

EPA Mid-Atlantic Region

EnerVest Operating, LLC UIC Permit #VAS2D697BDIC “VWD-539572”

(Nora Field, Ervinton District, Dickenson County, Virginia)

Administrative Record Index

1. “Attachment 1” – EPA-Approved Plugging and Abandonment Plan
2. *Earthquakes*. Virginia Department of Mines, Minerals and Energy. Division of Geology and Mineral Resources. <https://www.dmme.virginia.gov/DGMR/earthquakes.shtml> (last accessed on March 14, 2019)
3. Endangered Species Act official species list. U.S. Fish & Wildlife Service. (record search March 21, 2019)
4. “Framework for evaluating seismic potential associated with UIC Class II permit” (including all documents cited therein)
5. Giles, A.W., 1921, The Geology and Coal Resources of Dickenson County, Virginia. Bulletin No. XXI. Virginia Geological Survey, University of Virginia.
6. *Information by Region-Virginia; Seismicity and Hazard; All Earthquakes 1900 – Present; Earthquake Hazards Program*. United States Geological Survey (USGS). <https://earthquake.usgs.gov/earthquakes/byregion/virginia.php> (last accessed on March 13, 2019)
7. Letter (dated August 14, 2018) from EnerVest Operating clarifying Area of Review as ¼-mile.
8. LeVan, D.C., and Rader, E.K., 1983, Relationship of Stratigraphy to Occurrences of Oil and Gas in Western Virginia; VDMR Publication 43
9. Maps. Including all maps from application and:
 - Google Earth analysis performed by EPA staff
 - U.S. Quaternary Faults Database. United States Geological Survey Geologic Hazards Science Center Golden, CO.
 - Meissner, C.R., Jr., 1978, Geologic map of the Duty quadrangle, Dickenson, Russell, and Buchanan Counties, Virginia. United States Geological Survey Geologic Quadrangle Map GQ-1458.
10. *Minimizing and Managing Potential Impacts of Induced-Seismicity from Class II Disposal Wells: A Practical Approach*. U.S. EPA UIC National Technical Workgroup. February 5, 2015. <https://www.epa.gov/sites/production/files/2015-08/documents/induced-seismicity-201502.pdf>

11. Notes documenting meeting between EPA and EnerVest (October 3, 2018)
12. Notes documenting meeting with EPA permit writer, field inspector and chief of the Source Water & UIC Section (November 5, 2018)
13. Notice of Deficiency (August 18, 2018)
14. Original Application (July 2008), including all attachments
15. Renewal Application (July 30, 2018), including all attachments
16. Results of Environmental Justice Screening performed by EPA staff (March 21, 2019)
17. Supplemental Renewal Application / Revisions / Response to Notice of Deficiency (November 28, 2018), including all attachments
18. “The SW-846 Compendium”. EPA. <https://www.epa.gov/hw-sw846/sw-846-compendium>