Leveraging CCS Research, Datasets, and Legacy Seismic to Support CCS Applications in the Midwest Regional Carbon Initiative

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LEVERAGING EXISTING RESEARCH & DATA IN THE MRCI

- Development of carbon capture and storage (CCS) applications was facilitated in the 20-state Midwest Regional Carbon Initiative (MRCI) through the collection and sharing of existing and new technical data CCS in the MRCI.
- The inventory revealed gaps where additional research efforts and future data collection may be focused to accelerate the deployment of CCS in the MRCI.
- The datasets were used to evaluate CCS for ethanol plants, carbonate porosity, downhole pressure-temperature monitoring, injectivity performance, and microseismicity research topics for the MRCI.
- Overall, the data collection, sharing and analysis facilitates both distribution of existing information on carbon storage for the MRCI region as well as continued support for accelerating CCS projects in the MRCI region.

MRCI RESEARCH AND DATASETS

- Geological studies on CO₂ storage resources, pilot-scale CO₂ injection tests, industrial scale CO₂ storage projects, monitoring data from CO₂ storage, and policy and regulations in the MRCI region provide a foundation for CCS development.
- An inventory of this information was organized into a database of more than 1,000 items that provide a foundation for developing CCS in the region.



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DATASETS FOR ADDITIONAL ANALYSIS ON CCS IN THE MRCI

- The MRCI project team inventoried existing data and analyses from previous efforts under the Midwest Geologic Sequestration Consortium, Midwest Regional Carbon Sequestration Partnership, state funded CCS projects, and DOE-funded efforts into an inventory for industry and decision makers understand CCS potential in their areas.
- This information included geological studies on CO_2 storage resources, pilot-scale CO_2 injection tests, industrial scale CO_2 storage projects, monitoring data from CO_2 storage, and policy and regulations in the MRCI region.









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LEVERAGING LEGACY SEISMIC SURVEY DATA

This legacy seismic data was organized, summarized, and digitized so that it may support CCS in the MRCI region:

- 832 linear miles of 2D seismic data
- 43 square miles of 3D seismic data

• 57 boxes containing CD's, cassettes, reels, field data, and paper seismic • Six oil & gas operating companies with data from Illinois, Michigan, and Appalachian Basins The seismic lines were cataloged in terms of acquisition parameters, vintage, quality, location, and resolution.

Seismic data were described and organized in relation to sedimentary basins, geologic structures, faults, and provinces.



DEVELOPING CCS IN THE MRCI REGION

Data Gaps for CCS in the MRCI: Data

sets are being used to address key issues related to CO_2 storage potential in MRCI.

Supporting CCS Projects:

Field project data, legacy seismic, monitoring datasets, and geotechnical data are supporting development of CCS projects in the MRCI region.

Sharing Information:

Data available on **www.midwestccus.org**!







http://www.midwestccus.org/





