



California's Monterey shale play is coming of age

Western Energy managing director **Steven Marshall** shares some of the challenges his company faces as it pioneers drilling in an emerging play.

by **Tayvis Dunnahoe**, Senior Editor

Given that the Monterey shale is an emerging play, what first attracted Western to the prospect?

The rise of shale plays in the rest of the US put the seed of the idea in our heads. With all the buzz about the unconventional plays, we asked ourselves, “Why not a California shale play?” We knew that the San Joaquin Valley has a rich history of oil production, going back to J.D. Rockefeller and the Standard Oil era in the early 1900s, which is what really makes this play relevant today in that the easy oil was the target.

In the original land/oil rush in that area, the land got quickly locked up and the easy production was targeted first. And there was plenty of that.

The San Joaquin Valley Basin is home to four separate oil fields with production of over 1 Bbbl. So, despite a long history of oil production in the area – or perhaps because of it – the San Joaquin Basin has been somewhat overlooked, and in my opinion, underexplored, especially in the last 10 years.

In late 2007, amid other industry-wide “Shale Play” successes, we engaged our geology and geophysics (G&G) group to explore ideas in an area of the San Joaquin Basin that has long been known to be oil rich and shale rich but, as mentioned, had been overlooked.

The other key factors were, of course, technology and favorable oil prices, and that is clearly what is driving the latest land rush.

There have been thousands of successful wells drilled and completed in the Monterey in the San Joaquin Basin, but the new play is taking it deeper and essentially looking at the San Joaquin Basin with “new glasses.”

What is needed to bring the Monterey to full production as opposed to its current status as “emerging?”

For the overall play, the critical ingredient again goes back to technology and the ability to deploy 2010 completion and hydraulic frac techniques being used in the other shale plays, such as the Bakken and the Eagle Ford. Just like in all of these plays, there will be a steep learning curve on the drilling and completion side, and the “breaking of the code” specific to the San Joaquin Basin. To that end, Western is putting a great deal of emphasis on finding a JV (joint venture) partner that has superior drilling and completion technical experience in one of these plays, and will ultimately be a good match of skill sets with our land and G&G teams. It also shouldn’t hurt that the largest 3-D seismic survey in the history of California is coming right over the play as we speak.

What are some of the challenges?

One of the most challenging dynamics of the play has always been the land and title picture. As I mentioned before, the original land rush took place back in the early 1900s, so a great deal of the mineral estates have been severed and passed on since then. This, of course, set up a massive amount of title work and headaches early on, but in the end, it may have been the defining factor in allowing us to get such a strong foothold in the play and in some ways, get ahead of the competition. I am certain about one thing, whether by design or default, we now own one of the most extensive title banks in the San Joaquin Basin.

What level of infrastructure exists in your region of operation?

This is an area where we are in good shape and don't really foresee any infrastructure roadblocks. Since the area is flush with oil production, the infrastructure is pretty much in place and we don't foresee any takeaway constraints or refinery constraints either.

What will be the long-term benefits of developing the Monterey? Is there a timeline for development?

I think foremost will be a resurgence in the California oil patch. For much of the last two decades there was a sense that there were not growth opportunities in California, that it was just a legacy asset kind of place, and one had to go outside of California to find that growth element. I see that reversing a little.

There have been a number of recent developments, not the least of which was the Oxy discovery, which bode well for maintaining the status quo of production levels. There is even talk of California production increases. The development of the Monterey will be a significant piece of that development.

As far as a timeline for development, the primary guideline will be the 3-D survey that is being shot now. While I understand that Venoco is drilling and testing a few vertical wells in the area, in advance of the 3-D survey being completed, I don't see Oxy really putting their foot on the gas pedal until that data is in hand and evaluated. The survey is rumored to be completed in 1Q or 2Q 2011. Western is a licensee to a portion of that survey/data, and we will look towards drilling our first wells within the same time frame, as we are continuing to round out our acreage position. This luxury of time is also one of the significant keys to the play that really sets us apart from some of the others because of the nature of the leases. The majority of the leases are at least five years, with five-year options, so we can afford to be a little patient because we don't have a gun to our head like in the Haynesville and some of the other areas across the country.

What opportunities continue to exist in this region? Is there room for partnerships?

The biggest opportunities I see in the region aside from the shales would be all of the potential in the other zones, to be identified with the current 3-D survey and other surveys that are in the works. Without saying too much, we especially like the idea of going deeper in a few areas of the San Joaquin.

As for partnerships, Western Energy is certainly open to partnerships with the right group of people and where our teams will complement each other. I think where the play

will realize these benefits is when experienced operators from the other shale plays bring their knowledge and expertise and specifically these long lateral fracs to the San Joaquin. We would also agree with what Peggy Williams wrote in a recent article in *Oil and Gas Investor* magazine about the Monterey shale: that JVs fit well in today's market; buyers like the scale and repeatability of the shale JVs and sellers like the ability JVs give to hold onto large land positions and accelerate value.

Are there other constraints to development, namely environmental?

California is one of, if not the most highly, regulated oil and gas environments to work in. Operators here in the San Joaquin Valley take seriously their stewardship and responsibility to the people that work and live here, so this is not new territory, and this is definitely not Santa Barbara County or a coastal environment and all the challenges that brings with it.

Just like in all of these plays, there will be a *steep learning curve* on the drilling and completion side, and the *“breaking of the code”* specific to the San Joaquin Basin.

What are the next steps for Western Energy Production?

Since the DUO (Developing Unconventional Oil) Conference held in Denver in May 2010, we have literally been contacted at least once a day by both interested acquirers or potential JV partners and are now sorting through these opportunities. We have been approached with the “take the cash and go away” offers, but that has never been our desire. Our desire has been, and always will be, to find the perfect fit in a partner to maximize our position in the play and ultimately our value as a company. So our focus over the next few months is pretty simple. We will continue to grow our acreage position – which is now at roughly 60,000 net acres – as we make a decision on potential partnership opportunities being presented to us to develop the play.

And I think that is one of the most exciting things for everyone at Western, because while we were always confident that we were increasing value for the company, it's looking more and more like we may have the opportunity to pick our dance partner as well. **EXP**