

Abstract:

Oklahoma seismic activity uptick in last 5 years is not unprecedented. During the 50's a similar active earthquake period occurred in Oklahoma but was poorly measured as compared to today. From a global perspective both earthquake prone periods in Oklahoma were each coincident with 50% of the largest Worldwide quakes over 8.8 Richter scale from 1900 to 2014. Oklahoma activity may be related to these large quakes despite being away from the actual plate boundaries. Earthquake locations in Oklahoma are inversely related to horizontal drilling, stimulation and/or salt water disposal. Unusual earthquake activity is also observed during the last 5 years in Virginia, South Carolina, Alaska, Mexico, Nevada and the Gulf of California in areas where no oil and gas activity is present.

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