

# *PC<sup>2</sup> = PreCambrian Colorado*

## **Dear Fellow Geologists:**

The following announcements are for Field Trips to the Colorado Front Range, sponsored by PC<sup>2</sup>=PreCambrian Colorado.

Please promote these opportunities to your students and colleagues. This would be of especial interest to new incoming students and staff.

## **Local Pre-Trip Run for GSA Trip #403: August 20 & 21, 2022** **Central Colorado Front Range, *Details follow, no charge***

This is an excellent opportunity for Professors, Students, Researchers, Staff, and Local Geologists to examine part of the Precambrian Geology of the Central Front Range. Whether you are new to the area, new to the Precambrian, or seasoned and informed regarding this area and topic, please join us. Of course you will also be welcome to register for the GSA trip, where additional attendees may bring more ideas to the group.

We will examine and discuss what we know about the Colorado Accretionary Complex here in the Central Front Range. Attention is given to the Petrology, Protolith, Metamorphic Grades and Reactions, Stratigraphy, and Economic Geology/Metallogeny, and how this information brings together the Tectonic Interpretation. Yet several puzzles, inconsistencies, and some arguments remain to be solved here, and this should produce some very interesting discussion on the outcrop.

The study of these ancient complexes brings together several specialties in geology.

**Not a metamorphic geologist?** Meta-sediments still need to be understood in terms of their original **sedimentology** (both clastic and carbonate) and **stratigraphy; sequence stratigraphy** is still obvious to some degree in areas, and basin evolution and interpretation still must be done. **Volcanology** of the meta-volcanics is critical. Additional **geochronology** is always needed. Much of our interpretation depends on **geochemistry**. **Structure** is complex, with much more remaining research needed. **Mineral** and **metal** occurrences, whether **economic** or sub-economic play an important role in our understanding of the complex.

*There is a place for everyone here! And a need for cross- and multi- disciplinary studies.*

## **Itinerary**

### **Saturday, August 20:**

Focus	Examination of the Units of the Accretionary Complex of the CCFR
Meeting Time	7:30 am
Meeting Location	West (uphill) end of Woolly Mammoth Park & Ride @ US-40 and I-70
Tentative Itinerary:	Volcanic Arc, Back Arc, and Basin Metasediments at Various Metamorphic Grades including Anatexis

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### **Sunday, August 21:**

Focus                      Some Evidence (or Not) of Precambrian Age CCFR Base Metal Mineralization

Meeting Time            7:30 am

Meeting Location      West (uphill) end of Woolly Mammoth Park & Ride @ US-40 and I-70

Tentative Itinerary:   FMD Mine, Malachite Mine, Creswell Mine roadcut(?), Rutile- and Topaz-Bearing Gneiss

- ◆ Please RSVP your intent to attend to Lisa and/or Lew, as we may send out by email some preliminary related materials.
- ◆ Plan for varied weather conditions and please bring any food beverage and geology gear you may want for these day-long excursions.
- ◆ We will try to consolidate vehicles as much as possible, possibly at multiple locations.

Lew Kleinhans, lewis.oysterclub@gmail.com

Lisa Fisher, lisa.fisher@escalantemines.com

Thom Fisher, thom.fisher@escalantemines.co

### **GSA Field Trips, October 2022, Denver:**

**402. PC<sup>2</sup> = PreCambrian Colorado: The Role of the Mesoproterozoic Picuris Orogeny in Colorado. Fri.–Sat., 7–8 Oct. US\$350. Limit: 21**

**403. PC<sup>2</sup> = PreCambrian Colorado: Geology and Economic Geology of the Colorado Central Front Range; Field Observations and Perspectives Bearing on the Growth and Metallogeny of the NA Craton. Thurs pm.–Sat., 6–8 Oct. US\$418. Limit: 42. (price includes 3 hotel nights at lower rates than downtown Denver)**

**409. PC<sup>2</sup> = PreCambrian Colorado: Peraluminous Gold Deposits Emplaced Above a 1.75 Ga Flat Subduction Zone in South-Central Colorado. Wed.–Thu., 12–13 Oct. US\$470. Limit: 18**

**410. PC<sup>2</sup> = PreCambrian Colorado: Paleoproterozoic Tectonics of the Northern Colorado Front Range. Thu., 13 Oct. US\$120. Limit: 42.**

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***Mission: Contribute to the geologic and economic geologic knowledge bases of the Precambrian rocks of Colorado (and to their relationship to the correlative units outboard of Colorado)***

The initiative is designed to add value to efforts of frontline researchers and to spearhead, encourage, and support current and future research into the Colorado Precambrian through multiple media of field trips, symposia, topical sessions, workshops, short courses, grants, etc. The effort is intended to span the next two years and beyond, working through organizations such as GSA, CSS, DREGS, Universities, etc.