



PERSPECTIVES ON **CONCURRENT CO₂ EOR AND CARBON CAPTURE AND STORAGE (CCS)**

*Enhanced Oil Recovery Institute's
3rd Annual CO₂ Conference
Casper, Wyoming*

L. STEPHEN MELZER
Melzer CO₂nsulting

June 2009



PERSPECTIVES ON CO₂ EOR AND CARBON CAPTURE AND STORAGE (CCS)

- CO₂ EOR AND CCS CONVERGENCE
- 'SECURE' UNDERGROUND STORAGE
- STATUS OF THE EOR INDUSTRY AND SIZE OF THE TARGETS
- OPPORTUNITY KNOCKS
- THE SKIRMISH LINE: ENVIRONMENTAL AND RESOURCE LAW
- LIMITING FACTORS FOR GROWTH
- POLICY INITIATIVES



THE CONVERGENCE OF CCS AND CO₂ ENHANCED OIL RECOVERY

- CONTINUING MATURITY OF OILFIELDS
- CO₂ EOR TECHNOLOGY GROWING AND MORE WIDELY APPLIED; SOME RESERVOIRS ARE BEING EXTENDED VERTICALLY (TZs and ROZs)
- REQUIRES 'SECURE' STORAGE AND DOCUMENTATION OF NET CO₂ SEQ VOLUMES
- COMING PROFILARATION OF ANTHROPOGENIC CO₂ SOURCES

- | | |
|----------------------------|--|
| NEAR TERM | – MORE EXPLOITATION OF LOW BTU (CO ₂ 'LADEN') NATURAL GAS w/ CO ₂ CAPTURE) |
| SOME NEAR, MOSTLY MID TERM | – CAPTURE OF INDUSTRIAL CO ₂ SOURCES (FERTILIZER, CEMENT, HYDROGEN, HELIUM, ETHANOL ETC.) |
| LONG TERM? BIG VOLUMES | – ONSET OF THE AGE OF IGCC, NG AND SUPERCRITICAL COAL POWER PLANTS w/ CO ₂ CAPTURE |



'SECURE' CO₂ STORAGE (1)

EOR INDUSTRY PERSPECTIVES

- REGULATORY JURISDICTIONAL CERTAINTY (STATE-BASED?)
- PERMITTING THE RIGHT SITES
- COMMERCIALY GROUNDED MONITORING, VERIFICATION AND ACCOUNTING



'SECURE' CO₂ STORAGE (2)

EOR INDUSTRY PERSPECTIVES

- FACILITATING INITIAL CAPTURE PROJECTS
 - VOLUNTARY OPTION
 - INCENTIVES FOR FIRST MOVERS
 - CAP AND TRADE, ALLOWANCES ('Waxman-Markey')
- LONG TERM FATE OF CO₂ – RISK SHARING
- WHO OWNS STORAGE RIGHTS? WHAT IS THE DYNAMIC BETWEEN THE STORAGE, SURFACE AND MINERAL ESTATES?
- HOW TO AGGREGATE SUFFICIENT RIGHTS?



CURRENT EOR/CCS ACTIVITIES

- CONVENTIONAL CO₂ SUPPLIES HAVE HAD LIMITATIONS – SOME EXPANSIONS UNDERWAY
- ACTIVITY PRIMARILY CONCENTRATED IN CURRENT EOR AREAS – BUT IS EXPANDING
- INITIAL CO₂ PIPELINES IN NEW AREAS
- USING EOR TO GROW CAPTURE AND BUILDOUT OF INFRASTRUCTURE: INCORPORATING ANTHROPOGENIC CO₂ SOURCES (QUESTION: ARE WE NOW RECOGNIZING THIS WITH THE NEW ADVANTAGES OF ANTHRO CO₂? e.g., 45Q, Tx HB469, SB1387)





oil PERMIAN BASIN report

F

SUNDAY

March 22, 2009

SandRidge, Oxy break ground on Century gas processing plant

By Mella McEwen

Oil Editor

Anounced last summer, the \$1.6 billion Century Plant planned for Pecos County by SandRidge Energy and Occidental Petroleum has moved closer to existence with a recent groundbreaking ceremony.

Under the agreement, Oxy will spend \$1.6 billion to build and operate the new plant and a 160-mile pipeline from the plant through McCamey to Denver City. SandRidge will drill, produce and deliver high-CO₂ gas to the plant, which Oxy will treat under a 30-year agreement. SandRidge will retain all the methane gas and Oxy will keep all CO₂ for use in

enhanced oil recovery projects in the Permian Basin.

It will be completed in three phases and fully operational by 2011.

Speaking at the groundbreaking ceremony, Bill Albrecht, president of Oxy Oil & Gas USA, told the crowd that the project "marks a great partnership between SandRidge and Oxy. It's also a bellwether for our industry, as we dedicate ourselves to increasing domestic oil supplies while also protecting the environment."

He estimated that the new plant will provide Oxy with a major new source of CO₂ for its enhanced oil recovery projects, allowing the company to increase Permian Basin production by at least 50,000 barrels a day within the next five years.

The second prong of the project, said Kevin White, SandRidge's senior vice president, business development, is that the plant will take "what we decree is waste gas," remove the CO₂ and leaving SandRidge with methane gas to market. The new plant will also let it produce more from its Pinon (Overthrust) field, he said, noting that production was ham-

pered by restrictions on plant capacity to produce sour gas.

The third prong of the deal, he said, is that the new plant will benefit the environment by preventing CO₂ — considered a leading greenhouse gas responsible for global warming — from being emitted into the atmosphere.

The current decline in natural gas prices and energy demand has not impacted plans for Century, White said. "It is a big plant and will take awhile to build. We also have a partner in Oxy that has a longer view of the natural gas market and doesn't have a knee-jerk reaction to prices."

Still, White acknowledged that the partners are being cautious moving forward with the project.

"Oil and gas prices are cyclical," he reminded. "Just when we think they'll never go down, they will go down. Just when we think there is no up cycle, it goes up. We have a 30-year agreement with Oxy. Neither company thinks this price level will last 30 years."

Mella McEwen can be reached at casell@mrt.com.

A LOOK INTO THE MIND OF 'A SUPPLIER'

- A HUGE NATURAL RESOURCE (NAT'L GAS*)
- A PURIFICATION REQM'T TO SELL THE NAT'L GAS (SEPARATE THE CO₂)
- A NEED TO AVOID THE BY-PRODUCT CO₂ EMISSIONS
- A LARGE CO₂ MARKET TO READY THE BY-PRODUCT TO DELIVER A PRODUCT OF VALUE

* IT COULD ALSO BE PETROLEUM COKE, COAL, OR CEMENT PLANT



A LOOK INTO THE MIND OF 'AN EOR OPERATOR'

- RAPIDLY DEPLETING OIL RESOURCES WITH MARGINAL ECONOMICS
- A LARGE AND RELIABLE RESOURCE (CO₂) TO FURTHER DEVELOP THE OIL RESOURCES TO THE EOR STAGE
- BUT NO RULES ESTABLISHED TO DOCUMENT (STORED) VOLUMES IN ORDER TO:
 - A) OPT IN TO CONCURRENT STORAGE & EOR or
 - B) GO WITH BUSINESS AS USUAL EOR

LEAVING

- THE CAPTURER WITH ITS FULL LIABILITY FOR EMISSIONS: DISCONNECTED WITH THE INJECTOR (NO COMMITMENT TO STORE)



TWO THOUGHTS TO KEEP IN MIND ...

(as a result of the new day*)

- *CO₂ EOR petroleum professionals are at the center of the ongoing debates over climate change*
- *CO₂ EOR petroleum professionals who become “CCS-certified” should find themselves facing remarkable new business opportunities*



* 2006, Kipp Coddington (North American Carbon Capture and Storage Association)

THE COMING PARADIGM ...*

- Networks of anthropogenic sources will be connected via pipelines in a hub & spoke arrangement
 - ✓ *Such networks are already being built*
- To the extent feasible and relevant, industrial facilities will be collocated with CCS-suitable geologic reservoirs
 - ✓ *This is already being done (FutureGen, ethanol plants, etc.)*
- CO₂ will be purchased, traded and used as a commodity, not regulated as a pollutant
 - ✓ *"Memo to Rest of the World: This has been done successfully in the U.S. for the past 30+ years"*
- Petroleum professionals will play an integral role in these new industries
 - ✓ i.e., Where and where not to put the CO₂ underground
 - ✓ "Memo to listeners: Update your resumes and keep 'em handy"

* 2006, Kipp Coddington (North American Carbon Capture and Storage Association)



Two Markets for Same Molecule*

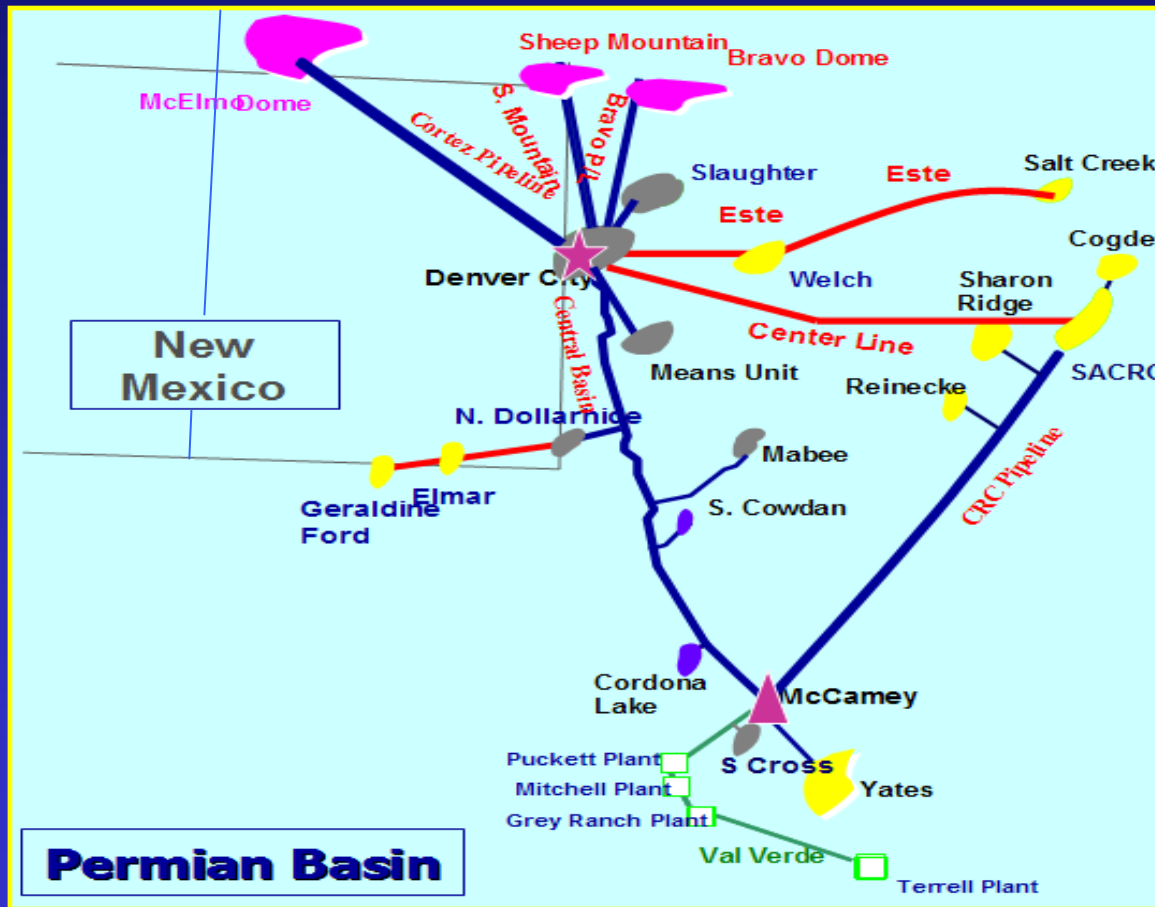
- Commodity CO₂ for Use in Enhanced Oil Recovery in the US and Globally
- Sequestered CO₂ or Greenhouse Gas and Resulting Tradable Offsets (Carbon Allowances)

* 2006, Mike Moore (EOR Carbon Management Workshop Director)



THIS CO₂ EOR IS BIG BUSINESS*

Case History: Permian Basin Fields & Infrastructure

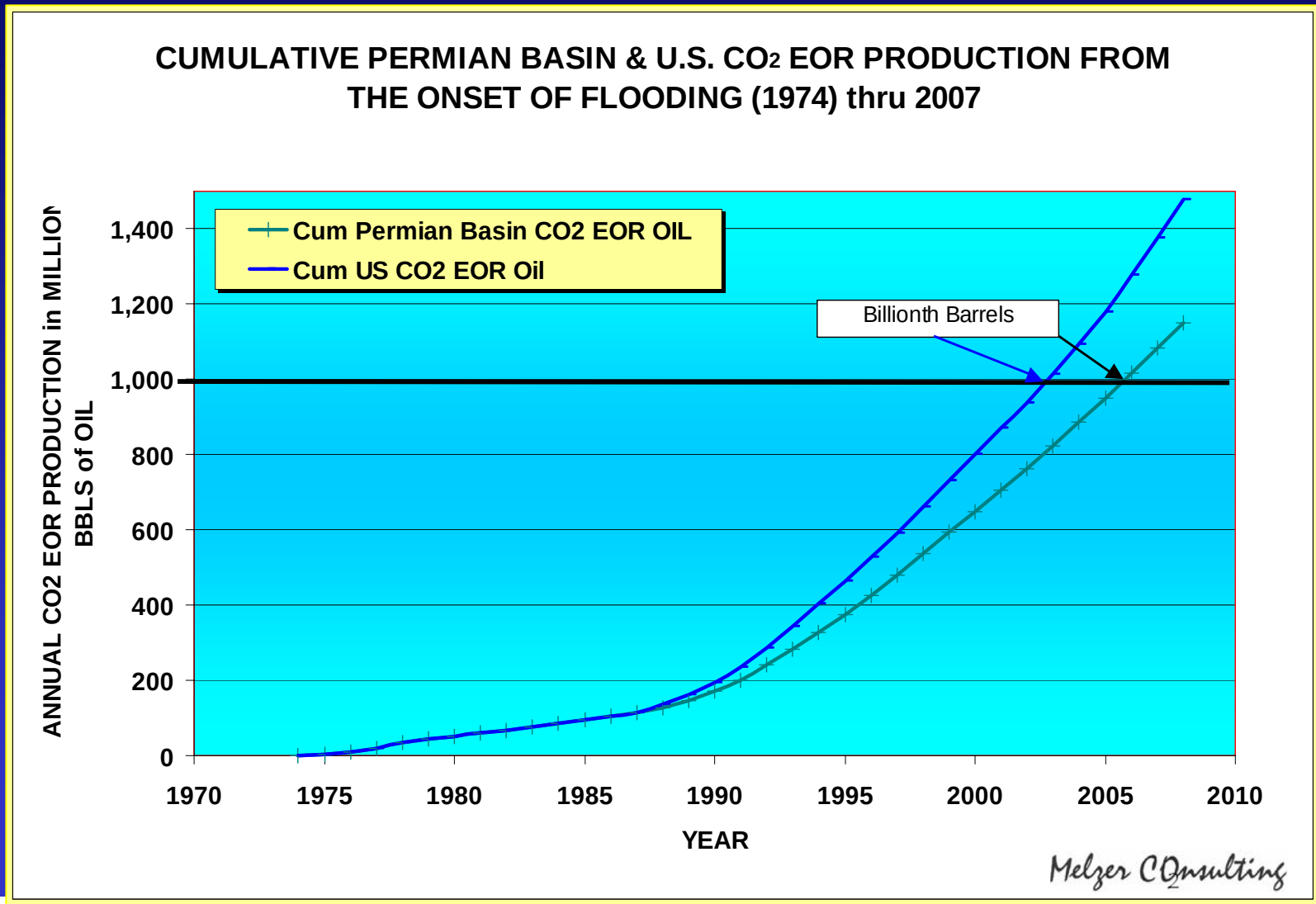


* Est. yearly PB figures:

- the 180,000 bopd is directly valued at \$3.3 billion (\$50/bbl)
- The 1.7 bcfd commodity CO₂ transaction value is ~\$400 million

And just the 2500 miles of CO₂ Pipelines themselves are conservatively worth over \$2 billion

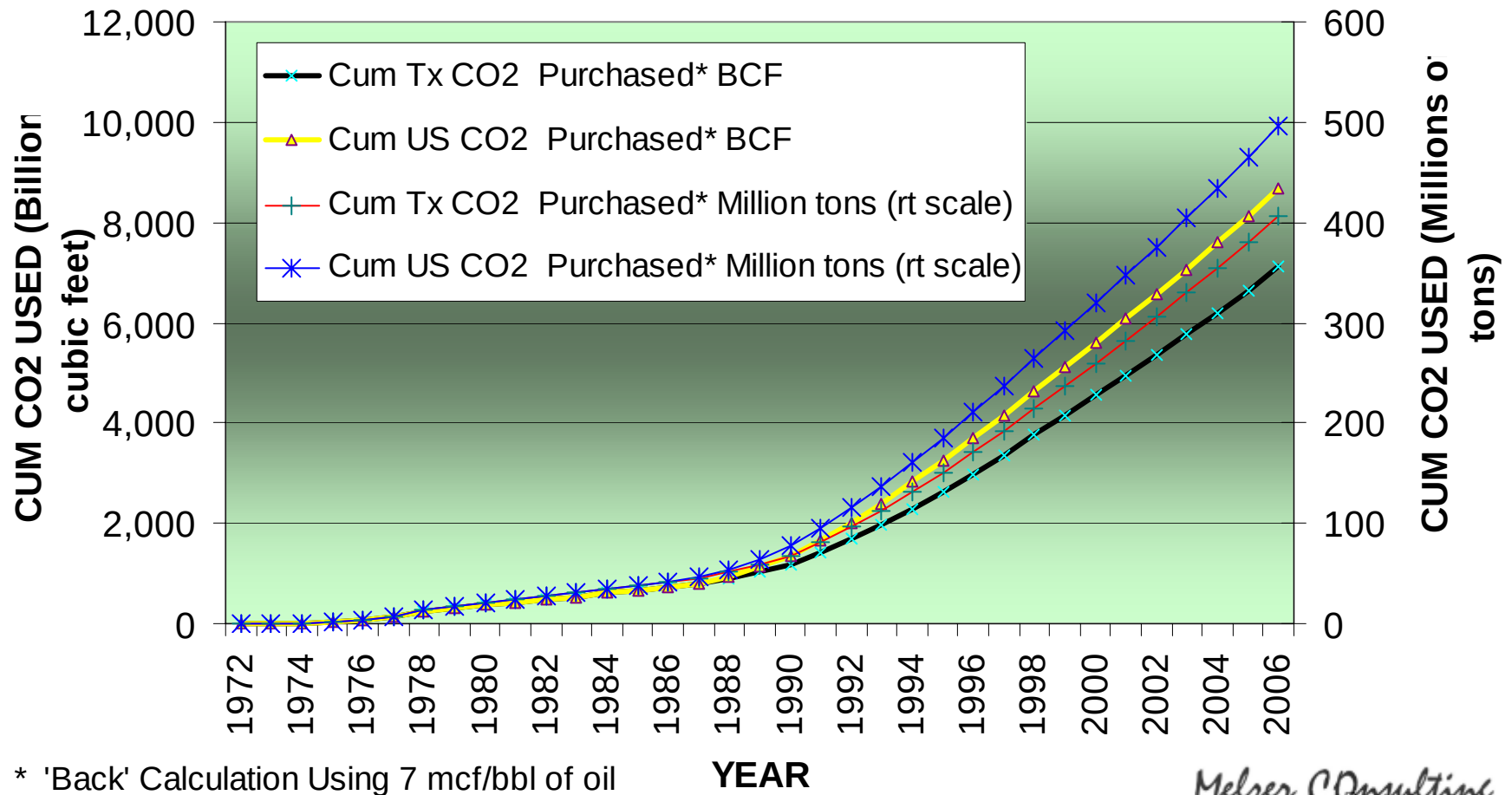
A Growing and Significant EOR Industry



* Source: Melzer Consulting (2008) and Oil & Gas Journal Biennial EOR Editions

CO₂ EOR and Storage

CUMULATIVE CO₂ UTILIZATION IN EOR (TX & U.S.)



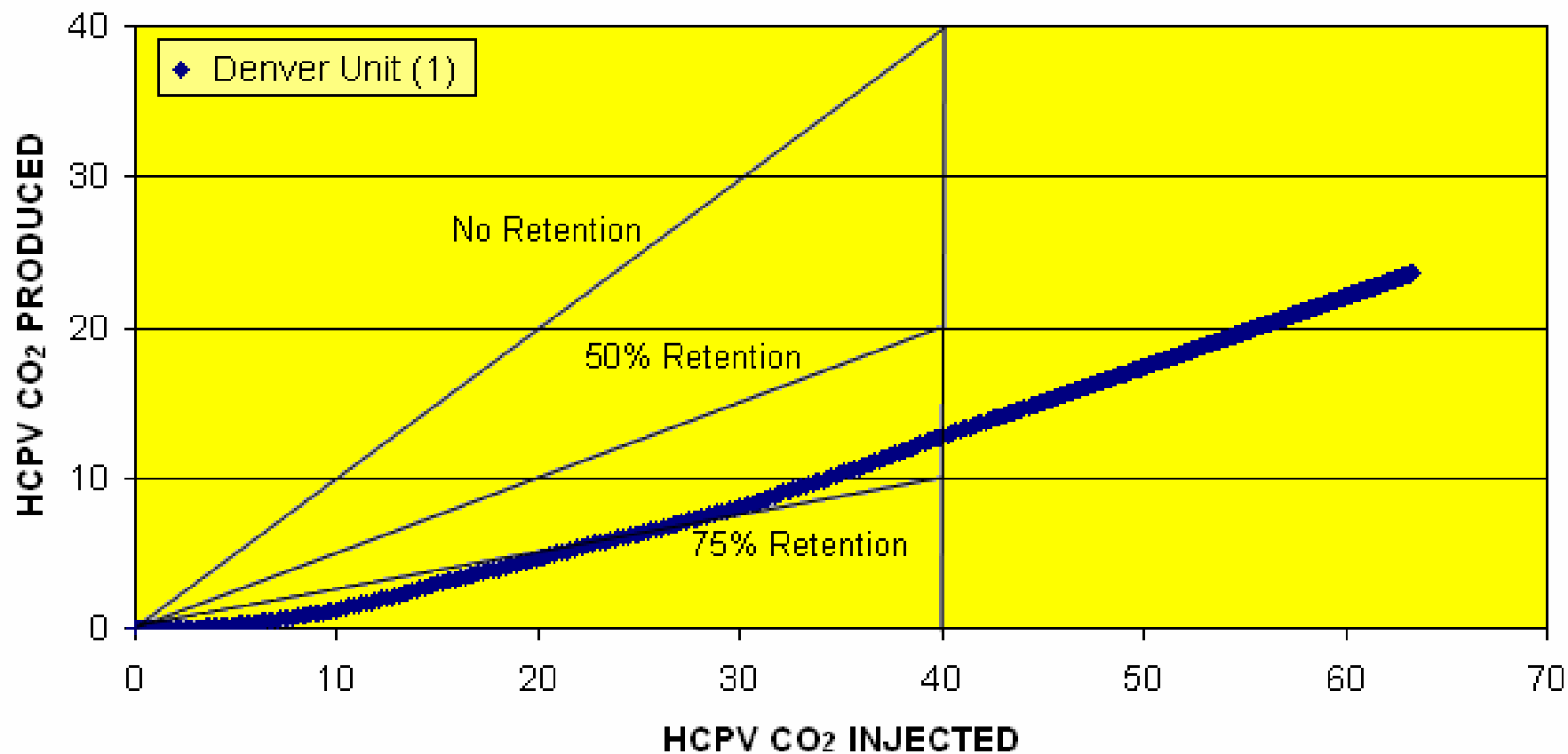
Melzer CO₂ Consulting

CONCEPTUAL CO₂ RETENTION

with the Denver Unit (West Texas) Example

Melzer CO₂ Consulting

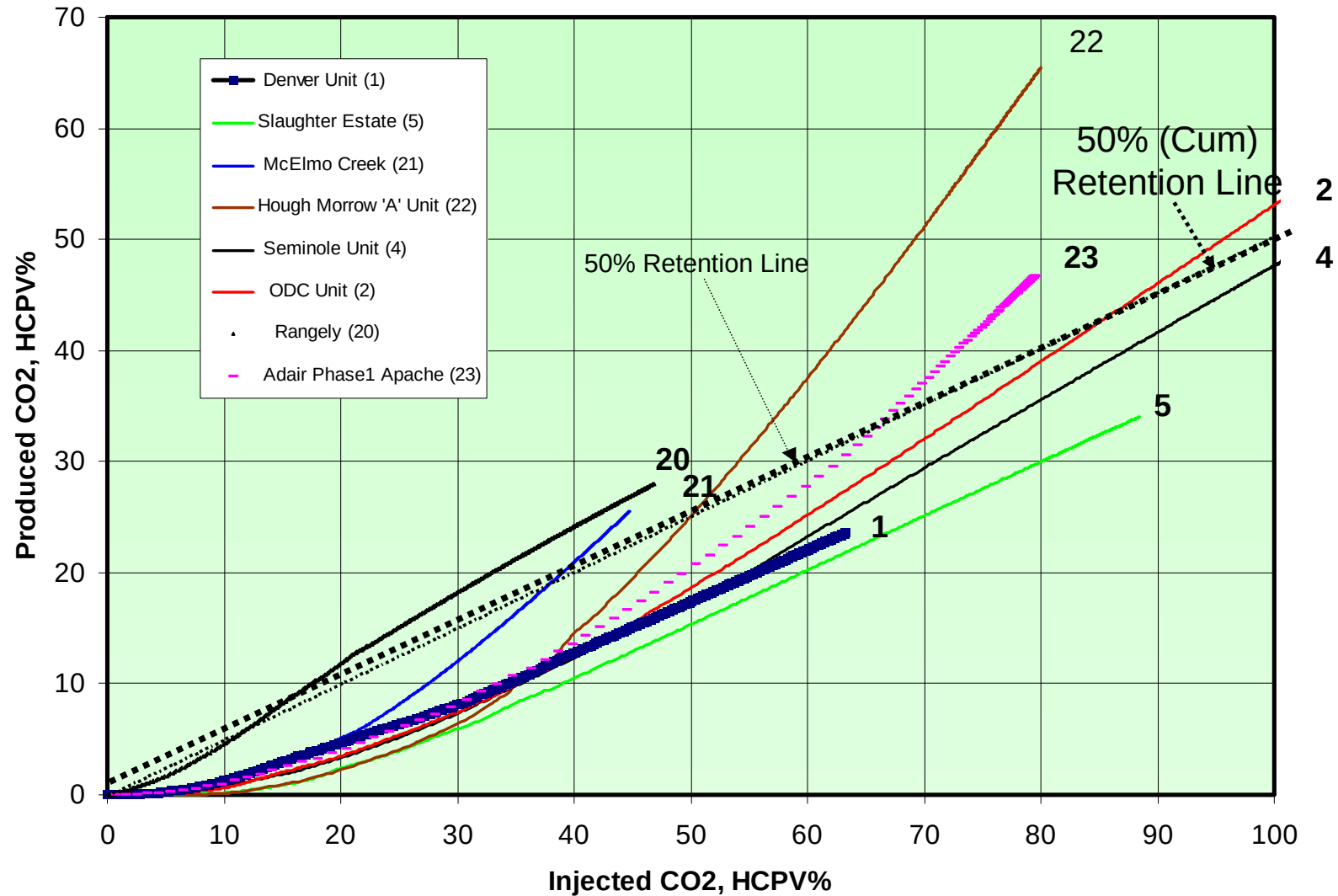
Conceptual Retention: Denver Unit



CO₂ Retention: Case Histories

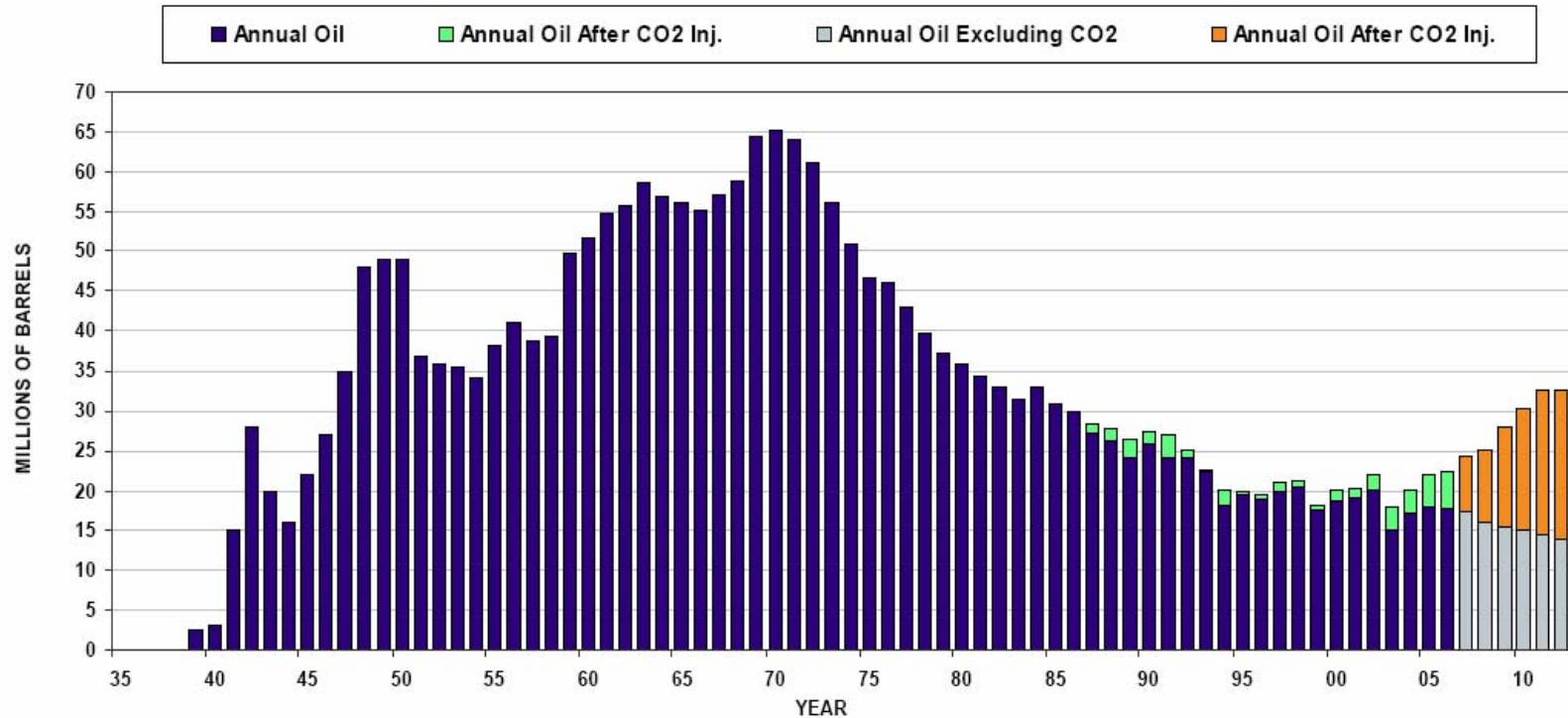
Melzer Consulting

HCPV CO₂ Produced VS HCPV CO₂ Injected



Mississippi Annual Oil Production

Total Cumulative Oil: 2.387 Billion Barrels (through 2006)

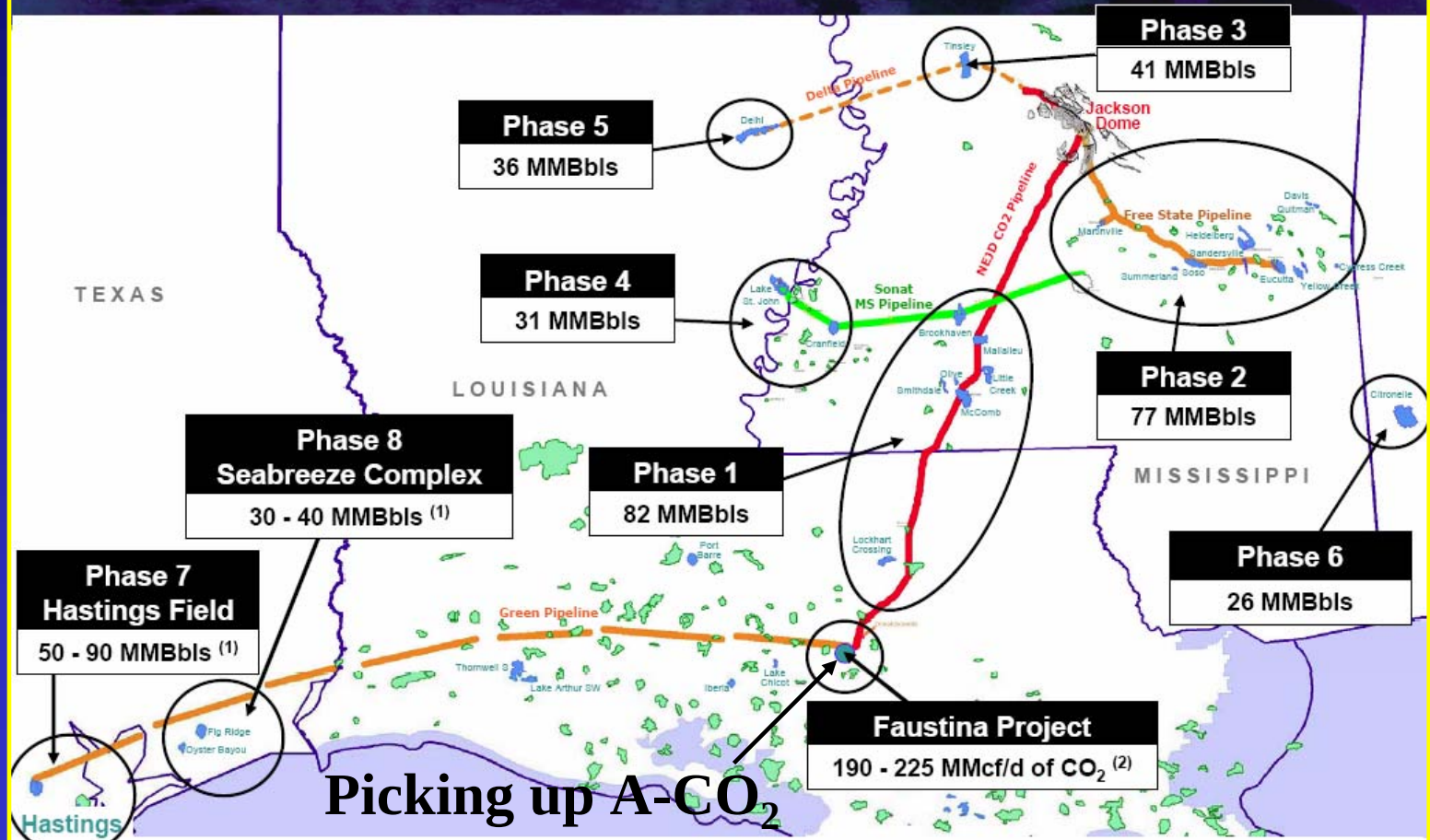


Denbury Resources Inc.

Denbury's Current & Planned CO₂ EOR Operations

Source: Denbury's May 2007 Corporate Overview

CO₂ Projects - Total Potential Tertiary Oil Reserves ⁽¹⁾



Picking up A-CO₂

(1) Probable tertiary oil reserves as of 12/31/06 based on 10% to 17% recovery factors. Hastings Field is under contract but not owned.

(2) Projected CO₂ production of petroleum coke to ammonia plant expected to be completed during 2010.

Denbury Resources Inc.

10

SKIRMISH AHEAD?

- Storage: Environmental Law (CCS)
- Oil: Resource Law (EOR)

For Example: Where Should the Regulatory Jurisdictional Bill be Heard?

House Environmental Regulation Committee

or

House Energy Resources Committee



PERMITTING COMPLEXITIES (1)

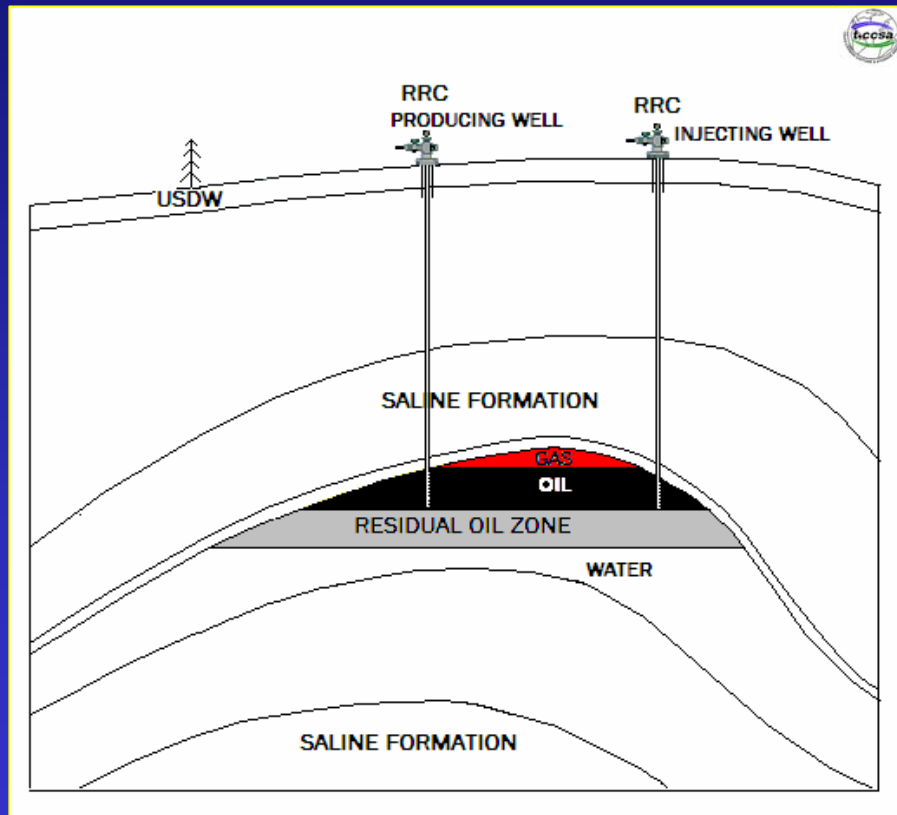
- Resource Extraction (SOGRA^{*})
 - Have the Underground Injection Experience
 - Have the Tools for Rights Aggregation
- Storage (Environmental Agencies)
 - Are the States' Growing Regulatory Arm
 - But They Bring the Waste Label
- Solution: Divide the Jurisdiction According to Primary Purpose of Injection Activity?

* STATE OIL & GAS REGULATORY AGENCIES

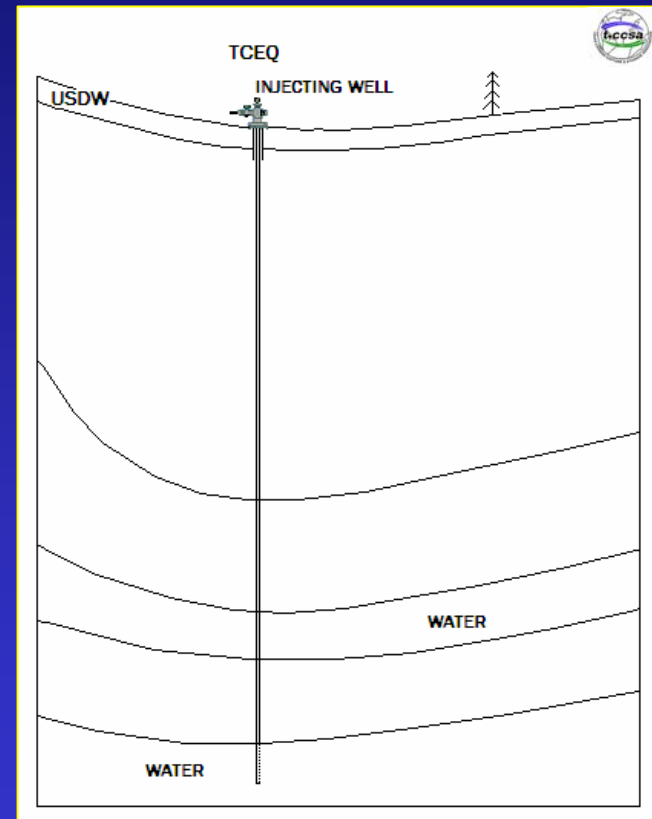


PERMITTING COMPLEXITIES (2)

SOGRA PERMIT

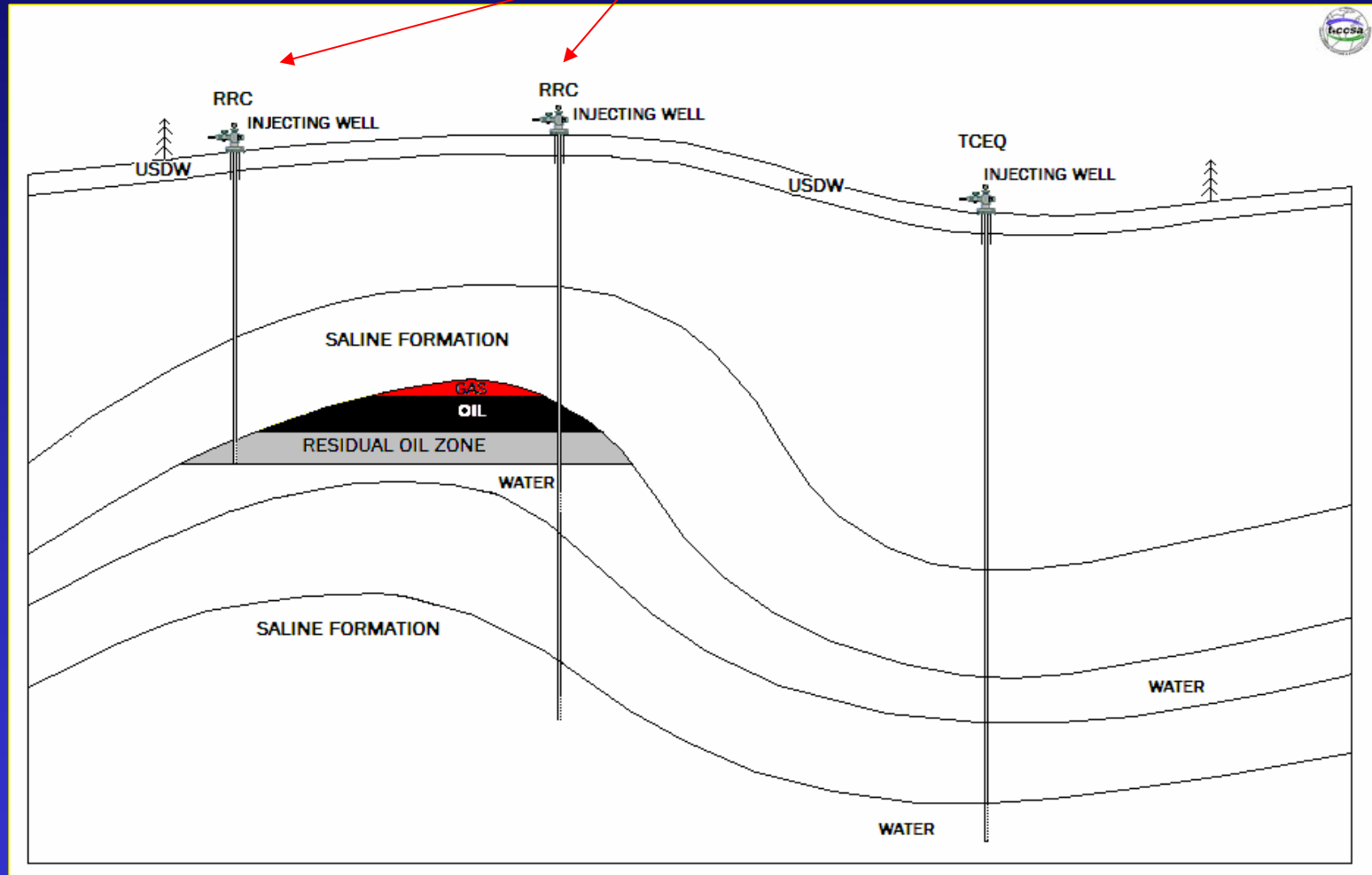


ENVIRONMENTAL AGENCY PERMIT



PERMITTING COMPLEXITIES (3)

Who Permits?



GROWING CAPTURE AND STORAGE



LIMITING FACTORS

- Qualified Personnel
- Difficult (or Confusing) Policy



The U.S. CO₂ Policy World

- INTERSTATE OIL & GAS COMPACT COMMISSION
- FEDERAL ACTIVITY
 - Draft EPA Rules on Sequestration
 - Draft GhG Source Reporting Rules
 - Senate Energy Bill
 - Waxman-Markey Climate Change Bill
 - Stimulus (ARRA) Funding
- OTHER ACTIONS (e.g., WRI)
- STATE POLICY ACTIONS
 - Wyoming
 - Texas
 - Others



The IOGCC Carbon Capture and Geological Storage Regulatory Task Force

Phase II Task Force Objectives

1. Creation of a nationwide guidance document, **approved by the IOGCC**, which is specific enough to enable each state to develop its own statutes and regulations while at the same time helping to lay the essential groundwork for a state-regulated, but nationally consistent, “cradle to grave” system for the capture and geologic storage of CO₂.
2. Provide assistance to Regional Partnership Pilot Projects in (a) understanding and complying with regulatory requirements for field testing and injection; and (b) work with member state in implementing draft model laws and regulations and assessing adequacy of those laws and regulations.



EPA GS Regulatory Recommendations

- Authorized Via Safe Drinking Water Act
- Looks at Subsurface Injection
- Scope Limited to GW Protection
- Extends UIC Approach to GW Protection
- Attempts to Avoid Waste Injection Labels
- Mentions, but Does not specifically treat, Commercial CO₂ Injection activities
- Establishes a Well Class VI for Injection

Note: Multi-Stakeholder Group Input



World Resources Institute's Guidelines for Carbon Capture and Sequestration

- Only Work to Broadly Treat Capture, Transportation, and Sequestration (i.e., Surface and Below Ground)
- Most Thorough Treatment of Subjects
- Actively Recruited Injection Industry's Experience



The Gathering of Interested Parties

ENTITY TYPE

IOGCC

EPA

WRI

- Federal Regulators
- Environmental Parties
- Research Organizations
- Service Companies
- State Regulators
- Commercial Injectors



WHAT IS TEXAS DOING?

- Adding Certainty (SB 1387) to New Projects By Clarifying Who Regulates the Surface and Subsurface Arena
- Adding Incentives for the Risk Takers in this New Age of Energy (HB 2811 and HB 469 “NowGen”)

WHAT WASN'T DONE (in the 2009 session)

- Assisting Aggregation (Unitization) of Rights
- Clarifying who owns storage rights



Texas Senate Bill 1387

An Act Relating to the Implementation of Projects Involving the Capture, Injection, Sequestration, or Geologic Storage of CO₂

- Defines Anthropogenic CO₂
- Establishes Jurisdiction of TRRC over Oilfield Related Storage
- Will Define Monitoring Activity Required to Verify CO₂ Storage
- Creates an Anthropogenic CO₂ Storage Trust Fund
- Commissions a Report to Recommend a Framework for Managing Activities on GS on State-owned Lands
- Project Grant and Loan Program (under TCEQ)
- Commissions a Study to Analyze Requirements for Storage into Saline Formations

Sponsors: Senator Kel Seliger and Congresswoman Myra Crownover

Status: Signed into Law by the Governor on May 27, 2009



Texas House Bills 469, 1796

An Act (469) Relating to the Establishment of Incentives for the Implementation of Certain Projects to Capture and Sequester CO₂ that Would Otherwise be Emitted into the Atmosphere

- Defines Advanced Clean Energy Project (>50% CO₂ Capture w/ Storage)
- Establishes a New Sales Tax Exemption for CCS Personal Property
- Established 3 ea ACEP projects eligible for up to \$100 million in Franchise Tax Exemptions
- Recognizes CO₂ EOR as sequestration
- Allows some exemptions from taxes on capital items for pollution control
- Affirms TRRC Jurisdiction over Geologic Storage and commissions a Study for Jurisdiction over Saline Reservoirs
- EOR severance tax exemption extended from 7 to 30 years and Requires “a reasonable expectation” that at least 99% of the CO₂ will remain sequestered for at least 1000 years

Sponsors: Senator Kel Seliger and Rep. Phil King

Status: Passed both House – waiting on Gov signature



Melzer Consulting

For More Complete Information on Texas CCS Policy

see the Texas Carbon Capture and Storage
Association's website:

www.txccsa.org



Melzer Consulting

WHAT WYOMING IS DOING

Wyoming has Moved Quickly and More Broadly than any State so is an Interesting Case History for Modeling how CCS may Further Develop Elsewhere

- HB89 (2008 Session) – “Codified Surface Landowners Ownership of the Pore Space”
- HB90 (2008 Session) – “Defined Regulatory Jurisdictional Authorities for WY CCS”
- HB57 (2009 Session) – “Declared the Mineral Estate Dominant over Pore Space”
- HB58 (2009 Session) – “Declared that the Liability of CO₂ in-situ Lies with the Injector”
- HB80 (2009 Session) - “Outlined the Mechanics of Sequestration Site Unitization”



OTHER STATES (1)

- NORTH DAKOTA (*SB2095, passed in March*)
 - Clarified Surface Ownership of Pore Space
 - Disallows Severance of the Storage Estate from the Surface
 - Declares the Mineral Estate Dominant
 - ‘Amalgamation’ Procedures of Storage Rights (60% threshold)
 - 10-yr Post Closure CO₂ Injector Ownership Whereupon Transfers to State if Meets Criteria of Transfer
 - EOR Separate but Conversion to Storage Allowed
 - Industrial Commission has Regulatory Jurisdiction
 - Storage Fee and Trust Fund
- MONTANA (*HB498, Passed in May*)
 - Declared Surface Ownership of Pore Space
 - Sets up a State Trust Fund
 - Declares Intent is to Seek Injection Primacy



OTHER STATES (2)

- State of Washington
 - First State to Draft Rules
- Kansas
 - Kansas Corporation Commission Empowered by Legislature to Write Rules for non-oil field Sequestration (draft of rules now written but waiting on Board Review)
- New Mexico and Oklahoma
 - Broad Scope CCS Legislation Unsuccessful to Date



WOTF*

- Some States are Frozen, **W**aiting **O**n **T**he **F**ederal Rules (e.g., cap & trade, EPA rules)
- Many of These and Other States are Moving only in a Renewable Energy Direction with Enormous Transmission Line, other Infrastructure and Environmental Challenges Ahead



Summary of Key Items Addressed

(For Those Moving Ahead in CCS)

- 1) Incentives for First Movers
- 2) Regulatory Jurisdictional Authority
 - Separate EOR and Sequestration
 - Concurrent EOR and CCS
 - Site Approvals?
- 3) Storage Rights Ownership
 - Severability, Dominance Issues
- 4) CO₂ Composition?
- 5) Long Term Fate of CO₂ (Trust Fund, State Ownership)
- 6) Rights Aggregation (Unitization)
- 7) Posturing for State Primacy



The Existing (and Modifying) Underground Injection Control (UIC) Program Reference



Underground (USDW) Regulation

The Past
(e.g., UIC)

EPA



The Experience;
Tx, Wy, Ok, NM,
etc.



Inexperienced
States

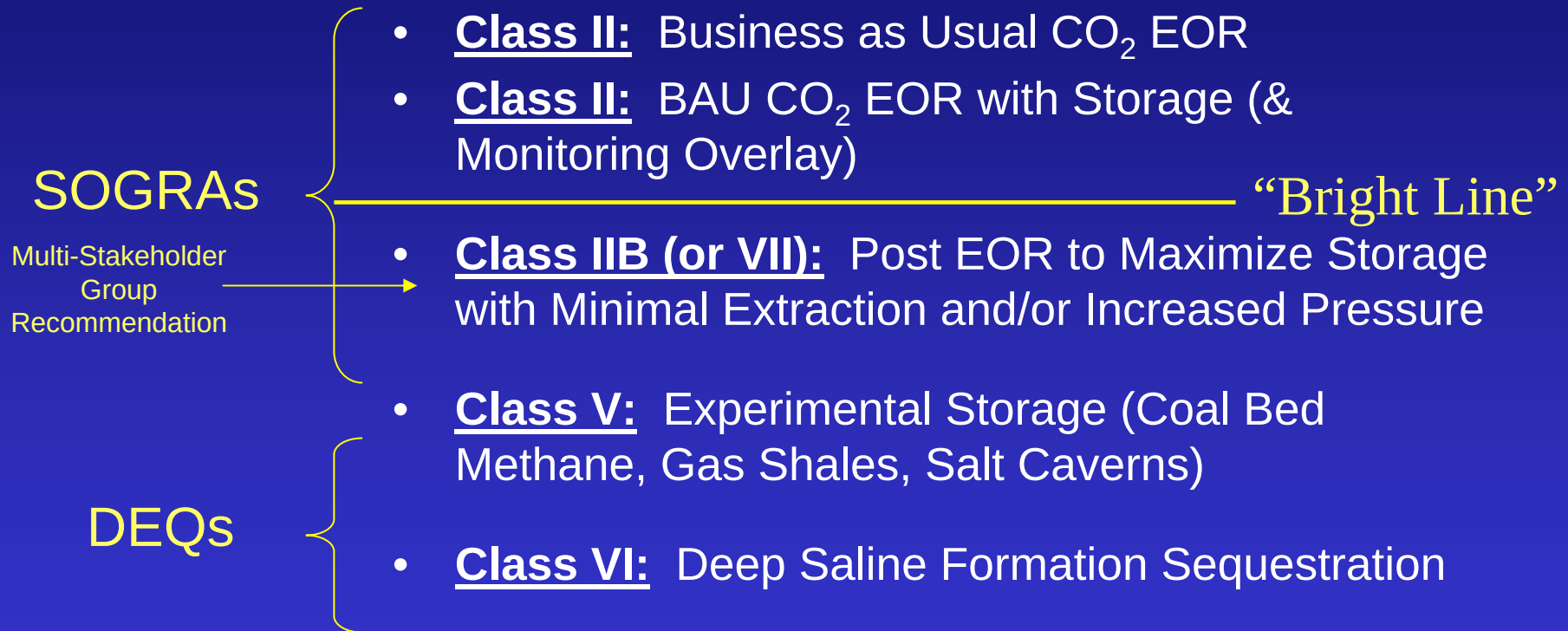
Today
(GS)

EPA



All States, Broadly
Prepared (Willing?) or
Not

UIC Regulatory Framework (Currently Under Revision to Incorporate CCS)



CONCLUSIONS

- CCS (aka Sequestration) in Texas and the U.S. is “Incidental” and Underway but not yet “Official”
- Concurrent CO₂ EOR & CCS Destined to Become a Major Industry in the US and Globally
- Large CCS Project Opportunities Exist for Potentially Huge Economic Rewards
- Demand for Training and Development of New Geologic Professionals will be Substantial
- The Enabling State and Federal Policy is Underway; More is Needed and is Critically Important to Properly Balance Commercial and Environmental Goals



WHAT'S AHEAD?

- POLICY FRONT
 - Federal
 - ARRA Stimulus Funding Opportunities
 - Waxman-Markey House Floor Debate
 - Senate Climate Change Bill and Conf Committee
 - Senate (and House) Energy Bill (Liability Provisions)
 - New Draft of EPA Rules on Sequestration
 - EPA Source Reporting
 - States
- PROJECTS AND INFRASTRUCTURE
 - IOGCC Pipeline Transportation Task Force
 - Pipeline Authorities
 - Incentives



QUESTIONS?



Melzer Consulting

Supplemental Slides



KEY CO₂ REFERENCES



Key Reference Work (1)

- The Annual Wyoming CO₂ Flooding Conferences
- The Annual EOR Carbon Management Workshop (Held each December in Houston)
- The Annual CO₂ Flooding Conference and Field Trip (Held each December in Midland)
- The CO₂ Flooding Shortcourses (Part of Above)
- The SPE Monograph Volume 22
- The Applied Technology Academy's CO₂ Schools Held Twice a Year in Midland





IT'S ALMOST GAME TIME!



CO₂ CONFERENCE WEEK KICKS OFF DECEMBER 3.

DON'T SIT THIS ONE OUT; MAKE YOUR GAME PLAN NOW TO ATTEND THE MOST IMPORTANT CO₂ EVENT OF THE YEAR. KEY PLAYERS FROM AROUND THE INDUSTRY WILL BE THERE, SHARING THE LATEST INFORMATION ON TRENDS AND TECHNOLOGY.

**5TH ANNUAL EOR CARBON MANAGEMENT WORKSHOP- IRVING, TEXAS, DEC. 3 - 4
OMNI MANDALAY HOTEL
DECEMBER 3**

Pre-workshop seminar "A Hypothetical CO₂ EOR/CCS Deal Designed for the Year 2012"

Kickoff luncheon and Technical Session

Evening reception hosted by Denbury Resources

DECEMBER 4

Presentations all day plus luncheon speaker Gareth Roberts, CEO of Denbury Associates

**THE 13TH ANNUAL CO₂ FLOODING CONFERENCE - MIDLAND, TEXAS, DEC. 5 - 7
DECEMBER 5**

Field trip to Whiting's new North Ward Estes flood and CO₂ handling facilities.

DECEMBER 6

Shortcourses including "CO₂ Injection in Subsurface Reservoirs: Geological Parameters Affecting CO₂ EOR and CO₂ Storage"

Theme sessions covering operations and supply issues

Luncheon speaker Kurt Walzer of the Clean Air Task Force: "Coal and EOR in a Climate-disrupted World"

Case histories of on-going CO₂ floods

Evening reception at the Petroleum Museum

DECEMBER 7

Case histories continued

FLOODING CONFERENCE SPONSORS

Anadarko Petroleum Corp.; Applied Petroleum Technology Academy; Denbury Resources; ExxonMobil Gas Marketing; Kinder Morgan CO₂ Company, LP; Nicholas Consulting Group; Occidental Permian, Ltd.; the Petroleum Technology Transfer Council's Southwest Region; Russell K. Hall and Associates; Trinity CO₂, LLC; Hess Corporation; The Society of Petroleum Engineers - Permian Basin Section; The University of Texas of the Permian Basin; Midland College's Petroleum Professional Development Center; Whiting Petroleum; and the EOR Institute, University of Wyoming

WORKSHOP SPONSORS

Luminant (Host); Kinder Morgan CO₂ Company (Publications); Denbury Resources (Host); BlueSource; PetroSource Energy; Praxair; Alston & Bird; Vinson & Eldins; and Hart Energy Publications

© 2007 CO₂ Conference. (KMC714/1207)



KICKOFF

Website: www.spe-pb.org

**5TH ANNUAL EOR CARBON MANAGEMENT WORKSHOP
DECEMBER 3-4, IRVING, TEXAS**

**13TH ANNUAL CO₂ FLOODING CONFERENCE
DECEMBER 5-7, MIDLAND, TEXAS**

Key Reference Work (2)

The Annual CO₂ Flooding Conference

- Held Each December in Midland, Texas – Home to 57 Active CO₂ Floods
- Concentrates on Actual Case Histories
- Includes a CO₂ Flood Field Visit
- Includes a CO₂ Shortcourse
- Includes an EOR Carbon Management Workshop
- Great Networking Opportunity

Visit: www.spe-pb.org or call 432-552-2430



Key Reference Work (3)

THE CO₂ FLOODING CONFERENCE SHORTCOURSES

1. Making Money on CO₂ Flooding...Some Innovative Development Concepts for Independents..., May 1995.
2. Is My Field a Candidate for CO₂ Flooding?, September 1995
3. Equipping and Day-to-Day Operations of a CO₂ Flood, December 1995
4. How CO₂ Flood Surveillance Helps Assure a Successful EOR Program, May 1996
- 4a. CO₂ Flood Surveillance and Monitoring, December 2004
5. How to Put Together a CO₂ Flood, December 1996
6. CO₂ Measurements and Metering, December 1997
7. CO₂ Facilities and Plants, December 1998
8. CO₂ Flooding: Sandstones vs. Carbonate Reservoirs, December 1999
9. Issues for Beginning CO₂ Flooders, December 2000
10. Reservoir Modeling and Simulation for CO₂ Flooding, December 2001
11. Wellbore Management in CO₂ Floods, December 2002
12. Carbon Dioxide Health And Safety, December 2004
13. CO₂ Sourcing for Enhanced Oil Recovery, Dec 2006
14. CO₂ Injection in Subsurface Reservoirs: Geological Parameters Affecting CO₂ EOR and CO₂ Storage

(<http://www.utpb.edu/ceed/co2/shortcourses.html>) or phone 432-552-2430



Melzer Consulting

The Applied Petroleum Technology Academy CO₂ School

- Conducted Twice a Year in Midland (late January and August), limited to 40 students
- Four Days: Covers the Practical Side of Commercial CO₂ Injection with 'lite touch' of the Theory
- A Nice Dose of Emphasis on Reservoirs and Building CO₂ Demand for the Coming Industrial Supplies of CO₂
- Includes a Field Trip to a 'NGL Recovery' and a 'BGF'* Recycle Plant and Flood

* BGF = "blood, guts and feathers" reinjection project

Ref: www.aptapb.org or call Midland College's Petroleum Profession Development Center (432-683-2832)

