

May 2019  
V. T. McLemore

## LIST OF PUBLICATIONS AND REPORTS

(\* peer-reviewed, \*\* unpublished)

### Table of Contents

PHD DISSERTATION .....	2
M.S. THESIS .....	2
BOOKS .....	2
DATABASES .....	2
GEOLOGY AND GEOCHEMISTRY OF REDROCK ANORTHOSITE AND GRANITE, NORTHERN BURRO MOUNTAINS, GRANT CO .....	3
CAMBRIAN-ORDOVICIAN ALKALINE ROCKS AND CARBONATITES IN NEW MEXICO .....	5
GEOLOGY AND MINERAL RESOURCES OF THE STEEPLE ROCK DISTRICT, GRANT COUNTY .....	7
GEOLOGY AND MINERAL RESOURCES OF THE VICTORIO MOUNTAINS, LUNA COUNTY, NM.....	8
GEOLOGY OF IGNEOUS ROCKS IN THE SACRAMENTO MOUNTAINS .....	9
GEOLOGY, MINERAL DEPOSITS, AND ENVIRONMENTAL STUDIES IN THE HILLSBORO DISTRICT, SIERRA COUNTY .....	9
GEOLOGY AND MINERAL RESOURCES OF THE BLACK RANGE AND SAN MATEO MOUNTAINS, NM .	11
GEOLOGY AND ENVIRONMENTAL GEOLOGY OF THE QUESTA-RED RIVER AREA,.....	12
SUSTAINABLE DEVELOPMENT IN MINING.....	14
GEOLOGY AND MINERAL RESOURCES OF CAPITAN MOUNTAINS.....	15
GEOLOGY AND MINERAL RESOURCES OF THE CORNUDAS MOUNTAINS .....	15
GEOLOGY AND MINERAL RESOURCES OF GREAT PLAIN MARGIN (ALKALINE GOLD, REE) DEPOSITS	16
GEOLOGY AND MINERAL RESOURCES OF THE RIO GRANDE RIFT BARITE-FLUORITE- GALENA DEPOSITS .....	17
METALLIC RESOURCES IN NEW MEXICO .....	17
NON-METALLIC MINERAL RESOURCES IN NEW MEXICO.....	22
RADON STUDIES IN NEW MEXICO.....	24
ADTI-MMS ARTICLES .....	24
GEOLOGY AND ENVIRONMENTAL STUDIES OF THE PECOS RIVER.....	25
GEOLOGY OF THE STATE PARKS IN NEW MEXICO .....	26
MINERAL RESOURCE ASSESMENTS, NEW MEXICO.....	27
URANIUM RESOURCES IN NEW MEXICO .....	29
ROAD LOGS, GUIDEBOOKS, SPECIAL PUBLICATIONS, AND OTHER PUBLICATIONS.....	31
MINERAL COLLECTING GUIDES AND OTHER NMBMMR INFORMATION HANDOUTS.....	33
CONTRIBUTOR .....	34
GRANTS AND CONTRACTS .....	34
STUDENT THEISES DIRECTED OR CO-DIRECTED (***)MEMBER OF COMMITTEE) .....	35
INDEPENDENT STUDIES DIRECTED OR CO-DIRECTED.....	36

## PHD DISSERTATION

McLemore, V. T., 1993, Geology and geochemistry of the mineralization and alteration in the Steeple Rock district, Grant County, New Mexico and Greenlee County, Arizona: Ph.D. dissertation, University of Texas at El Paso; also New Mexico Bureau of Mines and Mineral Resources, Open File Report 397, 526 p., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR300-399/376-399/397/ofr\\_397.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR300-399/376-399/397/ofr_397.pdf) (accessed 8/22/11)

## M.S. THESIS

McLemore, V. T., 1980, Geology of the Precambrian rocks of the Lemitar Mountains, Socorro, New Mexico: unpublished M.S. Thesis, New Mexico Institute of Mining and Technology, 208 pp.; also New Mexico Bureau of Mines and Mineral Resources, Open-file Report 122, [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/100-125/122/ofr\\_122.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/100-125/122/ofr_122.pdf) (accessed 8/22/11)

## BOOKS

- McLemore, V. T., 2006, Nepheline syenite; in Kogel, J.E, Trivedi, N.C., Barker, J.M., and Krukowski, S.T., ed., Industrial Minerals volume, 7th edition: Society for Mining, Metallurgy, and Exploration, Littleton, Colorado, p. 653-670.
- McLemore, V.T., Smith, K.S., Russell, C.C., and the Sampling and Monitoring Committee of the Acid Drainage Technology Initiative-Metal Mining Sector (ADTI-MMS), 2007, Sampling and monitoring for closure, in DeGraff, J.V., ed., Reviews in Engineering Geology, v. 17, Understanding and Responding to Hazardous Substances at Mine Sites in the Western United States: Geological Society of America.
- McLemore, V. T., ed., 2008, Management Technologies for Metal Mining Influenced Water, Volume 1: Basics of Metal Mining Influenced Water: Society for Mining, Metallurgy, and Exploration, Inc., Littleton, CO, 102 p.
- McLemore, V.T., Smith, K.S., Russell, C.C., editors, 2014, Management Technologies for Metal Mining Influenced Water, volume 6: Sampling and monitoring for the mine life cycle: Society for Mining, Metallurgy, and Exploration, Inc., Littleton, CO.
- \*\*McLemore, V.T., Timmons, S., and Wilks, M., eds., 2017, Energy and Mineral deposits in New Mexico: New Mexico Bureau of Geology and Mineral Resources, Memoir 50 and New Mexico Geological Society, Special Publication 13 NMGS Proceedings Volume, 2017, Uranium in New Mexico: the resource and the legacy: NMGS Spring Meeting, 79 p.

## DATABASES

- McLemore, V. T., Donahue, K., Krueger, C. B., Rowe, A., Ulbricht, L., Jackson, M. J., Breese, M. R., Jones, G., and Wilks, M., 2002, Database of the uranium mines, prospects, occurrences, and mills in New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open file Report 461, CD-ROM, <http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=461> (accessed 8/22/11).
- McLemore, V. T., Jones, G., and Wilks, M., 2002, Districts, mines, and geochemistry databases in New Mexico: Army Corp of Engineers, RAMS database workshops, Reno, Nevada, January 7, 2002, [http://www.mines.unr.edu/mlc/RAMSworkshop\\_Jan4\\_02/Mclemore\\_Jan4\\_02.pdf](http://www.mines.unr.edu/mlc/RAMSworkshop_Jan4_02/Mclemore_Jan4_02.pdf) (accessed 8/22/11).
- McLemore, V. T., Donahue, K., Krueger, C. B., Rowe, A., Ulbricht, L., Jackson, M. J., Breese, M. R., Jones, G., and Wilks, M., 2002, Database of the uranium mines, prospects, occurrences, and mills in New Mexico (abstr.): Navajo Abandoned Uranium Mines (NAUM) Partnering Workshop, Farmington, 1 p.
- Krueger, C. B., McLemore, V. T., Hoffman, G. K., Jones, G. R. and Wilks, M., 2002, Mining districts databases of New Mexico (abstr.): Geological Society of America, Abstracts with Programs, Vol. 34, No. 6, p. 448.
- McLemore, V. T., Krueger, C. B., Johnson, P., Raugust, J. S., Jones, G. E., Hoffman, G. K. and Wilks, M., 2003, New Mexico Mines Database: Society of Mining, Exploration, and Metallurgy, SME Preprint No. 03-62, 10 p. <http://www.onemine.org/view/?d=74B8495FF8D5C2052F3BA2ED1C92C6537C841A08BEEC448A47001CA29FA7362738262> (accessed 8/22/11)
- \*McLemore, V. T., Raugust, J. S., Hoffman, G. K., Wilks, M., Johnson, P., Krueger, C. B., and Jones, G. E., 2003, Use of the New Mexico Mines Database in reclamation studies: 20th Annual National Meetings of ASMR and the 9th Billings Land Reclamation Symposium, Working Together for Innovative

- Reclamation, 14 p., <http://www.asmr.us/Publications/Conference%20Proceedings/2003/0795-McLemore.pdf> (accessed 8/22/11)
- McLemore, V. T., Krueger, C. B., Johnson, P., Raugust, J. S., Jones, G. E., Hoffman, G. K. and Wilks, M., 2003, New Mexico Mines Database (abstr.): Society of Mining, Exploration, and Metallurgy, SME abstracts and program, p. 58.
- McLemore, V. T., Raugust, J. S., G. E., Hoffman, Wilks, M., Johnson, P., Krueger, C. B., and Jones, G. K., 2003, Use of the New Mexico Mining Database in reclamation studies: Working together for innovative reclamation, Joint Conference of the 9th Billings Land Reclamation Symposium and the 20th Annual Meeting of the American Society of Mining and Reclamation (ASMR), p. 795- 808, <http://www.asmr.us/Publications/Conference%20Proceedings/2003/0795-McLemore.pdf> (accessed 8/22/22)
- McLemore, V. T., Krueger, C. B., Johnson, P., Raugust, J. S., Jones, G. E., Hoffman, G. K. and Wilks, M., 2005, New Mexico Mines Database: Society of Mining, Exploration, and Metallurgy, Mining Engineering, February, p. 42-47.
- McLemore, V. T., Hoffman, G., Smith, M, Mansell, M., and Wilks, M., 2005, Mining districts of New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 494, CD- ROM, <http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=494> (accessed 8/22/11)
- McLemore, V.T., 2010, Use of the New Mexico Mines Database and ArcMap in Uranium Reclamation Studies: Society of Mining, Metallurgy and Exploration Transactions, v. 328.

### **GEOLOGY AND GEOCHEMISTRY OF REDROCK ANORTHOSITE AND GRANITE, NORTHERN BURRO MOUNTAINS, GRANT CO**

- \*\*McLemore, V. T., 1988, Geology and geochemistry of the Redrock anorthosites, Burro Mountains, southwestern New Mexico; Preliminary Observations; abstr. and poster presented at the Penrose Conference on Origin of massif anorthosites, Wyoming, Aug. 14-19, 1988. (unpublished).
- \*McLemore, V. T., and McKee, C., 1988, A preliminary geochemical study of the Redrock anorthosite and granite, Burro Mountains, southwestern New Mexico: New Mexico Geological Society, Guidebook 39, p. 83-88.
- Kosunen, P. J., Rämö, O., T., McLemore, V. T., McKee, C., and Haapala, I., 1999, Lamprophyric (minette) magmatism and Proterozoic rapakivi granites: Preliminary observations from the Redrock area, Burro Mountains, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, v. 31, p. A-261.
- McLemore, V. T., Rämö, O. T., McKee, C., Heizler, M. , Haapala, I., and Kosunen, P. J., 1999, Origin of the Redrock anorthosite and rapakivi granite (Proterozoic), Redrock, New Mexico: Preliminary Observations (abstr.): Geological Society of America, South-central section meeting, Abstracts with programs, v. 31, no. 1, p. A-29.
- Rämö, O., T., McLemore, V. T., Kosunen, P. J., Haapala, I., McKee, C., and Heizler, M., 1999, Nd Isotopic assessment of the Proterozoic granitoid and associated mafic rocks of the Redrock area, Burro Mountains, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, v. 31, p. A-260.
- Haapala, I., McLemore, V. T., Rämö, O., T., and Kosunen, P. J., 2000, Epidote-chlorite alteration of a Mesoproterozoic miarolitic granite from the Burro Mountains, New Mexico (abstr.): 31st International Geologic Congress, Brazil.
- \*McLemore, V. T., Rämö, O. T., and Kosunen, P. J., 2000, Supplemental road log 1, from Lordsburg to Redrock to Ash Creek in the northern Burro Mountains, New Mexico; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, p. 45-50.
- \*McLemore, V. T., Rämö, O. T., Kosunen, P. J., Haapala, I., Heizler, M., and McKee, C., 2000, Geology and geochemistry of Proterozoic granitic and mafic rocks in the Redrock area, northern Burro Mountains, Grant County, New Mexico; A Progress Report; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, p. 117-126.
- McLemore, V. T., Rämö, O. T., Kosunen, P. J., Heizler, M., Haapala, I., and McKee, C., 2000, Geology and geochemistry of Proterozoic granitic and mafic rocks in the Redrock area, northern Burro Mountains, Grant County, New Mexico; A Progress Report; in S. Lukkari and I. Haapala, Rapakivi granites and associated mineralization: IGCP Project 373, Field conference in southern Finland, p. 48.
- McLemore, V. T., Rämö, O. T., Kosunen, P. J., Heizler, M., Haapala, I. and McKee, C., 2000, Geology and

- geochemistry of Proterozoic granitic and mafic rocks in the Redrock area, northern Burro Mountains, Grant County, New Mexico; A progress report (abstr.): New Mexico Geological Society, Spring Meeting, Proceedings Volume, New Mexico Geology, v. 22, p. 37-38.
- McLemore, V. T., Heizler, M. T., Rämö, O. T., and Kosunen, P. J., 2000, Significance of the 1200 Ma Redrock Granite, Burro Mountains, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, v. 32, no. 7, p. 317-318.
- McLemore, V. T., Rämö, O. T., and Kosunen, P. J., 2001, Significance of rapakivi granites and comingled diabase enclaves and synplutonic dikes, Little Hatchet Mountains, New Mexico (abstr.): Geological Society of America, Rocky Mountain/Southcentral Region, Abstracts with programs, v. 33, no. 5, p. A11.
- \*McLemore, V. T., Kosunen, P. J., Rämö, O. T., Dunbar, N., Heizler, M. T., and Haapala, I., 2002, Geology and geochemistry of the Redrock Granite and anorthosite xenoliths (Proterozoic) in the northern Burro Mountains, Grant County, New Mexico: Geological Society of Finland, Bulletin, p. 7-52, <http://geoinfo.nmt.edu/staff/mclemore/documents/McLemoreetal.pdf> (accessed 8/22/11)
- McLemore, V.T., Rämö, O.T., Hamilton, M.A., Kosunen, P.J. and Heizler, M.T., 2002, Geochronology of Proterozoic granitic and mafic rocks in the northern Burro Mountains, Grant County, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, v. 34, no. 3, p. A-8.
- Rämö, O. Tapani, McLemore, V. T., and Kosunen, P. J., 2002, Nd isotopes of granite magmatism, Hidalgo and Grant Counties, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, v. 34, no. 3, p. A-8.
- McLemore, V. T., Rämö, O. T., Hamilton, M. A., Kosunen, P. J., and Heizler, M. 2002, Geochemistry and geochronology of Proterozoic comingled jack creek rapakivi granite and minette in the northern Burro Mountains, Grant County, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, Vol. 34, No. 6, p. 242.
- \*Rämö, O. T., McLemore, V. T., Hamilton, M. A., Kosunen, P. J., Heizler, M., and Haapala, I., 2003, Intermittent 1630–1220 Ma magmatism in central Mazatzal province: New geochronologic piercing points and some tectonic implications: Geology, v. 31, p. 335-342., <http://geology.gsapubs.org/content/31/4/335.full.pdf+html> (accessed 8/22/11)
- McLemore, V.T., Rämö, O.T., and Heizler, M., 2005, Proterozoic Evolution of Granitic and Mafic Rocks in the Northern Burro Mountains, Grant County, New Mexico, USA (abstr.): GSA Abstracts with Programs, v. 37, no. 3, p. 14.
- McLemore, V. T., 2005, Mineral Resources of the Wild Horse Mesa Area, Northeastern Burro Mountains, Grant County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 486, 46 p. 1 map, <http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=486> (accessed 8/22/11)
- Amato, J.M., Heizler, M.T., Boullion, A.O., Sanders, A.E., McLemore, V.T., Toro, J., and Andronicos, C.L., 2010, Mesoproterozoic (1460 Ma) magmatism and exhumation during crustal extension in the Mazatzal province: Burro Mountains gneiss dome, southern New Mexico (abstr.): Geological Society of America, Abstracts with Programs, v.42, no. 5, p. 414.
- \*Amato, J.M., Heizler, M.T., Boullion, A.O., Sanders, A.E., Toro, J., McLemore, V.T., and Andronicos, C.L., 2011, Syntectonic 1.46 Ga magmatism and rapid cooling of a gneiss dome in the southern Mazatzal Province: Burro Mountains, New Mexico: Geological Society of America Bulletin, v. 123, p. 1720-1744, <http://gsabulletin.gsapubs.org/content/123/9-10/1720.full.pdf+html> (accessed 8/22/11)
- Heinonen, A., Rämö, O.T., McLemore, V.T., Andersen, T., Mänttari, I., 2011. Subdividing the Proterozoic Central Mazatzal Province: Hf-O isotopes of zircon from Mesoproterozoic granites and associated rocks of southern New Mexico and Arizona. Abstract volume of the 7th Hutton symposium, Avila, Spain, 2011.
- Amato, J.M., Heizler, M.T., Boullion, A.O., Sanders, A.E., Toro, J., McLemore, V.T., and Andronicos, C.L., 2011, Syntectonic 1.46 Ga magmatism and rapid cooling of a gneiss dome in the southern Mazatzal Province: Burro Mountains, New Mexico: Geological Society of America Bulletin, v. 123, p. 1720-1744.
- Rämö, O.T. Calzia, J.P., McLemore, V.T., Heikkilä, P.A., Blomqvist, N., Nikkola, P., Rintamaki, A., and Sattilainen, O., 2013, Petrogenesis of mid-Proterozoic ultrapotassic magmatic suites along the southwestern margin of Laurentia: the Mountain Pass carbonatite-shonkinite (SE California) and the Jack Creek lamprophyres (SW New Mexico) (abstr.): Program and abstracts of the 9<sup>th</sup> National Geological Colloquium, Oulu, March 6-8, p. 47
- Rämö, O.T., Calzia, J.P., McLemore, V.T. and Heikkilä, P., 2016, Mid-Proterozoic evolution of southern Laurentian lithosphere; crustal domains and potassic magmatic suites in Mojavia and Mazatzal; *in* Lithosphere 2016, Ninth Symposium On The Structure, Composition And Evolution Of The Lithosphere

In Fennoscandia Institute Of Seismology: University Of Helsinki, Report S-65 p. 121-124,  
<http://www.seismo.helsinki.fi/pdf/Lito2016.pdf>

### **CAMBRIAN-ORDOVICIAN ALKALINE ROCKS AND CARBONATITES IN NEW MEXICO**

- McLemore, V. T., 1980, Geology of the Precambrian rocks of the Lemitar Mountains, Socorro, New Mexico: unpublished M.S. Thesis, New Mexico Institute of Mining and Technology, 208 pp.; also New Mexico Bureau of Mines and Mineral Resources, Open-file Report 122,  
[http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/100-125/122/ofr\\_122.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/100-125/122/ofr_122.pdf) (accessed 8/22/11)
- McLemore, V. T., 1980, Proterozoic sedimentation and tectonic evolution of the Corkscrew Canyon sequence in the Lemitar Mountains, Socorro, New Mexico (abstr.): New Mexico Geology, v. 2, no. 3, p. 48.
- \*McLemore, V. T., 1980, Carbonatites in the Lemitar Mountains, Socorro County, New Mexico: New Mexico Geology, v. 2, no. 4, p. 49-52,  
[http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/2/n4/nmg\\_v2\\_n4\\_p49.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/2/n4/nmg_v2_n4_p49.pdf) (accessed 8/22/11)
- McLemore, V. T., 1981, Regional implications of carbonatites in the Lemitar Mountains, Socorro County, New Mexico, (abstr.): Abstract with Programs, Geological Society of America, v. 13, no. 7, p. 508.
- McLemore, V. T., 1982, Carbonatites in the Lemitar Mountains, Socorro County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-158, 122 p.,  
[http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/151-175/158/ofr\\_158.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/151-175/158/ofr_158.pdf) (accessed 8/22/11)
- \*McLemore, V. T., 1983, Carbonatites in the Lemitar and Chupadera Mountains, Socorro County, New Mexico, in Socorro Country: New Mexico Geological Society, Guidebook 34, pp. 235-240.
- McLemore, V. T., and North, R. M., 1983, Mineralogy of the carbonatites and barite-fluorite-sulfide veins in the eastern Lemitar Mountains, Socorro County, New Mexico (abstr.): New Mexico Minerals Symposium; abstract published in New Mexico Geology, v. 7, no. 1, pp. 18-19.
- McLemore, V. T., 1986, Geology and associated fenitization of the Lemitar carbonatites, central New Mexico, USA (abstr.): GAC, MAC, CGU-AGC, AMC, UCG tour and annual meeting, Program with abstracts, v. 11, pp. 100-101, also poster session.
- \*McLemore, V. T., 1986, Geology, geochemistry, and mineralization of syenites in the Red Hills, southern Caballo Mountains, Sierra County, New Mexico: New Mexico Geological Society, Guidebook 37, pp. 151-160.
- McLemore, V. T., 1987, A cathodoluminescence study of the Lemitar carbonatites and associated fenitization, Socorro County, New Mexico (abstr.): New Mexico Geological Society, Proceedings volume 1987 annual spring meeting, p. 46; New Mexico Geology, v. 10, no. 2, p. 45.
- \*McLemore, V. T., 1987, Petrologic, Paleomagnetic, and structural evidence of Paleozoic rift system in Oklahoma, New Mexico, Colorado, and Utah; discussion: Geological Society of America Bulletin, v. 99, pp. 315-316.
- \*McLemore, V. T., 1987, Geology and regional implications of carbonatites in the Lemitar Mountains, central New Mexico: Journal of Geology, v. 95, pp. 255-270, <http://www.jstor.org/pss/30063811> (accessed 8/22/11)
- \*McLemore, V. T., and Barker, J. M., 1987, Some geological applications of cathodoluminescence: examples from the Lemitar Mountains and Riley travertine, Socorro County, New Mexico: New Mexico Geology, v. 9, pp. 37-40, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/9/n2/nmg\\_v9\\_n2\\_p37.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/9/n2/nmg_v9_n2_p37.pdf) (accessed 8/22/11)
- McLemore, V. T., and Modreski, P., 1987, Mineralogy of the Lemitar carbonatites, Socorro County, New Mexico: A petrographic, cathodoluminescence, and electron microprobe study (abstr.): New Mexico Mineral Symposium, New Mexico Geology, v. 10, pp. 18-19 (1988).
- McLemore, V. T., 1988, Geology and geochemistry of carbonatites in New Mexico (abstr.): New Mexico Geological Society, Proceedings volume 1988 annual meeting: New Mexico Geology, v. 10, p. 68.
- McLemore, V. T., 1988, Geochemistry of carbonatites from New Mexico (abstr.): Programs and Abstracts, V.M. Goldschmidt conference, May 11-13, 1988, Baltimore, p. 60.
- \*McLemore, V. T., and McKee, C., 1988, Geochemistry of Burro Mountains syenites and adjacent Proterozoic granite and gneiss and the relationship of a Cambrian-Ordovician alkalic magmatic event in New Mexico and southern Colorado: New Mexico Geological Society, Guidebook 39, pp. 89-98.

- McLemore, V. T., 1989, Geology and geochemistry of Cambrian-Ordovician syenites in New Mexico and their relationship to a Cambrian-Ordovician carbonatite and alkalic magmatic event in New Mexico and Colorado, USA (abstr.): 28th International Geological Congress, v. 2, p. 2-403.
- McLemore, V. T., 1989, Mineralogy and geochemistry of alteration associated with the Lemitar carbonatites, central New Mexico, USA (abstr.): 28th International Geological Congress, v. 2, p. 402-404.
- \*McLemore, V. T., and McKee, C., 1989, Geology and geochemistry of the syenites and adjacent Proterozoic granitic and metamorphic rocks in the Zuni Mountains, Cibola County, New Mexico: New Mexico Geological Society, Guidebook 40, p. 149-156.
- McLemore, V. T., and Kottowski, F. E., 1990, Cambrian-Ordovician carbonatites and alkalic magmatism in New Mexico and southern Colorado: Regional implications (abstr.): Geological Society of America, Abstracts with Programs, v. 22, no. 3, p. 67.
- \*McLemore, V. T., and Modreski, P. J., 1990, Mineralogy and geochemistry of altered rocks associated with the Lemitar Carbonatites, Central New Mexico, USA: Lithos, v. 26, p. 99-113.
- McLemore, V. T., 1991, Cambrian-Ordovician magmatism in New Mexico—an overview (abstr.): Geological Society of America, Abstracts with Programs, v. 23, no. 4, p. 47.
- McLemore, V. T., and Modreski, P. J., 1991, Mineralogy and geochemistry of the Lemitar carbonatites and associated altered rocks, Socorro County, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, v. 23, no. 4, p. 48.
- Boller, J., McLemore, V. T., and McMillan, N. J., 1999, The Lobo Hill alkaline complex: Cambrian syenites and carbonatites near Moriarty, Torrance County, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, v. 31, p. A-268.
- \*McLemore, V. T., McMillan, N. J., Heizler, M., and McKee, C., 1999, Cambrian alkaline rocks at Lobo Hill, Torrance County, New Mexico: More evidence for a Cambrian-Ordovician aulacogen; in Pazzaglia, F., Lucas, S. G., and Austin, G. S., eds., Albuquerque Country III: New Mexico Geological Society, Guidebook 50, p. 247-253.
- McMillan, N. J., and McLemore, V. T., 1999, Cambrian-Ordovician alkaline rocks in New Mexico: Growing evidence for an Early Paleozoic aulacogen (abstr.): Geological Society of America, South-central Section Meeting, Abstracts with programs, v. 31, no. 1, p. A-29.
- McMillan, N. J., and McLemore, V. T., 1999, The Cambrian-Ordovician New Mexico Aulacogen: Westward continuation of rifting of the southern margin of Laurentia (abstr.): Geological Society of America, Abstracts with Programs, v. 31, p. A-475.
- McMillan, N. J., and McLemore, V. T., 1999, The Lobo Hill alkaline complex, Torrance County, NM: Cambrian magmatism in the New Mexico aulacogen (abstr.): New Mexico Geological Society, Spring Meeting Program; New Mexico Geology, v. 21, p. 36.
- Pandurang, S., McMillan, N. J., and McLemore, V. T., 1999, Origin of the syenitic rocks of the Red Hills, southern Caballo Mountains, New Mexico, in the light of field, petrographic, and geochemical studies, accompanied by the comparison with two petrogenetic models (abstr.): New Mexico Geological Society, Spring Meeting Program; New Mexico Geology, v. 21, p. 36.
- \*McMillan, N. J., McLemore, V. T., and Ervin, S. D., 2000, Cambrian tectonics of New Mexico and Colorado; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 37-39.
- Chamberlin, R.M., Cather, S.M., Nyman, M., and McLemore, V., 2000, Preliminary geologic map of the Lemitar 7.5-min. quadrangle, Socorro County, New Mexico, New Mexico Bureau of Mines and Mineral Resources, Open-file Geologic Map OF-GM 38, scale 1:24,000,  
<http://geoinfo.nmt.edu/publications/maps/geologic/ofgm/details.cfm?Volume=38> (accessed 8/22/11)
- \*McMillan, N. J. and McLemore, V. T., 2004, Cambrian-Ordovician Magmatism and Extension in New Mexico and Colorado: New Mexico Bureau of Mines and Geology Resources, Bulletin 160, 12 p.,  
<http://geoinfo.nmt.edu/publications/bulletins/160/downloads/01mcmill.pdf> (accessed 8/22/11)
- McLemore, V.T., Riggins, A.M., Dunbar, N.W., Heizler, M.T., McIntosh, W., Rämö, O. T., and Frempong, K., 2013, Rare Earth Element (REE) Potential and Origin of the Episyenites in the Caballo, Burro, And Zuni Mountains, Southern New Mexico (abstr.): Geological Society of America, Abstracts with Programs, vol. 45, no. 7, p. 849, <https://gsa.confex.com/gsa/2013AM/webprogram/Paper232800.html>
- Riggins, A.M., Dunbar, N.W., McLemore, V.T., Heizler, M.T., and McIntosh, W., 2013, Mineralogy,

- Geochemistry, and Chronology of the Caballo and Burro Mountains REE-Bearing Episyenites (abstr.): Geological Society of America, Abstracts with Programs, vol. 45, no. 7. p. 500, <https://gsa.confex.com/gsa/2013AM/webprogram/Paper232231.html>
- Frempong, K.B., McLemore, V.T., Dunbar, N., and Riggins, A., 2013, Cambrian-Ordovician(?) Rare Earth Element (REE)-bearing episyenites in the Caballo and Burro Mountains, southern New Mexico: Insights into a metasomatic origin (abstr.): New Mexico Geological Society, 2013 Spring Meeting, p.17, <http://nmgs.nmt.edu/meeting/abstracts/view.cfm?aid=65> ; also New Mexico Geology, v. 35, p. 50-51.
- Riggins, A.M., Dunbar, N.W., McLemore, V.T., Frempong, K., Heizler, M., and McIntosh, W., 2013, Genesis of the Caballo and Burro Mountains REE-bearing episyenite (abstr.): New Mexico Geological Society, 2013 Spring Meeting, p.49, <http://nmgs.nmt.edu/meeting/abstracts/view.cfm?aid=71> ; also New Mexico Geology, v. 35, p. 49.
- Riggins, A.M., Dunbar, N.W., Heizler, M., McLemore, V.T., Frempong, K. and McIntosh, W., 2013, Characterizing High REE Occurrences Associated with Episyenites in the Caballo and Burro Mountains, New Mexico (abstr.): Geological Society of America, Abstracts with Programs Vol. 45, No. 5, p. 40, <https://gsa.confex.com/gsa/2013RM/webprogram/Paper219319.html>
- McLemore, V.T., Riggins, A., Dunbar, N., and Frempong, K., 2013, Rare earth element (REE) potential and origin of the Cambrian-Ordovician(?) episyenites in the Caballo Mountains, southern New Mexico (abstr.): SME Preliminary program for the 2014 annual meeting, p. 113, <http://www.smenet.org/docs/meetings/2014/2014AMPrelimProg.pdf#page=101>
- Riggins, A.M., Dunbar, N., McLemore, V., Heizler, M., McIntosh, W. and Frempong, K., 2014, [Mineralogy, Geochemistry, and Chronology of the Caballo and Burro Mountains REE-Bearing Episyenites](#) (abstr.): New Mexico Geological Society Annual Spring Meeting, Program with Abstracts, <http://nmgs.nmt.edu/meeting/abstracts/viewPDF.cfm?aid=269>
- McLemore, V.T., 2014, Mineral deposits associated with Tertiary alkaline igneous rocks in New Mexico (abs.): Society of Economic Geology, 2014: Building Exploration Capability for the 21st Century, Program. (poster)
- Riggins, A.M., Dunbar, N., McLemore, V.T., Heizler, M., McIntosh, W. and Frempong, K., 2014, Mineralogy, geochemistry, and chronology of the Caballo and Burro Mountains REE-bearing episyenites (abstr.): Society of Economic Geology, 2014: Building Exploration Capability for the 21st Century, Program. (poster)
- McLemore, V.T., 2016, Episyenites in the Sevilleta National Wildlife Refuge, Socorro County, New Mexico—Preliminary Results; *in* Frey, B.A., Karlstrom, K.E. , Lucas, S.G., Williams, S., Ziegler, K., McLemore, V., and Ulmer-Scholle, D.S., eds., Geology of the Belen area: New Mexico Geological Society Guidebook 67, p. 255-262.
- \*\*McLemore, V.T., Smith, A., Riggins, A.M., Dunbar, N., Frempong, K.B., and Heizler, M.T., 2018, Characterization and origin of episyenites in the southern Caballo Mountains, Sierra County, New Mexico: New Mexico Geological Society, Guidebook 69, p. 207-216.

#### **GEOLOGY AND MINERAL RESOURCES OF THE STEEPLE ROCK DISTRICT, GRANT COUNTY**

- McLemore, V. T., 1990, Mineralization and alteration of the Center-Carlisle mine area, Steeple Rock district, Grant County, New Mexico: preliminary observations (abstr.): Abstracts, New Mexico Mining Association, Annual Meeting, Albuquerque, NM, October.
- McLemore, V. T., 1991, Alteration and mineralization in the Carlisle-Center and East Camp mine areas of the Steeple Rock Mining district, Grant County, New Mexico—preliminary observations (abstr.): New Mexico Geological Society, Spring Meeting; New Mexico Geology, v. 13, p. 94.
- McLemore, V. T., 1992, Alteration and mineralization of the Steeple Rock district, New Mexico: Abstracts New Mexico Mining Association, Annual Meeting, Farmington, NM, September.
- McLemore, V. T. and Quigley, T., 1992, Epithermal gold-silver mineralization at the Alabama mine, Steeple Rock district, New Mexico (abstr.): New Mexico Geological Society Spring Meeting, Proceedings Volume; New Mexico Geology, v. 14, p. 65.
- McLemore, V. T., 1993, Geology and geochemistry of the mineralization and alteration in the Steeple Rock district, Grant County, New Mexico and Greenlee County, Arizona: Ph.D. dissertation, University of Texas at El Paso; also New Mexico Bureau of Mines and Mineral Resources, Open File Report 397, 526 pp., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR300-399/376-399/397/ofr\\_397.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR300-399/376-399/397/ofr_397.pdf) (accessed 8/22/11)

- McLemore, V. T., 1993, Geology and geochemistry of the mineralization and alteration in the Steeple Rock district, New Mexico and Arizona: Abstracts, New Mexico Mining Association, Annual Meeting, Carlsbad, October.
- McLemore, V. T., 1993, Minerals of the Steeple Rock mining district, Grant County, New Mexico (abstr.): New Mexico Mineral Symposium, Program and Abstracts, 1 p.; also New Mexico Geology, v. 16, p. 15.
- McLemore, V. T., 1993, Integration of geologic and geochemical data to evaluate the mineral resource potential in the Steeple Rock Mining district, New Mexico (abstr.): Fourth Symposium on Resources and the Chihuahuan Desert Region: U. S. and Mexico, Program, 1 p.
- McLemore, V. T. and Clark, K. F., 1993, Alteration and epithermal mineralization in the Steeple Rock mining district, Grant County, New Mexico and Greenlee County, Arizona (abstr.): Society of Economic Geologists, Spring 1993 meeting, Integrated methods in exploration and discovery, Program and extended Abstracts, p. AB67-AB70.
- McLemore, V. T., 1994, Geology and zoning in the Steeple Rock district, New Mexico and Arizona (abstr.): AIME/SME, Program Annual Meeting, p. 48.
- McLemore, V. T., 1994, Fluid flow, alteration, and epithermal mineralization in the Steeple Rock district, New Mexico and Texas (abstr.): Geological Society of Canada, Program with Abstracts, p. A74.
- McLemore, V. T., 1994, Economic implications of acid-sulfate alteration in the Steeple Rock mining district, New Mexico and Arizona (abstr.): New Mexico Geological Society, Spring Meeting; New Mexico Geology, v. 16, p. 35.
- McLemore, V. T., 1994, Geology and zoning in the Steeple Rock District, New Mexico and Arizona: AIME/SME, Preprint 94-64, 11 p.,  
<http://www.onemine.org/view/?d=3A4B430CC7F74090B5404353798331D13A4B38291C200F3EC4C7B0C618677072176191> (accessed 8/22/11)
- \*McLemore, V. T., 1996, Geology and zoning in the Steeple Rock district, New Mexico and Arizona: Society for Mining, Metallurgy, and Exploration, Inc., Transactions, v. 298, pp. 1851-1859,  
<http://www.onemine.org/view/?d=2B861C4EEEC189C64771DC99D220435AB3D8DF3E6E4A19A6AE87E19975DE3DB7067> (accessed 8/22/11)
- McLemore, V. T., 1997, Summit and Big Lue Mountains, San Francisco Canyon, and Mule Creek areas; in S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, p. 141-149.
- McLemore, V. T., 2000, Alteration and epithermal mineralization in the Steeple Rock district, Grant County, New Mexico and Greenlee County, Arizona; in Geology and Ore Deposits 2000, The Great Basin and Beyond: Geological Society of Nevada, Program with abstracts, p. 62-63.
- \*McLemore, V. T., 2000, Alteration and epithermal mineralization in the Steeple Rock district, Grant County, New Mexico and Greenlee County, Arizona; in Cluer, J. K., Price, J. G., Struhsacker, E. M., Hardyman, R. F. and Morris, C. L. eds., Geology and Ore Deposits 2000, The Great Basin and Beyond: Geological Society of Nevada, Symposium Proceedings, pp. 221-239.
- \*McLemore, V. T., 2000, Supplemental road log 2, from Lordsburg to Duncan, Arizona and Steeple Rock district, New Mexico and Arizona; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 51-65.
- \*McLemore, V. T., McIntosh, W. C. and Applet, R., 2000, Volcanic stratigraphy, geochemistry, and structure of the Steeple Rock district, Summit Mountains, Grant County, New Mexico and Greenlee County, Arizona; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 127-140.
- \*McLemore, V.T., 2009, Geochemistry and statistical analyses of epithermal veins at the Carlisle and Center mines, Steeple Rock District, New Mexico, USA, in Spencer, J.E., and Titley, S.R., eds., Circum-Pacific Tectonics, Geologic Evolution, and Ore Deposits: Tucson, Arizona, Geological Society, Digest 22

#### **GEOLOGY AND MINERAL RESOURCES OF THE VICTORIO MOUNTAINS, LUNA COUNTY, NM**

- McLemore, V. T., 1997, Victorio Mountains; in S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U.S. Geological Survey, Open-file Report



97-521, pp. 204-207.

- Dunbar, N. W. and McLemore, V. T., 2000, Preliminary mineralogy of the Victorio district, New Mexico (abstr.): New Mexico Minerals Symposium, New Mexico Geology, v. 22, p. 12-13.
- \*McLemore, V. T., Dunbar, N., Heizler, M. T. and Donahue, K., 2000, Geology and mineral deposits of the Victorio mining district, Luna County, New Mexico; *in* Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 267-278.
- Dunahue, K., McLemore, V. T., and Campbell, A., 2001, Preliminary geologic observations of the Victorio mining district, Luna County, New Mexico (abstr.): Geological Society of America, Rocky Mountain/Southcentral Region, Abstracts with programs, v. 33, no. 5, p. A58.
- Donahue, K. M., McLemore, V. T., and Campbell, A. R., 2002, Geochemical Observations of the Victorio Mountains Mining District, Luna County, New Mexico (abstr.): New Mexico Geological Society, Spring meeting, New Mexico Geology, v. 24.
- Donahue, K. M., McLemore, V. T., and Campbell, A. R., 2002, Geologic Observations of the Victorio Mountains Mining District, Luna County, New Mexico (abstr.): Abstracts of oral and poster presentations, Society of Economic Geologists, Global Exploration 2002, p. 84-85.

### **GEOLOGY OF IGNEOUS ROCKS IN THE SACRAMENTO MOUNTAINS**

- Ouimett, M. A. and McLemore, V. T., 1992, Petrography and geochemistry of a camptonite sill located in northeastern Lincoln County, New Mexico (abstr.): New Mexico Geological Society, Spring Meeting, Proceedings Volume, New Mexico Geology.
- Miller, W. R., O'Neill, J. M., and McLemore, V. T., 1997, Environmental geochemistry and mineral resource potential of the Three Rivers area and geology of the Three Rivers Petroglyph Site, Otero County, New Mexico: U. S. Geological Survey, Open file Report OF97-444, 36 p.  
<http://pubs.usgs.gov/of/1997/0282/report.pdf> (accessed 8/22/11)
- Hutt, A., McMillan, N. J., McLemore, V. T., and Heizler, M., 1999, Mid-Tertiary alkaline igneous rocks from the eastern flank of the Rio Grande Rift: Early stages of extension or the end of subduction-related magmatism? (abstr.): Geological Society of America, Abstracts with Programs, v. 31, p. A-268.
- Dowe, C. A., McMillan, N. J., McLemore, V. T., and Hutt, A., 2002, Eocene magmas of the Sacramento Mountains, NM: Subduction or rifting? (abstr.): New Mexico Geological Society, Spring meeting, New Mexico Geology, v. 24.
- \*McLemore, V.T., Goff, F., and McIntosh, W., 2014, Geology and mineral resources of the Nogal-Bonito mining district, Lincoln County, New Mexico: New Mexico Geological Society, Guidebook 65, p. 235-246.
- McLemore, V.T., 2014, The Three Rivers Petrograph Site: New Mexico Geological Society, Guidebook 65, p. 44-45.
- McLemore, V.T., 2014, Geology of the Three Rivers mining district: New Mexico Geological Society, Guidebook 65, p. 45-46.
- McLemore, V.T., 2014, La Luz Clay Pottery Plant: New Mexico Geological Society, Guidebook 65, p. 88.
- McLemore, V.T., 2014, Geology of the Sacramento Mountains (High Rolls) mining district: New Mexico Geological Society, Guidebook 65, p. 88-90.
- McLemore, V.T., 2014, History and geology of Oliver Lee Memorial State Park: New Mexico Geological Society, Guidebook 65, p. 102-104.

### **GEOLOGY, MINERAL DEPOSITS, AND ENVIRONMENTAL STUDIES IN THE HILLSBORO DISTRICT, SIERRA COUNTY**

- Munroe, E. A., and McLemore, V. T., 1998, Characterization and sampling of four mine waste rock piles in the Hillsboro mining district, Sierra County, New Mexico (abstr.): National Association of Abandoned Mine Land Programs, Meeting, Sept. 28-Oct.1, 1998.
- Munroe, E., Thompson, R., and McLemore, V. T., 1998, Geology and geochemical characteristics of the Hillsboro mining district, Sierra County, New Mexico; A preliminary study (abstr.): New Mexico Geological Society, Spring Meeting Program; New Mexico Geology, v. 20, p. 49.
- McLemore, V. T., Heizler, M., and Munroe, E. A., 1999, Geochemistry of host rocks, veins, replacements, and jasperoids in the Hillsboro district, Sierra County, New Mexico, USA (abstr.): New Mexico Geological Society, Spring Meeting Program; New Mexico Geology, v. 21, p. 45.
- McLemore, V. T. and Munroe, E. A., 1999, Geochemistry of host rocks, veins, replacements, and jasperoids in the Hillsboro district, Sierra County, New Mexico USA (abstr.): 19th IGES, Geochemical

- Exploration Symposium, Symposium Program and Abstract Volume, pp. 129-131.
- \*McLemore, V. T., Munroe, E. A., Heizler, M. T. and McKee, C., 1999, Geochemistry of the Copper Flat porphyry and associated deposits in the Hillsboro mining district, Sierra County, New Mexico, USA: *Journal of Geochemical Exploration*, v. 67, p. 167-189,  
[http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VCP-3YDGJXP-D-4&\\_cdi=5960&\\_user=1818435&\\_pii=S0375674299000722&\\_origin=search&\\_zone=rslt\\_list\\_item&\\_coverDate=12%2F31%2F1999&\\_sk=999329998&\\_wchp=dGLzVlb-zSkWz&\\_md5=f4c92a97057b86a78d302ff5784d7972&\\_ie=/sdarticle.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VCP-3YDGJXP-D-4&_cdi=5960&_user=1818435&_pii=S0375674299000722&_origin=search&_zone=rslt_list_item&_coverDate=12%2F31%2F1999&_sk=999329998&_wchp=dGLzVlb-zSkWz&_md5=f4c92a97057b86a78d302ff5784d7972&_ie=/sdarticle.pdf) (accessed 8/22/11)
- Munroe, E. A. and McLemore, V. T., 1999, Waste rock pile characterization, heterogeneity and geochemical anomalies in the Hillsboro mining district, Sierra County, New Mexico (abstr.): 19th IGES, Geochemical Exploration Symposium, Symposium Program and Abstract Volume, pp. 41- 43.
- \*Munroe, E. A., McLemore, V. T., and Kyle, P., 1999, Waste rock pile characterization, heterogeneity and geochemical anomalies in the Hillsboro mining district, Sierra County, New Mexico: *Journal of Geochemical Exploration*, v. 67, p. 391-405,  
[http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VCP-3YDGJXP-X-17&\\_cdi=5960&\\_user=1818435&\\_pii=S0375674299000680&\\_origin=search&\\_zone=rslt\\_list\\_item&\\_coverDate=12%2F31%2F1999&\\_sk=999329998&\\_wchp=dGLzVlb-zSkWz&\\_md5=9a84a97846dbc721622508ac6f3961aa&\\_ie=/sdarticle.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VCP-3YDGJXP-X-17&_cdi=5960&_user=1818435&_pii=S0375674299000680&_origin=search&_zone=rslt_list_item&_coverDate=12%2F31%2F1999&_sk=999329998&_wchp=dGLzVlb-zSkWz&_md5=9a84a97846dbc721622508ac6f3961aa&_ie=/sdarticle.pdf) (accessed 8/2/11)
- Munroe, E. A., McLemore, V. T., and Dunbar, N., 1999, Mine waste rock pile mineralogy and geochemistry in select areas of the Hillsboro mining district, New Mexico: Insights into metal mobility (abstr.): New Mexico Geological Society, Spring Meeting Program; *New Mexico Geology*, v. 21, p. 33-34.
- Munroe, E. A., McLemore, V. T., and Kyle, P., 1999, Sampling protocol for mine waste rock pile characterization in the Hillsboro mining district, Sierra County, New Mexico (abstr.): New Mexico Geological Society, Spring Meeting Program; *New Mexico Geology*, v. 21, p. 33.
- \*McLemore, V. T., Munroe, E. A., Heizler, M. T. and McKee, C., 2000, Geology and evolution of the Copper Flat Porphyry-Copper and associated mineral deposits in the Hillsboro mining district, Sierra County, New Mexico; in Cluer, J. K., Price, J. G., Struhsacker, E. M., Hardyman, R. F. and Morris, C. L. eds., *Geology and Ore Deposits 2000, The Great Basin and Beyond: Geological Society of Nevada, Symposium Proceedings*, pp. 643-659.
- \*Munroe, E. A., McLemore, V. T., and Dunbar, N. W., 2000, Mine waste rock pile geochemistry and mineralogy in southwestern New Mexico, USA; in ICARD 2000—Proceedings from the 5th international conference on acid rock drainage: Society for Mining, Metallurgy, and Exploration, Inc., Littleton, Colo., pp. 1327-1336,  
<http://www.onemine.org/view/?d=46F7F8828425A8F9516866DBF7EDDEB68DF91027F79A4D2296A8D30826B91AAB2166> (accessed 8/22/11)
- Munroe, E. A., McLemore, V. T., and Dunbar, N. W., 2000, Mine waste rock pile geochemistry and mineralogy in southwestern New Mexico, USA; in ICARD 2000—Program from the 5th international conference on acid rock drainage: Society for Mining, Metallurgy, and Exploration, Inc., Littleton, Colo., pp. 58.
- \*McLemore, V. T., Munroe, E. A., Heizler, M. T. and McKee, C., 2000, Geology and evolution of the Copper Flat Porphyry-Copper system, Hillsboro mining district, Sierra County, New Mexico; in *Geology and Ore Deposits 2000, The Great Basin and Beyond: Geological Society of Nevada, Program with abstracts*, p. 63.
- Verdel, C. S. Livo, K. E., Knepper, D. H., And McLemore, V. T., 2001, Mapping alteration in the Hillsboro mining district, New Mexico, with AVIRIS data (abstr.): Geological Society of America, Rocky Mountain/Southcentral Region, Abstracts with programs, v. 33, no. 5, p. A58.
- Raugust, J. S. and McLemore, V. T., 2005, The Natural Defenses of Copper Flat, Sierra County, New Mexico: 2004 National Meeting of the American Society of Mining and Reclamation and the 25th West Virginia Surface Mine Drainage Task Forces, April 18-24, 2004, p. 1508-1531,  
<http://www.asmr.us/Publications/Conference%20Proceedings/2004/1508-Raugust%20NM.pdf> (accessed 8/22/11).
- Raugust, J. S. and McLemore, V. T., 2005, The Natural Defenses of Copper Flat, Sierra County, New Mexico: *Reclamation Matters*, Spring/Summer 2005, p. 18-23,  
<http://www.asmr.us/Publications/ReclamationMatters/2005/SpringSummer2005.pdf> (accessed 8/22/11)
- Geedipally, P., McLemore, V.T. and Dunbar, N., 2012, Geology and mineral deposits in the Hillsboro mining

district, Sierra County, New Mexico: New Mexico Geological Society, Guidebook 63, p. 559-568,  
[https://nmgs.nmt.edu/publications/guidebooks/papers.cfm?v=63&file=63\\_p0559\\_p0568.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfm?v=63&file=63_p0559_p0568.pdf)

## **GEOLOGY AND MINERAL RESOURCES OF THE BLACK RANGE AND SAN MATEO MOUNTAINS, NM**

- McLemore, V. T., Glines, J. and Lueth, V., 1997, Quartz epimorphs from the Hermosa district, Sierra County, New Mexico (abstr.): 18<sup>th</sup> Annual New Mexico Mineral Symposium, New Mexico Geology, v. 20, pp. 63-64.
- Jones, D., McLemore, V. T., and Glines, J., 1998, Mineralogy and geochemistry of the Hermosa mining district, Sierra County, New Mexico (abstr.): New Mexico Geological Society, Spring Meeting Program; New Mexico Geology, v. 20, pp. 48-49.
- McLemore, V. T., 1998, Insights into origin of carbonate-hosted Ag and Pb-Zn replacement deposits in the Black Range, Sierra and Grant Counties, New Mexico (abstr.): New Mexico Geological Society, Spring Meeting Program; New Mexico Geology, v. 20, p. 49.
- Nutt, C. J., O'Neill, J. M., McLemore, V. T., Lindsey, D. A., Rattè, J. C., Hedlund, D. C., Klein, D. P., and Kleinkopf, M. D., 1998, Geology of the Lake Valley area, Sierra County, New Mexico: U. S. Geological Survey, Open-file Report 98-347, 70 pp.
- \*McLemore, V. T. and Nutt, C. J., 2002, Mineral deposits of the Lake Valley mining district: U.S. Geological Survey, Professional Paper 1644-C, p. 37-61, <http://pubs.usgs.gov/pp/1644/report.pdf> (accessed 8/22/11)
- Herring, J. R., Marsh, S. P., and McLemore, V. T., 1998, Major and trace element concentrations and correlations in mine dump samples from mining districts in Sierra, Socorro, and Otero counties, south-central New Mexico--Mockingbird Gap, Lava Gap, Salinas Peak, Goodfortune Creek, Bearden Canyon, and Sulfur Canyon mining districts of the northern San Andres Mountains, Sierra and Socorro County; Lake Valley mining district of Sierra County; and Tularosa and Orogrande mining districts of Otero County: U.S. Geological Survey Open-File Report 98-486, 21 p.
- \*Herring, J. R. and McLemore, V. T., 2002, Geochemistry of mine dump material from the Lake Valley mining district: U.S. Geological Survey, Professional Paper 1644-D, p.65-75, <http://pubs.usgs.gov/pp/1644/report.pdf> (accessed 8/22/11)
- \*McLemore, V.T., 2010, Geology, Mineral Resources, and Geoarchaeology of the Montoya Butte Quadrangle, including the Ojo Caliente No. 2 Mining District, Socorro County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open file Report OF-535, 200 p. (released February 2011), <http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=535> (accessed 8/22/11)
- McLemore, V.T., 2012, Preliminary geologic map of the Montoya Butte quadrangle, Socorro County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file geologic map OF-GM 69, 1:24,000.
- \*McLemore, V.T., 2012, Geology and mineral resources in the Ojo Caliente No. 2 mining district, Socorro, County, New Mexico: New Mexico Geological Society, Guidebook 63, p. 547-558, [https://nmgs.nmt.edu/publications/guidebooks/papers.cfm?v=63&file=63\\_p0547\\_p0558.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfm?v=63&file=63_p0547_p0558.pdf)
- McLemore, V.T., 2012, Mining districts in the San Mateo Mountains, Socorro and Sierra Counties, New Mexico: New Mexico Geological Society, Guidebook 63, p. 85-87.
- \*McLemore, V.T., 2012, Geology of the southern San Mateo Mountains, Socorro and Sierra Counties, New Mexico: New Mexico Geological Society, Guidebook 63, p. 261-272, [https://nmgs.nmt.edu/publications/guidebooks/papers.cfm?v=63&file=63\\_p0261\\_p0272.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfm?v=63&file=63_p0261_p0272.pdf)
- McLemore, V.T., 2012, Geology of Bell Hill, San Mateo Mountains, Socorro County, New Mexico: New Mexico Geological Society, Guidebook 63, p. 78-79.
- Monger, C., Laumbach, K.W., and McLemore, V.T., 2014, Late Holocene Environmental Change at Cañada Alamosa, New Mexico, Based on Soil Stratigraphy and Carbon Isotopes (abstr.): New Mexico Geological Society Annual Spring Meeting, Program with Abstracts, <http://Nmgs.Nmt.Edu/Meeting/Abstracts/Viewpdf.Cfm?Aid=270>
- McLemore, V.T., 2014, Preliminary geologic map of the Montoya Butte quadrangle, Socorro County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file geologic map OF-GM 69, 1:12,000.
- Koning, D.J., Jochems, A.P., Kelley, S.A., McLemore, V.T., and Cikoski, C.T., 2014, Geologic map of the Monticello 7.5-Minute Quadrangle, Sierra and Socorro Counties, *New Mexico*: New Mexico Bureau of Geology and Mineral Resources, Open-file geologic map OF-GM 245, 1:24,000, <http://geoinfo.nmt.edu/publications/maps/geologic/ofgm/details.cfm?Volume=245>.

**GEOLOGY AND ENVIRONMENTAL GEOLOGY OF THE QUESTA-RED RIVER AREA,  
TAOS COUNTY (Chevron Questa Mine)**

- Rowe, A., McLemore, V. T., Walker, B.M., Norman, D., and Blamey, N., 2002, Genetic evolution of the magmatic hydrothermal breccia and stockwork veinlets of the Goat Hill orebody, Questa porphyry molybdenum system, New Mexico (abstr.): Abstracts of oral and poster presentations, Society of Economic Geologists, Global Exploration 2002, p. 137
- Jackson, M. L., McLemore, V. T., and Walker, B.M., 2002, Geochemistry of water and stream sediments in the upper Red River, Taos County, New Mexico (abstr.): New Mexico Geological Society, Spring meeting, New Mexico Geology, v. 24, p. 59.
- Rowe, A., McLemore, V. T., Walker, B.M., Norman, D., and Blamey, N., 2002, Genetic evolution of the magmatic hydrothermal breccia and stockwork veinlets of the Goat Hill orebody, Questa porphyry molybdenum system, New Mexico (abstr.): New Mexico Geological Society, Spring meeting, New Mexico Geology, v. 24, p. 65
- Jackson, M. L., McLemore, V. T., and Walker, B. M., 2002, Geochemistry of water and stream sediments in the upper Red River, Taos County, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, Vol. 34, No. 6, p. 214.
- Jackson, M. L., McLemore, V. T., and Walker, B.M., 2003, Chemistry of stream sediments and water as guides to determine the impacts of abandoned mines on the upper Red River, Taos County, New Mexico: 2003 National Meeting of the American Society of Mining and Reclamation and the 9 Billings Land Reclamation Symposium, Billings MT, June 3-6, 2003, 2 p., <http://www.asmr.us/Publications/Conference%20Proceedings/2003/0511-Jackson.pdf> (accessed 8/22/11)
- Breese, M. R., McLemore, V. T., and Walker, B. M., 2002, Mineralogy of the Questa molybdenite deposit, Taos County, New Mexico (abstr.): Geological Society of America, Abstracts with Programs, Vol. 34, No. 6, p. 149.
- Adams, D. J., Pennington, P., McLemore, V. T., Wilson, G. W., Tachie-Menson, S. and Gutierrez, L., 2005, The role of microorganisms in acid rock drainage (ARD): Society of Mining, Exploration, and Metallurgy, Mining Engineering Preprint 05-54, 8 p., <http://www.onemine.org/view/?d=1737D48E909810083F1EF77CEDF3D82D17599B1F62A27F8D43300BA1C4470C4139559> (accessed 8/22/11).
- Walsh, P., McLemore, V. T., Donahue, K. M., Tachie-Menson, S., Gutierrez, L. A. F., and Shannon, H. R., Jones, G. E., 2005, Mapping the Interior of a Mine Rock Pile: Trenches in Goathill North, Molycorp Mine, Questa, New Mexico (abstr.): New Mexico Geological Society, Spring meeting, abstracts volume; also New Mexico Geology, v. 27, p. 47.
- Tachie-Menson, S., White T., McLemore V. T., Lueth, V. W., and Walker, B. M., 2005, Variation Of Temperature And Pore Oxygen And Carbon Dioxide in Rock Piles at the Molycorp Questa Mine, New Mexico (abstr.): New Mexico Geological Society, Spring meeting, abstracts volume; also New Mexico Geology, v. 27, p. 47.
- Phillips, E.H., Lueth, V., Campbell, A., McLemore, V, Walker, B., and Tachie-Menson, S., 2005, Soil Petrography of a Sample Traverse From a Portion of the Goathill North Rock Pile, Questa Mine, New Mexico (abstr.): New Mexico Geological Society, Spring meeting, abstracts volume; also New Mexico Geology, v. 27, p. 47.
- Van Dam, R.L., Gutierrez, L.A., McLemore, V.T., Wilson, G.W., Hendrickx, J.M.H., and Walker, B.M., 2005, Near Surface Geophysics for the Structural Analysis of a Mine Rock Pile, Northern New Mexico (abstr.): New Mexico Geological Society, Spring meeting, abstracts volume; also New Mexico Geology, v. 27, p. 50.
- Donahue, K.M., Hauff, P.L., Dunbar, N. W., Lueth, V. W., McLemore, V.T., and Heizler, L., 2005, Clay Mineralogy of Alteration Scars And Rock Piles, Questa Area, New Mexico (abstr.): New Mexico Geological Society, Spring meeting, abstracts volume; also New Mexico Geology, v. 27, p. 50.
- Shannon, H., Sigda, J., van Dam, R., Hendrickx, J., and McLemore, V. T., 2005, Thermal Camera Imaging of Rock Piles at the Questa Molybdenum Mine, Questa, New Mexico: National Meeting of the American Society of Mining and Reclamation, Breckenridge, Colo, June, CD-ROM, <http://www.asmr.us/Publications/Conference%20Proceedings/2005/1015-Shannon-NM.pdf> (accessed 8/22/11)
- McLemore, V.T., Donahue, K. M., Walsh, P., Tachie-Menson, S., Phillips, E.H., Gutierrez, L. A. F., and Shannon,

- H. R., 2005, Preliminary status report on Molycorp Goathill North trenches, Questa Rock Pile Stability Study, New Mexico: National Meeting of the American Society of Mining and Reclamation, Breckenridge, Colo, June, CD-ROM, 26 p., <http://www.asmr.us/Publications/Conference%20Proceedings/2005/0679-Mclemore-NM.pdf> (accessed 8/22/11)
- van Dam, R., McLemore, V. T., Wilson, G. W., and Walker, B. M., 2005, Structural analysis of a mine rock pile: National Meeting of the American Society of Mining and Reclamation, Breckenridge, Colo, June, CD-ROM, <http://www.asmr.us/Publications/Conference%20Proceedings/2005/1178-Van%20Dam-NM.pdf> (accessed 8/22/11)
- McLemore, V. T., Donahue, K., Phillips, E., Dunbar, N., Smith, M., Tachie-Menson, S., Viterbo, V., Lueth, V. W., Campbell, A. R. and Walker, B. M., 2006, "Petrographic, mineralogical and chemical characterization of Goathill North Mine Rock Pile, Questa Molybdenum Mine, Questa, New Mexico": 2006 Billings Land Reclamation Symposium, June, 2006, Billings, Mt. Published by American Society of Mining and Reclamation, 3134 Montavesta Rd., Lexington, KY CD-ROM, <http://geoinfo.nmt.edu/staff/mclemore/Molycorppapers.html>, accessed November 19, 2006.
- McLemore, V. T., Donahue, K. M., Phillips, E.H., Dunbar, N., Walsh, P., Gutierrez, L. A. F., Tachie- Menson, S., Shannon, H. R., Lueth, V. W., Campbell, A. R., Wilson, G. W., and Walker, B. M., (2006a). "Characterization of Goathill North mine rock pile, Questa molybdenum mine, Questa, New Mexico". 7<sup>th</sup> ICARD, March 26-30, 2006, St. Louis MO. Published by American Society of Mining and Reclamation, Lexington, KY. CD-ROM, pp. 1219-1249. <http://geoinfo.nmt.edu/staff/mclemore/Molycorppapers.html>, accessed November 19, 2006
- Donahue, K.M., Dunbar, N.W., and McLemore, V.T., 2007, Origins of clay minerals in the Molycorp Mine Goathill North Rock pile, Questa NM: Society of Mining, Metallurgy and Exploration Annual Convention, Denver, Feb 2007, Preprint no. 07-100, 8 p., <http://www.onemine.org/view/?d=70E79420F587C079312BFD64B71420390404ECB933E3B3B090B974C268FE0BB539794> (accessed 8/22/11)
- Viterbo V., McLemore, V., Donahue, K., Aimone-Martin, C., Fakhimi, A., and Sweeney, D., 2007, Effects of Chemistry, Mineralogy, Petrography and Alteration on Rock Engineering Properties of the Goathill North Rock Pile at the Molycorp Questa Mine, New Mexico: Society of Mining, Metallurgy and Exploration Annual Convention, Denver, Feb 2007, no. 07-099, 8 p., <http://www.onemine.org/view/?d=87B8B8735379FFC192EF4B96702B49390773D5747052CA7C02023C308B676B1D39793> (accessed 8/22/11)
- Gutierrez, L.A.F., Viterbo, V.C., McLemore, V.T., and Aimone-Martin, C.T., 2008, Geotechnical and Geomechanical Characterisation of the Goathill North Rock Pile at the Questa Molybdenum Mine, New Mexico, USA; *in* Fourie, A., ed., First International Seminar on the Management of Rock Dumps, Stockpiles and Heap Leach Pads: The Australian Centre for Geomechanics, University of Western Australia, p. 19-32. <http://geoinfo.nmt.edu/staff/mclemore/Molycorppapers.html> (accessed 8/22/11).
- Fakhimi, A., Boakye, K., Sperling, D., and McLemore, V., 2008, Development of a modified in situ direct shear test technique to determine shear strength of mine rock piles: Geotechnical Testing Journal, v. 31, no. 3, 6 p., <http://209.195.157.104/DOWNLOAD/GTJ101152-DL.ebsco1-1.pdf>, accessed on October 16, 2008.
- Ayakwah, G.F., McLemore, V.T., Ali Fakhimi, and Viterbo, V.C., 2009, Effects of weathering and alteration on point load and slake durability indices of the Questa rock piles, New Mexico: SME Annual Meeting, Preprint 09-19, 50 p., <http://www.onemine.org/view/?d=C89EBC9C74513D4D215D95FC2AF74F809A00EF305254274B3C169C9DE85B08A6148866> (accessed 8/22/11)
- Donahue, K.M., Dunbar, N.W., and McLemore, V.T., 2009, Clay mineralogy of the Goathill North rock pile, Questa mine, Taos County, NM: Origins and indications of in-situ weathering: Society of Mining, Metallurgy and Exploration Annual Convention, Denver, Feb 2009, Preprint 09-98, 7 p., <http://www.onemine.org/view/?d=DF122A362CBF2BE917CC5238FAF910B64B716D9334E38B56045DE5C490A1A340148945> (accessed 8/22/11)
- McLemore, V., Heizler, L., Donahue, K., and Dunbar, N., 2009a, Characterization of Weathering of Mine Rock Piles: Example from the Questa Mine, New Mexico, USA: paper presented at the 8<sup>th</sup> ICARD, June 2009, 10 p.,

- [http://geoinfo.nmt.edu/staff/mclemore/documents/Virginia\\_McLemore\\_P\\_T2\\_Characterization-of-weathering-of-mine-rock-piles-example-from-the-Qu.pdf](http://geoinfo.nmt.edu/staff/mclemore/documents/Virginia_McLemore_P_T2_Characterization-of-weathering-of-mine-rock-piles-example-from-the-Qu.pdf) (accessed 8/22/11).
- McLemore, V., Sweeney, D., Dunbar, N., Heizler, L. and Phillips, E., 2009b, Determining quantitative mineralogy using a combination of petrographic techniques, whole rock chemistry, and MODAN: Society of Mining, Metallurgy and Exploration Annual Convention, preprint 09-20, 19 p., <http://www.onemine.org/view/?d=C5E1691B6C45C9DF9375D82C4E59311AA8ABFF17876EC527573A8CC12722EFA148867> (accessed 8/22/11)
- Nunoo, S., McLemore, V.T., Fakhimi, A., and Ayakwah, G., 2009, The effect of weathering on particle shape of Questa mine material: Society of Mining, Metallurgy and Exploration Annual Convention, Preprint 09-18, 18 p., <http://www.onemine.org/view/?d=F2FE8B5D27780CA49983D818F164941118363E16B2D9893BD8C99D91673A1994148865> (accessed 8/22/11)
- McLemore, V.T., 2009, Geologic Setting and Mining History of the Questa mine, Taos County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 515, 29 p., [http://geoinfo.nmt.edu/staff/mclemore/documents/Virginia\\_McLemore\\_P\\_T2\\_Characterization-of-weathering-of-mine-rock-piles-example-from-the-Qu.pdf](http://geoinfo.nmt.edu/staff/mclemore/documents/Virginia_McLemore_P_T2_Characterization-of-weathering-of-mine-rock-piles-example-from-the-Qu.pdf) (accessed 8/22/11)
- McLemore, V.T., Sweeney, D., and Donahue, K., 2009, Lithologic atlas: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 516, 73 p., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/500-525/516/ofr\\_516.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/500-525/516/ofr_516.pdf) (accessed 8/22/11)
- McLemore, V.T., Fakhimi, A., van Zyl, D., Ayakwah, G.F., Boakye, K., Anim, K., Ennin, F., Felli, P., Fredlund, D., Gutierrez, L.A.F., Nunoo, S., Tachie-Menson, S., and Viterbo, V.C., 2008b, Literature review of other rock piles: characterization, weathering, and stability: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 517, 101 p., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/500-525/516/ofr\\_516.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/500-525/516/ofr_516.pdf) (accessed 8/22/11)
- \*Boakye, K., Fakhimi, A., and McLemore, V.T., 2010, Relationship between physical, chemical and mineralogical properties and cohesion of Questa rock pile materials: ARMA 10-165, 44<sup>th</sup> US Rock Mechanics Symposium and 5<sup>th</sup> U.S.-Canada Rock Mechanics Symposium, held in Salt Lake City, UT June 27–30, 2010, 20 p.
- \*McLemore, V.T., Dunbar, N., Tachie-Menson, S., and Donahue, K., 2010, The Effect of Weathering on the Acid-Producing Potential of the Goathill North Rock Pile, Questa mine, NM: CRC Press, Taylor and Francis Group, London, Tailings and Mine Waste '10, p. 213-227.
- Fakhimi, A., Boakye, K., McLemore, V.T., and Sweeney, D. (2011), The effect of weathering and age on shear strength of Questa Mine rock piles, New Mexico, USA, ARMA 11-153, 45th US Rock Mechanics Symposium, San Francisco, CA, June 26-29.
- Fakhimi, A., Nunoo, S., Van Zyl, D., and McLemore, V.T. (2012), The effect of material scalping and water content on the shear strength of Questa mine materials, ARMA 12-256, 46th US Rock Mechanics/Geomechanics Symposium, Chicago, IL, June 24-27.
- Morkeh, J. and McLemore, V.T., 2012, The effect of particle size fractions on chemistry, mineralogy, and acid potential of the Questa rock piles, Taos County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 545, 96 p., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/545/ofr\\_545.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/545/ofr_545.pdf)
- \*McLemore, V.T., 2012, Geologic Processes Affecting the Chemistry, Mineralogy, and Acid Potential on Particle Size Fractions: Examples from Waste Rock Piles in New Mexico, USA: Proceedings 9<sup>th</sup> ICARD, Ottawa, Canada, May 20-26, 2012, 12 p., CD-ROM, <http://geoinfo.nmt.edu/staff/mclemore/projects/environment/documents/0115-McLemore.pdf>

## **SUSTAINABLE DEVELOPMENT IN MINING**

- McLemore, V. T., and Dennis Turner, D., 2004, Sustainable development and exploration: Society of Mining, Exploration, and Metallurgy, SME Preprint No. 04-170, CD-ROM, 10 p., <http://www.onemine.org/view/?d=0839B18E9802E4473EDD50EA2DCDD4752DD7415C8B64358386B8DA3AAFE1F72E39491> (accessed 8/22/11)

- Barker, J. M., and McLemore, V. T., 2004, Sustainable development and Industrial minerals: Society of Mining, Exploration, and Metallurgy, SME Preprint No. 04-171 CD-ROM, 10 p.,  
<http://www.onemine.org/view/?d=39BBAAE6E4EAC468359D463E73F7E47E1A96FB0DA3805010AE2A13054307A76239492> (accessed 8/22/11)
- Barker, J. M., and McLemore, V. T., 2005, Sustainable development and Industrial minerals: Mining Engineering, December, p. 48-52.

#### **GEOLOGY AND MINERAL RESOURCES OF CAPITAN MOUNTAINS**

- Phillips, R. S., McLemore, V. T., and Willis, M. A., 1989, Mineralogy and geochemistry of veins in the Capitan Mountains, central New Mexico (abstr.): New Mexico Mineral Symposium; New Mexico Geology, v. 12, (1990), p.32.
- Phillips, R. S., Campbell, A. R., McLemore, V. T., and Willis, M., 1990, Mineralogy and Geochemistry of veins in the Capitan Mountains, New Mexico (abstr.): New Mexico Geological Society Spring Meeting; Abstr published in New Mexico Geology, v. 12, p. 32.
- Phillips, R. S., Campbell, A., McLemore, V. T., and Willis, M., 1990, High temperature, high salinity fluids inclusions in quartz and fluorite from mineralogical veins in the Capitan Mountains, N.M. (abstr.): PACROFI III, Program and Abstracts, May 20-22, p. 69.
- \*Allen, M. S., and McLemore, V. T., 1991, The geology and petrogenesis of the Capitan Mountains, New Mexico: New Mexico Geological Society, Guidebook 42, p. 115-128.
- \*McLemore, V. T., and Phillips, R. S., 1991, Geology of the mineralization and associated alteration in the Capitan Mountains, Lincoln County, New Mexico: New Mexico Geological Society, Guidebook 42, p. 291-298.
- \*Phillips, R. S., Campbell, A. R., and McLemore, V. T., 1991, Th-U-REE quartz/fluorite veins, Capitan pluton, New Mexico: Evidence for a magmatic/hydrothermal origin: New Mexico Geological Society, Guidebook 42, p. 129-136.
- McLemore, V.T., 2014, Geology and mineral deposits in the Capitan Mountains district: New Mexico Geological Society, Guidebook 65, p. 60-61.

#### **GEOLOGY AND MINERAL RESOURCES OF THE CORNUDAS MOUNTAINS**

- McLemore, V. T. and Guilinger, J., 1992, Nepheline Syenite—Toilet bowls and beer bottles: Lite Geology, Fall, 1 pp.
- \*McLemore, V. T., and Guilinger, J. R., 1993, Geology and mineral resources of the Cornudas Mountains, Otero County, New Mexico and Hudspeth County, Texas: New Mexico Geological Society, Guidebook 44, p. 145-154.
- McLemore, V. T., Guilinger, J., and Ouimette, M. A., 1993, Geology of the Wind Mountain nepheline syenite deposit, Cornudas Mountains, Otero County, New Mexico: AIME/SME Preprint 94-63, 10 p.,  
<http://www.onemine.org/view/?d=282B31BB186382952EB46D47FC908ADAF6E7DAD7F248D1C0B143B3D36AD52F2D176190> (accessed 8/22/11)
- McLemore, V. T., 1994, Petrology and mineral resources of alkaline rocks in the Cornudas Mountains, New Mexico and Texas (abstr.): Geological Society of Canada, Program with Abstracts, p. A74.
- McLemore, V. T., Guilinger, J., and Ouimette, M. A., 1994, Geology of the Wind Mountain nepheline syenite deposit, Cornudas Mountain, Otero County, New Mexico (abstr.): AIME/SME, Program Annual Meeting, p 43.
- McLemore, V. T., Lueth, V. W., Guilinger, J. R., and Pease, T. C., 1995, Geology, mineral resources, and marketing of the Wind Mountain nepheline syenite porphyry, Cornudas Mountains, New Mexico and Texas (abstr.): 31st Forum on the Geology of Industrial Minerals, Boderland Forum, Programs with Abstracts, p. 42-43.
- \*McLemore, V. T. and Guilinger, J. R., 1996, Industrial specifications of the Wind Mountain nepheline- syenite deposit, Cornudas Mountains, Otero County, New Mexico; in Austin, G.S., Barker, J.M., Hoffman, G., Gilson, N., and Zidec, J., eds., Proceedings of the 31st Forum on the Geology of Industrial Minerals, Boderland Forum: New Mexico Bureau of Mines and Mineral Resources, Bulletin 154, pp. 121-126.
- \*McLemore, V. T., Lueth, V. W., Guilinger, J. R., and Pease, T. C., 1996, Geology, mineral resources, and marketing of the Wind Mountain nepheline-syenite porphyry, Cornudas Mountains, New Mexico and Texas; in Austin, G.S., Barker, J.M., Hoffman, G., Gilson, N., and Zidec, J., eds., Proceedings of the 31st Forum on the Geology of Industrial Minerals, Boderland Forum: New Mexico Bureau of Mines and

Mineral Resources, Bulletin 154, pp. 127-136.

- \*McLemore, V. T., Lueth, V. W., Pease, T. C., and Gulinger, J. R., 1996, Petrology and mineral resources of the Wind Mountain laccolith, Cornudas Mountains, New Mexico and Texas: *Canadian Mineralogist*, v. 34, pt. 2, pp. 335-347, [http://rruff.geo.arizona.edu/doclib/cm/vol34/CM34\\_335.pdf](http://rruff.geo.arizona.edu/doclib/cm/vol34/CM34_335.pdf) (accessed 8/22/11)
- Nutt, C. J., O'Neille, J. M., Kleinkopf, M. D., Klein, D. P., Miller, W. R., Rodriguez, B. D., and McLemore, V. T., 1997, Geology and mineral resources of the Cornudas Mountains, New Mexico: U.S. Geological Survey, Openfile Report OF97-282, 46 p., <http://pubs.usgs.gov/of/1997/0282/report.pdf> (accessed 8/22/11)

## **GEOLOGY AND MINERAL RESOURCES OF GREAT PLAIN MARGIN (ALKALINE GOLD, REE) DEPOSITS**

- Roberts, T. J., McLemore, V. T., and Parkison, G. A., 1990, Geology of the Red River district, Taos County, New Mexico (abstr.): New Mexico Geological Society Spring Meeting; abstr. published in *New Mexico Geology*, v. 12.
- \*Roberts, T. T., Parkinson, G. A., and McLemore, V. T., 1990, Geology of the Red River district, Taos County, New Mexico: New Mexico Geological Society, Guidebook 41, p. 375-380.
- \*McLemore, V. T., 1991, Gallinas Mountain mining district, New Mexico: New Mexico Geological Society, Guidebook 42, p. 62-63.
- McLemore, V. T., 1991, Great Plains margin gold-silver deposits in New Mexico (abstr.): *Geological Society of America, Abstracts with Programs*, v. 23, no. 4, p. 47.
- \*McLemore, V. T., Ouimette, M., and Eveleth, R. M., 1991, Preliminary observation in the mining history, geology and mineralization of the Jicarilla mining district, Lincoln County, New Mexico: New Mexico Geological Society, Guidebook 42, p. 311-316.
- McLemore, V. T., 1995, Great Plains Margin (alkalic-related) gold deposits in New Mexico (abstr.): *Geology and ore deposits of the American Cordillera*, Geological Society of Nevada, Program with Abstracts, p. A54-55.
- \*McLemore, V. T., 1996, Great Plains Margin (alkalic-related) gold deposits in New Mexico; in Cyner, A. R. and Fahey, P. L., eds., *Geology and ore deposits of the American Cordillera: Geological Society of Nevada Symposium Proceedings*, Reno/Sparks, Nevada, April 1995, pp. 935-950.
- McLemore, V. T., Pease, T. C., and Lueth, V. W., 1996, Age and geology of the mineral deposits in the Organ Mountains district, Doña Ana County, New Mexico (abstr.): New Mexico Geological Society, Spring Meeting.
- \*Lueth, V. W. and McLemore, V. T., 1998, A reinterpretation of ore zoning in the Organ district, Doña Ana County, New Mexico: New Mexico Geological Society, Guidebook 49, p. 279-286.
- \*McLemore, V. T., 2002, Geology and geochemistry of the Mid-Tertiary alkaline to calc-alkaline intrusions in the northern Hueco Mountains and adjacent areas, McGregor Range, southern Otero County, New Mexico; in Lueth, V. W., Giles, K. A., Lucas, S. G., Kues, B. S., Myers, R., and Ulmer-Scholle, D. S., *Geology of White Sands: New Mexico Geological Society Guidebook 52*, pp. 129-137.
- \*McLemore, V.T., 2010, Geology and mineral deposits of the Gallinas Mountains, Lincoln and Torrance Counties, New Mexico; preliminary report: New Mexico Bureau of Geology and Mineral Resources, Open-file report OF-532, 92 p., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/532/ofr\\_532.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/532/ofr_532.pdf)
- McLemore, V.T., 2011, Geology and mineral deposits of the Gallinas Mountains, Lincoln and Torrance Counties, New Mexico; preliminary report: Society of Mining, Metallurgy and Exploration Annual Convention, Denver, Feb 2011, Preprint 11-139, 9 p.
- Goff, F., Kelley, S.A., Lawrence, J.R., Cikiski, C., Krier, D.J., Goff, C.J., and McLemore, V.T., 2011, Preliminary geologic map of the Nogal Peak quadrangle, Lincoln and Otero Counties, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Geologic Map, 81 p., <http://geoinfo.nmt.edu/publications/maps/geologic/ofgm/details.cfm?Volume=134> (accessed 8/22/11)
- \*McLemore, V.T., Goff, F., and McIntosh, W., 2014, Geology and mineral resources of the Nogal-Bonito mining district, Lincoln County, New Mexico: New Mexico Geological Society, Guidebook 65, p. 235-246.
- \*McLemore, V.T., Dunbar, N., Heizler, L., and Heizler, M., 2014, Geology and mineral deposits of the Orogrande mining district, Jarilla Mountains, Otero County, New Mexico: New Mexico Geological Society, Guidebook 65, p. 247-260.
- McLemore, V.T., 2014, Orogrande smelter: New Mexico Geological Society, Guidebook 65, p. 105.



- McLemore, V.T., 2015, Mineral deposits associated with Tertiary alkaline igneous rocks in New Mexico: Society for Mining, Metallurgy, and Exploration, 2016 Annual meeting preprint 15-084, 13 p.
- McLemore, V.T., 2015, Geology and Mineral Resources of the Laughlin Peak Mining District, Colfax County, New Mexico: New Mexico Geological Society, Guidebook 66, p. 277-288, [https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=66&file=66\\_p0277\\_p0288.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=66&file=66_p0277_p0288.pdf)
- McLemore, V.T., 2015, Great Plains Margin (alkaline-related) gold deposits in New Mexico: twenty years later: Geological Society of Nevada, New concepts and discoveries, 2015 Symposium volume, p. 1305-1327.
- \*McLemore, V.T., 2018, Rare Earth Elements (REE) Deposits Associated with Great Plain Margin Deposits (Alkaline-Related), Southwestern United States and Eastern Mexico: *Resources*, 7(1), 8; 44 p., doi:[10.3390/resources7010008](https://doi.org/10.3390/resources7010008); <http://www.mdpi.com/2079-9276/7/1/8> link <http://www.mdpi.com/2079-9276/7/1/8> (international publication)

### **GEOLOGY AND MINERAL RESOURCES OF THE RIO GRANDE RIFT BARITE-FLUORITE-GALENA DEPOSITS**

- McLemore, V. T., and North, R. M., 1984, Mineralogy of El Cuervo Butte barite-fluorite-galena deposit, southern Santa Fe County, New Mexico (abstr.): New Mexico Minerals Symposium: abstr. published in *New Mexico Geology*, v. 7, no. 2, p. 41.
- \*McLemore, V. T., and Barker, J. M., 1985, Barite in north-central New Mexico: *New Mexico Geology*, v. 7, no. 2, pp. 21-25, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/7/n2/nmg\\_v7\\_n2\\_p21.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/7/n2/nmg_v7_n2_p21.pdf) (accessed 8/22/11)
- \*McLemore, V. T., and North, R. M., 1985, Geology and mineralization of the El Cuervo Butte barite-fluorite-galena deposit in southern Santa Fe County, New Mexico: New Mexico Geological Society, Guidebook 36, pp. 301-306.
- McLemore, V. T., 1997, Rio Grande Rift barite-fluorite-galena deposits in New Mexico (abstr.): New Mexico Geological Society, Spring Meeting, April 18; published in *New Mexico Geology*, v. 19, pp. 51-52.
- \*McLemore, V. T., Giordano, T. H., Lueth, V., and Witcher, J., 1998, Origin of barite-fluorite-galena deposits in the southern Rio Grande Rift, New Mexico: New Mexico Geological Society, Guidebook 49, pp. 251-263.

### **METALLIC RESOURCES IN NEW MEXICO**

- \*Barker, J. M., Campbell, F., Eveleth, R. W., McLemore, V. T., and Roybal, G. H., 1984, Active mines and processing plants by county in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Resource Map 14.
- \*McLemore, V. T., and North, R. M., 1984, Occurrences of precious metals and uranium in the northern Rio Grande rift, New Mexico: New Mexico Geological Society, Guidebook to 35, pp. 205-212.
- North, R.M., and McLemore, V. T., 1984, Silver and gold occurrences in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-191, 28 pp. (published as Resource Map 15).
- \*McLemore, V. T., and North, R. M., 1985, Copper and uranium mineralization in east-central New Mexico: New Mexico Geological Society, Guidebook 36, pp. 289-300.
- \*North, R. M., and McLemore, V. T., 1986, Silver and gold occurrences in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Resource Map 15, 32 pp., 1 map.
- North, R. M., and McLemore, V. T., 1986, An overview of silver and gold in New Mexico; in *Frontiers in geology and ore deposits of Arizona and the Southwest: Arizona Geological Society Digest*, v. 16, pp. 481-488, also poster session.
- North, R. M., and McLemore, V. T., 1987, A classification of the precious metal deposits of New Mexico (abstr.): Program with abstract, Bulk Mineable Precious Metal Deposits of the western United States, Geological Society of Nevada, p. 56.
- \*McLemore, V. T., and North, R. M., 1987, Metallic mineral deposits in Colfax and Union Counties, northeast New Mexico: New Mexico Geological Society, Guidebook 38, pp. 323-329.
- \*McLemore, V. T., 1988, Copper, gold, silver, lead, and zinc production in Doña Ana, southern Grant, Hidalgo, and Luna Counties, New Mexico: New Mexico Geological Society, Guidebook 39, pp. 199-201.
- \*North, R. M., and McLemore, V. T., 1988, A classification of the precious metal deposits of New Mexico; in *Bulk mineable precious metal deposits of the western United States; Symposium proceeding: Geological Society of Nevada, Reno, Nevada*, pp. 625-660.

- \*McLemore, V. T., 1989, Base and precious metal deposits in the Zuni Mountains, Cibola County, New Mexico: New Mexico Geological Society, Guidebook 40, p. 317-320.
- \*McLemore, V. T., Eveleth, R. W., Brandvold, L. A., and Robertson, J. M., 1989, Platinum-group metals in New Mexico: New Mexico Geology, v. 11, p. 29-30, 33, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/11/n2/nmg\\_v11\\_n2\\_p29.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/11/n2/nmg_v11_n2_p29.pdf) (accessed 8/22/11)
- \*Eveleth, R. W., Broadhead, R. F., McLemore, V. T., and Hoffman, G. K., 1990, Mineral and mineral- fuel production activities in New Mexico during 1988: New Mexico Geology, v. 12, pp. 59-64, 71.
- McLemore, V. T., and Roberts, T. T., 1990, Base and precious metals in southwestern New Mexico: A progress report (abstr.): Abstracts, Mineral Resources in the Chihuahua Desert, UTEP, Feb.
- \*McLemore, V. T., 1991, Base and precious metals deposits in Lincoln and Otero Counties, New Mexico: New Mexico Geological Society, Guidebook 42, p. 305-310.
- \*Eveleth, R. W., Bieberman, R. A., Roybal, G. H., and McLemore, V. T., 1992, Mineral and mineral-fuel production activities in New Mexico during 1986: New Mexico Bureau of Mines and Mineral Resources, Quadrennial Report 1986-1990, pp. 65-73.
- \*Eveleth, R. W., Broadhead, R. F., Roybal, G. H., and McLemore, V. T., 1992, Mineral and mineral-fuel production activities in New Mexico during 1987: New Mexico Bureau of Mines and Mineral Resources Quadrennial Report 1986-1990, pp. 73-82.
- \*McLemore, V. T., 1992, Precious and base metal districts in Rio Arriba and Sandoval Counties, New Mexico: New Mexico Geological Society, Guidebook 43, p. 385-390.
- \*McLemore, V. T., 1994, Placer gold deposits in New Mexico: New Mexico Geology, v. 16, pp. 21-25, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/16/n2/nmg\\_v16\\_n2\\_p21.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/16/n2/nmg_v16_n2_p21.pdf) (accessed 8/22/11)
- McLemore, V. T., 1994, Have you ever wondered about gold?: Lite Geology, Fall, 4 p. (reprinted in Pay Dirt, April 1995, pp. 17B-18B)
- \*McLemore, V. T., 1994, Volcanic-epithermal deposits in the Mogollon-Datil volcanic field, New Mexico: New Mexico Geological Society, Guidebook 45, p. 299-309.
- \*McLemore, V. T., 1994, Summary of the mineral resources in the San Andres and Organ Mountains, south-central New Mexico; in Field Guide to the Paleozoic section of the San Andres Mountains: PBS-SEPM Publication No. 94-34, p. 143-153.
- Hack, D., McLemore, V. T., and Chavez, W. X., 1995, An overview of porphyry copper deposits in New Mexico and adjacent regions (abstr.): New Mexico Geological Society, Spring Meeting, New Mexico Geology, v. 17, p. 25.
- McLemore, V. T., 1995, Pecos mine and Alamitos mill: New Mexico Geological Society, Guidebook 46, pp. 40-41.
- \*McLemore, V. T., 1995, Mineral resources of the southern Sangre de Cristo Mountains, Santa Fe and San Miguel Counties, New Mexico: New Mexico Geological Society, Guidebook 46, pp. 155- 160.
- McLemore, V. T., 1995, Volcanic-epithermal precious-metal deposits in New Mexico (abstr.): Geology and ore deposits of the American Cordillera, Geological Society of Nevada, Program with Abstracts, p. A55.
- McLemore, V. T. and Lueth, V. W., 1995, Carbonate-hosted lead-zinc deposits in New Mexico (abstr.): International Field Conference on Carbonate-hosted Lead-Zinc Deposits, Society of Economic Geologists, Extended Abstracts, p. 209-211.
- McLemore, V. T., McIntosh, W. C., and Pease, T. C., 1995, <sup>40</sup>Ar/ <sup>39</sup>Ar age determinations of four plutons associated with mineral deposits in southwestern New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-410, 36 p. [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR400-499/400-425/410/ofr\\_410.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR400-499/400-425/410/ofr_410.pdf) (accessed 8/22/11)
- \*McLemore, V. T., 1996, Volcanic-epithermal precious-metal deposits in New Mexico; in Cyner, A. R. and Fahey, P. L., eds., Geology and ore deposits of the American Cordillera: Geological Society of Nevada Symposium Proceedings, Reno/Sparks, Nevada, April 1995, pp. 951-969.
- \*McLemore, V. T., 1996, Mineral resources in the Jemez and Nacimiento Mountains, Rio Arriba, Sandoval, Santa Fe, and Los Alamos Counties, New Mexico; in Goff, F., Kues, B. S., Rogers, M.A., McFadden, L. D., and Gardner, J. N., eds., The Jemez Mountains region: New Mexico Geological Society, Guidebook 47, pp. 161-168.
- \*McLemore, V. T., 1996, Copper in New Mexico: New Mexico Geology, v. 18, no. 2, pp. 25-36, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/18/n2/nmg\\_v18\\_n2\\_p25.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/18/n2/nmg_v18_n2_p25.pdf) (accessed 8/22/11)

8/22/11)

- \*McLemore, V. T. and Lueth, V. W., 1996, Lead-zinc deposits in carbonate rocks in New Mexico, in D. F. Sangster, ed., Carbonate-hosted lead-zinc deposits: Society of Economic Geologists, 76th Anniversary Volume, Special Publication 4, pp. 264-279.
- McLemore, V. T., Sutphin, D. M., Hack, D. R., and Pease, T. C., 1996, Mining history and mineral resources of the Mimbres Resource Area, Doña Ana, Luna, Hidalgo, and Grant Counties, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report 424, 251 p.  
[http://geoinfo.nmt.edu/publications/openfile/downloads/OFR400-499/400-425/424/ofr\\_424.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR400-499/400-425/424/ofr_424.pdf) (accessed 8/22/11)
- McLemore, V. T., 1997, Mining history of the Mimbres Resource Area; in S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, pp. 25-31.
- \*McLemore, V. T. and Chenoweth, W. C., 1997, An occurrence of copper-silver at the Carrizo copper mine in the Carrizo Mountains, Apache County, Arizona: New Mexico Geological Society, Guidebook 48, pp. 269-272.
- McLemore, V. T. and Sutphin, D. M., 1997, Mineral occurrences and mining districts of Doña Ana County; in S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, pp. 361-381.
- McLemore, V. T. and Sutphin, D. M., 1997, Mineral occurrences and mining districts of Luna County; in S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, pp. 345-360.
- McLemore, V. T. and Sutphin, D. M., 1997, Mineral occurrences and mining districts of Hidalgo County; in S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, pp. 317-344.
- McLemore, V. T., Sutphin, D. M., Hack, D. C., and Pease, T., 1997, Mineral occurrences and mining districts of Grant County; in S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, pp. 264-316.
- \*McLemore, V. T., 1998, Geology and mineral resources of mining district in Doña Ana County, New Mexico: New Mexico Geological Society, Guidebook 49, pp. 299-307.
- Mutschler, F. E., McLemore, V. T., Bookstrom, A. A., and Ludington, S., 1998, Rocky Mountain front alkalic rock-related gold deposits, Canada to Mexico: A review (abstr.): Geological Society of America, Annual Meeting, Abstracts with programs, v. 30, no. 7, p. A-300.
- \*McLemore, V. T., 1999, La Bajada uranium-base metal deposit, Santa Fe County, New Mexico; in Pazzaglia, F., Lucas, S. G., and Austin, G. S., eds., Albuquerque Country III: New Mexico Geological Society, Guidebook 50, p. 445-448.
- McLemore, V. T., 1999, An overview of base and precious metals and uranium deposits in New Mexico: An overview (abstr.): New Mexico Geological Society, Spring Meeting Program; New Mexico Geology, v. 21, p. 30.
- Tanner, A. and McLemore, V. T., 1999, Mineral industry surveys New Mexico—1998: U. S. Geological Survey, 6 p.
- Thompson, R. C., and McLemore, V. T., 1999, Geology and mineralogy of the Jones Hill massive sulfide deposit, Pecos, New Mexico (abstr.): New Mexico Geological Society, Spring Meeting Program; New Mexico Geology, v. 21, p. 30.
- \*Channell, R., McMillan, N. J., Lawton, T. F., Heizler, M., Esser, R. P. and McLemore, V. T., 2000, Magmatic history of the Little Hatchet Mountains, Hidalgo and Grant Counties, southwestern New Mexico; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 141-148.
- \*McLemore, V. T., 2000, Geology and mineral resources of the Wild Horse Mesa area, Burro Mountains, Grant County, New Mexico; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 245-252.
- McLemore, V. T., 2000, The Tres Hermanas mining district, Luna County, New Mexico; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 40-41.

- McLemore, V. T., 2000, The Florida Mountains mining district, Luna County, New Mexico; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, p. 35.
- McLemore, V. T., 2000, The Eureka mining district, Grant County, New Mexico; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 21-22.
- \*McLemore, V. T. and Elston, W. E., 2000, Geology and mineral occurrences of the mineral districts of Hidalgo County, southern New Mexico; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 253-262.
- McLemore, V. T., Peters, L. and Heizler, M. T., 2000, 40Ar/39Ar geochronology of igneous rocks in the Lordsburg district, northern Pyramid Mountains, Hidalgo County, New Mexico; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 6-8.
- \*McLemore, V. T., 2001, Silver and gold resources in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Resource Map 21, 60 pp.
- Tanner, A. and McLemore, V. T., 2001, Mineral industry surveys New Mexico—1999: U. S. Geological Survey, 6 pp.
- Tanner, A. and McLemore, V. T., 2001, Mineral industry surveys New Mexico—2000: U. S. Geological Survey, 5 p.
- \*McLemore, V. T., Hoffman, G. K., and Pfeil, J., 2002, Minerals industry in New Mexico in 1998-2000: New Mexico Geology, v. 24, p. 19-28,  
[http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/24/n1/nmg\\_v24\\_n1\\_p19.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/24/n1/nmg_v24_n1_p19.pdf) (accessed 8/22/11)
- \*McLemore, V. T., 2002, Uranium in New Mexico: New Mexico Bureau of Geology and Mineral Resources, Decision-Makers Field Guide  
[http://geoinfo.nmt.edu/publications/decisionmakers/2002/dmfg2002\\_chap1.pdf](http://geoinfo.nmt.edu/publications/decisionmakers/2002/dmfg2002_chap1.pdf)  
 8/22/11)
- McLemore, V. T., 2002, Uranium resources in New Mexico (abstr.): American Association of Petroleum Geologists, abstracts with programs, annual meeting, Houston, CD-ROM, p. A118;  
[http://aapg.confex.com/aapg/hu2002/techprogram/paper\\_46652.htm](http://aapg.confex.com/aapg/hu2002/techprogram/paper_46652.htm)
- McLemore, V. T., McIntosh, W., Esser, R. P., and Rämö, O. T., 2002, ~35 Ma volcanic and plutonic activity in southwestern New Mexico (abstr.): New Mexico Geological Society, Spring meeting, New Mexico Geology, v. 24, no. 2, p. 60
- \*McLemore, V. T., 2002, Summary of the mineral resources in the San Andres Mountains, south-central New Mexico in Lueth, V. W., Giles, K. A., Lucas, S. G., Kues, B. S., Myers, R., and Ulmer-Scholle, D. S., Geology of White Sands: New Mexico Geological Society Guidebook 52, pp.339- 352.
- Tanner, A. and McLemore, V. T., 2003, Mineral industry surveys New Mexico—2001: U. S. Geological Survey, 5 p. <http://minerals.usgs.gov/minerals/pubs/state/2001/nmstmyb01.pdf>
- McLemore, V. T., 2003, Mineral deposits, mining, and karst (abstr.): New Mexico Geological Society Spring Meeting, April 12, New Mexico Geology, v.
- McLemore, V.T. and Mullen, K.E., 2004, Mineral resources in Taos County, New Mexico: New Mexico Geological Society, Guidebook 55, p. 383-390,  
[http://geoinfo.nmt.edu/staff/mclemore/documents/McLemore\\_Mullen.pdf](http://geoinfo.nmt.edu/staff/mclemore/documents/McLemore_Mullen.pdf) (accessed 8/22/11)
- McLemore, V. T. and Hoffman, G., 2005, Mineral deposits in Rio Arriba County, New Mexico: New Mexico Geological Society Guidebook 56, p. 445-456.
- North, R. M. and McLemore, V. T., 2005, Metal Deposits in New Mexico—How and Where They Occur; in L. Greer Price, Douglas Bland, Virginia T. McLemore, and James M. Barker, eds., Mining in New Mexico—The Environment, Water, Economics, and Sustainable Development: New Mexico Bureau of Geology and Mineral Resources, Decision-Makers Field Guide, p. 29-33,  
[http://geoinfo.nmt.edu/publications/decisionmakers/2005/DM\\_2005\\_Ch1.pdf](http://geoinfo.nmt.edu/publications/decisionmakers/2005/DM_2005_Ch1.pdf) (accessed 8/22/11)
- McLemore, V. T., 2005, Significant metal deposits in New Mexico—resources and reserves; in L. Greer Price, Douglas Bland, Virginia T. McLemore, and James M. Barker, eds., Mining in New Mexico—The Environment, Water, Economics, and Sustainable Development: New Mexico Bureau of Geology and

- Mineral Resources, Decision-Makers Field Guide, p. 100-104,  
[http://geoinfo.nmt.edu/publications/decisionmakers/2005/DM\\_2005\\_Ch3.pdf](http://geoinfo.nmt.edu/publications/decisionmakers/2005/DM_2005_Ch3.pdf) (accessed 8/22/11)
- McLemore, V. T. and Hoffman, G., 2005, Mineral deposits in Rio Arriba County, New Mexico: New Mexico Geological Society Guidebook 56, p. 445-456.
- McLemore, V. T., 2006, Mineral deposits in Eddy County: New Mexico Geological Society, Guidebook, p. 337-344.
- McLemore, V.T., 2008, Chino mine, Santa Rita district, Grant County, New Mexico; in Mack, G., Witcher, J., and Lueth, V.W., eds., Geology of the Gila Wilderness-Silver City area: New Mexico Geological Society, Guidebook 59, p. 40-43.
- McLemore, V.T., 2008, Tyrone mine, Burro Mountains district, Grant County, New Mexico; in Mack, G., Witcher, J., and Lueth, V.W., eds., Geology of the Gila Wilderness-Silver City area: New Mexico Geological Society, Guidebook 59, p. 54-56.
- McLemore, V.T., 2008, Potential for Laramide porphyry copper deposits in southwestern New Mexico; in Mack, G., Witcher, J., and Lueth, V.W., eds., Geology of the Gila Wilderness-Silver City area: New Mexico Geological Society, Guidebook 59, p. 141-149.
- Tanner, A. and McLemore, V. T., 2008, Mineral industry surveys New Mexico—2005: U. S. Geological Survey, <http://minerals.usgs.gov/minerals/pubs/state/2005/myb2-2005-nm.pdf> accessed 10/28/08.
- Tanner, A. and McLemore, V. T., 2008, Mineral industry surveys New Mexico—2004: U. S. Geological Survey, <http://minerals.usgs.gov/minerals/pubs/state/2004/nmstmyb04.pdf> accessed 10/28/08
- \*McLemore, V.T. and Zimmerer, M., 2009, Magmatic Activity and Mineralization Along The Capitan, Santa Rita, And Morenci Lineaments In The Chupadera Mesa Area, Central New Mexico: New Mexico Geological Society Guidebook 60
- \*Tanner, A. and McLemore, V. T., 2009, Mineral industry surveys New Mexico—2007: U. S. Geological Survey, 11 p., <http://minerals.usgs.gov/minerals/pubs/state/2007/myb2-2007-nm.pdf>, accessed 7/10/10
- McLemore, V.T., 2011, Geology and mineral resources in the Hopewell and Bromide No. 2 districts, northern Tusas Mountains, Rio Arriba County, New Mexico: New Mexico Geological Society, Guidebook 62, p. 379-388.
- \*McLemore, V.T., 2012, Geology and mineral resources in the Macho mining district, Sierra County, New Mexico: New Mexico Geological Society, Guidebook 63, p. 541-546,  
[https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=63&file=63\\_p0285\\_p0292.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=63&file=63_p0285_p0292.pdf)
- McLemore, V.T., 2012, Pittsburg Mining District, Sierra County, New Mexico: New Mexico Geological Society, Guidebook 63, p. 46-48.
- McLemore, V.T., 2012, Lake Valley Mining District, Sierra County, New Mexico: New Mexico Geological Society, Guidebook 63, p. 29-31.
- McLemore, V.T., 2012, Rincon Mining District, Sierra and Doña Ana Counties, New Mexico: New Mexico Geological Society, Guidebook 63, p. 37-38.
- McLemore, V.T., Rämö, O.T., Heizler, M.T. and Heinonen, A.P., 2012a, Intermittent Proterozoic plutonic magmatism and Neoproterozoic cooling history in the Caballo Mountains, Sierra County, New Mexico; Preliminary Results: New Mexico Geological Society Guidebook 63, p. 235-248,  
[https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=63&file=63\\_p0235\\_p0248.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=63&file=63_p0235_p0248.pdf)
- McLemore, V.T., Heizler, M., Love, D.W., Cikoski, C.T. and Koning, D.J., 2012b,  $^{40}\text{Ar}/^{39}\text{Ar}$  ages of selected basalts in the Sierra Cuchillo and Mud Springs Mountains, Sierra and Socorro Counties, New Mexico: New Mexico Geological Society, Guidebook 63, p. 285-292,  
[https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=63&file=63\\_p0285\\_p0292.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=63&file=63_p0285_p0292.pdf)
- Nelson, W.J., Lucas, S.G., Krainer, K., Elrick, S., and McLemore, V.T., 2012, Geology of the Fra Cristobal Mountains, New Mexico: New Mexico Geological Society, Guidebook 63, p. 195-210,  
[https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=63&file=63\\_p0195\\_p0210.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=63&file=63_p0195_p0210.pdf)
- McLemore, V.T., 2013, Tellurium Deposits in New Mexico: SME Annual Meeting Preprint 13-104, 8 p.,  
<http://geoinfo.nmt.edu/staff/mclemore/projects/mineralresources/documents/13-104.pdf>
- \*McLemore, V.T., 2013, Geology and mineral resources in the Zuni Mountains mining district, Cibola County, New Mexico: Revisited: New Mexico Geological Society, Guidebook 64, p. 131-142,  
[https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=64&file=64\\_p0131\\_p0142.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfml?v=64&file=64_p0131_p0142.pdf) .
- \*Baker, M.S. and McLemore, V.T., 2013, New Mexico: USGS 2009 Minerals Yearbook, 13 p.,  
<http://minerals.usgs.gov/minerals/pubs/state/2009/myb2-2009-nm.pdf>.
- McLemore, V.T., 2016, Geology and mineral deposits of the sedimentary-copper deposits in the Scholle mining district, Socorro Torrance and Valencia Counties, New Mexico; in Frey, B.A., Karlstrom,

- K.E. , Lucas, S.G., Williams, S., Ziegler, K., McLemore, V., and Ulmer-Scholle, D.S., eds., *Geology of the Belen area: New Mexico Geological Society Guidebook 67*, p. 249-254.
- McLemore, V.T., 2016, Mineral resources in the Manzano Mountains mining district, Tarrant and Valencia Counties, New Mexico; *in* Frey, B.A., Karlstrom, K.E. , Lucas, S.G., Williams, S., Ziegler, K., McLemore, V., and Ulmer-Scholle, D.S., eds., *Geology of the Belen area: New Mexico Geological Society Guidebook 67*, p. 94-95.
- \*\*McLemore, V.T., 2017, Mining districts and prospect areas of New Mexico: New Mexico Bureau of Geology and Mineral Resources, Resource Map 24, 65 p., scale 1:1,000,000.
- \*\*McLemore, V.T. and Lueth, V., 2017, Metallic Mineral Deposits; *in* McLemore, V.T., Timmons, S., and Wilks, M., eds., *Energy and Mineral deposits in New Mexico: New Mexico Bureau of Geology and Mineral Resources Memoir 50 and New Mexico Geological Society Special Publication 13*, 92 p.
- \*\*McLemore, V.T., 2018, Mineral resources of Doña Ana Mountains, Doña Ana County, New Mexico: New Mexico Geological Society, Guidebook 69, p. 203-206.
- \*\*McLemore, V.T., 2019, Mineral resources in Union County, New Mexico: New Mexico Geological Society, Guidebook 66
- McLemore, V.T., 2019, Critical minerals in New Mexico: SME Annual Meeting, Preprint 19-132, 6 p., [https://geoinfo.nmt.edu/staff/mclemore/projects/documents/19\\_132.pdf](https://geoinfo.nmt.edu/staff/mclemore/projects/documents/19_132.pdf)

### **NON-METALLIC MINERAL RESOURCES IN NEW MEXICO**

- McLemore, V. T., and North, R. M., 1985, Mineral collecting in the Zuni Mountains, Cibola County, New Mexico (abstr.): *New Mexico Mineral Symposium*; abstract published *New Mexico Geology*, v. 8, no. 2, p. 43.
- McLemore, V. T., and Bowie, M. R., 1987, Clay mineralogy of selected sedimentary and volcanic rocks, Socorro County, New Mexico (abstr.): *Clay Minerals Conference, Abstracts and Programs*, also article in *Guidebook to the Socorro area, New Mexico*, pp. 46-54.
- McLemore, V. T., North, R. M., and Leppert, S., 1988, Rare-earth elements (REE), niobium and thorium districts and occurrences in New Mexico: *New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-324*, 28 p., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR300-399/300-325/324/ofr\\_324.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR300-399/300-325/324/ofr_324.pdf) (accessed 8/22/11)
- \*McLemore, V. T., North, R. M., and Leppert, S., 1988, Rare-earth elements (REE) in New Mexico: *New Mexico Geology*, v. 10, pp. 33-38, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/10/n2/nmg\\_v10\\_n2\\_p33.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/10/n2/nmg_v10_n2_p33.pdf) (8/22/11)
- \*Barker, J. M., McLemore, V. T., Wilson, M., and Austin, G. S., 1989, East Grants Ridge-A mineral poporri: *New Mexico Geological Society, Guidebook 40*, pp. 325-330
- McLemore, V. T., 1989, REE deposits in New Mexico (abstr.): *New Mexico Geological Society, Proceedings volume spring meeting; New Mexico Geological*, v, 12, p. 17.
- McLemore, V. T., 1989, Rare-earth minerals in New Mexico (abstr.): *New Mexico Minerals Symposium; New Mexico Geology*, v. 12, p. 32 (1990).
- \*McLemore, V. T., 1990, Background and perspectives on the Pajarito Mountains yttrium-zirconium deposit, Mescalero Apache Indian Reservation, Otero County, New Mexico: *New Mexico Geology*, v. 12, p. 22, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/12/n2/nmg\\_v12\\_n2\\_p22.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/12/n2/nmg_v12_n2_p22.pdf) (accessed 8/22/11)
- McLemore, V. T., 1991, Pajarito Mountain yttrium-zirconium deposit, Mescalero Indian Reservation, Otero County, New Mexico: *New Mexico Geological Society, Guidebook 42*, p. 30-32.
- McLemore, V. T., 1993, Fireworks and natural resources: *Lite Geology, Summer*, 1 pp.
- McLemore, V. T., 1993, *Globe Plaster Mining Co., Oriental, New Mexico: New Mexico Geological Society, Guidebook 44*, p. 80.
- McLemore, V. T., 1997, Alunite and alum (aluminum); *in* S. Bartsch-Winkler, ed., *Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open- file Report 97-521*, pp. 474-477.
- McLemore, V. T., 1997, Scoria and pumice; *in* S. Bartsch-Winkler, ed., *Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521*, pp. 506-508.
- McLemore, V. T., 1997, Jarosite; *in* S. Bartsch-Winkler, ed., *Geology, Mineral and Energy Resources of the*

- Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, p. 497.
- McLemore, V. T., 1997, Marble; in S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, p. 500.
- Wallace, A. R. and McLemore, V. T., 1997, Fluorspar and barite; in S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, pp. 478-492.
- McLemore, V.T., 2010, Beryllium Deposits in New Mexico, including evaluation of The NURE Stream Sediment Data: New Mexico Bureau of Geology and Mineral Resources, Open file Report, <http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=533>
- McLemore, V.T., 2008, Buckhorn zeolite deposit; in Mack, G., Witcher, J., and Lueth, V.W., eds., Geology of the Gila Wilderness-Silver City area: New Mexico Geological Society, Guidebook 59, p. 10-11.
- \*McLemore, V.T., 2010, Distribution, Origin, and Mineral Resource Potential of Late Cretaceous Heavy Mineral, Beach-Placer Sandstone Deposits, San Juan Basin, New Mexico: New Mexico Geological Society Guidebook 61, p. 197-212.
- \*McLemore, V.T., 2011, Rare earth elements for emerging technologies: New Mexico Earth Matters, summer, 4 p., <http://geoinfo.nmt.edu/publications/periodicals/earthmatters/11/EM11n2.pdf> (accessed 8/22/11)
- McLemore, V.T., 2010, Geology, Mineral Resources, and Geoarchaeology of the Montoya Butte Quadrangle, including the Ojo Caliente No. 2 Mining District, Socorro County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open file Report OF-535, 200 p. (released February 2011), <http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=535>
- McLemore, V.T., 2011, Globe Pegmatite, Petaca District, Rio Arriba County, New Mexico: New Mexico Geological Society, Guidebook 62, p. 109.
- McLemore, V.T., 2011, Apache Pegmatite, Petaca District, Rio Arriba County, New Mexico: New Mexico Geological Society, Guidebook 62, p. 59.
- McLemore, V.T., 2011, Joseph Pegmatite, Petaca District, Rio Arriba County, New Mexico: New Mexico Geological Society, Guidebook 62, p. 144.
- McLemore, V.T., 2011, Big Rock, Petaca District, Rio Arriba County, New Mexico: New Mexico Geological Society, Guidebook 62, p. 58.
- McLemore, V.T., 2011, Geology and mineral deposits of the Gallinas Mountains, Lincoln and Torrance Counties, New Mexico; preliminary report: Society of Mining, Metallurgy and Exploration Annual Convention, Denver, Feb 2011, Preprint 11-139, 9 p., <http://geoinfo.nmt.edu/staff/mclemore/documents/11-139.pdf>
- McLemore, V.T., Solomon K. A. Owusu, S.K.A., and Morris, R., 2012, Monticello Point diatomite deposit, Sierra County, New Mexico: New Mexico Geological Society, Guidebook 63, p. 72-73.
- McLemore, V.T., 2012, Rare Earth Elements (REE) Deposits in New Mexico: Society of Mining, Metallurgy and Exploration Preprint 12-146, 7 p., <http://geoinfo.nmt.edu/staff/mclemore/projects/mining/REE/documents/12-146.pdf>
- McLemore, V.T., 2013, Mineral resources of the East Grants Ridge mining district, Cibola County, New Mexico: An update: New Mexico Geological Society, Guidebook 64, p. 54-55.
- Wenrich, K. and McLemore, V.T., 2013, Rare Earth Element (REE) Deposit Potential in Arizona (abstr.): Geological Society of America, Abstracts with Programs, vol. 45, no. 7, p. 610, <https://gsa.confex.com/gsa/2013AM/webprogram/Paper233826.html>
- \*McLemore, V.T., Rare Earth Elements Deposits in New Mexico, 2014, in Conway, F.M., ed., Proceedings of the 48th Annual Forum on the Geology of Industrial Minerals, Phoenix, Arizona, April 30 - May 4, 2012. Arizona Geological Survey Special Paper #9, Chapter 3, p. 1-16, [http://repository.azgs.gov/uri\\_gin/azgs/dlio/1568](http://repository.azgs.gov/uri_gin/azgs/dlio/1568)
- \*McLemore, V.T., Rare Earth Elements Deposits in New Mexico: SME ME Online Exclusive, 10 p., <http://me.smenet.org/reader.cfm?webArticleID=1206>
- McLemore, V.T., 2016, New Mexico travertine operations; in Frey, B.A., Karlstrom, K.E., Lucas, S.G., Williams, S., Ziegler, K., McLemore, V., and Ulmer-Scholle, D.S., eds., Geology of the Belen area: New Mexico Geological Society Guidebook 67, p. 127-128.
- McLemore, V.T., 2016, Update of Industrial Minerals and Rocks of New Mexico: Society for Mining, Metallurgy, and Exploration, 2016 Annual meeting preprint 16-023, 7 p., [http://geoinfo.nmt.edu/staff/mclemore/projects/documents/16\\_023.pdf](http://geoinfo.nmt.edu/staff/mclemore/projects/documents/16_023.pdf)
- McLemore, V.T., 2015, Rare Earth Elements (REE) Deposits in New Mexico: Update: New Mexico Geology, v. 37, p. 59-69, <http://geoinfo.nmt.edu/publications/periodicals/nmg/current/home.cfm>

- McLemore, V.T. and Robison, A., 2016, Exploration of Beach Placer Heavy Mineral Deposits in the San Juan Basin in New Mexico: Society for Mining, Metallurgy, and Exploration, 2016 Annual meeting preprint 16-136, 10 p., [http://geoinfo.nmt.edu/staff/mclemore/projects/documents/16\\_136.pdf](http://geoinfo.nmt.edu/staff/mclemore/projects/documents/16_136.pdf)
- McLemore, V.T., Asafo-Akouwah, J. and Robison, A., 2016, Assessment of Rare Earth Elements at Apache Mesa (Stinking Lake), Jicarilla Apache Reservation, Rio Arriba County, New Mexico: Final report to Jicarilla Indian Tribe, NMBG Open-file report 587, <http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=587>
- \*\*McLemore, V.T., 2017, Update of Industrial Minerals and Rocks of New Mexico: Mining Engineering, v. 69, no. 6, p. 49-56, <http://me.smenet.org/reader.cfm?page=49>
- \*\*McLemore, V.T. and Austin, G.S., 2017, Industrial minerals and rocks; in McLemore, V.T., Timmons, S., and Wilks, M., eds., Energy and Mineral deposits in New Mexico: New Mexico Bureau of Geology and Mineral Resources Memoir 50 and New Mexico Geological Society Special Publication 13, 128 p.
- \*\*McLemore, V.T., 2017, Heavy mineral, beach-placer sandstone deposits at Apache Mesa, Jicarilla Apache Reservation, Rio Arriba County, New Mexico; in The Geology of the Ouray-Silverton Area, Karlstrom, K.E., Gonzales, D.A., Zimmerer, M.J., Heizler, M., and Ulmer-Scholle, D.S.: New Mexico Geological Society 68th Annual Fall Field Conference Guidebook, p. 123-132.
- \*\*McLemore, V.T., 2018, Rare Earth Elements (REE) Deposits Associated with Great Plain Margin Deposits (Alkaline-Related), Southwestern United States and Eastern Mexico: *Resources* 2018, 7(1), 8; 44 p., doi:[10.3390/resources7010008](https://doi.org/10.3390/resources7010008); <http://www.mdpi.com/2079-9276/7/1/8>

### **RADON STUDIES IN NEW MEXICO**

- McLemore, V. T., and Hawley, J. W., 1988, Preliminary geologic evaluation of radon susceptibility in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-345, 27 pp.
- McLemore, V. T., Hawley, J. W., and Manchego, R., 1991, Geologic evaluation of radon availability in New Mexico: A progress report: U.S. Environmental Protection Agency, Proceedings, 1991 International symposium on radon and radon reduction technology, April 2-5, 1991, session IX, v. 6, preprints.
- Manchego, R. A., McLemore, V. T., and Hawley, J. W., 1992, New Mexico Radon Survey 1987-1989: Environmental Improvement Division, New Mexico Health and Environment Department, 34 p.
- McLemore, V. T., 1992, Radon: A potential problem in your home: *Lite Geology*, Fall, 1 pp.
- McLemore, V. T., 1995, Radon availability in New Mexico; in Proceedings of the 39th Annual New Mexico Water Conference: New Mexico Water Resources Research Institute, WRRRI Report 290, p. 339-360.

### **ADTI-MMS ARTICLES**

- McLemore, V. T. 2002, Sampling and monitoring: presentation for BLM Course 3000- 47, Acid Rock Drainage Prediction and Treatment, Broadcast January 24, 2002, <http://www.mines.unr.edu/adti/blm/samplingandmonitoring.pdf>
- McLemore, V. T. 2002, Geology: presentation for BLM Course 3000- 47, Acid Rock Drainage Prediction And Treatment, Broadcast January 24, 2002, [http://www.mines.unr.edu/adti/blm/Regional\\_Site\\_Char.pdf](http://www.mines.unr.edu/adti/blm/Regional_Site_Char.pdf)
- McLemore, V.T., Russell, C.C., Smith, K.S., and the Sampling and Monitoring Committee of the Acid Drainage Technology Initiative—Metals Mining Sector (ADTI—MMS). 2004. Sampling and monitoring for closure. In Pre-Prints of the Society for Mining, Metallurgy, and Exploration Annual Meeting and Exhibit, Denver, Colorado, February 23-25, 2004: Littleton, Colorado, Society for Mining, Metallurgy, and Exploration, Inc., Preprint No. 04-62, 7 p., <http://www.onemine.org/view/?d=BB60F953960F2274EBE26EC2304AA37CA5BD2E24D37573C249E8B807896ED8E038402> (accessed 8/22/11)
- McLemore, V.T., Smith, K.S., Russell, C.C., and the Sampling and Monitoring Committee of the Acid Drainage Technology Initiative-Metal Mining Sector (ADTI-MMS). 2007. Sampling and monitoring for closure. In J.V. DeGraff, ed. Understanding and Responding to Hazardous Substances at Mine Sites in the Western United States: Geological Society of America, Reviews in Engineering Geology:17, pp. 171-180.
- McLemore, V.T., ed. 2008. Management Technologies for Metal Mining Influenced Water, Volume 1: Basics of Metal Mining Influenced Water: Society for Mining, Metallurgy, and Exploration, Inc., Littleton, CO, 102 p., <http://www.smenet.org/store/mining-books.cfm/Basics-of-Metal-Mining-Influenced-Water/259-8>, accessed January 10, 2010.
- McLemore, V.T., Russell, C.C., and Smith, K.S. 2009. ADTI-MMS sampling and monitoring for the mine-life



cycle: Securing the Future and 8<sup>th</sup> ICARD, June 23-26 2009, Skelleftea, Sweden, conference proceedings, 10 p., [http://www.proceedings-stfandicard-2009.com/pdf/Virginia\\_McLemore\\_B4\\_T3\\_ADTI-MMS-Sampling-and-Monitoring-for-the\\_Mine-life-Cycle.pdf](http://www.proceedings-stfandicard-2009.com/pdf/Virginia_McLemore_B4_T3_ADTI-MMS-Sampling-and-Monitoring-for-the_Mine-life-Cycle.pdf), accessed February 8, 2010.

McLemore, V.T., Castendyk, D., Figueroa, L.A., Gusek, J.J., Turner, D.L., Williams, D. and Bucknam, C.H. 2010. Workbook series of ADTI-MMS. In R.I. Barnhisel, Ed., Proceedings of the 2010 National Meeting of the American Society of Mining and Reclamation: American Society of Mining and Reclamation, Pittsburg, PA, Bridging Reclamation, Science and the Community, June 5 – 11, 13 p., <http://www.asnr.us/Publications/Conference%20Proceedings/2010/papers/0598-Mclemore-NM.pdf> (accessed 8/22/11)

McLemore, V.T., Smith, K.S., Russell, C.C., editors, 2014, Management Technologies for Metal Mining Influenced Water, volume 6: Sampling and monitoring for the mine life cycle: Society for Mining, Metallurgy, and Exploration, Inc., Littleton, CO.

## **GEOLOGY AND ENVIRONMENTAL STUDIES OF THE PECOS RIVER**

\*McLemore, V. T., Brandvold, L. A., and Brandvold, D. K., 1993, A reconnaissance study of mercury and base metal concentrations in water, stream and lake-sediment samples along the Pecos River, eastern New Mexico: New Mexico Geological Society, Guidebook 44, p. 339-352.

Brandvold, L. A. and McLemore, V. T., 1994, Environmental geochemistry of stream-sediments from the upper Pecos River, northern New Mexico: A progress report: New Mexico Geological Society, Spring Meeting.

\*Brandvold, L. A., McLemore, V. T., and O'Connor, C., 1995, Distribution and partitioning of copper, lead and zinc in stream sediments above and below an abandoned mining and milling area near Pecos, New Mexico: *The Analyst*, v. 120, p. 1485-1495.

\*McLemore, V. T., Brandvold, L. A., Hossain, A. M., and Pease, T. C., 1995, The effect of particle size distribution on the geochemistry of stream sediments from the upper Pecos River, San Miguel County, New Mexico: New Mexico Geological Society, Guidebook 46, pp. 323-329.

\*McLemore, V. T., Brandvold, L.A., Brandvold, D.K., Kirk, K., Popp, C., Hansen, S., Radkte, R., and Hossain, A.M., 1995, A preliminary summary of multi-disciplinary studies in the upper Pecos River area, Santa Fe and San Miguel Counties, New Mexico: New Mexico Geological Society, Guidebook 46, pp. 331-338.

Pease, T. C., McLemore, V. T., and Brandvold, L. A., 1995, The effect of particle size distribution on the base metal geochemistry of stream sediments from the upper Pecos River, New Mexico (abstr.): New Mexico Geological Society, Spring Meeting, *New Mexico Geology*, v. 17, p. 27-28.

Popp, C. J., Brandvold, D. K., Kirk, K., Brandvold, L. A., McLemore, V. T., Hansen, S., Radtke, R., and Kyle, P., 1996, Reconnaissance investigation of trace metal sources, sinks, and transport in the upper Pecos River Basin, New Mexico: U. S. Bureau of Reclamation, Report No. 3-FC-4D- 13830, 224 pp.

Brandvold, L. A. and McLemore, V. T., 1997, A study of the analytical variation of sampling and analysis of stream sediments from mining and milling contaminated areas (abstr.); in Wanty, R. B., Marsh, S. P., and Gough, L. P., eds., 4th International Symposium on Environmental Geochemistry Proceedings: U. S. Geological Survey, Open-file Report OF97-496, pp. 14-15, <http://pubs.usgs.gov/of/1997/0496/report.pdf> (accessed 8/22/11)

McLemore, V. T. and Brandvold, L. A., 1997, The effect of particle size distribution on the chemical composition of stream sediments from the upper Pecos River, San Miguel County, New Mexico (abstr.); in *Geoanalysis 97: Proceedings volume*, p. 47.

McLemore, V. T. and Brandvold, L. A., 1997, Geology and geochemistry of water and stream-sediment samples of the upper Pecos River, from the southern Pecos Wilderness to Brantley Dam, north of Carlsbad, eastern New Mexico (abstr.); in Wanty, R. B., Marsh, S. P., and Gough, L. P., eds., 4th International Symposium on Environmental Geochemistry Proceedings: U. S. Geological Survey, Open-file Report OF97-496, p. 63, <http://pubs.usgs.gov/of/1997/0496/report.pdf> (accessed 8/22/11)

McLemore, V. T. and Brandvold, L. A., 1997, Transport of metals from the Pecos mine and Alamitos Canyon mill site in the Pecos River, northeastern New Mexico; in WERC-HSRC, 97 Joint conference on the environment: WERC and HSRC/S&SW, Proceedings Volume, pp. 189-193.

\*Brandvold, L. A. and McLemore, V. T., 1998, A study of the analytical variation of sampling and analysis of stream sediments from mining and milling contaminated areas: *Journal of Geochemical*

Exploration, v. 64, pp. 185-196, [http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VCP-3VWF85X-13-K&\\_cdi=5960&\\_user=1818435&\\_pii=S0375674298000326&\\_origin=search&\\_zone=rslt\\_list\\_item&\\_coverDate=11%2F30%2F1998&\\_sk=999359998&\\_wchp=dGLzVlb-zSkWz&\\_md5=9bf631722c95926928f369cb1c218a57&\\_ie=/sdarticle.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VCP-3VWF85X-13-K&_cdi=5960&_user=1818435&_pii=S0375674298000326&_origin=search&_zone=rslt_list_item&_coverDate=11%2F30%2F1998&_sk=999359998&_wchp=dGLzVlb-zSkWz&_md5=9bf631722c95926928f369cb1c218a57&_ie=/sdarticle.pdf) (accessed 8/22/11)

- \*McLemore, V. T., Brandvold, L. A., and Carey, E. A., 2001, Long-term monitoring of the geochemistry of water and stream-sediment samples from the upper Pecos River, from the southern Pecos Wilderness to Brantley Dam, north of Carlsbad, eastern New Mexico: year nine; in Ulmer- Scholle, D. S. and Lucas, S. G., ed., Geology of the Llano Estacado, 2001: New Mexico Geological Society Guidebook 52, pp. 321-332.
- Carey, E. A., Brandvold, L. A., and McLemore, V. T., 2001, Base metal and trace element concentrations in stream sediments along the Pecos River, from the southern Pecos Wilderness to Brantley Dam, north of Carlsbad, eastern New Mexico: American Society for Surface Mining and Reclamation, 18th annual meeting, 2001 proceedings volume 1, pp. 246-254.
- \*Carey, E. A., Brandvold, L. A., and McLemore, V. T., 2000, Base metal and trace element concentrations in stream sediments along the Pecos River, from the southern Pecos Wilderness to Brantley Dam, north of Carlsbad, eastern New Mexico: Sigma XI annual meeting, poster session.

### **GEOLOGY OF THE STATE PARKS IN NEW MEXICO**

- \*McLemore, V. T., 1988, Harry McAdams State Park: New Mexico Geology, v. 10, no. 2, pp. 12-14.
- \*McLemore, V. T., 1988, Chicosa Lake State Park: New Mexico Geology, v. 10, pp. 62-64.
- \*McLemore, V. T., 1988, Kit Carson State Park and Cemetery: New Mexico Geology, v. 10, pp. 90-91.
- \*McLemore, V. T., 1989, Santa Rosa Lake State Park: New Mexico Geology, v. 11, pp. 8-10.
- \*McLemore, V. T., 1989, Red Rock State Park: New Mexico Geology, v. 11, p. 34-37.
- \*McLemore, V. T., 1990, Sugarite Canyon State Park: New Mexico Geology, v. 12, p. 38-42. McLemore, V. T., 1990, Cimarron Canyon State Park: New Mexico Geological Society, Guidebook 41, p. 49.
- \*McLemore, V. T., 1990, Cimarron Canyon State Park and Colin Neblett Wildlife area: New Mexico Geology, v. 12, pp. 66-71.
- McLemore, V. T., 1991, Geology of the Valley of Fires Recreation area: New Mexico Geological Society, Guidebook 42, p. 67-70.
- McLemore, V. T., 1991, Oliver Memorial Lee State Park: New Mexico Geological Society, Guidebook 42, p. 12-13.
- McLemore, V. T., 1991, Smokey Bear Historical State Park: New Mexico Geological Society, Guidebook 42, p. 40.
- McLemore, V. T., 1993, Brantley Lake State Park: New Mexico Geological Society, Guidebook 44, p. 79-80.
- \*McLemore, V. T., 1996, Oliver Lee Memorial State Park: New Mexico Geology, v. 18, no. 1, pp. 14-17.
- \*McLemore, V. T., 1996, Villanueva State Park: New Mexico Geology, v. 18, pp. 38-41.
- \*McLemore, V. T., 1996, Smokey Bear State Park: New Mexico Geology, v. 18, pp. 104-107.
- \*McLemore, V. T., 1997, Clayton Lake State Park: New Mexico Geology, v. 19, pp. 22-25.
- \*McLemore, V. T., 1997, City of Rocks State Park: New Mexico Geology, v. 19, pp. 44-47.
- \*McLemore, V. T., 1997, Conchas Lake State Park: New Mexico Geology, v. 19, no. 3, pp. 76-78.
- \*McLemore, V. T., 1997, Ute Lake State Park: New Mexico Geology, v. 19, pp. 96-98.
- McLemore, V. T., 1997, Navajo Lake State Park: New Mexico Geological Society, Guidebook 48, pp. 39-40.
- \*McLemore, V. T., 1998, Sumner Lake State Park: New Mexico Geology, v. 20, pp. 84-87.
- \*McLemore, V. T., 1998, Oasis State Park: New Mexico Geology, v. 20, pp. 106-108.
- \*McLemore, V. T., 1998, Bluewater Lake State Park: New Mexico Geology, v. 20, pp. 44-46.
- \*McLemore, V. T., 1999, Coyote Creek State Park: New Mexico Geology, v. 21, pp. 18-21.
- \*McLemore, V. T., 1999, Bottomless Lakes State Park: New Mexico Geology, v. 21, pp. 51-55.
- \*McLemore, V. T., 1999, Leasburg State Park and Fort Selden State Monument: New Mexico Geology, v. 21, p. 66-70.
- \*McLemore, V. T., 2000, Pancho Villa State Park: New Mexico Geology, v. 22, p. 18-22.
- McLemore, V. T., 2000, Pancho Villa State Park; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin,

- G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 43-44.
- McLemore, V. T., Dunbar, N. W. and McIntosh, W. C., 2000, Rockhound State Park and Spring Canyon Recreation Area; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 33-34.
- \*McLemore, V. T. and Dunbar, N. W., 2000, Rockhound state park and Spring Canyon recreation area: New Mexico Geology, v. 22, p. 66-71, 86.
- \*McLemore, V. T., 2000, Manzano Mountains State Park and Abó and Quarai units of the Salinas Pueblo Missions National Monument: New Mexico Geology, v. 22, pp. 108-112.
- Dunbar, N. and McLemore, V. T., 2000, Origin of thundereggs from the Rockhound State Park, New Mexico (abstr.): New Mexico Geology, v. 22, in press.
- \*McLemore, V. T., 2001, Living Desert Zoo and Gardens State Park: New Mexico Geology, v. 23, pp. 42-50.
- McLemore, V. T., 2001, Conchas Lake State Park; in Ulmer-Scholle, D. S. and Lucas, S. G., ed., Geology of the Llano Estacado, 2001: New Mexico Geological Society Guidebook 52, pp. 52-53.
- McLemore, V. T., 2001, Oasis State Park; in Ulmer-Scholle, D. S. and Lucas, S. G., ed., Geology of the Llano Estacado, 2001: New Mexico Geological Society Guidebook 52, pp. 34-36.
- \*McLemore, V. T., 2001, Brantley Lake State Park: New Mexico Geology, v. 23, p. 123-128.
- \*McLemore, V. T., 2002, Morphy Lake State Park: New Mexico Geology, v. 24, p. 52-55.
- \*McLemore, V. T., 2002, Navajo Lake State Park: New Mexico Geology, v. 24, p. 91-96, 103.
- McLemore, V. T., 2002, The Three Rivers Petroglyph Site, Otero County, New Mexico; in Lueth, V. W., Giles, K. A., Lucas, S. G., Kues, B. S., Myers, R., and Ulmer-Scholle, D. S., Geology of White Sands: New Mexico Geological Society Guidebook 52, pp. 26-27.
- Price, L.G., 2010, The geology of the northern New Mexico's parks, monuments, and public lands: New Mexico Bureau of Geology and Mineral Resources, 372 p. (V.T. McLemore authored Bluewater Lake (p. 35-39), Red Rock State Park (p. 45-49), Heron Lake and El Vado Lake State Parks (p. 107-111), Storrie Lake State Park (p. 331-333), Sugarite Canyon State Park (p. 341-345), Santa Rosa Lake State Park (p. 353-355))
- McLemore, V.T., 2012, Fort Craig National Historic Site and the El Camino Real de Tierra Adentro, Socorro County, New Mexico: New Mexico Geological Society, Guidebook 63, p. 80-81.
- \*\*McLemore, V.T., 2018, Geology of Red Rock Park: LITE Geology, Issue 43, Fall, p. 4, [https://geoinfo.nmt.edu/publications/periodicals/litegeology/43/lg\\_v43.pdf](https://geoinfo.nmt.edu/publications/periodicals/litegeology/43/lg_v43.pdf)

#### **MINERAL RESOURCE ASSESMENTS, NEW MEXICO**

- Chamberlin, R. M., Logsdon, M. J., Eveleth, R. W., Bieberman, R. A., Roybal, G. H., Osburn, J. C., North, R. M., McLemore, V. T., and Weber, R. H., 1982, Preliminary evaluation of the mineral resource potential of the Sierra Ladrones Wilderness study area, Socorro County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report 179, 192 pp.
- McLemore, V. T., 1984, Preliminary report on the geology and mineral-resource potential of Torrance County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-192, 211 pp.
- \*McLemore, V. T., 1985, Evaluation of mineral-resource potential in New Mexico: New Mexico Geology, v. 7., no. 2., pp. 50-53, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/7/n3/nmg\\_v7\\_n3\\_p50.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/7/n3/nmg_v7_n3_p50.pdf) (accessed 8/22/11)
- McLemore, V. T., Roybal, G. H., Broadhead, R. F., Chamberlin, R. M., North, R. M., Osburn, J. C., Arkell, B. W., Colpitts, R. M., Bowie, M. R., Anderson, K., Barkers, J. M., and Campbell, F. W., 1984, Preliminary report on the geology and mineral-resource potential of the northern Rio Puerco Resource Area in Sandoval and Bernalillo Counties and adjacent part of McKinley, Cibola, and Santa Fe, Counties, New Mexico, New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-211, 817 pp.
- McLemore, V. T., Broadhead, R. F., Barker, J. M., Austin, G. A., Klein, K., Brown K. B., Murray, D., Bowie, M. R., and Hingtgen, J. S., 1986, A preliminary mineral-resource potential of Valencia County, northwestern New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open- file Report OF-229, 197 pp.
- McLemore, V. T., Broadhead, R. F., Barker, J.M., Austin, G. S., Klein, K., Brown, K. B., Murray, D., Bowie,

- M. R., and Hingtgen, J. S., 1986, A preliminary mineral-resource potential of Cibola County, northwestern New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open- file Report OF-230, 403 pp.
- McLemore, V. T., Roybal, G. H., Birdsall, K., Broadhead, R. F., Chenoweth, W. L., North, R. M., Barker, J. M., Copeland, P., Bowie, M. R., Hingtgen, K. S., Brown, K. B., and Klein, K., 1986, A preliminary mineral-resource potential of McKinley County, northwestern New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-231, 691 pp.
- McLemore, V. T., Roybal, G. H., Birdsall, K., Broadhead, R. F., Chenoweth, W. L., North, R. M., Barker, J. M., Copeland, P., Bowie, M. R., Hingtgen, J. S., Brown, K. B., and Klein, K., 1986, A preliminary mineral-resource potential of San Juan County, New Mexico: New Mexico Bureau of Mines and Mineral Resources Open-file Report OF-232, 885 pp.
- McLemore, V. T., Broadhead, R. F., Roybal, G. K., Chenoweth, W. L., Barker, J. M., Copeland, P., Bowie, M. W., Cook, K., Hingtgen, J. S., Klein, K., and Brown, K. B., 1986, A preliminary mineral-resource potential of western Rio Arriba County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-233, 157 pp.
- Sutphin, D. M., McLemore, V. T., Abrams, G. A., Bartsch-Winkler, S., Hassemer, J. R., Klein, D. P., Pithkin, J. A., Silberman, M. L., and Wallace, A. R., 1996, Quantitative mineral resource assessment-Estimate of undiscovered mineral resources; *in* S. Bartsch-Winkler, ed., *Geology, Mineral and Energy Resources of the Mimbres Resource Area*, New Mexico: U. S. Geological Survey, Open-file Report 97-521, pp. 381-465.
- New Mexico Bureau of Mines and Mineral Resources, New Mexico State University Southwest Technology Institute, and TRC Mariah Associates, Inc., 1998, Mineral and energy resource assessment of the McGregor Range (Fort Bliss), Otero County, New Mexico: New Mexico Bureau of Mines and Mineral Resources Open-file report 458, 543 pp.
- \*\*McLemore, V. T., 1997, Assessment of potential for extracting or removing economic mineral resources by surface mining or drilling from the Chromo Mountain Ranch area, Rio Arriba County, New Mexico: unpublished report to Rocky Mountain Elk Foundation, 4 pp.
- \*\*McLemore, V. T., 1997, Assessment of potential for extracting or removing economic mineral resources by surface mining or drilling from the Willow Creek area, Rio Arriba County, New Mexico: unpublished report to Rocky Mountain Elk Foundation, 4 pp.
- \*\*McLemore, V. T., Thompson, R. C., Jones, D., and Munroe, E., 1998, Chemistry Database for Sierra and Otero Counties, New Mexico: unpublished database to U. S. Geological Survey.
- \*\*McLemore, V. T., Thompson, R. C., Munroe, E., and Jones, D., 1998, Database of active and inactive mines in Sierra and Otero Counties, New Mexico: unpublished database to U. S. Geological Survey.
- \*\*McLemore, V. T., 1999, Assessment of potential for extracting or removing economic mineral resources by surface mining or drilling from the Chavez Creek area, Rio Arriba County, New Mexico: unpublished report for Rocky Mountain Elk Foundation.
- \*\*McLemore, V. T. and Breese, M. R., 2002, Assessment of potential for extracting or removing economic mineral resources by surface mining or drilling from the Double H Ranch property, Socorro and Catron Counties, New Mexico: unpublished report for Rocky Mountain Elk Foundation, 12 pp.
- McLemore, V. T., Donahue, K., Breese, M., Jackson, M. L., Arbuckle, J., and Jones, G., 2001, Mineral- resource assessment of Luna County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open file Report 459, 84 pp., CD-ROM.
- McLemore, V.T., 2012, Mineral resource potential and environmental assessment of the Calamity Jane Adit on the Good Will and Samoa patented mining claims, Kingston district, Sierra County, New Mexico: unpublished report, 16 p.
- McLemore, V.T., 2012, Environmental issues associated with the Nogal mining district, Lincoln County, New Mexico: A Preliminary Assessment: unpublished report, 29 p.
- McLemore, V.T., 2012, Potential for placer gold deposits in the Clayton area, Union County, New Mexico: unpublished report, 16 p.
- McLemore, V.T., 2012, Mineral resource potential and environmental assessment of section 11, T18S, R2W, Doña Ana County, New Mexico: unpublished report, 11 p.
- McLemore, V.T., 2013, Mineral Resource Potential for Scoria in the Broken Back Crater and adjacent area, Socorro and Lincoln Counties, New Mexico: unpublished mineral resource report
- McLemore, V.T., 2013, Romero Ranch District, Cibola and Valencia Counties, New Mexico: unpublished mineral

resource report

- \*\*McLemore, V.T., 2018, Mineral-Resource Potential of proposed U.S. Bureau of Land Management exchange of lands with New Mexico State Land Office: New Mexico Bureau of Geology and Mineral Resources, Open-file Report OF-598, 152 p., <https://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=598>
- \*\*McLemore, V.T., 2018, Mineral-Resource Potential of Sabinoso Wilderness Area and Rio Grande Del Norte National Monument in Northeastern New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Report OF 599, 55 p., <https://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=599>
- McLemore, V.T., Zutah, W., Silva, M., Asafo-Akouwah, J., Trivitt-Kracke, A., Shackelford, J., Mojtabei, N., Richards, M., Harrison, N., Durica, J., Durica, B., and Sears, B., 2019, Geology, mineral-resource potential, and potential environmental impacts of the Rosedale Mining district, Socorro County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 603, 141 p., <https://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=603>

## URANIUM RESOURCES IN NEW MEXICO

- \*McLemore, V. T., 1981, Uranium Resources in New Mexico—Discussion of the NURE program: New Mexico Geology, v. 3, no. 4, pp. 54-58, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/3/n4/nmg\\_v3\\_n4\\_p54.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/3/n4/nmg_v3_n4_p54.pdf) (accessed 8/22/11)
- McLemore, V. T., 1982, Radioactive occurrences in veins and igneous and metamorphic rocks of New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-155, 227 pp.; also U.S. Department of Energy Report GJBX-100 (82).
- \*McLemore, V. T., 1982, Uranium in the Albuquerque area, New Mexico; *in* Albuquerque Country II: New Mexico Geological Society, Guidebook 33, pp. 305-312.
- \*McLemore, V. T., 1983, Uranium in the Socorro area, New Mexico, *in* Socorro Country: New Mexico Geological Society, Guidebook 34, pp. 227-233.
- McLemore, V. T., 1983, Uranium and thorium occurrences in New Mexico: distribution, geology, production, and resources; with selected bibliography: New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-182, 950 pp., also U.S. Department of Energy Report GJBX- 11(83).
- \*McLemore, V. T., 1983, Uranium industry in New Mexico, history, production, and present status: New Mexico Geology, v. 5, no. 3, pp. 45-51, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/5/n3/nmg\\_v5\\_n3\\_p45.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/5/n3/nmg_v5_n3_p45.pdf) (accessed 8/22/11)
- \*McLemore, V. T., and Menzie, D., 1983, Geology and uranium potential of the Sabinoso district, San Miguel County, New Mexico: New Mexico Geology, v. 5, no. 2, pp. 35-58, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/5/n2/nmg\\_v5\\_n2\\_p35.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/5/n2/nmg_v5_n2_p35.pdf) (accessed 8/22/11)
- \* Chamberlin, R. M., and McLemore, V. T., 1985, NURE geochemical reconnaissance maps on New Mexico: New Mexico Geology, v. 7, pp. 21-25, [http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/7/n1/nmg\\_v7\\_n1\\_p17.pdf](http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/7/n1/nmg_v7_n1_p17.pdf) (accessed 8/22/11)
- \*McLemore, V. T., and Chamberlin, R. M., 1986, National Uranium Resource Evaluation (NURE) data available from New Mexico Bureau of Mines and Mineral Resources, pamphlet, 22 pp.
- Chenoweth, W. L., and McLemore, V. T., 1989, Uranium resources on the Colorado Plateau: *in* Energy Frontiers in the Rockies, J. C. Lorenz and S. G. Lucas, eds.: Albuquerque Geological Society, 1989 Rocky Mountain Section of the American Association of Petroleum Geologists Volume, pp. 153-166.
- \*Finch, W. I., and McLemore, V. T., 1989, Uranium geology and resources of the San Juan Basin; *in* Finch, W.I., Hoffman, A. C., Jr., and Fassett, J. E., eds., Coal uranium and oil and gas in Mesozoic rocks of the San Juan Basin: Anatomy of a giant energy-rich basin: 28th International Geologic Congress, Guidebook for field trip T120, June 30 to July 7, 1989, pp. 27-32.
- McLemore, V. T., 1989, Uranium in the Galisteo Formation, Hagan basin, Sandoval County, New Mexico; *in* Energy Frontiers in the Rockies, J. C. Lorenz and S. G. Lucas, eds: Albuquerque Geological Society, 1989 Rocky Mountain Section of American Association of Petroleum Geologists Volume, p. 5.
- \*McLemore, V. T., and Chenoweth, W. C., 1989, Uranium resources in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Resource Map 18, 37 pp.

- McLemore, V. T., and Chenoweth, W. L., 1989, Uranium resources in New Mexico (abstr.): American Association of Petroleum Geologists, Bulletin v. 73, p. 1167.
- McLemore, V. T., 1990, Uranium in the quartz monzonite of Costilla Creek, Taos County, New Mexico: New Mexico Geological Society, Guidebook 41, p. 17.
- McLemore, V. T. and Chenoweth, W. L., 1991, Uranium mines and deposits in the Grants district, Cibola and McKinley Counties, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open File Report 353, 22 pp.
- McLemore, V. T., 1992, Uranium occurrences in the Chihuahua Desert area, Sierra, Grant, Hidalgo, Luna, and Doña Ana Counties, New Mexico; *in* Goodell, P. C., Garcia-Gutierrez, C., and Reyes Corteo, I.: Department of Geological Sciences, UTEP, El Paso Geological Society, Center for Latin American and Border Studies (UTEP), Research consortium of the Chihuahua Desert and the Energy Center (UTEP) publishers, p. 224-235.
- \*McLemore, V. T. and Chenoweth, W. L., 1992, Uranium resources in New Mexico; *in* Short Papers of the U.S. Geological Survey Uranium Workshop, 1990: U.S. Geological Survey, Circular 1069, p. 3-6.
- \*McLemore, V. T. and Chenoweth, W. L., 1992, Uranium deposits in the eastern San Juan Basin, Cibola, Sandoval, and Rio Arriba Counties, New Mexico: New Mexico Geological Society, Guidebook 43, p. 341-350.
- Berglof, W. B. and McLemore, V. T., 1995, Mineralogy of the Todilto uranium deposits, Grants district, New Mexico (abstr.): New Mexico Minerals Symposium, New Mexico Geology, v. 18, pp. 19-20. Berglof, W. R., and McLemore, V. T., 1996, Geochronologic studies in the Grants uranium district, New Mexico (abstr.): New Mexico Geological Society, Spring Meeting.
- McLemore, V. T., 1997, Uranium occurrences; *in* S. Bartsch-Winkler, ed., Geology, Mineral and Energy Resources of the Mimbres Resource Area, New Mexico: U. S. Geological Survey, Open-file Report 97-521, pp. 521-524.
- \*McLemore, V. T. and Chenoweth, W. C., 1997, Geology and uranium-vanadium deposits in the Salt Wash Member, Morrison Formation, King Tutta Mesa area, San Juan County, New Mexico: New Mexico Geological Society, Guidebook 48, pp. 273-278.
- Berglof, W. R. and McLemore, V. T., 1999, Ore-controlling folds, Todilto uranium deposits, Grants district, New Mexico (abstr.): New Mexico Geological Society, Spring Meeting Program; New Mexico Geology, v. 21, p. 31.
- McLemore, V. T., 1999, Uranium-selenium deposits in the Galisteo Formation, Hagan Basin, Sandoval County, New Mexico; *in* Pazzaglia, F., Lucas, S. G., and Austin, G. S., eds., Albuquerque Country III: New Mexico Geological Society, Guidebook 50, p. 18-19.
- \*McLemore, V. T., 2002, Uranium in New Mexico: New Mexico Bureau of Geology and Mineral Resources, Decision-Makers Field Conference 2002, p. 30-34.
- McLemore, V. T., 2007, Uranium resources in New Mexico: SME preprint 07-111, 2007 annual meeting, 13 p., <http://www.onemine.org/view/?d=F0C4DE65ECF5391F2D2A94AAB120441AAEB314771ACEE7D1C4BDBEC751B3F4ED39805> (accessed 8/22/11)
- McLemore, V.T., 2008, In-Situ Recovery of Sandstone Uranium Deposits in New Mexico: Past, Present, and Future Issues and Potential; in 2008 National Meeting of the American Institute of Professional Geologists, Arizona Hydrological Society, and 3<sup>rd</sup> International Professional Geologic Conference, Flagstaff, Arizona, USA, September 20-24, 2008
- McLemore, V.T., 2009, In-Situ Recovery of Sandstone Uranium Deposits in New Mexico: Past, Present, and Future Issues and Potential; Society of Mining, Metallurgy and Exploration Annual Convention, preprint 09-16, 5 p., <http://www.onemine.org/view/?d=54201D03825FB1C45ECC8B1B42347C4FD8D39D23D156F2E71CF251BAEA51DB36148863> (accessed 8/22/11)
- \*Yancey, C.L. and McLemore, V.T., 2008, Uranium geology of the west: Southwest Hydrology, v. 7, no. 6, p. 20-21, 34.
- McLemore, V.T., 2010, Use of the New Mexico Mines Database and ArcMap in Uranium Reclamation Studies: Society of Mining, Metallurgy and Exploration Annual Convention, Phoenix, Feb 2010, Preprint 10-125, 10 p., <http://www.onemine.org/view/?d=8E55DAEA43EE7D5BA01638DB9CFBD177001A9F1C5B767B62C0A1D7A061509FCB169983> (accessed 8/22/11)
- \*McLemore, V.T., 2010, Use of the New Mexico Mines Database and ArcMap in Uranium Reclamation Studies: Society of Mining, Metallurgy and Exploration Transactions, v. 328.
- \*Chenoweth, W.L. and McLemore, V.T., 2010, Uranium in the Sanostee district, San Juan County, New Mexico:

- New Mexico Geological Society Guidebook 61, p. 213-220.
- McLemore, V.T. and Chenoweth, W.L., 2010, Uranium-vanadium deposits in the Salt Wash Member, Morrison Formation, King Tutta Mesa area, San Juan County, New Mexico: New Mexico Geological Society Guidebook 61, p. 65-68.
- \*McLemore, V.T., 2011, The Grants uranium district: Update on Source, Deposition, Exploration: *The Mountain Geologist*, v, 48, p. 23-44.
- McLemore, V.T., McQuillan, D., Longmire, P. and Vaniman, D., 2011, Uranium deposits in the Española Basin, Santa Fe County, New Mexico: New Mexico Geological Society, Guidebook 62, p. 399-408.
- McLemore, V. T., Donahue, K., Krueger, C. B., Rowe, A., Ulbricht, L., Jackson, M. J., Breese, M. R., Jones, G., and Wilks, M., 2002, Database of the uranium mines, prospects, occurrences, and mills in New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open file Report 461, CD-ROM.
- McLemore, V. T., 2002, Uranium in New Mexico: New Mexico Bureau of Geology and Mineral Resources, Decision-Makers Field Conference 2002, p. 30-34.
- McLemore, V. T., 2002, Uranium resources in New Mexico (abstr.): American Association of Petroleum Geologists, abstracts with programs, annual meeting, Houston, CD-ROM, p. A118; [http://aapg.confex.com/aapg/hu2002/techprogram/paper\\_46652.htm](http://aapg.confex.com/aapg/hu2002/techprogram/paper_46652.htm)
- McLemore, V.T., McQuillan, D., Longmire, P., and Vaniman, D., 2012, Uranium Deposits in the Española Basin, Santa Fe County, New Mexico (abstr.); *in* 10th Annual Española Basin workshop, February 23-24, Santa Fe: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 546, p. 15., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/546/ofr\\_546.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/546/ofr_546.pdf)
- McQuillan, D., McLemore, V., Longmire, P., Vaniman, D., Simmons, A., And Koning, D., 2012, Sources, Mobility, and Groundwater Occurrence of Uranium in the Eastern Española Basin Region; *in* 10th Annual Española Basin workshop, February 23-24, Santa Fe: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 546, p. 16., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/546/ofr\\_546.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/546/ofr_546.pdf)
- McLemore, V.T., McQuillan, D., Longmire, P. and Vaniman, D., 2012, Sources, Mobility, and Groundwater Occurrence of Uranium in the Eastern Española Basin Region; *in* 10th Annual Española Basin workshop, February 23-24, Santa Fe: New Mexico Bureau of Geology and Mineral Resources, Open-file Report 546, p. 1-31, [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/546/ofr\\_546.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR500-599/526-550/546/ofr_546.pdf)
- \*McLemore, V.T., Hill, B., Khalsa, N., and Lucas Kamat, S.A., 2013, Uranium resources in the Grants uranium district, New Mexico: An update: New Mexico Geological Society, Guidebook 64, p. 117-126, [https://nmgs.nmt.edu/publications/guidebooks/papers.cfm?v=64&file=64\\_p0117\\_p0126.pdf](https://nmgs.nmt.edu/publications/guidebooks/papers.cfm?v=64&file=64_p0117_p0126.pdf)
- McQuillan, D., Winman, S., Longmire, P., Boukhalfa, H., Coel-Roback, B., Drew, W., McLemore, V.T., 2014, Groundwater uranium isotope ratios in the Epanola Basin (abstr.): 13th Annual Espanola Basin Technical Advisory Group Workshop and Field Trip, proceedings volume, p. 10-11 <http://geoinfo.nmt.edu/ehtag/workshop/abstracts/view.cfm?aid=189>
- McLemore, V.T., Wilton, T., and Pelizza, M., 2016, In-Situ Recovery of Sandstone-Hosted Uranium Deposits in New Mexico: Past, Present, and Future Issues and Potential: *New Mexico Geology*, v. 38, no. 4, p. 68-76.
- McLemore, V.T. and Frey, B.A., 2016, Uranium in New Mexico: A special issue of *New Mexico Geology* *New Mexico Geology*, v. 38, no. 4, p. iii.
- McLemore, V.T. and Wilton, T., 2017, Uranium in New Mexico: A special issue of *New Mexico Geology*: *New Mexico Geology*, v. 39, no. 1, p. iii.
- McLemore, V.T. and Frey, B., 2017, Gallery of geology: *New Mexico Geology*, v. 39, no. 1
- \*\*McLemore, V.T. and Chenoweth, W.C., 2017, Uranium resources; *in* McLemore, V.T., Timmons, S., and Wilks, M., eds., *Energy and Mineral deposits in New Mexico*: New Mexico Bureau of Geology and Mineral Resources Memoir 50 and New Mexico Geological Society Special Publication 13, 80 p.

#### **ROAD LOGS, GUIDEBOOKS, SPECIAL PUBLICATIONS, AND OTHER PUBLICATIONS**

- Gableman, J., Robertson, J. M., and McLemore, V. T., compilers, 1987, Roadlog from Albuquerque to Taos via I-25, US-285, and NM-68 (USGS Cluster Meeting, November 3-6, 1987): New Mexico Bureau of Mines and Mineral Resources, Open-file Report OF-337, 42 pp.
- McLemore, V. T., and Bowie, M. R., Compilers, 1987, Guidebook to the Socorro area, New Mexico: Guidebook for the 1987 conference, 24th annual meeting of the Clay Minerals Society and 36th annual

- Clay Minerals Conference: New Mexico Bureau of Mines and Mineral Resources, 75 pp.
- Hoffman, A. C., Jr., Condon, S.M., and McLemore, V. T., 1989, Day 8, Friday, July 7—Grants to Albuquerque, New Mexico; *in* Finch, W. I., Hoffman, A. C., Jr., and Fassett, J. E., eds., Coal, uranium and oil and gas in Mesozoic rocks of the San Juan Basin: Anatomy of a giant energy-rich basin: 28th International Geologic Congress, Guidebook for field trip T120, June 30 - July 7, 1989, pp. 90-03.
- McLemore, V. T., Barker, J. M., and Austin, G. S., 1989, Supplemental road log from Grants, New Mexico to U.S. Gypsum perlite mine (State Road 547): New Mexico Geological Society, Guidebook 40, pp. 67-68.
- McLemore, V. T., Barker, J. M., and Chenoweth, W. C., 1989, Roadlog from Grants-Milan, New Mexico to Mt. Taylor uranium mine (San Mateo), Lea Ranch coal mine, and Ambrosia Lake uranium area: *in* Energy Frontiers in the Rockies, J. C. Lorenz and S. G. Lucas, eds: Albuquerque Geological Society, 1989 Rocky Mountain Section of American Association of Petroleum Geologists Volume, pp. 23-30.
- McLemore, V. T., and Roberts, T. T., 1990, Roadlog of Pioneer Canyon, Red River district, New Mexico: New Mexico Geological Society, Guidebook to the 41st field conference, p. 101-102.
- Cather, S. M., Lucas, S. G., McLemore, V. T., and Colpitts, R. M., Jr., 1991, Second day road log from Inn of the Mountain Gods to Hondo, Lincoln, Capitan, and return to Inn of the Mountain Gods: New Mexico Geological Society, Guidebook 42, p. 27-46.
- Hoffer, J. M., Chen, W., McLemore, V. T., and Anthony, E. Y., 1991, Day 2, The Portrillo Volcanic Field; *in* Field guide for geologic excursions in New Mexico and adjacent areas of Texas and Colorado: New Mexico Bureau of Mines and Mineral Resources, Bulletin 137, pp. 12-19.
- Lucas, S. G., McLemore, V. T., Hunt, A. P., Allen, M. S., Cather, S. M., and Ouimette, M., 1991, Third Day road log: from Inn of the Mountain Gods to Nogal, Carrizozo, White Oaks, and Valley of Fires: New Mexico Geological Society, Guidebook 42, p. 47-72.
- Lucas, S. G., Hunt, A. P., Williamson, T. E., Kues, B. S., and McLemore, V. T., 1992, Third day road log from Cuba to La Jara, Regina, Alamagra Arroyo, Llaves, Gallina, Arroyo del Agua, Coyote, Youngsville and Abiqui Dam: New Mexico Geological Society, Guidebook 43, p. 53-64.
- Lucas, S. G., Williamson, T. E., Smith, L. N., Wright-Dunbar, R., Hallett, B., Kues, B. S., Hoffman, G., Hunt, A. P., Love, D. W., McLemore, V. T. and Hadley, R. F., 1992, First day road log from Cuba to La Ventana, San Luis, Cabedon, Mesa Portales, Mesa de Cuba, and return to Cuba: New Mexico Geological Society, Guidebook 43, p. 1-32.
- Lawton, T. F., McMillan, N. J., McLemore, V. T., and Hawley, J. W., 2000, Second-day road log: Lordsburg to Deming via Little Hatched Mountains and Victorio Mountains; *in* Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 17-30.
- McLemore, V. T., McIntosh, W. C. and Hawley, J., 2000, first-day road log from Lordsburg to Ruth mine (Lordsburg district) to Twelve Mile Hill to Rock House Canyon (Pyramid Mountains) to Burgett's greenhouses (Animas Valley) to Steins (Peloncillo Mountains), New Mexico; *in* Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 1-16.
- McMillan, N. J., McLemore, V. T., Amato, J., Hawley, J. W. and Giles, K. A., 2000, Third-day road log, from Deming to Victorio Canyon and the southern Florida Mountains; *in* Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 31-44.
- Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., 2000, Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, 282 pp.
- Road log for El Malpais trip—Compiled by Virginia T. McLemore, Nelia W. Dunbar, David W. Love, Patricia B. Jackson, and Richard Chamberlin: Rockin' New Mexico, teachers workshop.
- Lucas, S. G., Hunt, A. P., Kues, B. S., Hechert, A. B., and McLemore, V. T., 2001, First-day road log, from Tucumcari to the edge of the Llano Estacado at Gruhlkey, Texas, Palo Duro Canyon, Texas and Son Jon Hill, New Mexico; *in* Ulmer-Scholle, D. S. and Lucas, S. G., ed., Geology of the Llano Estacado, 2001: New Mexico Geological Society Guidebook 52, pp. 1-24.
- Lucas, S. G., Hunt, A. P., Hechert, A. B., Kues, B. S., and McLemore, V. T., 2001, Second-day road log, from Tucumcari to Mesa Redonda, Pyramid Mountain, Ragland, and Blackwater Draw, New Mexico; *in* Ulmer-Scholle, D. S. and Lucas, S. G., ed., Geology of the Llano Estacado, 2001: New Mexico Geological Society Guidebook 52, pp. 24-41.



- Lucas, S. G., Hunt, A. P., Hechert, A. B., Kues, B. S., and McLemore, V. T., 2001, Third-day road log, from Tucumcari to Conchas Dam, New Mexico; *in* Ulmer-Scholle, D. S. and Lucas, S. G., ed., *Geology of the Llano Estacado*, 2001: New Mexico Geological Society Guidebook 52, pp. 41-54.
- Lucas, S.G., Krainer, K., McLemore, V.T and Spielmann, J.A., 2012, Southern Caballo Mountains – First-day road log from Truth or Consequences to Derry Hills, Apache Graben, and Caballo Dam: New Mexico Geological Society, Guidebook 63, p. 1-26.
- McLemore, V.T., Love, D.W., McCraw, D.J., Lucas, S.G., Laumbach, K., and Spielmann, J.A., 2012, Southern San Mateo Mountains—Second-Day Road Log from Truth or Consequences to Nogal Canyon, Milliken Park, Luna Park Campground, Garcia Falls, and Monticello: New Mexico Geological Society, Guidebook 63, p. 49-70.
- Lucas, S.G., Krainer, K., McLemore, V.T., Spielmann, J.A. and Lueth, V.W., 2012, Mud Springs Mountains – Third-day road log from Truth or Consequences to Mud Mountain and Whiskey Canyon: New Mexico Geological Society, Guidebook 63, p. 97-121.
- McLemore, V.T., Love, D.W., McCraw, D.J., Laumbach, K.W., Cikoski, C.T., Koning, D.J., and McLemore, J.V., 2012, Cañada Alamosa—Pre-meeting Road Log along Cañada Alamosa, Monticello Graben, Sierra Cuchillo, and Winston Graben: New Mexico Geological Society, Guidebook 63, p. 135-146.
- McLemore, V.T., Chamberlin, R.M., Love, D.W., Cikoski, C.T., and McLemore, J.V., 2012, Supplemental Road Log from Socorro to Forest Service Road 225: New Mexico Geological Society, Guidebook 63, p. 147-154.
- McLemore, V.T., Love, D.W., McCraw, D.J., and McLemore, J.V., 2012, Red Rock Road— Supplemental road log from Mitchell Point (Exit 92, I-25) to Luna Park Campground: : New Mexico Geological Society, Guidebook 63, p. 155-157.
- McLemore, V.T. and Dunbar, N., 2013, Women in New Mexico Geology; *in* Kues, B. and Lewis, C., eds., *A Brief History of Geological Studies in New Mexico with Biographical Profiles of Notable New Mexico Geologists*: New Mexico Geological Society, Special Publication 12.
- McLemore, V.T., 2015, SEG Review, Burns, P.C. and Sigmon, G.E., 2013, Uranium—cradle to grave: Mineralogical Society of Canada, Short Course Series, v. 43, 437 p.
- Rawling, G., McLemore, V.T., Timmons, S., and Dunbar, N., eds., 2014, *Geology of the Sacramento Mountains Region*: New Mexico Geological Society, Guidebook 65, 320 p.
- McLemore, V.T. and Frey, B., editors, 2018, *Making Abandoned Mine Lands (AML) Profitable—Workshop Proceedings and Abstracts*: New Mexico Bureau of Geology and Mineral Resources, Open-file Report OF-597, 58 p., <https://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=597>
- McLemore, V.T., Silva, M., Mojtabai, N., and Asafo-Akokuah, J., 2018, NMBGMR AML Project: Characterization of Inactive/Abandoned Mine (AML) Features in New Mexico And Southern Colorado: Environmental conditions of the Animas and San Juan watersheds, Conference Proceedings 2016, 2017, 2018, 11 p.

#### **MINERAL COLLECTING GUIDES AND OTHER NMBMMR INFORMATION HANDOUTS**

- \*\*McLemore, V. T., 1986, Field trip guide to the Lemitar Mountains, New Mexico, [http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound\\_Guide\\_3-22-04.pdf](http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound_Guide_3-22-04.pdf)
- \*\*McLemore, V. T., Brown, K. B., and North, R. M., 1986, Mineral-collecting guide to the Zuni Mountains fluorspar district, New Mexico, [http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound\\_Guide\\_3-22-04.pdf](http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound_Guide_3-22-04.pdf)
- \*\*McLemore, V. T. and North, R. M., 1988, Mineral-collecting guide to East Grants Ridge, New Mexico.
- \*\*McLemore, V. T., Chamberlin, R. M., and North R. M., 1989, Mineral-collecting guide to the Luis Lopez mining district, New Mexico, [http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound\\_Guide\\_3-22-04.pdf](http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound_Guide_3-22-04.pdf)
- \*\*McLemore, V. T. and Wilson, M. L., 1990, Mineral-collecting guide to Gonzales mine, Socorro, County, New Mexico, [http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound\\_Guide\\_3-22-04.pdf](http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound_Guide_3-22-04.pdf)
- \*\*McLemore, V. T., 1993, Mineral-collecting guide to the Cornudas Mountains, New Mexico, [http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound\\_Guide\\_3-22-04.pdf](http://geoinfo.nmt.edu/publications/fieldguides/rockhound/Rockhound_Guide_3-22-04.pdf)
- \*\*McLemore, V. T. with Heizler, L. and Welch, S., 1998, Gold panning, a lesson in gravity separation: New Mexico Bureau of Mines and Mineral Resources, Curriculum Notes #1, 7 pp. (written for Teachers Workshop, July 13-16, 1998)

## CONTRIBUTOR

- U. S. Army, 1998, McGregor Range, New Mexico, Land withdrawal renewal, Mineral and Energy assessment of the McGregor Range: U. S. Army.
- Green, G. N. and O'Neill, J. M., eds., 1998, Digital earth scienc database, Caballo Resource Area, Sierra and Otero Counties, south-central New Mexico: U. S. Geological Survey, Open-file report OF98- 780, CD-ROM.
- Contributor to New Mexico Energy, Minerals and Natural Resources Department, 1999, New Mexico's natural resources, data and statistics for 1998: Rio Rancho Printing, Rio Rancho, 65 pp.
- New Mexico Geological Society Geologic Highway Map, Metallic deposits in New Mexico
- New Mexico Geological Society Geologic Highway Map, Selected parks and geologic features in New Mexico
- Luddington, S., ed., 1996, Data base for a national mineral assessment of undiscovered gold, silver, copper, Lead and zinc in the contemporaneous United States: U. S. Geological Survey, Open file Report OF96-96, CD-ROM, <http://pubs.usgs.gov/of/2002/of02-198/> (accessed 8/22/11)
- U.S. Geological Survey National Mineral Resource Assessment Team, 2000, 1998 Assessment of undiscovered deposits of gold, silver, copper, lead, and zinc in the United States: U. S. Geological Survey, Circular 1178, 21 p., CD-ROM.
- Contributor to New Mexico Energy, Minerals and Natural Resources Department, 2000, New Mexico's natural resources, data and statistics for 1999: Rio Rancho Printing, Rio Rancho, 65 pp.
- Contributor to New Mexico Energy, Minerals and Natural Resources Department, 2001, New Mexico's natural resources, data and statistics for 2000: Rio Rancho Printing, Rio Rancho, 64 pp.

## GRANTS AND CONTRACTS

- 1982-1983—U. S. Department of Energy, Uranium Occurrences in New Mexico (PI, \$10,000) 1983—U. S. Bureau of Land Management, Mineral Resources of Torrance County (PI, \$10,000)
- Jan. to May, 1984—U. S. Bureau of Land Management, Mineral Resources of northern Rio Puerco Resource Area (PI with others, \$19,000)
- 1985-1986—U. S. Bureau of Land Management, Mineral Resources of Rio Puerco Resource Area (PI with others, \$102,039)
- 1989—U. S. Department of Energy, Radon potential in New Mexico (co-PI with John Hawley, \$5,000) 1992—Mt. Royal Mining Corp., Geology and geochemistry of the Steeple Rock mining district, New Mexico (PI, \$5,000)
- 1995—Phelps Dodge Mining Co., Geochemistry and geochronology of the Chino and Tyrone copper porphyry systems, NM (co-PI with Matt Heizler, unspecified)
- 1997—U. S. Geological Survey, Mineral resource inventory of Sierra and Otero Counties (PI, \$6,525) March, 1997-Feb., 1998—Mariah Corp. for U. S. Army Corp of Engineers, Mineral Resources of the McGregor Range, Ft. Bliss, Otero County, New Mexico (my part of contract for precious and base metals, ect. \$119,617; entire contract PI Ron Broadhead for \$303,806)
- 1999-2000—Geology and mineral resources of the Wild Horse Mesa area, Grant County, New Mexico. (PI, \$1500 for Joe Aeillo and Associates)
- 1999-2000—Acid Drainage Technology Initiative, Workbook on Acid Drainage Remediation, Introduction and Sampling and Monitoing Chapters. (PI, \$3000)
- 2000—Soils Geochemistry in Semiarid and Arid environments, Office of Surface Mining short course, August 7-11. \$1800.
- 2000-2001—Geology and mineral resources of the Wild Horse Mesa area, Grant County, New Mexico. (PI, \$1500 for Joe Aeillo and Associates)
- 2000—ADTI-ACE workshop on acid mine drainage (\$2300)
- 2000—A proposal to complete a mineral resource assessment of state trust lands in Luna County, NM State Land Office, \$15,000.
- 2001—USGS Central Region surveys and analysis project; Mineral deposit databases of New Mexico, \$25,000 (will complete in 2004)
- 2001—EPA Tenorm project proposal: A GIS database of uranium mines, prospects, and mills in New Mexico, EPA, \$4,348.00 (will completed in 2002)
- 2001—Heavy Minerals and Heavy Mineral Alteration in Sediments along the upper Red River, Taos County, Molycorp, Inc., \$3,250 (completed in 2002).
- 2002—Trace element analyses of molybdenite from the different ore types at Questa, New Mexico: Molycorp, Inc., \$800 (will complete in 2003).

- 2002—U. S. Army Corps of Engineers RAMS Database Project Mines Database of Sierra and Otero Counties, New Mexico, \$30,000 (will complete in 2003).
- 2002—Heavy Minerals and Heavy Mineral Alteration in Sediments along the upper Red River, Taos County, Molycorp, Inc., extension, \$4000 (completed in 2002).
- 2003—Molycorp, AN ANNOTATED BIBLIOGRAPHY OF LITERATURE ON SUBSIDENCE, due August 2003, \$4500
- 2003—Molycorp, Effects of weathering on the stability of the Molycorp rock piles, due May 2008, ~\$4.2 million
- 2017—AML, New Mexico Abandoned Mine Lands Bureau, PIs Drs. Mojtabai, McLemore and Walder—to NMMMD, (\$160,000 for 2 yrs) continuation of grant in 2017
- 2017—NM State Land Office Minerals Resources—PIs Martha Cather, R. Broadhead, McLemore—to NMSLO (~\$45,000), ended March 2017
- 2017—BLM Mineral Resource Potential—PIs Martha Cather, R. Broadhead, McLemore, ends in March 018

#### **STUDENT THEISES DIRECTED OR CO-DIRECTED (\*\*MEMBER OF COMMITTEE)**

- \*\*\*Phillips, R. S., 1990, Geochemistry of hydrothermal Th-U-REE quartz/fluorite veins from the Capitan pluton: M. S. thesis, Socorro, New Mexico Institute of Mining and Technology, 202 pp., [http://www.ees.nmt.edu/outside/alumni/papers/1990t\\_phillips\\_rs.pdf](http://www.ees.nmt.edu/outside/alumni/papers/1990t_phillips_rs.pdf)
- \*\*\*Ruff, R. K., 1993, Gas analysis of fluid inclusions: application toward precious metal exploration, Steeple Rock mining district, Grant County, New Mexico: M. S. thesis, Socorro, New Mexico Institute of Mining and Technology, 83 pp., [http://www.ees.nmt.edu/outside/alumni/papers/1993t\\_ruff\\_rk.pdf](http://www.ees.nmt.edu/outside/alumni/papers/1993t_ruff_rk.pdf)
- Pease, T., 1994, Base metal concentrations in Pecos River sediments, New Mexico: Senior Thesis, Socorro, New Mexico Institute of Mining and Technology (did not complete)
- Hack, D., 1996, Preliminary feasibility study: Carlisle fault mine, Steeple Rock district, Grant County, New Mexico: Senior Engineering Design Project, New Mexico Institute of Mining and Technology, 76 pp.
- Bakkom, E. and Salvias, S., 1997, Copper Flats Reclamation Plan, Phase I: Senior Engineering Design Project, New Mexico Institute of Mining and Technology, 110 pp.
- \*\*\*Watus, J. M., 1998, A regional geochemical atlas for part of Socorro County, New Mexico: M. S. thesis, Socorro, New Mexico Institute of Mining and Technology, 190 pp., [http://www.ees.nmt.edu/outside/alumni/papers/1998t\\_watus\\_jm.pdf](http://www.ees.nmt.edu/outside/alumni/papers/1998t_watus_jm.pdf)
- Munroe, E., 1999, Geology and geochemistry of waste rock piles from select mineral deposits in the Hillsboro mining district, Sierra County, New Mexico: M. S. thesis, Socorro, New Mexico Institute of Mining and Technology, 162 pp., [http://www.ees.nmt.edu/outside/alumni/papers/1999t\\_munroe\\_ea.pdf](http://www.ees.nmt.edu/outside/alumni/papers/1999t_munroe_ea.pdf)
- Donahue, K., 2002, Geochronology and isotope geochemistry of the mineral deposits in the Victorio Mountains, Luna County, New Mexico: M. S. thesis, Socorro, New Mexico Institute of Mining and Technology, 195 pp., [http://www.ees.nmt.edu/outside/alumni/papers/2002t\\_donahue\\_km.pdf](http://www.ees.nmt.edu/outside/alumni/papers/2002t_donahue_km.pdf)
- Jackson, M. L. 2002, Geochemistry of water and stream sediments in the upper Red River, Taos County, New Mexico: Senior thesis, Socorro, New Mexico Institute of Mining and Technology.
- Breese, M. R., 2003, Mineralogy of the Questa molybdenite deposit, Taos County, New Mexico: Senior thesis, Socorro, New Mexico Institute of Mining and Technology.
- Krueger, C. B., 2002, Mining districts databases of New Mexico: Senior thesis, Socorro, New Mexico Institute of Mining and Technology.
- Rowe, A., 2005, Genetic evolution of the magmatic hydrothermal breccia and stockwork veinlets of the Goat Hill orebody, Questa porphyry molybdenum system, New Mexico: M. S. thesis, Socorro, New Mexico Institute of Mining and Technology, 145 p., [http://www.ees.nmt.edu/outside/alumni/papers/2005i\\_rowe\\_a.pdf](http://www.ees.nmt.edu/outside/alumni/papers/2005i_rowe_a.pdf)
- Raugust, S. 2003, Environmental geology of the Copper Flat deposit, Hillsboro, Sierra County, New Mexico, M.S. independent study, New Mexico Bureau of Mines and Mineral Resources, Open- file Report, OF 475, 485 p., [http://geoinfo.nmt.edu/publications/openfile/downloads/OFR400-499/451-475/475/ofr\\_475.pdf](http://geoinfo.nmt.edu/publications/openfile/downloads/OFR400-499/451-475/475/ofr_475.pdf)
- Gutierrez, L.A.F., 2006, The influence of mineralogy, chemistry and physical engineering properties on shear strength parameters of the Goathill North rock pile material, Questa Molybdenum mine, New Mexico: M.S. thesis, New Mexico Institute of Mining and Technology, Socorro, 204 p., <http://geoinfo.nmt.edu/staff/mclemore/studenttheses.html>
- Tachie-Menson, S., 2006, Characterization of the acid-producing potential and investigation of its effect on weathering of the Goathill North Rock Pile at the Questa Molybdenum Mine, New Mexico:

- M.S. thesis, New Mexico Institute of Mining and Technology, Socorro, NM, 209 p., <http://geoinfo.nmt.edu/staff/mclemore/documents/Tachie-Menson2006Thesis.pdf>
- Viterbo, V.C., 2007, Effects of pre-mining hydrothermal alteration processes and post-mining weathering on rock engineering properties of Goathill North rock pile at Questa mine, Taos County, New Mexico: M.S. thesis, New Mexico Institute of Mining and Technology, Socorro, 274 p., [http://geoinfo.nmt.edu/staff/mclemore/documents/VCV\\_ThesisApril\\_28.pdf](http://geoinfo.nmt.edu/staff/mclemore/documents/VCV_ThesisApril_28.pdf)
- Boakye, K., 2008, Large In Situ Direct Shear Tests on Rock Piles At The Questa Mine, Taos County, New Mexico: M.S. thesis, New Mexico Institute of Mining and Technology, Socorro, 168 p., <http://geoinfo.nmt.edu/staff/mclemore/documents/kwakuthesis.pdf>
- Ayakwah, G., 2009, Effects of weathering and alteration on point load and slake durability indices and characterization of the debris flows, Questa mine, New Mexico: M.S. thesis, New Mexico Institute of Mining and Technology, Socorro, [http://geoinfo.nmt.edu/staff/mclemore/documents/ayakwah\\_thesis\\_Jan\\_26\\_09.pdf](http://geoinfo.nmt.edu/staff/mclemore/documents/ayakwah_thesis_Jan_26_09.pdf)
- Nunoo, S., 2009, Geotechnical evaluation of Questa mine materials, Taos County, New Mexico: M.S. thesis, New Mexico Institute of Mining and Technology, Socorro, [http://geoinfo.nmt.edu/staff/mclemore/documents/THESIS-04-27-09vtm\\_sam.pdf](http://geoinfo.nmt.edu/staff/mclemore/documents/THESIS-04-27-09vtm_sam.pdf)
- Shannon, H. R., 2006, Fluid Transport through a Variably Saturated Rock Pile hillslope system: M.S. thesis, New Mexico Institute of Mining and Technology, New Mexico, 309 p. [http://geoinfo.nmt.edu/staff/mclemore/documents/ShannonThesis\\_3c.pdf](http://geoinfo.nmt.edu/staff/mclemore/documents/ShannonThesis_3c.pdf)
- \*\*\*Graf, G.J., 2008, Mineralogical and geochemical changes associated with sulfide and silicate weathering, natural alteration scars, Taos County, New Mexico: M.S. thesis, New Mexico Institute of Mining and Technology, Socorro, 193 p., [http://geoinfo.nmt.edu/staff/mclemore/documents/VCV\\_ThesisApril\\_28.pdf](http://geoinfo.nmt.edu/staff/mclemore/documents/VCV_ThesisApril_28.pdf)
- \*\*\*Hosseinpour, H., 2008, Numerical and experimental evaluation of the effect of oversize particles on direct shear test results: M.S. thesis, New Mexico Institute of Mining and Technology, <http://geoinfo.nmt.edu/staff/mclemore/documents/Thesis-HoomanHosseinpour-Final-V.1.pdf>
- Morkeh, J., 2009, Geochemistry and mineralogy of mine rock pile materials and different grain size fractions from the Chevron Questa mine, Taos County, New Mexico: M.S. independent study, New Mexico Institute of Mining and Technology, Socorro, NM.
- Anim, K., 2010, Effect of strain rate on the shear strength of Questa rock pile materials: M.S. thesis, New Mexico Institute of Mining and Technology, <http://geoinfo.nmt.edu/staff/mclemore/documents/Kojothesis.pdf>
- Kwame Femfrong, 2013, Rare Earth Elements (REE) Potential and Origin of the Cambrian- Ordovician(?) Episyenites in the Caballo Montains, southern New Mexico: Independent study, New Mexico Institute of Mining and Technology
- Riggins, A., 2014, Origin of the REE-bearing Episyenites in the Caballo and Burro Mountains, New Mexico: M.S. thesis, New Mexico Institute of Mining and Technology.
- Geedipally, G., et al., 2012, Geology and mineral deposits in the Hillsboro mining district, Sierra County, New Mexico: New Mexico Geological Society, Guidebook 63, p. 559-568

#### **INDEPENDENT STUDIES DIRECTED OR CO-DIRECTED**

- Geol581, Summer 1993, Doug Jones, A survey of the mineralogy of sediments and clays from the Pecos River, eastern New Mexico
- ME521, Fall 1994-Spring 1995, Daniel Hack, Porphyry copper deposits in the southwestern New Mexico and northern Mexico
- Geochem491, Spring 1998, Geology and Geochemistry of the Hermosa district, independent study, Doug Jones