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The Company Behind LA's Methane Disaster Knew Its Well Was Leaking 24 Years Ago

This article documents more of the harms and dangers of California's over-reliance on natural gas energy at the Aliso Canyon Storage Facility (ACSF.) I'm quoted in this article. My research uncovered some of the documentation shown in this article.

Additional submitted attachment is included below.

THE LEAK SITE. IMAGE: EARTHWORKS

MOTHERBOARD

THE COMPANY BEHIND LA'S METHANE DISASTER KNEW ITS WELL WAS LEAKING 24 YEARS AGO

WRITTEN BY MELISSA CRONIN

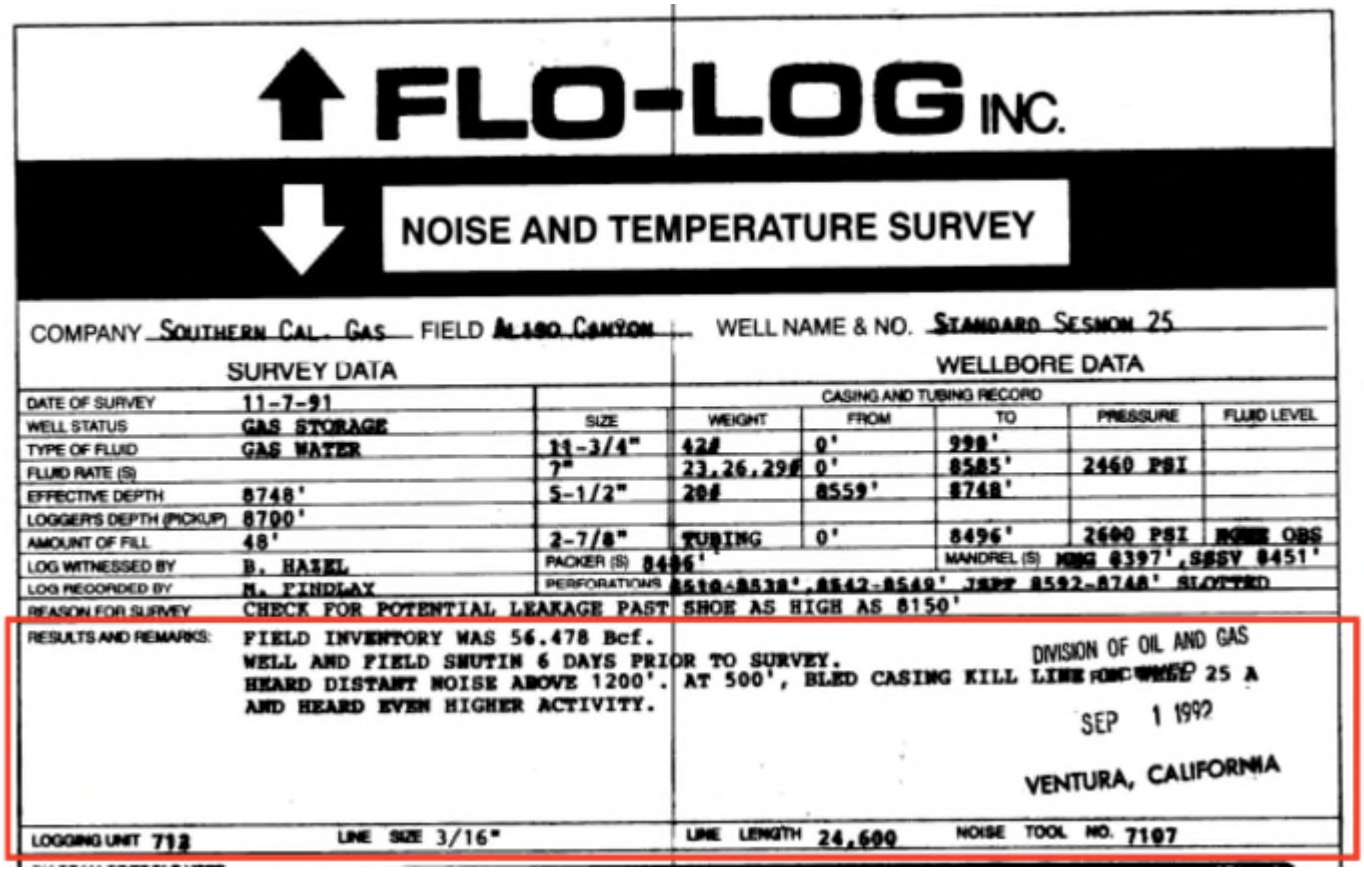
January 8, 2016 // 01:20 PM EST

http://motherboard.vice.com/read/the-company-behind-las-methane-disaster-knew-its-well-was-leaking-24-years-ago

Last fall, a 7-inch injection well pipe ruptured 500 feet below the surface of Los Angeles, after ferrying natural gas for six decades. The resulting methane leak is now being called one of the largest environmental disasters since the BP oil spill, has pushed thousands of people out of their homes, and has quickly become the single biggest contributor to climate change-causing greenhouse gas emissions in California. But it's not the first time this well sprang a leak—and Southern California Gas Company (SoCalGas), which owns and operates the well, knew it.

Over the past three months, engineers have had a terrifically difficult time plugging the leak. Normally in the case of a methane leak, a column of fluid would be pumped down into the well, to stem its tide. But with this particular well, that hasn't been working. Instead, workers must drill down to the base of the well, 8,000 feet underground, creating a relief well to relieve the incredibly high pressure of the leak. Only then can the leak be repaired safely.

So who's to blame for a leak that cannot be stopped? Aging natural gas equipment may have contributed. According to documents filed with the California Division of Oil, Gas & Geothermal Resources, this particular well, referred to as Standard Sesnon 25, was originally drilled in 1953, and showed signs of leakage 24 years ago, in 1992. Inspectors reported that they could hear the leak through borehole microphones.



FLO-LOG INC.

NOISE AND TEMPERATURE SURVEY

COMPANY SOUTHERN CAL. GAS FIELD ALISO CANYON WELL NAME & NO. STANDARD SESNON 25

SURVEY DATA

DATE OF SURVEY	11-7-91
WELL STATUS	GAS STORAGE
TYPE OF FLUID	GAS WATER
FLUID RATE (S)	
EFFECTIVE DEPTH	8748'
LOGGER'S DEPTH (PICKUP)	8700'
AMOUNT OF FILL	48'
LOG WITNESSED BY	B. HAZEL
LOG RECORDED BY	M. FINDLAY
REASON FOR SURVEY	CHECK FOR POTENTIAL LEAKAGE PAST
RESULTS AND REMARKS:	FIELD INVENTORY WAS 56.478 Bcf. WELL AND FIELD SHUTIN 6 DAYS PRIOR TO SURVEY. HEARD DISTANT NOISE ABOVE 1200'. AT 500', BLED CASING KILL LINE FOR SESNON 25 A AND HEARD EVEN HIGHER ACTIVITY.

WELLBORE DATA

CASING AND TUBING RECORD

SIZE	WEIGHT	FROM	TO	PRESSURE	FLUID LEVEL
11-3/4"	42#	0'	998'		
7"	23,26,29#	0'	8585'	2460 PSI	
5-1/2"	20#	8559'	8748'		
2-7/8"	TUBING	0'	8496'	2600 PSI	NOISE OBS

PACKER (S) 8496' MANDREL (S) MMG 8397', SSSV 8451'

PERFORATIONS 8510-8538', 8542-8549' JSPF 8592-8748' SLOTTED

SHOE AS HIGH AS 8150'

DIVISION OF OIL AND GAS

SEP 1 1992

VENTURA, CALIFORNIA

LOGGING UNIT 713 LINE SIZE 3/16" LINE LENGTH 24,600 NOISE TOOL NO. 7107

Gene Nelson, a professor of physical science at Cuesta College in San Luis Obispo, California who has seen the document, said that he found it "appalling that SoCalGas did not identify this as a well to shut off," after receiving this feedback.

There have been other problems documented at this facility before. And in 2014, inspectors at the wells documented corrosion and negative integrity trends.

In 2013, SoCalGas applied for and received money to do upgrades on equipment like safety valves—money that the Environmental Defense Fund (EDF) says should have been used to prevent a leak like this. The regulatory decision filing shows that SoCalGas was granted

$898,000 per year (in addition to the regular fund of about $3 million per year for repairs) to replace 5 percent of its safety valves at Aliso Canyon. According to EDF, these extra funds weren't used as they should have been—to prevent a leak of this magnitude.

In 2014, written testimony to the California Public Utilities Commission by SoCalGas Director of Storage Operations Phillip Baker documented corrosion and negative integrity trends in the aging pipeline.

"Without a new inspection plan, SoCalGas and customers could experience major failures and service interruptions from potential hazards that currently remain undetected," he wrote. The filing also noted that as of 2014, half of the company's 229 storage wells were over 57 years old, and 52 wells were more than 70 years old.

"The company should be holding themselves to highest standard of care," said Tim O'Connor, Director of California oil and gas for EDF, adding that SoCal should have had emergency plans in place to prevent long-term leaks from occurring. "This leak is a symptom of a larger issue—aging oil and gas infrastructure. We just don't have a system to properly deal with storage leaks yet."

Other safety issues have been pointed out recently, too. Earlier this month, *The LA Times* reported that attorneys representing some of the 1,000 residents suing SoCalGas over the leak claim the company failed to replace an important safety valve that was removed in 1979—a valve that could have stopped the current leak in its tracks. The plaintiffs also allege that the company again identified leaks at the site five years ago, but never implemented plans to fix them.

When pressed about the age of the pipes and the safety history of the well, a spokesperson for Sempra Utilities, the company that owns SoCalGas, said that the company performs daily well checks, and that this well had passed its last inspection:

Over time, the technology to monitor and operate underground gas storage field has developed steadily, and our facilities are at the forefront of safety controls and procedures. In addition, all our operations are closely monitored for compliance with the safety standards of the California Public Utilities Commission, the Division of Oil and Gas, the Occupational Safety and Health Administration, and local fire departments.

Now, three months after the pipe first burst,, Gov. Jerry Brown has proclaimed a state of emergency in California. The declaration grants the state more powers to oversee the response, gives more authority to health officials, forces the utility to maximize its gas withdrawals, and ramps up safety inspections at the Aliso Canyon Underground Storage Facility in Porter Ranch—a neighborhood of Los Angeles where over 100,000 pounds of methane are now being pumped into California's air every hour. The proclamation will likely allow more funds to be diverted to assist in cleanup efforts, and creates an independent panel to assess what went wrong with the leak and to assess its impact on human health.

Leak site. Image: Earthworks

Dennis Arriola, president and CEO of the Southern California Gas Company, which owns the Aliso facility, issued a statement saying that the company "has been communicating with the Governor's Office and other state agencies from the outset….[and] reaffirms our prior commitment to mitigate the environmental impact of the actual amount of natural gas released from the leak."

Robert Howarth, a professor of ecology and environmental biology at Cornell University and an expert in the impacts of greenhouse gas emissions, called the Porter Ranch leak "spectacularly large," adding that it is likely adding 5 percent to the total amount of methane leaked by the entire US oil and gas industry right now. (Natural gas consists primarily of methane, which constantly leaks, in much smaller amounts, from oil and gas fields around the nation.) What's more, says Howarth, the methane is incredibly sticky—meaning, it's going to stay in the atmosphere.

"Once the methane is in the air, it will be there for 10-plus years until it is chemically converted to carbon dioxide and methane," said Howarth. " We cannot do anything about that to speed its loss up. And during those 10-plus years, it is more than 100 times more potent as a greenhouse gas than is carbon dioxide."

In other words, the methane coming out of this leak is catastrophically worse for the climate than the pollution we pump into the atmosphere from cars and planes and trains every day.

So far, some 2,300 homes have voluntarily evacuated and several schools have been closed, with many residents complaining of headaches and nosebleeds from the foul-smelling chemical additives. These include radon, hydrogen sulfide, and an odorant called mercaptan, which is added to the gas both before and after it leaves the storage field.

The well, which funnels natural gas to 22 million customers in the Los Angeles Basin, is expected to take another three months to plug. O'Connor says that the disaster is a telling sign about the viability of natural gas in a country of aging infrastructure.

"We need to take a hard look at whether we can prevent these types of leaks," he said, adding that smaller methane leaks at oil and gas facilities happen frequently. "These problems fly below the radar until catastrophes happen—and a catastrophe has just happened."

TOPICS: la gas disaster, California, Methane, climate change, fossil fuels, los angeles, southern california gas company