

Photo credit Richard Bishop, VCCER

Project Description

The goal of this project is to investigate and characterize the resource potential for multi-play production of emerging unconventional reservoirs in the Nora Gas Field of southwest Virginia and evaluate and quantify the benefits of novel completion strategies for lateral wells in the unconventional Lower Huron Shale. A major research objective of the project is to characterize the geology and potential deep pay zones of Cambrian-age formations in Central Appalachia by drilling, logging, and coring a deep vertical test well up to 15,000 feet deep. A second major research objective is to evaluate and quantify the potential benefits of novel well completion strategies by monitoring the drilling and completion of at least one multi-stage lateral well in the emerging (and technologically accessible) Lower Huron Shale.

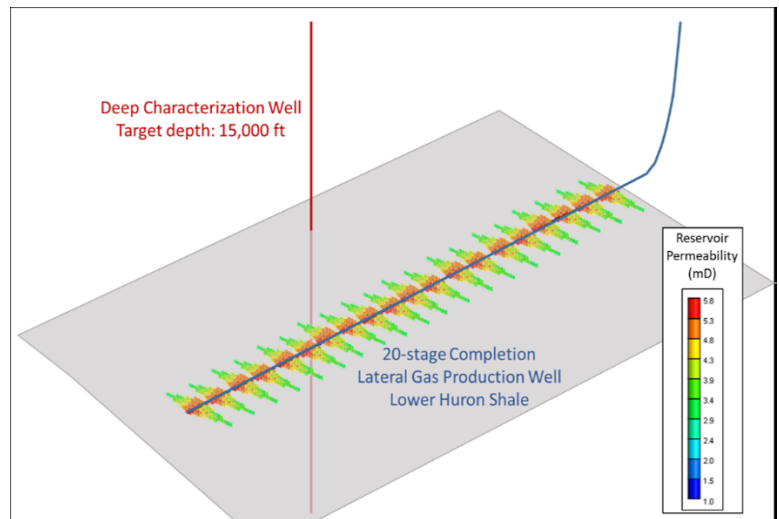


Age	Formation	Depth	
Devonian	Huron Shale	5,800	☀
	Olentangy Shale		
	Rhinestreet Shale		☀
	Marcellus Shale		☀
	Corniferous (Onondaga) Ls		
	Oriskany Ss		☀
Silurian	Salina Dol / Ls		
	Lockport Dol / Newburg / McKenzie Fm	6,700	☀
	Keefer Ss / Big Six Ss	6,725	☀
	Clinton Ss / Rose Hill Fm / Tuscarora Ss / Clinch Ss	7,100	☀
Ordovician	Juniata Fm / Sequatchie Shale		
	Reedsville Shale		
	Utica Shale		
	Trenton Ls	8,025	☀
	Black River Ls	8,675	☀
	Beekmantown Dol / Rose Run Ss	10,050	☀
Cambrian	Copper Ridge Dol / Conococheague Dol	10,925	☀
	Conasauga (Nolichucky / Rogersville / Pumpkin Valley Shale)	11,850	☀
	Rome Fm	13,275	☀
	Basal Ss		
	PreCambrian Basement	15,250	

Project Benefits

This research will improve understanding of the geology and resource potential of the Cambrian Rogersville Shale and produce research-driven and industry-proven best practices to develop these resources prudently. The geology and extent of the Rogersville shale south of the Rome Trough is poorly understood and requires a characterization effort that is best accomplished through a deep vertical stratigraphic test in southwest Virginia. This research well of opportunity will provide a wealth of insight into the geologic history of the Central Appalachian region and particularly the ESUPs that comprise the Nora and Big Sandy fields of Virginia, Kentucky, and West Virginia.

An important aspect of the project will be the assessment of the multi-play resource potential and the recommendation of a strategy for prudent development. The project team will work with stakeholders to characterize the potential environmental and socioeconomic impacts of multi-play production in the region and input from stakeholders will help to form the recommended development strategy.



Project Updates

For more information about the project and the research team, visit the project web site at www.esup.energy.vt.edu. To receive quarterly project updates and event announcements, subscribe to the ESUP mailing list.

Project Support



Financial assistance for this work was provided by the U.S Department of Energy through the National Energy Laboratory's Program under Contract No. DE-FE0031576. Matching funds provided by Virginia Tech and EnerVest, Ltd.

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