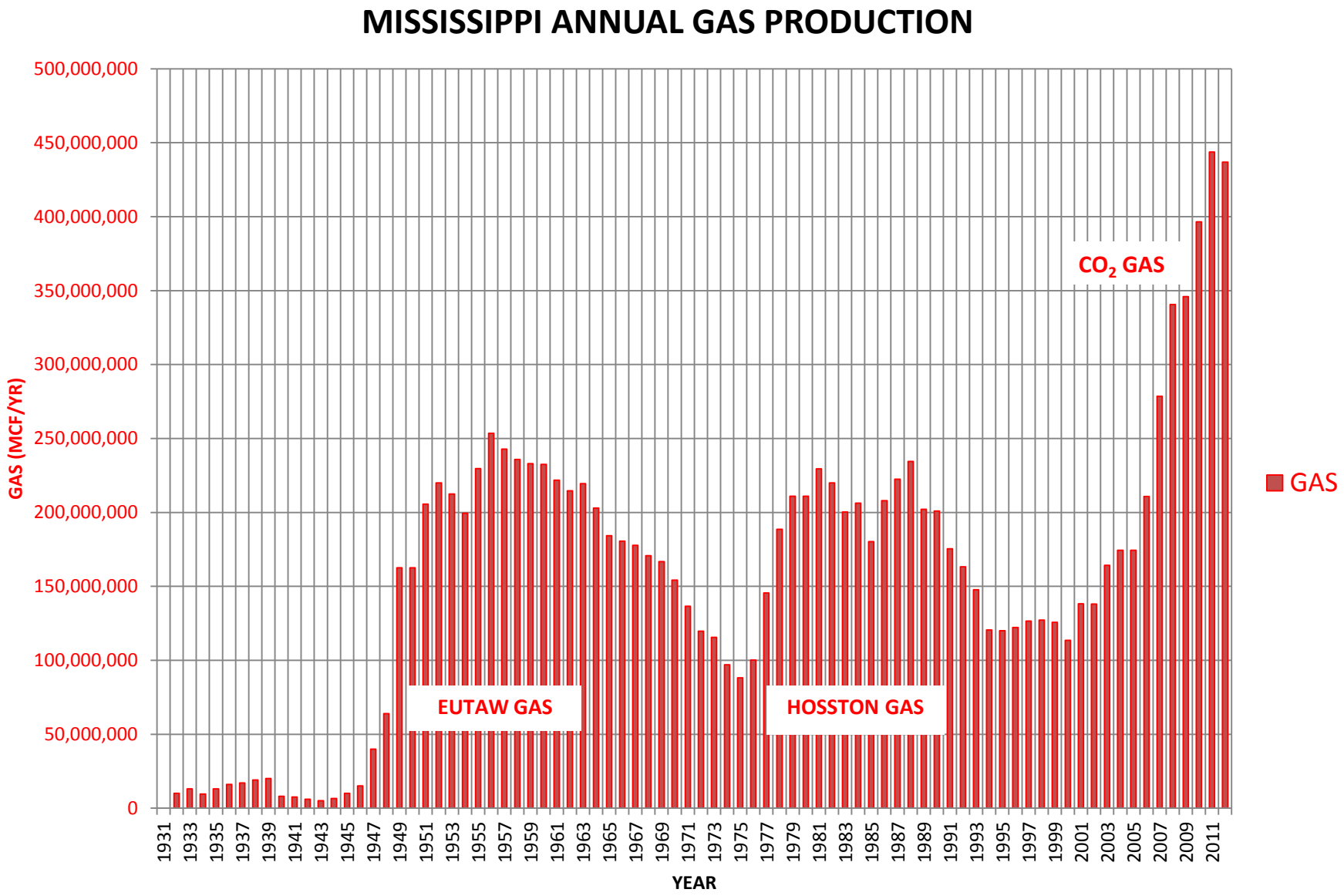
Tellus ENERGY, LLC OPERATING GROUP, LLC

TreeTop SM MIDSTREAM SERVICES, LLC

DEVELOPING MISSISSIPPI'S INFRASTRUCTURE FOR CO2 EOR & REGIONAL CO2 SEQUESTRATION


MISSISSIPPI ANNUAL GAS PRODUCTION
GAS (MCF/YR)
500,000,000
450,000,000
400,000,000
350,000,000
300,000,000
250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
0
EUTAW GAS
HOSSTON GAS
CO_2 GAS
GAS
YEAR
1931
1933
1935
1937
1939
1941
1943
1945
1947
1949
1951
1953
1955
1957
1959
1961
1963
1965
1967
1969
1971
1973
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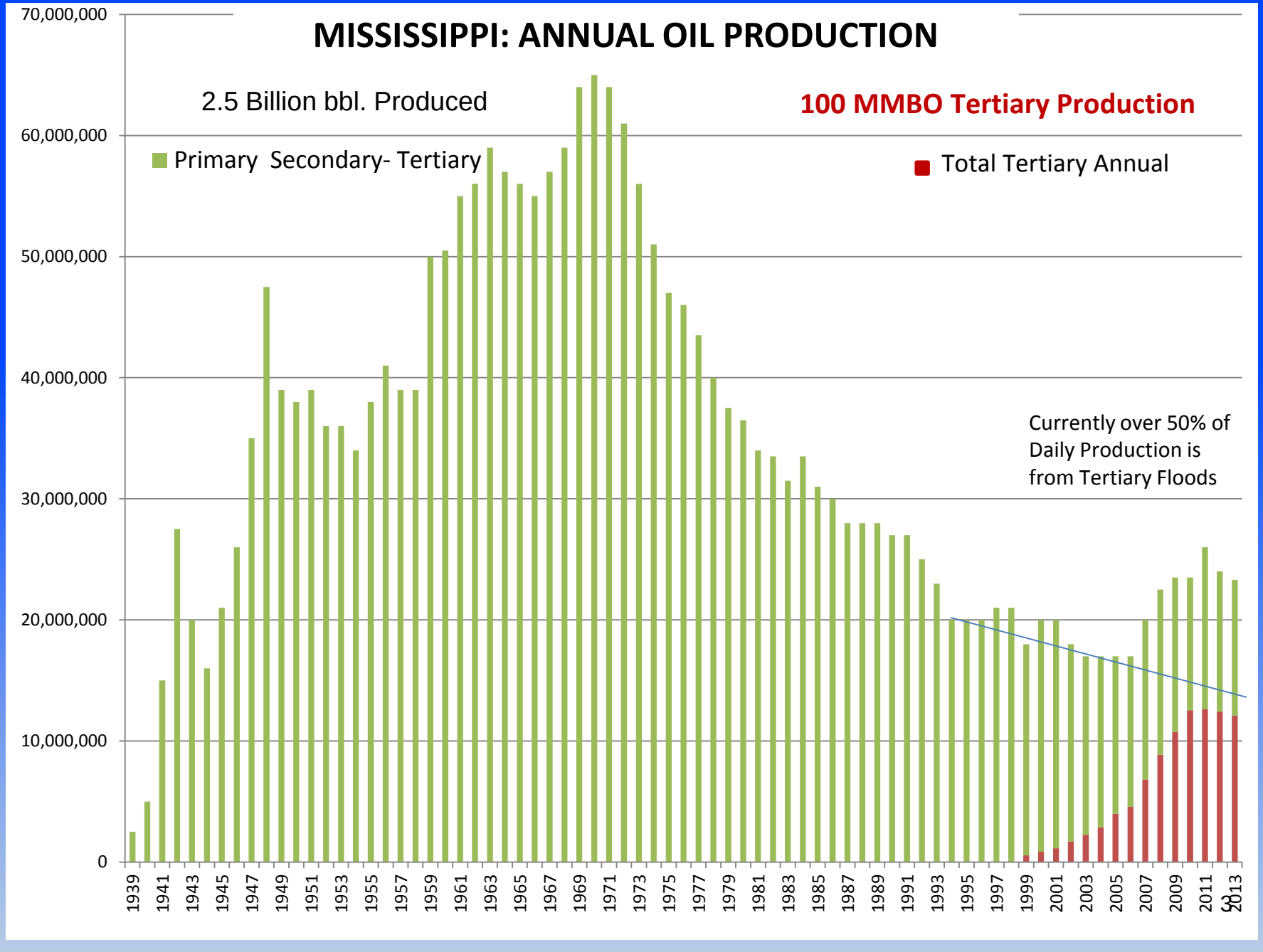
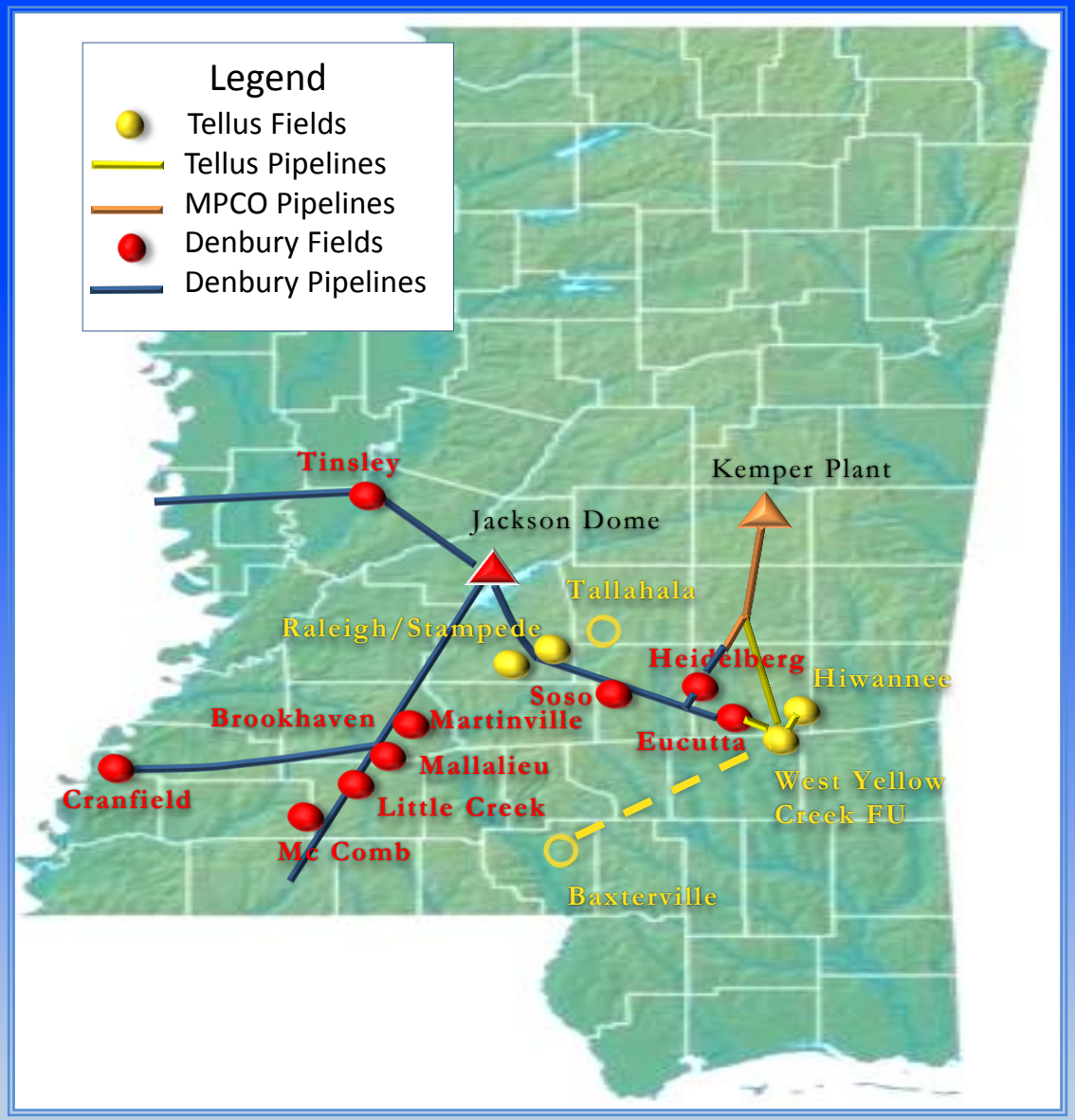
2005
2007
2009
2011


MISSISSIPPI: ANNUAL OIL PRODUCTION
2.5 Billion bbl. Produced
100 MMBO Tertiary Production
Primary Secondary- Tertiary
Total Tertiary Annual
Currently over 50% of Daily Production is from Tertiary Floods
70,000,000
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
0
1939
1941
1943
1945
1947
1949
1951
1953
1955
1957
1959
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013

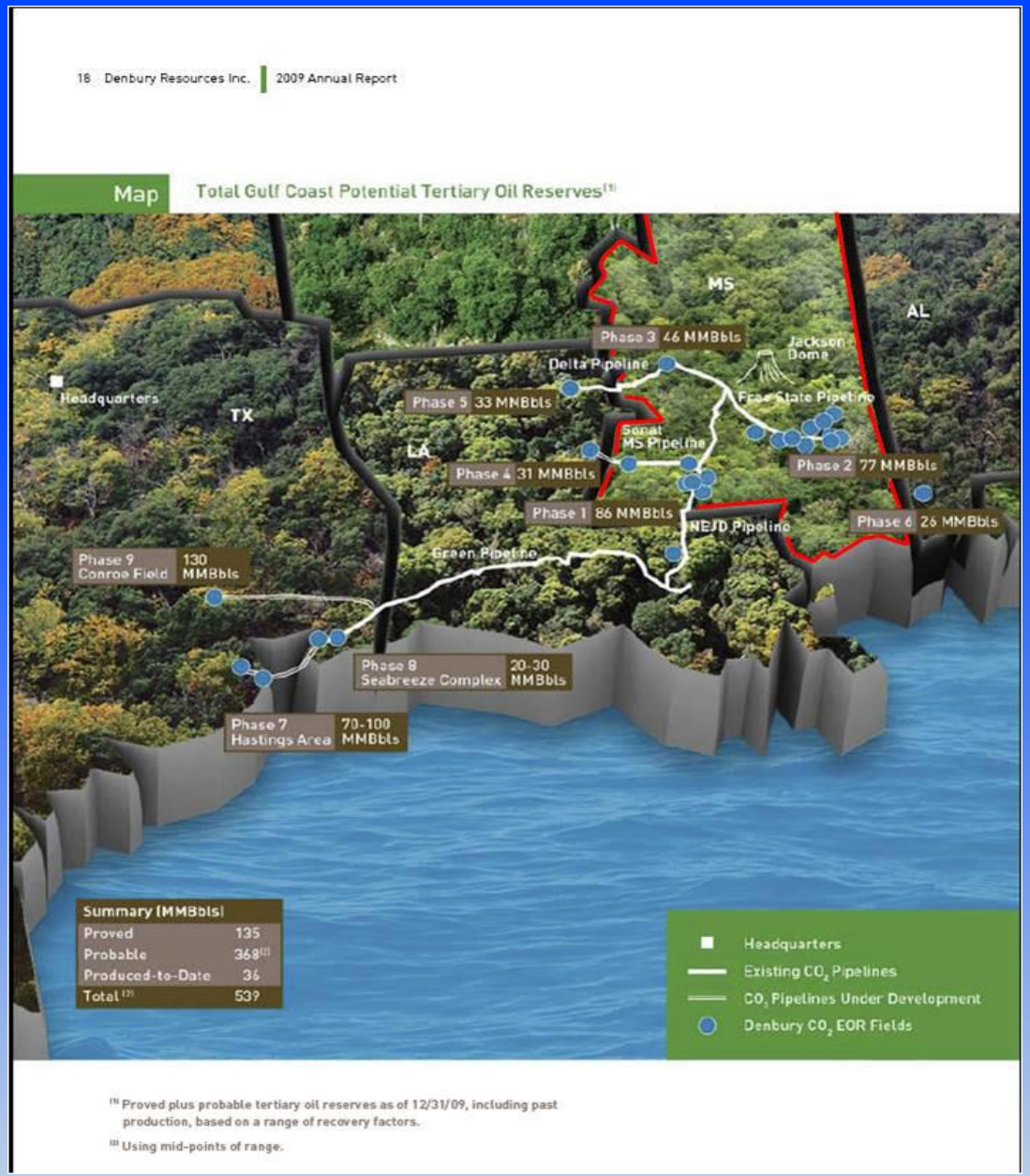
BENEFITING AT HOME

MISSISSIPPI'S TERTIARY INFRASTRUCTURE



- 3 Large Complexes With CO2 Floods
- +400 Miles Of CO2 Trunk Lines
- 82% Denbury Resources 18% Treetop/MPCO
- CO2 Sources: Jackson Dome Kemper Plant Q2 2015

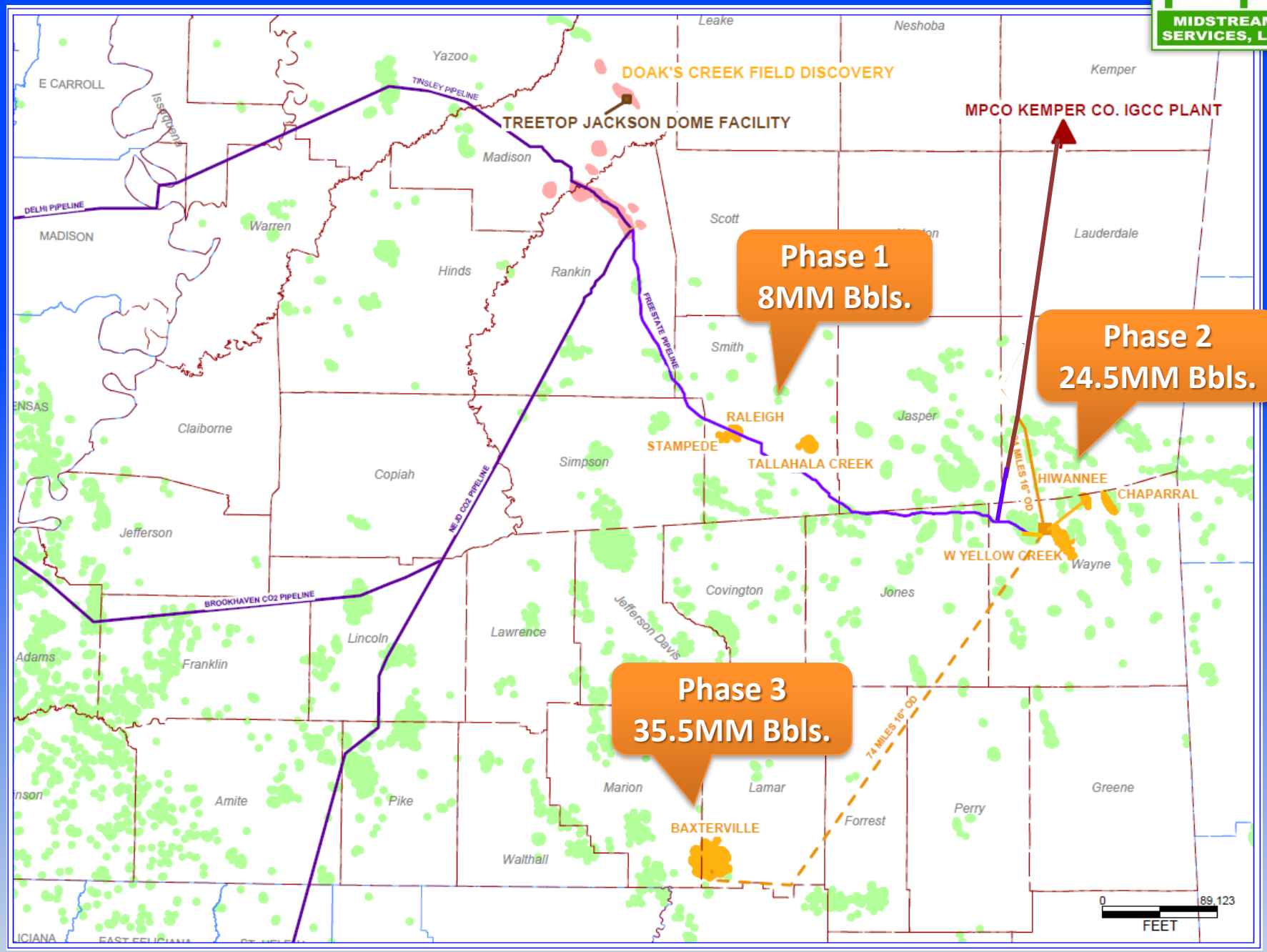
DRI ANNUAL 2009 REPORT (Excerpt)



Denbury Remaining Oil Reserves for Mississippi

Phase 1: 80 Million Bbls
Phase 2: 104 Million Bbls
Phase 3: 46 Million Bbls
Phase 4: 20 Million Bbls
Total: 250 MMBO

TREETOP CO2 TRANSPORTATION INFRASTRUCTURE



MANUFACTURING OIL WITH CO2

CO2 Purchase

CO2 Compression

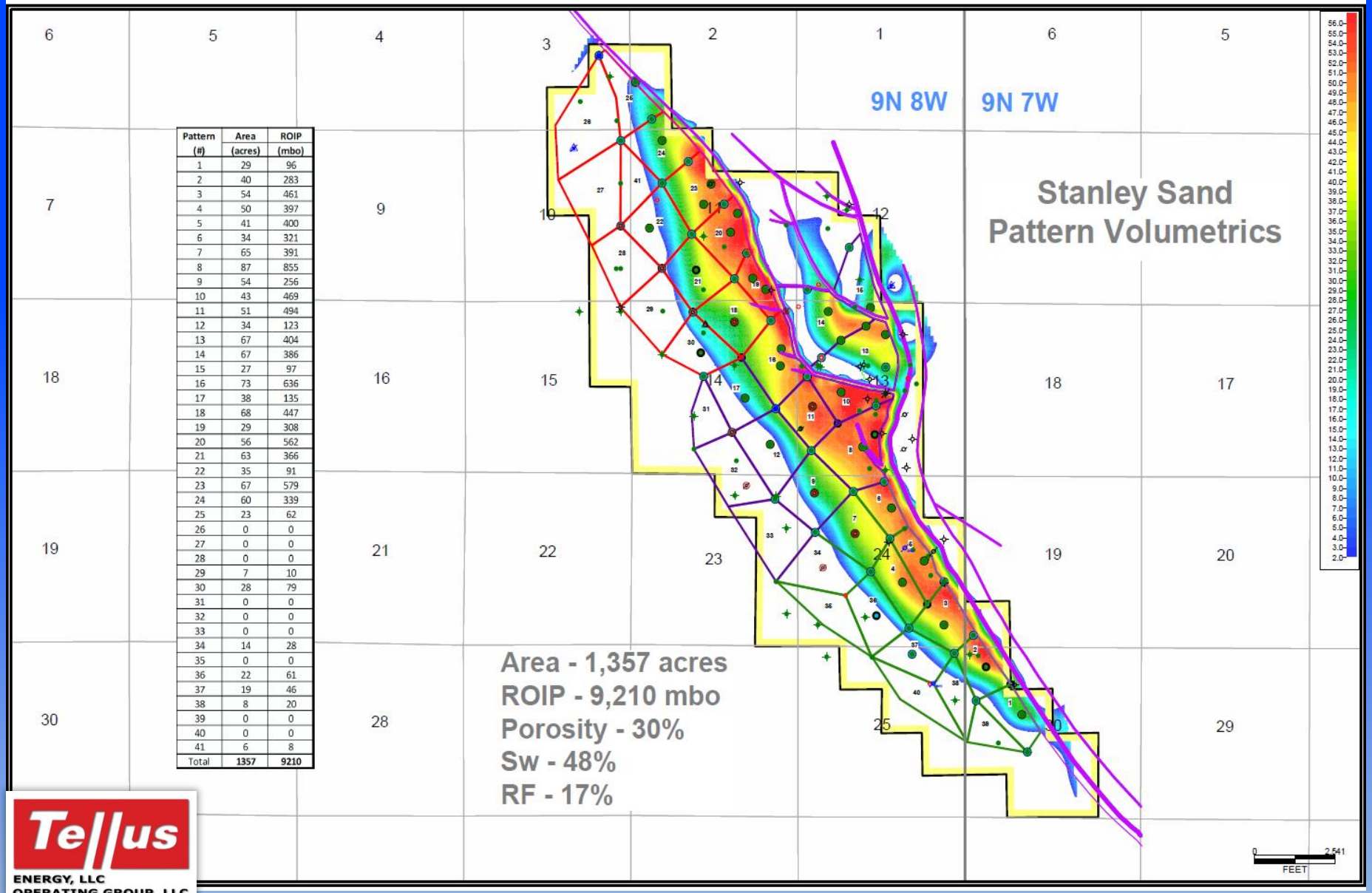
CO2 Injection "Flood"

Oil Production

Oil Sales

CO2 Recycle Compression

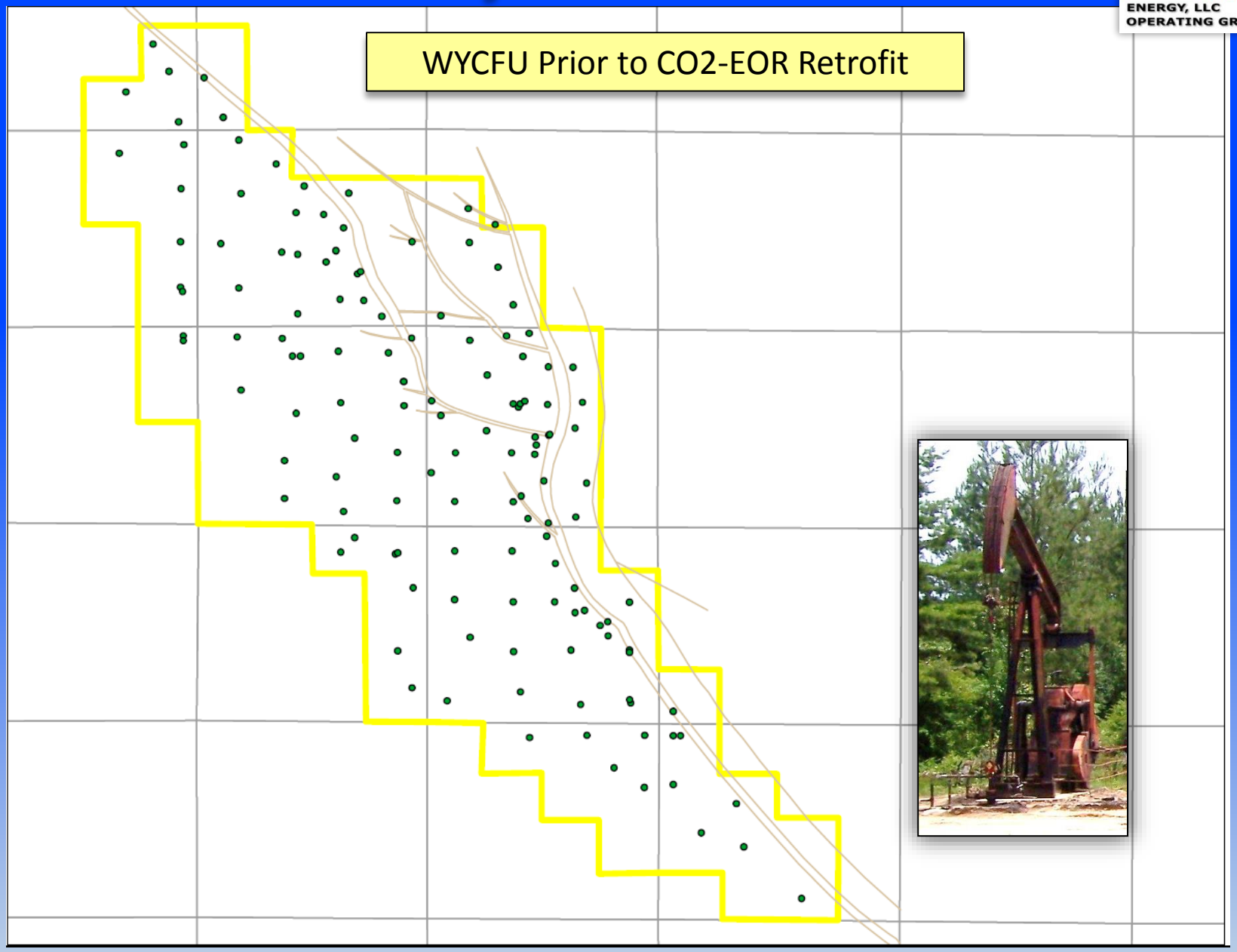
Stanley Pattern Defined OOIP 54,432 MBO, Porosity 30%, Sw 48%, Bo 1.05



Pattern (#)	Area (acres)	ROIP (mbo)
1	29	96
2	40	283
3	54	461
4	50	397
5	41	400
6	34	321
7	65	391
8	87	855
9	54	256
10	43	469
11	51	494
12	34	123
13	67	404
14	67	386
15	27	97
16	73	636
17	38	135
18	68	447
19	29	308
20	56	562
21	63	366
22	35	91
23	67	579
24	60	339
25	23	62
26	0	0
27	0	0
28	0	0
29	7	10
30	28	79
31	0	0
32	0	0
33	0	0
34	14	28
35	0	0
36	22	61
37	19	46
38	8	20
39	0	0
40	0	0
41	6	8
Total	**1357**	**9210**

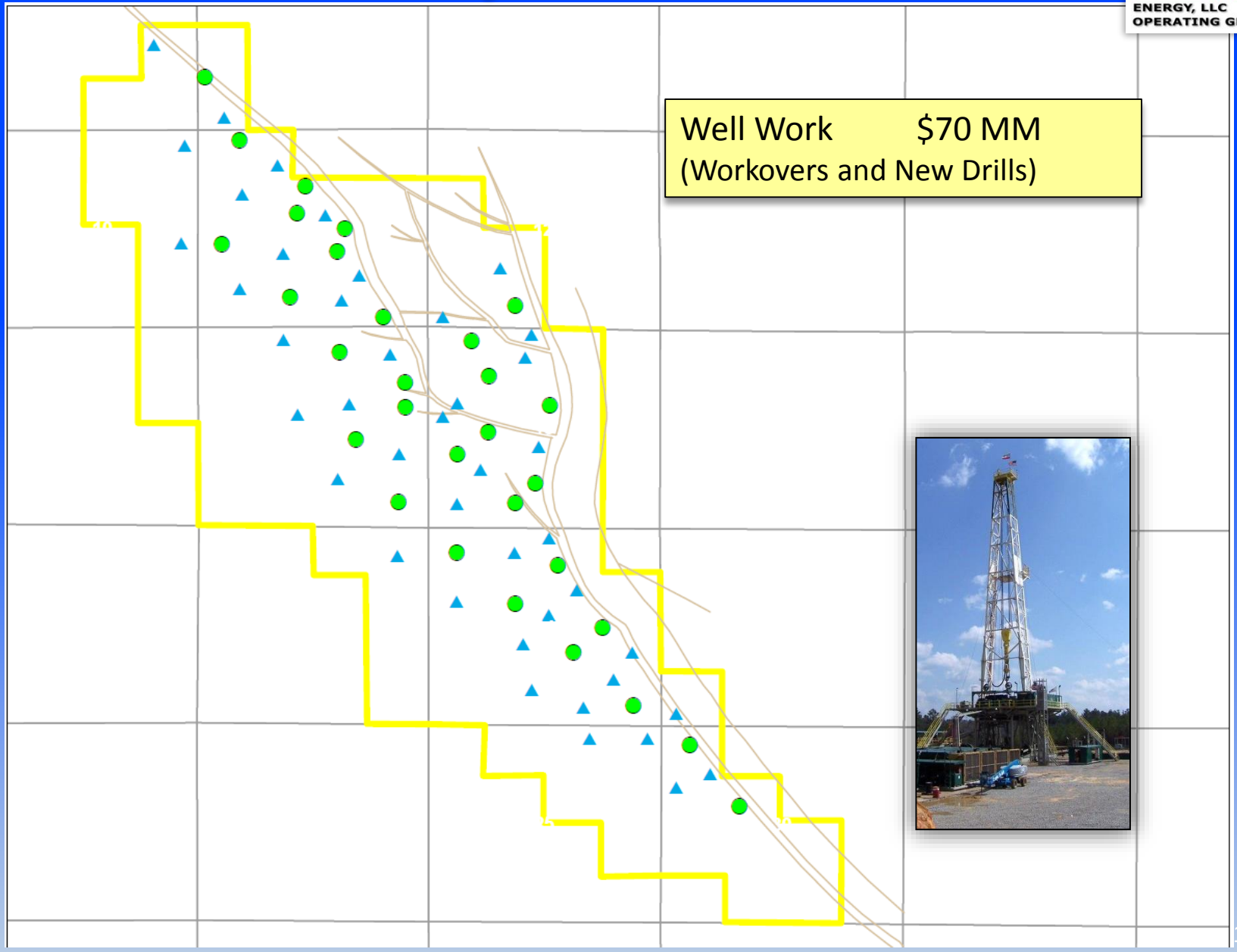
Tellus ENERGY, LLC OPERATING GROUP, LLC

WYCFU CO2 Project



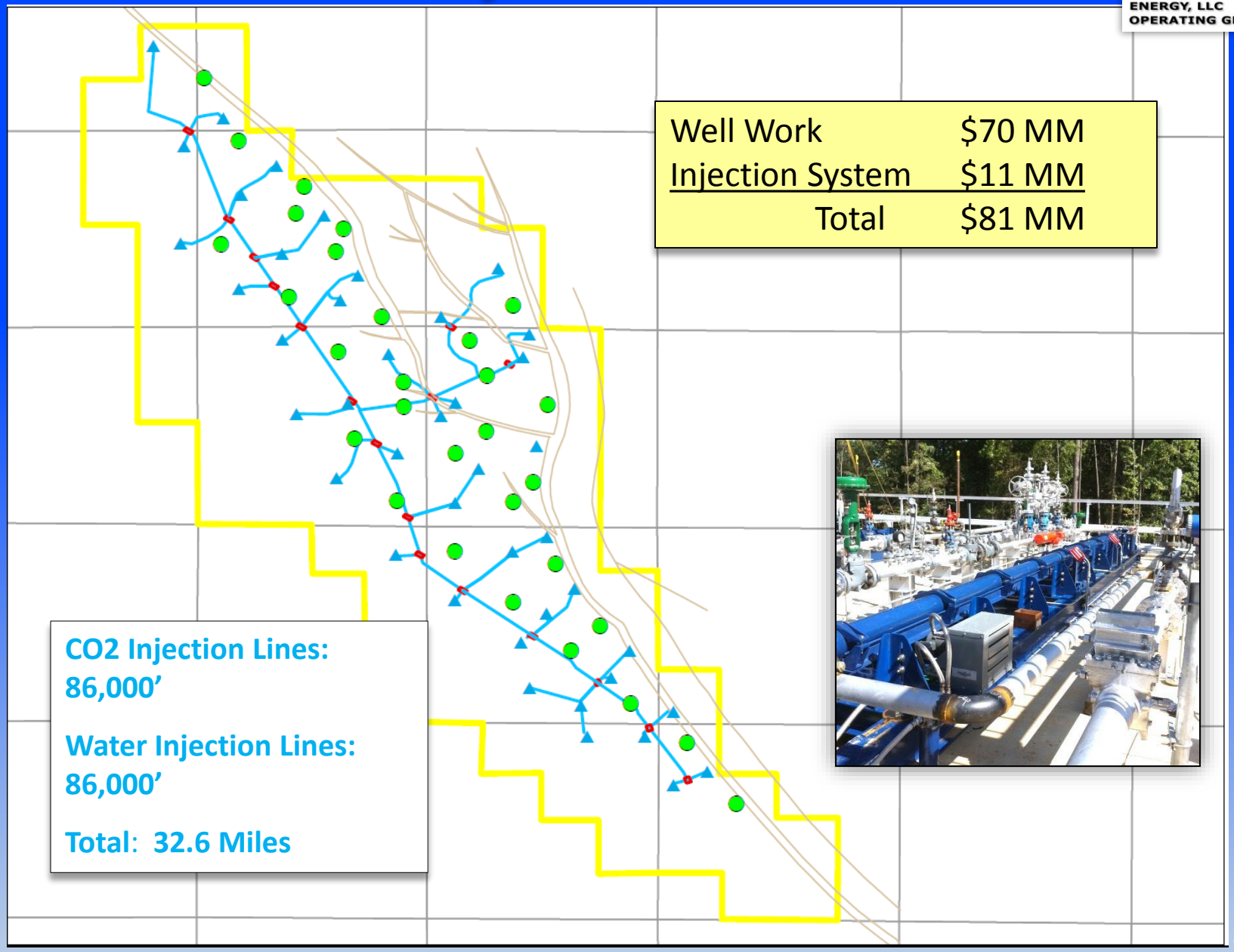
WYCFU CO2 Project

Tellus ENERGY, LLC OPERATING GROUP, LLC



Well Work $70 MM
(Workovers and New Drills)

WYCFU CO2 Project



Well Work	$70 MM
Injection System	$11 MM
Total	$81 MM

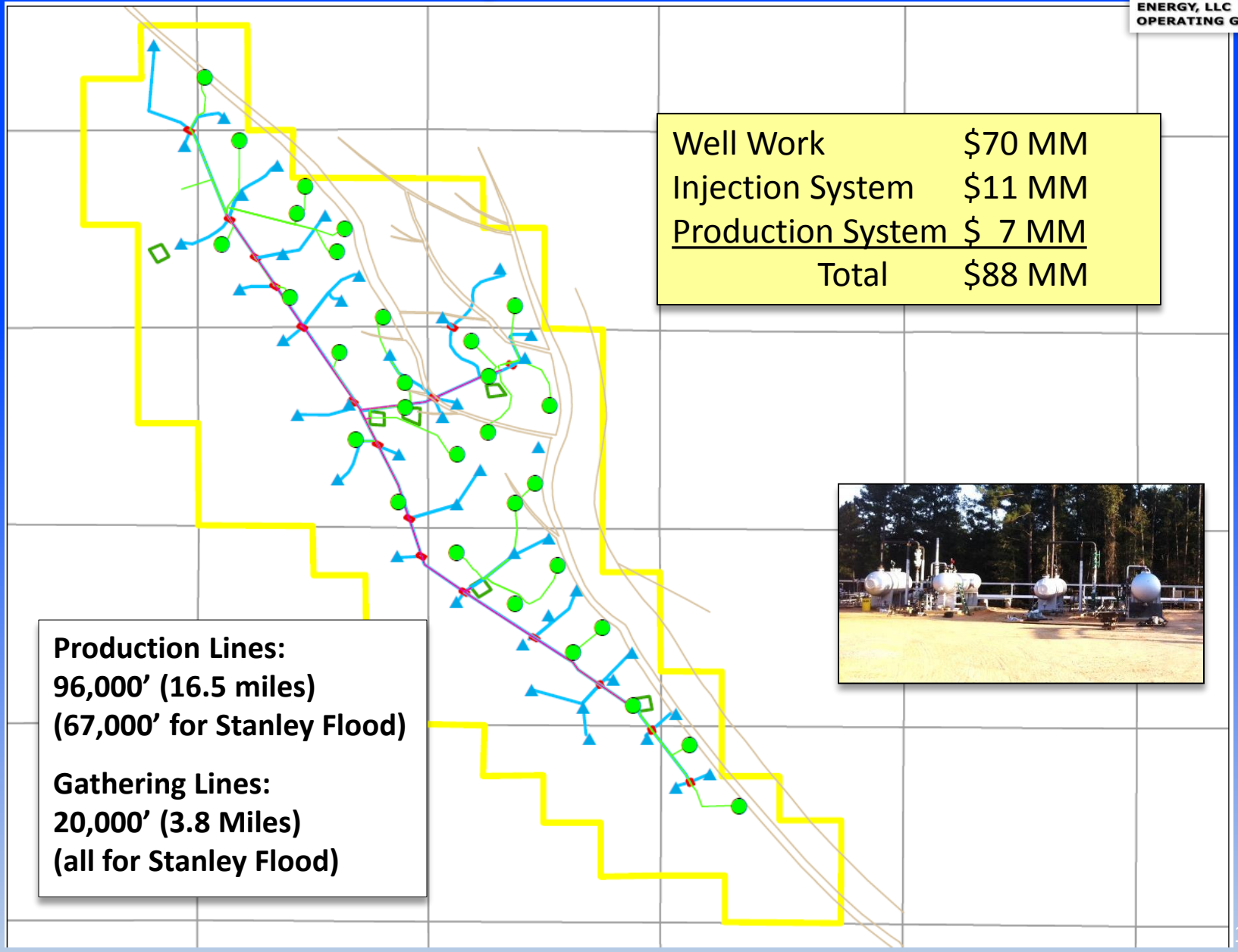
CO2 Injection Lines: 86,000'

Water Injection Lines: 86,000'

Total: 32.6 Miles

WYCFU CO2 Project

Tellus ENERGY, LLC OPERATING GROUP, LLC

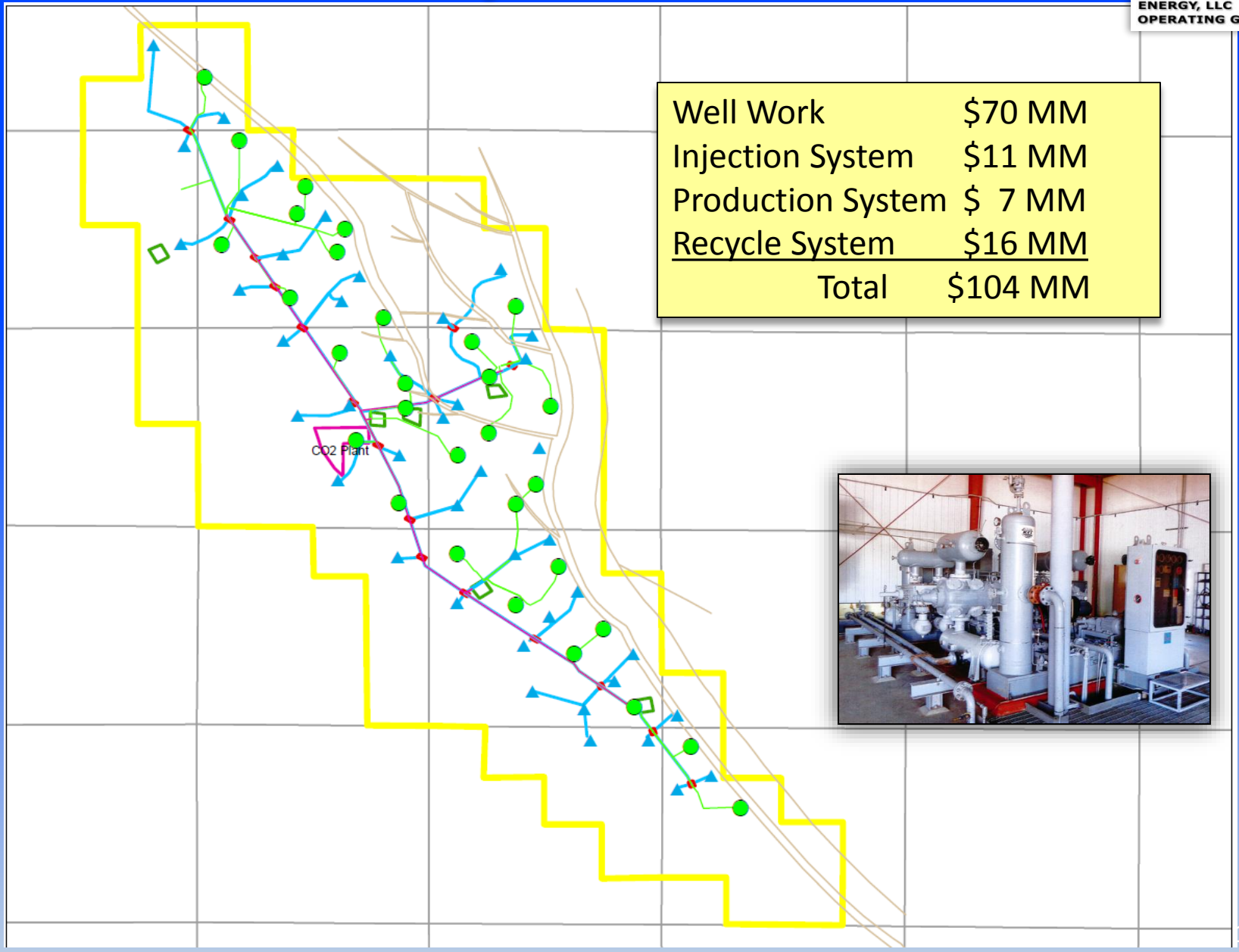


Well Work	$70 MM
Injection System	$11 MM
Production System	$ 7 MM
Total	$88 MM

Production Lines:
96,000' (16.5 miles)
(67,000' for Stanley Flood)

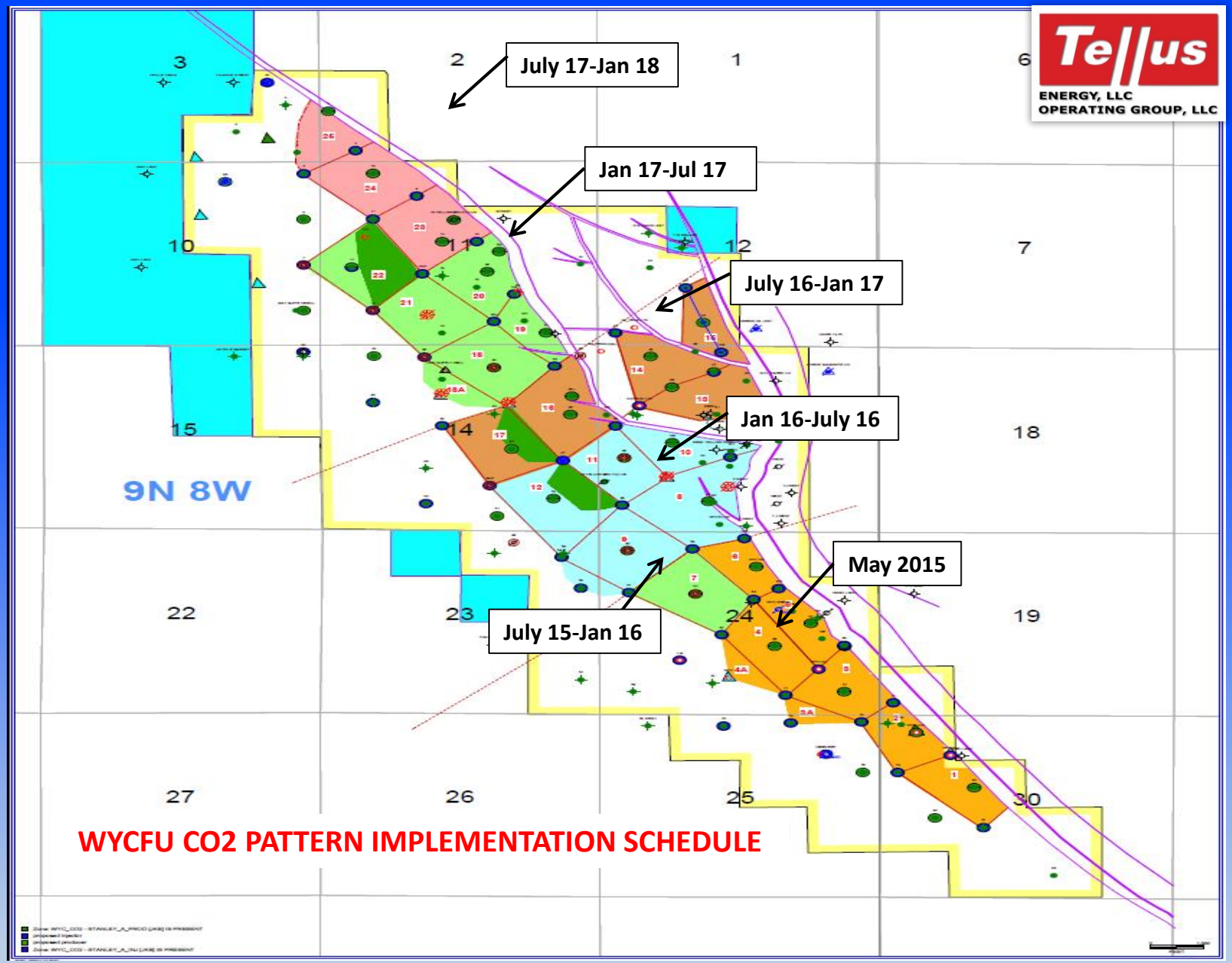
Gathering Lines:
20,000' (3.8 Miles)
(all for Stanley Flood)

WYCFU CO2 Project



Well Work	$70 MM
Injection System	$11 MM
Production System	$ 7 MM
Recycle System	$16 MM
Total	$104 MM

WYCFU STANLEY PATTERN IMPLEMENTATION SCHEDULE



TELLUS FIELD RETROFIT CO2 INVESTMENTS TO DATE

Field	CAPEX	OPEX
Raleigh	$ 90 MM	$12 MM/yr
Stampede	$145 MM	$8 MM/yr
WYC (Projected)	$103 MM	$24 MM/yr
Hiwannee	$ 62 MM	$ 5 MM/yr
TOTAL	$400 MM	$49 MM/yr

PACHUTA TO WYCFU CO2 DOT PIPELINE - $48 MM

LEADING THE GULF

STIMULI FOR EARLY MISSISSIPPI TERITARY DEVELOPMENT

- Naturally Occurring "Sweet" CO_2
- Declining Tier One (OOIP >100 MMBO) Oil Fields Suitable For Miscible Tertiary Recovery
- 2001 Oil Price Appreciation – WTT Pricing Not Reflective of Mississippi Low Gravity High Sulfur Crude Value
- Risk-Takers Willing to Retrofit Fields @ $100-200 Million, Lay Pipelines @ $1.5-2 Million/Mile and Develop Deep CO_2 Sources
- State of Mississippi Incentives

BENEFITS OF EMINENT DOMAIN

Roads

Industry

Eminent Domain

is a Major Catalyst for Mississippi's CO2 Infrastructure -

Less than <u>.005%</u> of CO2 Trunk Pipeline ROW Has Required Eminent Domain Judgment, 6 identified Court Cases

INCENTIVES TO DATE

Severance Tax Reduction

- EOR wells completed after April 1994, that use an approved method receive a 3% reduced rate
- 6% conventional reduced to 3%

INCENTIVES TO DATE

House Bill No. 841:

"Electricity to a producer for EOR using CO2 or the permanent sequestration of CO2 shall be taxed at the rate of 1 ½%."

Power Consumption for CO2 Recycle Compression is the Single Most Costly Component of EOR Operations

INCENTIVES TO DATE

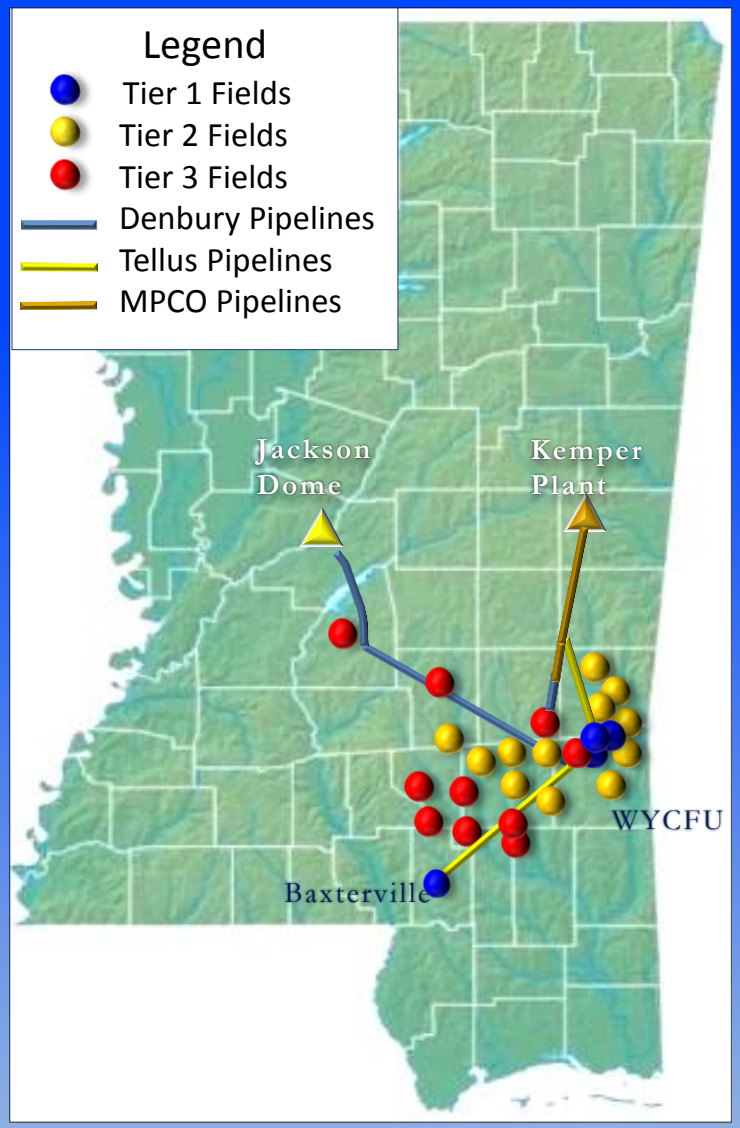
& 27-65-19:

"1 ½% tax on anthropogenic CO2 for use in an EOR project and/or permanent sequestration."

INVESTMENT PERSPECTIVE

- CO2 is extremely effective at recovering additional reserves, but **extremely expensive**. Net utilization of less than 20 mcf/bbl is best.
- Tellus' and Treetop's investment in the past four years and the next two years will approach **$1/2 Billion within the State of MS.**
- Denbury's, Tellus' & MPCO's **CO2 Transportation infrastructure** will facilitate EOR development and encourage new exploration.
- **CO2 EOR, Pressure Maintenance, and future Sequestration** activity will continue to have a positive impact on the state economy - job creation and severance taxes.

TREETOP CO2 TRANSPORTATION FUTURE



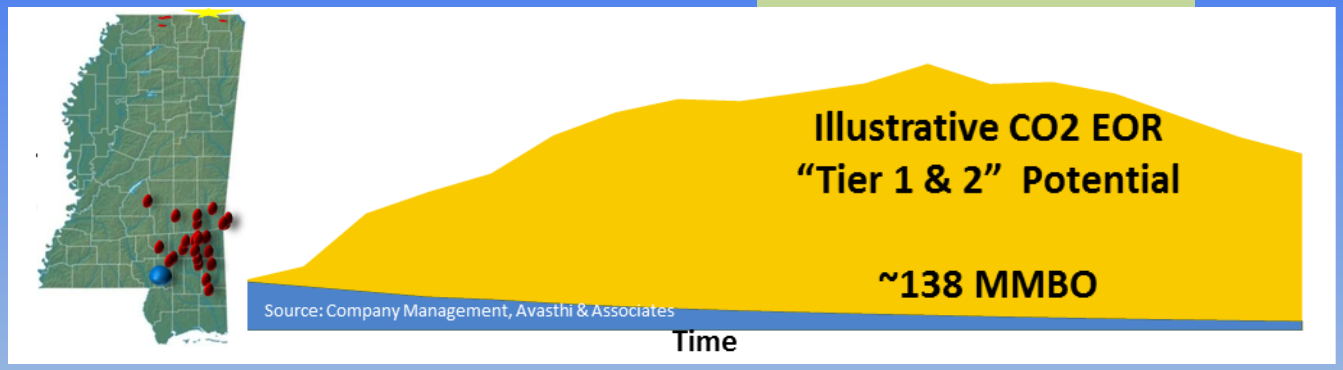
- Treetop's 30% Off take from Kemper IGCC Plant Added to Mississippi CO2 Source Pool
- Treetop's Intrastate CO2 Pipelines Anchored by Tellus' WYCFU and Baxterville Fields.
- Treetop's CO2 Supply and Pipeline Tariff Allow Other Producers to Risk Retrofitting Fields for CO2-EOR
- Wayne, Jones, Jasper, Clarke, Greene, and Perry Counties provide abundance of smaller Tier 2 and Tier 3 Fields.
- CO2 EOR Operations in Mississippi 's Tier 2 and Tier 3 fields Can Add Significant Reserves and Revenue.
- Combination of CO2 source and CO2 pipeline tariff structure and reserve targets leave only one missing piece—"incentives"

SMALLER OIL FIELDS IN SE MS—CO2 EOR POTENTIAL IS SIGNIFICANT

Field	Incremental Prod (MMBO)
Tier 1	
West Yellow Creek	17
Baxterville	35.5
Field 1	20
Total	72.5
Tier 2	
Field 3	9.1
Field 4	10.6
Field 7	6.4
Field 10	6.8
Field 14	6.6
Field 20	7.4
Field 23	3.6
Field 24	5.7
Field 27	3.0
Field 28	5.7
Total	64.9

Field	Incremental Prod (MMBO)
Tier 3	
Field 2	1.7
Field 5	1.9
Field 6	1.8
Field 8	1.5
Field 9	2.3
Field 11	2.1
Field 12	1.8
Field 13	1.6
Field 15	1.4
Field 16	1.5
Field 17	2.2
Field 18	1.1
Field 19	1.5
Field 21	1.5
Field 22	1.4
Field 25	1.5
Field 26	1.2
Other	12.0
Total	40

The Southeast region has many fields owned and operated by both Tellus and third parties that would benefit significantly from CO2 EOR.



FUTURE PERSPECTIVE

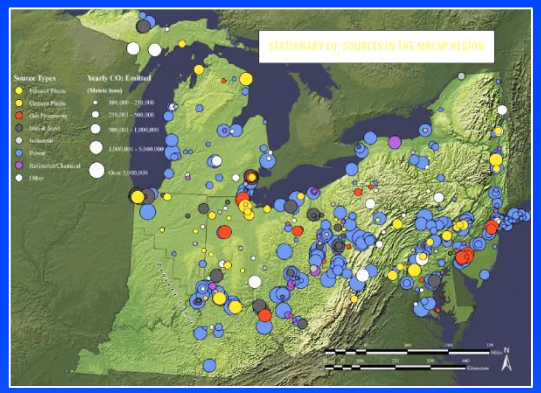
- ***Federal Tax Incentives*** will play a key role for the development of smaller Tier 2 and Tier 3 fields.
- ***Tax Credits for Research and Development*** into mobile and modular CO2 facilities will facilitate the development of Tier 2 and Tier 3 Fields.
- ***Predictability of CO2 Contracts*** is required in order for producers to retrofit fields for CO2 EOR.
- ***Eminent Domain*** will remain a critical component allowing Treetop to run CO2 laterals to Tier2 and Tier 3 EOR fields.

Tellus
ENERGY, LLC
OPERATING GROUP, LLC

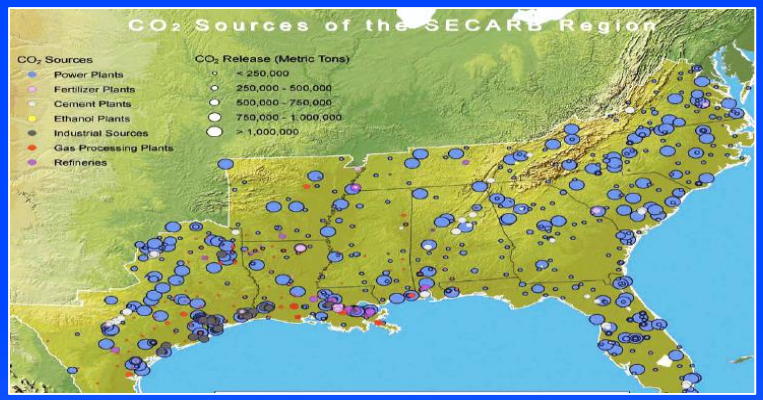
TreeTop SM
MIDSTREAM
SERVICES, LLC

TRANSFORMING THE STATE OF MISSISSIPPI INTO A "CARBON HUB"

MISSISSIPPI CARBON DIOXIDE SEQUESTRATION LEGISLATION



+440 Significant Sources of CO2 in MRCPS Region.
Annual Emissions – Over 670 MM Metric Tons.
80% Electricity Generation.



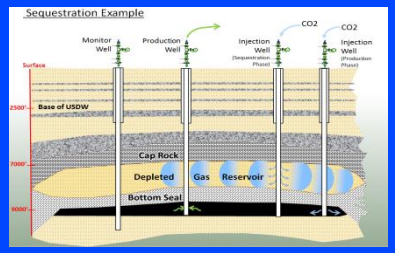
+900 significant sources of CO2 in SECARB Region.
Annual Emissions - Over 1B Metric Tons.
73% Electricity Generation.

Modeled after Mississippi's Gas Storage Act and Unitization Statues

Derived from Louisiana and Texas legislation

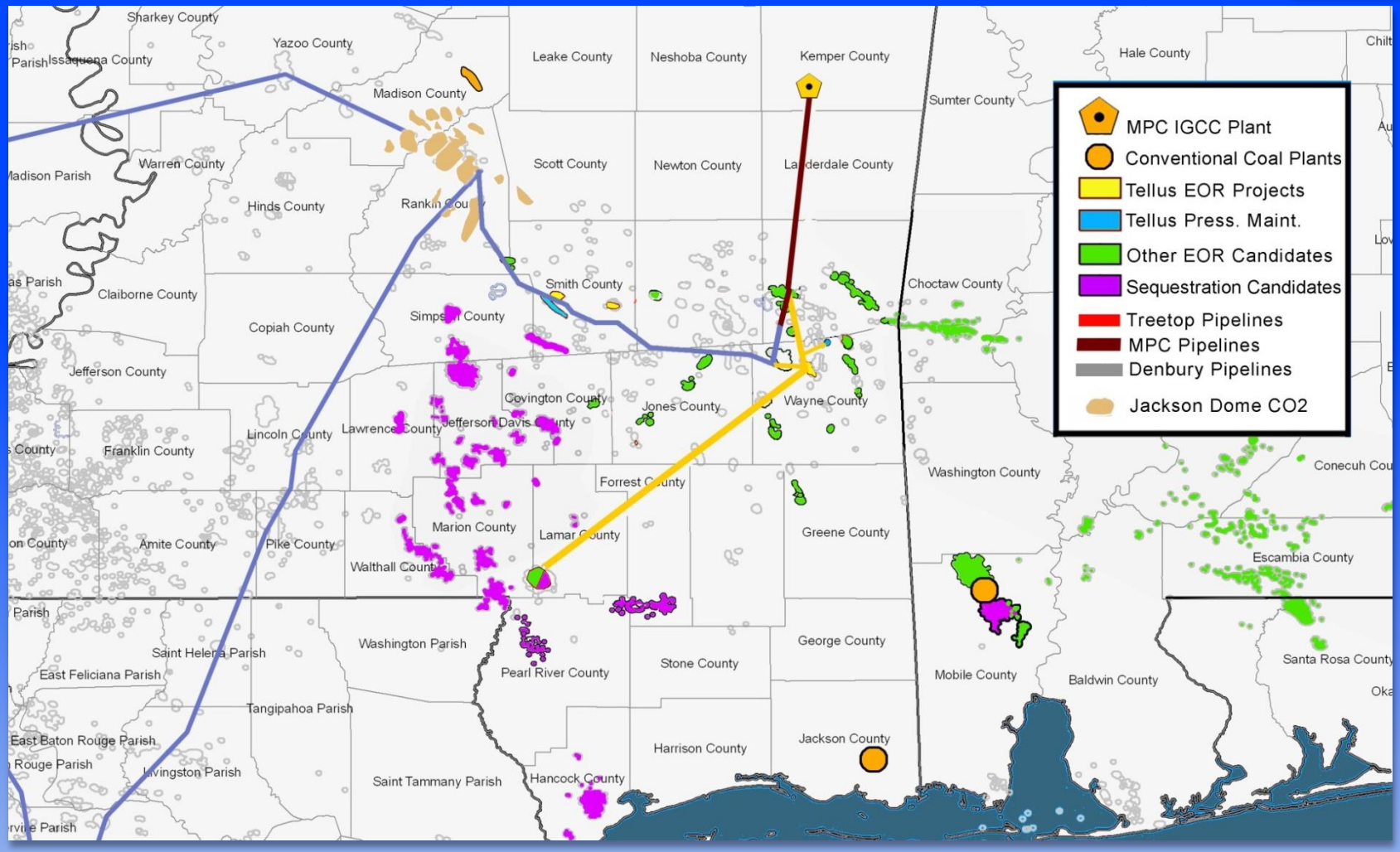
Department of Environmental Quality has primacy and will enter into MOU allowing jurisdiction of MS Oil and Gas Board

Facilitates the next generation of oil field jobs



CARBON DIOXIDE SEQUESTRATION

ECONOMIC ACTIVITY (JOBS)

- Mississippi's Gulf Coast Basin, with a growing infrastructure and saline aquifers sealed by hundreds of feet of shale and chalk, is strategically positioned to sequester CO2 for all states east of the Mississippi River and thereby becomes a national leader for CO2 storage.
- Positions Mississippi to capture more man-made carbon dioxide from new and existing industry within the state.
- Mississippi's Intrastate and Interstate CO2 Infrastructure will serve as a catalyst for MPCO's future development of Mississippi's vast lignite deposits .

MISSISSIPPI CO2 TRANSPORTATION INFRASTRUCUTRE