



Enchiladas and secrets: How the Eagle Ford Shale was drilled

Sergio Chapa

1,721 words

18 October 2018

San Antonio Business Journal

SABJ

English

© 2018 American City Business Journals, Inc. All rights reserved.

The aha moment that led to the discovery and commercialization of the Eagle Ford Shale in October 2008 came over enchiladas and drinks in San Antonio. Afterward, the key steps in making it happen were carried out in corporate secrecy — with many of those secrets locked away in Boerne.

Houston-based Petrohawk Energy Corp. was active in the Haynesville Shale of East Texas and the Fayetteville Shale of Arkansas in late 2007 when it was searching for the next big play.

Petrohawk was considering the Marcellus Shale in Pennsylvania, but Gregg Robertson with Corpus Christi-based oil company First Rock Inc. and Boerne-based landman Robert Graham had what turned out to be a better idea closer to home.

Robertson, a geologist by training, had worked with Petrohawk executives over the years drilling wells targeting the Austin Chalk geological formation throughout South Texas, while Graham had decades of landman experience leasing them for Clayton Williams Energy.

Robertson theorized that the Eagle Ford geological layer had untold amounts of crude oil and natural gas that could be unlocked by innovations in horizontal drilling and hydraulic fracturing techniques, but Petrohawk required data to prove it.

Graham and Robertson met to discuss the issue over a meal and "a couple of beers" at the Chuy's Tex-Mex off U.S. Highway 281 and Loop 1604 in early January 2008. That's when Graham remembered title work he had done for a gas well drilled by Houston-based Swift Energy Co. southeast of Cotulla in 1998. That project targeted the Edwards limestone, three geological layers below the Eagle Ford, and logs for the drilling project would contain data about the Eagle Ford.

Copies of the logs for Swift Energy's Pielop lease were housed at Texas Osage Royalty Pool Inc., a decades-old royalties and mineral rights company in a modest one-story building behind the Magic Time Machine restaurant off Loop 410. Graham had contacts at Texas Osage and arranged for Robertson to look at the Pielop lease logs. What Robertson saw sparked the shale revolution — changing the oil and natural gas industry, and some say, the world.

"The logs had much more data than I expected," Robertson said. "It was a wonderful find."

Randy Patterson, an attorney for Texas Osage, told the Business Journal that Robertson came to his law office to review the logs in February 2008 under the protection of a confidentiality agreement.

"After looking at the Logs for less than a minute, Mr. Robertson left the office with some noticeable excitement," Patterson said. "That afternoon, I sent a written report about the matter to the president of Texas Osage noting that there is no greater optimism than that of a geologist with an exploratory idea."

However, in the weeks that followed leased more than 6,000 acres in LaSalle County from Texas Osage targeting the Eagle Ford.

While the Pielop lease logs gave them enough to move forward, they needed more data as the project moved into a secret phase. Wilson and other Petrohawk executives had met with potential Wall Street investors, who suggested that the company use a code name for the project and avoid mentioning anything about the Eagle Ford to keep it under competitors' radar.

It was also agreed that all drilling permits and leases would be filed by Robertson's company.

"Petrohawk was already a known shale player," former company executive Charles Cusack told the Business Journal. "We were already known to spend a lot of money in the Haynesville. ... So, we wanted to keep our name out of it to avoid competition coming in, and it worked. We did it under First Rock's name, and most people knew them as Austin Chalk players and it wouldn't draw any attention. It was pretty well quiet until we announced it publicly."

Robertson and Petrohawk senior geologist Jana Payne, whose last name was Beeson at the time, chose the project's code name — Falcon. The two traveled to the University of Texas at Austin's **Bureau of Economic Geology** in February 2008 to look at drill cuttings from a 1952 well from Phillips Petroleum Co. that went through the Eagle Ford geological layer.

The cuttings had been stored in manila envelopes at the bureau's warehouse for more than five decades. A third-party analysis of those samples came back with the results that they were looking for. It was time to move to the next phase of the project.

Robertson immediately traveled to Houston to meet Petrohawk CEO Floyd Wilson and other company executives. Over a handshake, they agreed that the Eagle Ford would be their next big shale play with Petrohawk getting 90 percent and Robertson getting 10 percent.

Wilson authorized a secret leasing project in March 2008, instructing Graham and his landmen to lease as much acreage as possible. Over the next several months, they secured more than 175,000 acres of Eagle Ford oil leases in La Salle County and neighboring McMullen County — some for as little as \$100 per acre.

"There were a lot of good people in that area who hadn't leased in years," Graham told the Business Journal. "And with such large tracts, they didn't talk about their business with their neighbors, either."

As instructed, Graham did all the leasing in First Rock's name. The signed leases were locked in a fireproof filing cabinet at Graham's office off Interstate 10 in Boerne. He had instructions not to file them at the county courthouses until the company was ready to pull the trigger.

First Rock drilled three pilot wells spaced 15 miles apart, requiring service companies to sign nondisclosure agreements. The wells again proved that their theories were correct and that they were on the verge of discovering a vast natural gas field.

First Rock moved forward with a commercial gas well project on its STS lease a few miles southeast of the La Salle County town of Los Angeles. Drilling rig operator Nabors spudded the well in July 2008. It took about a month to complete the drilling process, piquing the interest of rival oil companies whose owners circled the site in their private helicopters.

"You had people driving by with binoculars, hanging out and trying to see what's going on, trying see if you have tank trucks pulling up or if you're laying pipe or pipeline for natural gas," Wilson said.

A completion crew from Schlumberger finished the hydraulic fracturing process in early October 2008. Wilson was at the site on Oct. 11, 2008, to watch the results firsthand.

"You do these frack jobs, and the wells don't turn around immediately," Wilson said. "As soon as it started getting a little pressure and showing a little gas, I jumped in my SUV and drove out there for it. It wasn't as big a well as you can get down there now with longer laterals, but it was exciting."

Robertson and Petrohawk Chief Operating Officer Dick Stoneburner were enjoying the Texas-Oklahoma football game at the Cotton Bowl in Dallas when their cellphones started to go off with messages that they had achieved commercial levels of natural gas production.

Petrohawk named its newly discovered natural gas field Hawkville — a nod to the company's name and its work in the Haynesville and Fayetteville shale plays. The company issued a news release announcing the discovery on Oct. 21, 2008.

The company's STS gas well is credited as the first commercial discovery in the Eagle Ford. Although other companies had been tinkering with Eagle Ford projects, Stoneburner said Petrohawk beat them to the market because it was a small and nimble company with a flat organization.

"You just don't do that. You don't put a play together and make a discovery of that size in 10 months," Stoneburner said. "But we were able to do it because [we had] a very lean team. There wasn't a lot of us working on it, but we were all in lockstep with what we needed to do, and we did it very efficiently. We went from one step to the next without any hesitation between those steps."

Houston-based EOG Resources Inc. (NYSE: EOG) announced the discovery of the Eagleville crude oil field in Karnes County in March 2009, and soon, oil companies from all over the world were pouring billions of dollars into the Eagle Ford.

Working with a head start over its competitors, Petrohawk was able to secure more than \$3 billion of investment at the height of the 2008 financial crisis.

"Even after we announced it publicly, we already had a head start on mapping, knowledge of the area and contacting landowners, so we were able to continue expanding our footprint," Cusack said. "Dozens of companies came in, but we were able to outbid them, outsmart them and move faster."

Robertson and the Petrohawk team had meanwhile become celebrities at industry conferences. Ultimately, Petrohawk sold its assets to Australian mining giant BHP Billiton (NYSE: BBL) in a \$12.1 billion deal that closed in August 2011. Earlier this year, BHP Billiton agreed to sell those same assets to British-owned BP PLC (NYSE: BP) for \$10.5 billion, a deal expected to close this month.

Like all other shale plays, the Eagle Ford got stung by the downturn in commodity prices that started July 2014 and lasted about two and a half years. During that period, Eagle Ford companies found ways to lower their per-barrel costs by making their drilling and completion techniques more efficient. Those innovations are helping the South Texas shale play in the ongoing industry recovery.

The team that first drilled the Eagle Ford has moved on to other projects and appreciates the significance of the shale play's 10th anniversary.

"It's a great example of what can go on in a country like ours with a relatively small company and with a core of hardworking people that are willing to take chances and put their reputations on the line," Wilson said.

Did you find this article useful? Why not [subscribe](#) to San Antonio Business Journal for more articles and leads? Visit bizjournals.com/subscribe or call 1-866-853-3661.

Document SABJ000020181018eeai0005I