

Dylan Rose-Coss

Petroleum Specialist; New Mexico Oil Conservation Division

Masters in Geology from New Mexico Tech

EXPERIENCE SUMMARY

8 Years of Professional Experience Encompassing the Following Areas:

- State level oil, soil, air, and waste regulation
- Academic research regarding subsurface waste injection and storage
- Environmental, hydrologic, and natural resource consultation
- Multinational oil and gas exploration

WORK EXPERIENCE

New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division (2019-Present)

- Administrative permitting for development and management of oil and gas resources under the state Oil and Gas Act. Projects include technical review of administrative applications and preparation of orders for non-standard locations, pool delineations, and non-standard proration units. Technical reviewer of applications for Class II wells (including produced water disposal wells and enhanced oil recovery (EOR) projects) under New Mexico's primacy agreement with the U.S. Environmental Protection Agency (EPA) for its Underground Injection Control (UIC) Program under the Safe Drinking Water Act. Hearing examiner for Division hearings on protested and unprotested applications. Additional assignments include:
- Provide technical assistance to administrative personnel and General Counsel staff regarding compliance issues for produced water disposal wells and EOR projects.
- Develop protocols and guidance for UIC-related subjects such as induced seismicity, exempted aquifers and impacts on correlative rights.
- Recommend changes in rules and policies to reflect new technologies and processes.
- Provide expert testimony in hearings before the Oil Conservation Commission

Glorieta Geoscience Inc (2017-2019):

- Environmental, hydrologic, and natural resource consultant.
- Duties included: project management, collaborative research, multi-format data analysis and technical writing;
- Drafting figures to guide policy decisions utilizing both ArcGIS and Adobe Illustrator and;
- Extensive field work including drilling oversight, aquifer pumping tests, along with groundwater and soil sampling.

Southwest Partnership for Carbon Sequestration (2014 – 2017):

- Lead characterization geologist on DOE-funded carbon sequestration Project
- Authored scientific literature regarding subsurface waste injection and long-term storage feasibility
- Petrophysical modeling, core and lithologic description, wireline log analysis

Instructor at New Mexico Tech (2014 & 2016):

- Instructed Petroleum Geology course
- Lab assistant for Mineralogy course



- Creating course syllabus, and content, as well as instruction and grading.

Noble Energy International New Ventures Intern (Summer 2015):

- Analyzed and synthesized large data sets of wire-line logs, core, gravity and seismic data
- Created depositional and structural maps to assess reservoir type, presence and quality in unexplored offshore asset

New Mexico Environment Department Intern (Summer 2005, 2013):

- Air Quality reports and enforcement division
- Solid Waste Division

EDUCATION

- **M.S.** Geology, New Mexico Institute of Mining and Technology 2014-2017
 Thesis: A Refined Depositional Sequence Stratigraphic and Structural Model for the Reservoir and Caprock Units at the Farnsworth Field, Ochiltree County TX
- **B.S.** Earth and Environmental Science, University of New Mexico, 2011-2012
 Advanced field camp rafting the entire Grand Canyon
- **B.S.** Environmental Science, University of New Mexico, 2004-2008
 Senior Thesis: Incision History of the Rio Salado as Recorded by Travertine Cement in Quaternary Terraces and Comparison of Incision Rates for Rivers in Northern New Mexico.
 Member of the Division I UNM Track and Cross-Country teams

PROFESSIONAL DEVELOPMENT AND TRAINING

- XTO Oil field safety short course
- SPE's student paper competition state champion and regional competitor
- NM Tech AAPG club president
- IHS Petra software basics
- Stanford online course "Reservoir Geomechanics"
- Fracture studies LLC short course on interpreting fractures in core
- Schlumberger software Petrel Geology and Seismic training
- Pioneer short courses on coal bed methane production and oil field safety



SELECTED PUBLICATIONS

- Asante J., Ampomah W., Rose-Coss D., Cather M., Balch R., Probabilistic Assessment and Uncertainty Analysis of CO₂ Storage Capacity of the Morrow B Sandstone—Farnsworth Field Unit *Energies* 2021, 14(22), 7765; <https://doi.org/10.3390/en14227765> - 19 Nov 2021
- Trujillo, N., Rose-Coss, D., Heath, J., Dewers, T., Ampomah, W., Mozley P., Cather M., Multiscale Assessment of Caprock Integrity for Geologic Carbon Storage in the Pennsylvanian Farnsworth Unit, Texas, USA. *Energies* 2021, 14(18), 5824; <https://doi.org/10.3390/en14185824> - 15 Sep 2021
- Cather, M., Rose-Coss, D., Gallagher S., Trujillo, N., Cather S., Hollingworth R.S., Mozley P., Leary R.J., Deposition, Diagenesis, and Sequence Stratigraphy of the Pennsylvanian Morrow and Atokan Intervals at Farnsworth Unit. *Energies* 2021, 14(4), 1057; <https://doi.org/10.3390/en14041057> - 17 Feb 2021
- Rose-Coss, D. Trujillo, N. Mozley, P. Heath, J. Cather, 2016, M. Mudstone Facies, Diagenesis, and Sequence Stratigraphic Interpretation for Caprock Integrity Assessment of the Upper Morrow Shale and Atokan Thirteen Finger Limestone, Farnsworth Unit, Texas. Presented at SEPM/AAPG Research Conference "Mudstone Diagenesis" Santa Fe, New Mexico, USA, 16-19 October 2016
- Rose-Coss, D. Ampomah, W. Cather, M. Balch, R.S. Mozley, P. Rasmussen, L. 2016, An Improved Approach for Sandstone Reservoir Characterization. Paper SPE-180375-MS presented at the SPE Western Regional Meeting, Anchorage, Alaska, USA, 23–26 May 2016.
- Ampomah, W., Balch, R., Cather, M., **Rose-Coss, D.**, Dai, Z., Heath, J., Dewers, T., Mozley, P., 2016, Evaluation of CO₂ Storage Mechanisms in CO₂ Enhanced Oil Recovery Sites: Application to Morrow Sandstone Reservoir. *Energy & Fuels* 2016 v. 30, p. 8545-8555.
- Ampomah, W., Balch, R.S., **Rose-Coss, D.**, Hutton, A., and Will, R., 2016b, An Integrated Approach for Characterizing a Sandstone Reservoir in the Anadarko Basin: paper OTC-26952-MS presented at Offshore Technology Conference held in Houston-Texas USA, May 2-5-2016.
- Rose-Coss, D. Ampomah, W. Hutton, A. Gragg, E. Mozley, P. Balch, B. Grigg, R., 2015, Geologic Characterization for CO₂-EOR Simulation: A Case Study of the Farnsworth Unit, Anadarko Basin, Texas. Oral presentation #80484 AAPG annual conference Denver 2015.

