UT study identifies risks in production for earthquakes in Delaware Basin

July 14, 2022 by **PBOG**

A new study by researchers at University of Texas that links oil and gas production in Delaware Basin to an increasing number of earthquakes may help oil and gas producers and regulators identify potential risks so they can adjust production and disposal activity to decrease risks. Researchers analyzed about 5,000 earthquakes above magnitude 1.5 from 2017 to 2020. They said 68 percent of the earthquakes were highly associated with oil and gas production, including hydraulic fracturing and disposal of produced water into shallow or deep geologic formations.

"These production activities are known to increase subsurface pore pressure, which is a mechanism for triggering earthquakes," Alexandros Savvaidis of the UT Bureau of Economic Geology said. "We now know a lot about how oil and gas activities and seismic activity are connected... This knowledge helps academics, regulators and industry work together to mitigate and minimize risk."

The study was funded by State of Texas through its TexNet program, which launched an online tool so that oil and gas operators can voluntarily report data on produced water injection to improve available information.