

Regional Lithologic Variability and Log Response Similarity within the Yates Formation, West Texas

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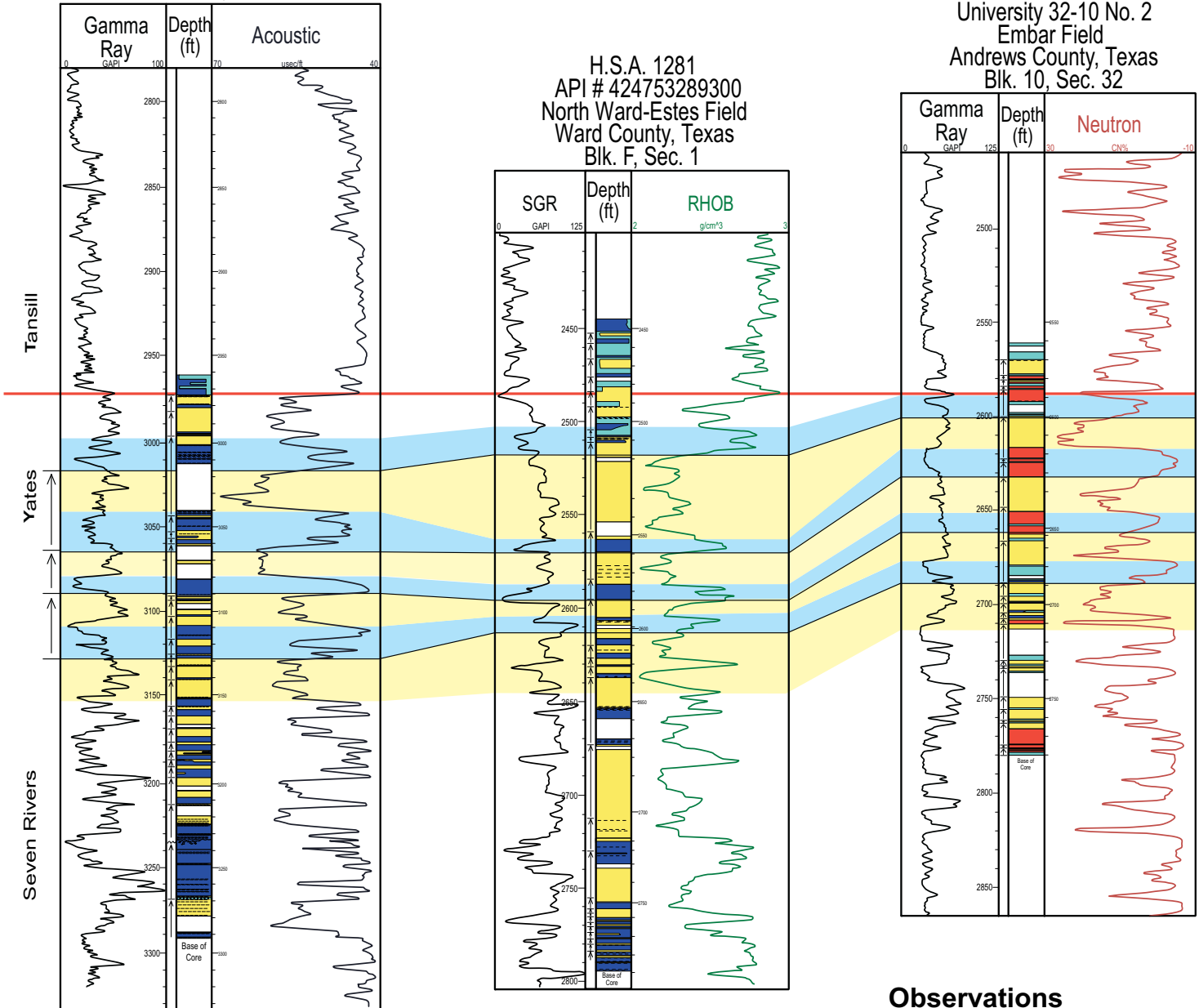
B'
West
Basinward

B
East

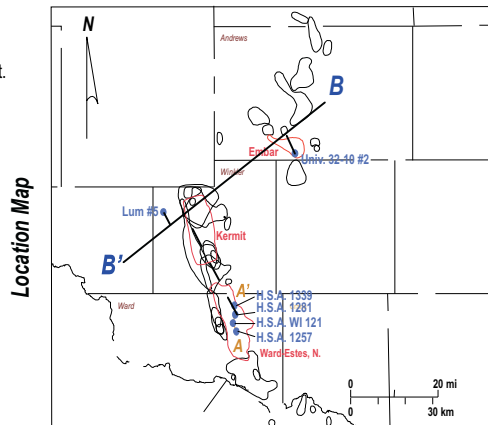
Lum No. 5
Kermit Field
Winkler County, Texas
Blk. 74, Sec. 35

H.S.A. 1281
API # 424753289300
North Ward-Estes Field
Ward County, Texas
Blk. F, Sec. 1

University 32-10 No. 2
Embar Field
Andrews County, Texas
Blk. 10, Sec. 32



- Eolian tidal flat depositional environment.
- Shallow marine tidal flat depositional environment.
- Siltstone/sandstone
- Dolomite
- Anhydrite
- Halite



Observations

*This heterogeneity within the Yates Formation and the inability of logs to define it indicates that wireline log signatures must be calibrated to cores to insure correct lithologic interpretation.

*The Yates Formation exhibits sub-regional lateral stratigraphic heterogeneity that is not expressed in wireline log response.

*Although not apparent from wireline logs, cores show that Yates transgressive cycle bases change from dominantly carbonate in the southwest to dominantly evaporites (anhydrite, halite) to the north (Andrews County). This documents increasing restriction to the north.