NEW PUBLICATIONS

Geologic Investigations



Nordeng, S.H. and Nesheim, T.O., 2012, A Preliminary Evaluation of the Resource Potential of the Tyler Formation (Penn.) Based on a Combination of a Kinetically Based Maturation Index, Organic Carbon Content & Interval Thickness: North Dakota Geological Survey, Geological Investigations No. 148. This poster presents five maps that are used to show how geothermal data can be combined with geochemical and interval thickness data to define regions within the Tyler Formation that are most likely to be associated with active petroleum generation. Price: \$25.00 for traditional paper map format and \$5.00 on CD.



LeFever, J.A. and LeFever, R. D., 2012, Spearfish Formation – An Unconventional Target: North Dakota Geological Survey, Geological Investigations No. 150. The poster presents an overview of the data available for the Spearfish Formation in the north-central portion of the Williston Basin. Included on the posters are wireline logs, cross-sections, supporting maps and reservoir photographs. Also included is additional data on the reservoir and completions methods used successfully on the Canadian side of the Williston Basin for this formation. Price: \$25.00 for traditional paper map format and \$5.00 on CD.



Nesheim, T.O., and Nordeng, S.H., 2012, Source Rock Intervals within the Tyler Formation, ND: North Dakota Geological Survey, Geological Investigations No. 151. This poster contains four maps and two cross-sections that detail the distribution of two stratigraphically defined sets of source beds. Summary formation pressure data and Rock Eval data are used to support the idea that the Tyler Formation contains two regions of overpressure that appear to be related to separate depositional environments. Price: \$25.00 for traditional paper map format and \$5.00 on CD.



Anderson, F.J., 2012, Generalized Geologic Cross-Section in Southeastern North Dakota: North Dakota Geological Survey, Geologic Investigations No. 152. GI-152 is a generalized cross-section constructed from the west in mid-Kidder County, east to the Red River near Fargo in southeastern North Dakota created to support conceptual industry studies of Compressed Air Energy Storage possibilities. This 1:250,000 scale generalized geologic cross-section is available online only.



Anderson, F.J., 2012, Analysis of Lineaments and Horizontal Wells in the Parshall Area, North Dakota: North Dakota Geological Survey, Geologic Investigations No. 153. GI-153 is a horizontal well map poster that describes the relationships between lineaments and horizontal well production in the Parshall area. Directional analysis of horizontal wells and oil production is discussed. This map poster was displayed at the 20th Williston Basin Petroleum Conference in Bismarck, North Dakota. Scale: 1:252,000. Price: \$25.00 paper (31" x 40") or \$5.00 on CD.



Anderson, F.J., 2012, Lineament Density and Generalized Well Production in the Minot 1:250K Sheet, North Dakota: North Dakota Geological Survey, Geologic Investigations No. 154. GI-154 is a petroleum geology investigation stepping off from the lineament mapping and analysis work completed in GI-145. This investigation evaluates the relationship between generalized oil production and lineament density. Oil production data was combined with lineament density information on a grid-cell based lineament density map for a presentation of production and success for wells occurring within each lineament density class. Price: \$15.00 for traditional paper map format and \$25.00 on CD with shape files, \$5.00 for pdf on CD.



LeFever, J.A., Nordeng, S.H., Nesheim, T.O., 2012, 2012 Core Workshop, North Dakota Geological Survey, Geological Investigations No. 155. 91pgs. This core workshop contains articles, scout tickets, representative wire line logs, selected core analyses and cross-sections for the following formations: Spearfish (three cores), Tyler (four cores), Bakken from the north-central part of North Dakota (four cores), Pronghorn Member (three cores including the standard reference section) and the longest Three Forks core currently available. High resolution, color photographs of all of these cores are included. Price: \$20.00 for paper format and \$5.00 on CD.



LeFever, J.A. and Nordeng, S.H., 2012, Preliminary Report on the Bakken Formation, North-Central North Dakota: North Dakota Geological Survey, Geological Investigations No. 156. This poster contains a core based cross-section enhanced by geologic maps, geothermal gradient map, and tectonic elements of the study area. RockEval data is included to support some preliminary conclusions based on core observations. Price: \$25.00 for traditional paper map format and \$5.00 on CD.



Report of Investigations



Nesheim, T.O., and Nordeng, S.H., 2012, Petroleum Geology of the Tyler Formation (Pennsylvanian), North Dakota: North Dakota Geologic Investigations No. 157, presentation. GI-157 is a pdf version of the Tyler Formation presentation given at the 2012 Williston Basin Petroleum Conference. Complete with footnotes explaining the slides, this presentation reviews recent work completed by the North Dakota Geological Survey in effort to reexamine the Tyler Formation as a potential resource play. Available online only.

Nordeng, S.H., and Nesheim, T. O., 2012, An Evaluation of the Resource Potential of the Tyler Formation (Pennsylvanian) using a Basin Centered Petroleum Accumulation Model, North Dakota Geological Survey, Report of Investigation No. 111, 61 p. This investigation includes an examination of the deposition, maturation, expulsion and potential accumulation of oil within or near organic-rich source beds contained within the Tyler Formation. Included are the analytical results obtained from over 800 total organic carbon analyses and over 200 Rock Eval analyses collected from over 50 wells. These data are used to delineate the distribution and quality of oil prone organic matter throughout the North Dakota portion of the Williston Basin underlain by the Tyler Formation. Maturation trends based on basin modeling and Rock Eval data are presented and reservoir charging by expelled oil is inferred from pressure gradients obtained from drill stem tests. The current status of drilling and completion technologies are also discussed. Price: \$5.00 for pdf on CD and \$25.00 for CD with data files/shape files.

Landslide Maps

Anderson, F.J., 2012, Areas of Landslides, Kenmare Quadrangle, North Dakota: North Dakota Geological Survey 24K:Knmr-I.