Evidence for late Quaternary faulting of the south-central coastal plain of Puerto Rico
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ABSTRACT
Alluvial deposits on the south-central coastal plain of Puerto Rico are cut by a shoreline that is interpreted to be the result of late Quaternary faulting. These deposits represent a sequence of fluvial sands and gravels, and fluvial (?) sands that are deposited along a 10 km scale and 300 m wide topographic scarp and interpreted to be the result of late Quaternary faulting. This scarp is interpreted to be the result of faulting that created colluvial wedge deposits and allowed the development of a north-south trending fault zone that is coincident with large seismic magnitudes and is coincident with the mapped trace of the Salinas fault. This zone is coincident with the mapped trace of the Great Southern Playa Fault Zone and is coincident with the mapped trace of the South Lajas fault. This zone is coincident with large bends in streams suggestive of right-lateral slip rate for the Salinas fault.

METHODLOGY
To the south, various present-day drainage systems drain a variety of quartzite and dolomite bedrock exposures. This zone is coincident with the Potrero fault zone, which is coincident with the Salinas fault. This zone is coincident with the mapped trace of the Salinas fault zone and is coincident with the mapped trace of the South Lajas fault.

We interpret the Salinas and GSPFZ to likely be strike-slip with a possible right-lateral component of motion. We interpret the GSPFZ to be a late Quaternary fault with a component of compression along a primarily strike-slip system.

WHAT TYPE OF FAULT IS THIS?
• Alvin Aponte, Operator Services
• Keith Kelson, URS
• Borehole information from Love and Prentice, 1988, and additional borehole data from Love et al., 1988, used to develop the model.

CONCLUSIONS
• Evidence of late Quaternary faulting of the south-central coastal plain of Puerto Rico.
• Late Quaternary faulting of the south-central coastal plain of Puerto Rico is evidenced by the presence of a north-south trending fault zone that is coincident with large seismic magnitudes and a north-south trending fault zone that is coincident with the mapped trace of the Salinas fault.

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