

New Mexico Geological Society

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Front Matter

(Usually includes Dedication, President's Message, & Conference Organizer's Message.)

in:

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This is a section from the 1998 NMGS Fall Field Conference Guidebook.

Annual NMGS Fall Field Conference Guidebooks

Every fall since 1950, the New Mexico Geological Society (NMGS) has held an annual [Fall Field Conference](#) that explores some region of New Mexico (or surrounding states). Always well attended, these conferences provide a guidebook to participants. Besides detailed road logs, the guidebooks contain many well written, edited, and peer-reviewed geoscience papers. These books have set the national standard for geologic guidebooks and are an essential geologic reference for anyone working in or around New Mexico.

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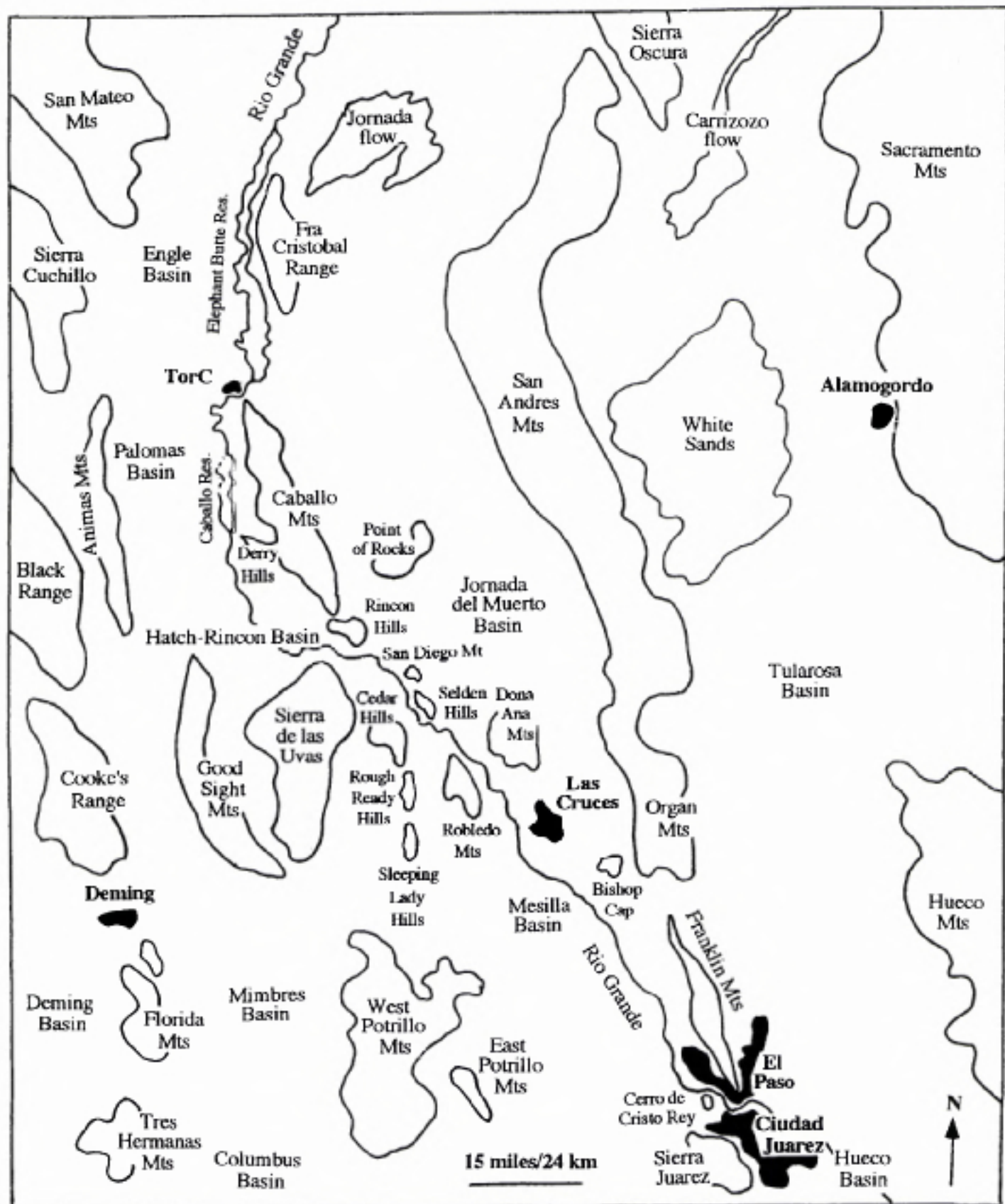
NMGS has decided to make peer-reviewed papers from our Fall Field Conference guidebooks available for free download. This is in keeping with our mission of promoting interest, research, and cooperation regarding geology in New Mexico. However, guidebook sales represent a significant proportion of our operating budget. Therefore, only *research papers* are available for download. *Road logs*, *mini-papers*, and other selected content are available only in print for recent guidebooks.

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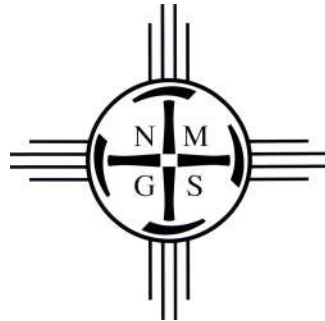


View to the north of the Derry Hills, site of Stop 1 of the first day of the 1998 New Mexico Geological Society Fall Field Conference. Pleistocene alluvium is exposed in the foreground, and the Pennsylvanian Magdalena Group is exposed in the background. Photograph by Greg Mack.

Las Cruces Country II

Editors

Greg H. Mack
George S. Austin
James M. Barker



New Mexico Geological Society
Forty-Ninth Annual Field Conference
November 4-7, 1998

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DEDICATION



On December 15, 1998, William R. Seager will retire after 33 yrs as a professor of geology at New Mexico State University. The 1998 New Mexico Geological Society Fall Field Conference is dedicated to Bill, whose career as a teacher, mentor, and researcher positively influenced a generation of students and colleagues interested in the geologic evolution of southern New Mexico.

Bill was born in the town of Penn Yan, short for "Pennsylvanian Yankees", in the Finger Lakes region of upstate New York, where his parents and brother still reside. He attended Syracuse University, where he played on the varsity tennis team and aspired to be a chemist. Like so many geology students then and now, Bill decided to make geology a career after taking introductory physical and historical geology courses. His love of the west was kindled by attending the Miami of Ohio University summer field camp near Dubois, Wyoming, and after receiving a B.S. Degree in Geology from Syracuse University in 1959, he attended the University of New Mexico for a Master's Degree. His thesis at UNM involved mapping in the Jarilla Mountains under the supervision of Vince Kelley, who, along with Wolf Elston, John Hawley, and Frank Kottlowski, would have a profound influence on his career. While at UNM Bill also met fellow graduate student Russell Clemons; once reunited in Las Cruces a decade later, the two would work together for many yrs on a variety of research projects.

Bill attended the University of Arizona for his doctorate, working under the direction of Evans Mayo on a mapping project in the Virgin Mountains of southern Nevada and northwestern Arizona. His program at Arizona was twice interrupted for short stints with oil companies. During one of these hiatuses with Humble Oil in Kingsville, Texas, Bill gained much more than industry experience, when he met and later married D.D. Thomas. Bill and D.D. have been married for 35 yrs and have raised three children, Keith, Gwen, and Chris.

Bill accepted a position in January of 1966 in the Earth Sciences Department (now called Geological Sciences) at New Mexico State University. The department at that time consisted of geologist and state fossil Bill King, geographer James Culbert, and Clyde Tombaugh, discoverer of the planet Pluto. Bill has witnessed tremendous growth of the department, as well as the creation of both B.S. and M.S. degrees in geology. Upon arriving in

Las Cruces, Bill's first mapping project was at San Diego Mountain with Russ Clemons and John Hawley, followed in quick succession by maps and reports of the Rincon Hills, Sierra de las Uvas, Cedar Hills, Dona Ana Mountains, Robledo Mountains, and southern Black Range. Important information was culled from these projects and published in international journals, something Bill continued to do throughout his career. By the late 1970s, Bill began a long-term mapping project in the Organ and southern San Andres Mountains, which culminated in New Mexico Bureau of Mines and Mineral Resources Memoir 36, a remarkable and often-cited compilation of the wide variety of geology exposed in these mountains. Bill next turned southward, mapping the East Potrillo Mountains, and began work on the Las Cruces 1° X 2° sheets, three of which are now in print. The decade of the 90s has primarily been dedicated to mapping the Caballo Mountains and adjacent areas at the scale of 1:24,000; Bill finished the last of nine quadrangles this year. As always, mapping in the Caballo Mountains uncovered new structural and stratigraphic problems that led to publications in international journals, the most recent of which, published in 1997 in the Geological Society of America Bulletin, describes the structural and stratigraphic evolution of a Laramide uplift-basin pair.

The state of New Mexico is indeed fortunate that Bill Seager made his career here. His mapping in the Organ Mountains and southern Black Range led to identification of the Organ and Emory cauldrons, and his ideas are the basis of our understanding of the Laramide and Rio Grande rift in southern New Mexico. Moreover, his high-quality geologic maps are and will continue to be the foundation upon which research in the region is built. To those of us who have worked with him over the years, however, Bill is more than just an outstanding teacher and researcher. He is friend and mentor, whose patience and support are greatly appreciated. Congratulations, Bill, on a remarkable career, and best wishes in the future.

Greg H. Mack

PRESIDENT'S MESSAGE

It has been 23 yrs since the New Mexico Geological Society last visited the Las Cruces area. Greg Mack and his field conference committee have put together an interesting and diversified meeting including Paleozoic basin evolution, Cenozoic history of southern New Mexico, and economic geology of the area. We appreciate their efforts and those of all the authors for submitting articles. The fall field conference is an integral part of the NMGS, not only as an event to share ideas and research, but also for the enduring guidebooks that provide an important reference for any geologist working in New Mexico.

This year begins the terms of George Austin as Managing Editor and James Barker as Assistant Managing Editor. In an effort to lower guidebook prices, George sent bids to several printings firms in Albuquerque, resulting in a lower publishing cost compared to recent years. Thanks for your hard work, George and Jim.

The NMGS is in good financial health. Our membership is about 600 and dues receipts have improved by sending out notices at the end of the year, from \$2230 in 1996 to \$5249 in 1997. Publication sales for 1997 were slightly down from 1996 but averaged about \$3000/month. The Society has been very fortunate to receive generous donations from our members. These donations, along with a good Stock Market for the last few years, have allowed our scholarship funds to grow. In 1997, the Society awarded \$11,725 in scholarships. The Executive and Scholarship committees are planning to increase the total amount of scholarships given each year while maintaining financially stable funding.

Other donations have gone toward our publications. Fred Trauger has donated money specifically for reprinting guidebooks. As of 1996, all of the NMGS guidebooks are available in hardcopy format. The generous donation of Robert Root allowed the Society to start a special project fund. This seed money with a percentage of sales money will be used to fund a publications storage building, when the need arises.

As of 1997, the Society became a 501(c)3 non-profit organization. This change in filing status makes donations made to NMGS tax deductible. To meet the IRS requirements for this status, amendments to the Articles of Incorporation were approved by the membership in 1996. Amendments and changes made this year to the By-laws and Constitution completed the process. These changes were ratified at this year's Annual Spring meeting and filed with the State Corporation Commission.

Bruce Hart and Barry Allred of the New Mexico Bureau of Mines were Co-Chairs for this year's Annual Spring Meeting. They put

together a great program including a panel discussion on professional registration of geologists in New Mexico. The meeting was a great success with over 140 attendants. Thanks to Bruce, Barry, and Mic Heynekamp for all their hard work.

One of the projects the NMGS is working on is an update of the Highway Geologic Map. The new map will be an edited version (at 1:1,000,000 scale) of the new digital State Geologic Map by the NM Bureau of Mines and U.S. Geological Survey. Frank Kottlowski and Bob Newcomer are leading the effort to update the map. We have also acquired a new digital Landsat image of the state for the highway map that will have more true-to-life colors than the previous image.

A special publication on the Geology of New Mexico is planned for the year 2000. Barry Kues will edit the publication covering regional aspects of New Mexico geology. This has the potential to be a great reference and possible textbook on New Mexico Geology.

The next field conference will convene in Albuquerque and will celebrate the Society's 50th anniversary. John Geissman, Les McFadden, and Frank Pazzaglia are Co-Chairs for this meeting. This field conference will be unique, with two independent field trips offered on the second and third days. The guidebook will also include a nostalgic look at the Society's first fifty years with recollections by some of our founding members.

The continued support of Charles Chapin, Director of the New Mexico Bureau of Mines and Mineral Resources (NMBMMR) and the participation of Bureau personnel are an essential part of NMGS meetings and publications. Special thanks to Norma Meeks and Debbie Goering at the NMBMMR for their hard work with publication sales, mailings, and membership renewals. Thanks, Norma, for agreeing to become the permanent registration chairperson for the fall field conferences. This will take some of the burden off future field trip chairmen and add continuity.

The NMGS is a volunteer organization and the success or failure of the society depends on the efforts of its volunteers. We are fortunate to have many dedicated members who continue to volunteer and make the NMGS a vital and respected geologic society. I encourage all members to become more actively involved and THANKS to all the many volunteers who have made this year's conference a success.

Gretchen K. Hoffman

COMMITTEES

1998 EXECUTIVE COMMITTEE

Gretchen K. Hoffman, President	<u>NM</u> Bureau of Mines and Mineral Resources
Gary A. Smith, Vice President	University of New Mexico
Katherine A. Giles, Treasurer	New Mexico State University
Virgil W. Lueth, Secretary	<u>N M</u> Bureau of Mines and Mineral Resources
James C. Witcher, Past President	New Mexico State University

FIELD CONFERENCE

Greg H. Mack, Chair	New Mexico State University
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GUIDEBOOK

Greg H. Mack, Editor	New Mexico State University
George S. Austin, Managing Editor	<u>N M</u> Bureau of Mines and Mineral Resources
James M. Barker, Assistant Managing Editor	<u>N M</u> Bureau of Mines and Mineral Resources

ROAD LOGS

Greg H. Mack	New Mexico State University
Timothy F. Lawton	New Mexico State University
Katherine A. Giles	New Mexico State University
Nancy J. McMillan	New Mexico State University
James C. Witcher	New Mexico State University
Thomas H. Giordano	New Mexico State University

REGISTRATION

Norma J. Meeks.....	<u>NM</u> Bureau of Mines and Mineral Resources
Gretchen K. Hoffman.....	<u>NM</u> Bureau of Mines and Mineral Resources

LOCAL ARRANGEMENTS

Greg H. Mack	New Mexico State University
James C. Witcher	New Mexico State University

PUBLICATIONS COMMITTEE

James M. Barker, Chair.....	<u>NM</u> Bureau of Mines and Mineral Resources
Richard M. Chamberlin.....	<u>NM</u> Bureau of Mines and Mineral Resources
Bruce S. Hart.....	<u>NM</u> Bureau of Mines and Mineral Resources

PUBLICATIONS SALES

Norma J. Meeks.....	<u>NM</u> Bureau of Mines and Mineral Resources
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FIELD CONFERENCE SCHEDULE

Wednesday, November 4, 1998—Travel and Registration Day

7:00-9:30p.m. Registration and icebreaker, Days Inn, University and Main Street, Las Cruces

Thursday, November 5, 1998—First Day

6:45-7:45 a.m. Complimentary continental breakfast, Days Inn
 8:00 a.m. Mid-day 6:00 Bus caravan departs from Days Inn parking lot
 Lunch provided
 p.m. 9:00 p.m. Caravan arrives at the Elephant Butte Inn, dinner provided
 Caravan arrives at Days Inn, Las Cruces

Friday, November 6, 1998—Second Day

6:45-7:45 a.m. Complimentary continental breakfast, Days Inn
 8:00 a.m. Mid-day 6:00 Bus caravan departs from Days Inn parking lot
 Lunch provided
 p.m. 7:00 p.m. Caravan arrives at Days Inn, Las Cruces
 Annual banquet, Days Inn

Saturday, November 7, 1997—Third Day

6:30-7:45 a.m. Breakfast buffet, Days Inn
 8:00 a.m. Caravan departs Days Inn
 Mid-day Lunch provided
 2:00 p.m. Caravan arrives at Days Inn, Las Cruces

CREDITS

Front cover: Artist's pen-and-pencil sketch of the Robledo Mountains, from a photograph supplied by Greg Mack, by Jan Thomas, N.M. Bureau of Mines and Mineral Resources.

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Exposure of the Cedar Hills fault in Broad Canyon, Stop 2 of the second day of the 1998 New Mexico Geological Society Fall Field Conference. This "late rift" fault places the upper Miocene Rincon Valley Formation (foreground) against Oligocene Bell Top ash flow tuff 5 and overlying Uvas Basaltic Andesite in the background. Photograph by Greg Mack.