Welcome to Earth Matters: Field Notes on the Geology of New Mexico's Enchanting Landscapes

At times, many of us take for granted the earth's resources that lie right below our feet. There are very few household items that do not originate in some way from the earth. Nearly everything is either grown or mined. We are completely dependent on the Earth's resources! The production of minerals along with coal, oil, and gas has shaped the course of civilization by providing raw materials along with the energy needed to support expanding populations around the world.

Many of these commodities are found right here in New Mexico, thanks to our enchanting geology. These resources have been vitally important to the economy and development of New Mexico. Our state's extractive industries, such as mining and petroleum drilling, not only provide jobs but also supports public education and other services that are funded by taxes and royalties. Our state is rich in both mineral and energy resources that are in great demand.

For example, petroleum, coal, metals, and industrial minerals produced in New Mexico are used in nearly every sector of construction and manufacturing. Copper mined near Silver City is used in electrical wire, plumbing pipes, computers, and cell phones. Potash mined near Carlsbad is an essential ingredient in fertilizers used to grow crops. Perlite mined in Socorro and Taos Counties is used in construction materials. Gold and silver mined near Silver City is used in currency, jewelry, and electronics. Zeolites mined near Winston are used in water purification. Petroleum and coal are essential to provide electricity.

New Mexico's mineral wealth is among the richest endowments of any state in the U.S. Oil and gas are the most important extractive industries in New Mexico in terms of production followed by copper, coal, potash, aggregates and industrial minerals. The good news is that significant untapped reserves of minerals, fossil fuels and even geothermal resources have been identified in the state that could be produced in the future.

Celebrating Earth Science Week, I am Dr. Virginia McLemore from the New Mexico Bureau of Geology and Mineral Resources at New Mexico Tech.