

Bentonite

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tion tons, he said.
Heightened environmental concerns about sewage treatment, landfills and hazardous wastes have taken the bentonite industry into new markets.

Thorson said the same properties that make the mineral a good drilling mud — its impermeability to liquids — also make it a good material to use to line sewage lagoons and to fill slurry trenches.

"We're fortunate that we are not like uranium or coal (industries) where the mineral is used as a fuel," he said.

The environmental end of the bentonite market "is finally starting to develop," as environmental controls on waste disposal and toxics tighten, he noted.

"We thought it was going to come 20 years ago, but maybe the regulations weren't stringent enough then," he said.

For instance, bentonite is seeing more use as a lining in sewage lagoons, he said. The mineral will hold the waste within the lagoon and keep it from leaching out into the surrounding soil in much the same way that a plastic or rubber lining would.

"Bentonite has the advantage that it repairs itself, if it gets leaks," Thorson said. "It's kind of like jelly — it just goes back together again."

Such uses of bentonite are not new, he said. In fact, the mineral was used to line stock tanks and seal the roofs of pioneers' homes over 100 years ago.

In addition to landfill covering and well plugs, another application is to mix bentonite with water to fill slurry trenches, he said. Slurry trenches create underground walls as deep as 100 feet to surround contaminated soil and to prevent it from leaking into adjacent properties.

Don Clucas of MI Drilling Fluid Co. in Worland said environmental applications of bentonite have improved the industry picture, but at this point it hasn't been a large enough market to return production to oil boom levels.

Clucas, who is also president of the Bentonite Producers Association of Wyoming, said it would be difficult to predict what kind of future environmental applications will bring to the industry. But he added, "That's the area that's growing."

Meanwhile, the demand for

drilling fluids has also gone up recently, he said.

Various grades of bentonite are suited to different applications, he said. Bentonite is also used as a taconite and in making castings in foundries. The same grade of bentonite for drilling mud is used in environmental projects.

The area of greatest demand for the mineral as a drilling mud is in foreign markets, he said, whereas the same grade is in demand in the southern states and the East Coast for landfills, trenching and lagoons.

The price of bentonite is stable, while the quantity of sales is up, Larry Madison, the financial officer with Black Hills Bentonite, said. The price could go up, but only with a much higher level in demand.

The drop in oil prices left the industry overbuilt and greater demand would be necessary to return production to capacity, Madison said. "The industry is still running at 55-60 percent of capacity, something in that range."

Black Hills Bentonite is currently processing a mineral patent claim to fill a demand for a certain grade, he said. That grade of bentonite is wanted by a Japanese company to mix with foundry sand.

While the mineral is found throughout the world, a higher grade of bentonite is readily available in Wyoming, accounting for its growth as an export, Thorson said.

While environmental applications of bentonite are a growing portion of demand, he said that end of the business is not a favorite in the industry.

Sales as a drilling mud gave producers greater continuity, he said. In the "environmental business," once a contractor finishes a job, the producer is left without a buyer and needs to try to establish a new sales relationship with another contractor to keep production going.

Environmental projects also entail greater financial and logistical problems, Thorson said. The buyer is less familiar with the product and "more things can go wrong."

Transportation of bentonite to an environmental site is not as well established as to a drilling rig site, he said. "Virtually every environmental job has some difficulty."

Sales In Environmental Business (continued)

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