

Hydraulic Fracking Violates the Rights of Nature



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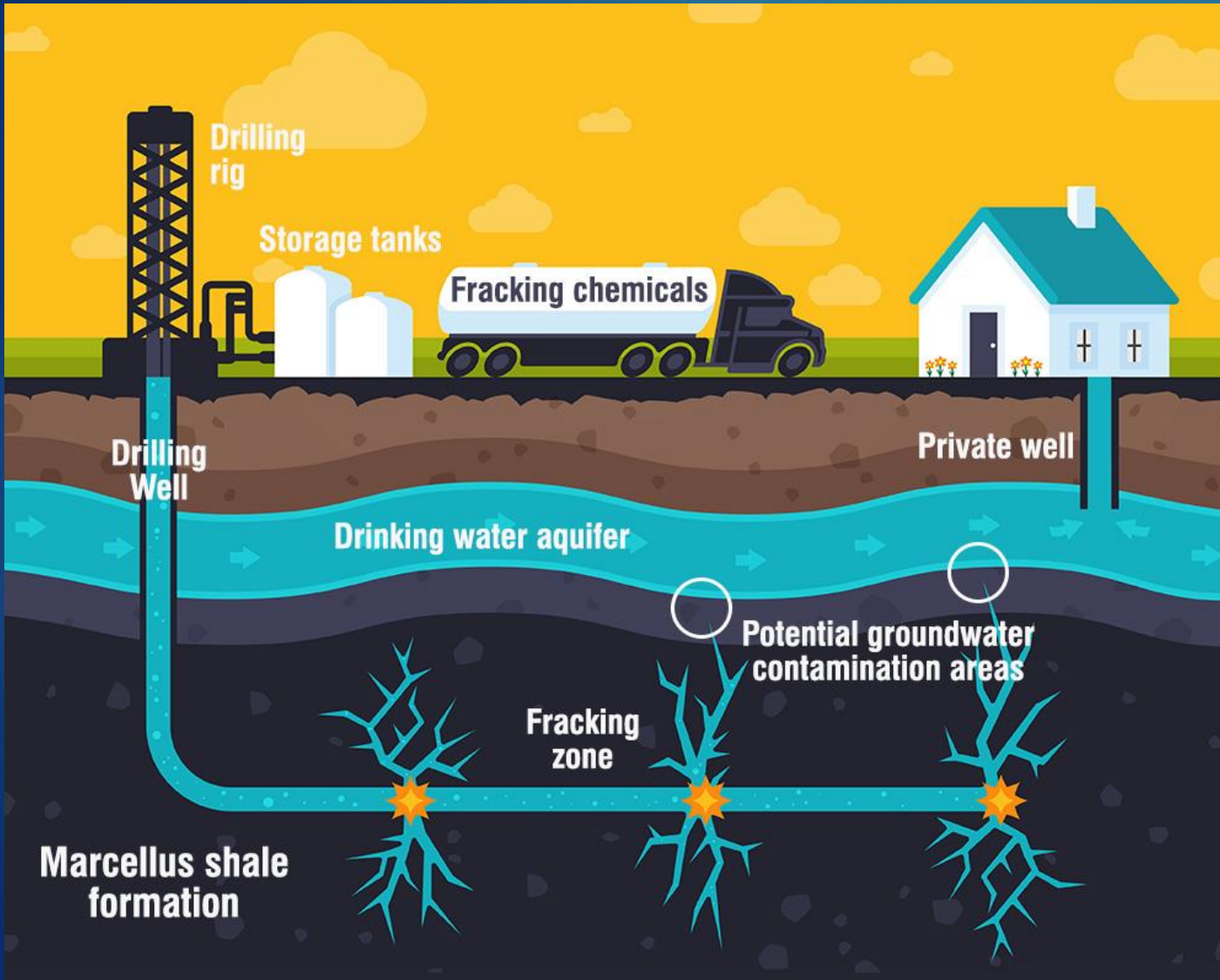


THE INTERNATIONAL RIGHTS OF NATURE TRIBUNAL, PARIS 2015

Fracking is a RAPE of the Earth



Chronology of an “Environmental Ebloa”



- ▶ Shale: 400 million years in the making
- ▶ 1940s Discovery: “trapped” Oil & Gas lie 2 miles underground
- ▶ Early fracking was different
- ▶ 2003: Halliburton technology makes shale accessible
- ▶ 2004-2005: Bush/Cheney & the EPA “Halliburton Loophole”
- ▶ Paved way for massive boom in US & globally
- ▶ Today is one of the worst threats to life on Earth


US Fracking sets stage for Disaster

- ▶ Over 1 Million Active Fracked Oil & Gas Wells
- ▶ Between 2-8 Million Gallons of FRESH Water per Frack (up to 18x per well)
 - ▶ 100 Trillion Gallons Nationally per year
- ▶ Over 750 Chemicals can be Used, Many are Toxic inc Benzene, Formaldahyde, Kerosene...
 - ▶ 400 Billion Gallons "Frack Fluid"
 - ▶ 2/3 Chemicals Remain or Stored Underground
 - ▶ 1/3 Chemicals in Open Air Pits
- ▶ Each well brings 400 Tanker Trucks
- ▶ Takes place on farms, schools, neighborhoods, offshore



Fracking Violates Rights of Water

- ▶ Leaks into Groundwater: Guaranteed
- ▶ CA growers use frackwater on 45,000 acres of crops.
- ▶ 1,000 cases of water contamination
- ▶ Radioactive water: some places 3,600% above federal limit water.



6.2% of all well casings fail initially(*), leading to methane migration.

60% fail over 20 years. They all fail over time.

These numbers are from the PA DEP. Why doesn't the industry fix this systemic problem?

BECAUSE THEY CAN'T!

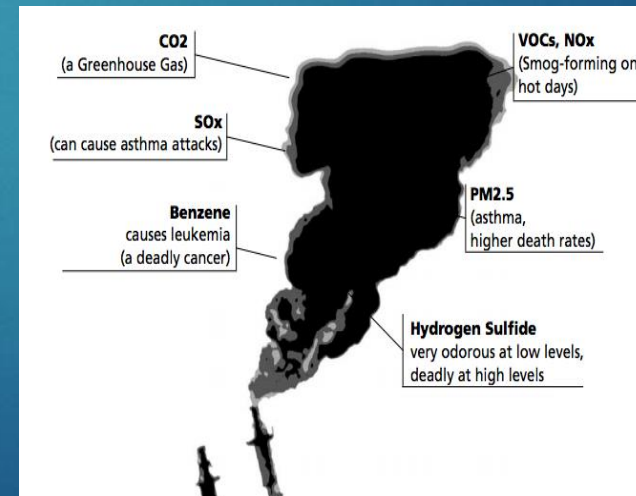
-- Dr. Anthony Ingraffea,
Distinguished Professor of
Engineering, Cornell University

* Source: PA DEP. See: <http://youtu.be/7DK3fODCZ3w#t=30m46s>



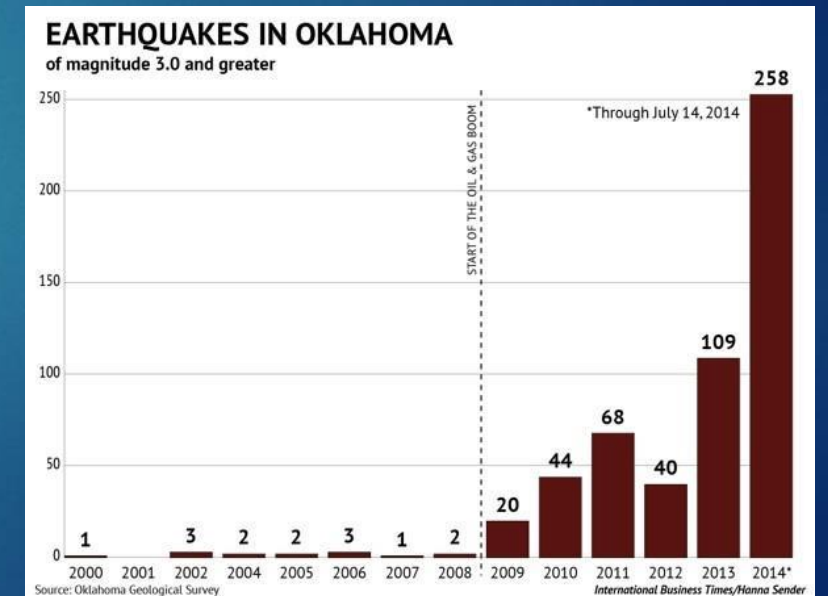
Fracking Violates Rights of Air & Climate

- ▶ **Leakage of methane** – a greenhouse gas 25 times more powerful than carbon dioxide
- ▶ Evaporation “Frack Ponds” “off-gassing” of VOCs
- ▶ Cancer, Asthma, air pollution



Fracking Violates Soil, & Life

- ▶ Fracking causes earthquakes. Oklahoma is now the earthquake capital of the world (Casey Camp Horinek testimony)
- ▶ Fracking uses and brings to the Earth's surface radioactive materials that cannot be safely disposed of (uranium, radon)
- ▶ "Flowback Fluid" 40% surges into soil, forming colloids that bind with microscopic pollutants
- ▶ Fraccidents, Farmland, Animal Deaths & Brine



Fracking Goes Global

US oil and gas production

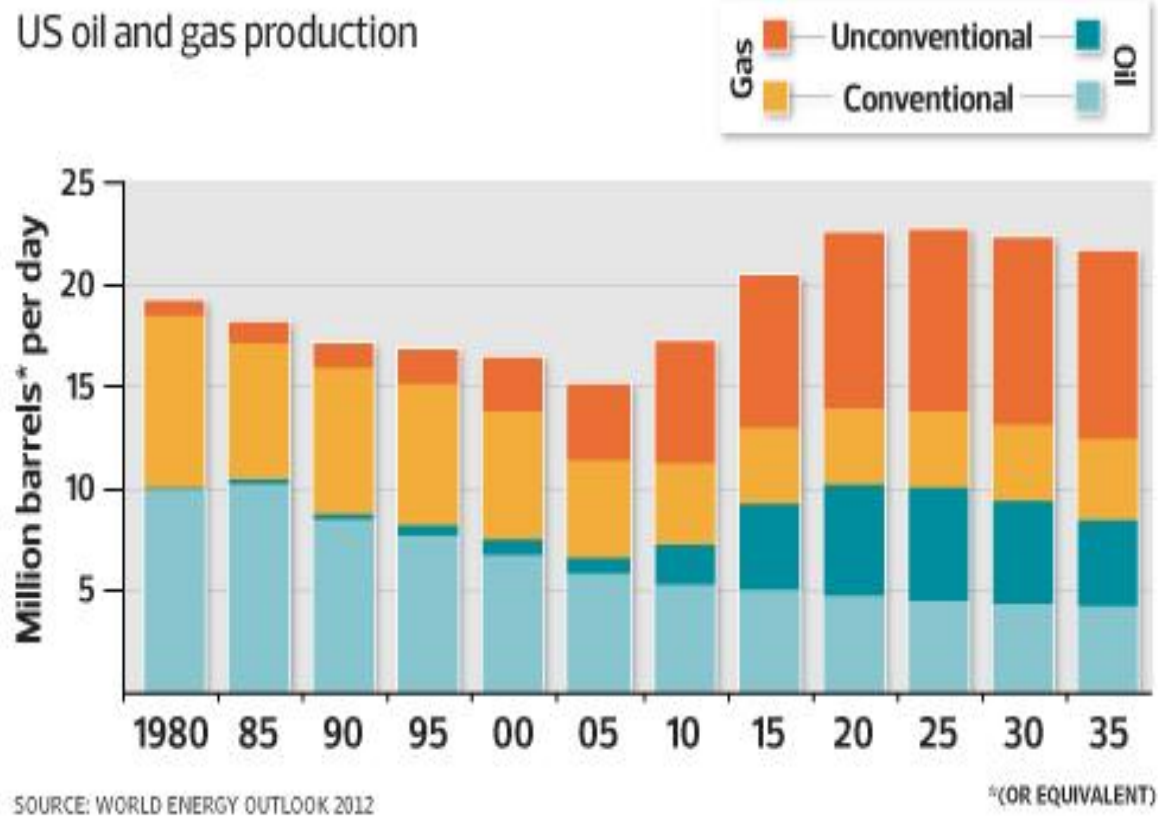
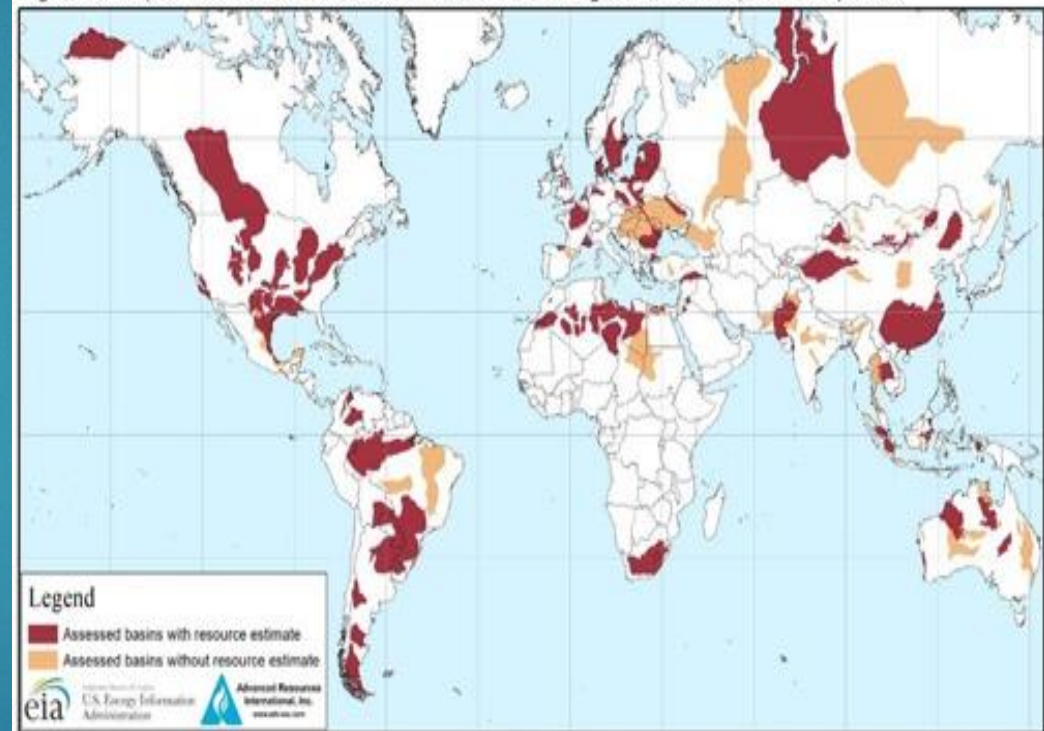


Figure 1. Map of basins with assessed shale oil and shale gas formations, as of May 2013



Source: United States basins from U.S. Energy Information Administration and United States Geological Survey; other basins from ARI based on data from various published studies