Geosteering data is generally viewed as a tool used for keeping horizontal wells in a specific target zone. However, it can also be very useful for a regional evaluation and optimization of specific target intervals when entering a play. Vitruvian Exploration II acquired acreage and production in the SCOOP (South-Central Oklahoma Oil Province) horizontal Woodford play in January 2013. Although the technical staff had operated wells in seven different unconventional plays in the U.S., they had no experience in the deep Anadarko Basin.

Vitruvian’s acquisition included working interest and data in 27 horizontal Woodford wells drilled by three different operators. A regionally consistent stratigraphic framework was developed for the Woodford using approximately 35 type logs across the area. Vitruvian used this framework to build a geosteering database to analyze which Woodford intervals were being targeted by other operators before commencing their operated drilling program. Starting in mid-2014, rate of penetration (ROP) data was integrated with the geosteering data in order to identify and target Woodford zones of high reservoir quality with more favorable ROP. Vitruvian is currently using this integrated data set from more than 150 Woodford horizontal wells, drilled by seven different operators across the core of the play, to increase drilling efficiencies and well performance.

Figure 1: A snapshot of the activity level within the SCOOP horizontal Woodford trend at the time of Vitruvian II’s entry into the play. The red square outlines the study area, with the green circles indicating the 27 initial wells where Vitruvian had well data.

**Biographical Sketch**

Shannon Lemke is a geological engineer who has worked for 16 years in the oil industry. She is currently a Staff Geologist for Vitruvian Exploration II, LLC in The Woodlands, where she is responsible for exploration and operations in both the Woodford and Springer Shales.