ENVIRONMENT OF DEPOSITION OF THE PENNSYLVANIAN BARTLESVILLE SANDSTONE, LABETTE COUNTY, KANSAS

A Thesis

by

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Submitted to the Graduate College of
Texas A&M University in
partial fulfillment of the requirement for the degree of

MASTER OF SCIENCE

December 1973

Major Subject: Geology

* information within this folder is from this thesis.

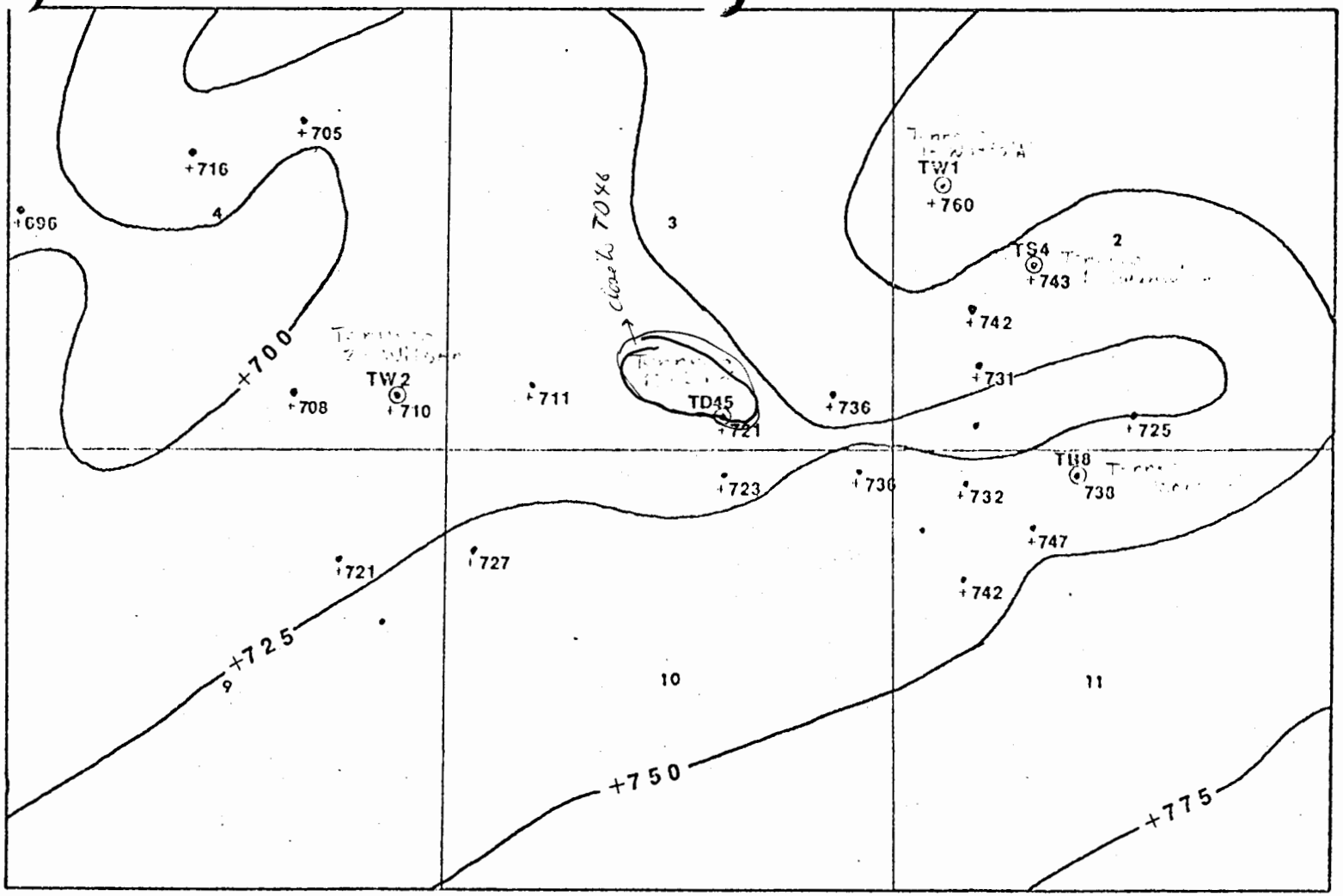
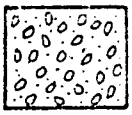
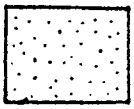


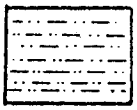
Figure 6. Local structure on top of Bartlesville Sandstone showing location of cored intervals (circled wells) and other wells (solid dots) used in this study.

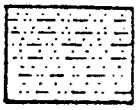
SYMBOLS FOR DESCRIBED CORES

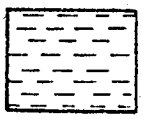
ROCK TYPE


conglomerate


sandstone


siltstone


siltstone with sand laminae


claystone or shale


no core available

STRUCTURES


cross-bedding

ripple lamination

convolute lamination

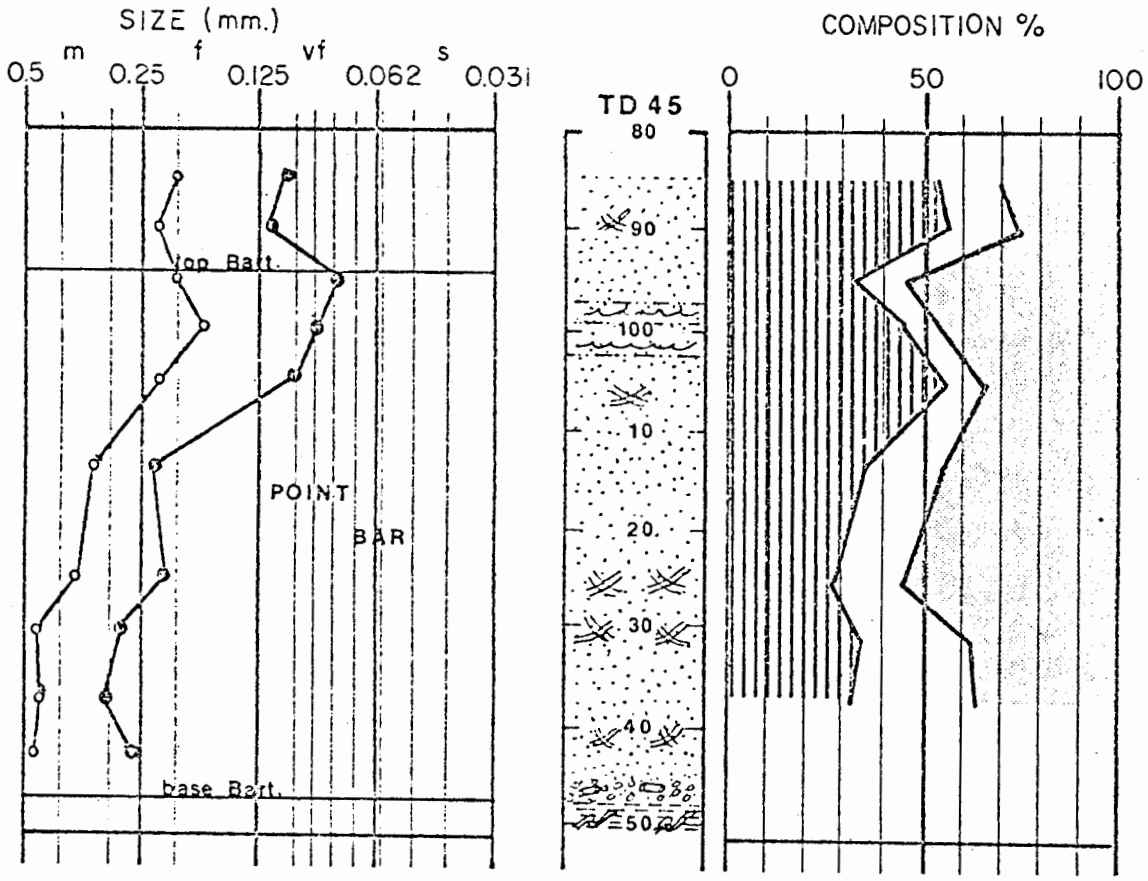
wavey lamination

ACCESSORIES

carbonaceous matter


petrified wood fragments


contorted shale clasts



Mean quartz grain size

Max. quartz grain size

Quartz

Matrix

Other

Figure 9. Grain size and composition of Bartlesville Sandstone in cored interval (TD45).

This data from a nearby well. Not from TD46

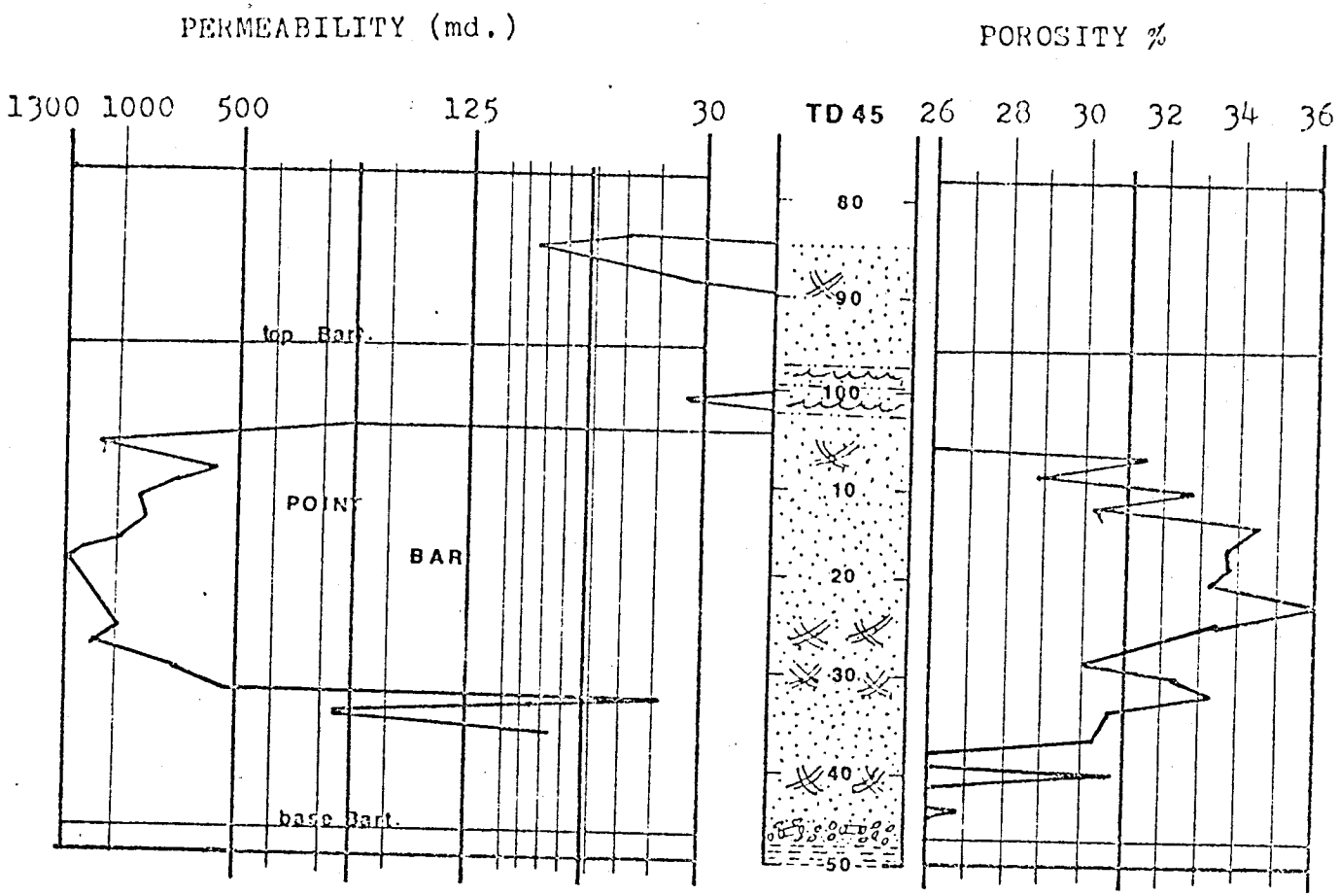


Figure 10. Permeability and porosity of Bartlesville Sandstone in cored interval TD45.

↘ close to TD 46

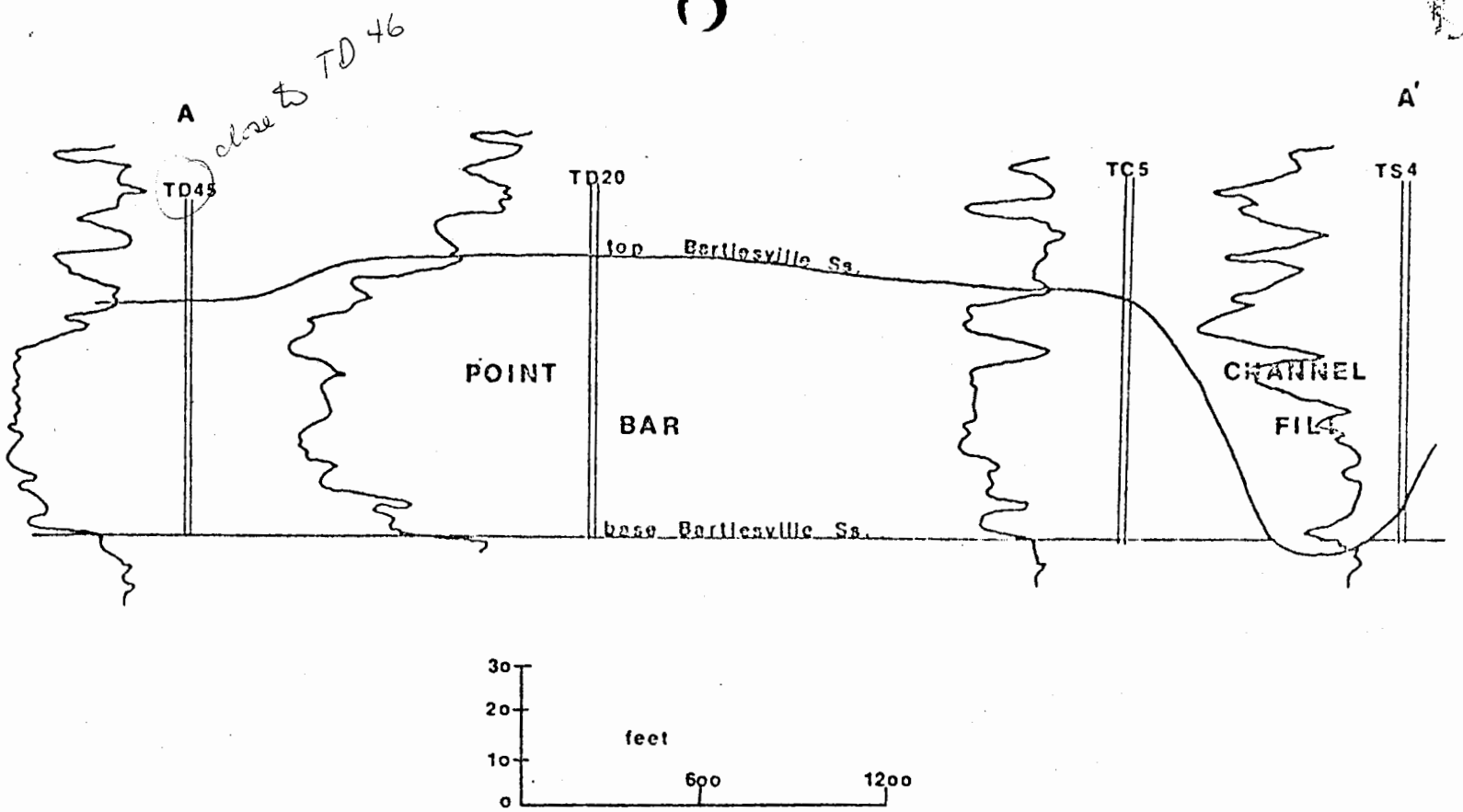


Figure 20. Interpretive cross section A-A', from gamma ray logs of indicated wells, through point bar and channel-fill facies.

TD45 notice that this is not a description of Tenneco 46 Davis 54 !

CORE DESCRIPTIONS

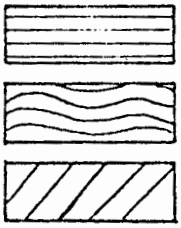
Format Used for Core Descriptions

Field
Well Name
Location
Formation Name - Age
Cored Interval (in feet)

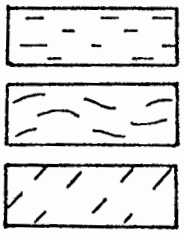
Depth	Thickness	Description	Environment (Example)
Feet	Feet	Rock type, color, grain size, sorting dominant mineral, accessory minerals Primary sedimentary structures*	Upper point bar

*Sedimentary structure description:
Laminae less than 4 inches thick
Thin beds greater than 4 inches thick

Parallel Continuous



Parallel Discontinuous



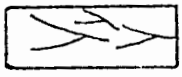
Even

Wavey

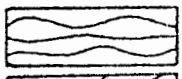
Inclined

Nonparallel

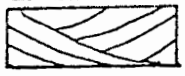
Even



Wavey



Curved



Chetopa Field
TD45: Tenneco Roy Davis No. 45
Sec. 3-31S-21E Labette Co. Kansas
Bartlesville Sandstone Pennsylvanian
Core 85-150 feet

Depth	Thickness	Description	Environment
85-91	6	Sandstone, brown, very fine grained, moderately sorted, quartzose Laminae indistinct at top to nonparallel wavey to parallel inclined about 10° at base.	Upper point bar
91-106	15	Sandstone, light gray, very fine grained, moderately sorted, quartzose Alternating laminae of light gray to dark gray siltstone at top becoming sandy at base; parallel continuous even laminae at top to wavey to contorted at base.	Point bar
106-118	12	Sandstone, black (hydrocarbon stained), very fine to fine grained (downward), moderately sorted quartzose, becomes silty at base Laminae parallel continuous inclined at 10° at top to indistinct at base.	Point bar

Depth	Thickness	Description	Environment
118-137	19	Sandstone, brown to gray, fine to medium grained (downward), moderately sorted, quartzose, clay and carbonaceous stringers Laminae indistinct to parallel continuous even to parallel continuous inclined about 15° at 135'.	Point bar
137-143	6	Sandstone, light gray, medium grained, well sorted, quartzose, little carbonaceous material Laminae nonparallel even at 20°.	Lower point bar
143-146	3	Sandstone, gray, medium grained, moderately sorted, quartzose, with abundant silicified wood fragments Laminae indistinct.	Base point bar
146-150	4	Shale, gray, with brown contorted areas Laminae contorted to indistinct becoming parallel.	Shale underlying fluvial point bar