

Using Strat Columns to Interpret the Sequence Stratigraphy of Glacially Driven Stream Deposits of the Ancient San Joaquin River



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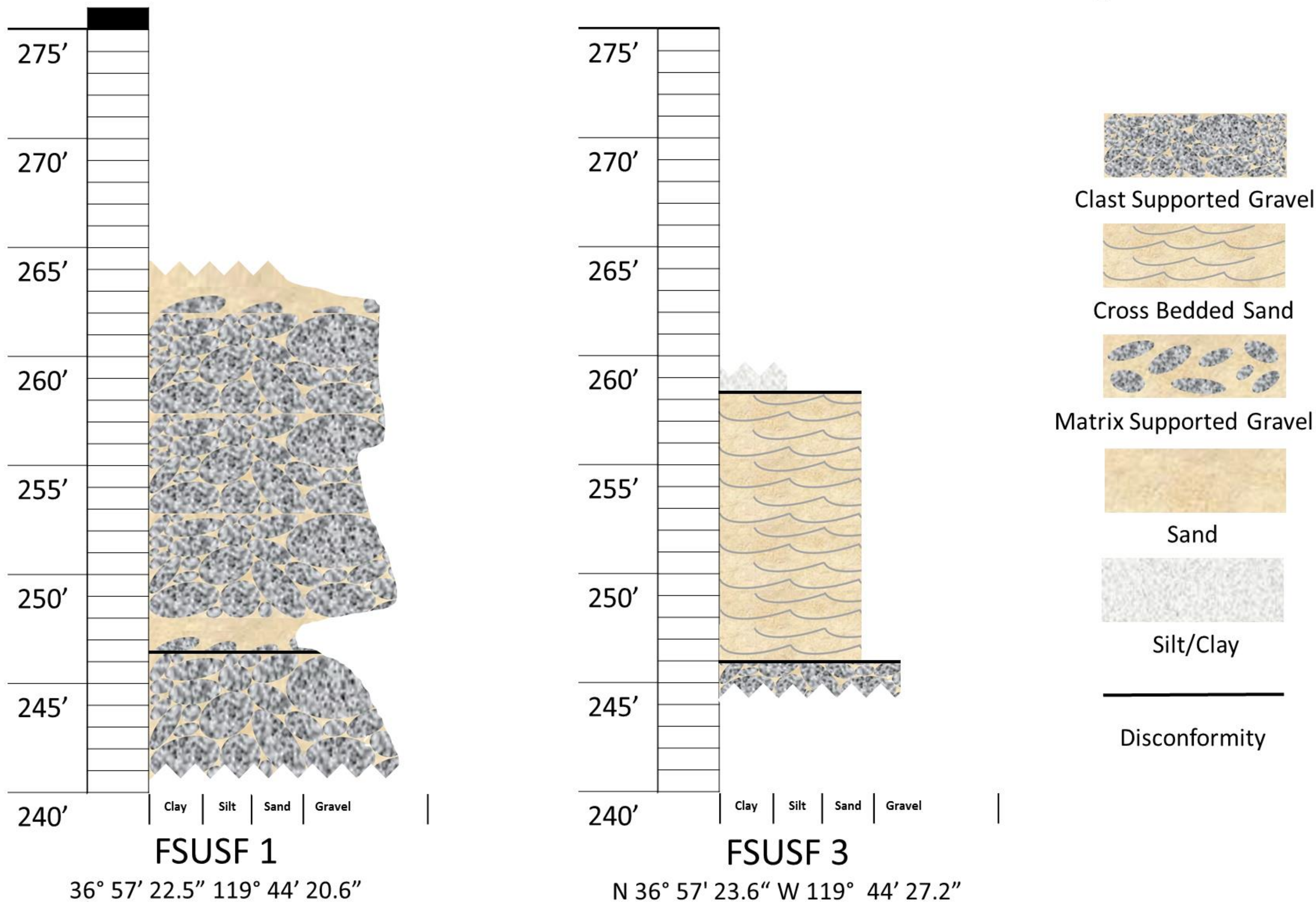
Introduction and Field Area

The River Bank is the oldest of three formations of sediment deposited during



ice age glaciation in the Sierra Nevada throughout much of the east side of the San Joaquin Valley. The gravel pit at the Cemex Quarry north of Fresno offers great exposers of this formation. Outcrops FSUSF 1 and FSUSF 3 were the focus.

Strat Columns at Cemex Quarry



Field Observations

Outcrop FSUSF 1 consists of three depositional units separated by disconformities. The gravel is quite large and would require a large fast flowing river for transport. FSUSF 3 contains three units. The middle unit contains cross bedding on the scale of 12 to 18 inches. The top unit is a layer of varved clay and silt that may be as deep as 15 feet in some parts of the quarry.

Interpretations

After surveying in the field and calculating elevations it became clear that FSUSF 1 and FSUSF 2 were at the same elevation range. My interpretation is that FSUSF 3 is older and that the varved silt/clay was deposited by a lake that was later incised into by the main channel where the larger gravels of FSUSF were deposited. A more accurate interpretation can be made once the outcrops have been dated.