

Networks; Studies from University of Texas Austin Have Provided New Data on Networks (Probabilistic Neural Networks and Bayesian Characterization of Salt Creek Field, Midland Basin, Kent County, Texas)

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2026 AUG 3 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- Data detailed on Networks have been presented. According to news reporting out of Austin, Texas, by VerticalNews editors, research stated, "Although many geological, engineering, and 3D seismic investigations have been implemented to delineate reservoir architecture and to recover the remaining oil (improve oil production) in Salt Creek Field, challenges persist in understanding the carbonate facies distribution. This paper focuses on results of an integrated 3D seismic, core, and wireline-log process used to address facies distribution within the Cisco-Canyon and Strawn Groups in Salt Creek Field, Kent County, Texas."

Financial support for this research came from State of Texas Advanced Oil and Gas Resource Recovery (STARR) program at the **Bureau of Economic Geology**.

Our news journalists obtained a quote from the research from the University of Texas Austin, "The procedure involves poststack seismic inversion for acoustic impedance and the prediction of neutron porosity (NPHI) and photoelectric factor (PEF) volumes using multi-attribute and probabilistic neural network (PNN). By utilizing these volumes as inputs into a machine-learning-based Bayesian algorithm, we obtained probability volumes of the different facies with an improved visualization of their distribution."

According to the news editors, the research concluded: "Results show that (1) within the Canyon and Cisco Groups the most porous facies are oolitic grainstone, but in the Strawn Group they are crinoidal grainstone and packstone; (2) crinoidal, grain-dominated packstone is as porous as, or even more porous than, the oolitic grainstone; (3) in the absence of core data, crinoidal, grain-dominated packstone can be misinterpreted to be oolitic grainstone where both facies are present; (4) whereas porous zones within the Canyon and Cisco Groups are sparse and limited to reef facies, in the Strawn Group, they are more widespread and ubiquitous; and (5) although the Bayesian classification algorithm is a powerful prediction tool, its success depends on several variables such as the similarity among values of the rock physical properties of the facies, and the seismic resolution."

This research has been peer-reviewed.

For more information on this research see: Probabilistic Neural Networks and Bayesian Characterization of Salt Creek Field, Midland Basin, Kent County, Texas. Geoenergy Science and Engineering, 2026;263. Geoenergy Science and Engineering can be contacted at: Elsevier, Radarweg 29, 1043 Nx Amsterdam, Netherlands.

Our news journalists report that additional information may be obtained by contacting Osareni C. Ogiesoba, University of Texas Austin, Jackson School of Geosciences, Bur Econ Geol, Austin, TX 78713, United States.

Keywords for this news article include: Austin, Texas, United States, North and Central America, Networks, Neural Networks, University of Texas Austin.

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