

Why Engineers Can't Stop Los Angeles' Enormous Methane Leak

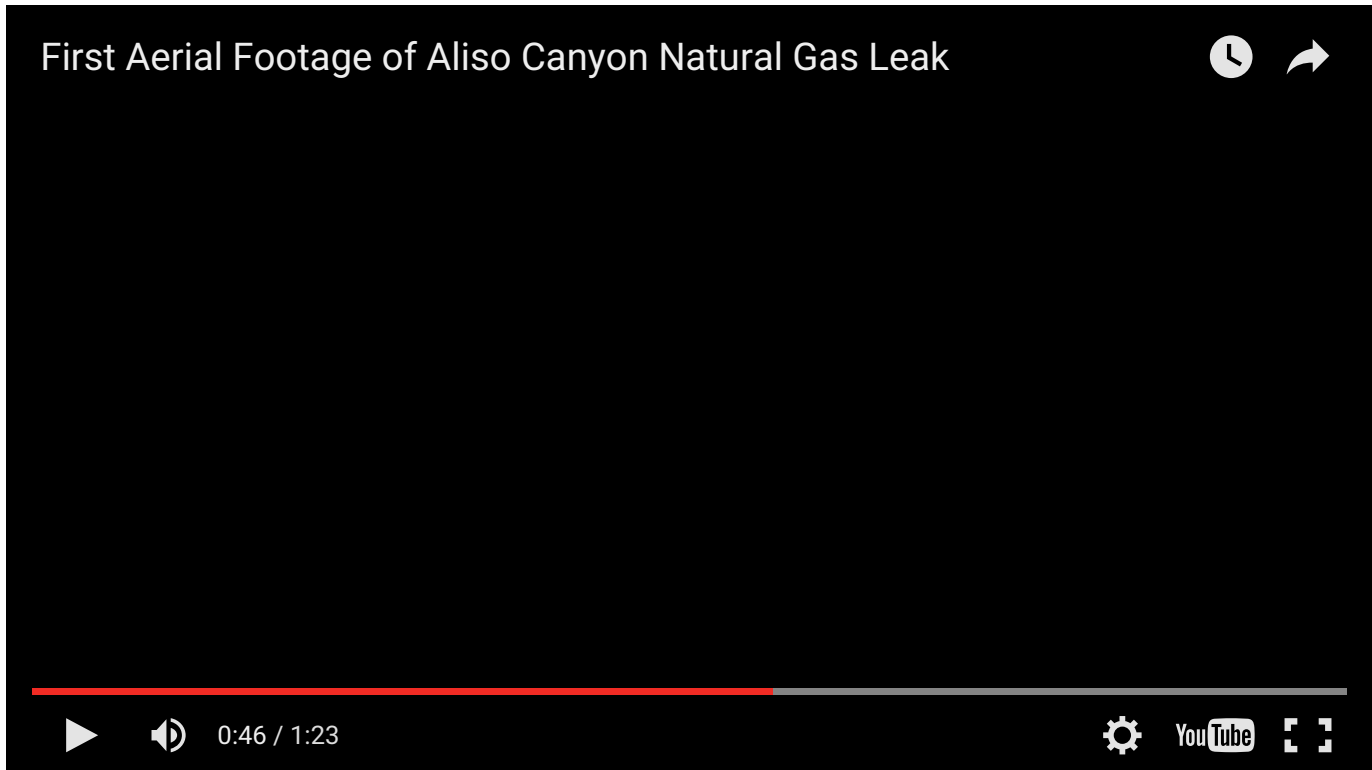
Written by **MELISSA CRONIN** (/AUTHOR/MELISSACRONIN)

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One of the biggest environmental disasters in US history is happening right now, and you've probably never heard of it.

An enormous amount of harmful methane gas is currently erupting from an energy facility in Aliso Canyon, California, at a startling rate of 110,000 pounds per hour. The gas, which carries with it the stench of rotting eggs due to the addition of a chemical called mercaptan, has led to the evacuation 1,700 homes so far. Many residents have already filed lawsuits against the company that owns the facility, the Southern California Gas Company.

Footage taken on December 17 shows a geyser of methane gas spewing from the Earth, visible by a specialized infrared camera operated by an Earthworks ITC-certified thermographer. The Environmental Defense Fund (EDF) released the footage last week, calling it (<https://www.washingtonpost.com/news/energy-environment/wp/2015/12/23/new-infrared-video-reveals-growing-environmental-disaster-in-la-gas-leak/>) “one of the biggest leaks we’ve ever seen reported” and “absolutely uncontained”:



(<https://www.youtube.com/watch?v=exfj8VPQDTY>)

In early December, the Southern California Gas Company said that plugging the leak, which sprang in mid-October, would take at least three more months

(<http://www.reuters.com/article/us-california-methane-idUSKBN0TL06120151202>). Right now, the single leak accounts for a quarter of the state's entire methane emissions, and the leak has been called the worst environmental disaster

(<http://mashable.com/2015/12/24/methane-gas-leak-california-aliso/#okYUBr.9rqqw>) since the BP oil spill in 2010.

“Our efforts to stop the flow of gas by pumping fluids directly down the well have not yet been successful, so we have shifted our focus to stopping the leak through a relief well,” Anne Silva, a spokesperson for the Southern California Gas Company, told Motherboard, adding that the company is still exploring other options to stop the leak. “The relief well process is on schedule to be completed by late February or late March.”

Part of the problem in stopping the leak lies in the base of the well, which sits 8,000 feet underground. Pumping fluids down into the well, usually the normal recourse, just isn't working, said Silva. Workers have been "unable to establish a stable enough column of fluid to keep the force of gas coming up from the reservoir." The company is now constructing a relief well that will connect to the leaking well, and hopefully provide a way to reduce pressure so the leak can be plugged.

Read about a drilling project nearly twice as deep—15 years and \$50 billion later, with not a drop of oil to show for it (<http://motherboard.vice.com/read/kashagan-the-worlds-most-toxic-money-pit>)

It's worth noting that the *type* of gas involved in this leak is part of what makes it so sinister. Methane (<https://www.edf.org/methane-other-important-greenhouse-gas>), the main component of natural gas, is 25 times more potent than carbon dioxide when it comes to climate change impact. About one-fourth of the anthropogenic global warming we're experiencing today is due to methane emissions, according to the Environmental Defense Fund. Leaks like the current one in California, it turns out, are a major contributor. In Pasadena, for instance, just 35 miles from the leak in Aliso, investigators found one leak for every four miles (<https://www.edf.org/climate/methanemaps/city-snapshots/los-angeles-area>):

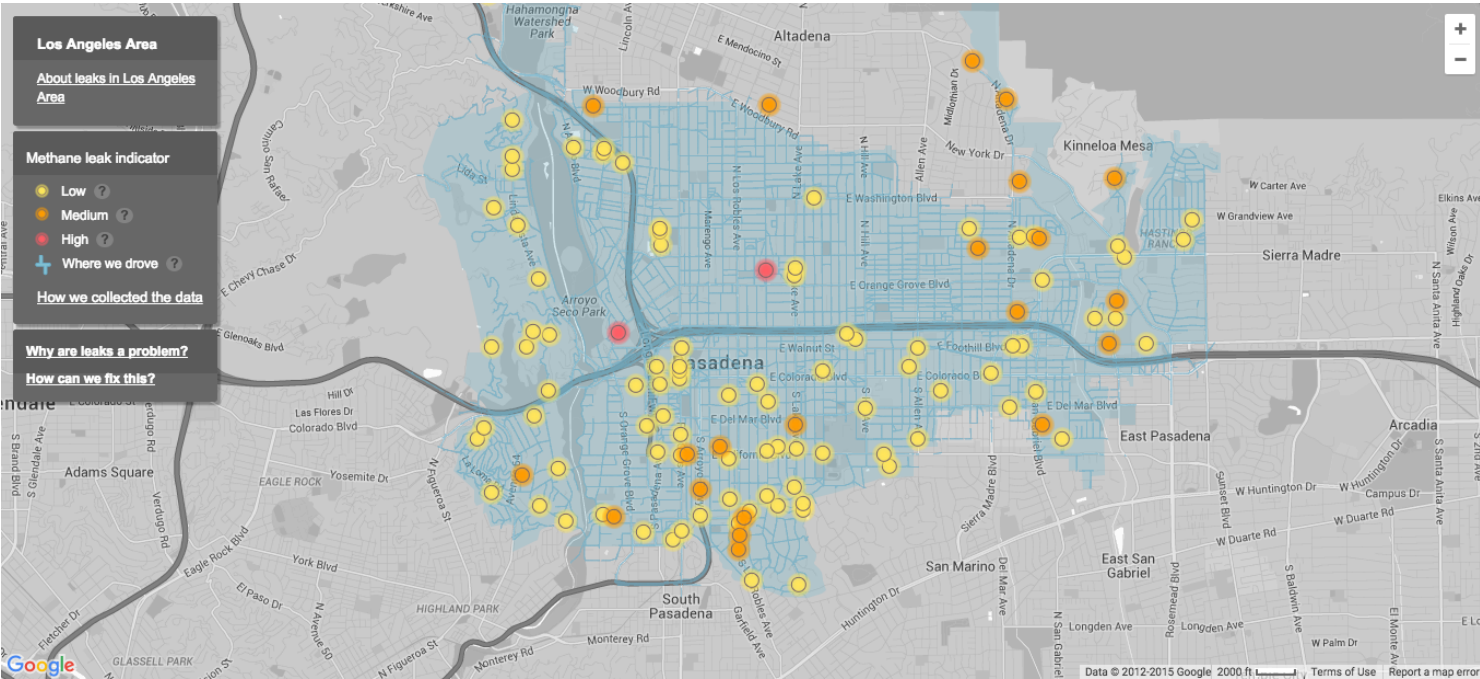


Image: EDF (<https://www.edf.org/climate/methanemaps/city-snapshots/los-angeles-area>)

So far, over 150 million pounds of methane have been released by the leak, which connects to an enormous underground containment system. Silva says that the cause of the leak is still unknown, but research by EDF (<https://www.edf.org/climate/methanemaps/city-snapshots/los-angeles-area>)

snapshots/los-angeles-area)has also revealed that more than 38 percent of the pipes in Southern California Gas Company's territory are more than 50 years old, and 16 percent are made from corrosion- and leak-prone materials.

Right now, relief efforts have drilled only 3,800 feet down—less than half of the way to the base of the well. At that rate, the torrent of methane pouring into California won't be stopped any time soon.

Clarification: An earlier version of this story noted that the gas smells like rotting eggs but did not say why. Methane is an odorless gas; a chemical called mercaptan is added to it to create a foul-smelling odor, in case of leaks like this one.

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TOPICS: dirty energy (/tag/dirty+energy), Methane (/tag/Methane), methane leak (/tag/methane+leak), Earth (/tag/Earth), southern california gas company (/tag/southern+california+gas+company), deepwater horizon (/tag/deepwater+horizon)



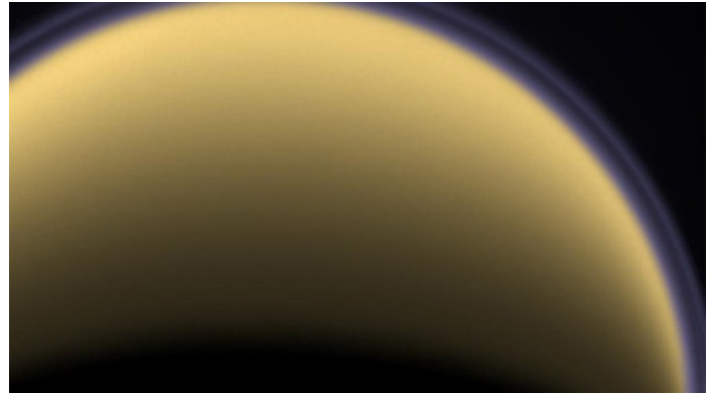
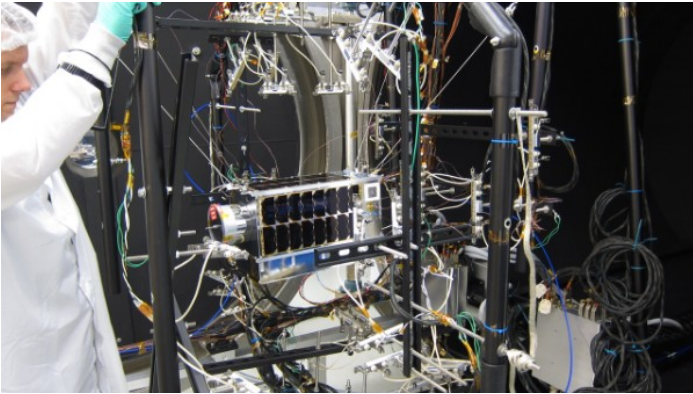
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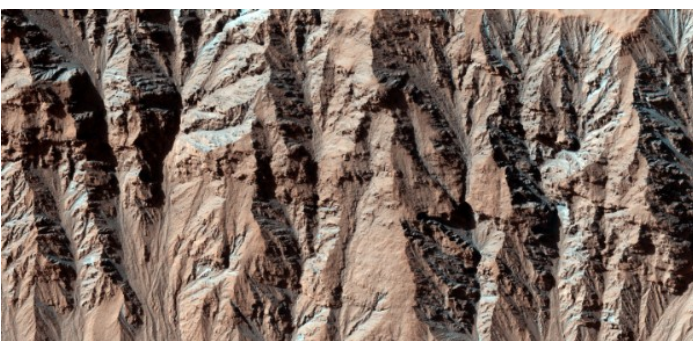
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