

OKA' SUSTAINABILITY CONFERENCE

Oká' Sustainability conference showcases mobile technology to remediate water produced in drilling operations

Billions of barrels of salty, grimy water are produced by the nation's oil and gas drilling operations annually, with few alternatives for its disposal.

The water is so polluted that it can't be used again for drilling operations and has no place to go except deep into the earth. That water must be hauled long distances to disposal wells and more fresh water imported for operations.

"What's happening with advances in drilling technology, they are drilling deeper wells and longer laterals," said Joe Haligowski, sales director for Filtra-Systems LLC, a company owned by Chickasaw Nation Industries. "That's producing more oil, but it's also producing more water."

The AQWATEC research center at the Colorado School of Mines reports that 21 billion barrels of water are produced annually by U.S. drilling operations.

Enter mobile technology developed by Filtra-Systems to meet that challenge. The Chickasaw-owned company showcased its new SCOUT mobile water recycling system at last week's Oka' Institute Sustainability Conference at East Central University.

The SCOUT technology cleans polluted water as close to the drilling operation as possible so it can be reused in future operations instead of flushed into disposal wells.

"Oká'" is the Chickasaw word for water, and the Oka' Institute was created in 2016 with support from the Chickasaw Nation, the Ada Jobs Foundation and the City of Ada with seed money from the Sciences and Natural Resources Foundation. Former state Sen. Susan Paddack is the institute's executive director.

The Oka' Institute sponsors the annual Sustainability Conference to focus on ways to protect Oklahoma's water resources for future generations.

That's where Filtra-Systems and its SCOUT technology fit the agenda.

"The advantage of reusing water as much as possible provides a cost benefit not only to the oil company but also a benefit to sustainability," Haligowski said. "We believe that's important, but it's also good business."

The October 2-3 conference attracted over 200 people, from five states as well as international participants, from diverse industries for which water sustainability is critical. The theme of this year's conference was Quality Water Now and in the Future.

"The whole purpose of this conference is to bring people together who are in agriculture, people who are in oil and gas, utilities, people who are in academic positions in the state, to have this conversation about how we are going to ensure we have water resources forever more," Paddack said.



Water sustainability is more than just preserving water to sustain future generations, Chickasaw Nation Gov. Bill Anoatubby said in a keynote address at the conference.

“Investment in water sustainability is an investment in both our environment and our economy,” Anoatubby said. “Investing in water sustainability builds businesses, safeguards communities, protects the environment and strengthens durable economic health.”

How is sustainability good for business?

For starters, it could be jobs. The SCOUT mobile water recycling system is largely manufactured in Marietta, where Filtra-Systems employs about 70 people in the southern Oklahoma community.

Then there is Jimmy Emmons, a farmer from Leedey in far western Oklahoma. Emmons adopted no-till farming practices in 1995, then adopted crop rotations, cover crops and planned grazing management to decrease soil erosion and increase water infiltration of the soil.

“I’m here at the Oka’ Institute conference to share a little bit about soil health and why we should be worried about how we farm,” Emmons said. “My message is for us to think about what we are doing because as a nation we’ve eroded half our top soil, and within that is organic matter that has water holding capacity of our soil. Soil health is the key to helping have more water in the water cycle.”

Instead of planting only wheat and cotton on his 2,000 acres, Emmons now rotates through eight different crops and saves thousands of dollars a year on fuel costs by not plowing his fields. The topsoil doesn’t blow away and the ground holds more water.

“We keep something living and growing, which really mimics Mother Nature and the native prairie system,” he said.

In 2017, Emmons was the first Oklahoman to receive the Leopold Conservation Award, which recognizes achievement in voluntary stewardship and management of natural resources.

A third generation farmer on his Emmons Farms property, Emmons serves as president of the Oklahoma Association of Conservation Districts and is vice president of the not-for-profit educational organization known as No-Till on the Plains.

“The Oka’ Institute conference here is so important to Oklahoma because they are trying to bring forth how important water is, how we take care of it and how we manage it,” Emmons said. “We very seldom look at that.”

[Watch the video](#)