

# Hawaii volcano produces methane and 'eerie' blue flames

May 24 2018, by Audrey Mcavoy

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This photo from video from the U.S. Geological Survey shows blue burning flames of methane gas erupting through cracks on Kahukai Street in the Leilani Estates neighborhood of Pahoia on the island of Hawaii during the overnight hours of Wednesday, May 23, 2018. When lava buries plants and shrubs, methane gas is produced as a byproduct of burning vegetation. Methane gas can seep into subsurface voids and explode when heated, emerging from cracks in the ground several feet away from the lava. (U.S. Geological Survey via AP)

Scientists in Hawaii have captured rare images of blue flames burning from cracks in the pavement as Kilauea volcano gushes fountains of lava in the background, offering a look at a new dimension in the volcano's

weeks-long eruption.

The volcano produces methane when hot lava buries and burns plants and trees. The gas flows through the ground and up through existing cracks.

"It's very dramatic. It's very eerie," Jim Kauahikaua, a U.S. Geological Survey scientist, told reporters. He said it was just the second time he's ever seen blue flames during an eruption.

The methane can seep through cracks several feet away from the lava. It can also cause explosions when it's ignited while trapped underground. These blasts can toss blocks several feet away, said Wendy Stovall, also a scientist at the Geological Survey.

Hawaii County has ordered about 2,000 people to evacuate from Leilani Estates and surrounding neighborhoods since the eruption began on May 3.

The volcano has opened more than 20 vents in the ground that have released lava, sulfur dioxide and steam. The lava has been pouring down the flank of the volcano and into the ocean miles away.

The eruption has destroyed 50 buildings, including about two dozen homes. One person was seriously injured after being hit by a flying piece of lava.



This photo released Wednesday, May 23, 2018 by the U.S. Geological Survey shows blue burning flame of methane gas was observed in the cracks on Kahukai Street, during the overnight hours. The volcano produces methane when hot lava buries and burns plants and trees. Scientists say the methane can seep through cracks several feet away from the lava. ( U.S. Geological Survey via AP)

Stovall said lava spatter from one of the vents was forming a wall that was helping protect a nearby geothermal plant.

Lava from that vent was shooting further into the air and producing the

highest lava wall of all the vents, which was blocking molten rock from flowing north toward the plant.

Officials shut down Puna Geothermal shortly after the eruption began.

On Tuesday, officials finished stabilizing wells that bring up hot liquid and steam to feed a turbine generator. A team from the Hawaii Emergency Management Agency and the company continued Wednesday to plug the wells to make sure the fluid inside doesn't move from one part of the well to the other, said Janet Snyder, a spokeswoman for Hawaii County.



This May 23, 2018, Satellite photo provided by DigitalGlobe shows lava coming out of fissures caused by Kilauea volcano, near Puna Geothermal Venture, a geothermal energy plant, in Pahoehoe, Hawaii. Wendy Stovall, a scientist with the U.S. Geological Survey said lava spatter from one of the vents was forming a



wall that was helping protect the geothermal plant. (Satellite Image ©2018 DigitalGlobe, a Maxar company via AP)

Earlier this month officials removed a flammable gas called pentane from the plant to reduce the chance of explosions.

Tourism officials cheered news that a Norwegian Cruise Lines ship that tours the Hawaiian Islands would resume stopping in Kailua-Kona next week. Businesses catering to tourists on the cruise have taken a hit since the company suspended Big Island port visits after the eruption began.

The company said it would resume calling on Hilo, a town on the eastern side of the island closer to the lava, when conditions allow.



This May 23, 2018, Satellite photo provided by DigitalGlobe shows lava coming out of fissures caused by Kilauea volcano, running towards the Puna coast, lower right, along Malama Ki Forest Reserve recreation area in Paho, Hawaii. Puna Geothermal Venture, a geothermal energy plant is seen at upper middle. The

Leilani Estates neighborhood, where the volcano has been gushing lava on the big island of Hawaii for the past three weeks, is seen at center left part. (Satellite Image ©2018 DigitalGlobe, a Maxar company via AP)



This Wednesday, May 23, 2018, photo provided by the U.S. Geological Survey, the active fissure complex in Kilauea Volcano's lower East Rift Zone near Pahoa, Hawaii. The volcano produces methane when hot lava buries and burns plants and trees. Scientists say the methane can seep through cracks several feet away from the lava. ( U.S. Geological Survey via AP)



This Wednesday, May 23, 2018 photo shows a helicopter overflight of Kilauea Volcano's lower East Rift Zone near Pahoa, Hawaii. The volcano produces methane when hot lava buries and burns plants and trees. Scientists say the methane can seep through cracks several feet away from the lava. ( U.S. Geological Survey via AP)





This May 23, 2018, Satellite photo provided by DigitalGlobe shows lava coming out of fissures caused by Kilauea volcano, running towards the Puna coast, lower right, along Malama Ki Forest Reserve recreation area in Paho, Hawaii. Puna Geothermal Venture, a geothermal energy plant is seen at upper middle. The Leilani Estates neighborhood, where the volcano has been gushing lava on the big island of Hawaii for the past three weeks, is seen at center left part. (Satellite Image ©2018 DigitalGlobe, a Maxar company via AP)





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This combination of satellite images provided by DigitalGlobe shows a southeast area of the Leilani Estates neighborhood, near Pahoa, Hawaii, May 24, 2017, top, and May 23, 2018, bottom, after recent Kilauea volcanic activities. (Satellite Image ©2018 DigitalGlobe, a Maxar company via AP)

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