

FACT✓SHEET:

HOW THE OIL AND NATURAL GAS INDUSTRY IS ADDRESSING EARTHQUAKES IN OKLAHOMA

In recent years, Oklahoma has seen an increased rate of earthquakes. Contrary to what you may have heard, the oil and natural gas industry has been working together with state regulators and independent researchers to study the issue and help develop solutions.

WHAT HAS THE OIL AND NATURAL GAS INDUSTRY DONE?

- Invested over **\$35 million** in activities to reduce earthquake risks, since March 2015.
- Secured funds for **more seismic monitoring stations** in Oklahoma.
- Provided information on deep geological formations to state geologists, university researchers, and regulators, including **information on previously unmapped faults**.
- **Shared data with research institutions** such as Stanford University and the University of Oklahoma, which have released peer-reviewed studies on Oklahoma earthquakes.
- Helped **draft potential best practices** on wastewater disposal in coordination with the Oklahoma Geological Survey and the Oklahoma Corporation Commission (OCC).
- **Supported OCC's recent directives and the state's "traffic light" regulatory approach**, as recommended by the National Academy of Sciences.
- Voluntarily reduced volumes in some injection wells and shut down other salt water disposal wells in the OCCs identified areas of interest.

WHAT EXPERTS SAY

- ✓ “Basically **I am really optimistic**. I think the scientists are making progress in understanding what is going on, they are making their findings known to regulators, and I think regulators will **work with the oil and gas industry to figure out a solution**.”
–*Dr. Mark Zoback, Stanford University (source)*
- ✓ “Industry understands the risk [of induced seismicity] and they are **voluntarily shutting their wells in and plugging these wells back**.”
–*Tim Baker, Oil and Gas Division Director, Oklahoma Corporation Commission (source)*
- ✓ “They [oil and gas companies] are **giving us their proprietary information** to help the state as a whole understand the faults.”
–*Amberlee Darold, Oklahoma Geological Survey (source)*
- ✓ “The **amount of collaboration and cooperation we have had around this issue has been tremendous**, like nothing I've ever seen.”
–*Dana Murphy, Commissioner, Oklahoma Corporation Commission (source)*
- ✓ “We have a lot of incredible technical people between the oil and gas industry, between regulators, and between researchers. Bring everybody to the table and work on this together, and **I'm confident that we'll find the answers we need**.”
–*Dr. Austin Holland, U.S. Geological Survey (source)*
- ✓ “If we can find ways of lessening the impact of the pressure in these deep formations, **we can really manage the earthquake problem**.”
–*Dr. Bill Ellsworth, U.S. Geological Survey (source)*