

Expert challenges earthquake theory behind Indonesian mud volcano

July 31 2007

A leading expert today repeated his assertion that an Indonesian mud volcano was almost certainly manmade despite a new study claiming the eruption might have been triggered by an earthquake.

Professor Richard Davies of Durham University's Centre for Research into Earth Energy Systems (CeREES), said the volcano, known locally as Lusi, was most likely caused by the drilling of a nearby exploratory borehole looking for gas.

He reiterated the findings of a Durham University-led study, first published in the February issue of US Journal GSA Today, following publication of a new paper led by the University of Oslo which said the eruption in May 2006 might have been caused by an earthquake that occurred two days earlier.

The Durham-led research discounted the effect of the earthquake as a cause of the eruption.

Professor Richard Davies, of Durham University's Centre for Research into Earth Energy Systems (CeREES), said: "There were several problems with the exploration well prior to the eruption of the mud volcano, but it was when they started to pull the drill bit out of the hole that they probably sucked gas and water into the wellbore.

"We have calculated that a water or gas influx would have caused a critical increase in the pressure in the hole, sufficient to fracture the rock

strata underground.

“It is very unlikely that the Yogyakarta earthquake had a significant role to play in the development of the mud volcano.

“We still maintain that the mud volcano was most likely triggered by operations during drilling. There is no need to evoke an earthquake trigger for this.”

Lusi first erupted on May 29 2006 in the Porong sub-district of Sidoarjo in Eastern Java, close to Indonesia’s second city of Surabaya.

The volcano has continued to spew out an estimated 150,000 cubic metres of mud every day and now covers an area of 10 square kilometres.

Around 20,000 to 30,000 people have lost their homes and factories have been destroyed. Thirteen people have also died as a result of a rupture in a natural gas pipeline that lay underneath one of the holding dams built to retain the mud.

Source: Durham University

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