

## Itinerary

### **Friday: arrive in Albuquerque by 11:30 AM**

**PM - Drive from Albuquerque to Espanola.** (ETD Albuquerque airport ~11:30 AM)

Fast Food opportunity - Bernalillo

1. Rest Stop: Walatowa Visitor's Center – Jemez Pueblo
2. Guadalupe Box/Gilman Tunnels: Proterozoic basement, Great Unconformity
3. Soda Dam: Holocene travertine, Hot Springs
4. NM-4 road cut: El Cajete volcanics (youngest rocks associated with Valles Caldera)
5. Rest Stop: Valles Caldera National Preserve visitor's center
6. Valles Caldera: Late Cenozoic volcanism
7. Ancho Canyon: Bandelier Tuff (Pleistocene)
8. White Rock Canyon, Rio Grande River
9. Optional Stop: NM-4 road cut: Basal contact of Bandelier Tuff

### *Evening at Espanola*

### **Saturday: Drive from Espanola to Taos**

1. Canones fault: Rio Grande rift/Colorado Plateau boundary
  - a. US-84 road cut
  - b. Canones Canyon overlook
2. Rio Chama: late Triassic Poleo Formation, Colorado Plateau
3. Rest Stop: Bode's Store @ Abiquiqui
4. NM-554 road cut: Travertine deposits in Santa Fe Group
5. Lunch: NM-519 road cut; Proterozoic Vadito Schist and pegmatite
6. Petaca Mining District – Economic Geology and Mineralogy
  - a. Globe Pegmatite Mine
  - b. Petaca Mill
7. Forest Road 222 road cut: Middle Cenozoic volcanics (Amalia Tuff, Jarita Basalt)
8. Rio Grande gorge – high bridge: Taos Plateau, Servilleta Basalt

### *Evening at Taos;*

### **Sunday: Drive from Taos to Albuquerque**

1. Rio Grande del Norte National Monument: Taos Plateau, Late Cenozoic volcanism
  - a. La Junta point: confluence of Red River and Rio Grande
  - b. Entry station: cross section of late Tertiary cinder cone
  - c. Chiflo trail: cross section of Chiflo dacite
2. Lunch @ John Dunn bridge: Rio Grande gorge
3. Rest Stop – Rock Shop in Rancho de Taos
4. Talpa: Pennsylvanian, Flechado Formation.
5. Arroyo Hondo – Picuris; Proterozoic Rocks
6. Rest Stop: Orilla Verde visitor's center, Rio Grande del Norte National Monument
7. Kasha-Katuwe Tent Rocks National Monument

### *Evening at Albuquerque*

**Monday: ETA Albuquerque airport in time for 6:00 AM departure**

## Safety

Weather this time of year in the field trip area should be mild, with a small possibility of rain. Average monthly temperatures (May) for the vicinity of the field trip are indicated below.

Taos – hi's @ 65-75  
lo's @ 33-42

Los Alamos – hi's @ 67-75  
lo's @ 46-56

Albuquerque – hi's @ 74-84  
lo's @ 48-57

Some of the elevations along the travel route are >9000' in elevation, with the elevation of the stops at elevations as high as 7500-feet. Some specific elevations are indicated below. Keep in mind that flat-landers that live near sea-level (like us) might feel the lack of oxygen at these elevations. Especially if you take the longer hikes at the Kasha-Katuwe and Wild Rivers Recreation Area stops.

Valles Caldera ~8750'  
Questa ~7460'  
Los Alamos~7500'  
Española~5790'  
Jemez Springs ~6200'  
Taos~6950'  
Cochiti Pueblo~5275'

Keep in mind we will be looking at steep rock outcrops (falling rock hazard, falling person hazard), some walking over rough trails (falling, tripping hazard), reducing the size of the outcrops with rock hammers (eye hazard), avoiding cars (and trucks) along highway road cuts (multiple hazards – depending on how fast the vehicle is moving).

There is a possibility we may also encounter snakes, scorpions, spiders, and insects that can bite or sting, and depending upon your immune system can cause serious health problems. Be aware of where you are at all times – some of the places we will visit have steep, unfenced drops of 10's to 100's of feet. Be cautious when approaching ledges and cliff edges of cliff. Make sure to pay attention, not only to what you are doing, but what others around you are doing. Pay attention and stay with the group and keep the trip as safe as possible.

Note:

During the course of this trip we will be travelling through several Indian reservations. These reservations are sovereign nations and as such have their own sets of rules and regulations for the reservations that are enforced by Reservation Police. The reservations do not allow photography on the reservations without special permits (that we do not have). Be especially aware of this when we stop at Walatowa and travel through Cochiti Pueblo on the way to Kasha Katuwe National Monument.