

Sean D. Connell, PhD

NM Bureau of Geology & Mineral Resources • 801 Leroy Place, Socorro, NM 87801

SUMMARY

Earth scientist with over 30 years of experience and committed to strategic resource management with expertise in geological characterization, modeling, and data analytics of large subsurface datasets for geologic hazards, groundwater, oil and gas, and carbon-capture and storage (CCS) projects.

EXPERIENCE

Senior Research Scientist / Hydrogeologist, Mar 2025 – Present
NM Bureau of Geology/New Mexico Tech – Socorro, NM

- Characterization of fresh and brackish water resources in major and minor aquifers across New Mexico.

Geologist, Lower Carbon Geology Chapter, Jan 2023 – Oct 2024
Chevron Technical Center - Houston, TX

- Reservoir and seal characterization for CCS projects in California and onshore/offshore Gulf of Mexico.
- Contributed to geological narratives for Class VI permit applications for a proposed full-scale commercial CCS project at the Kern River Eastridge cogeneration facility in Kern County, California.
- Geological characterization of 140,000 acres of pore space for Bayou Bend CCS storage complexes along the Texas Gulf Coast.

ES Team Lead & Special Projects Geologist, Jun 2019 – Dec 2022
Chevron U.S.A., San Joaquin Valley Business Unit - Bakersfield, CA

- Led a five-member team focusing on unconventional resource evaluations, optimizing heavy oil development strategies, quantification of reservoir connectivity and heterogeneity, and technology validation.
- Worked with California regulatory agencies to identify flow pathways and evaluate mitigation strategies for oil seepage at Cymric 1Y Oil Field.
- Initiated Chevron PG Guild professional geologist workgroup to support UIC permit signatories and led UIC permit application process with PG stamp for thermal EOR projects.
- Chair of Earth Science Curriculum Committee: developed staff geological capabilities for San Joaquin Valley Business Unit.
- Developed first integrated reservoir and fault framework for the >2.6BBO Kern River Oil Field using >9000 wells and regional data to optimize development strategies and curb production declines.
- Utilized advanced well-log screening tools to identify sites for a hybrid thermal-polymer demonstration project to reduce GHG impacts.
- Provided on-demand geological advice during drilling operations.
- Developed best practices for geological applications of digital outcrop models of reservoir analogs using drone-based photogrammetry.

EDUCATION

PhD Earth and Planetary Sciences, *with distinction*, University of New Mexico

MS Geology, Univ. of Calif., Riverside

BS Geology, Calif. State Univ., Northridge

CERTIFICATIONS

- California Professional Geologist
- California Engineering Geologist
- UAS remote pilot (FAA Part 107)

SOFTWARE FAMILIARITY

- Adobe Illustrator & Photoshop, ArcGIS, Matlab, Microsoft Office Suite, Paleoscan, Petrel, Photogrammetry, Spotfire, and WellCAD.

MEDIA LINKS

- [LinkedIn](#)
- [Google Scholar](#) (citations≥1334)
- [Research Gate](#) (RIS≥443)
- [YouTube](#) (XES06 flume experiments)
- [Gigapan](#) (gigapixel outcrop images)
- [Sketchfab](#) (3D outcrop models)
- [The Sandias](#) PBS documentary (2007) [between 21:06 - 35:00]

REFERENCES

- Available upon request

Clastic Stratigrapher, Jun 2012 – May 2019

Chevron Energy Technology Company – San Ramon, CA & Houston, TX

- Worked closely with cross-functional teams to achieve project objectives for numerous assets.
- Organized and led field and classroom training of earth scientists and engineers.
- Geologic characterization of fluvial and shallow-marine reservoirs, including the development and deployment of reservoir characterization workflows to quantify connectivity and heterogeneity using large well-calibrated brownfield datasets and geological analogs.
- Conducted detailed reservoir characterization studies to optimize production large, established oil and gas fields: Cymric, Kern River, and Midway-Sunset (CA; Miocene & Pliocene Monterey, Kern River, and Tulare Fms); ~350MBO Rosebank (North Sea; Eocene Colsay Fm); and >25BBO Boscán (Maracaibo; Eocene) and >30BBO Huyapari (Faja del Orinoco; Mio-Pliocene) in Venezuela.
- Reservoir characterization support for the Triassic Mungaroo and Brigadier Fms for the >35BCF Gorgon and 8.9MTPA Wheatstone gas offshore fields in Australia (NWS; Northwest Shelf).

Faculty Adjunct, Fall 1999 – Fall 2012

New Mexico Institute of Mining & Technology

Department of Earth and Environmental Sciences – Socorro, NM

- Mentoring students and thesis committee service.

Senior Managing Geologist, Apr 2010 – May 2012

New Mexico Bureau of Geology & Mineral Resources – Albuquerque, NM

- Integrated structural and stratigraphic framework for groundwater-flow modeling of deep, saline groundwater along the Colorado Plateau–Rio Grande rift boundary for desalination potential (Connell, 2011; Melis et al., 2012).

Field Geologist and Albuquerque Office Manager, Jul 2000 – Mar 2010

New Mexico Bureau of Geology & Mineral Resources – Albuquerque, NM

- Created and compiled maps showing distribution of rock types, faults, and stratigraphic horizons to support integrated geologic characterizations of the Albuquerque and Española basins (Connell, 2004 and 2008; Grauch and Connell, 2013; Koning et al., 2013).
- Fluvial-spillover integration of the Rio Grande (Connell et al., 2005).
- Detailed geologic map compilation of the Albuquerque–Rio Rancho metropolitan area (Connell, 2008).
- High-resolution (*radioisotopic, biostratigraphic, and magnetic-reversal polarity*) geochronology of the Albuquerque Basin (Connell et al., 2013).
- Mentored Bureau associates and managed Albuquerque office staff.

Field Geologist, Jan 1996 – Aug 2000

New Mexico Bureau of Geology & Mineral Resources – Albuquerque, NM

- Conducted geomorphic and stratigraphic research in New Mexico, including geologic mapping of 22 (7.5-minute) quadrangles, encompassing more than 3500 km² of the Rio Grande rift in central New Mexico (Statemap; National Cooperative Geologic Mapping Program).
- Provided hydrogeologic information to support multi-agency groundwater modeling efforts in the Middle Rio Grande Basin.

ACTIVITIES & SERVICE

- 2001 Tenure granted at NM Bureau of Geology and Mineral Resources.
- 2007 KNME documentary on *The Sandia's*.
- 2011 KUNM Earth Science Week radio spot on *Earthquakes and Landscapes*.
- NSF technical reviews of EAR proposals.
- Journal peer reviews: *Geomorphology*, *GSA*, *Computers and Geoscience*, *Marine and Petroleum Geoscience*, *NMGS*, *Terra Nova*.
- Session chair:
 - 2015 AAPG Annual Conference
 - 2001 & 2012 Rocky Mountain/South-Central Section GSA Meeting
 - 2002 & 2008 NMGS Annual Spring Meeting
- 2026 NMGS Fall Field Conference

Workshops and Courses

- 2023 CCS field and core workshop for Chevron New Energies.
- 2013-2019 Chevron classroom and field workshops on reservoir stratigraphy.
- 2011 Field workshop for NM Interstate Stream Commission.
- 2009 NM Decision Makers Field Conference (Price et al., 2009).
- 2001 GSA Rocky Mountain/South-Central Section field trip (Connell et al., 2001a).
- 2001 Friends of the Pleistocene field trip, Albuquerque (Connell et al., 2001b).
- 1999 New Mexico Geological Society Fall Field Conference (Pazzaglia et al. 1999).

RECOGNITION

Chevron Reservoir Mgmt. Excellence Awards

- 2024 CCS subsurface modeling workflows.
- 2024 Bayou Bend West CCS onshore stratigraphic well completion (TX).
- 2024 KR Eastridge CCS Class VI permit (CA).
- 2019 Boscán Field (VE) integrated characterization, modeling, and simulation.
- 2019 Application of computational stratigraphy to Rosebank Field (North Sea).
- 2017 Leveraging brownfield assets into 3D subsurface analogs.

- Interpreted hundreds of well logs and integrated surficial mapping with subsurface geophysical datasets into large GIS databases and digital map products.
- Aided federal, state, tribal, and local agencies and presented geologic concepts to the public, local, and national geological organizations.

Temporary Staff Geologist, Sep 1993 – May 1994

William Lettis and Associates - Oakland, CA

- Geologic support for a sitewide hydrogeologic study of Kirtland Air Force Base (KAFB) and Sandia National Laboratories (SNL), New Mexico.

Graduate Research Assistant, Jun 1992 – Jun 1993 & Sep 1994 – Mar 1995

University of California, Riverside – Riverside, CA

- Surficial geologic mapping and geomorphic characterization of more than 1000 km² of the Mojave Desert to support cultural resources sensitivity studies for Fort Irwin expansion.

Staff and Project Geologist, Jun 1987 – Apr 1992

Allan E. Seward Engineering Geology - Santa Clarita, CA

- Engineering-geologic land evaluations and paleoseismic (trench) studies of active and potentially active faults in southern California.

Other Recognitions and Awards

- 2021 Chevron Leadership Forum (CLF)
- 2012 Outstanding Paper Award, Journal of Sedimentary Research (*Connell et al.*, 2012).
- 2010 Outstanding Doctoral Student, UNM Earth and Planetary Sciences Department.
- 2001 GSA Roy J. Shlemon Mentor in Applied Geology.

PUBLICATIONS

- ≥45 Published papers
- 8 Compilations and edited volumes
- ≥73 Conference abstracts
- 22 Geologic quadrangle maps
- 25 Open-file reports

LIST OF PUBLICATIONS

Present-2015

Chamberlin, R.M., Love, D.W., Harrison, B.J., Lueth, V.W., Frey, B., Williams, S., and **Connell, S.D.**, 2016, Sevilleta West: pre-meeting road log from Sevilleta National Wildlife Refuge Visitor Center to San Acacia, Cerritos de las Minas, West Mesa, and San Lorenzo Spring, *in* Williams, S., Frey, B., and Karlstrom, K., eds., The Geology of the Belen Area: New Mexico Geological Society, Guidebook p. 35-60.

Connell, S.D., Laugier, F.J., 2020, Stratigraphic measures of reservoir connectivity and heterogeneity in heavy oil fields: Society of Petroleum Engineers Journal SPE-200799-MS, 13 p.

Lucas, S.G., Morgan, G., Love, D.W., and **Connell, S.D.**, 2017, The first North American mammoths: Taxonomy and chronology of early Irvingtonian (early Pleistocene) *Mammuthus* from New Mexico: Quaternary International (Special Issue on Proboscidiens), v. 443, p. 2-13. <http://dx.doi.org/10.1016/j.quaint.2016.12.017>

Madof, A.S., **Connell, S.D.**, 2018, 17. Northern Levant basin, *in* Lofi, J. (compiler), Seismic atlas of the "Messinian Salinity Crisis" markers in the Mediterranean Sea (Volume 2): Mémoires de la Société Géologie de France, n.s., t. 181, p. 60-62.

Madof, A.S., Harris, A.D., and **Connell, S.D.**, 2016, Nearshore along-strike variability: Is the concept of the systems tract unhinged?: *Geology*, v. 44., n. 4, p. 315-318.

Payenberg, T.H.D., Willis, B.J., Sixsmith, P., **Connell, S.D.**, *et al.*, 2024, Quantification and classification of a giant fluvial-distributive system - the Triassic Mungaroo Formation, NWS, Australia: *Earth-Science Reviews*, v. 249, 104676.

Popa, A., **Connell, S.D.**, 2019, Optimizing horizontal well placement through stratigraphic performance prediction using artificial intelligence: Society of Petroleum Engineers Journal SPE-195887-MS, 17 p.

2014-2011

Connell, S.D., Smith, G.A., Geissman, J.W., and McIntosh, W.C., 2013, Climatic controls on nonmarine depositional sequences in the Albuquerque Basin, Rio Grande rift, north-central New Mexico, *in* Hudson, M.R., and Grauch, V.J.S., eds., New Perspectives on Rio Grande Rift Basins: From Tectonics to Groundwater: Geological Society of America Special Paper 494, p. 383–425, doi:10.1130/2013.2494(15).

Connell, S.D., Kim, W., Paola, C., and Smith, G.A. 2012, Sediment-flux steering of axial- transverse boundaries in a fluvially dominated experimental basin: *Journal of Sedimentary Research*, v. 82, n. 5, p. 310-325.

Connell, S.D., Kim, W., Smith, G.A, and Paola, C., 2012, Stratigraphic architecture of an experimental basin with interacting drainages: *Journal of Sedimentary Research*, v. 82, n. 5, p. 326-344.

Grauch, V.J.S., and **Connell, S.D.**, 2013, New perspectives on the geometry of the Albuquerque Basin, Rio Grande rift, New Mexico: Insights from geophysical models of rift-fill thickness, *in* Hudson, M.R., and Grauch, V.J.S., eds., New Perspectives on Rio Grande Rift Basins: From Tectonics to Groundwater: Geological Society of America Special Paper 494, p. 427–462, doi:10.1130/2013.2494(16).

Kelley, S.A., Kempter, K.A., McIntosh, W.C., Maldonado, F., Smith, G.A., **Connell, S.D.**, Koning, D.J., and Whiteis, J., 2013, Syndepositional deformation and provenance of Oligocene to Lower Miocene sedimentary rocks along the western margin of the Rio Grande rift, Jemez Mountains, New Mexico, *in* Hudson, M.R., and Grauch, V.J.S., eds.,

New Perspectives on Rio Grande Rift Basins: From Tectonics to Groundwater: Geological Society of America Special Paper 494, p. 101–123, doi:10.1130/2013.2494(05).

- Kim, W., **Connell, S.D.**, Steel, E., Smith, G.A., and Paola, C., 2011, Mass-balance control on the interaction of axial and transverse channel systems: *Geology*, v. 39, n. 7, p. 611-614, doi:10.1130/G31896.1.
- Koning, D.J., Grauch, V.J.S., **Connell, S.D.**, Ferguson, J., McIntosh, W., Slate, J.L., Wan, E., and Baldrige, W.S., 2013, Structure and tectonic evolution of the eastern Española Basin, Rio Grande rift, north-central New Mexico, *in* Hudson, M.R., and Grauch, V.J.S., eds., *New Perspectives on Rio Grande Rift Basins: From Tectonics to Groundwater: Geological Society of America Special Paper 494*, p. 185–219, doi:10.1130/2013.2494(08).
- Slate, J.L., Sarna-Wojcicki, A.M., Koning, D.J., Wan, E., Wahl, D.B., **Connell, S.D.**, and Perkins, M.E., 2013, Upper Neogene tephrochronologic correlations of the Española Basin and Jemez Mountains volcanic field, northern Rio Grande rift, north-central New Mexico, *in* Hudson, M.R., and Grauch, V.J.S., eds., *New Perspectives on Rio Grande Rift Basins: From Tectonics to Groundwater: Geological Society of America Special Paper 494*, p. 303–322, doi:10.1130/2012.2494(12).

2010-2006

- Cather, S.M., **Connell, S.D.**, Chamberlin, R.M., McIntosh, W.C., Jones, G.E., Potochnik, A.R., Lucas, S.G., and Johnson, P.S., 2008, The Chuska Erg: Paleogeomorphic and paleoclimatic implications of an Oligocene sand sea on the Colorado Plateau: *Geological Society of America Bulletin*, v. 120, n. 1/2, p. 13-33, doi: 10.1130/B26081.1.
- Connell, S.D.**, and Love, D.W., 2009, Geology and landscape of the Albuquerque area, *in* Price, L.G., Bland, D., Johnson, P.S., and **Connell, S.D.**, eds., *Water, natural resources, and the urban landscape: The Albuquerque Region: New Mexico Bureau of Geology and Mineral Resources, Decision-Makers Field Conference 2009*, p. 10-17.
- Connell, S.D.**, 2008, Refinements to the stratigraphic nomenclature of the Santa Fe Group, northwestern Albuquerque basin, *New Mexico: New Mexico Geology*, v. 30, n. 1, p. 14-35.
- Connell, S.D.**, Love D.W., and Dunbar, N.W., 2007, Geomorphology and stratigraphy of inset fluvial deposits along the Rio Grande valley in the central Albuquerque basin, *New Mexico: New Mexico Geology*, v. 29, n. 1, p. 13-31.
- Connell, S.D.**, Koning, D.J., Kelley, S.A., and Brandes, N.N., 2007, Oligocene-Miocene sedimentation in the southwestern Jemez Mountains and northwestern Albuquerque basin, *New Mexico*, *in* Kues, B.S., Kelley, S.A., and Lueth, V.W., eds., *Geology of the Jemez Region II: New Mexico Geological Society, Guidebook 58*. p. 195-208.
- Koning, D.J., **Connell, S.D.**, Slate, J.L., and Wan, E., 2007, Stratigraphic constraints for Miocene-age vertical motion along the Santa Clara fault, Española basin, north-central New Mexico, *in* Kues, B.S., Kelley, S.A., and Lueth, V.W., eds., *Geology of the Jemez Region II: New Mexico Geological Society, Guidebook 58*, p. 225-238.
- Love, D.W., and **Connell, S.D.**, 2009, Geologic Hazards in the Albuquerque area, *in* Price, L.G., Bland, D., Johnson, P.S., and **Connell, S.D.**, eds., *Water, natural resources, and the urban landscape: The Albuquerque Region: New Mexico Bureau of Geology and Mineral Resources, Decision-Makers Field Conference 2009*, p. 87-94.
- Love, D.W., McGraw, D.J., Chamberlin, R.M., Reiter, M., **Connell, S.D.**, Cather, S.M., and Majkowski, L., 2009, Progress report on tracking Rio Grande terraces across the uplift of the Socorro magma body: *New Mexico Geological Society Guidebook 60*, p. 415-424.
- Lucas, S.G., Kelley, S.A., Spielmann, J.A., Lockley, M.G., and **Connell, S.D.**, 2007, Miocene bird footprints from northern New Mexico, *in* Lucas, S.G., Spielmann, J.A., eds., *Cenozoic vertebrate tracks and traces: New Mexico Museum of Natural History and Science, Bulletin 42*, p. 169-176.
- Read, A.S., and **Connell, S.D.**, 2010, The Sandia Mountains, *in* Price, G., ed., *The Geology of New Mexico State Parks and Monuments: New Mexico Bureau of Geology and Mineral Resources*. p. 201-208.

2005-2001

- Connell, S.D.**, Hawley, J.W., and Love D.W., 2005, Late Cenozoic drainage development in the southeastern Basin and Range of New Mexico, southeasternmost Arizona, and western Texas, *in* Lucas, S.G., Morgan, G.S., and Ziegler, K.E., eds., *New Mexico's Ice Ages: New Mexico Museum of Natural History and Science Bulletin 28*, p. 125-150.
- Connell, S.D.**, 2004, Geology of the Albuquerque Basin and tectonic development of the Rio Grande rift, north-central New Mexico, *in* Mack, G.H., and Giles, K.J., eds., *The Geology of New Mexico, A geologic history: New Mexico Geological Society, Special Publication 11*, p. 359-388.
- Connell, S.D.**, Cather, S.M., McIntosh, W.C., Dunbar, N., 2002, Stratigraphy of the Tanos and Blackshare Formations (lower Santa Fe Group), Hagan embayment, Rio Grande rift, *New Mexico: New Mexico Geology*, v. 24, n. 4, p. 107-120.
- Kelson, K.I., Bauer, P.W., **Connell, S.D.**, Love, D.W., Rawling, G.C., and Mansell, M., 2004, Initial paleoseismic and hydrogeologic assessment of the southern Sangre de Cristo fault at the Taos Pueblo *in* Brister, B.S., Bauer, P.W., Read, A.S., and Lueth, V.W., eds., *Geology of the Taos Region: New Mexico Geological Society, Guidebook 55*, p. 289-299.
- Koning, D.J. **Connell, S.D.**, Morgan, G.S., Peters, L., and McIntosh, W.C., 2005, Stratigraphy and depositional trends in the Santa Fe Group near Española, north-central New Mexico: Tectonic and climatic implications, *in* Lucas, S.G., Zeigler, K.E., Lueth, V.W., Owen, D.E., eds., *Geology of the Chama Basin, New Mexico Geological Society, Guidebook 56*, p. 237-257.
- Koning, D.J., **Connell, S.D.**, Pazzaglia, F.J., McIntosh, W.C., 2002, Redefinition of the Ancha Formation and Pliocene-Pleistocene deposition in the Santa Fe embayment, north-central New Mexico: *New Mexico Geology*, v. 24, n. 3, p. 75-87.
- Love D.W., and **Connell, S.D.**, 2005, Late Neogene drainage developments on the southeastern Colorado Plateau, New Mexico, *in* Lucas, S.G., Morgan, G.S., and Ziegler, K.E., eds., *New Mexico's Ice Ages: New Mexico Museum of Natural History and Science Bulletin 28*, p. 151-169.

2000-1990

- Allen, B.D., **Connell, S.D.**, Hawley, J.W., and Stone, B.D., 1998, Core drilling provides information about Santa Fe Group aquifer system beneath Albuquerque's west side: *New Mexico Geology*, v. 20, n. 1, p. 9-13.
- Connell, S.D.**, 2000, Geology of the northern Sandia Mountains and Albuquerque Basin, Placitas and Bernalillo area, Sandoval County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, New Mexico Decision-Makers Field Guide No. 1, p. 140-143.
- Connell, S.D.**, and Wells, S.G., 1999, Pliocene and Quaternary stratigraphy, soils, and geomorphology of the northern flank of the Sandia Mountains, Albuquerque Basin, Rio Grande rift, New Mexico, *in* Pazzaglia, F.J., and Lucas, S.G., eds., *Albuquerque Geology: New Mexico Geological Society, Guidebook 50*, p. 379-391.
- Connell, S. D.**, and Seward, A.E., 1990, Evidence of Holocene fault activity on the Elkhorn fault, *in* Larson, R. A., and Buckley, C. I., eds., *Geology and engineering geology of the western Soledad basin, Los Angeles County, California: Southern California Section of the Association of Engineering Geologists, 1990 Annual Field Trip Guidebook*, p. 132-144.
- Connell, S.D.**, Koning, D.J., and Cather, S.M., 1999, Revisions to the stratigraphic nomenclature of the Santa Fe Group, northwestern Albuquerque Basin, New Mexico, *in* Pazzaglia, F.J., and Lucas, S.G., eds., *Albuquerque Geology: New Mexico Geological Society, Guidebook 50*, p. 337-353.
- Connell, S.D.**, Allen, B.D., and Hawley, J.W., 1998, Subsurface stratigraphy of the Santa Fe Group using borehole geophysical logs, Albuquerque area, central New Mexico: *New Mexico Geology*, v. 20, n. 1, p. 2-7.
- Connell, S.D.**, and Wells, S.G., and Williamson, T.N., 1994, Determination of the Holocene- Pleistocene boundary along the Mojave River, Summit Valley to Victorville, California, *in* Everson, G.D., and Schneider, J.S., eds., *Kelso Conference Papers, 1987-1992: Occasional Papers in Anthropology Number 4*, California State University, Bakersfield, Museum of Anthropology, p. 95-105.
- Maldonado, F., **Connell, S.D.**, Love, D.W., Grauch, V.J.S., Slate, J.L., McIntosh, W.C., Jackson, P.B., and Byers, F.M., Jr., 1999, Neogene geology of the Isleta Reservation and vicinity, Albuquerque Basin, New Mexico, *in* Pazzaglia, F.J., and Lucas, S.G., eds., *Albuquerque Geology: New Mexico Geological Society Guidebook 50*, p. 175-188.
- Pazzaglia, F.J., **Connell, S.D.**, Tedford, R.H., Hawley, J.W., Personius, S., Smith, G.A., Cather, S.M., Lucas, S.G., Hester, P., Gilmore, J., and Woodward, L.A., 1999, Second-day trip 2 road log, Albuquerque to San Ysidro, Loma Creston, La Ceja, and Sand Hill fault, *in* Pazzaglia, F.J., and Lucas, S.G., eds., *Albuquerque Geology: New Mexico Geological Society, Guidebook 50*, p. 47-66.
- Pazzaglia, F.J., Lucas, S.G., Estep, J., **Connell, S.D.**, Karlstrom, K.E., Black, B., Smith, G.A., Hawley, J.W., Johnson, P., Cather, S.M., and Stearns, C.E., 1999, First day road log, Albuquerque to Placitas, Hagan basin, and Espinazo Ridge, *in* Pazzaglia, F.J., and Lucas, S.G., eds., *Albuquerque Geology: New Mexico Geological Society, Guidebook 50*, p. 1-26.
- Sena, G., **Connell, S.**, Wells, S., and Anderson, K., 1994, Investigation of surficial processes active on fan pavement surfaces using tilted carbonate collars, Providence Mountains, California, *in* McGill, S.F., and Ross, T.M., eds., *Geological investigations of an active margin: Geological Society of America 27th Annual Cordilleran Section Meeting Guidebook*, p. 210-213.
- Wells, S.G., **Connell, S.D.**, and Williamson, T.N., 1994, Soil development in valley floor deposits along the southern margin of the San Timoteo Badlands, Riverside County, California, *in* McGill, S.F., and Ross, T.M., eds., *Geological investigations of an active margin, Geological Society of America 27th Annual Cordilleran Section Meeting Guidebook*, p. 140-146.
- Wells, S.G., **Connell, S.D.**, and Martin, J.J., 1993, Geomorphic and soil stratigraphic evaluation of a faulted alluvial sequence, eastern Coachella Valley, California, *in* Reynolds, R., and Reynolds, J., eds., *Ashes, basins and faults: Mojave Desert Quaternary Research Center Symposium Guidebook*, San Bernardino County Museum Association, p. 39-49.

Edited Volumes

- Connell, S.D.**, Lucas, S.G., and Love, D.W., 2001, Stratigraphy and tectonic development of the Albuquerque Basin, central Rio Grande rift, mini-papers for field trip guidebook: Albuquerque, New Mexico: Geological Society of America, Rocky Mountain-South Central Section Meeting: New Mexico Bureau of Geology and Mineral Resources, Open-file report 454A & B, 129 p.
- Connell, S.D.**, Love, D.W., Sorrell, J.D., and Harrison, J.B.J., 2001, Plio-Pleistocene stratigraphy and geomorphology of the central part of the Albuquerque Basin: Friends of the Pleistocene, Rocky Mountain Cell, Field-trip guidebook: New Mexico Bureau of Geology and Mineral Resources, Open-file report 454C & D, 102 p.
- Price, L.G., Bland, D., Johnson, P.S., and **Connell, S.D.**, 2009, Water, natural resources, and the urban landscape: The Albuquerque Region: New Mexico Bureau of Geology and Mineral Resources, Decision-Makers Field Guide 2009, 152 p., 1 plate.

Map Compilations

- Connell, S.D.**, 2011, Preliminary study of the geologic framework of the Colorado Plateau– Middle Rio Grande Basin transition, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 539, 60 p., 2 plates, 1 appendix.
- Connell, S.D.**, 2008, Geologic map of the Albuquerque-Rio Rancho metropolitan area, Bernalillo and Sandoval County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Geologic Map GM-78, scale 1:50,000, 2 plates.
- Connell, S.D.**, 2006, Preliminary geologic map of the Albuquerque-Rio Rancho metropolitan area and vicinity, Bernalillo and Sandoval Counties, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file report 496, scale 1:50,000,

- Hawley, J.W., McCraw, D.J., Love, D.W., and **Connell, S.D.**, 2005, Disc C, The map of surficial geologic materials of New Mexico, in Barker, J., Wilks, M., Jones, G., Read, A., Frish, K., Vaiza, J., Hemenway, L., Gonzales, T., Schatzenberg, D., Kehow, L., Bailey, J., and Runyon, N., compilers, 2001, Construction aggregate on New Mexico State Trust Lands: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 462, *version 5.0*.
- Maldonado, F., Slate, J.L., Love, D.W., **Connell, S.D.**, Karlstrom, K.E., and Cole, J.C., 2007, Geologic map of the Pueblo of Isleta Tribal lands and vicinity, Bernalillo, Tarrant, and Valencia Counties, central New Mexico: U.S. Geological Survey, Scientific Investigations Series Map 2913, scale 1:50,000.

Geologic Quadrangle Maps

- Baer, S., Karlstrom, K.E., Bauer, P.W., and **Connell, S.D.**, 2004, Geology the Manzano Peak 7.5-minute quadrangle, Valencia and Tarrant Counties, New Mexico, New Mexico Bureau of Geology and Mineral Resources, Open-file Geologic Map OF-GM 61, scale 1:12,000.
- Cather, S.M. and **Connell, S.D.**, Lucas, S., Picha, M.G., and Black, B.A., 2002, Geology of the Hagan 7.5-min. quadrangle, Sandoval County, New Mexico, New Mexico Bureau of Geology and Mineral Resources, Open-file Geologic Map OF-GM 50, scale 1:24,000.
- Cather, S.M., and **Connell, S.D.**, 1998, Geology of the San Felipe Pueblo 7.5-minute quadrangle, Sandoval County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Geologic Map OF-GM 19, scale 1:24,000.
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