

Mann leads oil exploration to new frontiers

Ryan Mann feels the thrill every time he visits Baldpate Platform in the Gulf of Mexico. The helicopter ride to the boat based at the off-shore oil rig is always exciting. But the real adrenaline rush comes when he climbs into a basket and a crane hoists him three football fields above sea level to the platform deck.

Not every day is this adventure packed, but as Amerada Hess Corp.'s lead geophysicist for all new venture exploration in Brazil, Trinidad and Venezuela, Mann's work is never dull.

Mann, BS '96, earned his master's in structural geology and salt tectonics from the University of Texas at Austin in 1998. He immediately went to work at Amerada Hess and in April 2001 was named senior geophysicist, a title his NDSU professors say is usually reserved for more experienced scientists. And in March he was promoted again to staff geophysicist. "I know it doesn't sound as good as senior," he said, "but it is."

Mann, who makes his home in Houston with another NDSU geology student, Amy Lantto, and their two children, Colby, 2 1/2, and Kylie, 4 months, recently took time for an e-mail interview about his career. Some replies have been edited for length.

Where do you do most of your work? On land, at sea, in South America, Texas?

Almost all of my work is done in the Houston office. I do travel often – once a month – to South America and/or Trinidad/Venezuela. I find travel one of the perks of the industry, but in this day and age of technology – if it were not for multiple meetings – I could probably even do my work from Fargo.

What is the most important part of your job?

Simply to find oil; find the "best basin, best play, best prospect." As part of the New Ventures team it is my job to find the next place where Amerada Hess should invest its money.

What key characteristics/factors do you need to see before you'll direct a crew to start drilling?

Each region's specific characteristics are different, but basically what remains the same around the world is you want to lower your risk in four areas. You want to be reasonably confident that you have: trap – a structure that holds oil or gas; reservoir – the type of rock that acts as a reservoir for hydrocarbons; seal – rock surrounding the reservoir that seals in hydrocarbons; and source – a basin that is generating hydrocarbons.

What is the most cutting-edge technology available to you?

Seismic imaging and seismic processing. This is the ability to image the sub-surface and through processing to make the image even more clear.

Is luck ever involved?

Always. Once you think you have Mother Nature figured out, she will show you who is the boss.

What is your perception of Earth's oil supply?

There is a lot of oil and gas left to be found around the world. My job is to find those frontier areas of the world where it hasn't

been found yet and to apply new concepts to find oil and gas in the regions where hydrocarbons have been discovered already. The world's oil supply will not run out. It will just become more expensive to find, and the world will either pay more to find it or will find an alternative energy resource.

When did you first think that you might want to pursue a career in oil exploration?

The very first time I thought I might want to pursue a career in the petroleum industry was during an advanced structural geology class with Dr. Donald P. Schwert. Structural geology has always been the branch of geology that I loved the most, primarily due to its heavy mix of math and geology. After working on a few projects, I realized that many of them had to do with finding oil. I enjoyed the challenge and thought that a career doing these types of projects could be fun ... not work.

What was the key factor in getting the job with Amerada Hess?

I think it was a series of events that worked out perfectly. It started with the background I received in the NDSU geology department from Dr. Schwert, Dr. Saini-Eidukat, Dr. Ashworth and Mrs. Hatzenbuehler. When I was looking for a graduate school, Dr. Saini-Eidukat connected me with Dan Schultz-Ela, a research scientist with the Bureau of Economic Geology, which is directly associated with the University of Texas at Austin – probably the most highly recruited school by the oil industry. A research assistantship with BEG and my research on salt tectonic processes in the Gulf of Mexico put me in contact with many of the big-name oil companies. And there was timing – when I graduated with a master's in 1998, almost all of the companies in the oil industry were recruiting.

What would you tell those interested in getting into the petroleum industry?

Go for it. It's not as volatile an industry as it has been in the past. I chose Amerada Hess because of their "hands-on/learn as you work" training program and how I had a big say in my career path.

To date, what has been the highlight of your career?

Without a doubt, drilling a well and finding oil. There is nothing more satisfying than testing all your ideas and work with the drill-bit and finding out that you were right. A more specific highlight was getting Amerada Hess excited to invest in a new area of the world (Brazil) based on my work.

Do you have goals you're striving to meet?

I have been in the industry for about seven years now. I want to stay connected to the technical part of the job, but am working toward a more a supervisory role where I hope to mentor others.



Ryan Mann