

**Wolfcamp Play:
17 of 22 Wells Drilled Successfully
12 New Field Discoveries**

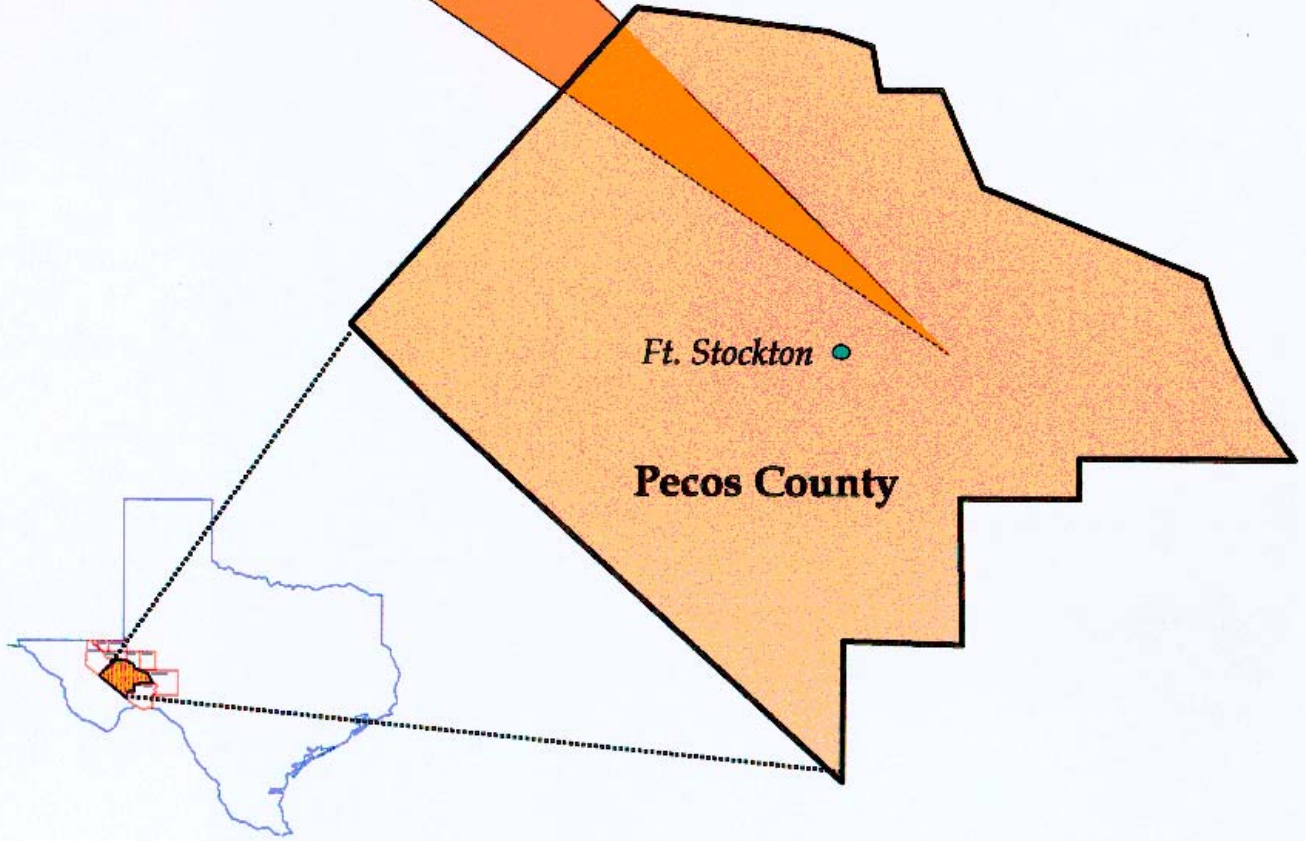
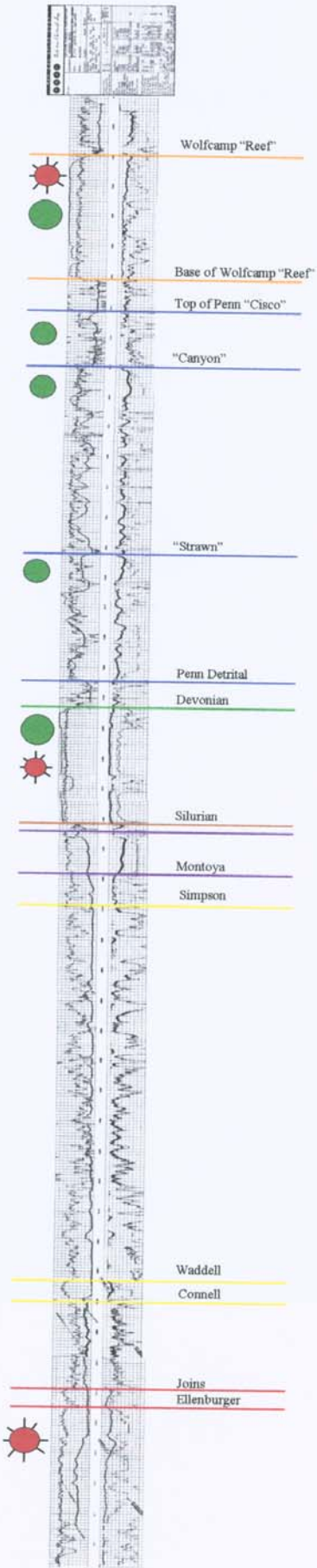


Figure 1. General location of the project area in Pecos County, Texas.

Figure 2. Type log of Permian to Ordovician sediment, noting primary zones of production.



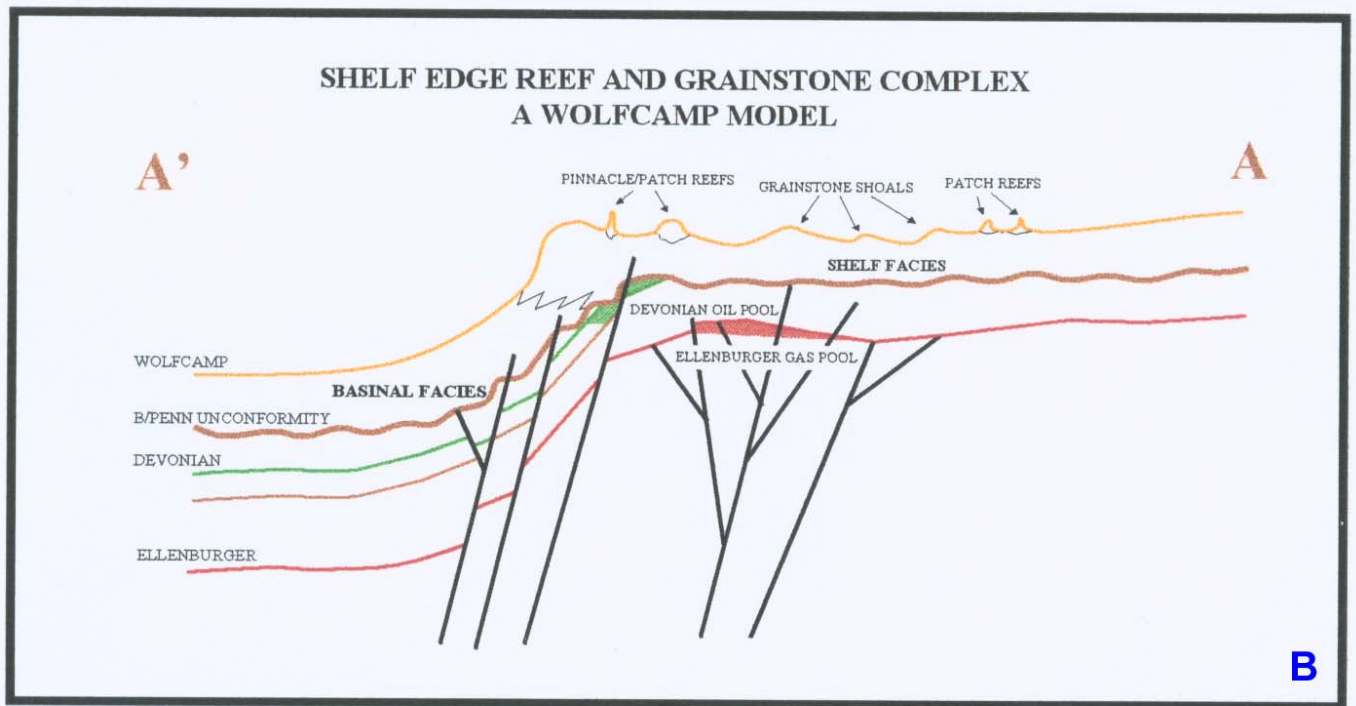
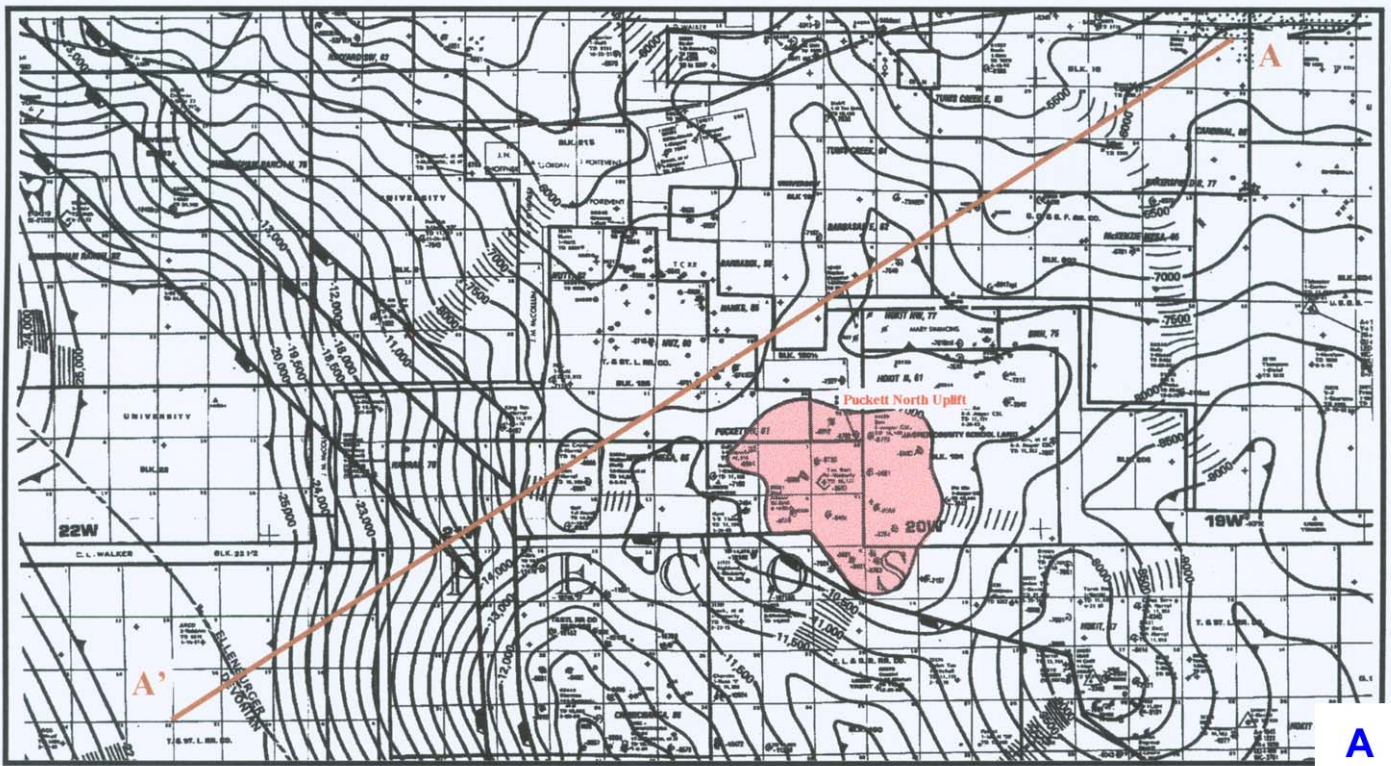


Figure 3. A. Structure map (Ellenburger as reference, except in southwesternmost part), as location map for cross-sections. B. Schematic cross-section (A-A') of depositional environment during Permian time.

Wolfcamp Reef Play Reservoir Model Relative To Depositional Trends

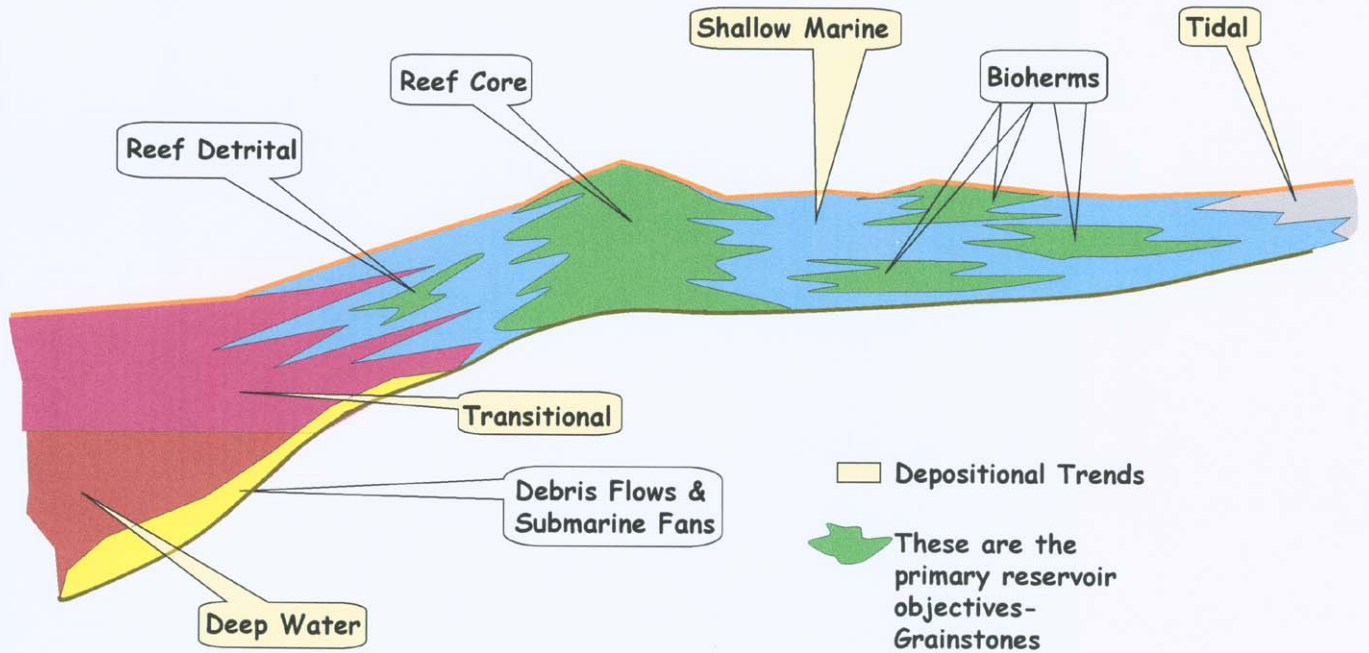


Figure 4. Schematic sedimentologic cross-section of primary environments of deposition in project area for the Wolfcamp zones of interest.

DEPOSITIONAL ENVIRONMENTS

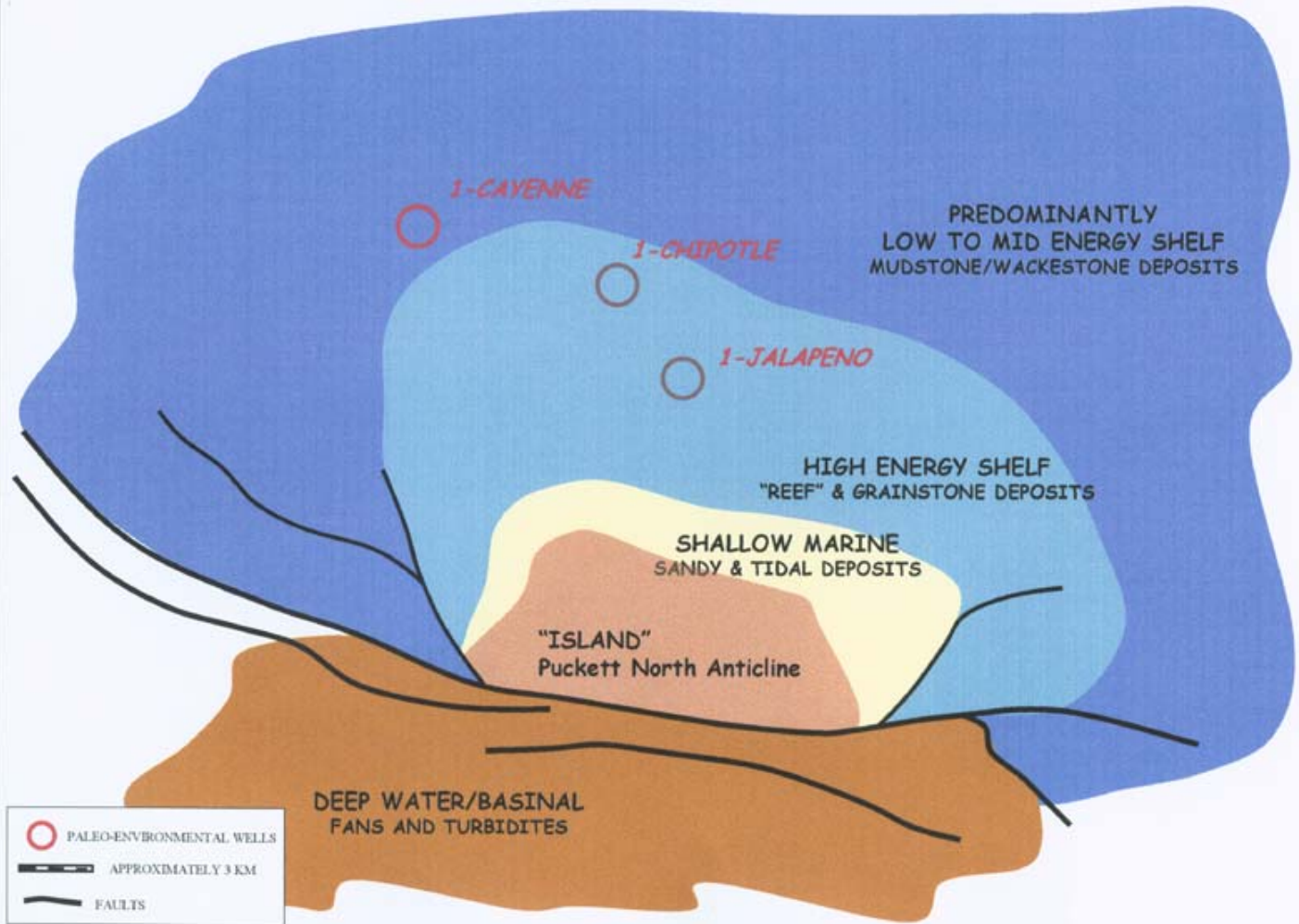


Figure 5. Wolfcamp depositional environments for study area.

HOKIT, NORTH FIELD WOLFCAMP GEOLOGIC STRUCTURAL CROSS-SECTION

A

A'

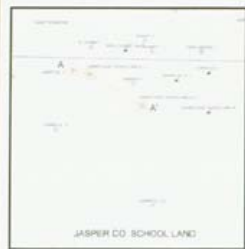
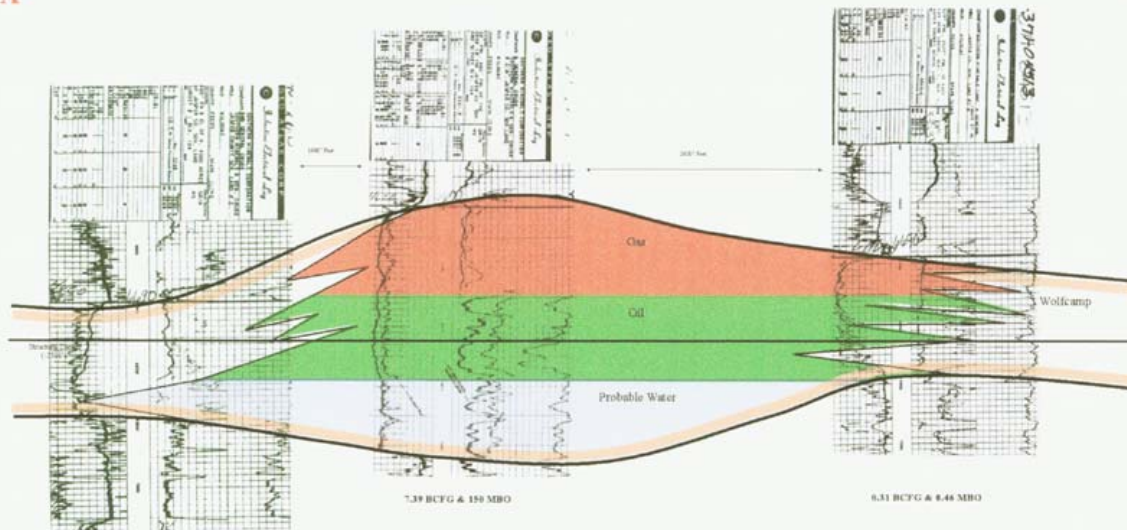


Figure 6. Hokit North Field cross-section.

SONIC TYPE LOG
SOUTHERN MINERALS
2-JASPER COUNTY SCHOOL LAND

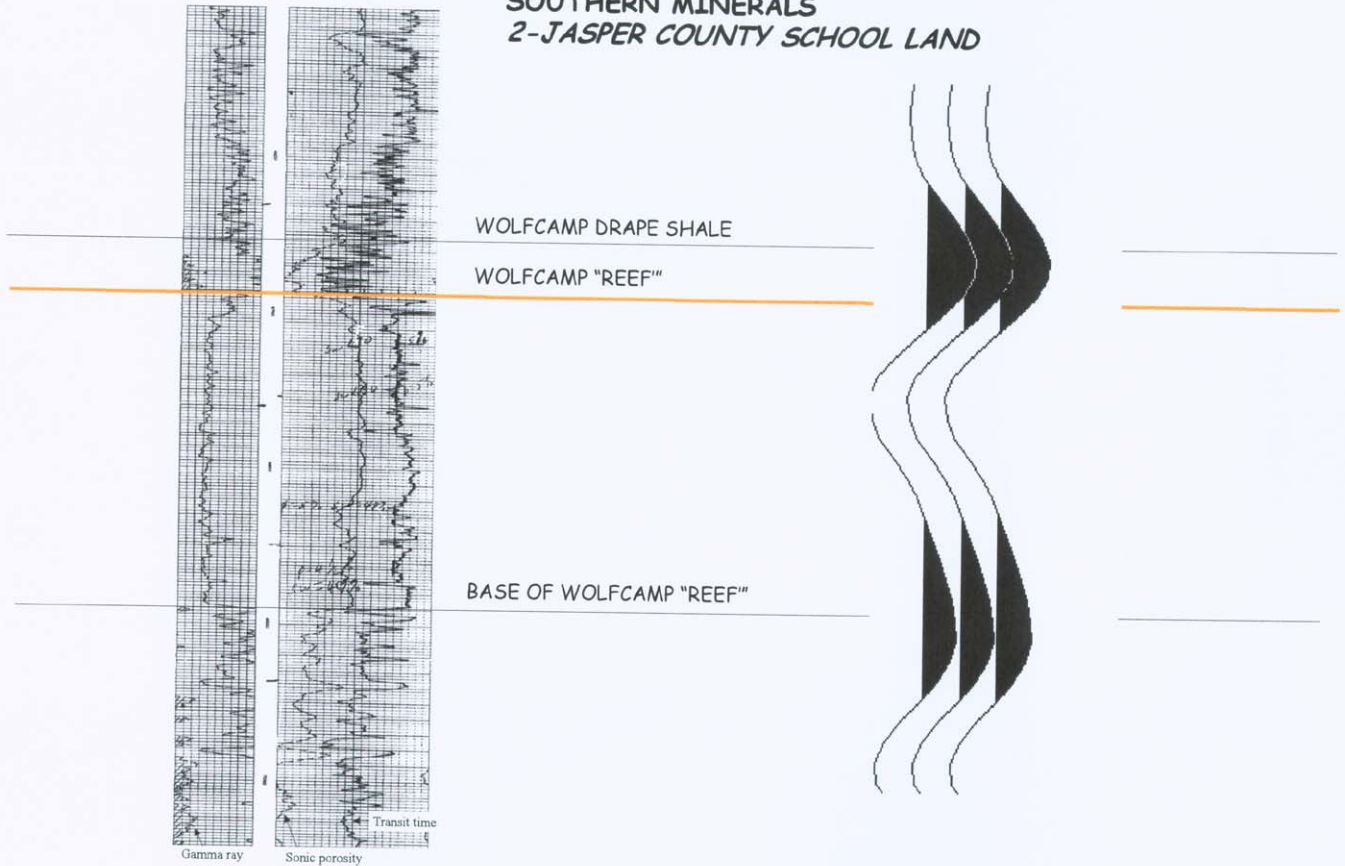


Figure 7. Sonic type log and corresponding seismic trace through the Wolfcamp zone of interest.

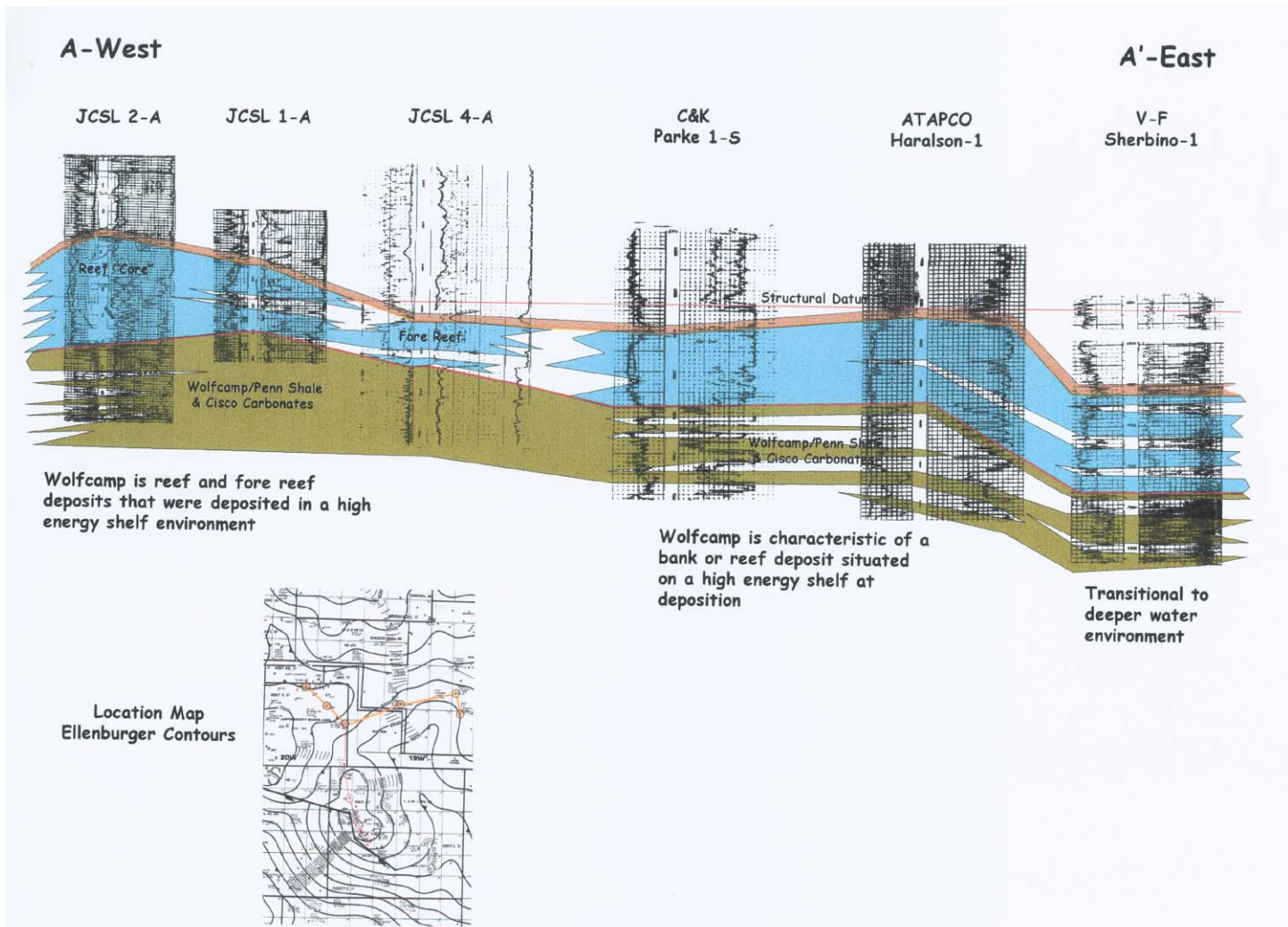
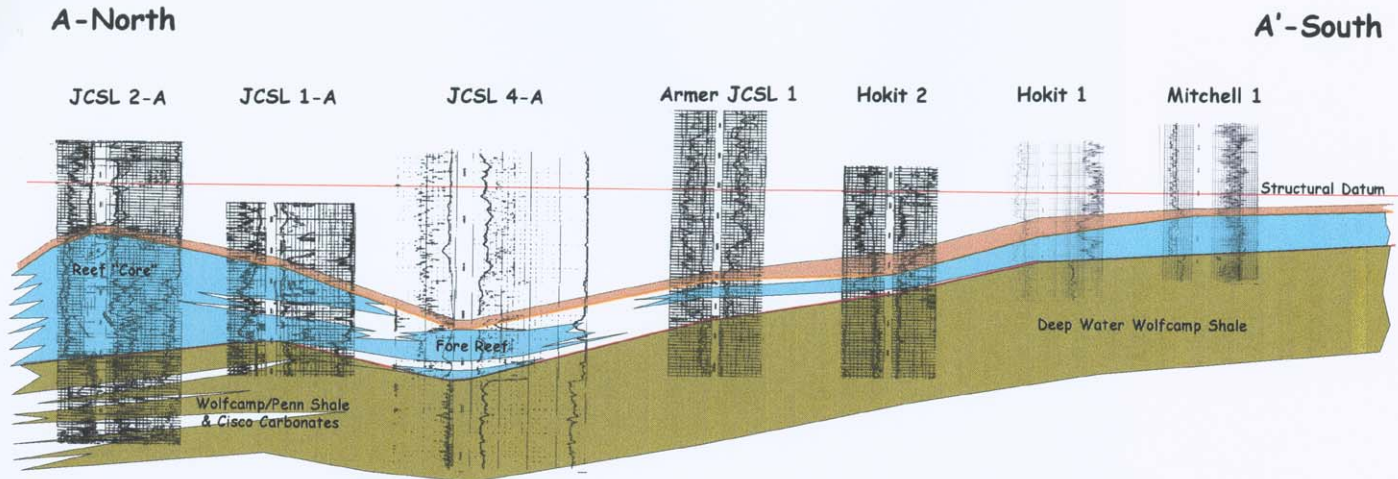


Figure 9. Regional cross-section from west to east from the JCSL 2-A well showing Wolfcamp section and depositional changes.



Reef and Fore Reef Deposits - High Energy Shelf Grainstones

Limestones appear to be mud-supported deposits - Low to Mid-Energy Shelf Mudstones & Wackestones.

Location Map
Ellenburger Contours



Figure 10. Regional cross-section from north to south from the JCSL 2-A well showing Wolfcamp section and depositional changes.

NUZ FIELD ANALOGY

WOLFCAMP GEOLOGIC STRUCTURAL CROSS-SECTION

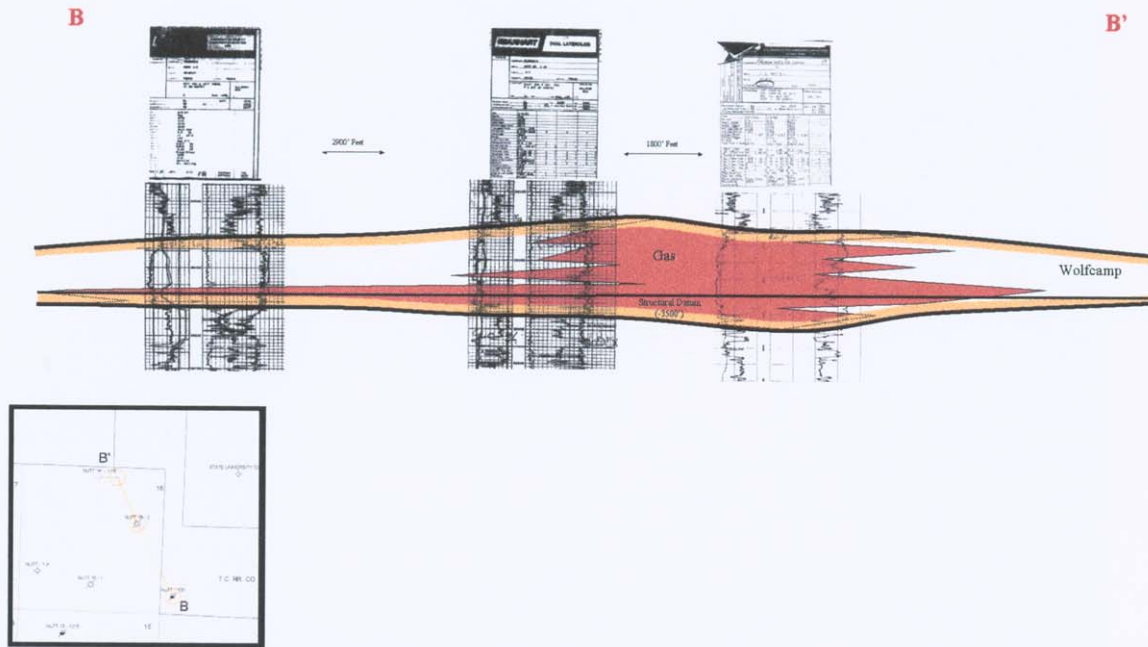
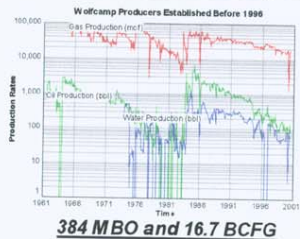
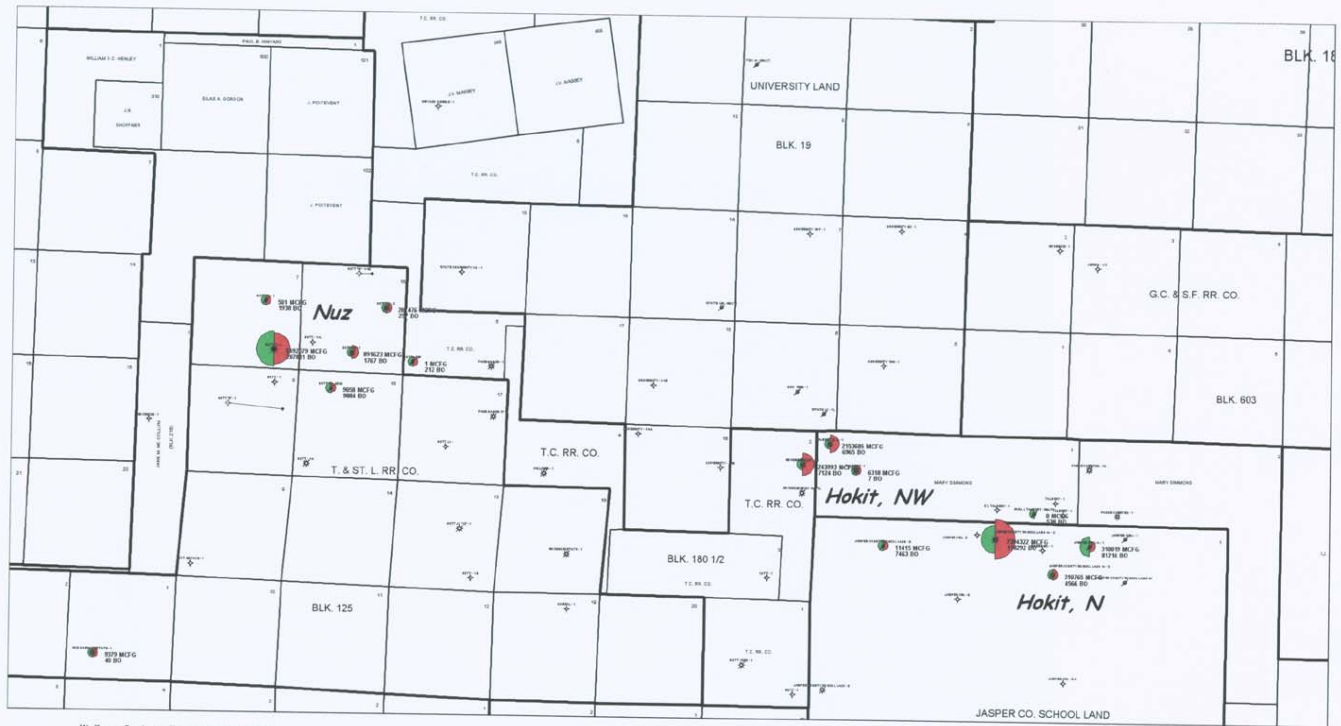


Figure 11. Nuz Field cross-section showing Wolfcamp “reef” interval.



Proportional Pie

Cum Gas Volume, Production



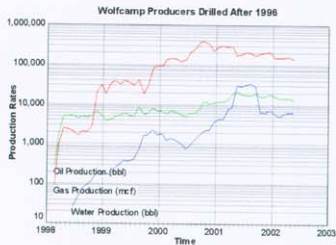
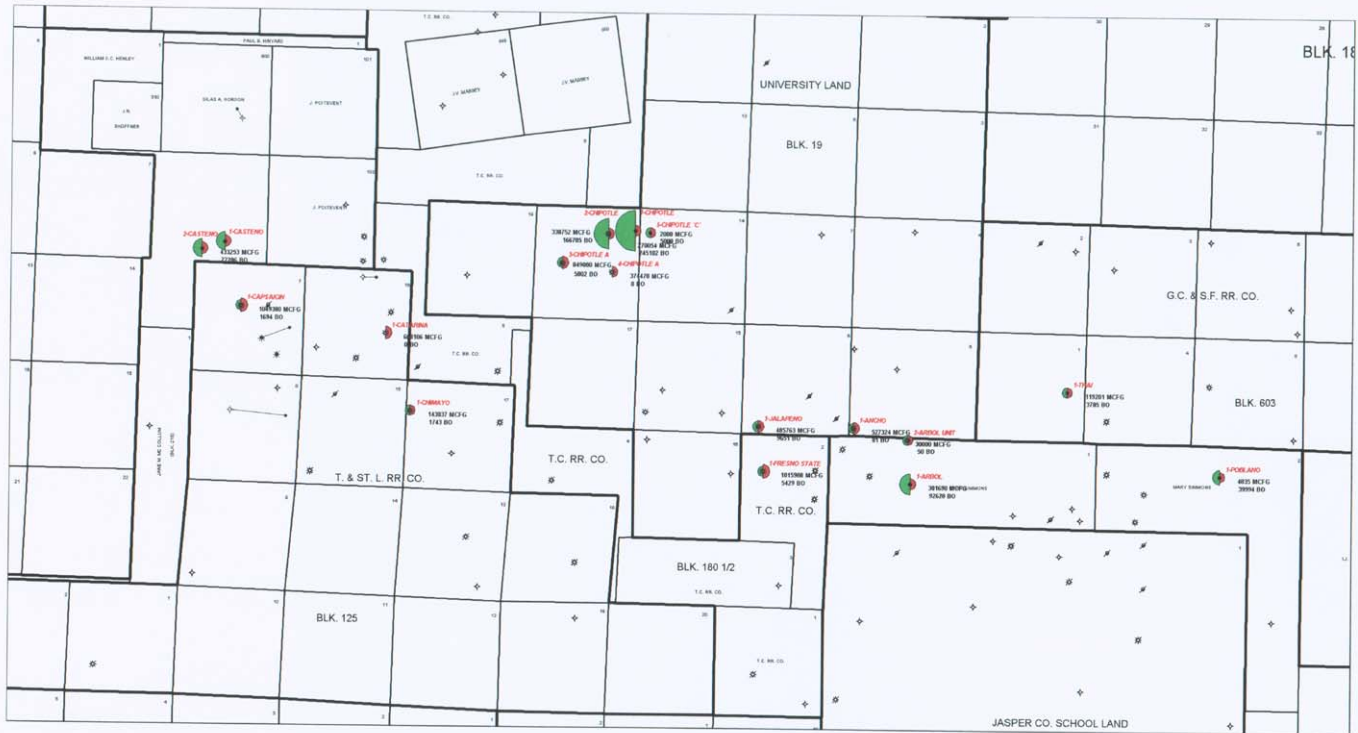
Cum Oil Volume, Production



Figure 12. Project area base map showing Wolfcamp producers completed before 1996. Oil and gas cumulatives are relative by bubble size. Production decline curve and cumulative is for these wells only.



Figure 13. Seismic line through Hokit North producer, the JCSL 2-A well, which was the key historical well to defining the project.



480 MBO and 6.7 BCFG

Proportional Pie

Cum Gas Volume , Production



Cum Oil Volume , Production

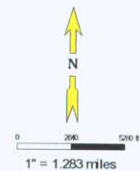
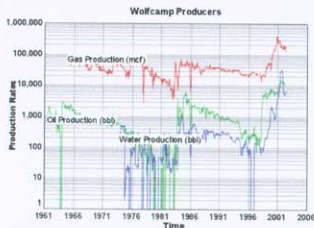
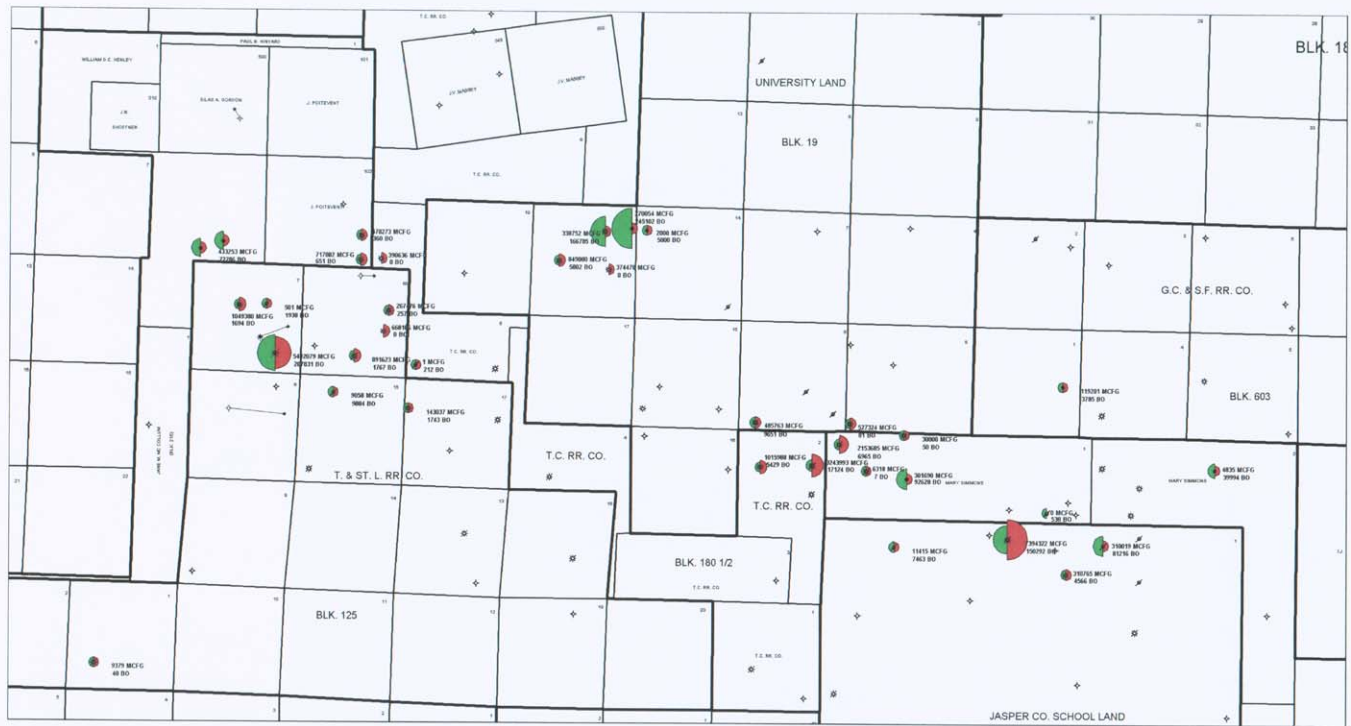


Figure 14. Project area base map showing Wolfcamp producers completed after 1996, as part of the program. Oil and gas cumulatives are relative by bubble size. Production decline curve and cumulative is for these wells only.



864 MBO and 23.4 BCFG

Proportional Pie

Cum Gas Volume , Production

● 1490000 ● 2960000 ● 4430000 ● 5900000 ● 7394322

Cum Oil Volume , Production

● 49000 ● 98000 ● 147000 ● 196000 ● 245102

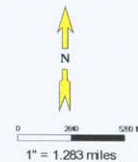


Figure 15. Project area base map showing all Wolfcamp producers completed. Oil and gas cumulatives are relative by bubble size. Production decline curve and cumulative is for all Wolfcamp wells drilled to date.

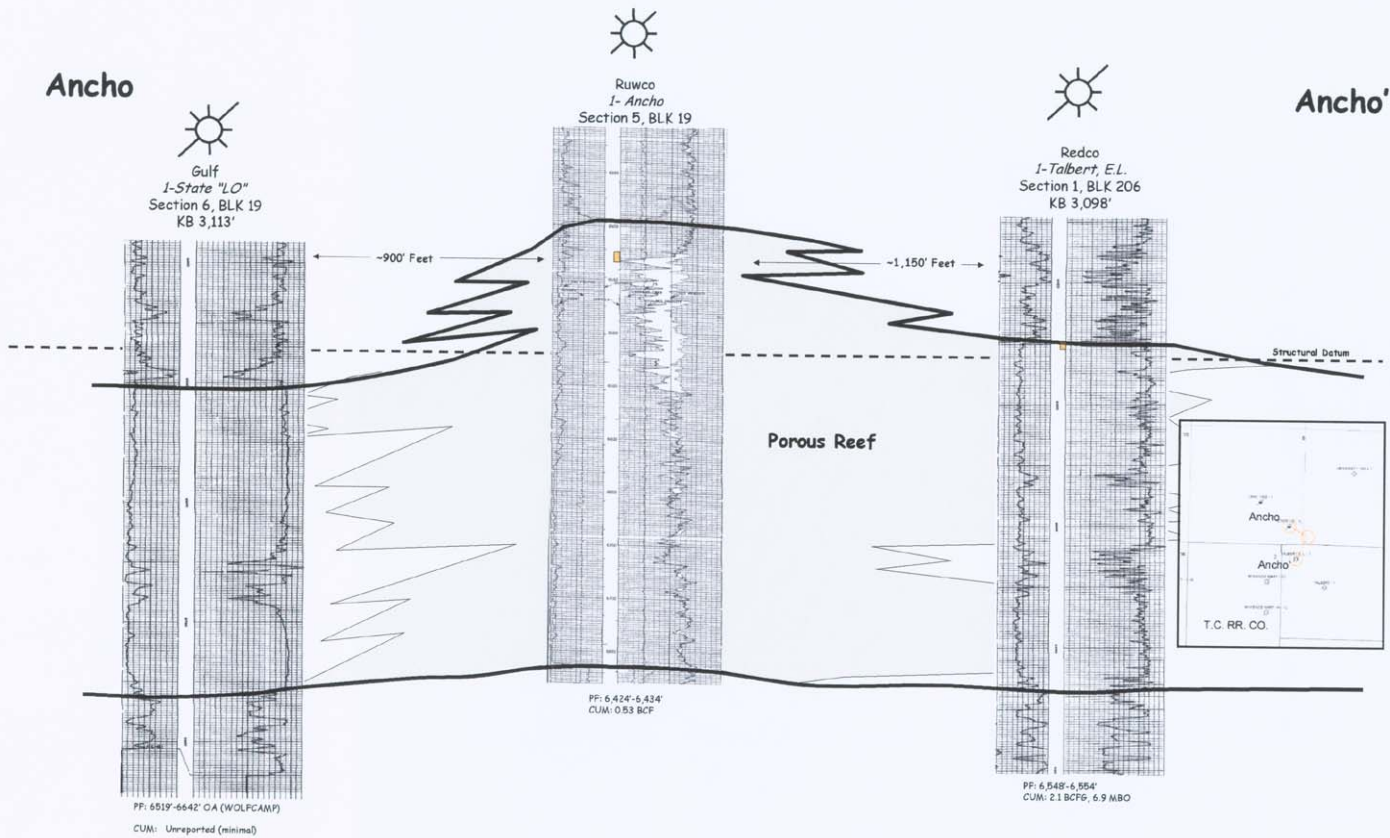


Figure 16. Structural cross-section through Hokit Northwest Field wells including the No. 1 Ancho well.

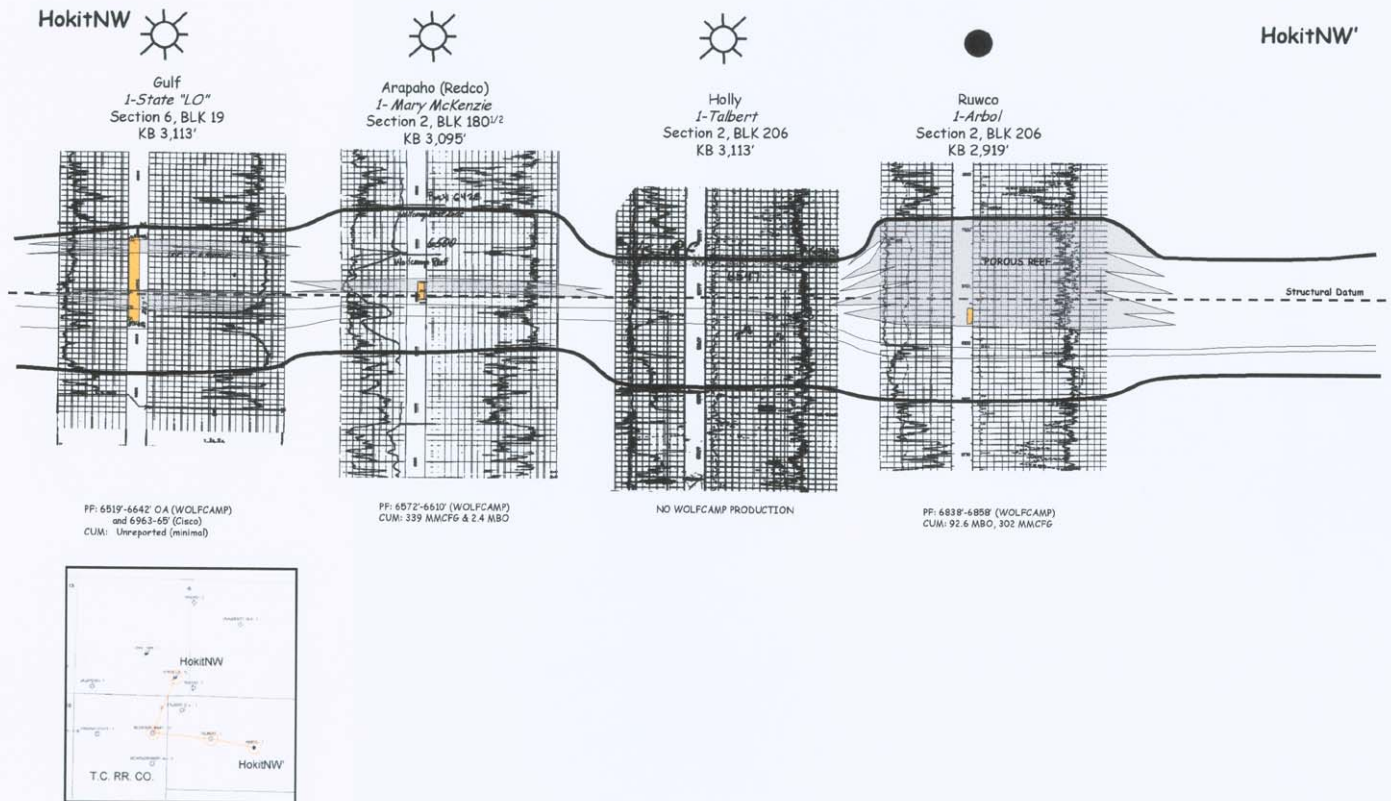


Figure 17. Structural cross-section through Hokit Northwest Field wells showing reservoir discontinuity of field wells through Wolfcamp interval.

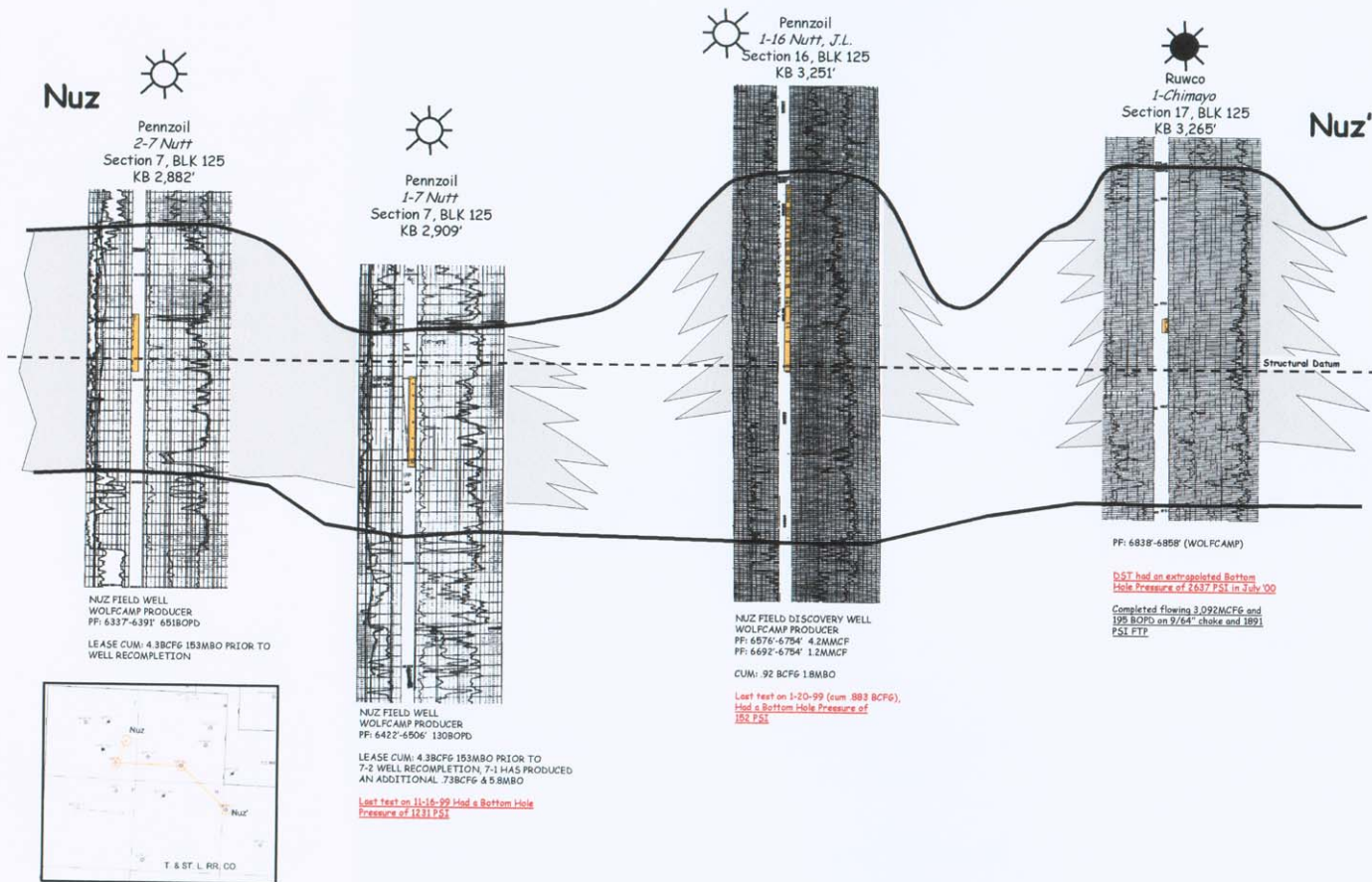


Figure 18. Structural cross-section through Nuz Field wells showing reservoir discontinuity of field wells through Wolfcamp interval. Bottom hole pressures are noted and confirm reservoir discontinuity.

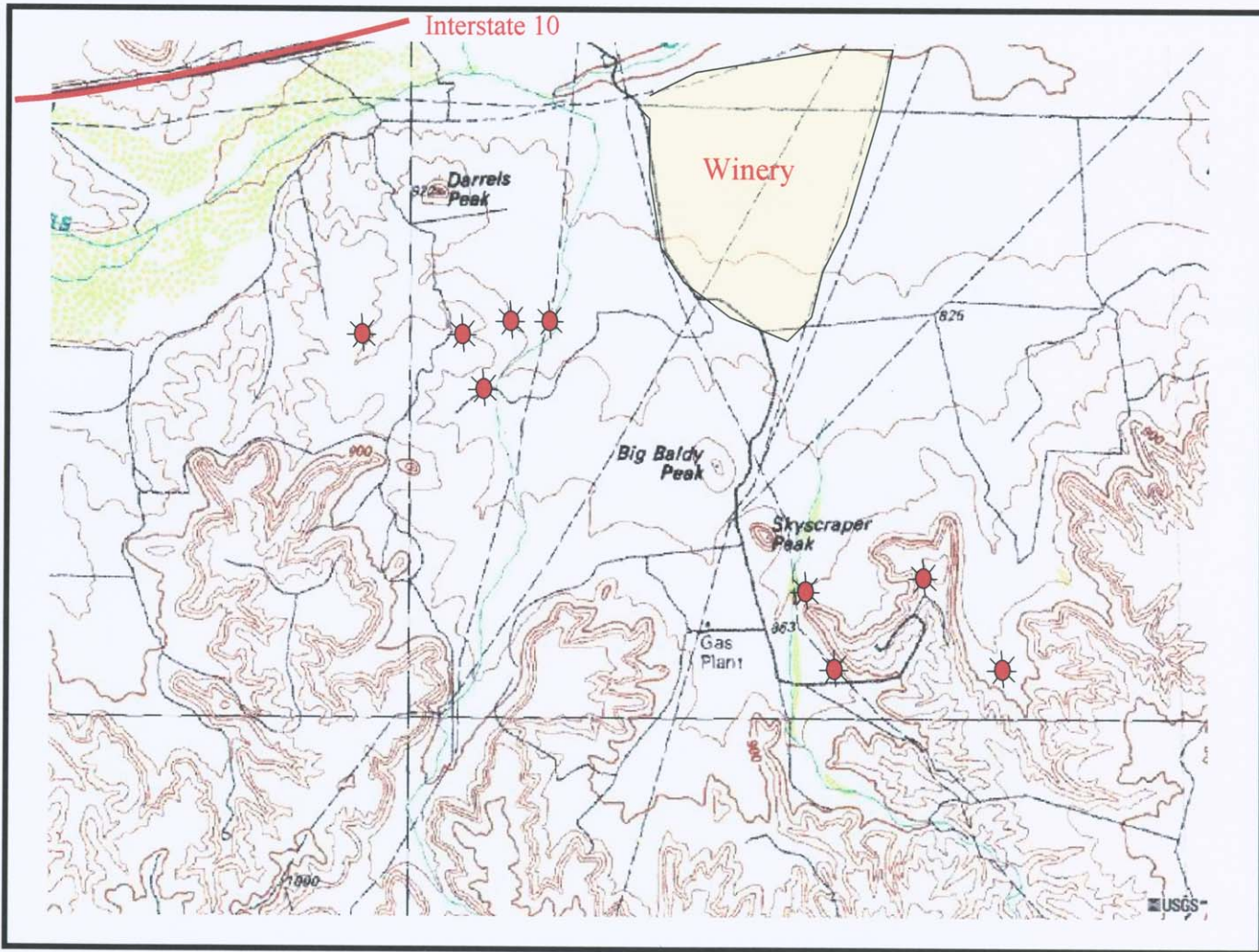


Figure 19. Topographic map of a portion of the project area showing terrain changes and well locations.