AI tech keeping oilfield wells flowing



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An employee of Telemetry Insight places a Wellwatcher unit on the walking beam of an oilfield pumpjack. The device will monitor the unit's performance 24 hours a day and relay that information back to Telemetry Insight via a cellular connection. The company will use that data to provide the well's owner with vital information about the well's performance.

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NEWS-SUN

Time is money, and in a post-COVID world where help is hard to find, even in the oilfield, every bit of technology that can help keep the oil and gas flowing is a welcomed tool.

That's where Randy Krall, founder and CEO of Albuquerque-based Telemetry Insight, sees his company's role in helping oil companies keep the literal gears of production turning.

Krall's company is the producer of "Wellwatcher," an artificial intelligence-assisted device that can help oil execs keep an eye on their pumpjacks far out in the desolate oilfields of West Texas and Southeast New Mexico without having a person on location 24 hours a day.

Wellwatcher is an offshoot of a previous start-up company, "Wellkeeper," Krall founded, built-up and sold that developed technology to monitor oilfield batteries.

Wellwatcher monitors pumpjacks.

According to a recent article in the Albuquerque Journal, the oil industry is projected to spend about \$58 billion worldwide on "oil-well interventions" like Wellwatcher, by the end of the year.

That projection is a 20 percent increase to last year and represents a growing culture in the industry to squeeze even more production out of older wells as the world nears projected peak oil production sometime in the next 15 years.

"What became the minimum viable product was a device that would tell you if it is running — the hours, strokes per minute, things like that," Krall said of Wellwatcher. "That is what we are doing, what they are paying us for. And the reason they are paying us is the data is in a very useable report sorted by down time. They are able to solve problems based

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on that knowledge."

Krall rolled out the first prototypes for testing just 18 months ago and already has anecdotal reports from customers saying the \$600 Wellwatcher units have saved them thousands of dollars.

Telemetry Insight has so far placed more than 100 Wellwatchers on pumpjacks in six states.

At a cost of \$600 per unit that includes a year of service, Well-watcher's watchful eye costs pennies on the dollar compared to the potential savings in lost revenue from a down pumping unit.

"We think it is a very affordable price option," said Shelley Barratt, chief operations officer for Telemetry Insight. "We are hoping it will be come ubiquitous in the Permian."

The Wellwatcher device is solar powered and can be easily installed on a pumpjack by the well's owner or an employee, Barratt said.

"It is so easy," Barratt said. "If anything it is a two-minute install. All they have to do is let us know which unit they put on which well."

The device is secured to the top of the walking beam of the unit by a large magnet and simply switched "on." It begins sending its telemetry data to Telemetry Insight via a cellular connection and the information is tracked 24/7 with daily reports sent to the well owner.

Krall said he has heard from oilfield lease operators, known colloquially as "pumpers," the Wellwatcher is a threat to their jobs, but Krall doesn't see it as taking a job, but making pumpers' jobs easier.

"That is absolutely not true," he said. "I have no illusions what I'm doing could ever replace what a pumper does. But what we can do is be able to tell you where to go rather than driving around looking for problems."

For companies dealing with employee shortages due to a lack of willing workers, Krall's tech can help direct resources to repair or service down equipment, getting production back online and the oil and money flowing again.

Barratt said she's already speaking with customers who have found that aspect of Wellwatcher to be invaluable.

"We have a client who had a pump that was turned off when it was not supposed to be," she said. "They were able to send someone out and get that pump going sooner because they knew it was down. A couple of our clients use it as a double check for the work their pumpers are doing. Some use it in lieu of sending pumpers to those locations every day. There is a variety of reasons and ways people are using the data."

And at the end of the day it is really the data making Wellwatcher so valuable.

Krall said the idea for Wellwatcher began as simple.



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Telemetry Insight CEO Randy Krall handles a Wellwatcher unit at the start-up's production facility in Albquerque. The company is beginning to ramp production of the small monitoring units that can help oil producers monitor well activity and reduce down times of pumping units.

Is the well pumping? That's what it — in its basic form — is meant to tell the well owner.

But the data being collected by the device is opening new avenues that could be game changing for producers.

"The hardware we are using to answer those simple questions, the data we are collecting, is like using a sledgehammer to kill a fly," Krall said. "Our early customers asked if we could detect pump off."

Pump off is a term used by oilfield workers to describe when a well — typically an older well nearing the end of its life cycle — stops producing fluid, especially oil, and needs to "rest" so the geological formation beneath the ground can replenish the well's annulus (bore hole where the fluids are pumped from).

"We collected a lot more than we needed for stroke counting and we are successfully learning to detect pump-off," Krall said. "We are not ready to sell that technology yet, but we are very excited about it."

The company, which started on \$1 million in seed capital, is beginning to ramp up production of Wellwatcher units and is already backlogged with orders, in particular from small operators with geographically large production areas.

"We really are ideal for the independent operators," Barratt said. "From Hobbs to Midland, where there are so many wells and so spread out, there is no reason every well shouldn't have a Wellwatcher on it."

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