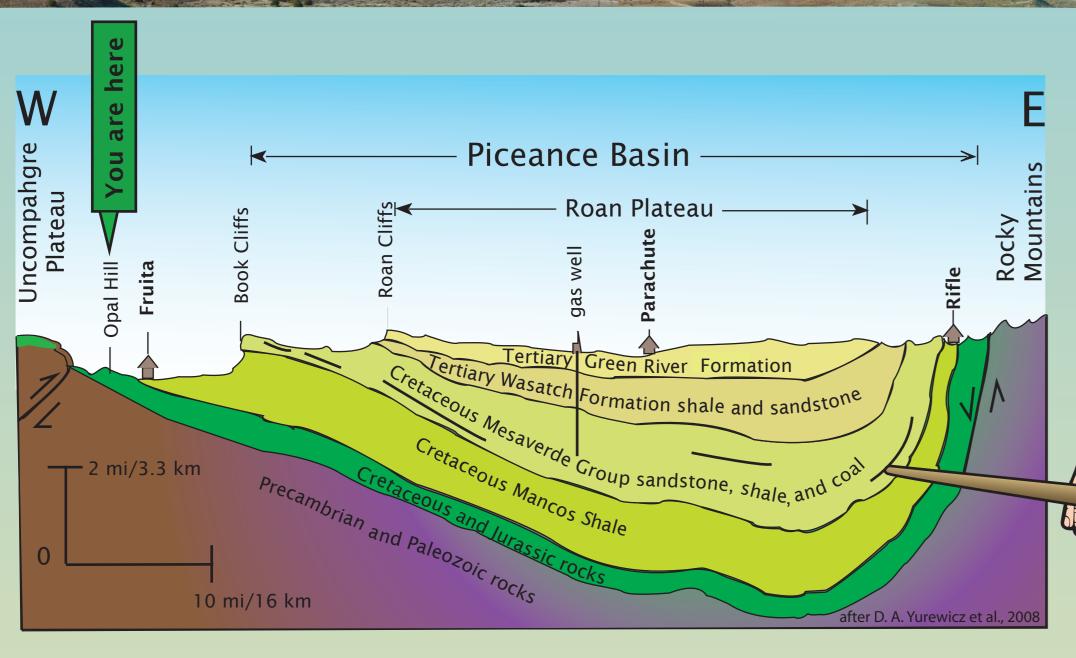
## 9. The Northern View from Opal Hill: Pale Cliffs Edge the Piceance Basin Looking from here to the northeast, the Book Cliffs are the southwest edge of the Piceance Basin, a downfold between the Uncompander Plateau and the Rocky Mountains.



N70°W

Cross Section of the Piceance Basin

When a mountain range is pushed up, it's pretty common for the area next to it to sink down into a basin. When the Uncompangre Plateau and the Rockies were shoved up between 70 and 40 milllion years ago, the Piceance Basin sank down between them. "Piceance" has a silent c; it is pronounced "pea-ah-nce."

Coal is mined from the Mesaverde Group in what were once marshy areas behind beaches. Mesaverde layers also contain natural gas. The mucl higher and younger Green River Formation contains beds of oil shale settled in the bottom of a big lake.









Shale in the Tertiary Green River Formation is pale, thinly bedded lake sediment, some of it volcanic ash. It is about 48 million years old. The shale is famous for its delicate, finely detailed fossils of leaves, insects, fish, birds, and even bats. Some Green River Formation fossils can be seen at the Dinosaur Journey Museum in Fruita, and you can hunt form them high on the Roan Plateau. Check with the museum or the BLM to learn which fossils



Feather



Scorpionfly



These casts of the insides of gastropod (snail) shells can be found in a few places in the Morrison Formation









©2013 Felicie Williams