

An aerial photograph of a geothermal landscape at sunset. The foreground and middle ground are filled with numerous small, dark, circular features, likely geysers or hot springs, some of which are emitting white steam. The ground is a mix of light-colored sand and darker, mineral-rich soil. In the background, there is a flat expanse of land with some green vegetation and a body of water under a sky with a gradient from orange to blue. The text "GEOTHERMAL 101" is overlaid in large, white, sans-serif capital letters, and "BY JIM TURNER" is overlaid in smaller, white, sans-serif capital letters below it.

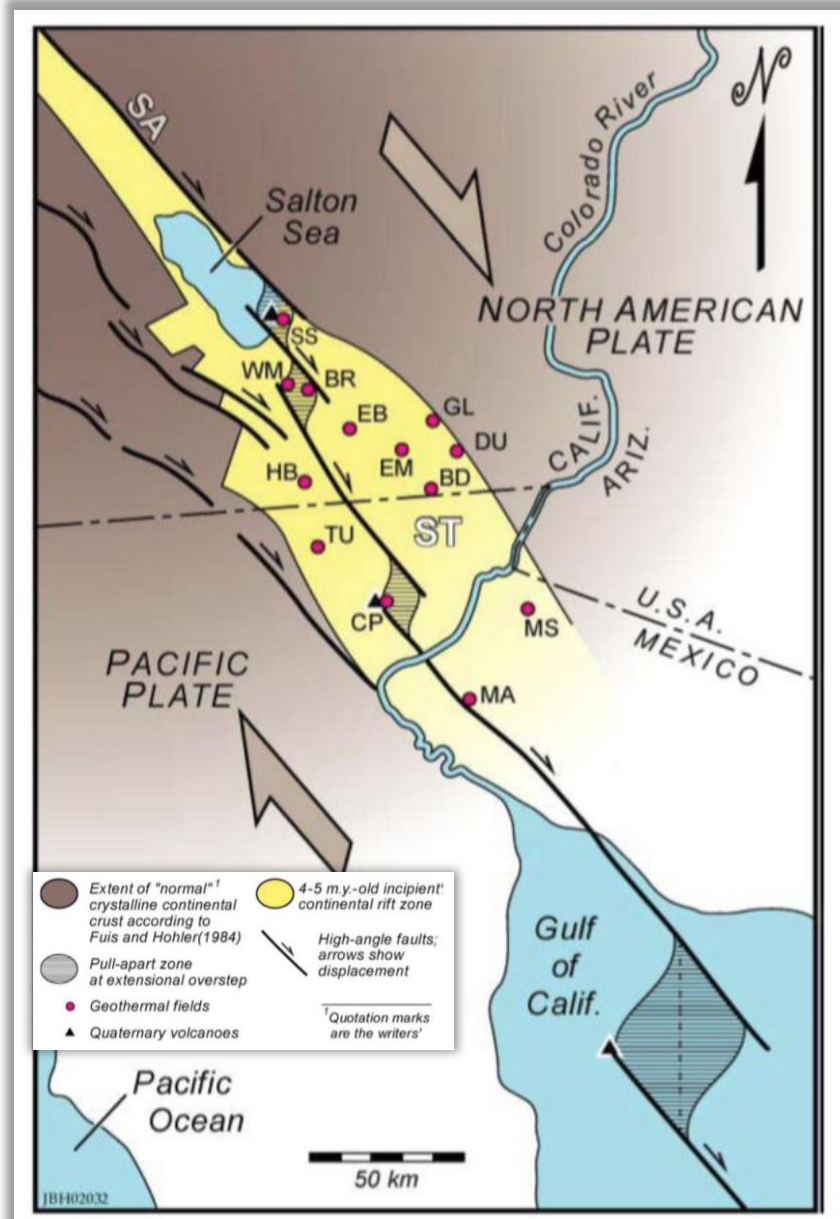
GEOTHERMAL 101

BY JIM TURNER

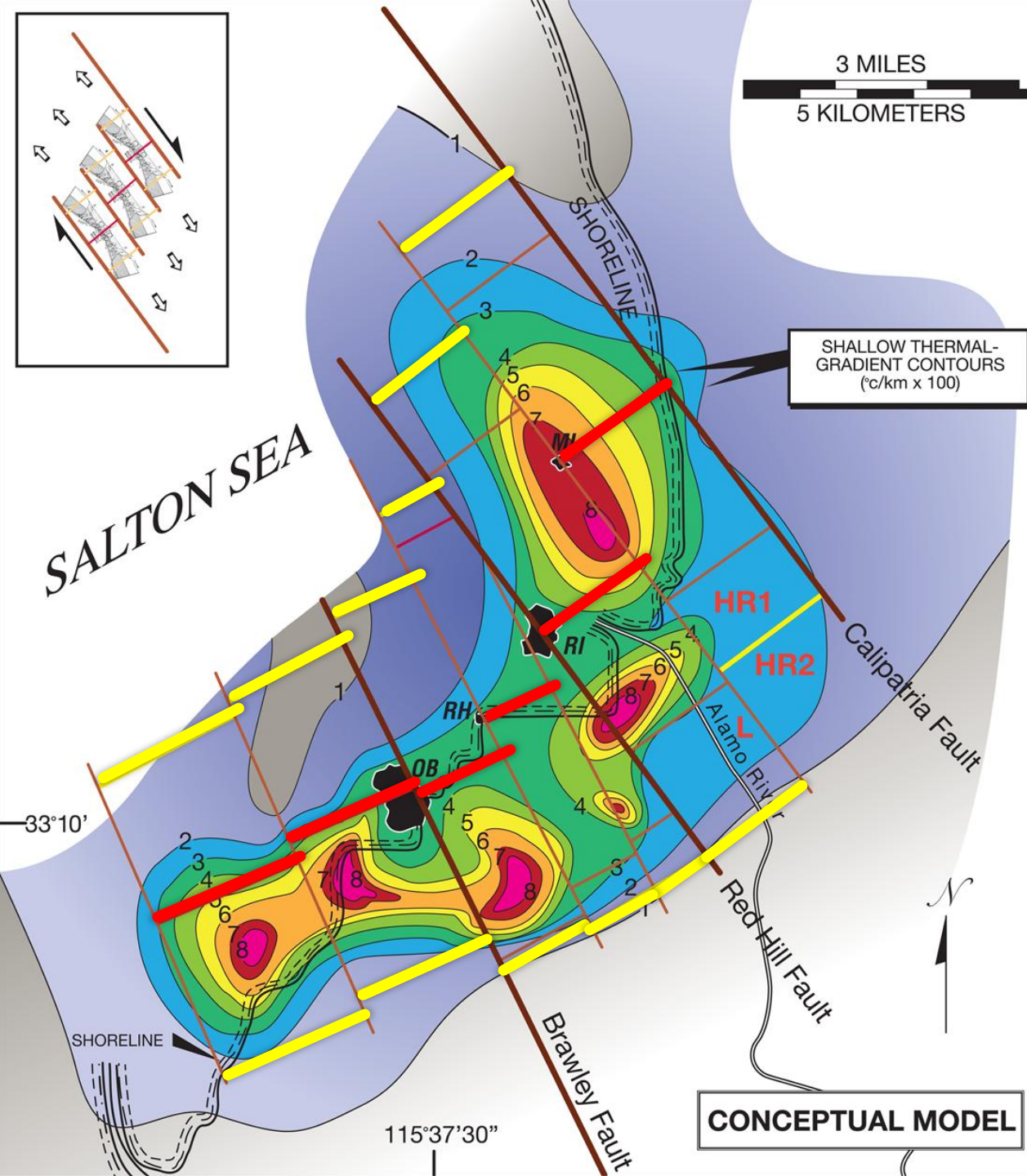
The Salton Sea Geothermal Resource



The Resource: *Structural Setting*



- The Salton Sea Geothermal Field (SSGF) is located in the Salton Trough, a tectonically active pull-apart basin between the Pacific and North American plates
- The trough is dominated by a series of pull-apart basins that connect NW strike-slip faults.
- The pull-apart extensions create crustal thinning and increases heat flux which supports the SSGF's high grade geothermal system.
- Note location of Salton Sea (SS) and Cerro Prieto (CP) fields within two prominent pull-apart zones, which also host the Trough's exposed Quaternary volcanoes.



The Resource: *Conceptual Model*

- Spreading centers are centered on rhyolite domes, red lines
- Outer boundaries of spreading centers, yellow lines
- Southeast boundaries are determined from drilling results
- Northwest boundaries are projected from centerline (mirrored)
- Matches new magnetotellurics, seismic, and relocated microseismicity
- Drilling results at HR2, compared to HR1 and Leathers, require a 'notch' in boundary, fully explained by this model
- Fully explains 'pork chop' shape of field

RESOURCE RISK

IS IT THERE?
IS IT VIABLE?
IT IS SUSTAINABLE?



Steam Flash Plants



Binary Plant



QUESTIONS

