Cliff's GeoTours LLC

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CLASSIC GEOLOGY OF WEST TEXAS AND SOUTHEASTERN NEW MEXICO

Field trip based out of Carlsbad, NM, Alpine, TX, & Midland, TX
Designed as an educational trip for university geology students!

MARCH 15-19, 2027
(Spring Break)

COST PER PERSON: $525
****estimate; please contact me to finalize****

Please visit www.cliffsgeotours.com for additional information. Please contact me (text, email) for questions, RSVP, submit deposit, and guarantee seat; limited seats available. RSVP and deposit due by December 15, 2026

(432) 894-8328 **cliffsgeotours@gmail.com**

I am pleased to announce a Cliff's GeoTours geology field trip to West Texas and southeastern New Mexico! Please travel with me to see and learn the classic geology, geologic history, landscapes, and paleontology of this area. We will see a sampling of the petroleum and reef geology of the Guadalupe Mountains (including Carlsbad Caverns), varied geology of Big Bend National Park, igneous geology of the Davis Mountains, Marathon fold & thrust belt (southwestern end of the Appalachian mountain belt), and more. Designed as an educational field trip for university geology students!

I am a dynamic, enthusiastic, and engaging teacher, and experienced trip leader. I have 30 years of experience as a professional geologist and 10 years of experience teaching college-level earth science courses, including geology. During those years, I successfully led dozens of field trips. More recently, Cliff's GeoTours has successfully completed several trips throughout the United States. I am a licensed Professional Geologist in the state of Texas.

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Guadalupe Mountains









Carlsbad Caverns







Big Bend National Park



Marathon fold & thrust belt





Davis Mountains







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CLASSIC GEOLOGY OF WEST TEXAS AND SOUTHEASTERN NEW MEXICO.

This GeoTour is specifically designed as an educational field trip for university geology students, both undergraduate and graduate students.

SUMMARY OF THE GEOLOGY YOU WILL SEE:

The geology and scenery of western Texas and southeastern New Mexico are highly varied and spectacular. This area includes portions of several major geologic regions of the United States and thus provides an outstanding outdoor laboratory for learning about geology, geologic history, and landforms. Part of this area is the Permian Basin, one of the most prolific oil producing basins in the world. We will examine representative parts of the petroleum system where they crop out in the Guadalupe Mountains. We will also visit world-renowned outcrops of an ancient fossil reef, the Capitan Reef. The Big Bend region of western Texas includes multiple things. Near Marathon, we will see the southwestern portion of the giant mountain range formed in the middle of Pangaea during the Late Paleozoic. Numerous roadcuts expose the rocks, allowing us to piece together a geologic cross section through a major fold & thrust belt! During the Mid Cenozoic, the Davis Mountains were an active volcanic province. We will examine outcrops in the Davis Mountains that expose a wide variety of igneous rocks and features. Last, but not least, Big Bend National Park itself is one of the “crown jewels” of the National Park system and is world-famous for its geology. Among other things, we will see compressional structures (folds, thrust faults) formed during the Sevier/Laramide Orogeny during the latest Cretaceous and the Early Cenozoic, and extensional structures formed during the Late Cenozoic as part of the Rio Grande Rift and Basin & Range province.

MORE DETAILED TRAVEL ITINERARY:

DAY 0 (SUNDAY MARCH 7, 2027): We will assemble in Carlsbad, NM, during the evening. If coming from Midland, TX, you will depart with me from Midland mid to late afternoon. If coming from somewhere else, we will meet in Carlsbad, NM, at a pre-arranged time and place. Stay overnight in Carlsbad, NM.

DAY 1 (MONDAY MARCH 8, 2027): Classic Guadalupe Mountains and Permian Basin petroleum geology. Spectacular views of El Capitan and the southeast front of the Guadalupe Mountains; classic roadcuts along US62-180 in basinal strata including source rocks and reservoir rocks; backreef strata in Dark Canyon and Rocky Arroyo, including reservoir rocks and seals. Dinner and stay overnight in Carlsbad, NM.

DAY 2 (TUESDAY MARCH 9, 2027): Guadalupe Mountains. Walk through Carlsbad Caverns, one of the largest and most impressive caves in the world; spectacular views of the Capitan Reef in Walnut Canyon and Slaughter Canyon, including the fossils that make up the reef core. Drive to Alpine, TX; dinner along the way; stay overnight in Alpine, TX.

DAY 3 (WEDNESDAY MARCH 10, 2027): Awe-inspiring scenery and geology of Big Bend National Park. Cretaceous carbonate rocks; Cenozoic igneous rocks including lava flows, dikes, and intrusions; Laramide/Sevier Orogeny compressional structures near Persimmon Gap; Cenozoic basin & range extensional structures near Santa Elena Canyon. Dinner and stay overnight in Alpine, TX.

DAY 4 (THURSDAY MARCH 11, 2027): Drive across the Marathon fold & thrust belt and build a geologic cross-section of an ancient mountain range. Roadcuts and views near Marathon, TX, including folds and thrust faults. Dinner and stay overnight in Alpine, TX.

DAY 5 (FRIDAY MARCH 12, 2027): Igneous geology of the scenic Davis Mountains. Laccoliths, flows, dikes, and collapsed caldera. Drive to Midland, TX; dinner on the way; END OF FIELD TRIP.

COST:

APPROXIMATELY $525 PER PERSON (note: this is a “best estimate” 6 months ahead of time; price subject to some adjustment due to volatility of energy prices and hence travel costs).

This price assumes: 1) your university/college provides their own transportation; 2) you pay for your own travel to and from Midland and Carlsbad; 2) you make and pay for your own overnight accommodations; 3) you pay for your own meals.

Please note that this price will vary depending on number of participants (more participants will mean less cost per person) and the exact travel plans.

PLEASE CONTACT ME (EMAIL, TEXT MESSAGE) FOR DISCUSSION, DETAILS, OPTIONS, AND FINAL COST & ARRANGEMENTS !!!!

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OTHER IMPORTANT NOTES:

1) If you are not a US citizen, please make sure you bring your passport and other “papers” with you because we will be going through Border Patrol check stations.

2) Student groups must be accompanied by at least one faculty or staff member from the university. All university safety and other policies and procedures must be followed by the students.