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U.S. Geological Survey

Scientific Investigations Map 3123
Sheet 1 of 2
Pamphlet and CD-ROM accompany map

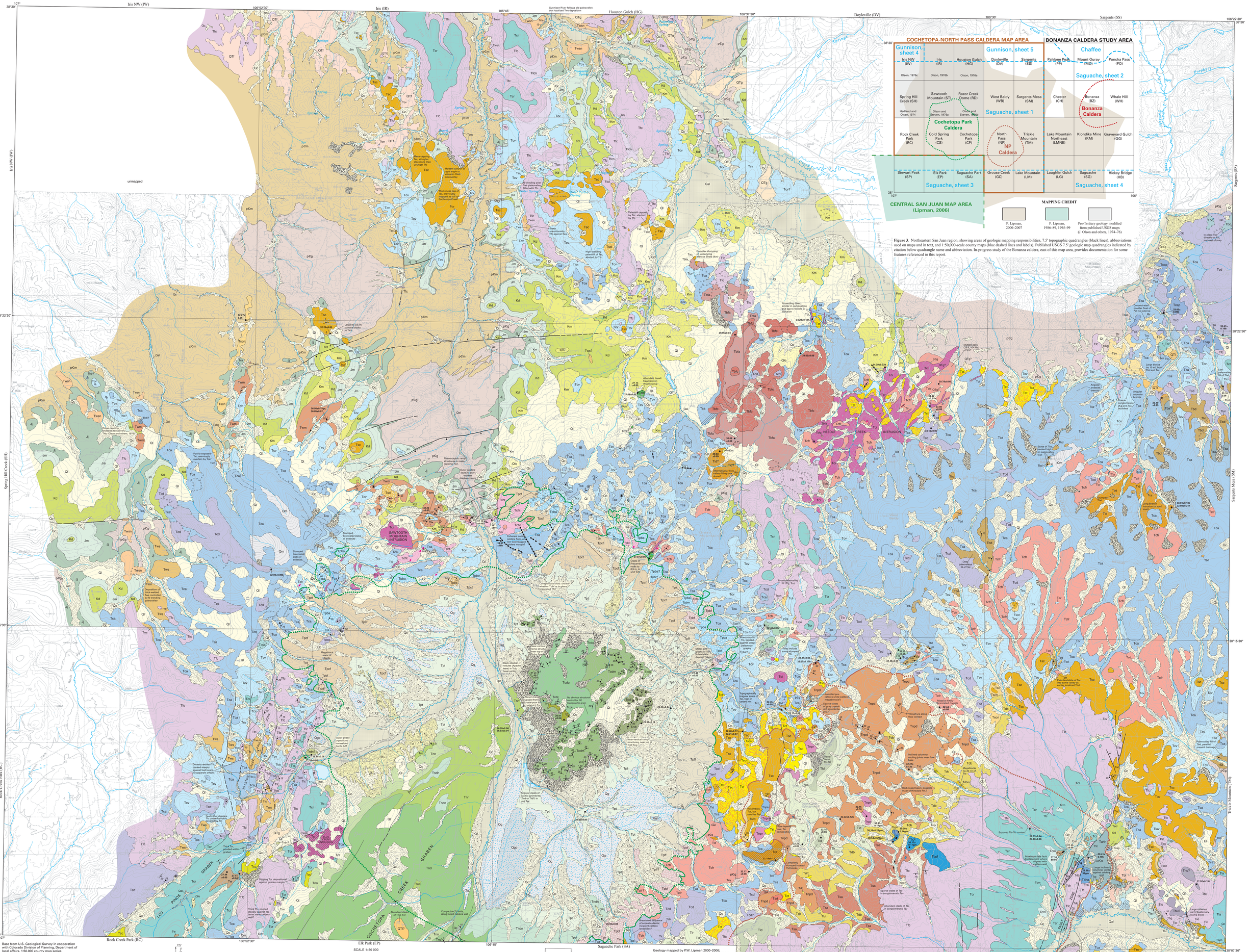


Figure 3. Northeastern San Juan region, showing areas of geologic mapping responsibilities, 7.5' topographic quadrangles (black lines), abbreviations used on maps and in text, and 1:50,000-scale county maps (blue dashed lines and labels). Published USGS 7.5' geologic map quadrangles indicated by citation below quadrangle name and abbreviation. In-progress study of the Bonanza caldera, east of this map area, provides documentation for some features referenced in this report.

Base from U.S. Geological Survey in cooperation with Colorado Division of Planning, Department of local affairs, 1:50,000 county map series (topographic): Chaffee; Gunnison, sheets 4,5; Saguache, sheets 1–4.
Lambert Conformal Conic projection

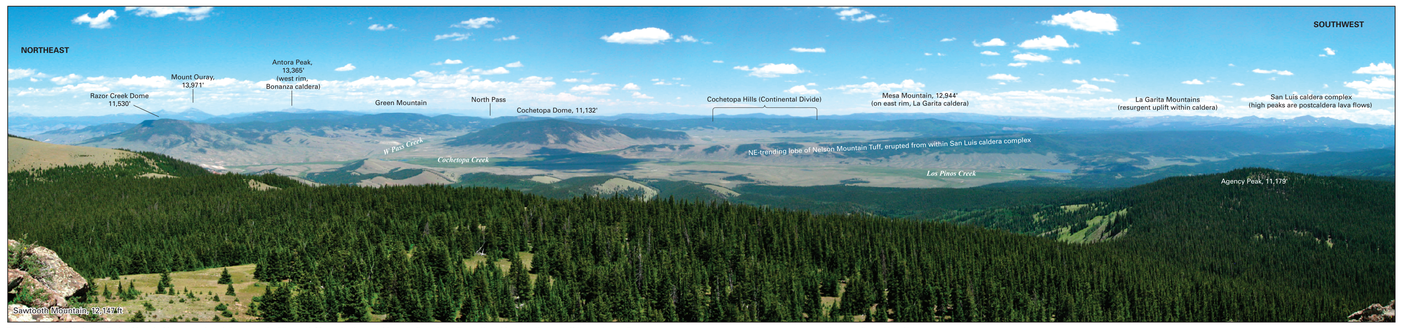
APPROXIMATE MEAN DECLINATION, 2012

SCALE 1:50 000

CONTOUR INTERVAL 80 FEET

COLORADO
AREA OF MAP

Geology mapped by P.W. Lipman 2000–2006; assisted by J. Robinson (2000) and P. Christe (2001)
Digital database by Joel Robinson
Edited by J.L. Zigler
Digital cartographic production by Kathryn Nimz
Manuscript approved for publication April 28, 2010



Panoramic view of Cochetopa Park caldera, looking east and south from summit of Sawtooth Mountain. Sawtooth Mountain, Razor Creek Dome, Green Mountain, Cochetopa Hills, and Agency Peak are surviving erosional remnants of the topographic rim of Cochetopa Park caldera. Nelson Mountain Tuff, a large ignimbrite erupted at 26.90 Ma from eruptive vents within the San Luis caldera complex, flowed to northeast along a pre-existing graben (partly defined by the drainage of Los Pinos Creek), into Cochetopa Park caldera as it subsided concurrently with this eruption. Cochetopa Dome is a postcaldera sequence of rhyolitic lava flows erupted from within the Cochetopa Park caldera after it subsided. West Pass and Cochetopa Creeks have eroded soft caldera-filling tuffaceous sedimentary rocks, exhuming the Oligocene caldera morphology. In distance to south is northern segment of La Garita caldera, source of the Fish Canyon Tuff at 28.02 Ma; the north rim of this 75-km-long subsidence structure is the Continental Divide along the Cochetopa Hills, which form a ridge between Cochetopa Park and La Garita calderas. *Digital photograph by Andreas Shiva, July 2009.*

Geologic Map of the Cochetopa Park and North Pass Calderas, Northeastern San Juan Mountains, Colorado

By
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2012

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