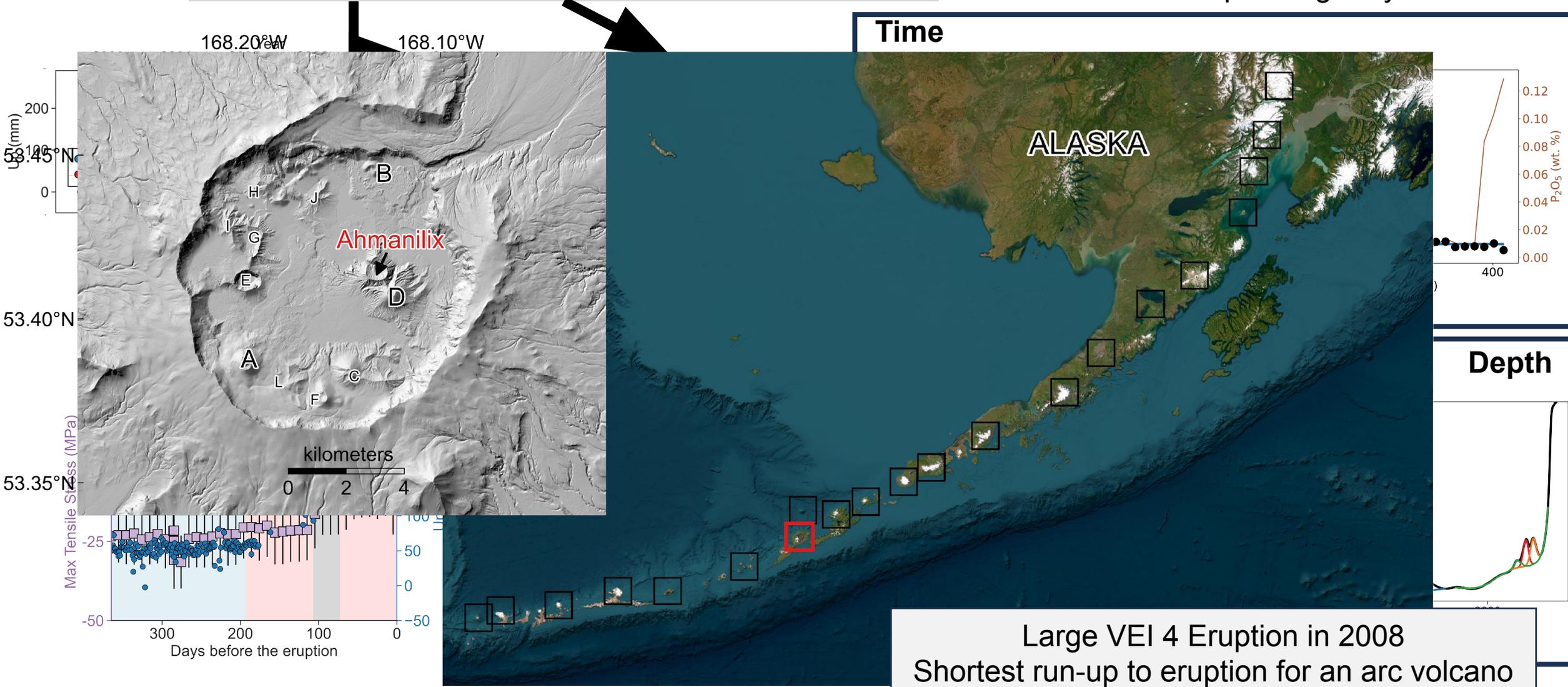




# Steady Vs Sudden: Okmok 2008

What we can do petrologically...



Hindcast by Albright et al. (2019)

Garza-Giron et al. (2023)

**5 hours** before the eruption...

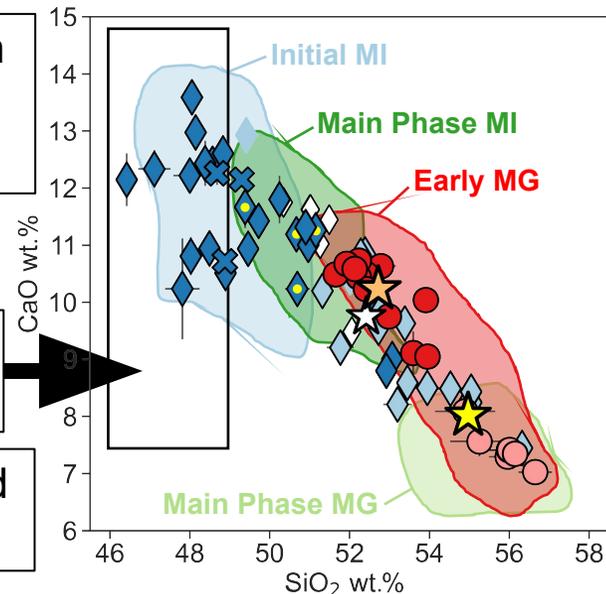
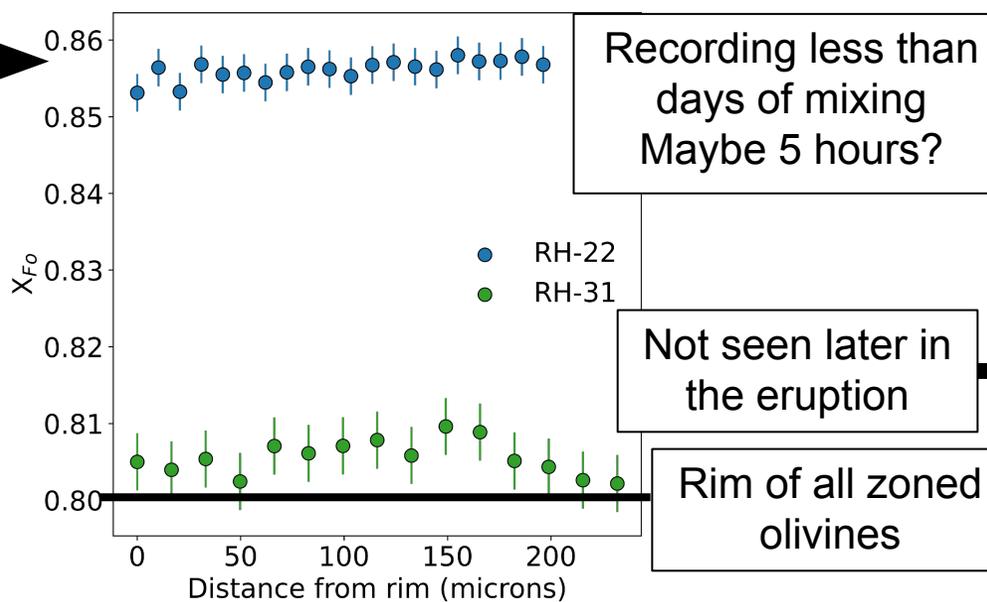
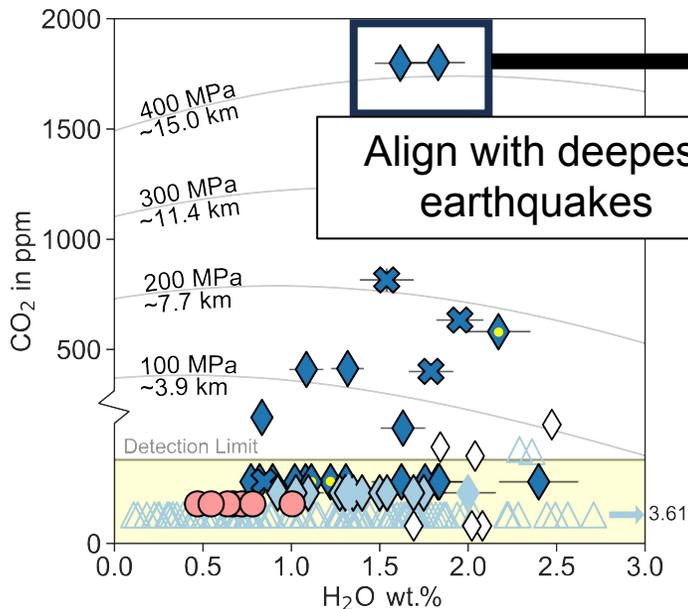
Large VEI 4 Eruption in 2008  
Shortest run-up to eruption for an arc volcano  
(maybe except Pavlof 2016...)

## DEEP Crystals

## FAST Crystals

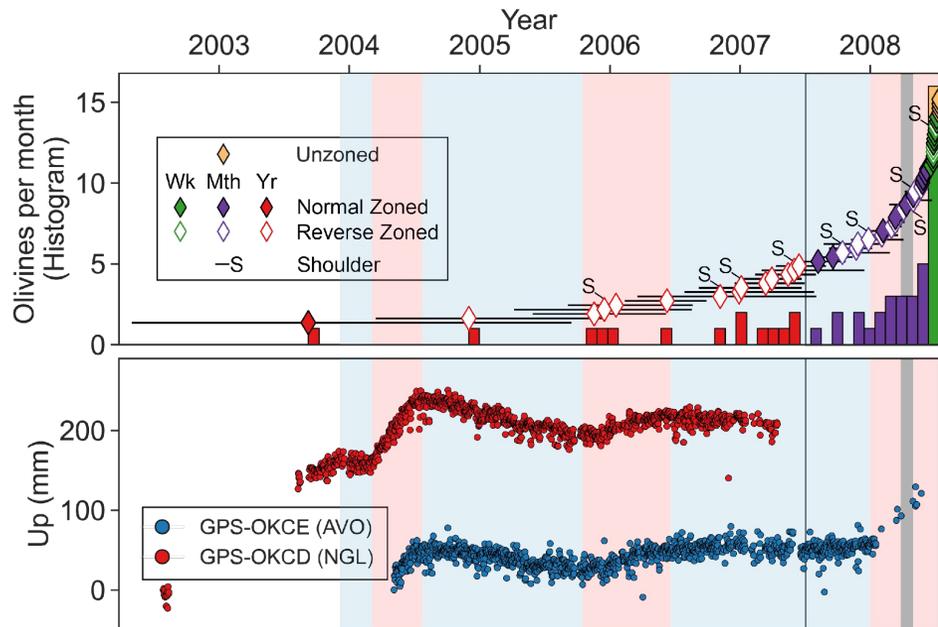
## PRIMITIVE Melt Inclusions

Evidence for **SUDDEN**

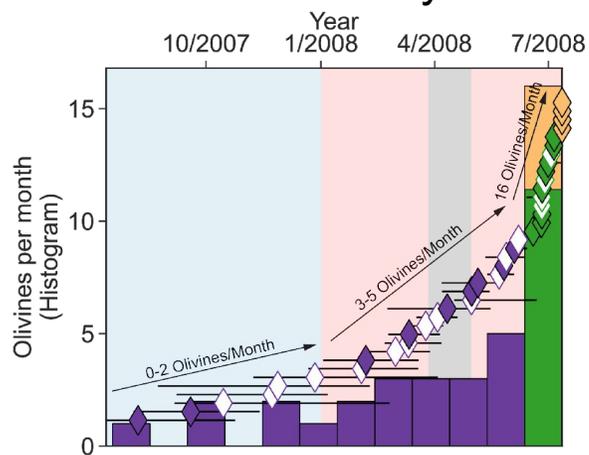


## LONG HISTORY of mixing events recorded in crystals

Evidence for **STEADY**



but... also a significant **RAMP UP** in early 2008



Priming over years of inflation, reaching a critical point at the start of 2008.  
Triggered by a diking event from 15 km depth