



THE TECHNOLOGY OF THE BAKKEN

By Jason Spiess for the Tribune

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A worker switches well heads during a short pause March 29, 2013, in the water pumping phase, at the site of a natural gas hydraulic fracturing and extraction operation run by Encana Oil & Gas (USA) Inc., outside Rifle, in western Colorado. Proponents of hydraulic fracturing point to the economic benefits from vast amounts of formerly inaccessible hydrocarbons the process can extract. Opponents point to potential environmental impacts, with some critics acknowledging that some fracking operations are far cleaner than others.

In 2011, I asked former North Dakota governor and current Continental Resources board member Ed Schafer how important technology is in the Bakken oil boom.

His prioritizing of where technology ranks for this oil boom was surprising.

“This Bakken boom is really more of a technology boom,” Schafer said. “Companies are developing cutting-edge technologies to capture North Dakota resources.”

When revisiting the topic with Schafer in December 2013, he said current technology is only getting about 5

percent of the oil out of the ground, and as the technology improves, more oil can be extracted from the ground.

Venture capitalist Steve Fifita agreed with Schafer’s view on technology’s role. Fifita’s background is in technology and detecting emerging markets. He sees many of the same inflection points, meaning the paradigm shift from traditional to modern day drilling technology.

“What opened this market back up was a technology disruption,” Fifita said. “In a former life, my job was to literally identify those inflection points, preferably in technology, so those I worked for

would benefit. And in the case of the Bakken, the technology of horizontal drilling that’s been applied has completely opened up this market.”

Fifita continued by theorizing that if the technology of fracking is improved, the recovery rate could reach eight or ten percent and increase output significantly.

In addition to horizontal drilling, one of the key drivers in this technology is hydraulic fracturing, or fracking. It has been referred to by many as a “game-changing tool” in terms of making oil production economical. Fracking involves injecting pressurized fluid into rock formations to create pathways for oil to

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