

Pennsylvanian Strawn & Canyon Groups North-Central Texas

**Lafayette Geological Society Field Trip
April 19 - 21, 2002**



Group Photo:

Front: Myra Hamburn, John Hamburn

**Standing (left to right): Ian Says, Samantha Arnold, Kevin Brahm,
Dawn Standridge, Ghulam Sarwar, Ted Gard, Bill Clay & Will Saul**

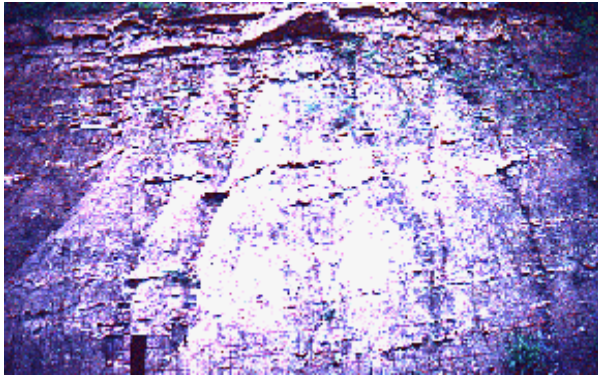
Field Notes (courtesy of Ted Gard):

Stop 4, a roadcut along Hwy. 380 southeast of Jacksboro, TX, exposes a sequence comprised of a sandy mudstone (base) overlain by 4 1/2 feet of fine-grained, strongly rolled and contorted sandstone (post-depositional, soft sediment slump). Covering the contorted ss. is about 3 feet of silty, marly mudstone. The sequence is capped by 14 feet of bedded, shallow marine Ranger Limestone. The ss. contain much plant debris broken into small bits. The limestone, which varies from wackestone to lime mudstone, contains few fossils. The sequence probably indicates thin delta lobes prograding toward the west and northwest during the time between deposition of underlying Ranger Lst. unit and deposition of the capping Ranger Lst. unit.

Stop 8 is a wide roadcut through the Ranger Limestone (Canyon Group, Missouri Series, Pennsylvanian System) along Hwy. 16 and 2 miles East of intersection with FM 1191. Limestone is interbedded with deltaic distal, reworked sandstones.

Stop 10 (Growth Fault Stop) consists of 2 stops along railroad cuts on the main line of the Texas Pacific Railroad just southwest of Bennett, TX in Parker County. Prior permission is required for study of the exposures in the railroad right-of-way. These Strawn exposures exhibit prodelta and delta-front subfacies. The Dobbs Valley Sandstone (Mingus Fm., Strawn Group, Des Moines Series, Pennsylvanian System) exposed near Bennett is a deltaic lobe with little subsurface expression. Note progradational facies with expansion wedging and growth faulting. The relationship between direction of progradation and growth faulting for deltaic lobes can be clearly seen.

Photos (courtesy of Ghulam Sarwar & Myra Hamburn):



Distal trace of growth fault (expanded wedge above, undeformed footwall below).



Growth fault surface on left (see person lower left for scale).



Wedge of expanded sediment on hanging wall of growth fault.



Footwall (lower half of photo) shows soft prodelta shales.



Stop 8: Ranger Limestone north of Lake Possum Kingdom.



Stop 4: Ranger Limestone south of Jacksboro.



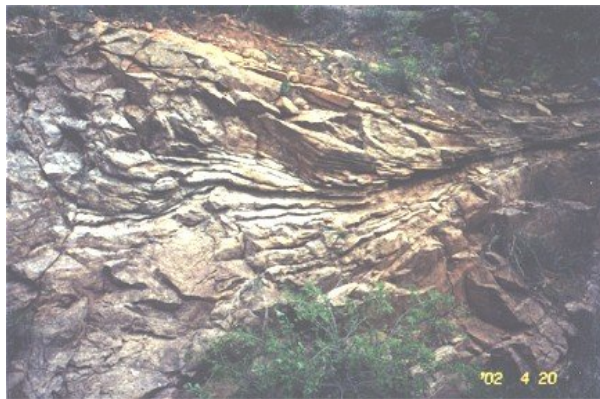
Petrified wood.



More petrified wood; large clast at the base of a sandstone unit.



1. Slump-contorted sandstone; 2. Cross-bedded sandstone; 3. Rock hammer.



Edge-on view of wedge deposit which infilled a depression.



Bill Clay examines ripple marks in limestone talus.



Dark clastics, distal delta front, between upper and lower units of Ranger Limestone.



John Hamburn at a natural spring.



Slump-contorted sandy unit (arrow) overlain by shallow marine Ranger Limestone.



Slump-contorted sandstone underlain by undisturbed limestone bed.