"Look at cell phones or hunting, we went from brick phones and bows and arrows to smart phones and semi-automatic rifles," Brent Bogar, founder and CEO of Jade Consulting, Bismarck said. "The technology that is driving this industry is the same way. When you look at how it's gone from single-stage fracs to multi-stage fracs and the monitoring they can do, it is absolutely phenomenal what is being done right now in these shale plays."

Furthermore, the life cycle in creating rubber tires allow new technologies, ideas and even industries to emerge. However, the wheel itself and its basic core data is shared throughout the process. New technologies may emerge, and that continuous evolving core data soon becomes shared, too. This basic evolution of the rubber wheel and titanium hammer is happening in the Bakken and other shale plays across the planet.

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"Sharing data has been occurring on some level for quite a while, but has increased over the last decade or so," Mark Sonnenfeld, Vice President of Geosciences, Whiting Petroleum said. "In the '40s and '50s scouts would spy on each other and trade secrets. Some industries are so specialized, like fracking, where there are a limited number of companies who can frac, so success can become infectious and advancements in technology can spread quickly."

Sonnenfeld continued saying, historical, in the big picture of oil and gas, North Dakota came late.

"Things are good in North Dakota, because oil came late to the state; previous to that oil was imported in from Canada," Sonnenfeld said. Montana has plenty of historical oil production, including Elm Coulee Middle Bakken, but North Dakota's wealth of public domain data tends to enhance industry's ability to continuously reassess old plays in the search for new opportunities.

Lynn Helms, director, North Dakota Department of Mineral Resources, agrees with Sonnenfeld and the advantages in energy innovation.

"North Dakota has always been a high technology oil and gas business," Helms said. "We were late to the game. 1951 was our discovery well, and that wasn't able to happen until 2D Seismic technology was developed and allowed us to find where the oil was in the Nesson Anticline."

Since then, North Dakota has required operators to use "cutting-edge technology" due to extreme weather conditions, "deep and hot" rocks and the vast geography of the Bakken, according to Helms. The creation of these technologies are centered around a nucleus of core samples and data. And sharing this data is solidified deep within North Dakota's core.

The nucleus of the Bakken and all this innovation is a basic collection of rocks. Well, it's more than a basic collection of rocks, it's actually a library of core samples known as The Wilson M. Laird Core and Sample Library.

"North Dakota has a massive collection of core samples," Sonnenfeld said. "Not only is it a large resource for the state, but it is the largest core library in the

Image courtesy of Neset Consulting Service
Bakken Shale

Image courtesy of Neset Consulting Service
Tyler Sandstone

Image courtesy of Neset Consulting Service
Bakken Top Limestone