

**Virginia Energy: Geology and Mineral Resources Program Working Glossary**

Revised as of: 1/3/2023

Term	Definition	DefinitionSource
abandoned pit	A previously excavated area where earth material (sand, gravel, etc.) was taken to be used for fill at another location.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
abandoned quarry	Remnants of open workings. Previously the site of industrial or commercial extraction of aggregate, slate, and other resources no longer in active use. Condition is circumstantial and varies by location.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
adit	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
anticline	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .

antiform	A fold, generally convex upward, where stratigraphic order of folded layers is unknown or poorly constrained.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
asymmetric anticline	A generally convex upward fold whose core contains the stratigraphically older rocks and whose limbs have different angles of dip relative to the axial surface.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
asymmetric fold	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
axial plane	A planar surface that connects the hinge lines of the strata in a fold.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

axial surface	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
borehole	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
breccia	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
breccia pipe	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
compositional layering	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
concordant bedding	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .

contact	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
contact metamorphism	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
core hole	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
crenulation	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
crenulation cleavage	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
crenulation lineation	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .

cross section line	A line on a map, indicating the position of a geologic cross section. It is the profile line of the section as seen in plan.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
depression	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
dike	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
dredging	The process of sucking, scooping up, or excavating earth material from the bottom of a body of water, raising it to the surface, and discharging it to the bank through a floating pipeline or conveyor, into a scow for removal, or, in the case of certain mining dredges, into the same body of water after removal of the ore mineral.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

fault	A discrete surface or zone of discrete surfaces separating two rock masses across which one mass has slid past the other.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
float	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
fold	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
fold axis	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
foliation	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .

form line	<p>A line (usually broken) on a map or cross-section, sketched or drawn by visual observation, depicting the general surface configuration or shape of the terrain without regard to a true vertical datum and regular spacing and usually without indicating elevations; an uncontrolled or interpolated contour line, or one that is not instrumentally or accurately surveyed. Also spelled: formline. Cf: indefinite contour.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
furnace	<p>A structure in which, with heat so produced, the operation of roasting, reduction, fusion, steam-generation, desiccation, etc., are carried on.</p>	<p>Thrush, P.W., ed., 1968, A dictionary of mining, mineral, and related terms: Washington, D.C., U.S. Department of the Interior, Bureau of Mines, 1269 p.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
gas well	<p>A well that is capable of producing natural gas or that produces chiefly natural gas.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>

gneissic layering	A type of foliation in metamorphic rock defined by compositional layering. Typically, gneissic layering consists of alternating dark (mafic) and light (felsic or silicic) bands of rock. Gneissic layering may reflect original compositional layering in the protolith, or lit-par-lit intrusion, or metamorphic differentiation by diffusion, or transposition.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
high-angle fault	A fault with a dip greater than 45 degrees where apparent offset is known and map pattern suggests displacement is dip-slip, but the dip direction of the fault plane is unknown and it is uncertain whether the fault is reverse or normal.	Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
horizontal bedding	A planar or nearly planar bedding surface that visibly separates each successive layer of stratified rock from the preceding or following layer. Is observed in a flat lying, horizontal plane and has no inclination or dip.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
horizontal cumulate foliation	A horizontal layering formed by the accumulation of crystals that settle out from a magma by the action of gravity.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

horizontal foliation	A horizontal parallel to ground locally planar fabric in a rock defined by a fissility, a preferred orientation of crystal planes in mineral grains, a preferred orientation of inequant grain shapes, or from compositional banding.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
inclined bedding	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
inclined cleavage	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
inclined compositional layering	Alternating layers of different minerals in an igneous or metamorphic rock that is not parallel to the ground surface and is inclined relative to the ground surface.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

inclined dike or vein	An inclined tabular igneous intrusion that cuts across the bedding or foliation of the country rock or an inclined fracture that contains mineralized material.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
inclined flow banding	The structure of an igneous rock that is inclined relative to the ground surface, characterized by alternating layers of color, mineralogic composition, and/or texture, formed as a result of the flow of magma or lava.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
inclined fold hinge	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
inclined fold hinge of small, minor anticline	A plunging line connecting the points of maximum curvature of the bedding planes of a small or minor anticline.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

<p>inclined fold hinge of small, minor syncline</p>	<p>A plunging line connecting the points of maximum curvature of the bedding planes of a small or minor syncline.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>inclined foliation</p>	<p>An inclined locally planar fabric in a rock defined by a fissility, a preferred orientation of crystal planes in mineral grains, a preferred orientation of inequant grain shapes, or from compositional banding.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>inclined igneous foliation</p>	<p>A locally planar fabric in an igneous rock defined by planar parallelism of flaky or tabular minerals and mineral aggregates, slabby xenoliths, or flattened vesicles as well as compositional layering.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>

inclined joint	An inclined planar fracture, crack or parting in a rock, without shear displacement.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
inclined lineation	A plunging locally linear structure or fabric in a rock.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
inclined metamorphic foliation	An inclined locally planar metamorphic or tectonic fabric in a rock defined by a fissility, a preferred orientation of crystal planes in mineral grains, a preferred orientation of inequant grain shapes, or from compositional banding.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

inclined slaty cleavage	An inclined foliation defined by elongated domains of quartz or feldspar aggregates separated by anastomosing, mica-rich laminae. The width of the domains is typically less than 100 micrometers. Slaty cleavage is the characteristic foliation in fine-grained sedimentary and volcanic rock deformed under anchizone and lower greenschist metamorphic conditions.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
intersection lineation	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
isograd	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
karst area	An area of depression, either man-made or natural, formed by the dissolution of soluble rocks such as limestone or gypsum, through the removal in solution of underlying material.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
listric fault	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .

low angle normal fault	A fault with a dip of 45° or less, in which the hanging wall has moved downward relative to the footwall.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
map neatline	The cartographic line that surrounds a geologic map, separating the map from the margin.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
mine	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
mineral lineation	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .

<p>minor fault</p>	<p>A minor discrete surface or zone of discrete surfaces separating two rock masses across which one mass has slid past the other.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>mylonitic foliation</p>	<p>A locally planar mylonitic fabric in a rock defined by a fissility, a preferred orientation of crystal planes in mineral grains, a preferred orientation of inequant grain shapes, or from compositional banding.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>normal fault</p>	<p>See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a></p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.</p>
<p>oblique-slip fault, left-lateral</p>	<p>A fault that strikes oblique to, rather than parallel or perpendicular to, the strike of the constituent rocks or dominant structure. Displacement along the fault is such that in plan view, the side opposite the observer appears displaced to the left.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>

<p>oblique-slip fault, right-lateral</p>	<p>A fault that strikes oblique to, rather than parallel or perpendicular to, the strike of the constituent rocks or dominant structure. Displacement along the fault is such that in plan view, the side opposite the observer appears displaced to the right.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>occurrence</p>	<p>See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a></p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.</p>
<p>outcrop</p>	<p>See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a></p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.</p>
<p>overturned anticline</p>	<p>A fold, generally convex upward, whose core contains the stratigraphically older rocks that have tilted beyond perpendicular. Sequence of the strata thus appears reversed.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>

<p>overturned antiform</p>	<p>A convex-upward, concave-downward fold, where the fold or a limb of the fold has tilted beyond the perpendicular. The term is usually used when the folded layers do not possess a stratigraphic order, when the stratigraphic order of the folded layers is not known, or when the fold core also contains the stratigraphically younger rock.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>overturned bedding</p>	<p>A planar or nearly planar bedding surface that has tilted beyond the perpendicular.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>overturned syncline</p>	<p>A fold, generally concave upward, whose core contains the stratigraphically younger rocks that have tilted beyond perpendicular. Sequence of strata thus appears reversed.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>

<p>overturned synform</p>	<p>A fold whose limbs close at the bottom, where the fold or a limb of the fold has tilted beyond the perpendicular. The term is usually used when the folded layers do not possess a stratigraphic order, when the stratigraphic order of the folded layers is not known, or when the fold core also contains the stratigraphically older rock.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>overturned thrust fault</p>	<p>A thrust fault that has tilted beyond the perpendicular. The sequence of the strata thus appears reversed.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>pit</p>	<p>An excavated area where earth material (sand, gravel, etc.) is taken to be used for fill at another location.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>

plunge	The angle between a linear structure such as a fold hinge, slip lamination, mineral lamination, and the horizontal as measured in the vertical plane containing the line.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
plunging fold	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
possible	The feature may be a sinkhole, but further investigation is necessary to confirm its identity.	Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
probable	The feature is likely a sinkhole based on its characteristic features in LIDAR and/or aerial photography.	Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
processing plant	A facility with the purpose of processing or refining natural resources of economic value.	Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

prospect	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
quarry	Open workings, usually for the industrial or commercial extraction of aggregate, slate, and other resources.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
reverse fault	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
sample	A hand specimen; rocks, sediment, fossils, or other material of a size that is convenient for megascopic study and for preserving in a study collection.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
shaft	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .

shear zone	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
shoreline	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
sinkhole	A closed depression in a karst area, commonly with a circular or ellipsoidal pattern. These depressions form in soluble rocks such as limestone and gypsum.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
sinkhole area	An area of depression, either man-made or natural, formed by the dissolution of soluble rocks such as limestone or gypsum, through the removal in solution of underlying material, or area with multiple sinkholes.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
slickenline	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .

spaced cleavage	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
spring	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
state boundary	The cartographic boundary of the Commonwealth of Virginia.	Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
station	A point where a qualitative observation is taken.	Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
strike-slip fault, left-lateral	A fault on which the movement is parallel to the fault's strike. Displacement along the fault is such that the side opposite the observer has been displaced to the left.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

<p>strike-slip fault, right-lateral</p>	<p>A fault on which the movement is parallel to the fault's strike. Displacement along the fault is such that the side opposite the observer has been displaced to the right.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>syncline</p>	<p>A fold, generally concave upward, whose core contains the stratigraphically younger rocks.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>synform</p>	<p>A fold, generally concave upward, where stratigraphic order of folded layers is unknown or poorly constrained.</p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online:  <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a>, accessed 18 July 2022.</p>
<p>tension fracture</p>	<p>See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a></p>	<p>Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available  online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a>.</p>

thrust fault	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
vein	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
vertical bedding	A planar or nearly planar bedding surface that is perpendicular to a horizontal plane and parallel to which the force of gravity acts.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
vertical cleavage	A vertical surface along which a rock tends to split because of secondary, aligned fractures or other closely spaced, planar structures or textures, produced by deformation or metamorphism.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

vertical compositional layering	Alternating vertical layers of different minerals in an igneous or metamorphic rock.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
vertical dike or vein	A vertical tabular igneous intrusion that cuts across the bedding or foliation of the country rock or a vertical fracture that contains mineralized material.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
vertical flow banding	The structure of an igneous rock characterized by alternating vertical layers of color, mineralogic composition, and/or texture, formed as a result of the flow of magma or lava.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

vertical foliation	The vertical planar arrangement of textural or structural features in any type of rock, especially the locally planar fabric in a rock defined by a fissility, a preferred orientation of crystal planes in mineral grains, a preferred orientation of inequant grain shapes, or from compositional banding.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
vertical gneissic banding	A type of vertical foliation in metamorphic rock that is defined by compositional banding. Typically, gneissic banding consists of alternating dark (mafic) and light (felsic or silicic) bands of rock. Gneissic banding may reflect original compositional layering in the protolith, or lit-par-lit intrusion, or metamorphic differentiation by diffusion, or transposition.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
vertical igneous foliation	A vertical locally planar fabric in an igneous rock defined by planar parallelism of flaky or tabular minerals and mineral aggregates, slabby xenoliths, or flattened vesicles as well as compositional layering	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

vertical joint	A vertical planar fracture, crack or parting in a rock, without shear displacement.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
vertical metamorphic foliation	A vertical locally planar fabric in a metamorphic rock defined by a fissility, a preferred orientation of crystal planes in mineral grains, a preferred orientation of inequant grain shapes, or from compositional banding.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
vertical schistosity	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
vertical slaty cleavage	A foliation, that is vertical to the horizontal, which is defined by elongated domains of quartz or feldspar aggregates separated by anastomosing, mica-rich laminae. The width of the domains is typically less than 100 micrometers. Slaty cleavage is the characteristic foliation in fine-grained sedimentary and volcanic rock deformed under anchizone and lower greenschist metamorphic conditions.	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .   Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.

water well	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .
waterfilled	The sinkhole feature is partially or completely filled with water.	Virginia Department of Energy, Geology and Mineral Resources Program GeMS Glossary, 2022. Available Online: <a href="https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf">https://energy.virginia.gov/geology/documents/GEMSGlossary.pdf</a> , accessed 18 July 2022.
waterline	See American Geosciences Institute definition, available online: <a href="https://www.americangeosciences.org/pubs/glossary">https://www.americangeosciences.org/pubs/glossary</a>	Neuendorf, K.K.E., Mehl, J.P., and Jackson, J.A. (eds), Glossary of Geology, American Geosciences Institute, Available online: <a href="https://glossary.americangeosciences.org/">https://glossary.americangeosciences.org/</a> .