Study #2636 | May 2010 | $4900 | 312 pages

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Table of Contents

EXECUTIVE SUMMARY

MARKET ENVIRONMENT

TECHNOLOGY

PRODUCTS

REGIONAL MARKETS

INDUSTRY STRUCTURE

COMPANY PROFILES

(continued on following page)

Well Stimulation Materials

US Industry Study with Forecasts for ***2014 & 2019***

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Table of Contents

COMPANY PROFILES

(continued from previous page)

List of Tables/Charts

EXECUTIVE SUMMARY

MARKET ENVIRONMENT

PRODUCTS

REGIONAL MARKETS

INDUSTRY STRUCTURE

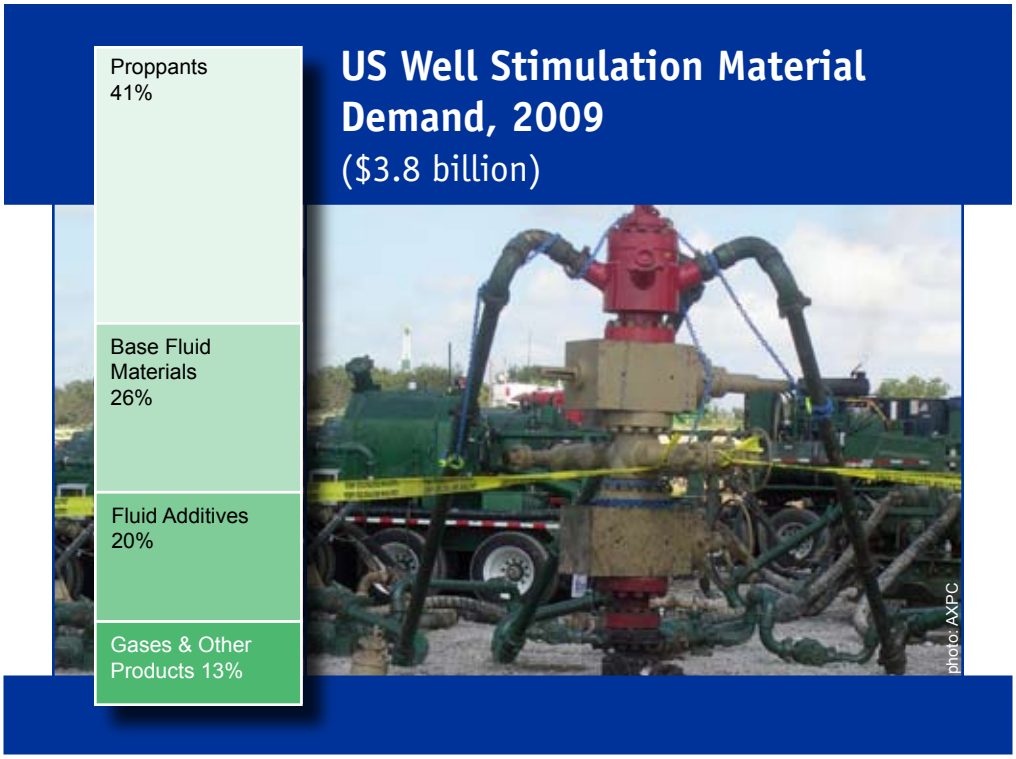
Well Stimulation Materials

US Industry Study with Forecasts for ***2014 & 2019***

Demand will be buoyed by renewed efforts to reduce dependence on foreign energy sources, particularly from unfriendly or unstable countries, and by historically high oil prices.

US demand to rise 14% annually through 2014

US demand for oil and gas well stimulation materials is projected to increase 14 percent per year to $7.35 billion in 2014, buoyed by renewed efforts to reduce dependence on foreign energy sources, particularly from unfriendly or unstable countries. Well stimulation is necessary in order to maximize the output from aging US oil and gas fields, and to optimize production in unconventional settings such as tight gas, shale and coal bed methane. The Haynesville Shale in eastern Texas and western Louisiana, and the Marcellus Shale in the Eastern Region of the US are among the most promising drilling areas and hydraulic fracturing is critical to the development of these formations.



Market environment trends favor domestic oil drilling

Going forward, the outlook for domestic oilfield activity is fairly promising. Although the days of "easy" oil production in the US have long since passed, there are a number of factors contributing to this generally favorable outlook. Concerns about the continued reliance on foreign sources of oil (especially from unstable or unfriendly countries) have prompted greater emphasis on increasing US energy production, including oil and gas production in addition to alternative and renewable energy sources. Moreover, following the pricing turbulence of the past few years, oil prices have -- for the time being -- stabilized at a high level by historical standards. This will boost drilling activity despite a number of concerns about safety and environmental impact.

Hydraulic fracturing, acidizing among best market opportunities

In order to optimize production in US oil and gas fields -- both in mature production zones and in newer, unconventional producing regions -- well stimulation techniques such as hydraulic fracturing and acidizing have become more widely used, and will continue to expand their market presence as drilling activity continues to grow. Perhaps the greatest level of enthusiasm for increasing domestic production lies with shale gas formations. These formations contain immense amounts of gas, but have been underdeveloped due to technological infeasibility. Many of the technical challenges have been overcome, allowing for fuller exploitation of these promising resources. Even so, well stimulation itself has become the target of considerable scrutiny about the potential for environmental damage. Legislation proposed in the US Congress aims to remove hydraulic fracturing's exemption from the Safe Drinking Water Act's stipulations regarding underground chemical injections near groundwater supplies. The bill would also require companies to disclose the chemicals used in fracturing fluids.

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Sample Text, Table & Chart

PRODUCTS

Crosslinking Agents

Demand for crosslinking agents, which is closely rel
demand for polymeric gelling agents, is forecast to grow
in 2014. Volume is expected to
the same period. In recent yea
e been slower than for gelling
ear, or uncrosslinked, stimulati
c fracturing of coal bed methan
s leveled off somewhat; as a re
gents will be more comparable.

SAMPLE TEXT

Crosslinking agents are used to cause gelling agents
gum to crosslink at the molecular level. Crosslinking the
increases fluid viscosity, increasing both achievable press
ing and the capacity to transport proppant. Uncrosslinked
can have a gelling agent added with no crosslinking agen
linked fluids are sometimes used for hydraulic fracturing
and in uses such as those with a tendency for the formation's conductiv-
ity to be critically affected by a residual crosslinked gelling agent.

The two main types of crosslinking agents are borates such as boric acid and organometallic compounds such as organic titanates, zirconates and aluminates. Sodium tetraborate decahydrate is the most common chemical used to crosslink guar and guar derivatives. Other, less widely used, crosslinking agents include monoethanolamine, phenyl acetates, and chromium carboxylates.

Demand for borate crosslinking agents in well stimulati
forecast to grow 11 percent per year to $76 million in 2014.
is projected to increase to 115 million pounds. Borates are t
commonly used crosslinking agents in well stimulation fluid
tetraborate decahydrate is the leading borate crosslinking ag

137

TABLE IV-24

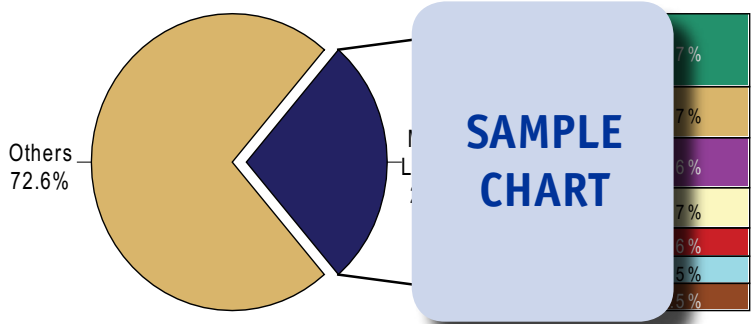
FLUID ADDITIVE DEMAND BY TYPE
(million dollars)

Item	1999	2004	2009	2014	2019
Producing Wells (000)					5.0
lb/well					9
$/well					8
Fluid Additive Demand (mil lb)					0
$/lb					1
Fluid Additive Demand					0
Breakers					0
Friction Reducers					0
Fluid Loss Control Agents					0
Nonemulsifiers					0
Biocides					5
Corrosion Inhibitors					0
Other Additives					5
% fluid additives					2
Well Stimulation Material Demand					000

SAMPLE TABLE

CHART VI-1

US WELL STIMULATION MATERIAL MARKET SHARE
($3.8 billion, 2009)



SAMPLE CHART

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Sample Profile, Table & Forecast

TABLE V-9

WESTERN REGION: WELL STIMULATION MATERIAL DEMAND
(million dollars)

Item	1999	2004	2009	2014	2019
Western Region High Output Wells (000)					4.9
000$ material/well					.3
Western Region Well Stimulation Mtls					50
Wyoming					50
California					55
Colorado					00
Other Western Areas					45
% Western Region					.8
Well Stimulation Material Demand					00

SAMPLE TABLE

COMPANY PROFILES

Badger Mining Corporation
409 South Church Street
Berlin, WI 54923
920-361-2388
http://www.ba

Annual Sales:
Employment:

Key Products: packing sand proppants

SAMPLE PROFILE

Badger Mi dustrial silica sand, limestone and other mineral aggregates. These materials are used primarily to serve the industrial, environmental and recreational markets for such applications as hydraulic fracturing, gravel packing, water filtration and sewage treatment. Operations for the privately held company include two wholly owned subsidiaries: Atlas Resin Proppants LLC and Badger Mining Poland Sp zoo.

The Company competes in the US well stimulation material industry through the manufacture of industrial sands for use as proppants in well stimulation operations. For the oil and gas industry, Badger Mining makes BADGER FRAC hydraulic fracturing sands and BADGER PAC re-sieved gravel packing sands. These products, which encompass Northern White raw sands in mesh sizes ranging from 12/20 to 70/140, offer high-quality, consistency and long-term conductivity properties.

BADGER FRAC and BADGER PAC sands are manufactured at facilities in Fairwater and Taylor, Wisconsin. The Fairwater facility specializes in 40/60 through 70/140 grade fracturing sands, which are

242

"Demand for well stimulation materials in Colorado is projected to grow 14 percent per year to $440 million in 2014, driven in large part by tight gas sands and CBM activity. Virtually all well stimulation materials demand will be for use in hydraulic fracturing. In most hydraulic fracturing that utilizes gelling agents in Colorado, conventional guar gums or other water soluble polymers are used as the gelling agent. A very small share of hydraulic fracturing in the state uses micropolymer or non-polymeric gelling agents as viscosifiers, but this percentage is growing mostly due to ..."

--Section V, pg. 202

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Other Studies

Drilling Products & Services

US demand for drilling products and services will rise 8.1% annually through 2014, as oil and gas drilling activity benefit from relatively high oil prices and US efforts to reduce reliance on foreign energy sources. Services will account for most gains, driven mainly by the high cost of drilling marginal wells. This study analyzes the $30.1 billion US drilling product and service industry, with forecasts for 2014 and 2019 by type and regional market. It also evaluates company market share and profiles industry players.

#2655 ..... July 2010 ..... $4800

World Hydrogen

Global demand for hydrogen is forecast to expand 3.4% yearly through 2013. Gains will be driven in part by the use of more hydrogen in refining low sulfur fuels. The Asia/Pacific region will surpass North America as the global leader in hydrogen consumption by 2013. This study analyzes the $39 billion world hydrogen industry, with forecasts for 2013 and 2018 by market, world region and for 17 countries. It also discusses the "hydrogen economy," details company market share and profiles industry participants.

#2605 ..... February 2010 ..... $5300

Refinery Chemicals

US refinery chemical demand will rise 5% annually through 2014, driven by the use of new, higher-value products which offer enhanced performance. Merchant hydrogen will remain the largest product type and grow the fastest. Petroleum treatment and conversion will remain the largest and fastest growing applications. This study analyzes the $5.5 billion US refinery chemical industry, with forecasts for 2014 and 2019 by application and product. It also evaluates company market share and profiles industry players.

#2629 ..... April /2010 ..... $4700

World Refinery Chemicals

Global oil refinery chemical demand will rise 3.5% yearly through 2013, driven by tightening environmental laws and efforts to boost gasoline and diesel fuel yields. North America will remain the dominant regional market, while the Asia/Pacific and Africa/Mideast regions grow the fastest. This study analyzes the 15.4 million metric ton world refinery chemical industry, with forecasts for 2013 and 2018 by application, product, world region and for 19 countries. It also evaluates company market share and profiles industry players.

#2570 ..... December 2009 ..... $5700

Oilfield Chemicals

US oilfield chemical demand will grow 4.4% annually through 2013. The market will decline in the short term then rebound by the end of the forecast period, based mainly on swings in oil and gas prices. Stimulation chemicals and EOR products will be the fastest growing segments. Acids and polymers used in stimulation fluids will see growth. This study analyzes the US oilfield chemical industry, with forecasts for 2013 and 2018 by product and raw material. It also evaluates company market share and profiles industry players.

#2546 ..... September 2009 ..... $4800

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