

# ‘Priority one’: Abandoned oil waste pit eroding into Little Missouri River south of Medora

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Runoff from an abandoned pit that was used to store oil drilling mud and fluids nearly 50 years ago is eroding into the Little Missouri River south of Medora, the Department of Mineral Resources says. (Department of Mineral Resources Photo)

BISMARCK - An abandoned pit that was used to store oil drilling mud and fluids nearly 50 years ago is eroding into the Little Missouri River in western North Dakota, threatening to contaminate drinking water downstream as state officials develop a cleanup plan.

Department of Minerals Resources Director Lynn Helms told a legislative committee this week that the reserve pit south of Medora is “priority one” on a list of old abandoned sites targeted for reclamation using \$1.5 million appropriated by state lawmakers last spring.

The department has been aware of the pit for years but didn’t discover the erosion until starting the process of prioritizing the so-called “legacy” sites after lawmakers approved the funding in April, reclamation specialist Cody VanderBusch said.

Amerada Petroleum Corp. opened the roughly 100-by-50-foot pit in 1966 on the bank of the river and abandoned it the same year after the oil well failed to produce.

In 1986, after the site was reclaimed, the state released the \$15,000 bond on the well back to the company, which by that time had merged into what is now Hess Corp.

Any liquid that was in the unlined pit was either disposed of or soaked into the ground, VanderBusch said.

“You’re dealing with oil and probably salt, so it’s going to be toxic to plant life and it could be toxic to aquatic life. It just depends upon the quantities,” he said.

VanderBusch said “a little bit” of the pit may have eroded into the Little Missouri River, which flows into the Missouri River, a major source of drinking water for downstream communities including almost all of southwest North Dakota and the state capital, Bismarck.

The state Health Department has not inspected the site for water quality but will be working with the Department of Mineral Resources’ Oil and Gas Division to make sure there are no impacts, water quality director Karl Rockeman said.

An environmental assessment of the site has been completed, VanderBusch said. The department received lab samples last week and is drafting a cleanup plan that will likely involve stabilizing the riverbank and excavating the contaminated dirt, he said.

Kansas-based Terracon has been hired as an environmental consultant and will solicit bids for the cleanup work, which VanderBusch estimated will cost hundreds of thousands of dollars. He hopes to have it wrapped up before winter.

“Currently the water isn’t even up to the bank in that area, so the only time it really erodes is when the river comes up, so it’d be either in the spring or during a high rain event,” he said.

The last major Little Missouri River flood was in late May 2011, when Medora recorded its second-highest water level in history and the river rose well beyond its banks to flood multiple areas, including the Badlands Ministries campground about 1 mile south of the abandoned pit.

State lawmakers voted in April to expand the department’s fund for plugging abandoned oil and gas wells and site reclamation to include pipelines and facilities that were abandoned before Aug. 1, 1983, and in which the state has released the bond holding the company responsible. Cases where willful acts by the company degraded the land or water aren’t eligible.

“This is a very good example of why this fund was created, because there are some lingering things out there that we need to make sure are taken care of,” department spokeswoman Alison Ritter said.

Revenue from the state’s 5 percent gross production tax on oil supports the fund, which also can be used to clean up illegally dumped oilfield waste.

Because Amerada Hess followed the required reclamation process in 1986 and the bond was released, the company has no legal responsibility to participate in the cleanup, Ritter said, adding the law's intent was to be able to quickly address legacy sites where there is no continuing responsibility.

“The last thing we’d want to do is have this end up in court trying to get these companies to pay for those costs when this fund was set up to clean up these legacy issues where there isn’t that responsibility anymore,” she said.

The department has identified five additional legacy sites for reclamation, none of which pose an immediate threat to drinking water, VanderBusch said:

- A pit that apparently was used as a trash dump for oil production operations is eroding out of a butte and spreading debris across an area east of the South Unit of Theodore Roosevelt National Park and northwest of Fryburg.

- In Williams County, groundwater is flowing from a pair of shot holes - the result of underground detonations used in geologic surveying - that must be plugged.

- Contaminants from a buried reserve pit in northeastern McKenzie County are rising to the surface and causing damage.

- What’s believed to be an old flow line that would move oil, gas and water from an oil well to a central site for separation is leaking in northwestern Bottineau County, causing oil bubbles to show up in a field.

VanderBusch said he’s not sure if the \$1.5 million will be enough to cover all six sites during the 2015-17 biennium.

“We’ll just keep adding to the list and when we run out of money, we’ll just have to stop until the next biennium,” he said.

North Dakota phased out reserve pits in 2012, after spring flooding the year before caused some pits to overflow. Operators now must deposit dry rock cuttings in a drilling pit or special waste landfill and separate the muds and fluids right at the drilling rig so they can be stored in tanks or hauled away, Ritter said.

She noted the state no longer allows oil development so close to waterways.

“It’s clearly not a stable place to put a well,” she said.