Field Overview



Field Location



Caprock Queen Field - Geology

- Located in eastern Chavez and western Lea Counties, New Mexico
- Discovery Well Livermore #1 D in November 1940
- Productive Interval of the Queen Sand is an upper member of the Queen Formation of Permian age and is found across the subsurface Northwest Shelf of the Permian Basin. The average depth to the top of pay is 3,000 ft. The reservoir is a stratigraphic trap with some 50 ft of relief and dips regionally to the east at 25'/mile.
- Queen Sandstone is composed of well sorted, round to sub-rounded, fine to medium grain grey and red sands.
 - Avg. porosity of 15-20%
 - Avg. permeability of 5 to 500 md
 - Avg. thickness of 20' and avg. pay of 9 9'
- Oil production started as solution gas drive until Secondary recovery operations were initiated with a pilot water flood in 1956. The entire field has been under flood at one time or another in 13 different projects utilizing 80 acre, 5 spot patterns



Queen Structure Map



- Yellow
 - Oil transition area
- Green
 - Historical producing area
- Red
 - Gas area (low BTU)
- Blue
 - Water leg



Caprock History & OOIP

- Spacing 40 acres
- 80 acre 5 spot patterns
- Field Cumulative of 76 mmbo
- 4 Original Units
 - RQU, Drickey, West Cap, Trigg
 - Cum production of 38 mmbo
- Recovery P + S of 30%
- Tertiary Estimate of 10 to 20%
- Current Pilot Production
 - as high as 500 Gross bopd
 - Current approximately 300 bopd.

	Unit	Area	Avg Pav	Ava Por	Avg Sw	00IP
		<u>acres</u>	<u>ft</u>	<u>%</u>	<u>%</u>	mmbo
	Rock	4,947	13.6	19 *	35	61.1
Section 1	Drickey	5, 814	12.1	18	36	59.7
	West Cap	1,688	9.6	17	39	11.9
	Trigg	1,437	12.7	18	36	14.8
	Total	13,866				147.6

Caprock Discussion

Performance since Celero purchased in 2006

- Spent 80 MM\$ to date improving assets
- Re-activated, TA'd or P&A'd 130 wells
- Constructed/improved 10 tank batteries and related facilities
- Constructed 18 miles, 6" CO2 pipeline & Re-injection facility
- Initiated CO2 Pilot in February 2011 17 patterns with an estimated EUR of 10% of the OOIP
- Spent 3 MM\$ on environmental cleanup of 9 pits and existing facilities
- Expanded Drickey Unit to include Trigg and Federal V leases
- Moving Forward
 - Expand the RQU CO2 Pilot (add 17 patterns)
 - Double re-injection capacity by year-end, 2012
 - Target expansion to the Drickey Unit by 2014
 - Anticipate expansion of CO2 to North Caprock by 2016
 - Potential reserves of 7.0 mmboe in the North Caprock Units I and II



Pilot CO2 Response



North Caprock Units I & II

North Caprock Units

North Caprock Queen Unit I & II

- OOIP of 46.4 mmbo
- North Caprock Celero Queen Unit I cumulative production of 6.5 mmbo
- Original Participation factors based on cumulative production (75%), usable wellbores (12.5%) and acreage contribution (12.5%)
- Participation parameters for North Caprock Celero Queen Unit are based on Primary and Secondary production
- Anticipated Capital expenditures of 75 to 80 MM\$ for Unit I & Unit II expansions

Exhibits

- North Caprock Celero Quéen Unit Boundary
- Leasehold contribution and ownership.
- Participation parameter calculations.



North Caprock Historical Production



North Caprock Celero Unit I Tertiary Forecast



North Caprock Celero Unit I - Plan of Development

- Initial plan
 - Re-enter 5 wells, 4 producers with 1 central injector within 6 months
 - Follow up with 8 additional injectors in the next 24 months
 - Total of 9 injectors & 4 producers
- Secure water for injection
 - Redirect water supply,
 - Right of Way and pipelines
- Evaluate pattern for Water-Flood re-development
 - 40 acre pattern incremental recovery/tertiary potential
 - Incremental 80 acre recovery
- Evaluate well-bore conditions
- Determine CO2 Potential



Exhibits