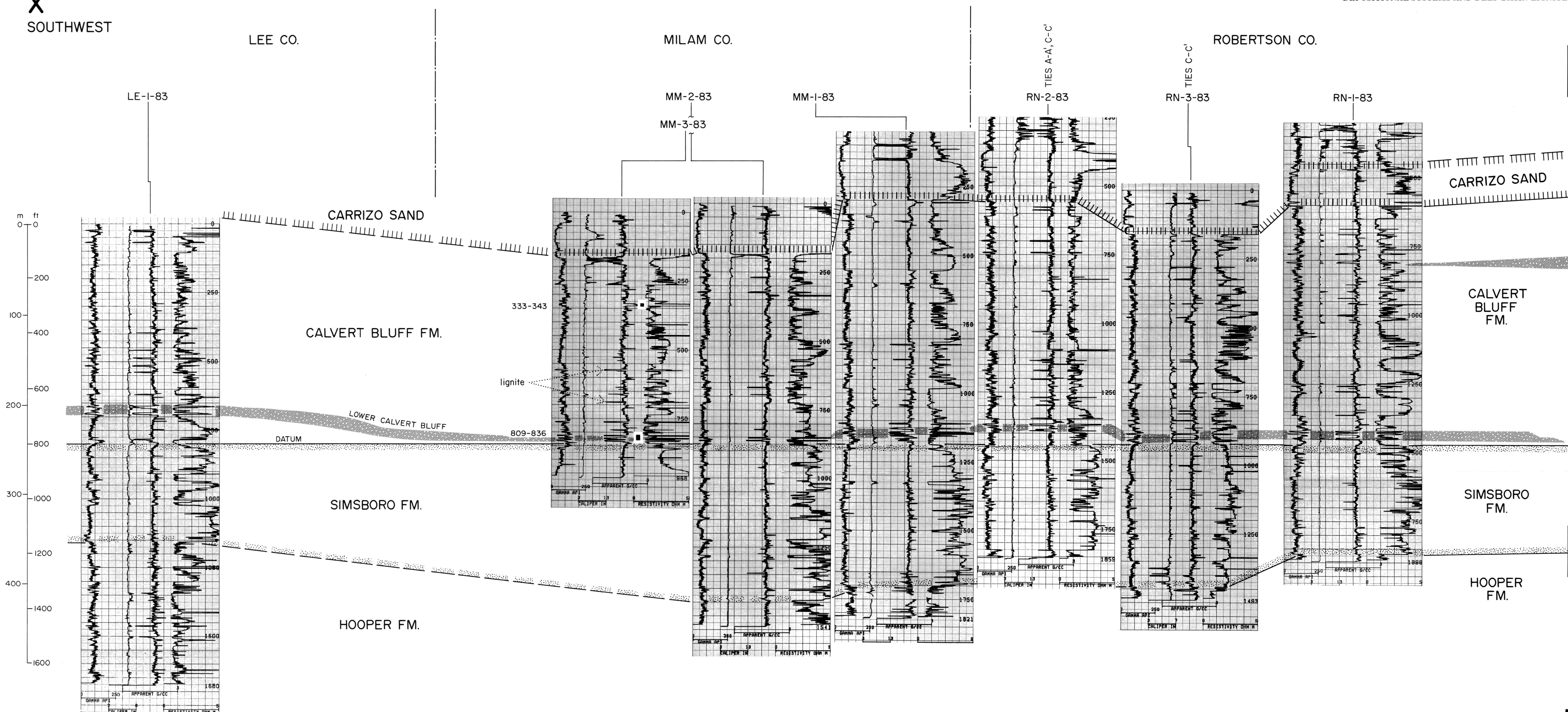
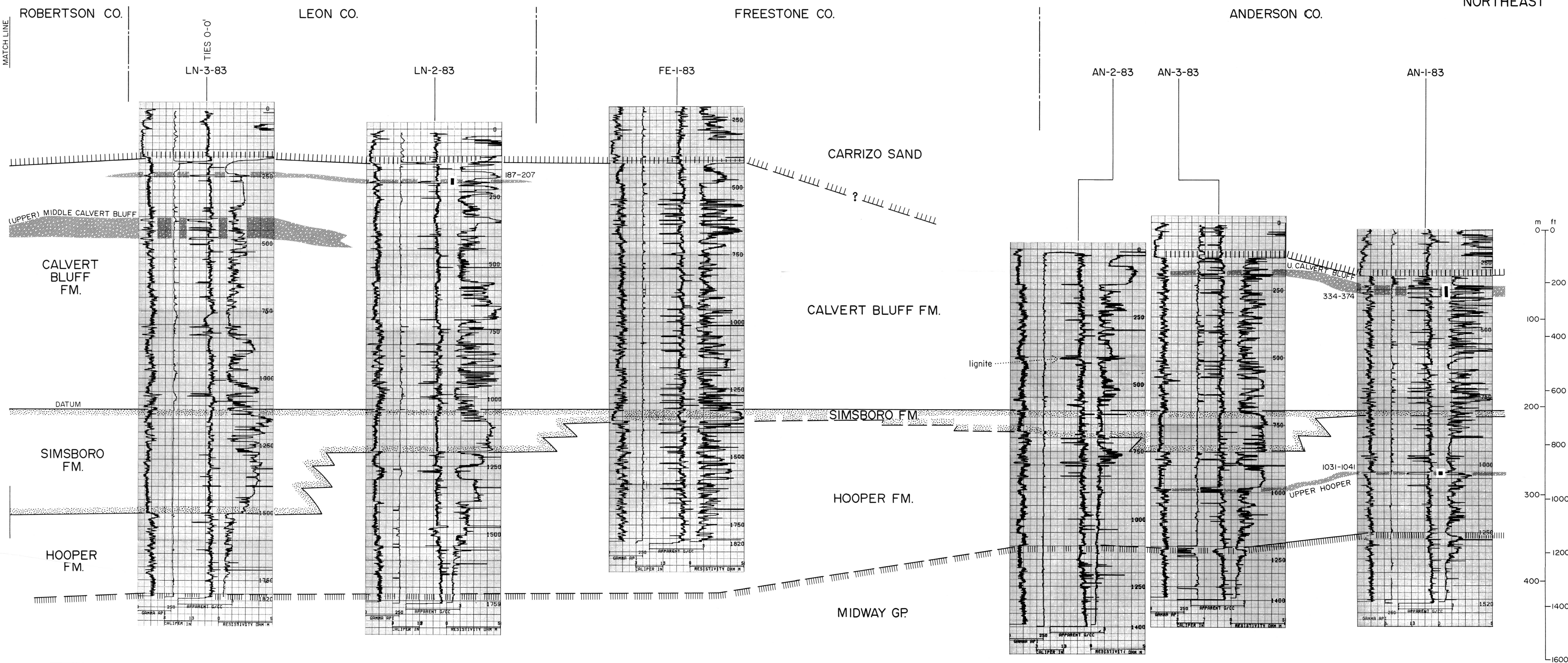


X
SOUTHWEST



MATCH LINE

X'
NORTHEAST



Geophysical logs from Texas Energy and Natural Resources Advisory Council/Bureau of Economic Geology wells show the stratigraphic occurrence of deep lignite (200 to 2,000 ft [61 to 610 m]) in east-central Texas. Thick lignite seams (seams 5 ft [1.5 m] or thicker) are found in the (a) upper Hooper Formation on the northeast, (b) lower Calvert Bluff Formation on the southwest, and (c) upper Calvert Bluff Formation on the northeast. Lateral continuity of individual lignite seams within the zones is neither implied nor true; wells were drilled in low-sand (floodbasin) areas between major-sand axes, which limit seam continuity. See plate 3 for location. Full-scale geophysical well logs are available from the Bureau of Economic Geology.

by W. B. Ayers, Jr., and Amy H. Lewis

PLATE 22. LIGNITE CROSS SECTION X-X'

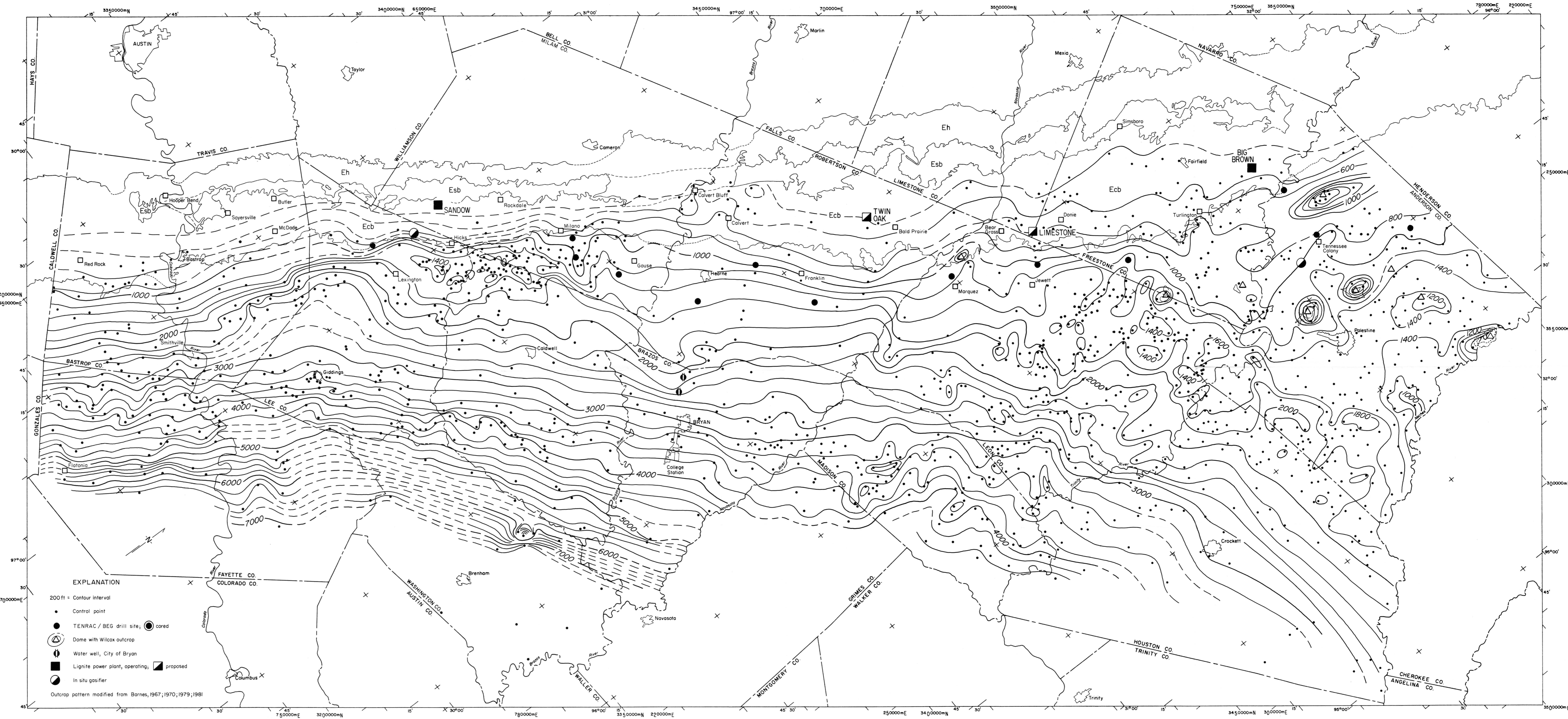
1985

Scale
0 5 10 15 mi
0 5 10 15 km

EXPLANATION
Zone of thick lignite
(1 or more seams ≥5 ft [1.5 m])

333-343 ■ Cored interval

Cartography by John T. Ames under the supervision of Richard L. Dillon.



- EXPLANATION**
- 200 ft = Contour interval
 - Control point
 - TENRAC / BEG drill site; ● cored
 - ⊙ Dome with Wilcox outcrop
 - ⊕ Water well, City of Bryan
 - Lignite power plant, operating; ▨ proposed
 - ⊙ In situ gasifier
- Outcrop pattern modified from Barnes, 1967; 1970; 1979; 1981

- Ecb Calvert Bluff Formation
- Esb Simsboro Formation
- Eh Hooper Formation

Base map adapted from Army Map Service base maps, 10,000-meter Universal Transverse Mercator grid, zones 14 and 15. Cartography by John T. Ames under the supervision of Richard L. Dillon.

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PLATE 28. SIMSBORO OVERBURDEN MAP

1985

The depth to the top of the Simsboro (Simsboro overburden) provides an estimate of the depth required to test the entire lignite-bearing Calvert Bluff Formation.

04E1984-28

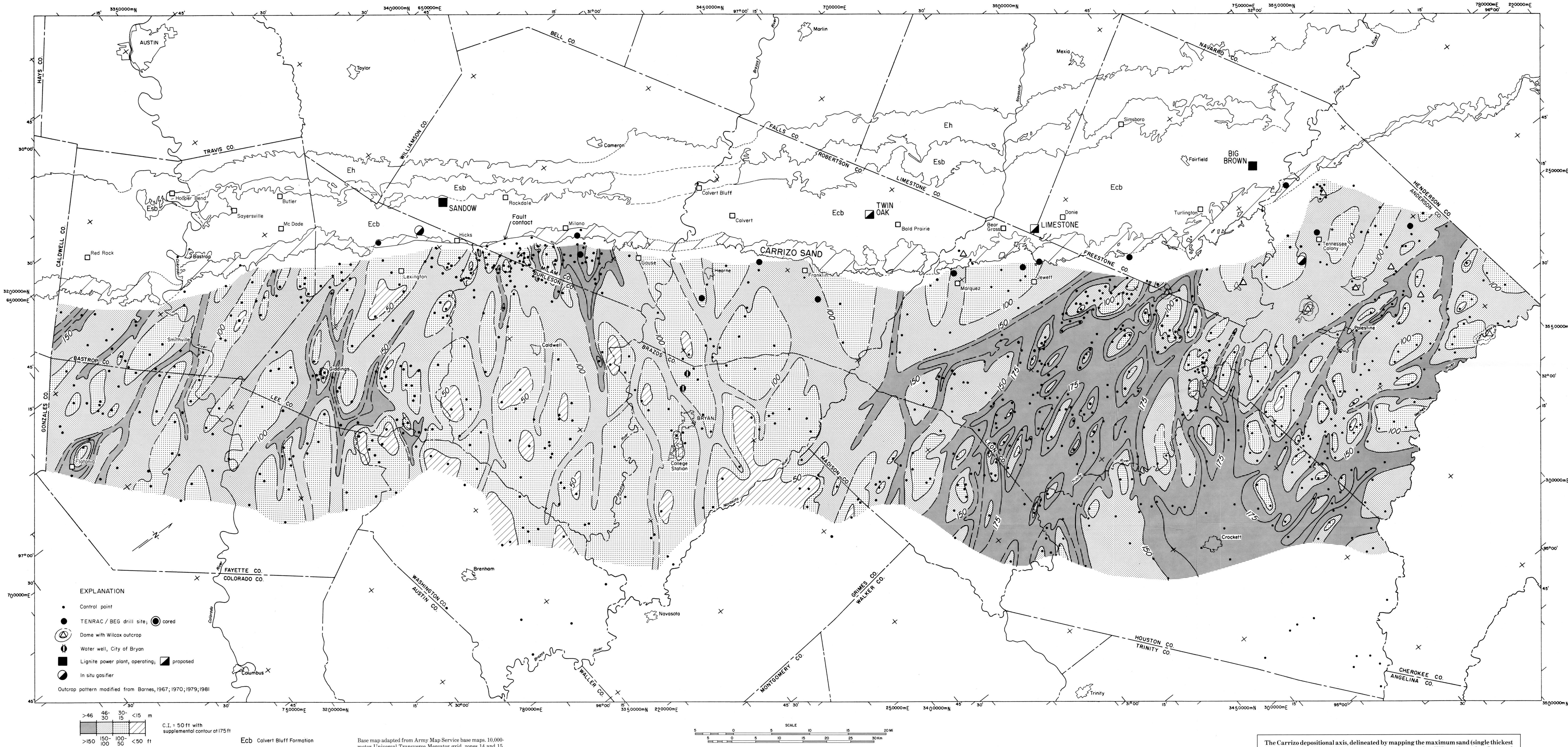


PLATE 13. CARRIZO SAND, MAXIMUM-SAND MAP

The Carrizo depositional axis, delineated by mapping the maximum sand (single thickest Carrizo sand), has shifted southward relative to the Wilcox into the Garwood subembayment. Sand-body orientation in Leon County has switched from northwest-southeast during Calvert Bluff sedimentation (pl. 11) to north-south.

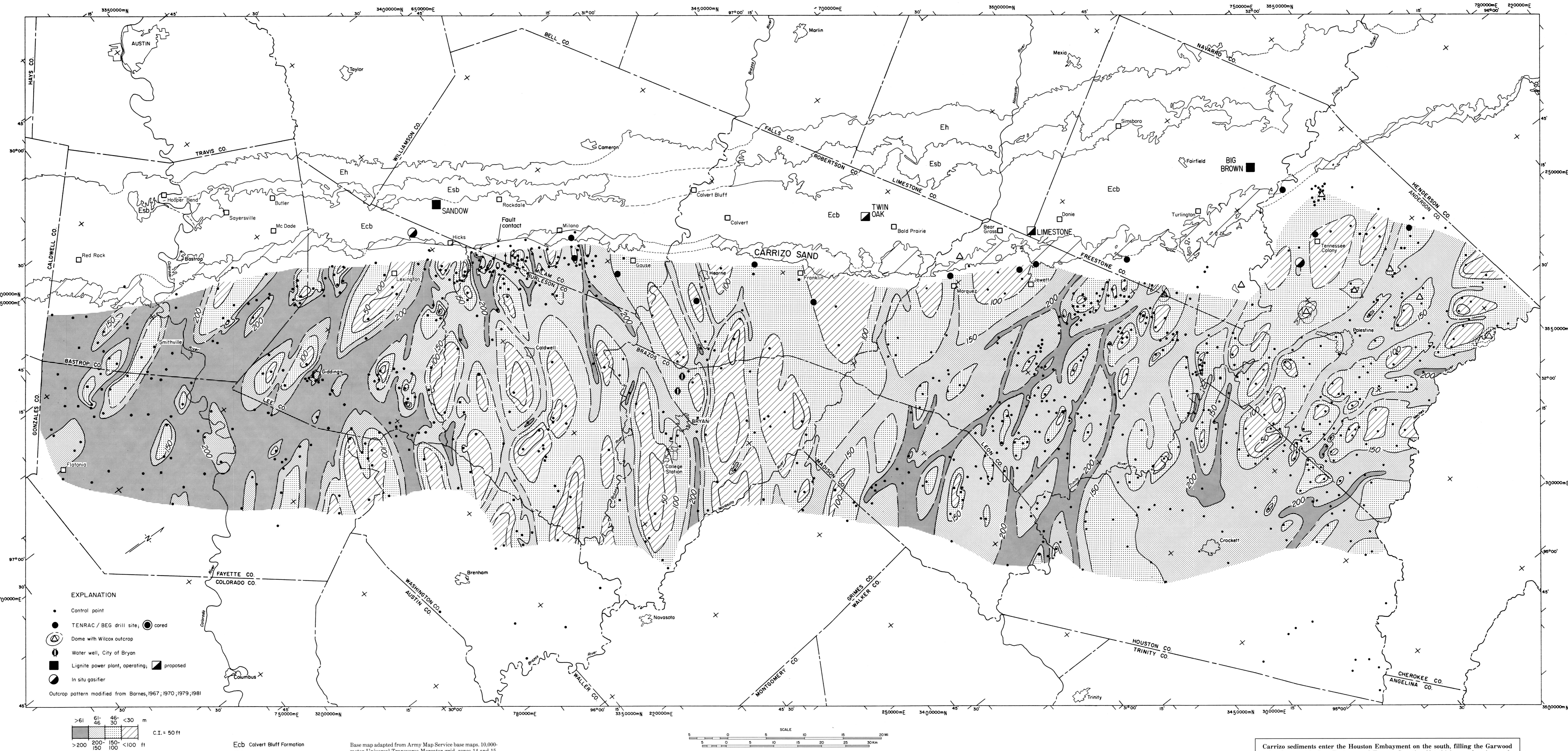


PLATE 14. CARRIZO SAND, MAJOR-SAND ISOLITH MAP

1985

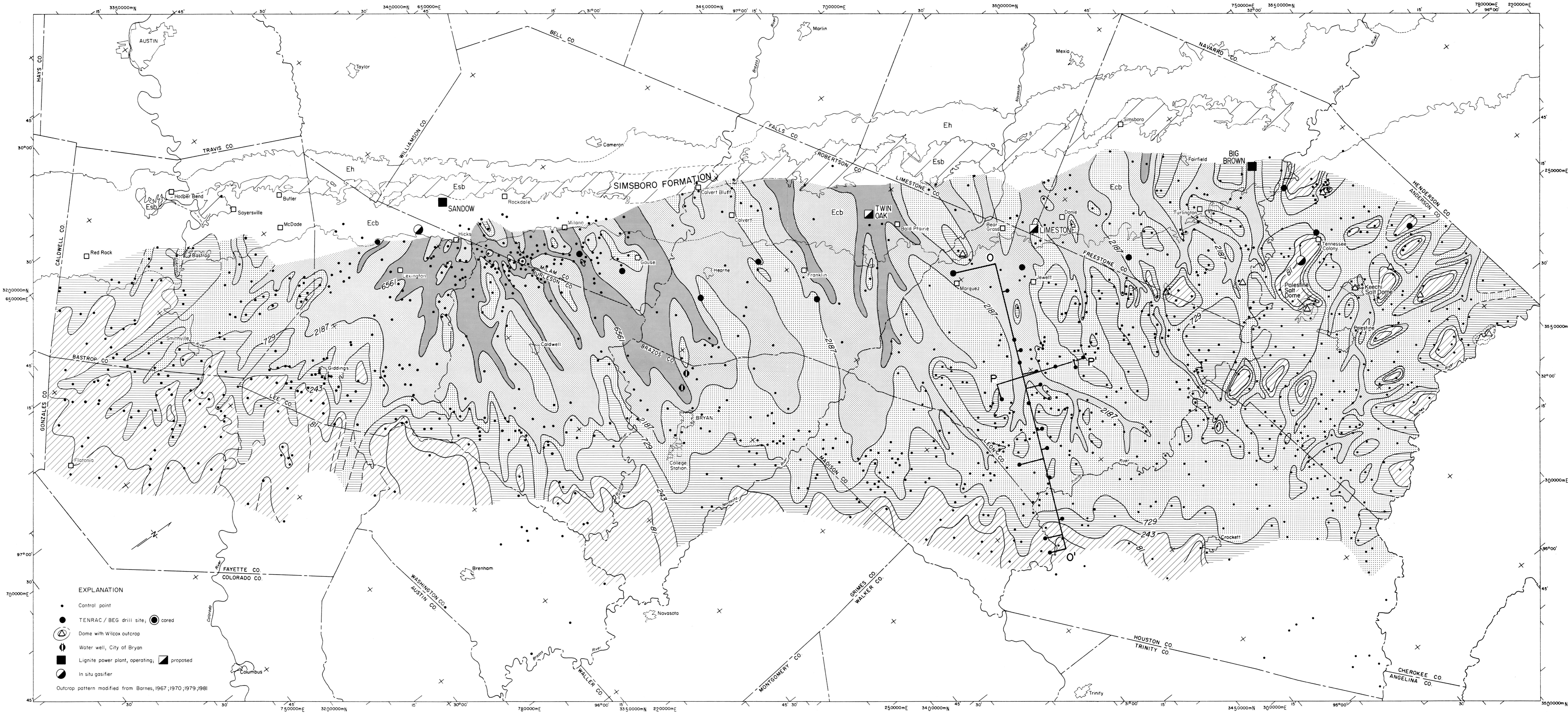
Ecb Calvert Bluff Formation
 Esb Simsboro Formation
 Eh Hooper Formation

Base map adapted from Army Map Service base maps, 10,000-meter Universal Transverse Mercator grid, zones 14 and 15. Cartography by John T. Ames under the supervision of Richard L. Dillon.

by W. B. Ayers, Jr., and Amy H. Lewis

Carrizo sediments enter the Houston Embayment on the south, filling the Garwood subembayment in Lee, Bastrop, and Fayette Counties. Net thickness of major sands (sands 40 ft [12 m] or thicker) is greatest on the south flank of the Rockdale delta system (fig. 4E). Carrizo depositional trends in Leon and Robertson Counties are north-south, whereas Calvert Bluff trends are northwest-southeast (compare with pl. 11).

04e1984-14



- EXPLANATION**
- Control point
 - TENRAC / BEG drill site; ● cored
 - ⊙ Dome with Wilcox outcrop
 - ⊕ Water well, City of Bryan
 - Lignite power plant, operating; ▣ proposed
 - ⊙ In situ gasifier
- Outcrop pattern modified from Barnes, 1967, 1970, 1979, 1981



C.I. = $3^5, 3^6, 3^7, 3^8$ ohm-m²

- Ecb Calvert Bluff Formation
- Esb Simsboro Formation
- Eh Hooper Formation

Base map adapted from Army Map Service base maps, 10,000-meter Universal Transverse Mercator grid, zones 14 and 15. Cartography by John T. Ames under the supervision of Richard L. Dillon.

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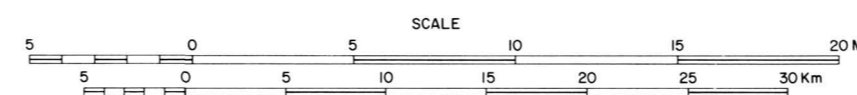


PLATE 15. SIMSBORO FORMATION, RESISTIVITY-PRODUCT MAP

Resistivity products are highest near recharge areas at regional outcrop and at local outcrop around the Keechi salt dome in Anderson County; they decrease basinward. Coincidence of resistivity-product trends with Simsboro major-sand axes (pl. 5) in the shallow subsurface suggests that major sands control ground-water flow. O-O' and P-P' are resistivity cross sections (pls. 20 and 21).