Geological Carbon Storage in the Green Basin

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CleanPower Inc (CPI)
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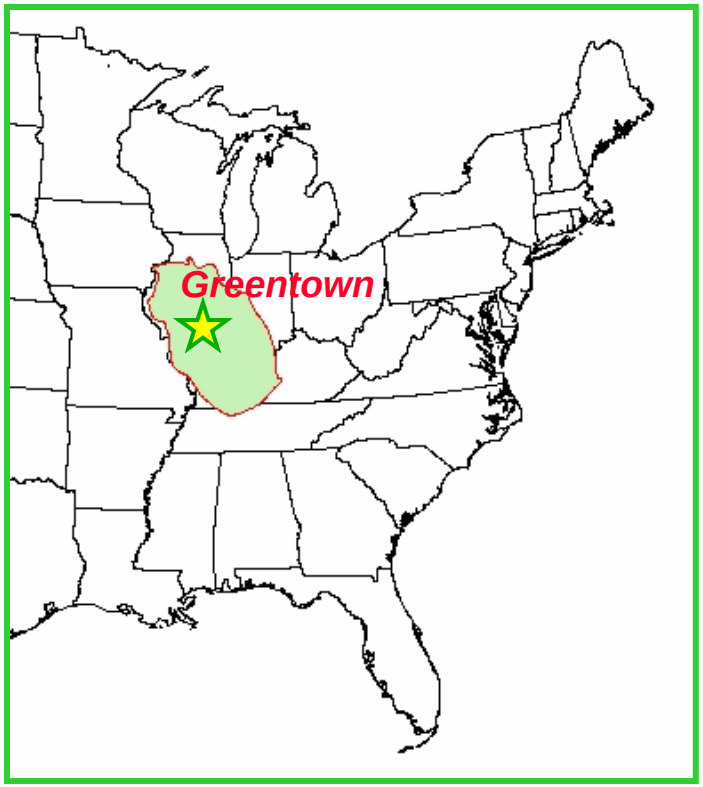
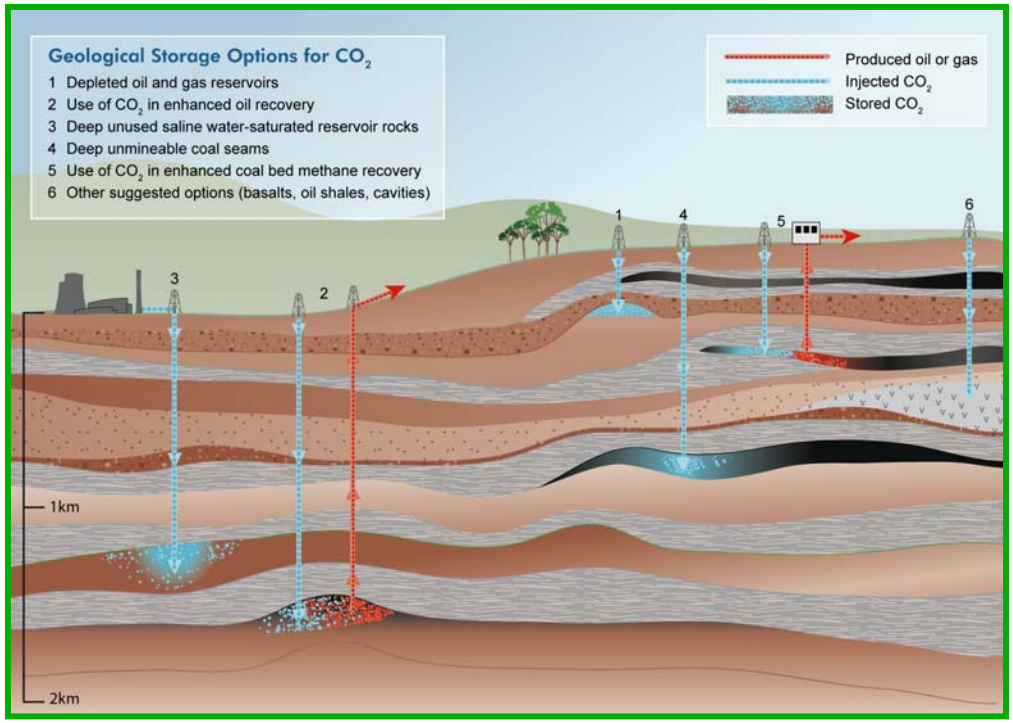
CPI and the new CO_2 emissions tax

- ***Continued, secure delivery of electricity is best served through a set of measures including efficiency, increased renewable power, and carbon capture and sequestration (CCS)***
- ***CPI believes that CCS technology will be required on future fossil-fueled units***
- ***CCS could be economically important to Greenstate which depends heavily on coal for its energy and related employment***
- ***We believe that there are opportunities for CCS within the current portfolio of plants within the Green Basin***



Geological Carbon Storage (GCS) is an approach to safely reduce greenhouse gas emissions



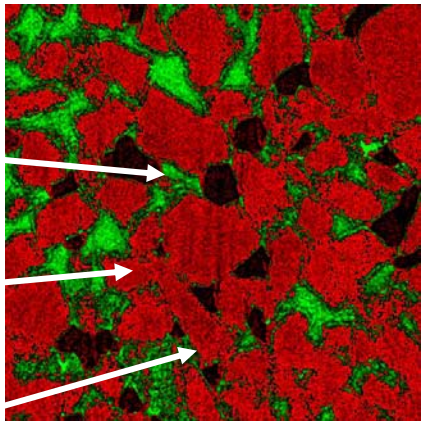
- ***CO_2 is injected into rocks at great depth, where it will remain for a long time***
- ***Geological targets are selected on a basis of injectivity, capacity, and storage effectiveness***
- ***The Green Basin is very well suited to GCS***

The most promising site to store CO_2 is in saline formations more than a mile underground and far below drinking water supplies

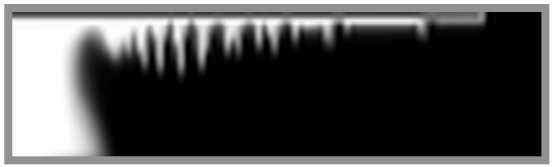
What Keeps the CO_2 Underground?

- Physically trapped beneath seals
- CO_2 is trapped by capillary forces

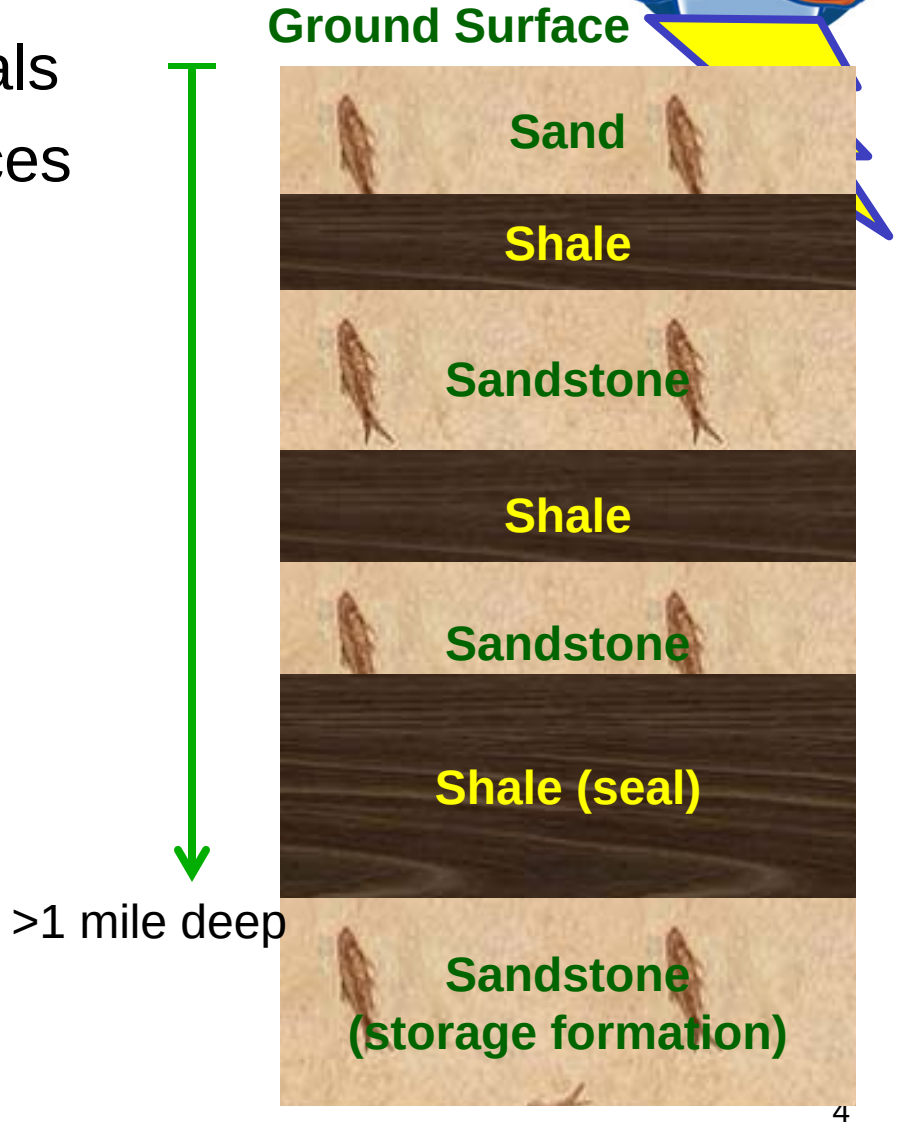
X-ray of CO_2 in sandstone



- CO_2 dissolves in water

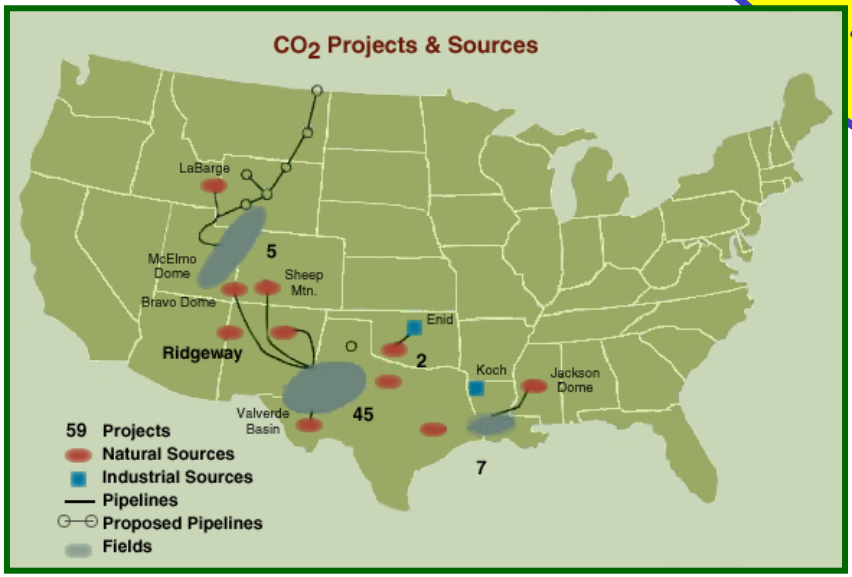


- CO_2 converts to solid minerals



Multiple Lines of Evidence Indicate Storage Can Be Secure and Effective

1. Natural analogues
   - Oil and gas reservoirs
   - CO_2 formations
2. Industrial analogues
   - CO_2 EOR
   - Natural gas storage
   - Liquid waste disposal
3. Existing projects
   - Sleipner, Off-shore Norway
   - Weyburn, Canada
   - In Salah, Algeria
4. Fundamental physical and chemical processes

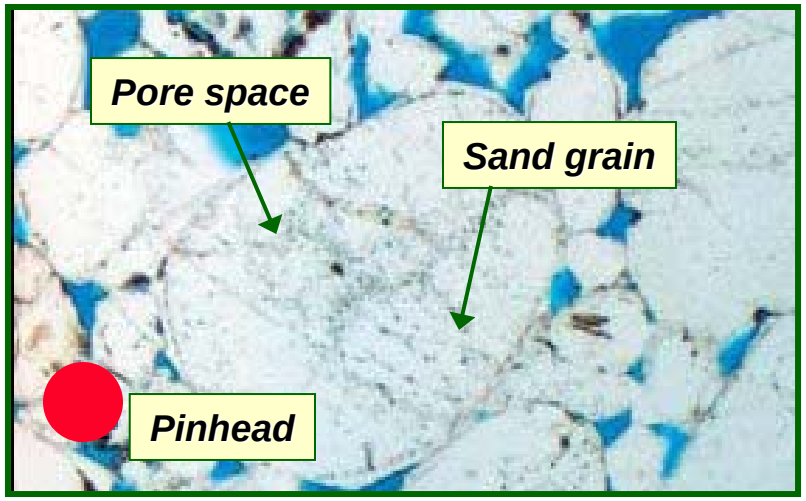


CleanPower Inc. has evaluated the geological storage options within its portfolio of plants

- *The Greentown plant emerged as the first plant for CCS retrofit, in large part due to the high effectiveness of local geology*
- *We asked for Clean Technologies Inc. to help characterize the region and select a preferred site*
- *We reviewed available information on the Greentown community (e.g., media reports, previous contacts with development groups and local organizations)*
- *We examined the rocks of the Green Sand unit, Breadbasket group using all available data*
  - *GU-UC*
  - *the state geological survey, USGS*
  - *Local oil and gas wells and cores*

The Green Sandstone unit is used in the state for natural gas storage and other injection programs

Green Sandstone



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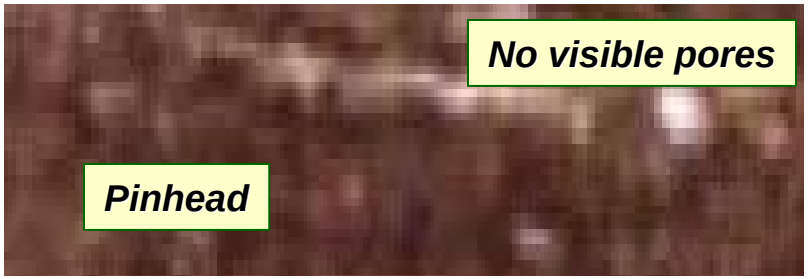
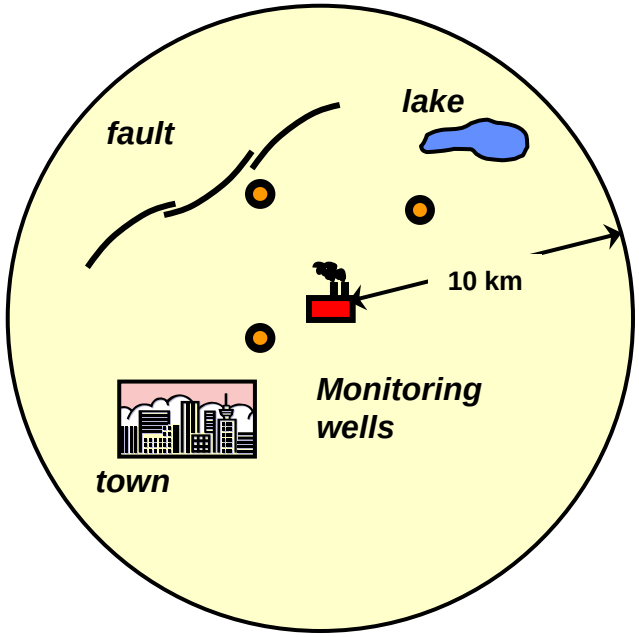
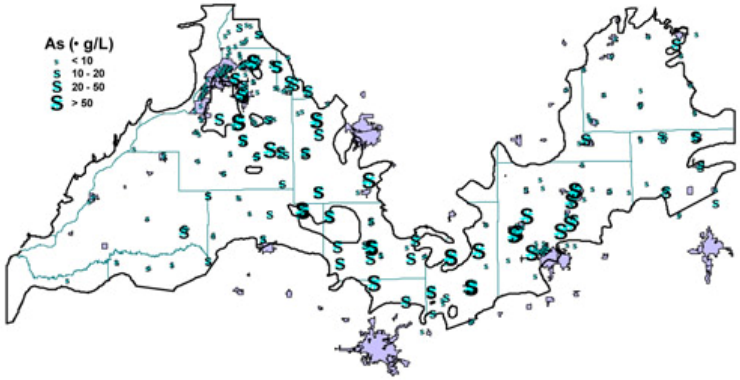


- ***The unit has excellent injectivity and can contain large volumes of CO2***
- ***The overlying seals are highly effective, and contain oil and natural gas elsewhere in the state***
- ***We will collect new data to confirm the geological model***
  - ***A new data well at the site***
  - ***New geophysical surveys***
  - ***Special analyses on cores***

We will work with you to make these data accessible and understandable to the public

CPI is committed to the highest level of environmental management





- *We are designing a monitoring program suited to the local geology*
  - *Three new monitoring wells with permanent sensors*
  - *A new surface detection array*
  - *Regular geophysical surveys*
- *We will monitor water quality in municipal wells on a monthly basis*
- *We will continue to study and improve our operational effort in accordance with accepted protocols*
- *We are committed to informing and seeking feedback from you, the public*

We want to hear from you

- Your input and support is essential to the success of our project
- If you have questions, want more information, or wish to be put on a mailing list for updates, please contact:

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