

Home



News



Sports



Business



Opinion



Entertainment



Lifestyle



Obituaries

Jobs

Real Estate

Cars

Classifieds

Today's Paper

Standard-Times

gosanangelo.com

PART OF THE USA TODAY NETWORK

WANT FULL ACCESS?



Subscribe

BUSINESS OPINION ENTERTAINMENT LIFESTYLE

S REAL ESTATE CARS CLASSIFIEDS



COME TEST DRIVE
A NEW 2016
DODGE CHARGER!

ALL AMERICAN
CHRYSLER JEEP DODGE RAM
OF SAN ANGELO

DRIVE
AND DISCOVER

SHOP NOW

SANANGELODODGE.COM

Scientists debate cause of earthquakes in Texas

Standard-Times
gosanangelo.com

Alex Mills
is president of the
Texas Alliance of Energy Producers.
Contact him at
alexm@texasalliance.org.



Alex Mills
Columnist

Posted: May 29,

2016

0 Comments

SHARE



fault line with earthquake, energy

Earthquakes are scary.

Thoughts of the earth moving and shaking hard enough to knock pictures off the wall or even so violently as to bring down tall office buildings frighten everyone. Unlike hurricanes or tornadoes, earthquakes are virtually impossible to accurately predict, and they happen without warning.

Some people believe there is a correlation between earthquakes and the oil and gas industry in Texas. Others, however, point out that correlation does not equal causation, and there has been no scientific evidence linking the two.

A recently published paper by researchers at the University of Texas at Austin and Southern Methodist University alleges a correlation between oil and gas activities and earthquakes since 1925. The study, titled "A Historical Review of Induced Earthquakes in Texas," developed five questions designed to assess the value of known information in determining the cause of an earthquake. The questions involve: (1) timing of the earthquake in relation to oil and gas operations; (2) location of the epicenter in relation to activities; (3) are focal depths shallow; (4) are activities near a fault; and (5) is there a credible published paper linking seismicity to operations?

Using the authors' criteria, the paper states that 13 percent of earthquakes were caused naturally, while oil and gas operations "almost certainly" or "probably" triggered 59 percent of the earthquakes, and 28 percent of the quakes were "possibly" triggered by the oil and gas industry. The paper stated that none of the earthquakes was caused by hydraulic fracturing.

The authors point out that their question-based test is subjective and without objective scientific criteria. They note that "different individuals, after considering the observations, are likely to answer the questions differently."

There is a difference of opinion in the scientific community about induced seismicity. Dr. D. Craig Pearson, an earthquake seismologist at the Railroad Commission, stated in 2015 there was "no substantial proof" that induced earthquakes have occurred in Texas.

Additionally, the Railroad Commission recently changed several rules governing drilling, completion and disposal well permits that are designed to reduce the possibility of induced seismic activity.

Dr. Scott W. Tinker, the state geologist and director of the Bureau of Economic Geology at the University of Texas at Austin, commented in an op-ed column on May 23 that the scientific issue is to determine if human activity is causing earthquakes and what can be done about it.

"Not surprisingly, addressing and answering that question is difficult," Tinker wrote. "In some places, the increase in earthquakes is associated with the disposal back into the earth of water that has been produced from oil and gas wells. But, as we learned in science class, association does not necessarily imply causation."

Tinker pointed out that "science depends on independent production of results and rigorous testing, and is improved by challenges brought forth from skeptics, however irritating those challenges may seem."

In 2015 the Texas Legislature recognized the complexity and importance of the earthquake issue and put in place a program called TexNet at the University of Texas at Austin's Bureau of Economic Geology. TexNet will deploy 22 permanent seismometers across Texas and an additional 36 portable seismometers where seismic activity occurs. The program also provides research funding to combine key scientific, engineering and other disciplines from several universities to address the complex earthquake issue.

Tinker said there is a lot to learn.

"The concept of 'settled science' is silly," Tinker wrote. "Scientists should at all costs defend the right to challenge science. In addressing challenges, science advances, little by little."

Alex Mills is president of the Texas Alliance of Energy Producers. The opinions expressed are solely of the author.

0

Share

Tweet

Email

Print

From Around The Web

Sponsored Links by Taboola



Two jaw-dropping 10% cash back cards have hit the market

LendingTree



This Service in Austin is Changing the Way People Cook at Home

HelloFresh



The One Father's Day Gift That Every Dad Wants (And Needs)

Dollar Shave Club



Higher Returns than REITs: Investing in Real Estate is Changing Forever

TechCrunch | Realtyshares



Texas Drivers (Born Before 1966) Hit with a Big Surprise

Provide-Savings Insurance Quotes



Been There: Watch Four Stories About Overcoming Ulcerative Colitis

HealthCentral.com



Keep Trump out of the White House

Paid for by Hillary Victory Fund - hillaryclinton.com/go



Why Guys Are Saying Goodbye to "Normal Belts"

SlideBelts

ALEX MILLS ARCHIVE

May 29, 2016 | Scientists debate cause of earthquakes in Texas

May 21, 2016 | SCOTUS to hear arguments on Clean Power Plan

May 8, 2016 | Refiners coping with rise of oil price, more competition

Apr 30, 2016 | Saudi Arabia plans to take Aramco public

Apr 23, 2016 | Environmentalists change tactics in effort to silence opponents

Apr 16, 2016 | Saudi Arabia targets high-cost oil production

Apr 10, 2016 | Federal agencies increase regulation of oil industry

Apr 3, 2016 | America's imports of oil are at a 45-year low

Mar 19, 2016 | Study: Fossil fuels not major cause of rise in methane

Mar 5, 2016 | No felony convictions for BP employees



Summer
Sing-Along

Come Test Drive
A New 2016
Honda Civic!

Honda
of San Angelo

SHOP NOW **HONDA**

SanAngeloHonda.com

MORE BUSINESS COLUMNISTS

Farmers, ranchers
looking for a happy
medium in weather

Rain begins to dampen
spirits

Questioning a vacation?

Don't!

Hoovers were among first
Crockett settlers

Save cash to pay off
college debts

NOW TRENDING

Former Texas Tech
hoops player Reese
returning to Angelo with
annual camp

ACT brings sassy, funny
'9 to 5' to stage

HOMESTEAD: A
cowboy's life was too
good to pass up

Cancer screening for
men's health

Fort Concho to offer
"Fun at the Fort" for
children in July



Summer Sing-Along

COME TEST
DRIVE A NEW
2016 SILVERADO!



ALL AMERICAN  CHEVROLET
CHEVROLET OF SAN ANGELO  **SHOP NOW**

The Fun Place To Buy a Car!

SANANGELOCHEVY.COM



Summer Sing-Along



**Come Test Drive
A New 2016
Honda Civic!**

Honda
of San Angelo

SHOP NOW  **HONDA**

SanAngeloHonda.com



**COME TEST DRIVE
A NEW 2016
DODGE CHARGER!**






**ALL AMERICAN
CHRYSLER JEEP DODGE RAM
OF SAN ANGELO**

**DRIVE
AND DISCOVER** **SHOP NOW**

SANANGELODODGE.COM

Connect With Us


-  Facebook
-  Twitter
-  Pinterest

Useful Links

- [Community Calendar](#)
- [Share Your Photos](#)
- [Order Photo Reprints](#)
- [TV Listings](#)

About Us

- [Contact Us](#)
- [Job Openings](#)

 YouTube

Movie Listings
Theater Listings
N.I.E. (Newspapers in Education)

Mobile Apps

iPhone
iPad
Kindle
Android