

**CO<sub>2</sub>**

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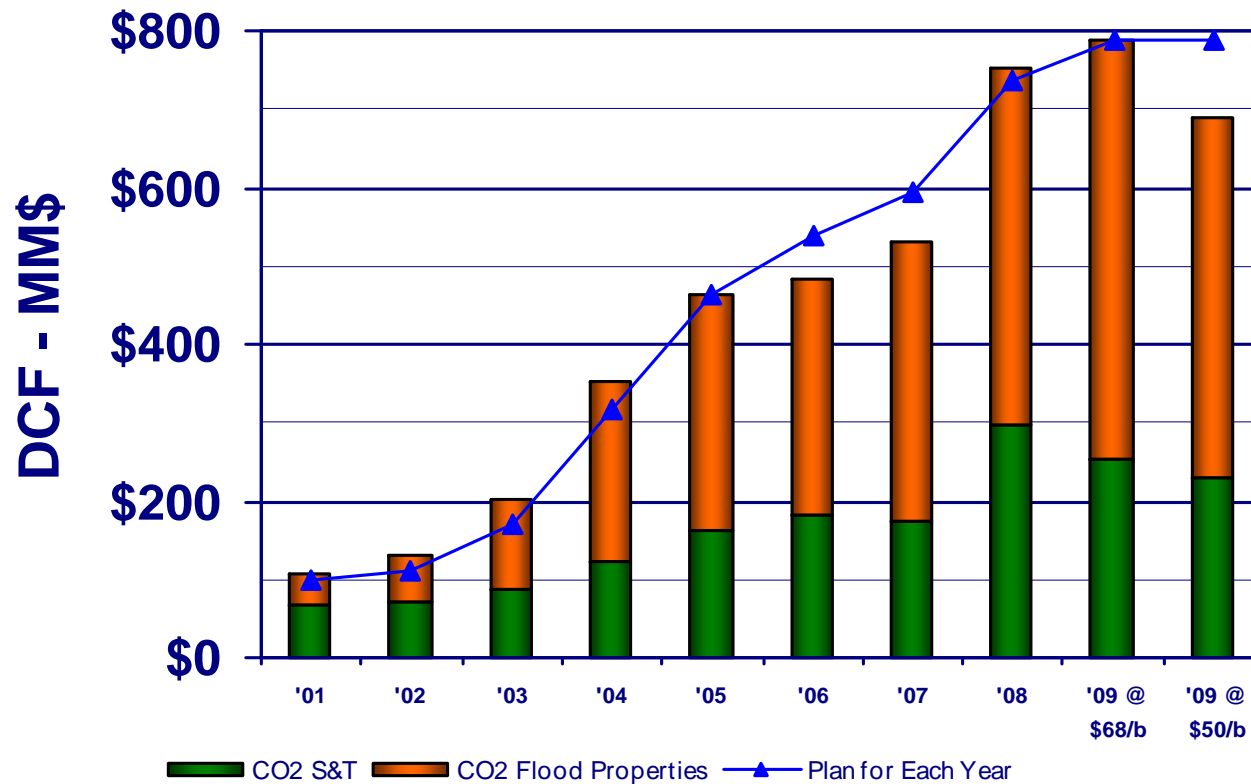
***Tim Bradley***

***President CO<sub>2</sub> Group***

# Distributable Cash Track Record

CO<sub>2</sub> Sales and Transportation - historical growth

CO<sub>2</sub> Flood Development - growing faster



Note: CO<sub>2</sub> Sales and Transportation includes YOGS, CO<sub>2</sub> Sales profit on own use has not been eliminated.

# 2008 Performance Recap

**Overall, slightly ahead despite huge price swings and Hurricane Ike**

**CO<sub>2</sub> Source and Transportation**

**Outperformed**

- \$298 MM vs \$233 MM

**Yates**

**Outperformed**

- \$252 MM vs \$238 MM
- 27,631 B/d vs 27,500 B/d

**SACROC\***

**Underperformed**

- \$203 MM vs \$265 MM
- Oil: 27,995 B/d vs 27,677 B/d
- NGLs: 13,330 B/d vs 16,552 B/d
- Future growth in cash flow even with flat production

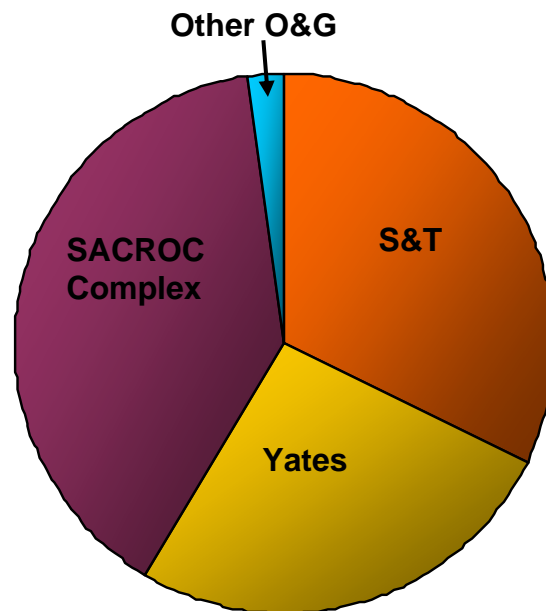
Note: Distributable Cash Flow

\*Including SACROC Services and remaining oil and gas assets

# Response to current oil price environment

## Focus on costs

2009 DCF by Asset Group



### Yates and S&T have low cost structures

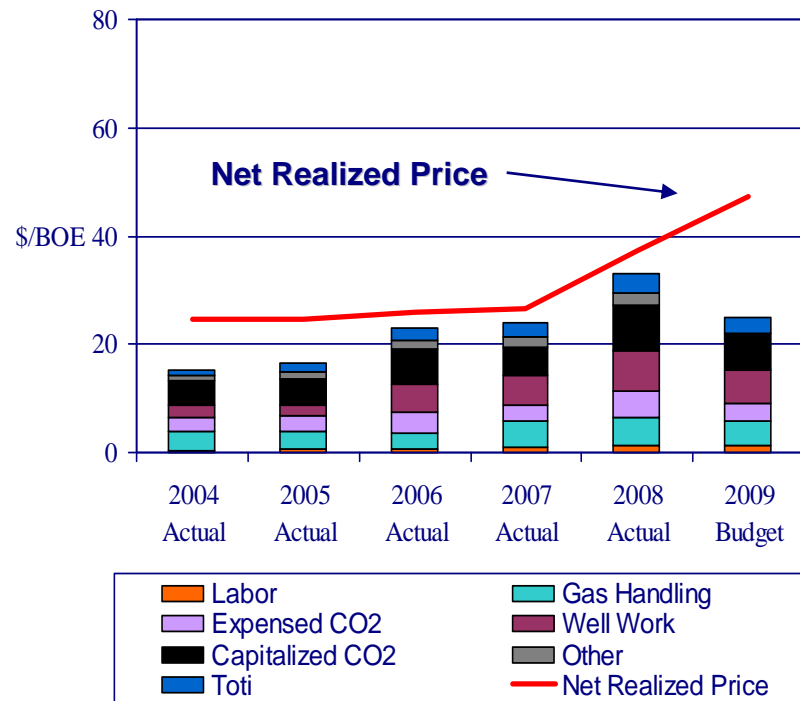
- Opex per unit ~25% of unit revenue at current prices
- Modest Capex needs, and very profitable at current prices

### SACROC Complex

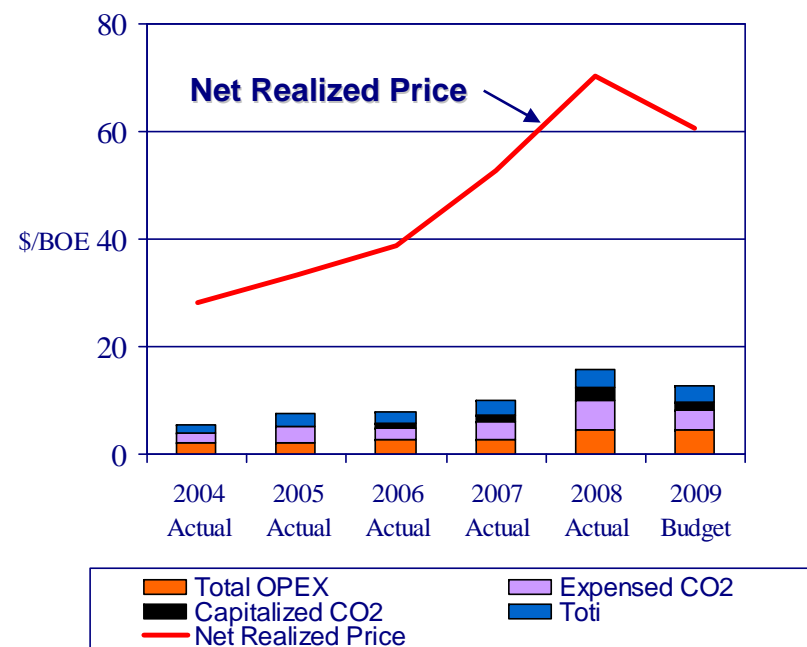
- Higher opex per barrel
- Investments profitable at current prices
- Significant Cost Reduction opportunities targeted in both capex and opex

# Oil and Gas Margins Remain Strong Net of Hedged Prices

### SACROC Cost Structure

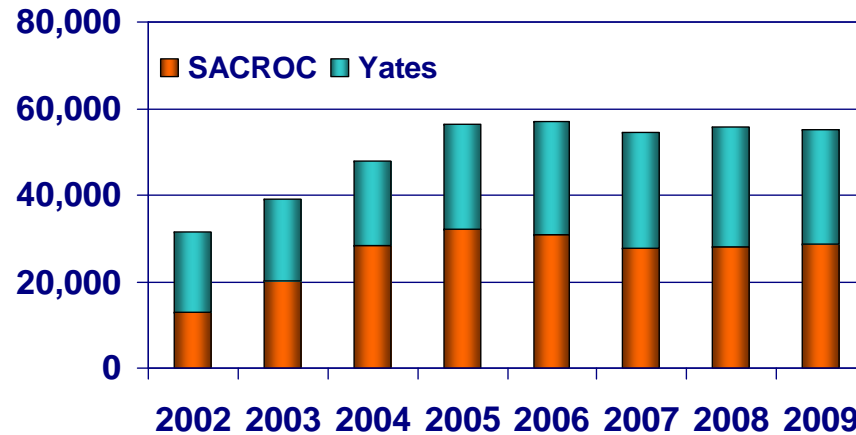


### Yates Cost Structure

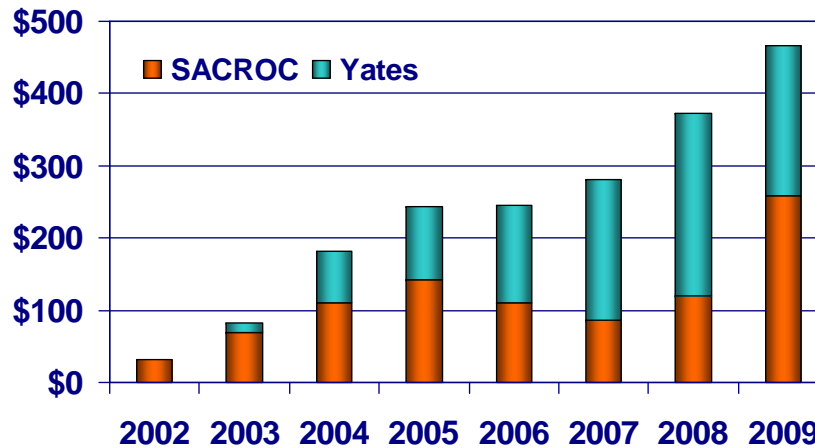


# SACROC and Yates Oil Production DCF

Oil Production



DCF



## Historical Summary

### Significant Development Events

#### SACROC:

Acquisition	June 2000
CLPL	May 2003
BE, CR, SWCL, Platform	2003-present

#### Yates:

Acquisition	Jan 01, Nov '03
Horizontal Drilling	2002 – Present
CO <sub>2</sub> Injection	March 2004

### 2009 Production

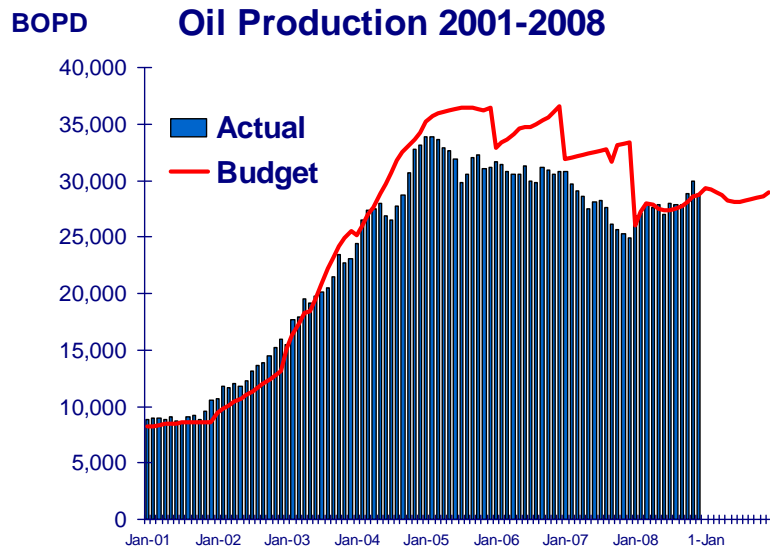
SACROC oil	28,581 B/d
SGP NGLs	16,868 B/d
Yates	26,500 B/d

### 2009 DCF

SACROC Unit only	\$258 MM
Yates	\$209 MM

Note: Yates DCF does not include contribution from MKM

# SACROC Production and Operations Highlights



## 2007 – Review

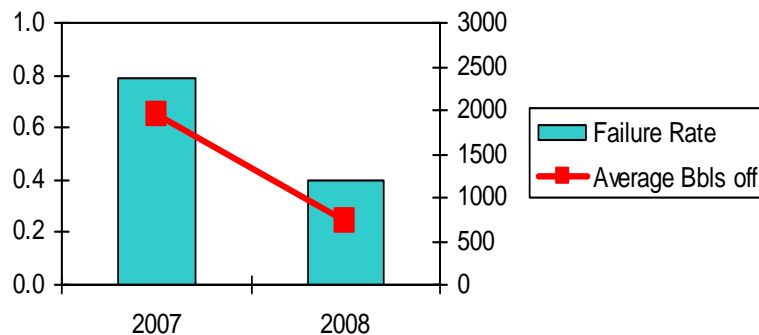
### Challenge 1: Reservoir responding differently

Lower recoveries and injectivities in post Center-Line Projects  
Development pace slowed to evaluate

### Challenge 2: Submersible pump failures

Failure rates improved, but still worse than expected

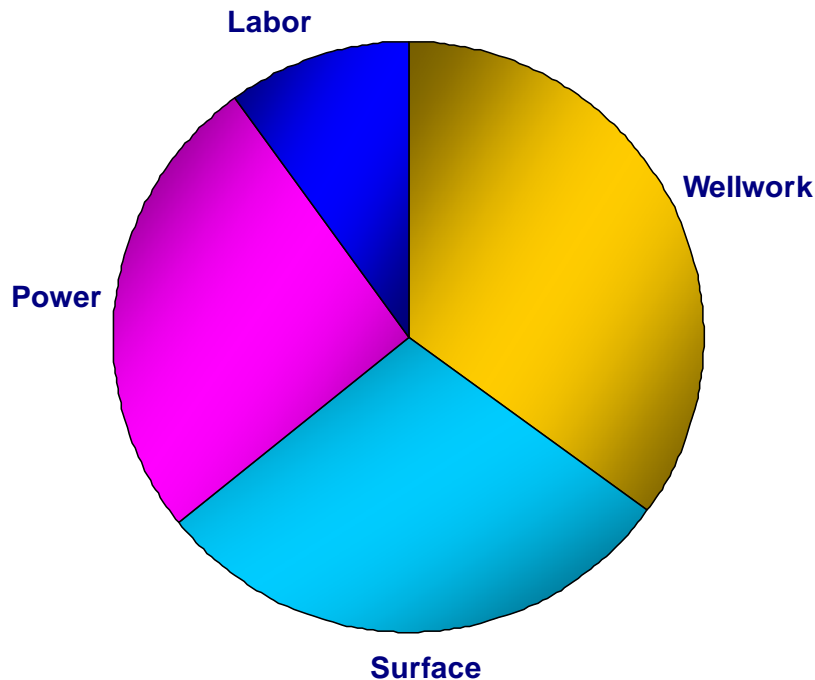
### Sub-Pump Improvements



## 2008 Progress

Well failure mechanisms studied, changed pump vendor, results significantly improved  
Oil production from Gel-Polymer conformance work has yet to peak, promising yet early  
Oil Production rebounded, ~1% above plan

# 2009 SACROC Opex Budget - \$176 Million\*



## Well work (35%)

38% of wellwork under sub-pump contract  
Other reductions achieved to date

•Rig	10%
•Wireline	25%
•Slickline	10%
•Frac tanks	25%
•Coiled Tubing	25%

## Surface Expense (29%)

43% of Surface under CO<sub>2</sub> Removal Contract  
Reductions achieved to date

•Roustabout Crews	15%
•Lube oil/Fuel	15%
•Trucking	15%

## Power (26%)

Based on average gas price of \$6.53  
Current forward curve results in ~10% reduction

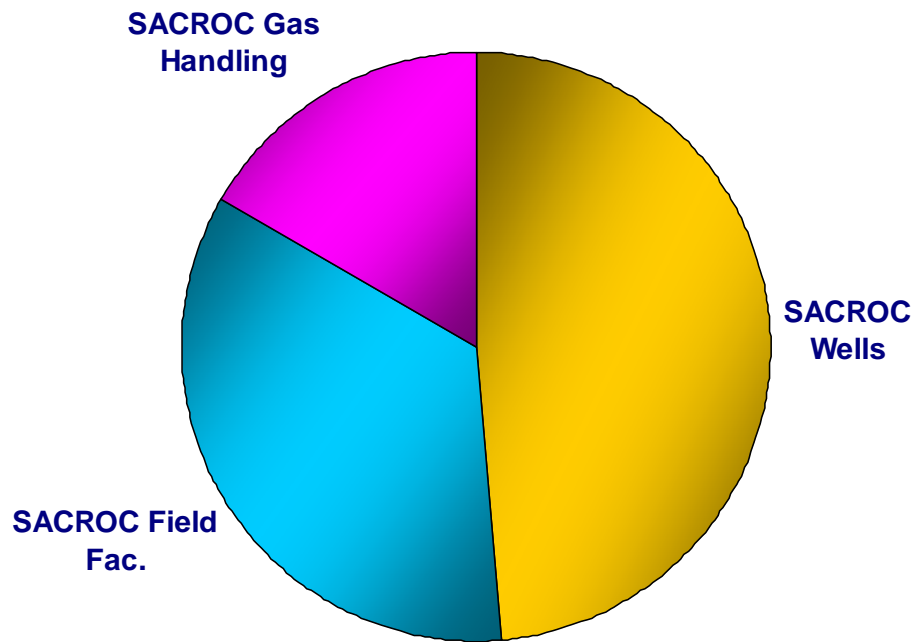
## Labor (10%)

No current plan to reduce staff  
Overtime reductions of 30% vs 2008

\*Excludes items tied to crude price:  
Expensed CO<sub>2</sub> \$51 MM, TOTI \$43 MM



# 2009 SACROC Expansion Capital Budget - \$246 Million



## Well work (49%)

10-40% reductions achieved to date

•Rig	10%
•Casing	12%
•Cement	29%
•Directional Drilling	25%
•Logging	43%
•Wellhead	33%

## Field Facilities (35%)

Recent projects 21% below AFE

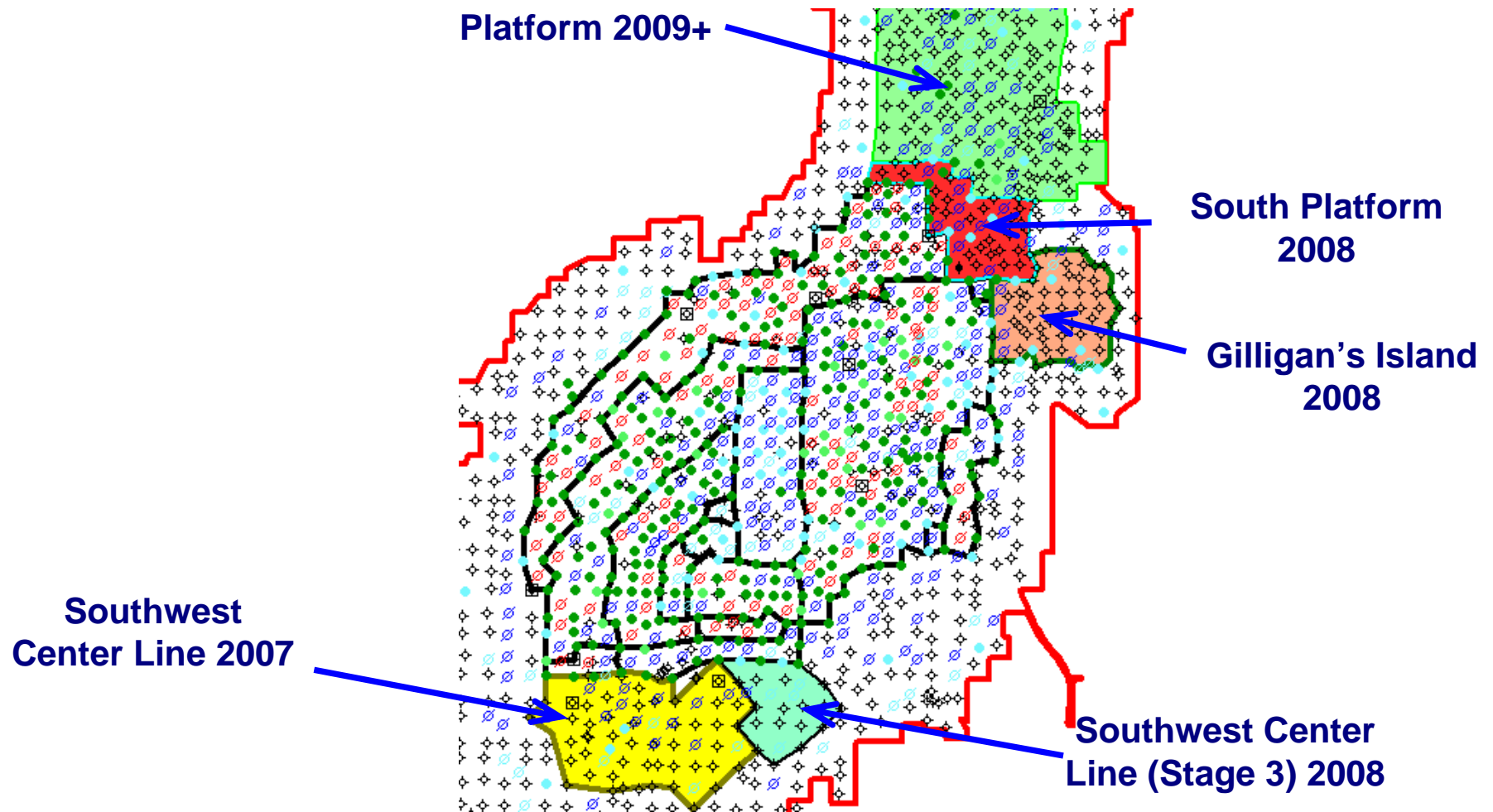
•Crew Costs	10-14%
•Reuse of existing facilities	
•Less rock, simpler construction	

## Gas Processing (16%)

Expect slower reductions for engineered equipment, but lower installation costs

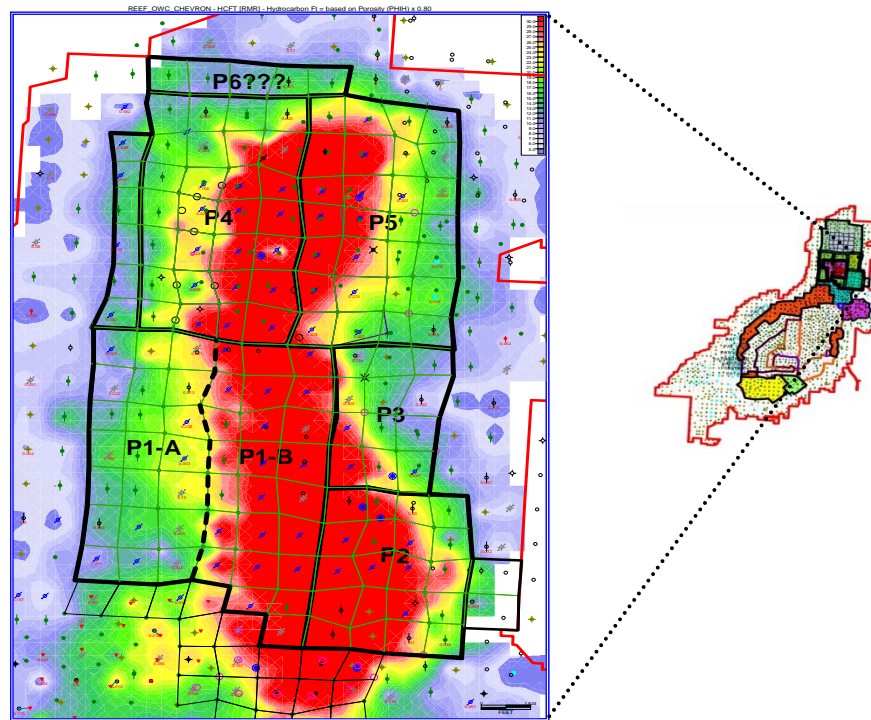
Excludes Capitalized CO<sub>2</sub> \$101 MM

# SACROC Expansion Projects



# SACROC Development: Response to changing oil price

## Focus on costs



Different strategies are being developed depending on both oil price levels and achieved cost reductions

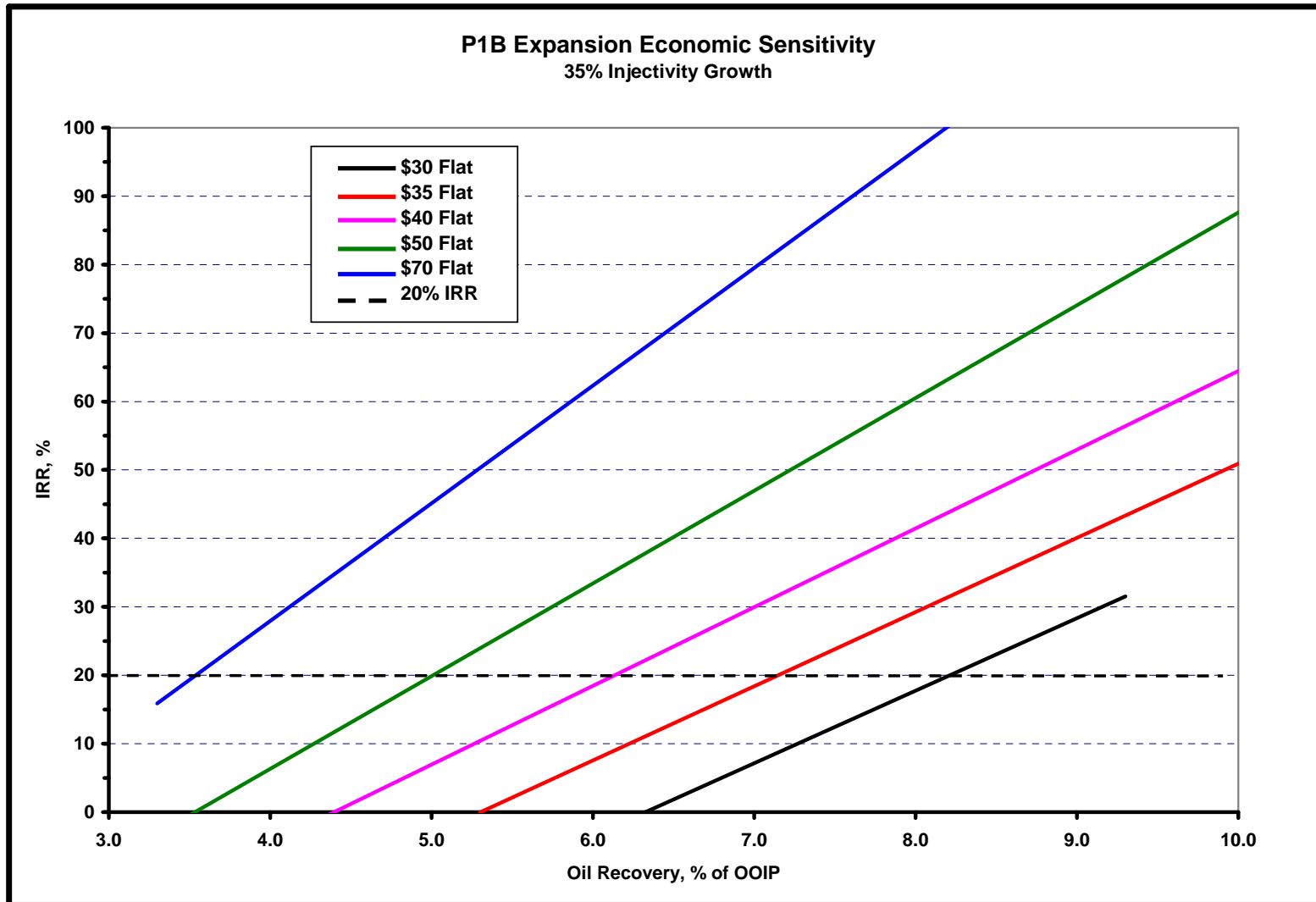
- Planned developments are profitable at \$40/b
- More resilient plans are being developed given recent excursions to low \$30's per barrel

“Plan B” still on paper, but involves accelerating higher oil in place patterns

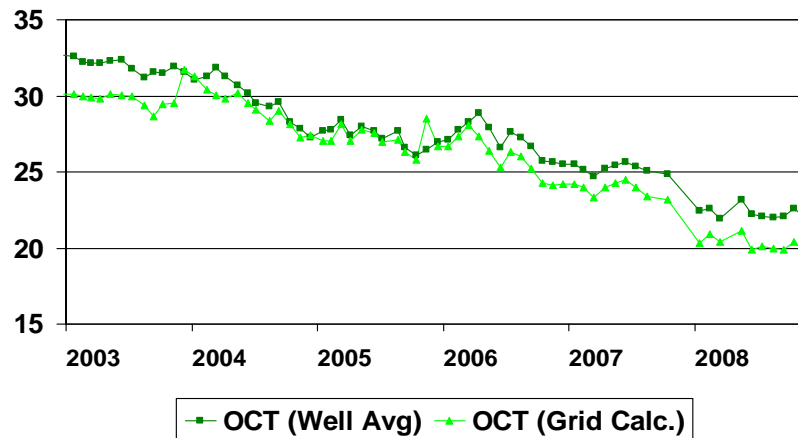
- Cost less per barrel; lower capex
- Slower investment pace required to maintain same production
- Slower pace provides time for cost reductions to become realized
- We can pick up the pace when the facts are better

# New Project Economics –Platform 1B

New Projects remain economic at lower recoveries and lower oil prices



# Yates Oil Column – Assessment

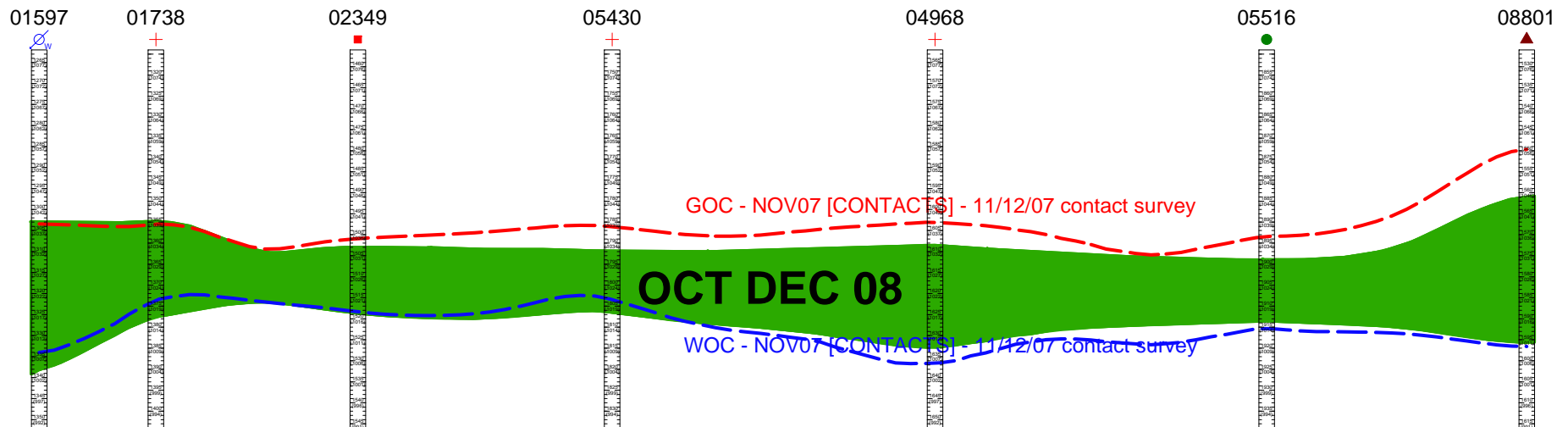


- Oil column has thinned relative to 2007, but remains stable

- Expect slightly lower oil production in 2009

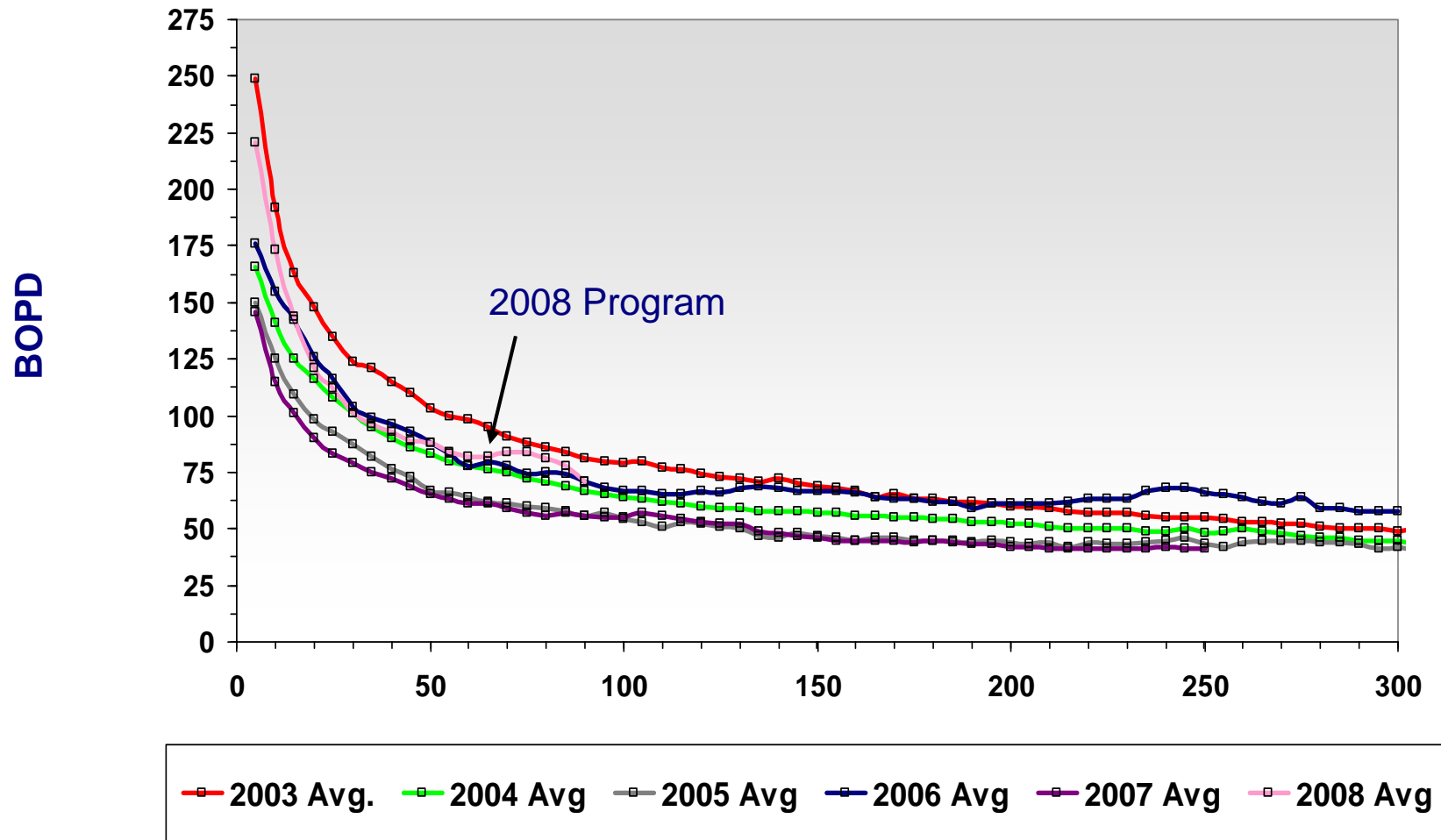
- Continue Horizontal drilling program to capture draining oil

- Oil production responds when CO<sub>2</sub> injection is redistributed throughout field



# Yates HDH Production Performance

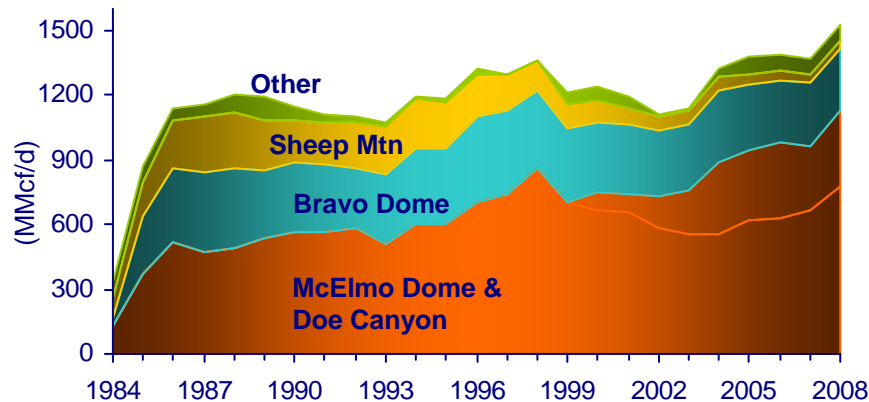
## Continued Good Results



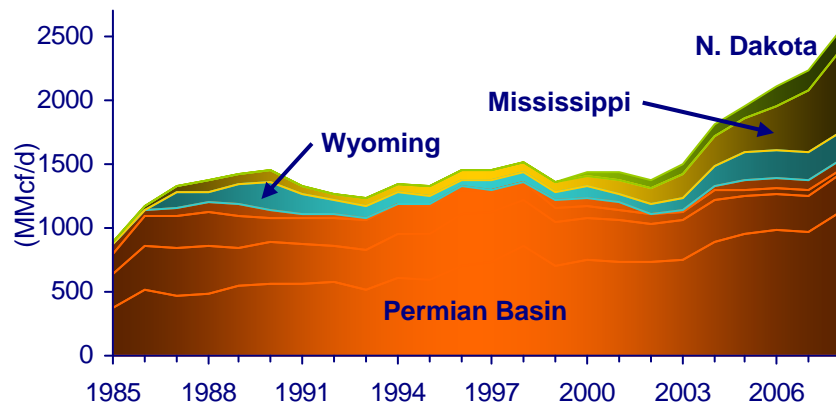
# CO<sub>2</sub> Source and Transportation

## Growing Business Opportunities

### Permian Basin CO<sub>2</sub> Deliveries



### Permian Basin CO<sub>2</sub> Deliveries



### Permian Basin

- Supplies pro-rated on occasion
- Permian Basin Demand expected to continue to remain stable or grow given existing project expansions plus known new project demand

### Domestic EOR

- Industry CO<sub>2</sub> EOR activity is increasing
- Naturally occurring sources are being expanded to ultimate capacity
- Additional supplies exist:
  - Gasification, Ethylene, Ethylene Oxide, Steam-Methane Reformer, Ammonia & Ethanol facilities
- Several regions have potential intersection between supply and demand including:
- Gulf Coast, California, Mid-continent, Canada

# Southwest Colorado Expansion + 300 MMCFD

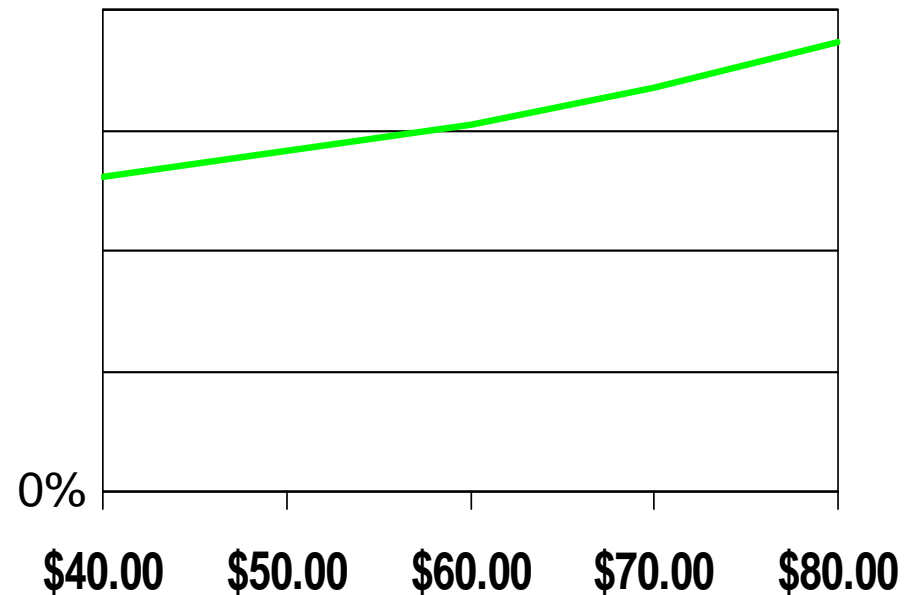


## Increased Capacities

McElmo Dome	200 MMCF/d
Doe Canyon	100 MMCF/d
Cortez PL	200 MMCF/d
KM Net Investment	\$171 MM

**Current Deliveries 1.3 BCF/d**

## Unlevered IRR vs Oil Price

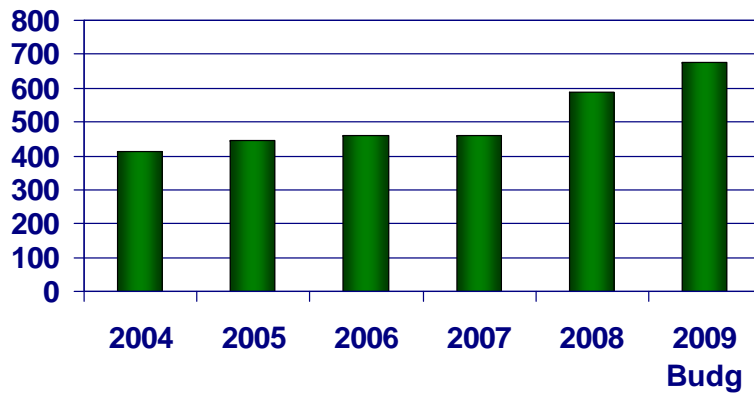


Note: Profitability based on Source Field, PL profitability incorporated into tariff



# CO<sub>2</sub> Delivered Volumes

**KM Share MMCFD**



Significant growth over past 5 years

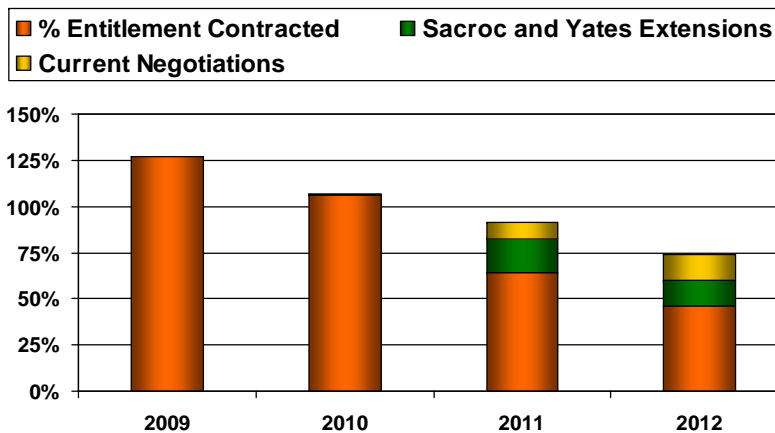
CAGR:

Volumes + 11%, Price + 18%

2009 vs 2008

Volumes + 15%, Price - 29%

**% KM Share Under Contract**



Take Or Pay % increasing.

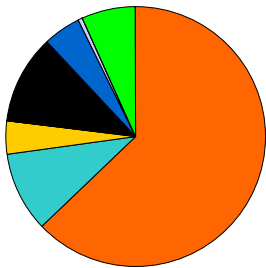
2008 signed contracts averaged 86%.

2009 and 2010 Include interruptible, as-available commitments

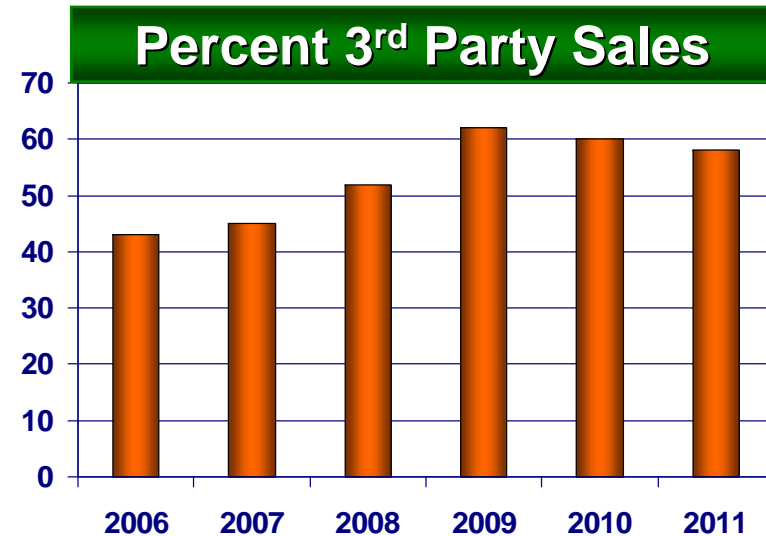
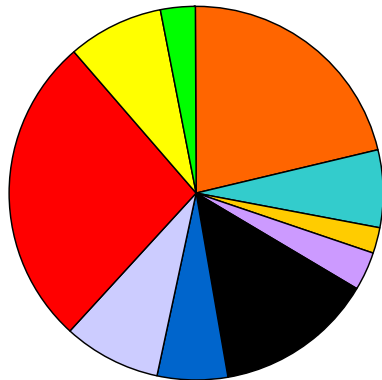
# 3rd Party Sales Portfolio

## Growth in Sales and Greater Diversity

2006 Actual Deliveries  
219 MMCF/D



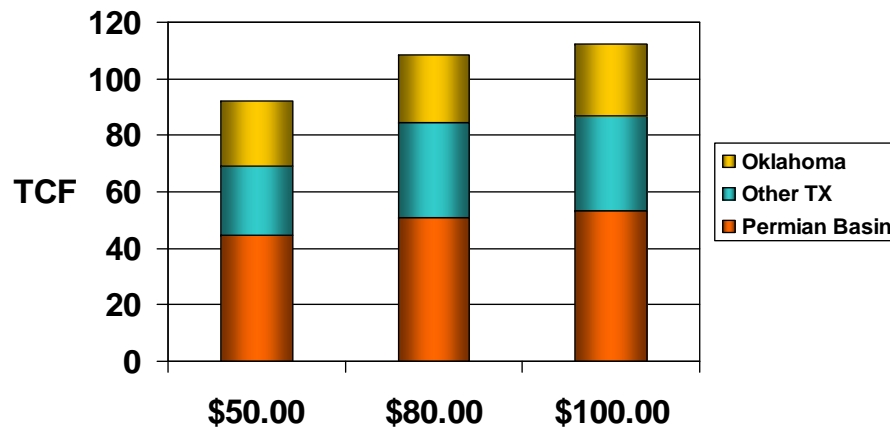
2008 Actual Deliveries  
332 MMCF/D



# Strong Long Term Demand for CO<sub>2</sub>

## Potential Sources Serving The Region\*

Purchased CO2 Demand vs Oil Price\*



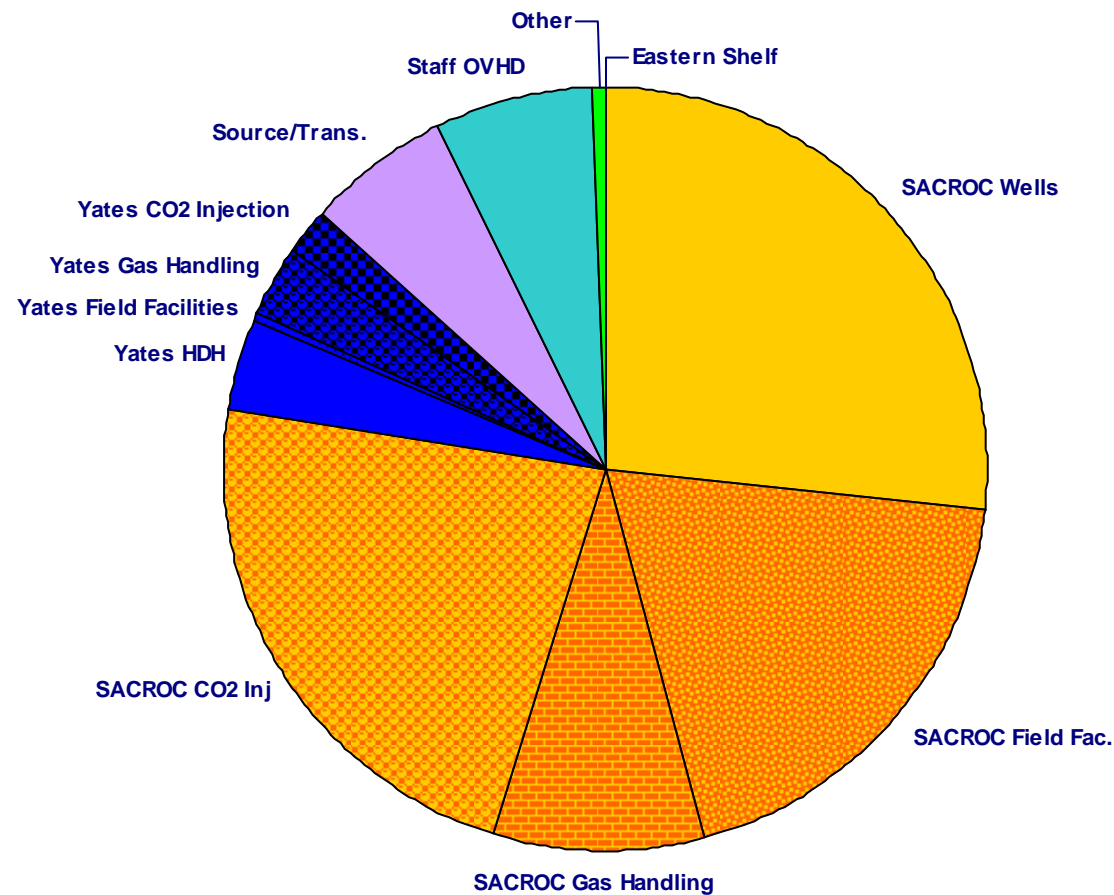
### Natural:

- 37.3 TCF R/P~30 years
- Various stages of development

### Industrial:

- High Purity: 38.7 TCF
- Low Concentration: 127.9 TCF
- 20 year life
- Typically much higher cost structure than natural sources

# 2009 Expansion Capital Budget - \$449 Million



Note: Cost Metrics based on 2008 run rates

## Impact of Oil Price/Volume Variance on 2009 DCF

<b>2009 Budget:</b>	<b>790 MM\$</b>
<b>+/- 1000 BOPD</b>	
<b>SACROC</b>	<b>27.5 MM\$</b>
<b>Yates</b>	<b>14.3 MM\$</b>
<b>+/- 1 \$/B WTI</b>	<b>5.9 MM\$</b>
<b>3<sup>rd</sup> Party CO<sub>2</sub> Deliveries</b>	
<b>+/- 50 MMCF/D</b>	<b>8MM\$</b>

# KM CO<sub>2</sub> Long-term Potential

## Development Plans 2009-2018

Current plan, likely to change as price/cost trends become more stable

### 1. SACROC Base Case Forecast

104 MMBOE Gross (a), 1.3 B\$  
Capital required includes 347 MM\$ cap. CO<sub>2</sub>  
Includes Eastern Shelf Development

### 2. Yates Sum of the Parts Forecast

78 MMBOE Gross (a), 254 MM\$ Gross Capex  
Gross capital required includes 180 MM\$ cap. CO<sub>2</sub>

### 3. CO<sub>2</sub> S&T

\$72 MM Gross Capex, 1.35 BCF/d capacity  
Includes Eastern Shelf CO<sub>2</sub> Pipeline

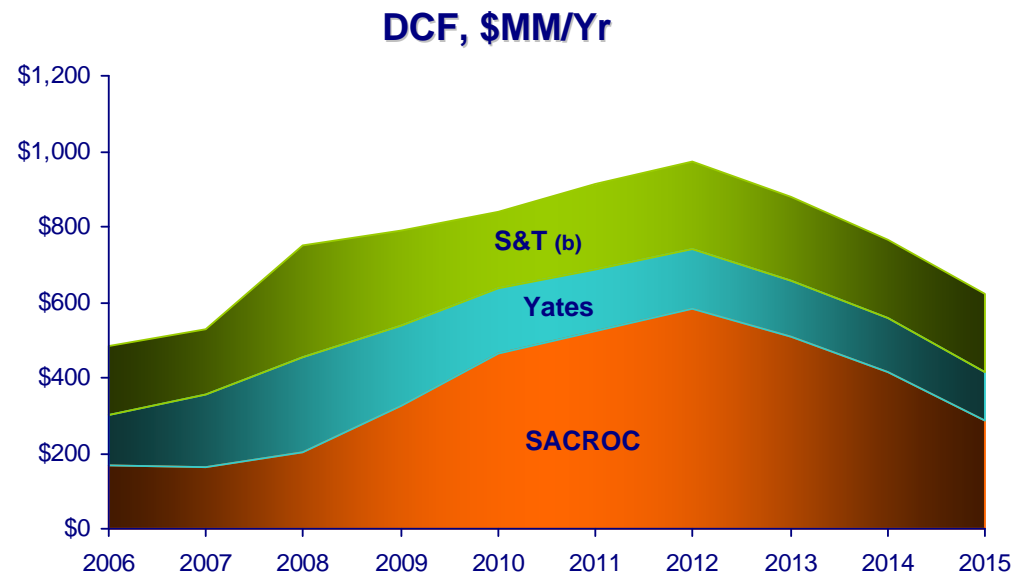
### Further work:

**SACROC: Improve conformance in older portions of field, complete assessment of Plan B development plan, initiate selective completion strategies in new patterns, expand SACROC Services gas processing business**

**Yates: Monitor performance of HDH program; Pursue secondary targets; evaluate west side for CO<sub>2</sub> development**

**Eastern Shelf: Complete studies, finalize development plans, start construction**

**Be poised to prosecute CCS opportunities**



2009 = Budget, 2010 at \$60/b, 2011+ at \$68/b  
Cost Metrics based on 2008 run rate

(a) Gross Beq = SACROC: Gross Crude plus Wet Hydrocarbon Gas divided by 6; Yates: Gross Crude and NGLs plus Residue Gas divided by 6  
(b) CO<sub>2</sub> profits not eliminated from S&T

# And Down the Road...

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**SACROC and Yates have and will continue to provide oil production opportunities:**

- **Big Fields get Bigger...**

- Better conformance at SACROC is a big opportunity
  - Using latest technology to find residual oil and better target CO<sub>2</sub> injection
- Yates expansion pilot

**Stick to our knitting, focusing on maintaining reliable production**

- **KM CO<sub>2</sub> kept its powder dry during the 2008 seller's market**

- Avoided the market froth; Permian acquisitions were at very high prices

- **KM CO<sub>2</sub> may *again* have the opportunity to further capitalize on our large, low-cost CO<sub>2</sub> supply in a CO<sub>2</sub>-short marketplace**

