

I. Background/Setting Stage

The Role of Capitan Research in the Evolution of Carbonate Conceptual Models and Paradigms

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Overview of Modern Steep Rimmed Carbonate Platforms – Insights for the Capitan System

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Connecting Transport Processes to the Construction of Siliciclastic and Carbonate Slope Stratigraphy in the Guadalupe Mountains

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Comparison and contribution of Permian Outcrops in West Texas to a Source-to-Sink Understanding of Deepwater Systems

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II. Stratigraphy and Depositional Systems Research

3D Sequence Framework of Leonardian through Guadalupian Shelf-to-Basin Successions of the Guadalupe Mountains

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Differential Compaction and Creation of Fall-in Geometries in the Capitan Depositional System

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Facies, Architecture, and Controls on the Upper Permian Capitan and Bell Canyon Formations, Southern Guadalupe Mountains, West Texas

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Mixed Carbonate and Clastic Channel Fill in the Capitan Lower Slope-to-Basin, Guadalupe Mountains, New Mexico

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Depositional Controls on Slope Stratigraphy of the Brushy Canyon Formation

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III. Syndepositional Structural Processes/Products

Relationship Between Syndepositional Faulting and Margin Geometry of the Yates/Tansill Capitan Platform in the Vicinity of Slaughter Canyon, Guadalupe Mountains, NM, USA

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Syndepositional Faulting, Sedimentation and Paleokarst Development within the Permian Capitan Platform, Guadalupe Mountains, USA

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Syndepositional Deformation and its Effect on Fluid-flow Through Reflux Dolomitization, Burial, and Exhumation

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Prediction of Fracture Development in Steep-rimmed Carbonate Platforms using Geomechanical Modeling with Calibrated Plasto-plastic Material Properties

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IV. New Data Visualization and Analysis Tools

Acquisition, Processing, and Visualization of 1,000 Square Kilometers of Airborne Lidar, Guadalupe Mountains of Texas and New Mexico

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Building Discrete Fracture Models through The Integration of Automated Fracture Analysis Data and Field Data

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