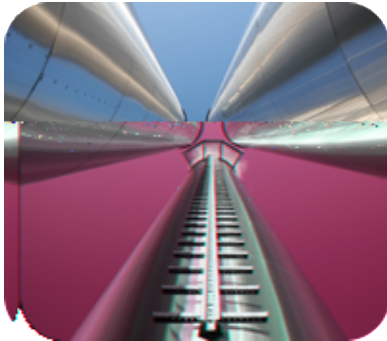




IEA CCS Liability Workshop: Recent US Actions

Jordan Kislear, US Department of Energy

April 21rd, 2015

2010 Taskforce Report:

The following four approaches should be considered:

- **(1): reliance on existing framework for long term liability and stewardship**
- (2): adoption of substantive or procedural limitations on claims
- (3) creation of an industry-financed trust fund
- (4) Transfer of liability to Federal Government

Open-ended Federal indemnification should not be used to address long-term liabilities

FR Mechanisms [40 CFR 146.85]

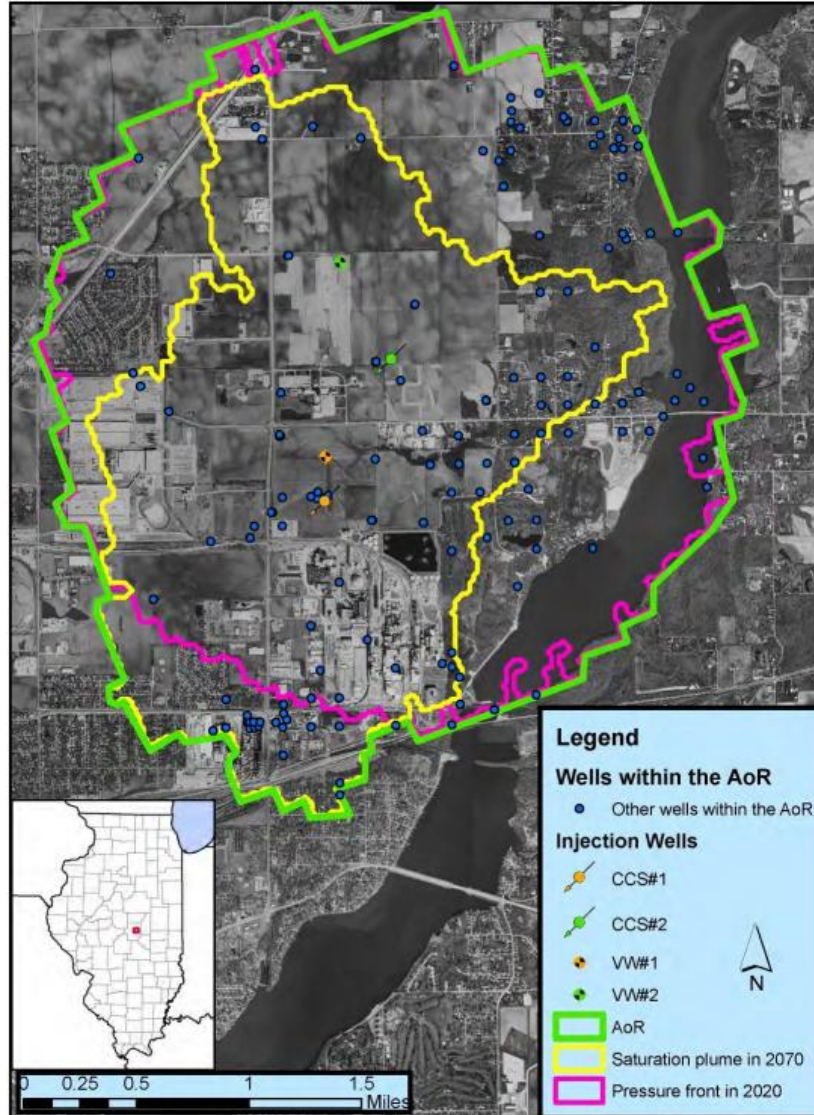
Archer Daniels Midland: Corporate Guarantee 10 Year PISC

Table 1. Cost Estimates for Activities to be Covered by Financial Responsibility

Activity	Total Cost (\$)
Performing Corrective Action on Wells in AoR	231,800
Plugging Injection Wells	594,120
Post-Injection Site Care	6,434,500
Site Closure	535,300
Emergency and Remedial Response	30,792,000

<http://www.epa.gov/region5/water/uic/adm/>

ADM: Area of Review (AoR)



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FR Mechanisms [40 CFR 146.85]

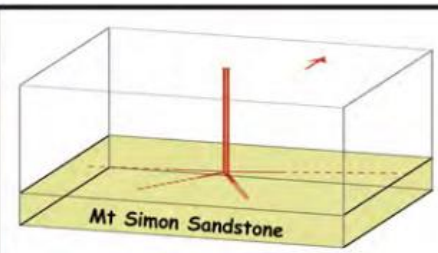
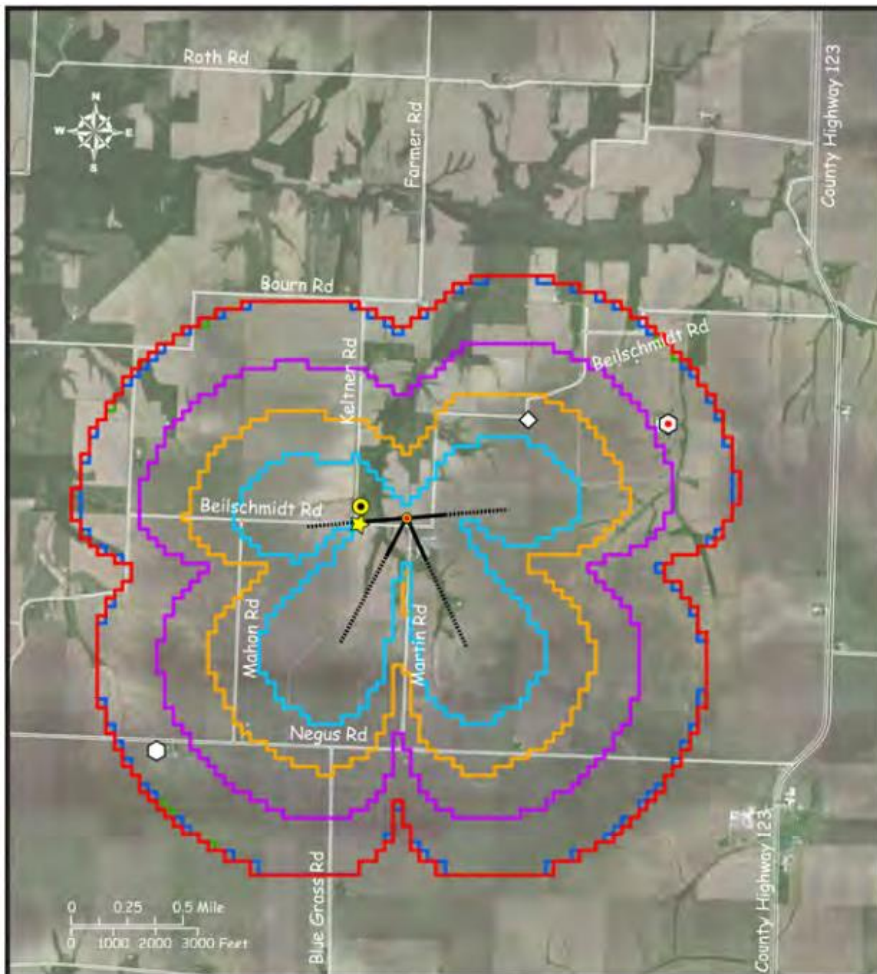
FutureGen: Forward funded Trust Fund 50 Year PISC

Table 1. Cost Estimates for Activities to be Covered by Financial Responsibility

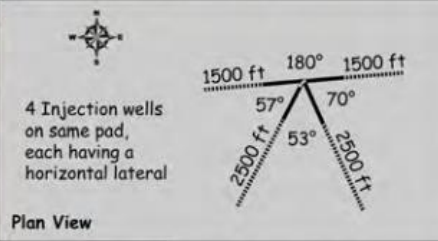
Activity	Estimated Cost (Millions, 2012\$)
Performing Corrective Action on Deficient Wells in AoR	\$0.62
Plugging Injection Wells	\$2.7
Post-Injection Site Care	\$18.3
Site Closure	\$3.4
Emergency and Remedial Response	\$26.7
Note: Values in this table are rounded. For exact costs used to determine the value of the Trust Fund, refer to Table 2.	

<http://www.epa.gov/r5water/uic/futuregen/>

FutureGen: Area of Review



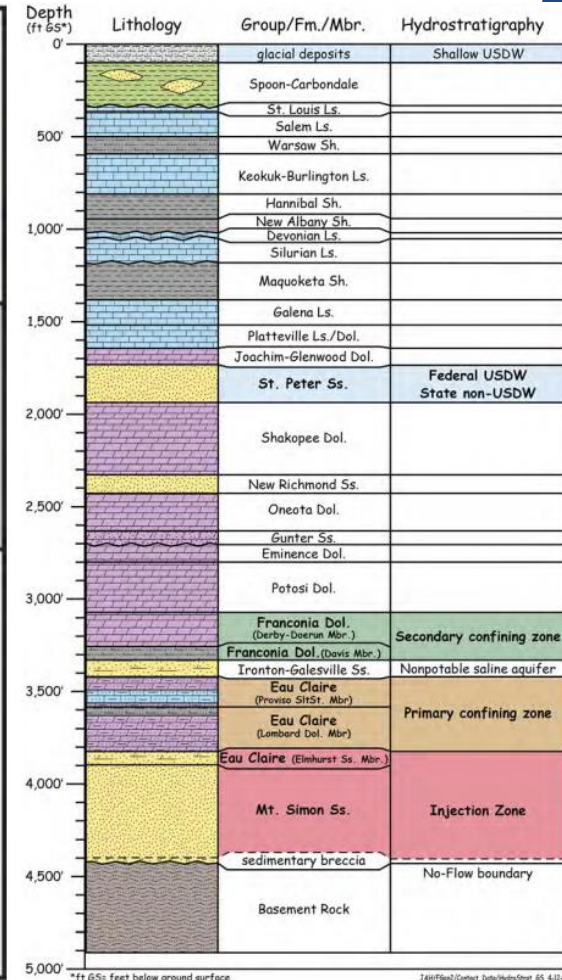
Perspective View (not to scale)



Plan View

- Stratigraphic Well (converted to single-level monitoring well)
- USDW Monitoring Well
- ACZ Early-Detection Monitoring Well
- Injection Zone Multi-Level Monitoring Well
- Injection Zone Single-Level Monitoring Well
- Horizontal Injection Well
- 70 year CO₂ Injection Plume Outline (site closure)
- 22 year CO₂ Injection Plume Outline (predicted maximum extent of plume)
- 20 year CO₂ Injection Plume Outline
- 10 year CO₂ Injection Plume Outline
- 5 year CO₂ Injection Plume Outline
- 2 year CO₂ Injection Plume Outline

2013-DCL-6PlumesMonWells-003_05-10



*ft 65: feet below ground surface

2460/FB02/Context_SubsurfaceHydrostrat_05_410-10



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Class VI Update

- “5” Permits Granted
- ADM: Drilling Injection well
- FutureGen Project Cancelled (4 wells)
 - Continuing through permit appeals process
 - May use injection site in the future
- EPA Developing Guidance: II-VI Transition
 - Focus: Protection of Underground Sources of Drinking Water (USDWs)
 - Summer 2015 Publication