Sharing Heavy Oil Technology

Jack Stevenson, Manager, Heavy Oil Focus Area, Chevron Energy Technology Company

Heavy oil is a thick fluid that looks like molasses. Here in Kern River, we have lots of heavy oil, and we started producing on primary production for many years and were only able to recover about 10 percent of the oil. With steamflooding technology, we’ve been able to increase that to upwards of 70 to 80 percent recovery.

Chevron is partnering with the Kingdom of Saudi Arabia and the Kuwait National Oil Company in order to develop our capability to extract billions of barrels in places like the Partitioned Zone, the Wafra Field. We bring in engineers and geologists from our operations throughout the globe here to the San Joaquin Valley for a two-year assignment to develop their capability as next-generation technical leaders.

Abdulaziz Bomarah, Reservoir Engineer, Chevron

My name is Abdulaziz Bomarah. I came from PZ, Partitioned Zone. This area is placed between two countries, Kuwait and Saudi Arabia. I came here to learn about the process of steamflooding.

Lutfi Abdullah, Production Engineer, Chevron

The challenge that we have over there in PZ is that all the easy oil is gone. We are here right now to learn about the new technology to extract all the remaining billions of barrels of heavy oil still in the ground.

Jack Stevenson

They get a combination of targeted training, development assignments and project work. They operate under a learn-and-earn philosophy: We learn from them and they learn from us.

Lutfi Abdullah

It’s not a one-way experience; it’s two-way, where we can learn and apply what we have learned by doing the actual work here in Kern River.

Abdulaziz Bomarah

The hands-on training is one of the most important things we are doing here, because you need to make sure the work is done safely and properly. And you can see the tools, you can touch them, you can work with them.

Jack Stevenson

So this is a great opportunity for the Saudi employees. There’s very few places in the world where you can get such direct experience and tie both the technology and technique together that will provide them the opportunity to lead their operations in the future.
Abdulaziz Bomarah

By having this technology, we will be able to get around 60 to 70 percent of the oil recovery in our area. And this will extend the life in our field and make a big opportunity for jobs for people in our country.