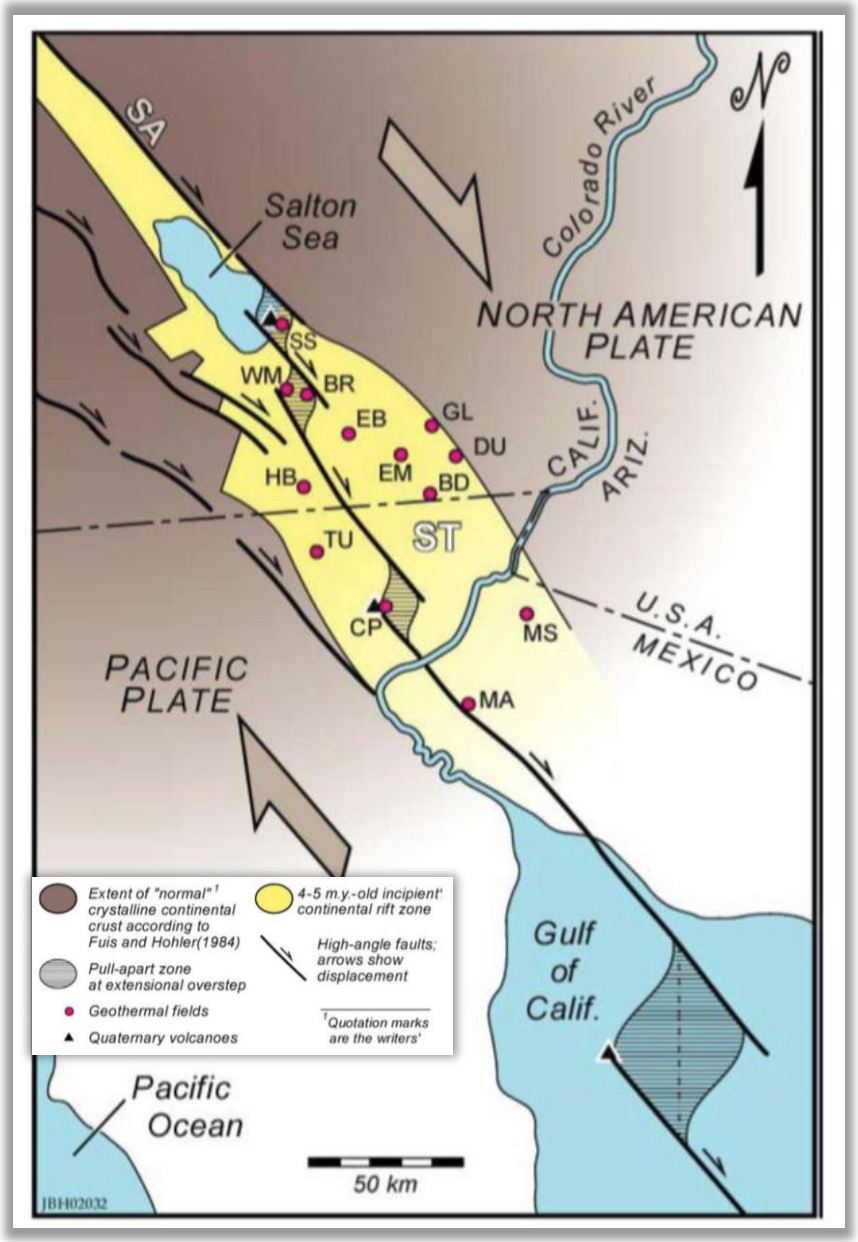
GEOTHERMAL 101

BY JIM TURNER

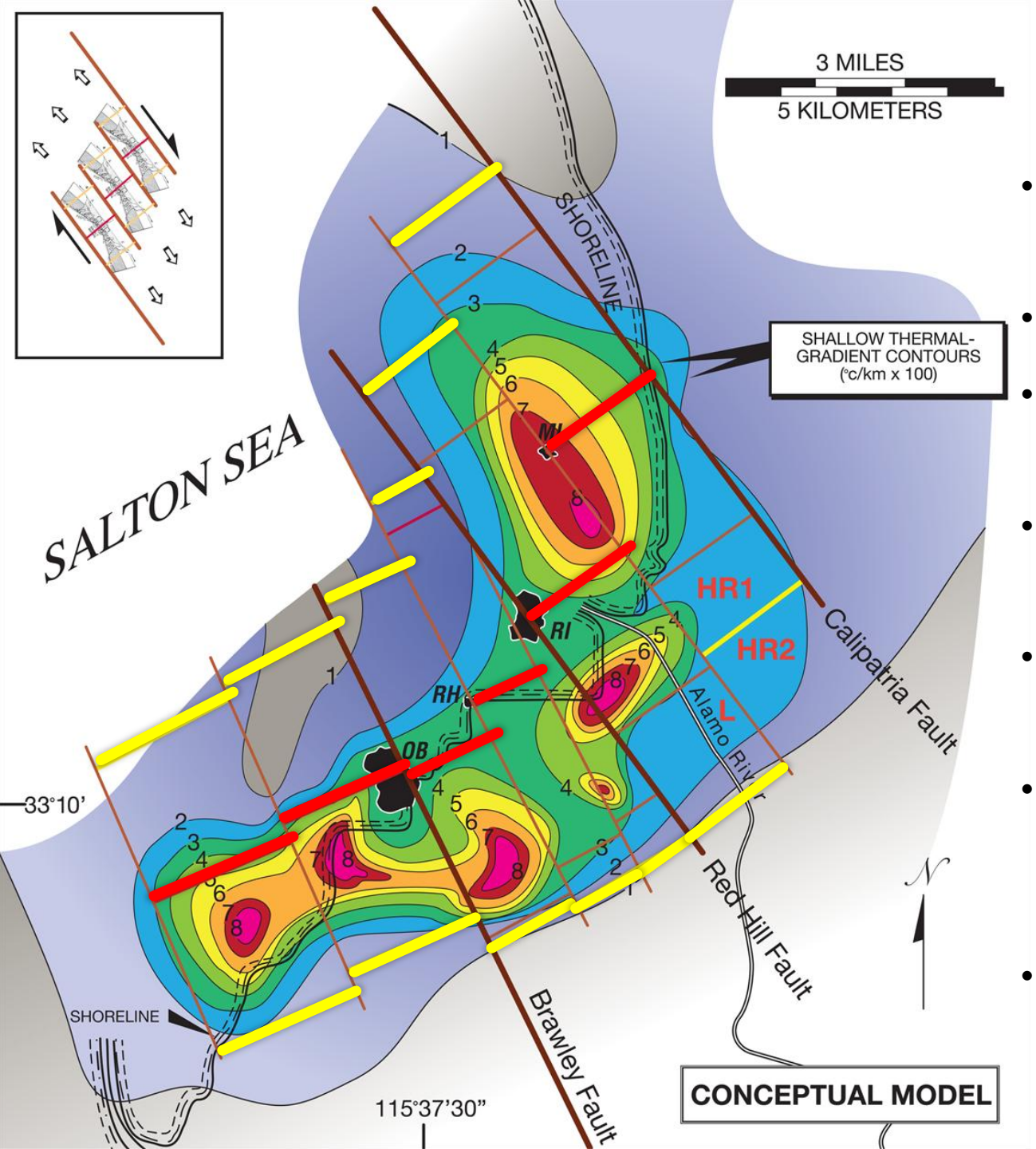
The Salton Sea Geothermal Resource

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