

ENERGY SCENE WITH JASON SPIESS



Steve Hareland, owner, Agassiz Chemical; Nabor's Tyson Olsen, tool pusher and rig manager; Greg Burquist, drill superintendent, in front of the well pad.

XTO Energy holds the mineral rights on the property about 20 miles northeast of Watford City and is working with Houston-based Nabor's Drilling to drill wells and extract oil and natural gas from the Bakken shale formation about 17,000 feet underground.

The oil and gas industry has invested large amounts of capital into efficiency, and rig assembly is just one of the examples of it paying off.

"A good rig move, assuming all the trucks and everything moves in a perfect world, will take about four days," Olsen said. "We contract out the trucks and crane, but our crews do pretty much everything else."

A well cycle operates in three phases – drilling, completion and production. The drill is surrounded by a sea of metal, machinery, computer monitors and safety signs. It is controlled in a nearby room by directional drillers, who monitor graphs and relay instructions to the driller. The driller, in turn, precisely controls the drill underground.

As the well is drilled, multiple layers of steel pipe, casing and cement are lined to separate the oil and gas. The well is equipped with a blowout preventer (BOP), which acts as a backup in case there are any issues in the process.

The BOP is a large, specialized mechanical device used to seal, control and monitor oil and gas wells. The BOP controls the extreme erratic pressures and uncontrolled flows or kicks emanating from the well reservoir. Additionally, the BOP controls the down hole pressure and flow of the oil and gas.

"Tyson and I have put the BOP together more times than I care to recall," Nabor's Greg Burquist, drill superintendent said. "The BOP is the fail safe device." O



Looking down the conveyor system for the 90-foot drill pieces lying adjacent on the ground



Nabor's Tyson Olsen, tool pusher and rig manager; Greg Burquist, drill superintendent, stop for a quick photo on the well pad.



A Nabor-ly view of storage, housing, offices, parking and the other neighbors



Another Nabor-ly view of the mechanical, engine and more storage containers



A view/perspective of the derrick and crown block



Mud flow line



The adding of dry components to the mud through a hopper



On site electrical room – A look at one of several walls of electrical circuits and breakers



A 90-foot drill piece in the mousehole