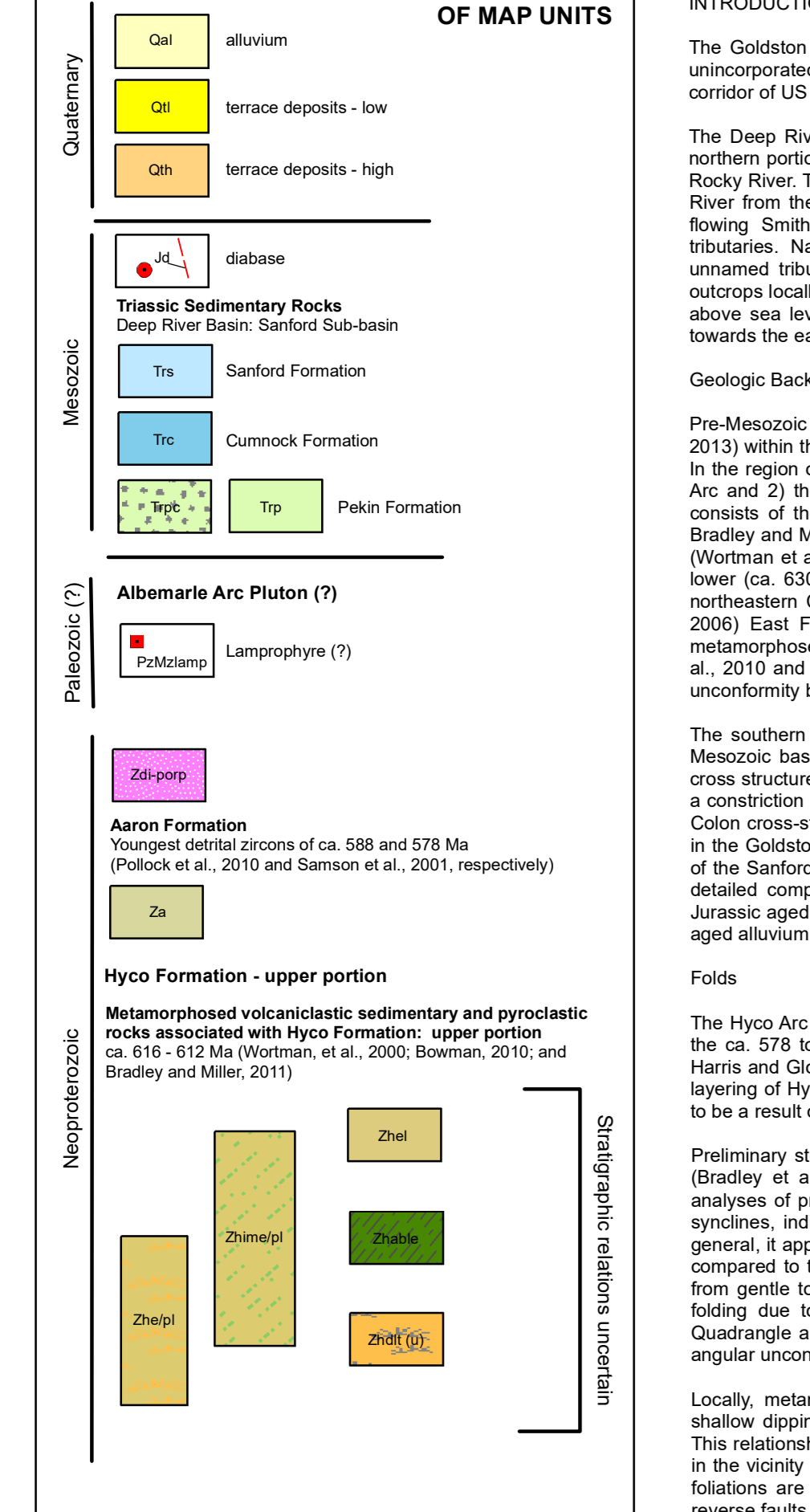


CORRELATION OF MAP UNITS



The map area has localized evidence of deformation associated with high angle reverse faults like the Glendon Fault in the nearby Bear Creek Quadrangle (Bradley et al., 2019). These areas are identified based on shallow dipping foliations and hydrothermally altered rock.

Abundant evidence of brittle faulting at the outcrop-scale, map-scale, and large-scale lineaments (as interpreted from hillshade LiDAR data) are present in the map area. Brittle faulting and lineaments are interpreted to be associated with Mesozoic extension. Significant brittle faults within the quadrangle include the Indian-Creek Fault, Gulf Fault, and the Deep River Fault.

Reinmund (1955), an important work, has laid the foundation for the geology within the Triassic basin. For our mapping effort, Reinmund's maps were georeferenced to a digital elevation model from Hillshade LiDAR. Geologic contacts within the Triassic basin were digitized and modified as needed. Most of the bedrock geology south of the Deep River within the Triassic basin was digitized as presented by Reinmund.

The map area is located within the study area of Green et al. (1982), Abdraziz (1978), and Green (1977). Their studies documented the presence of an overlapping series of metamorphic and metachronous lithologies sourced from distinct areas.

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Natural gas exploration wells have been drilled within the quadrangle and are indicated on the map. A summary of the natural gas potential of the Sanford sub-basin is provided in Reid et al. (2011). A compilation map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

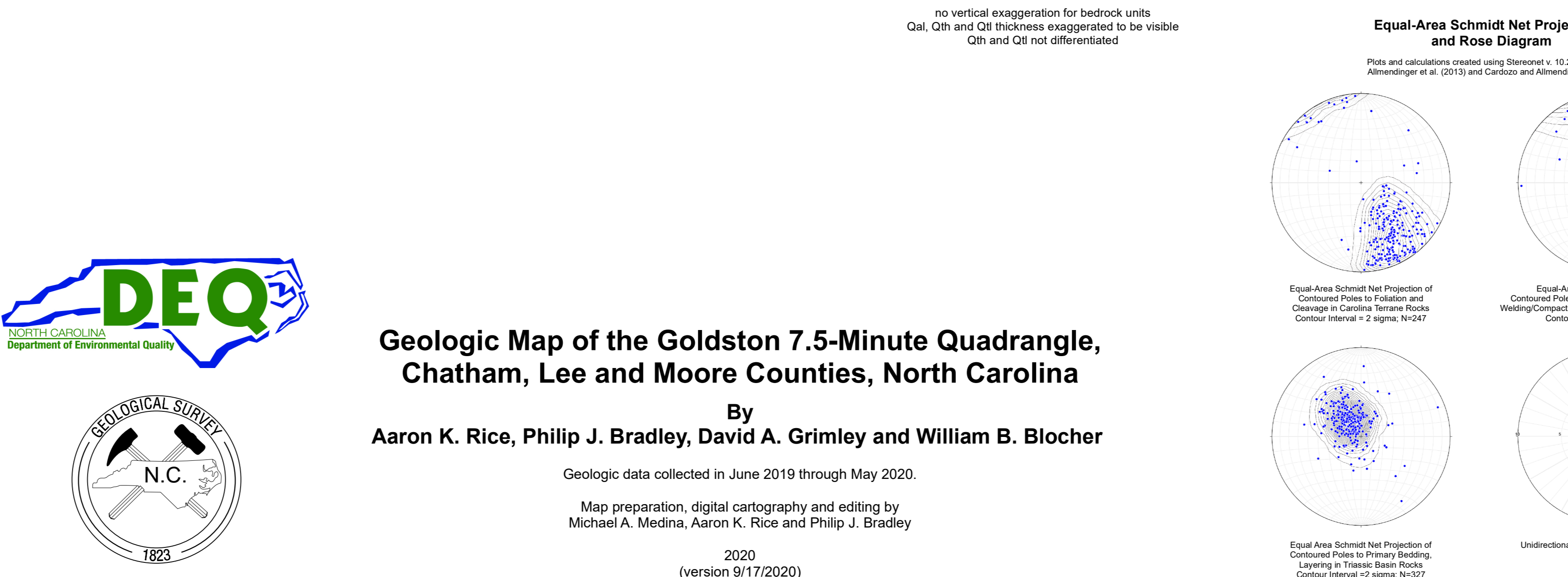
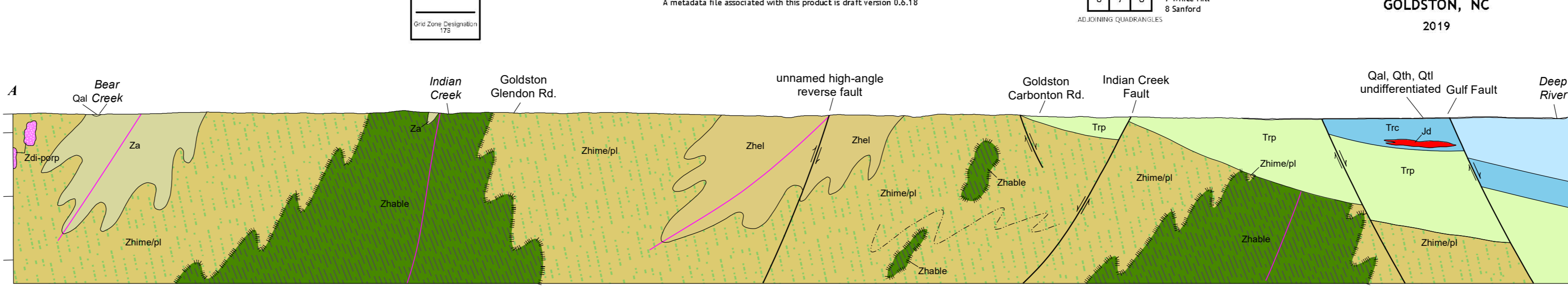
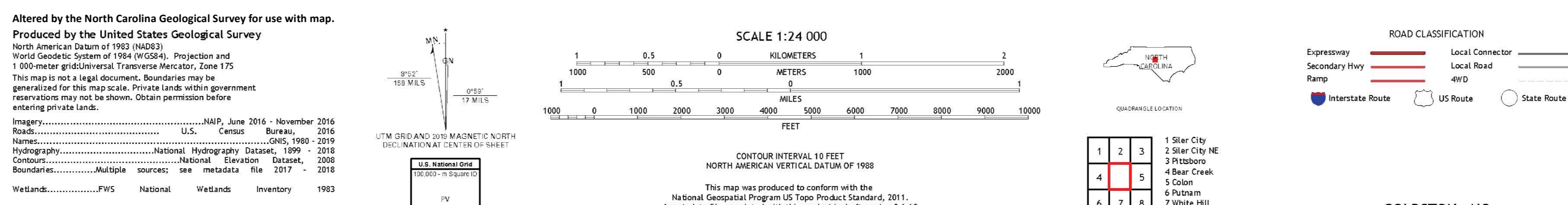
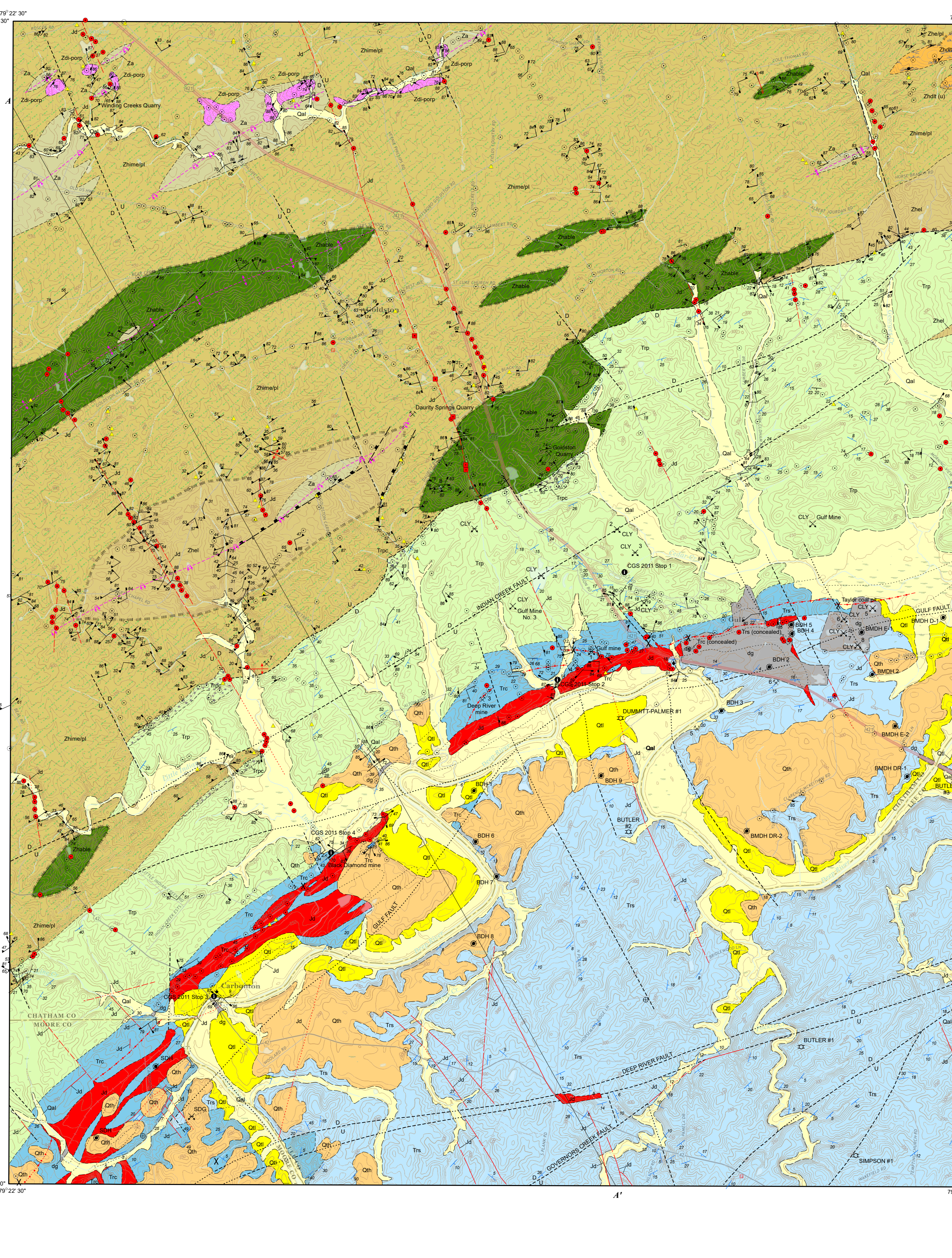
Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

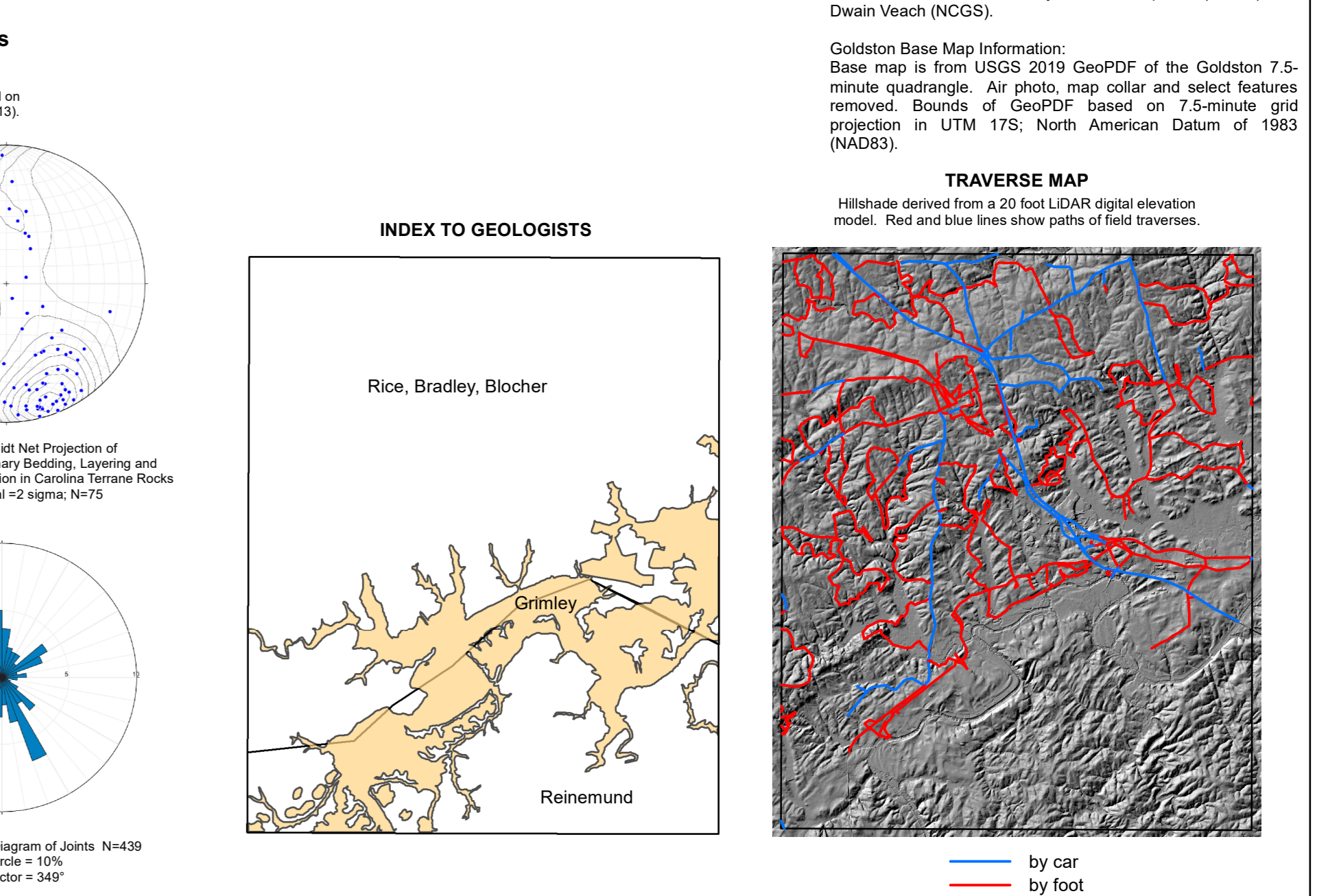
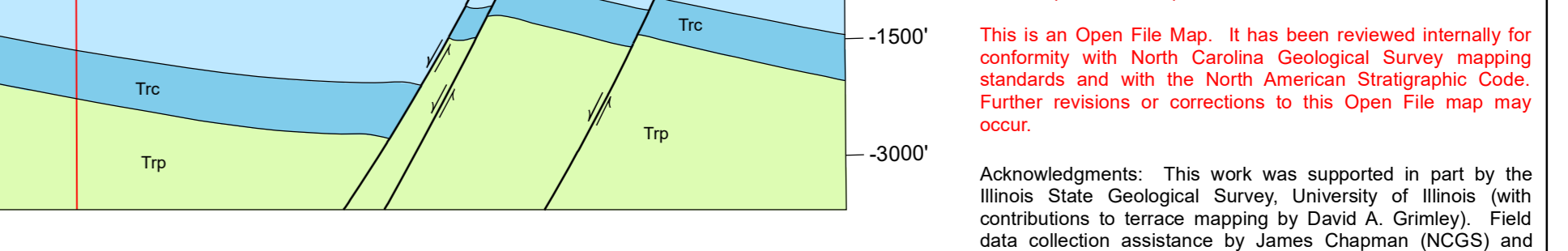
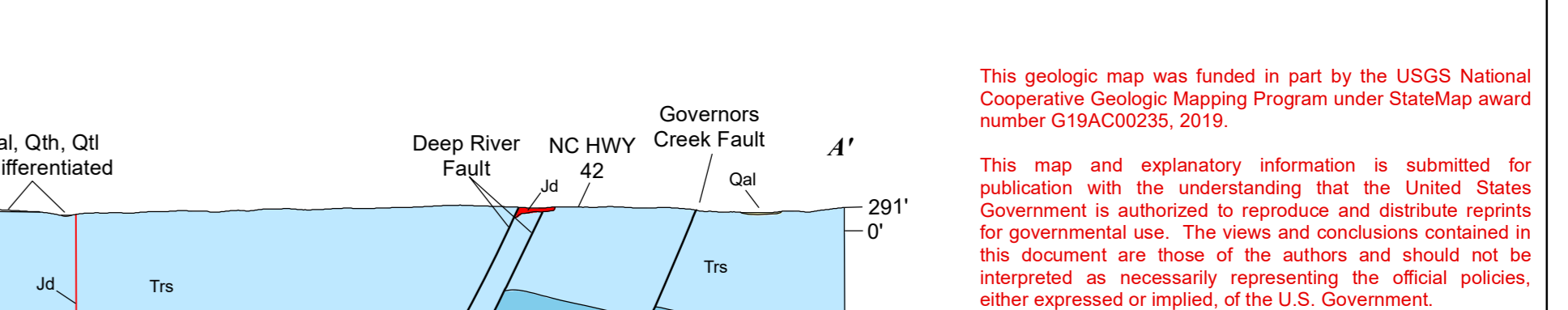
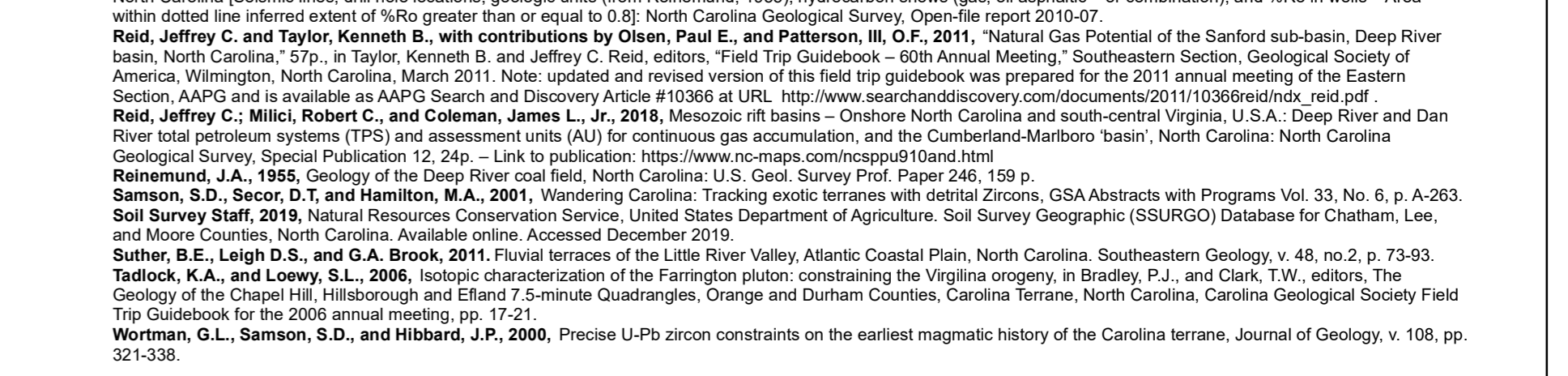
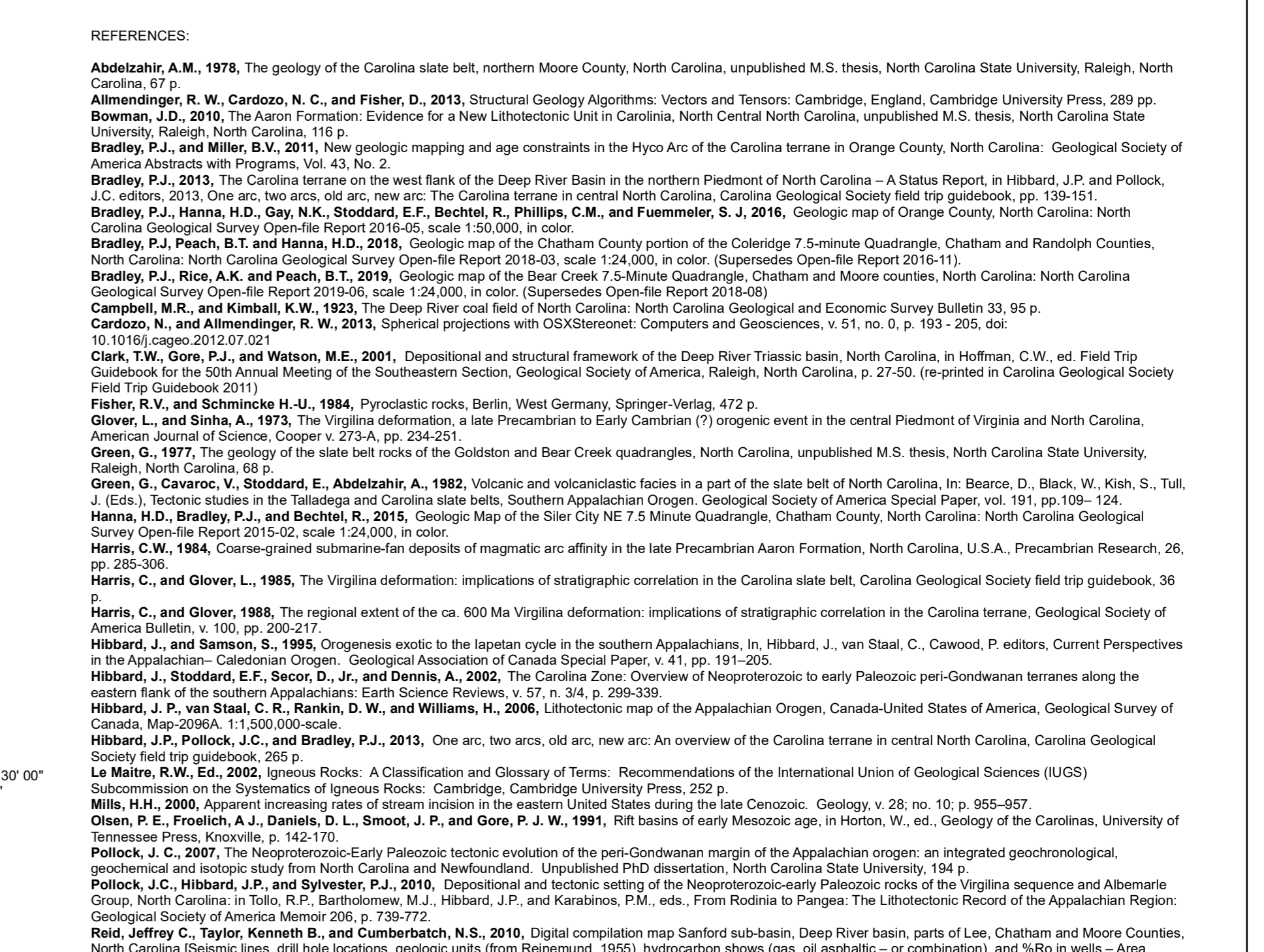
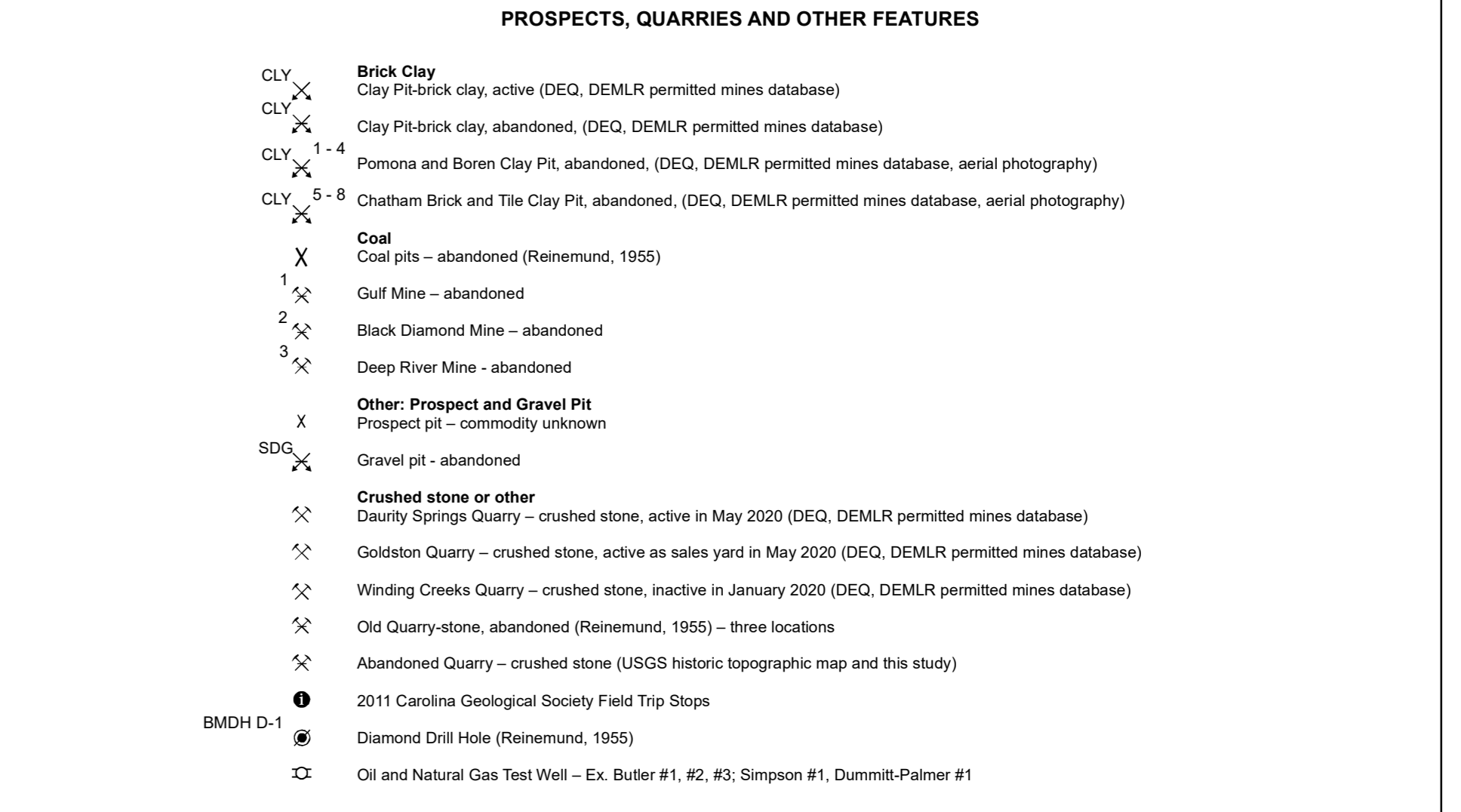
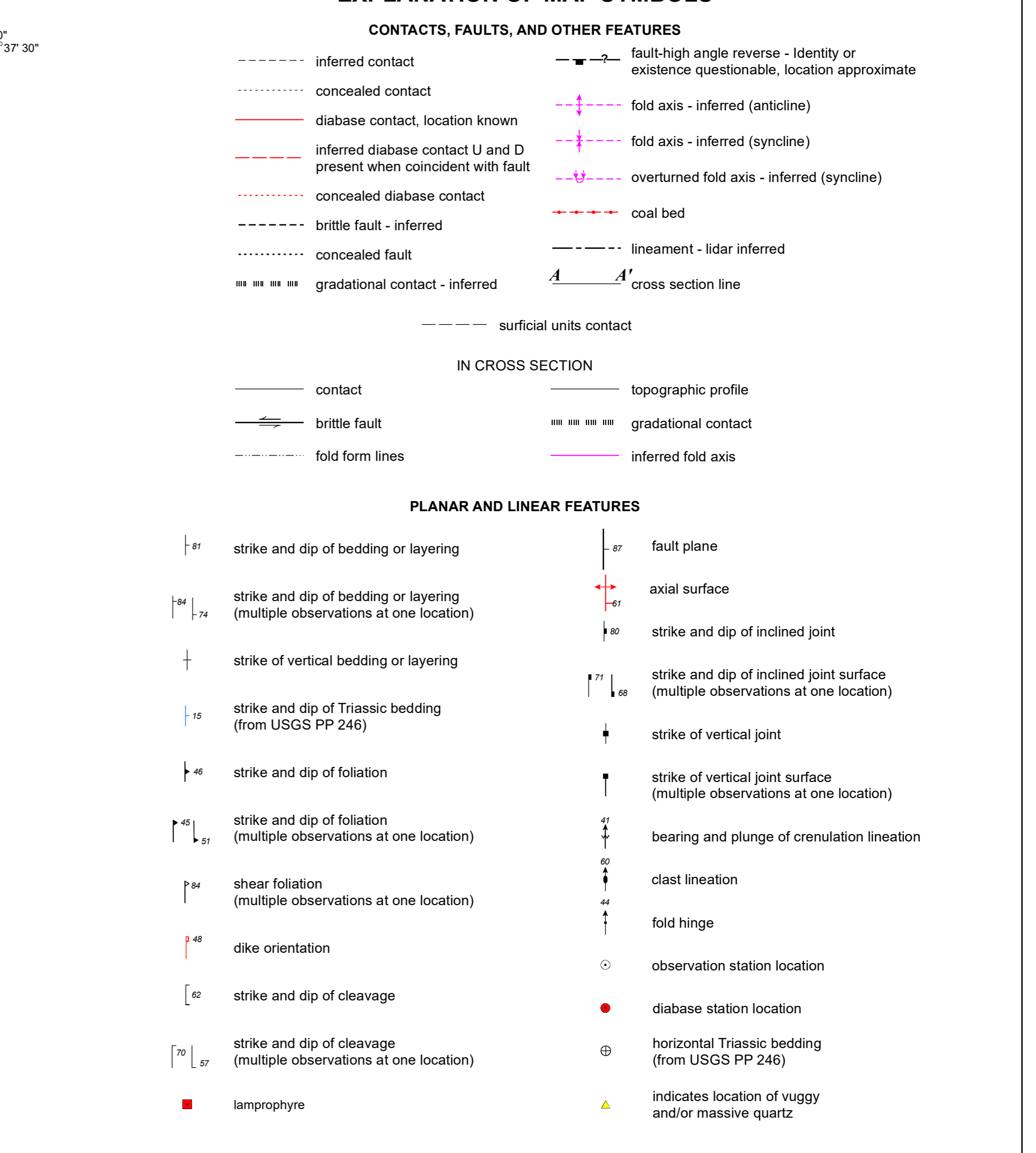
Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).

Quaternary Deposits
Quaternary deposits in the Goldston Quadrangle were previously mapped by Reinmund (1955), along with bedrock mapping; however, the mapping was conducted prior to LiDAR topographic map availability. The Quaternary geologic map showing seismic lines, oil holes and hydrocarbon shows is provided in Reid et al. (2019). An overview of the Triassic rift tectonic basin, the hydrocarbon potential in North Carolina, a regulatory framework overview and data access information can be found in Reid et al. (2018).



EXPLANATION OF MAP SYMBOLS



Geologic Map of the Goldston 7.5-Minute Quadrangle, Chatham, Lee and Moore Counties, North Carolina

By
Aaron K. Rice, Philip J. Bradley, David A. Grimley and William B. Blocher
Geologic data collected in June 2019 through May 2020.