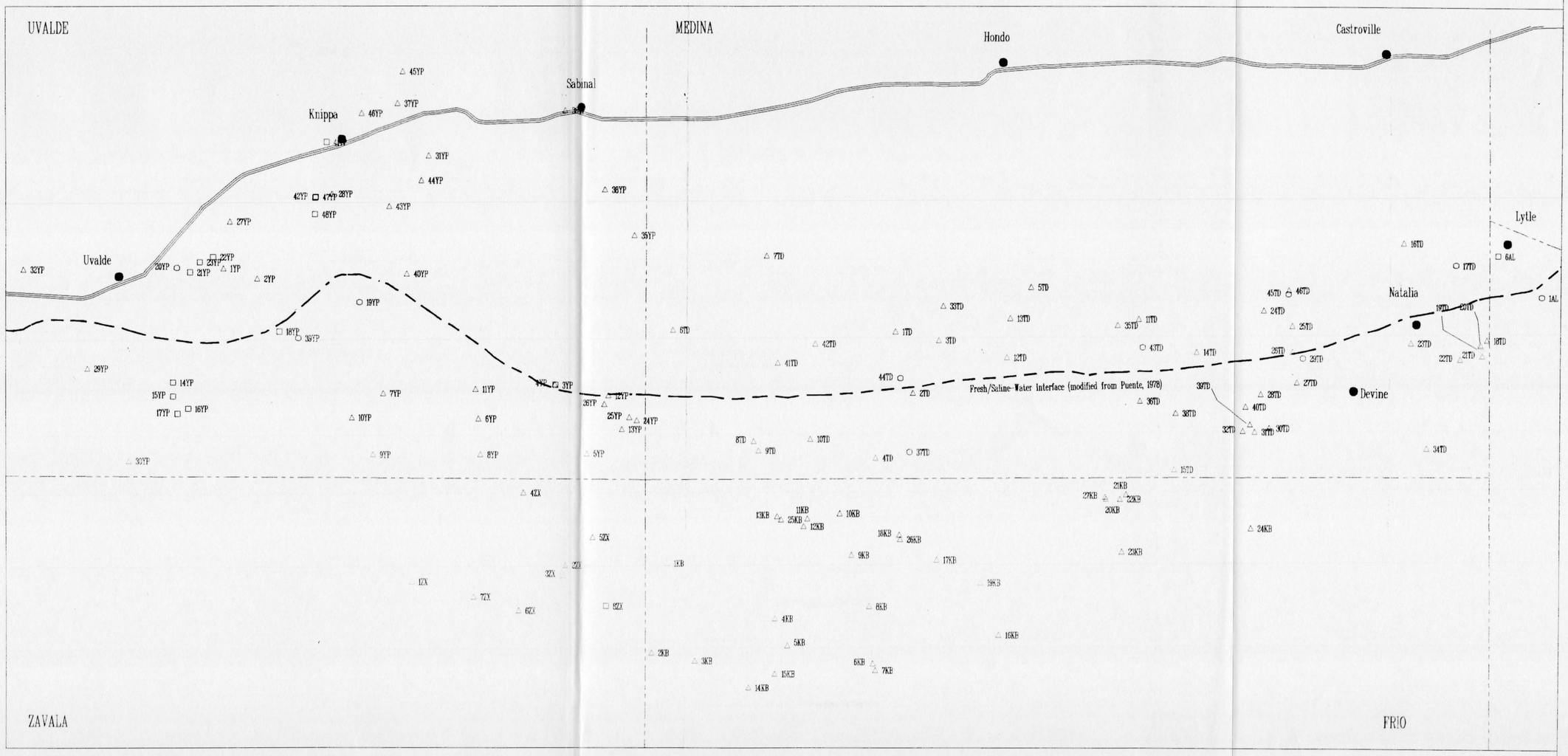
EDWARDS UNDERGROUND
WATER DISTRICT

Report 94-05

1994 Review and Update of the Position of the Edwards Aquifer Freshwater/Saline-Water Interface from Uvalde to Kyle, Texas

PLATES



Explanation

- ○ Control well – Well with both measured and calculated data or values for two wells in close proximity to one another (one measured, one calculated) where the water quality is believed to be nearly equal.
- △ Well with data calculated.
- □ Well with data measured.

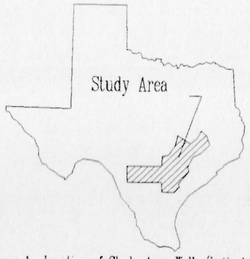


Figure 1. Location of Study Area Wells (Lytle to Uvalde, Texas) See Plate 1.

Scale in Miles

0 5 10 15

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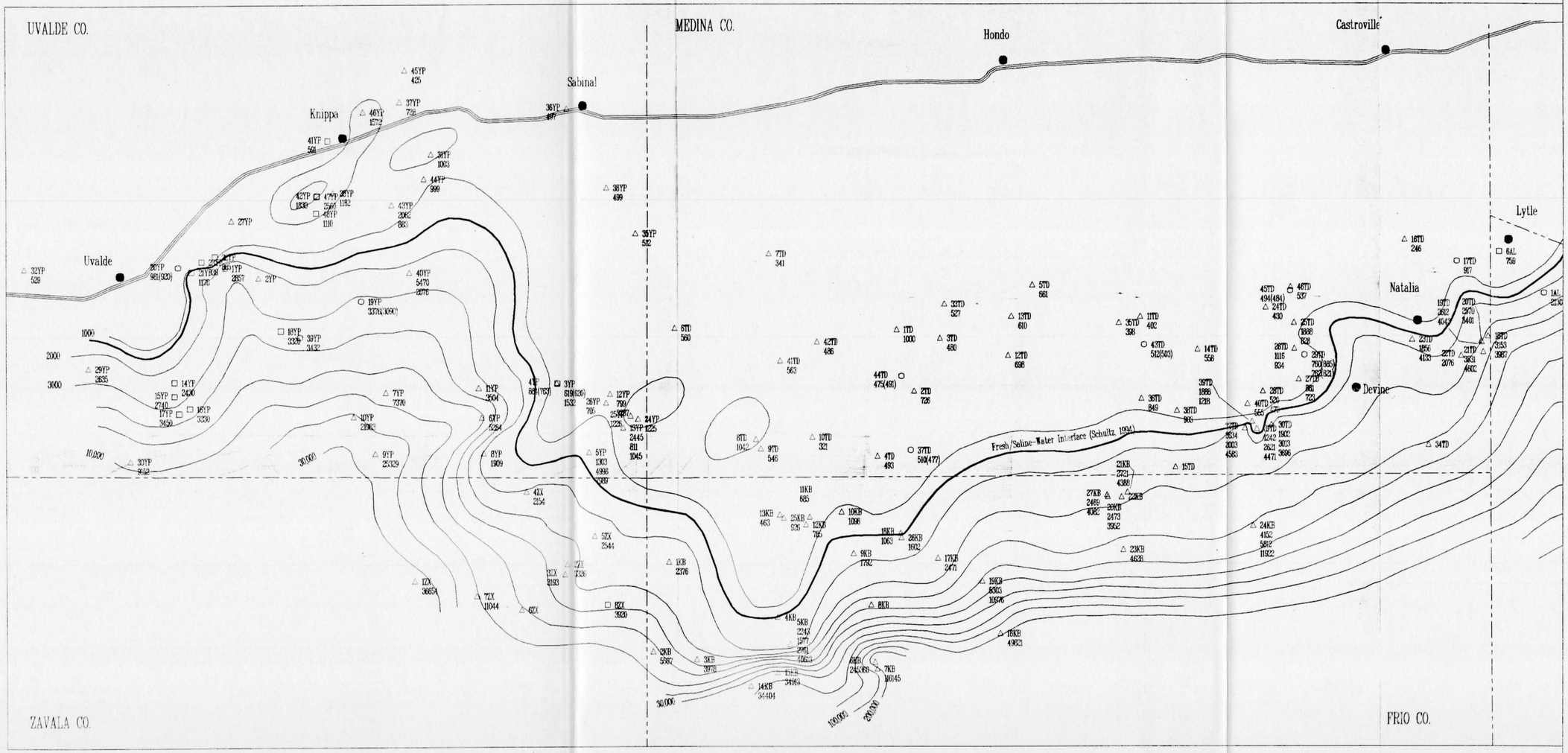

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Scale in Miles

0 5 10 15

Explanation

○ Control well - Well with both measured and calculated specific conductance or values for two wells in close proximity to one another (one measured, one calculated) where the water quality is believed to be nearly equal.

△ Well with specific conductance calculated.

□ Well with specific conductance measured.

—— Lines of equal specific conductance in microseimens/cm (contour interval variable).

480(562) - Estimated (measured) values for same well.

1879 - Multiple zone values
3033 for one well.

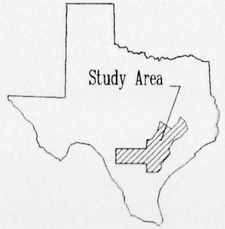
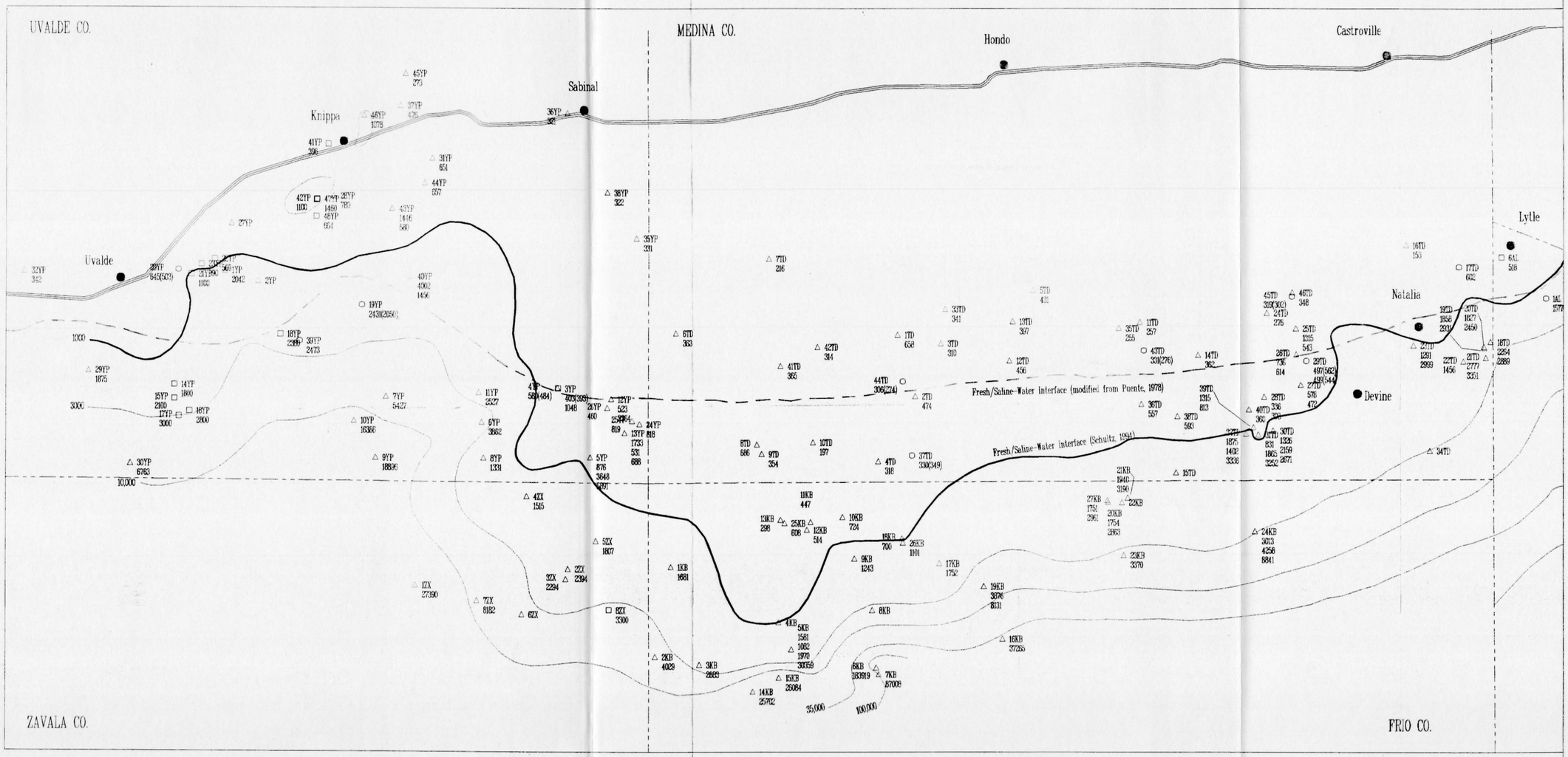


Figure 7. Specific Conductance from Geophysical Logs and Measured Well Data (Lytle to Uvalde, Texas). See Plate 2.



Scale in Miles

0 5 10 15

N

Explanation

○ Control well – Well with both measured and calculated total dissolved solids or values for two wells in close proximity to one another (one measured, one calculated) where the water quality is believed to be nearly equal.

△ Well with total dissolved solids calculated.

□ Well with total dissolved solids measured.

—— Lines of equal estimated TDS in MG/L (contour interval variable).

GENERAL CLASSIFICATION OF WATER BASED ON TDS (FROM WINSLOW & KISTER, 1956)

DESCRIPTION	DISSOLVED-SOLIDS CONCENTRATION MG/L
FRESH	LESS THAN 1,000
SLIGHTLY SALINE	1,000 TO 3,000
MODERATELY SALINE	3,000 TO 10,000
VERY SALINE	10,000 TO 35,000
BRINE	GREATER THAN 35,000

TOTAL DISSOLVED SOLIDS CONTOUR MAP

Contour map of measured and/or estimated* Total Dissolved Solids (in MG/L).

* Estimated from geophysical logs using the following empirical formulas:

WHEN Ca > 1200 uS/cm: TDSest. = .75Ca – 101
WHEN Ca < 1200 uS/cm: TDSest. = .67Ca – 12

480(562) – Estimated (measured) values for same well.

1879 – Multiple zone values for one well.
3033

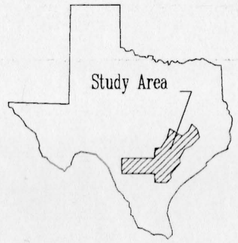


Figure 8. Total Dissolved Solids Contour Map (Lytle to Uvalde, Texas) See Plate 3.

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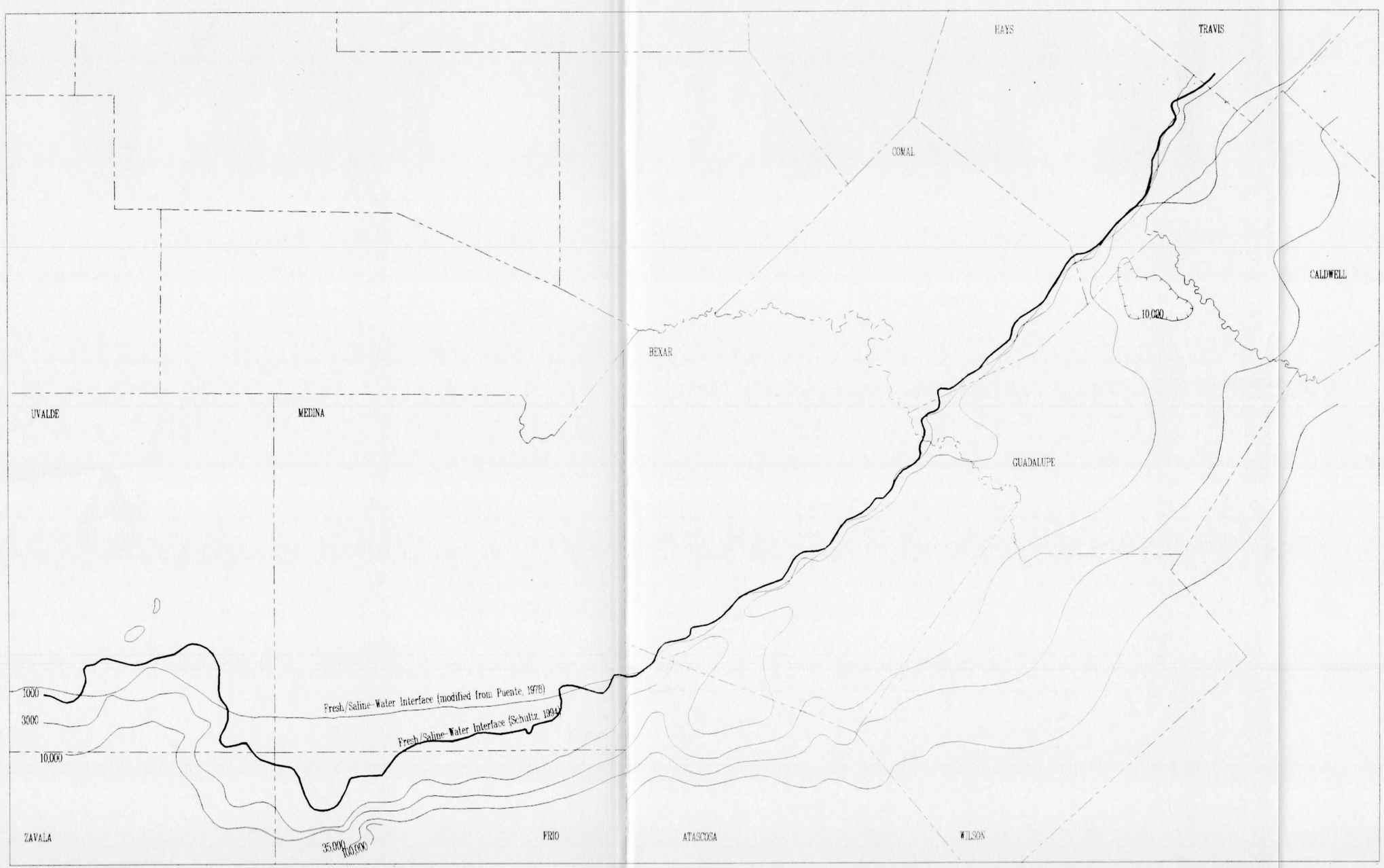

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Explanation

Lines of equal estimated TDS in MG/L (contour interval variable).

Scale in Miles

0 5 10 15

N

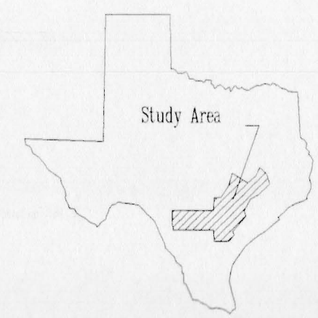

Figure 9. Total Dissolved Solids Contour Map (Uvalde to Kyle, Texas). See Plate 4.