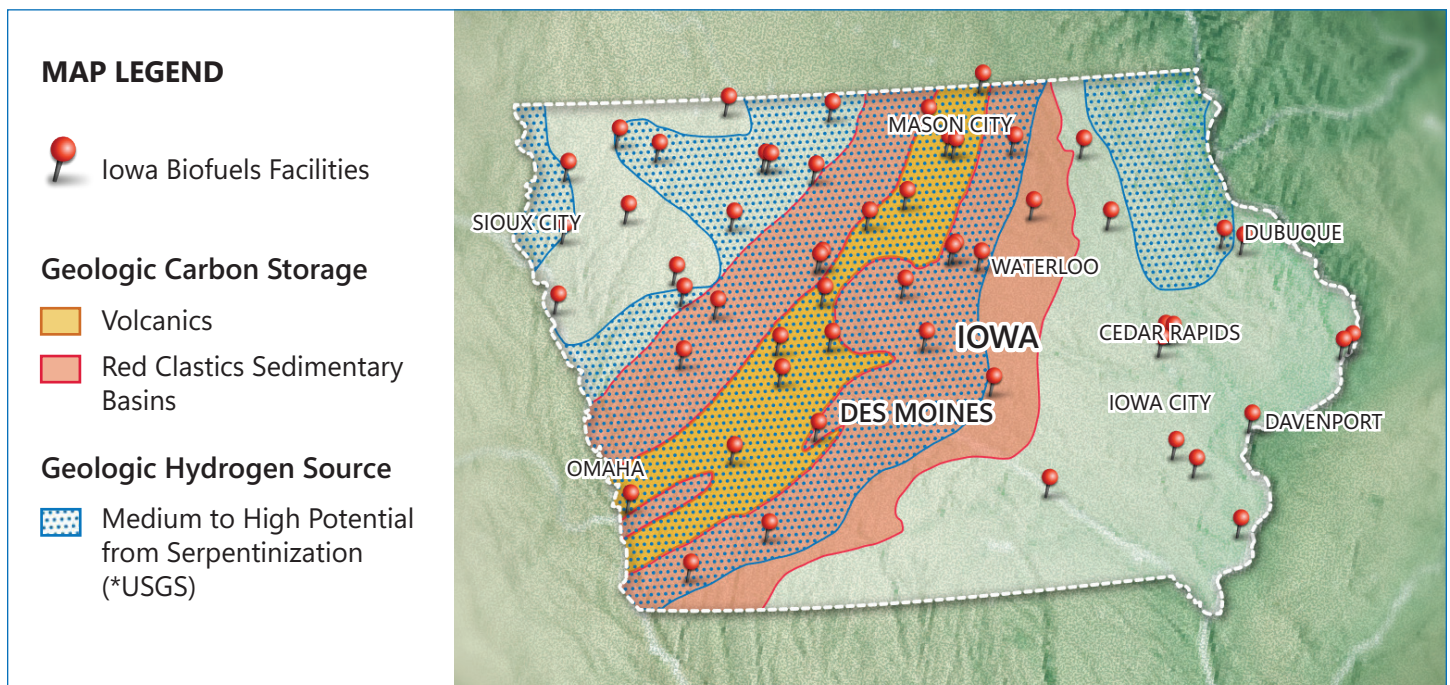


Battelle: CCS and Hydrogen Potential in Iowa

Natural hydrogen, also known as geologic hydrogen, occurs naturally within the Earth. Unlike hydrogen produced via industrial processes, natural hydrogen is sourced directly from, and stored within, rocks in the subsurface, similar to oil and gas resources.

The Midcontinent Rift (MCR) of Iowa provides the potential for natural hydrogen exploration. The thick sequence of iron-rich volcanic rocks within the rift are a prospective source. Additionally, the thick sedimentary rock formations within and above the rift offer potential reservoirs and seals to trap hydrogen in exploitable accumulations. Further, those same MCR rock formations that could produce and store hydrogen are possible reservoirs for CO₂ storage, either through mineralization in basaltic rocks or saline storage in sandstones and carbonates.



*Modified from Hearon, J.S., Gelman, S.E., Ellis, G.S., Kinney, S.A., Miller, R.F., Tikku, A.A., Skinner, C.C., O'Halloran, M.M., and Zhang, M., 2025, Data Release for Prospectivity Mapping for Geologic Hydrogen: U.S. Geological Survey data release, <https://doi.org/10.5066/P13WCG5U>

What We Do

Battelle’s team works with development companies across all stages of project maturation including subsurface geologic evaluation, well operations, site design and construction, monitoring, reporting and verification. Whether you are evaluating for CCS, geothermal, or exploring for hydrogen, we can help you develop strategies to achieve your goals while controlling risks, maximizing tax incentive potential, and future-proofing operations.

Trusted Name in Subsurface Evaluation for 40 Years

Our technical staff have over 500 years of experience with diverse skillset including geology, geophysics, reservoir engineering, drilling, and project management. Our staff has the experience and expertise to address the broad range of technical requirements to execute your project at any phase of maturation.

OUR SERVICES	Site assessment & Risk Evaluation	Reservoir Modeling	Permitting	Well Operations	Monitoring, Validation & Compliance
---------------------	-----------------------------------	--------------------	------------	-----------------	-------------------------------------



Accelerate Sustainability Goals
 Meet aggressive carbon reduction targets without compromising reliability. Deliver verifiable carbon reduction metrics for stakeholders and investors

Unlock Incentives
 Maximize 45Q tax credits and government funding

Future Proof Operations
 Stay ahead of EPA and state mandates with a proven CCS strategy.

BATTELLE CCS BY THE NUMBERS **>100** Total Projects Worked in 27 States **10** Stratigraphic Test Wells Drilled **11** EPA Class VI Permits Submitted

Contact us today to get started.