

SPUR RANCH & SWENSON RANCH SHARED MINERALS

Garza, Kent, Dickens, Crosby Counties, Texas

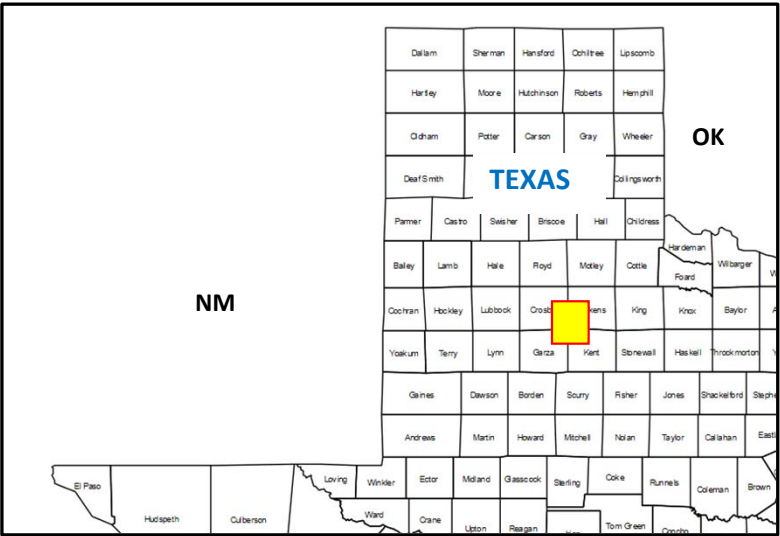


www.SwensonMinerals.com

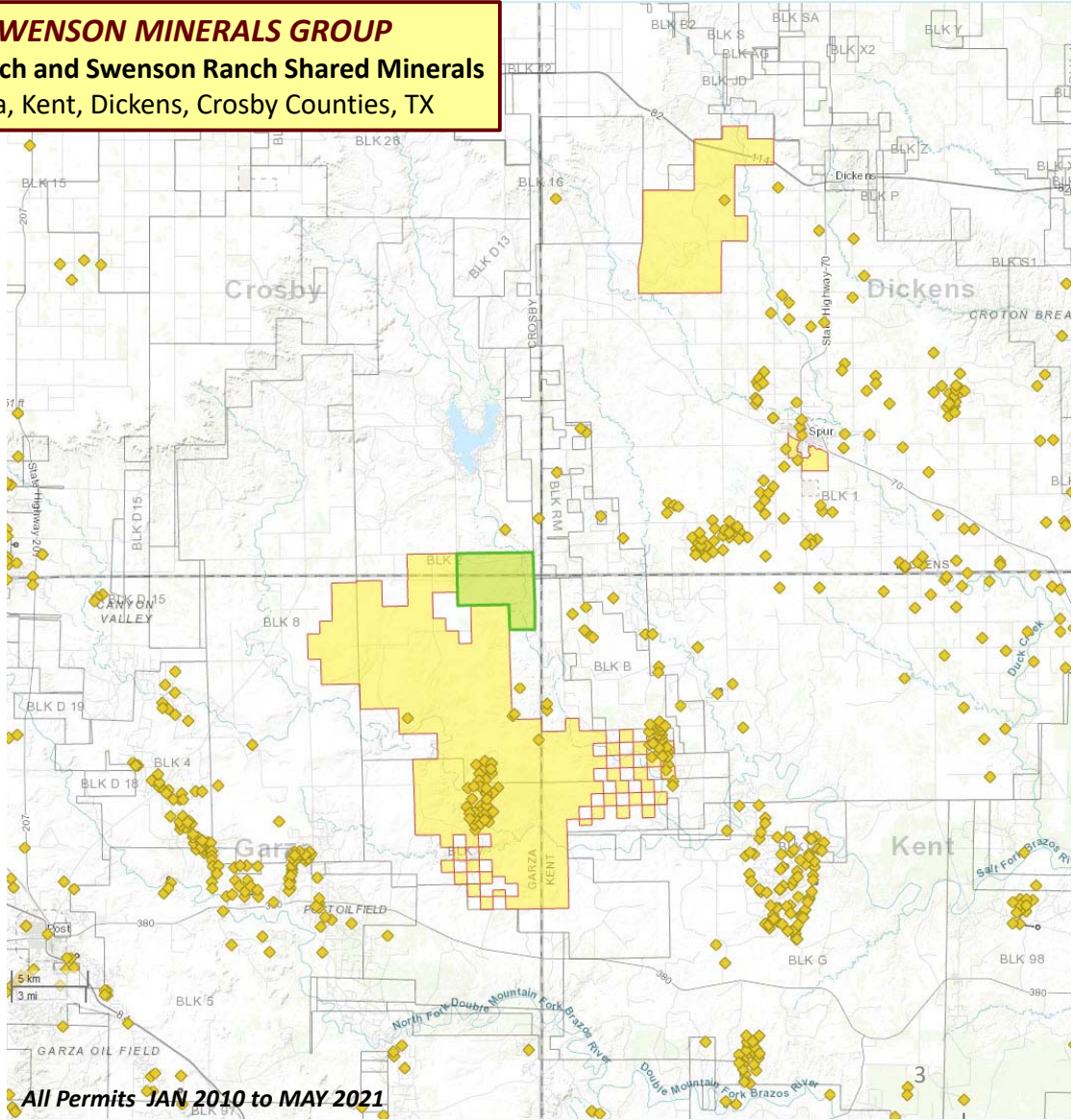
Why Lease from Swenson Minerals Group?



- Long-term mineral owner of over 300,000 mineral acres in north central Texas – Eastern Shelf, Bend Arch producing areas. Currently approximately 250,000 are available for leasing in 2021.
- Contiguous mineral tracts in 12 counties – Cottle, Crosby, Dickens, Garza, Kent, Haskell, Jones, King, Motley, Stonewall, Shackleford and Throckmorton and smaller tracts throughout west Texas.
- SMG mineral areas are all in proven petroleum basins. Opportunities exist for New Exploration plus New Exploitation near active Producing areas as seen on the included Production maps. The New Exploration can occur in undrilled, virgin pressure environments. There is abundant, available subsurface and production data to assist in defining new plays, leads and prospects.
- SMG mineral areas contain multiple oil and gas reservoirs at depths (1000-8000 ft) with relatively simple trap types that can be exploited with both vertical and horizontal completions. Few horizontal wells exist in the SMG mineral areas. Advances in horizontal well technology have improved the economics of these type plays. New techniques that have increased success rates in the region include compressive sensing seismic, surface geochem, MT (magnetotellurics) and Landsat, among other proven tools.
- **SPECIFIC to the Spur Ranch and Swenson Ranch Shared Minerals area** is oil from multiple reservoirs and traps; stacked plays such as Swenson-Garza field has produced over 6 MMBO. Other Ellenberger leads are under-drilled. The Canyon sand/reef play produces at eastern Spur Ranch, and the prolific (~5000 ft) Tannehill sand & Stockwether limestone fields have made 8 MMBO in Dickens Co. Production trends into the Spur Ranch areas.



SWENSON MINERALS GROUP
Spur Ranch and Swenson Ranch Shared Minerals
Garza, Kent, Dickens, Crosby Counties, TX



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SPUR RANCH
SWENSON RANCH

All Permits JAN 2010 to MAY 2021

Stratigraphy & Structural Elements North Central Texas Region

TARGET RESERVOIRS in SPUR RANCH AREA

GENERALIZED SUBSURFACE STRATIGRAPHIC SECTION		
SYSTEM AND SERIES	STAGE	GROUP OR FORMATION
GNEISSOUS	COMANCHEAN	GOODLAND FORMATION
		PALUXY FORMATION
	OCHOAN	GLEN ROSE FORMATION
POTOMAC	GUADALUPIAN	
	LEONARDIAN	
	WOLF CAMPAN	
PENNSYLVANIAN	UPPER	CISCO GROUP
		BRECKENRIDGE FORMATION
		CISCO FORMATION
		HOME CREEK LIMESTONE
		COLONY CREEK SHALE
	CANYON GROUP	RANGER LIMESTONE
		PLACID SHALE
		WINCHELL LIMESTONE
		CEDARTON SHALE
		ADAMS BRANCH LIMESTONE
	STRAWN GROUP	BROWNWOOD SHALE
		PALO PINTO FORMATION
		KEECHI CREEK SHALE
		CAPPS LIMESTONE
		GARNER FORMATION
	MIDDLE	GRINDSTONE CREEK FORMATION
		LAZY BEND FORMATION
		WICHITA GROUP
		CADDO FORMATION
	LOWER	ATOKAN
		BEND GROUP
		PREGNANT SHALE
		BIG SALINE FORMATION
		SWITHRICK SHALE
MISSISSIPPIAN	MORROWAN	MARBLE FALLS LIMESTONE
		CONYNN FORMATION
	OSAGEAN	BARNETT SHALE
		CHAPPEL LIMESTONE
		VIOLET LIMESTONE
JURASSIC	SIMPSON GROUP	ELLENBURGER GROUP
PRECAMBRIAN	WILBERNS - RILEY - HICKORY FORMATIONS	
PRECAMBRIAN	GRANITE - DIORITE - METASEDIMENTS	

BARNETT-PALEOZOIC TOTAL PETROLEUM SYSTEM

TANNEHILL sandstones

CISCO sandstones

Swenson Minerals Area

CANYON limestone (reef)

STRAWN sandstones

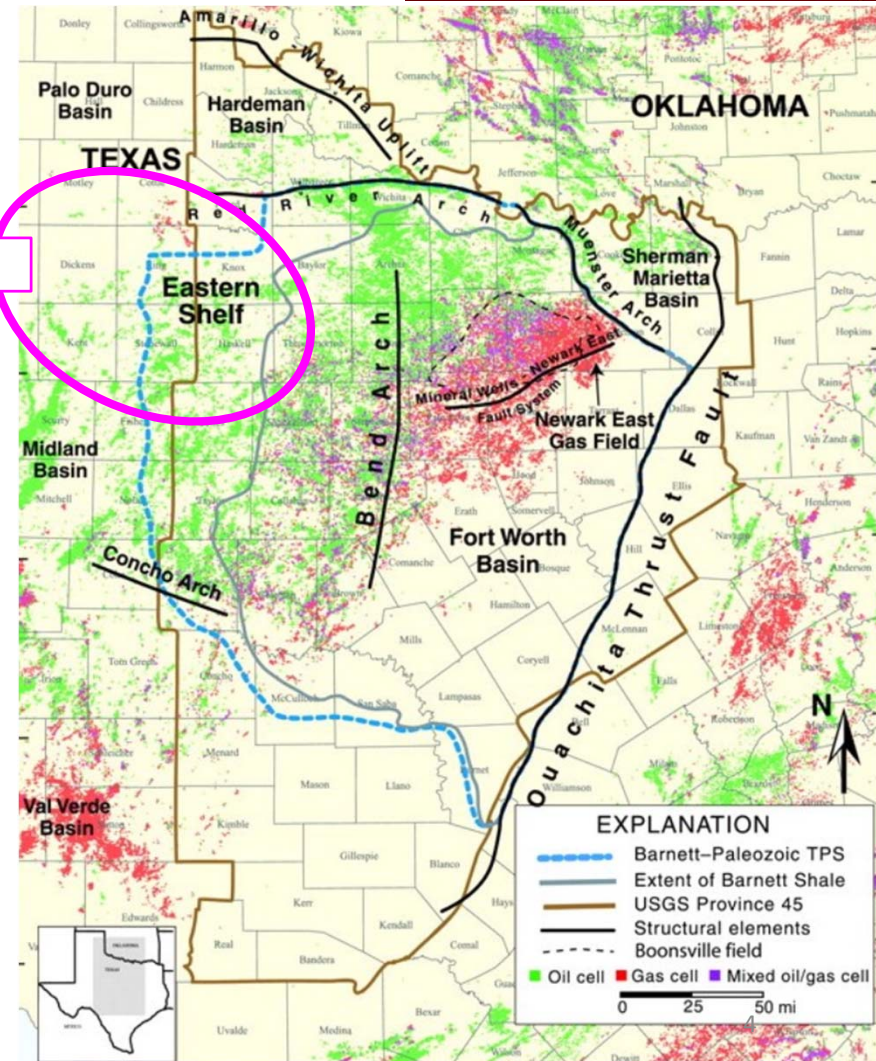
Atoka Source Rocks

Morrowan Source Rock

World Class Source Rock – Barnett Shale

Mississippian (Chester, Duffer) Limestone

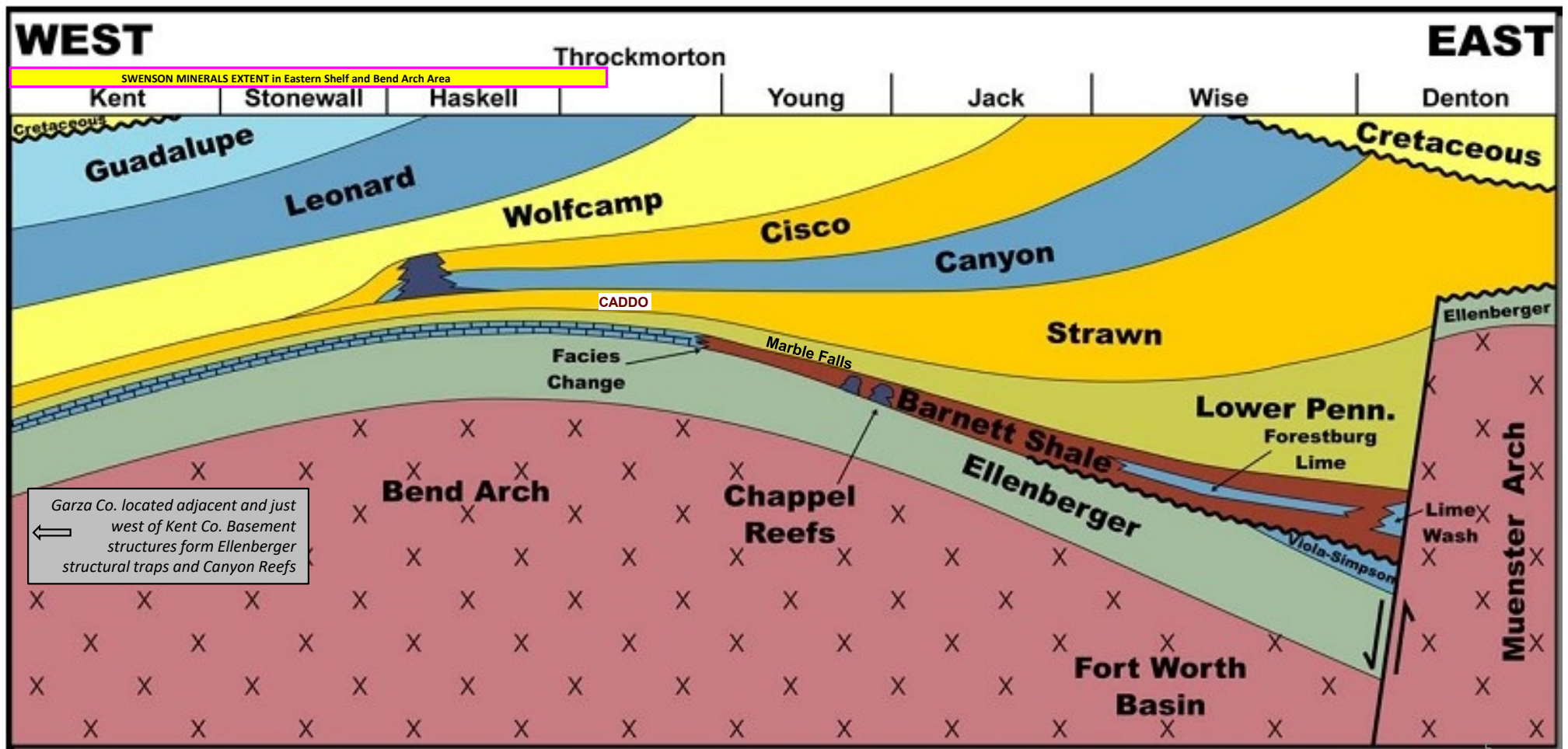
ELLENBERGER carbonate



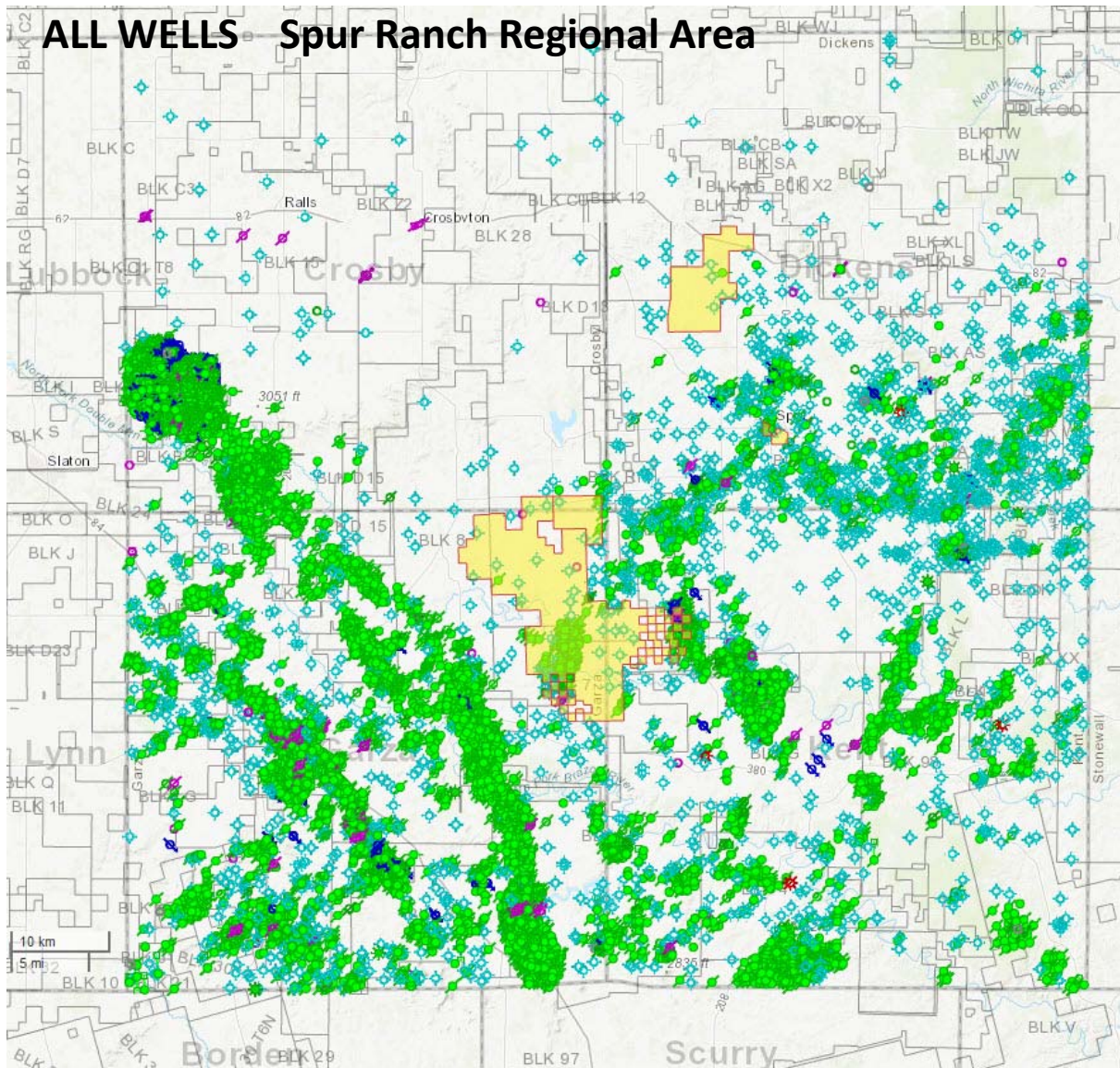
Source rock Reservoir rock Seal rock Clastic carbonate rock Barnett Shale Granite

Schematic Geologic Cross Section over Swenson Minerals Area

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ALL WELLS - Spur Ranch Regional Area



Layer Symbology

Wells

APPLY

RESET ALL

Auto Apply

COLORS & SIZING

ANNOTATIONS

Show Drillinginfo Well Symbol Set

Show Trajectories/Bottom Holes

Show Well Info at Bottom Hole

Opacity: 100%

Size Modifier: 0

Size By: None

Color By: Production Type

HIDE ADVANCED

Colors: (Default) Discrete Set 1

Bins: 11

Custom Values

Rank By: Avg. Cum BOE

Color Bin Legend

OIL

DRY HOLE

GAS

INJECTION

OIL & GAS

PRODUCER

STRATIGRAPHIC TEST

UNKNOWN

OTHER

Predominantly (>99%) Oil production in area

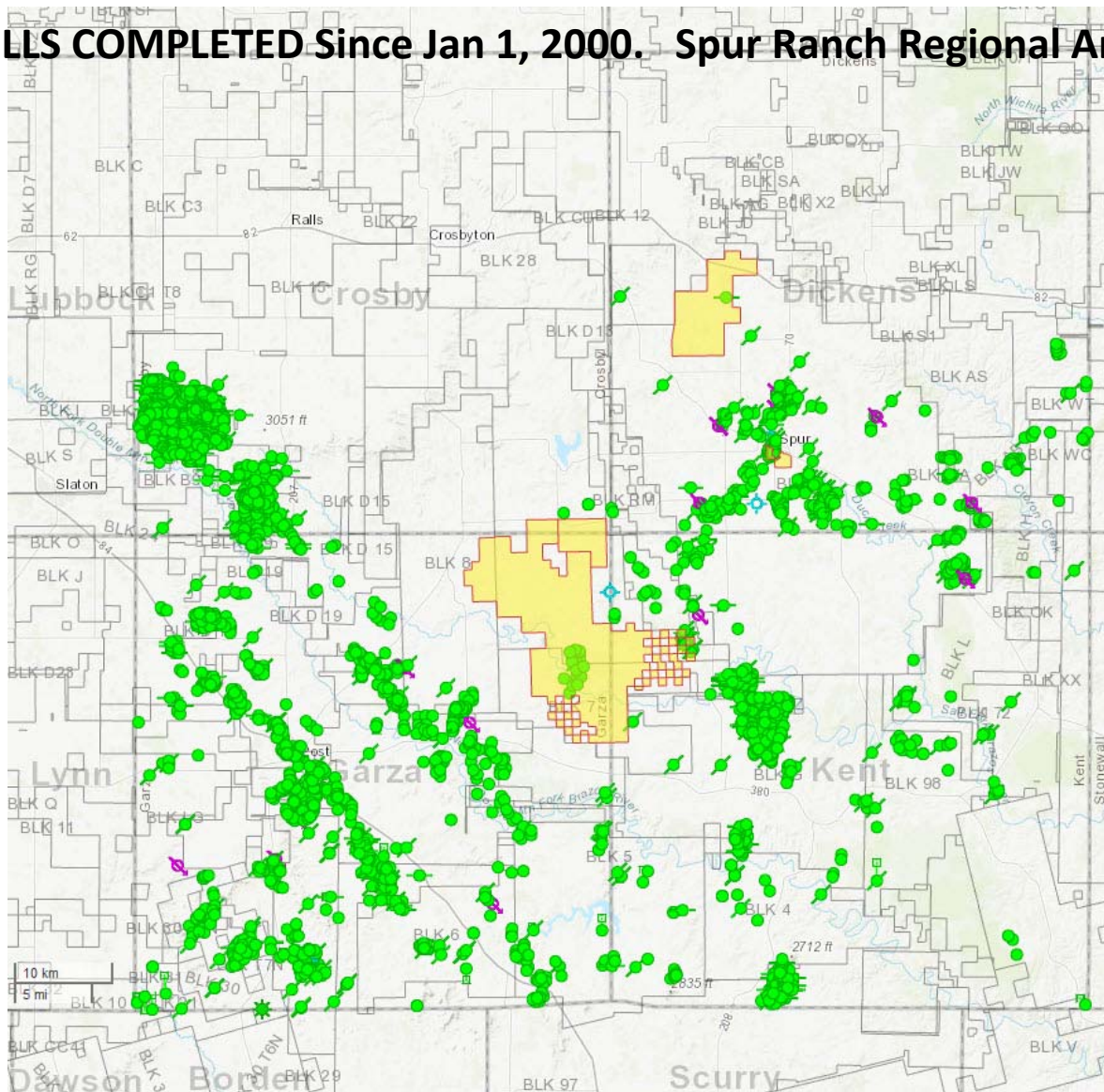
Except for Swenson-Garza field, few wells drilled on Spur Ranch

All Wells: data from *drillinginfo.com* (via Texas RRC) to MAY 2021

WELLS COMPLETED Since Jan 1, 2000. Spur Ranch Regional Area

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*Very few dry holes drilled
in area –
a prolific oil region*



Layer Symbology

Wells

APPLY
RESET ALL
☒ Auto Apply

COLORS & SIZING
ANNOTATIONS

☒ Show Drillinginfo Well Symbol Set
☒ Show Trajectories/Bottom Holes
☒ Show Well Info at Bottom Hole

Opacity: 100%

Size Modifier: 0

Size By: None

Color By: Production Type

HIDE ADVANCED

Colors: (Default) Discrete Set 1

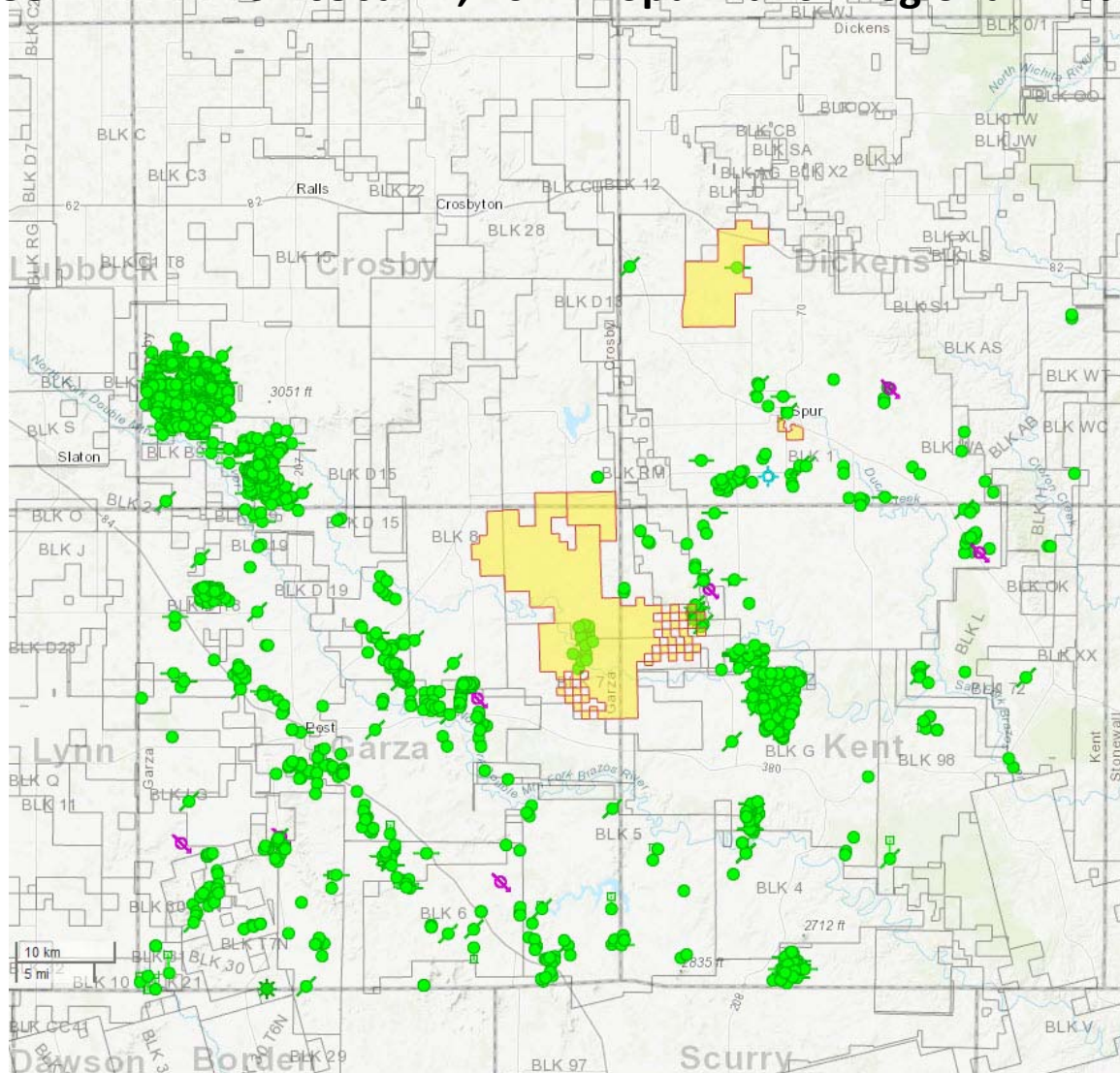
☒ Bins 11
☐ Custom Values

Rank By: Avg. Cum BOE

Color Bin Legend

☒ OIL
☒ DRY HOLE
☒ GAS
☒ INJECTION
☒ OIL & GAS
☒ PRODUCER
☒ STRATIGRAPHIC TEST
☒ UNKNOWN
☒ OTHER

WELLS COMPLETED Since Jan 1, 2011. Spur Ranch Regional Area



Layer Symbology

Wells

APPLY
RESET ALL
☒ Auto Apply

COLORS & SIZING
ANNOTATIONS

☒ Show Drillinginfo Well Symbol Set
☒ Show Trajectories/Bottom Holes
☒ Show Well Info at Bottom Hole

Opacity: 100%

Size Modifier: 0

Size By: None

Color By: Production Type

HIDE ADVANCED

Colors: (Default) Discrete Set 1

☒ Bins 11
☐ Custom Values

Rank By: Avg. Cum BOE

Color Bin Legend

☒ OIL
☒ DRY HOLE
☒ GAS
☒ INJECTION
☒ OIL & GAS
☒ PRODUCER
☒ STRATIGRAPHIC TEST
☒ UNKNOWN
☒ OTHER

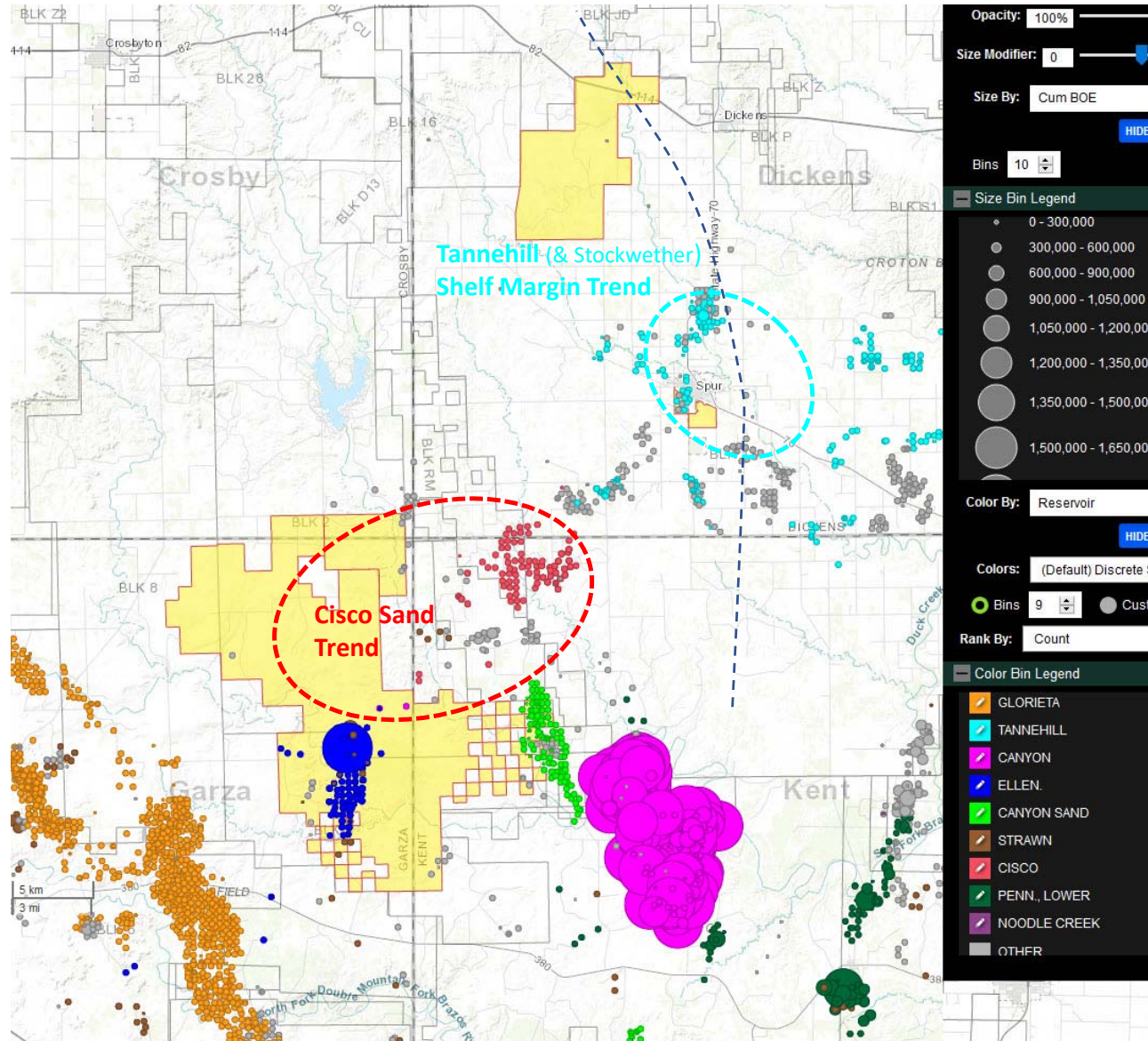
CUMULATIVE BOE by RESERVOIR Spur Ranch Regional Area and NE PLAY TRENDS

PLAY TRENDS

indicate areas of potential new drilling: vertical, horizontal exploration & near field exploitation wells

Multiple Pay zones:
Tannehill reservoirs at 4900 ft. Cisco reservoirs at 5500 ft

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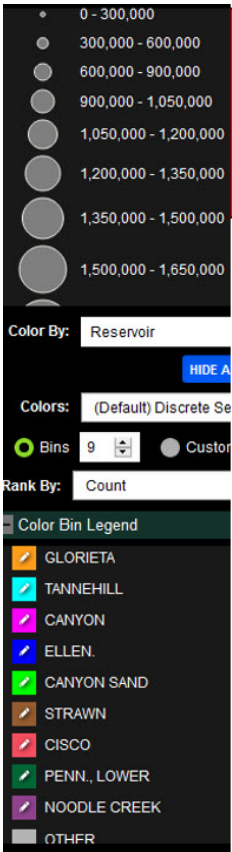
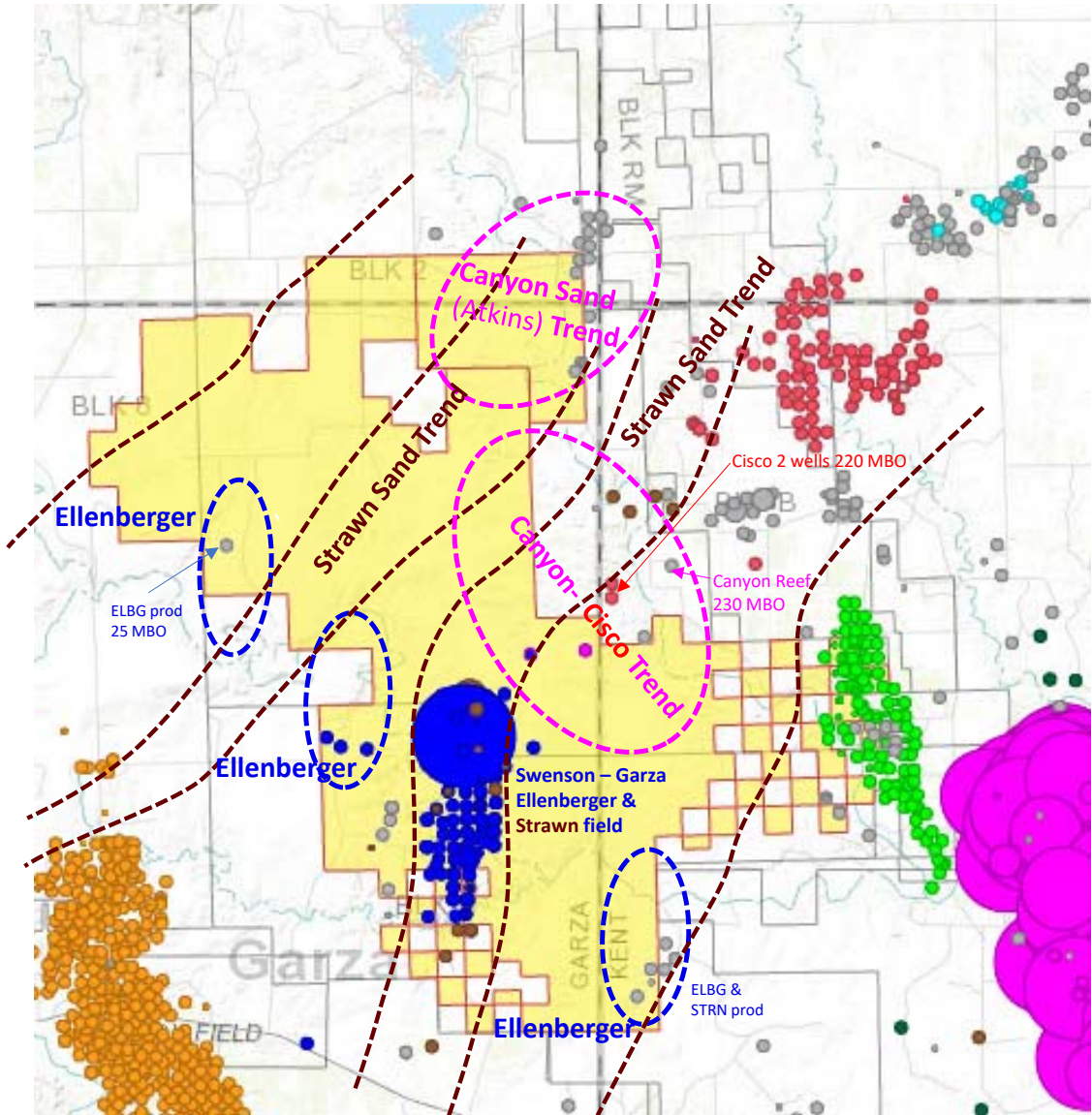
BOE Legend

Cumulative BOE values scaled by this map area. Value range is thus influenced by very large production from wells & leases in Salt Creek **Canyon** field in Kent Co and Swenson – Garza **Ellenberger** field

CUMULATIVE BOE
by RESERVOIR
Spur Ranch *Focus*
Area and
PLAY TRENDS

PLAY TRENDS indicate areas of potential new drilling: vertical, horizontal exploration & near field exploitation wells

Multiple Pay zones: Canyon – Cisco reservoirs at 5500 – 6500 ft. The Ellenberger (7800 ft) reservoirs are dolomitized ramp carbonates.



Cumulative BOE values scaled by this map area. Value range is thus influenced by very large production from wells & leases in Salt Creek

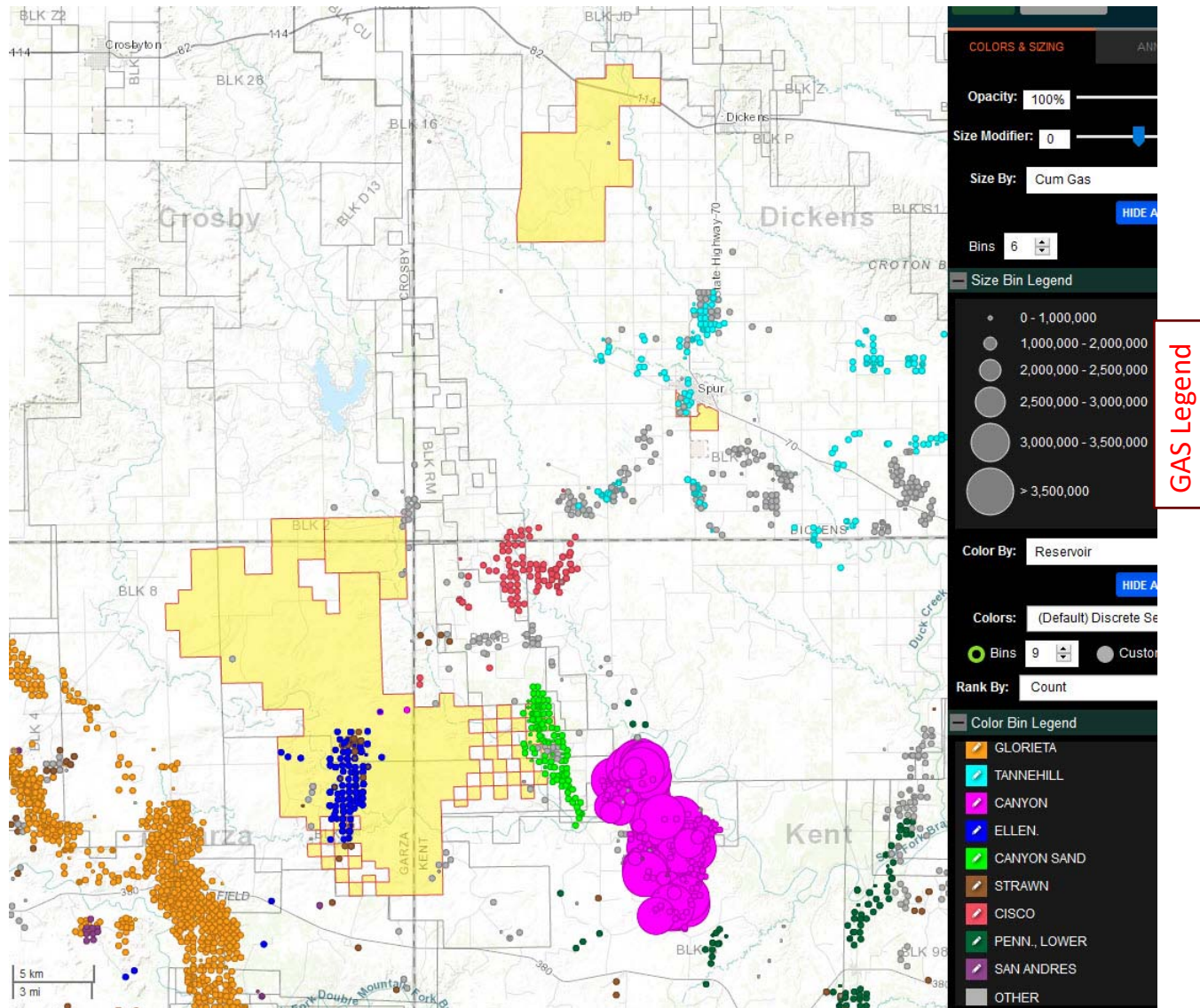
Canyon field in Kent Co and Swenson – Garza Ellenberger field

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CUMULATIVE GAS by RESERVOIR Spur Ranch Regional Area

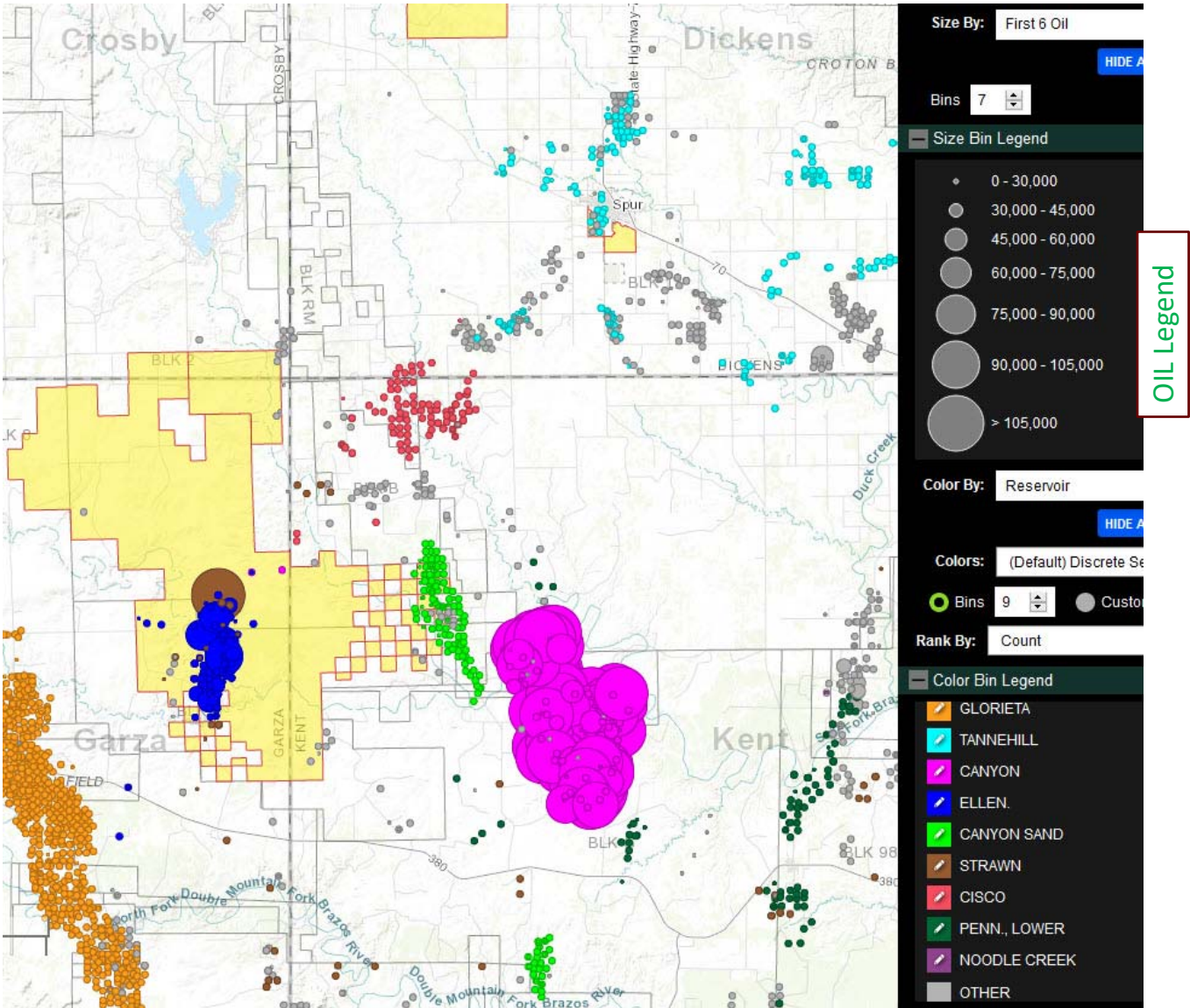
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FIRST SIX MONTHS OIL by RESERVOIR Spur Ranch Regional Area

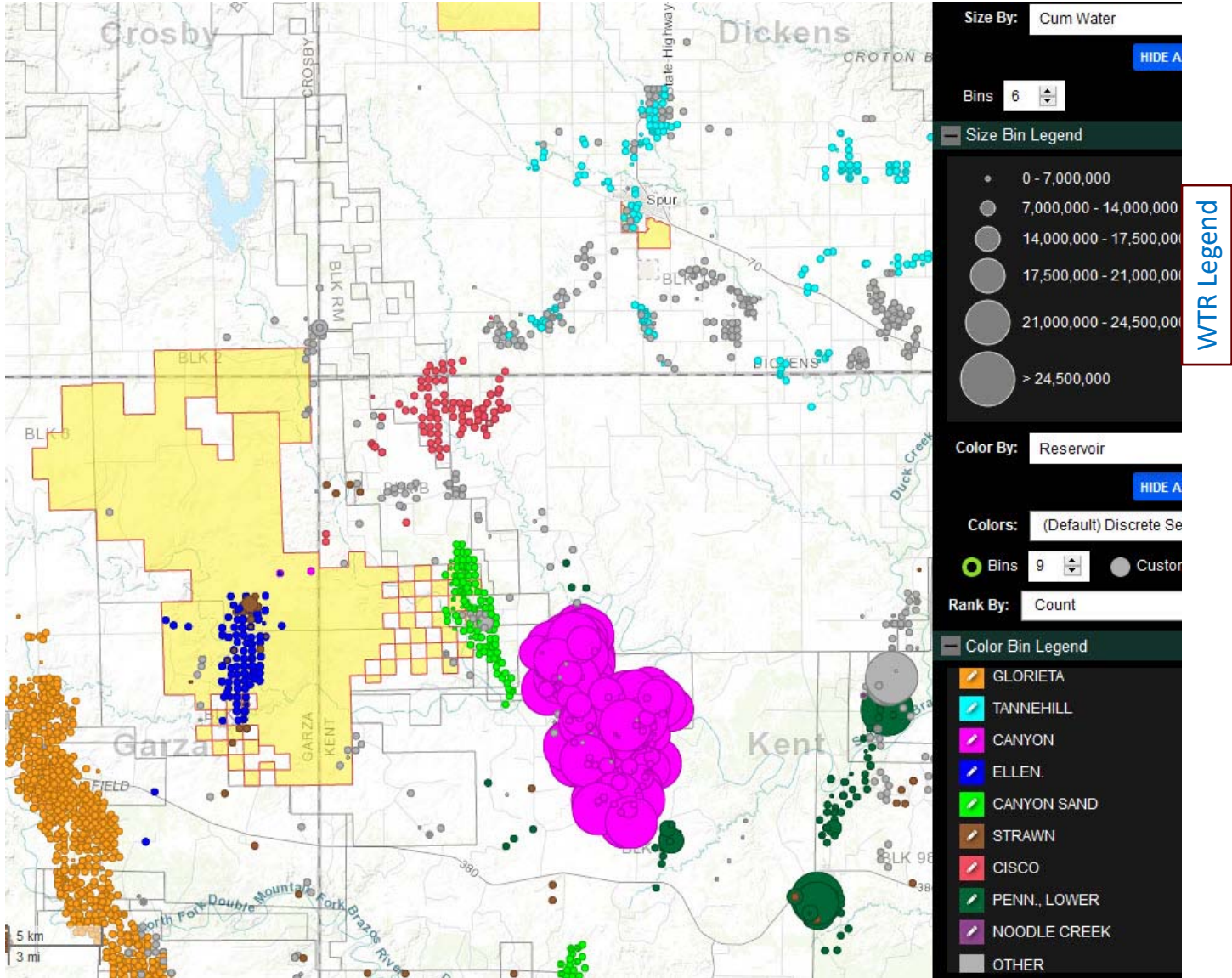
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PRODUCTION by lease:
FIRST 6 MONTHS OIL to MAY 2021
First 6 values may indicate fractured &/or high permeability reservoirs. High production rates from Canyon and Ellenberger carbonates. Canyon and Cisco Sand reservoirs more moderate rates.

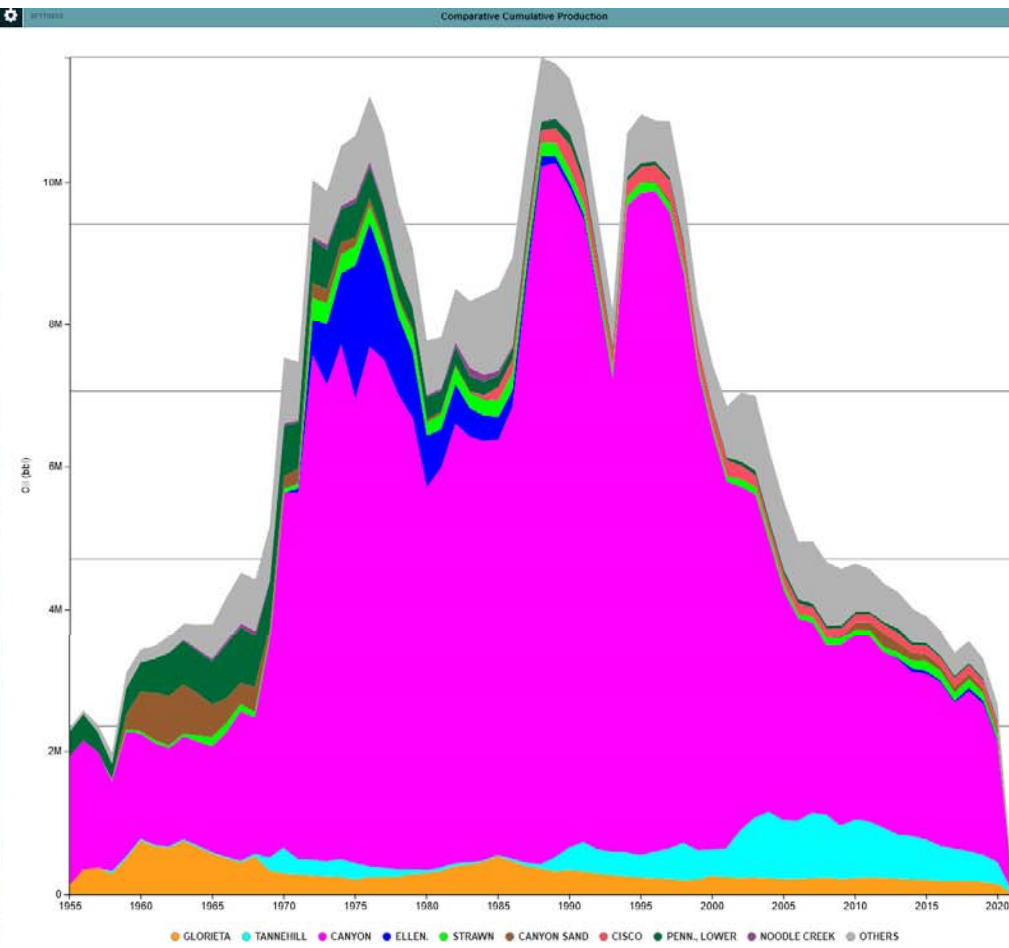
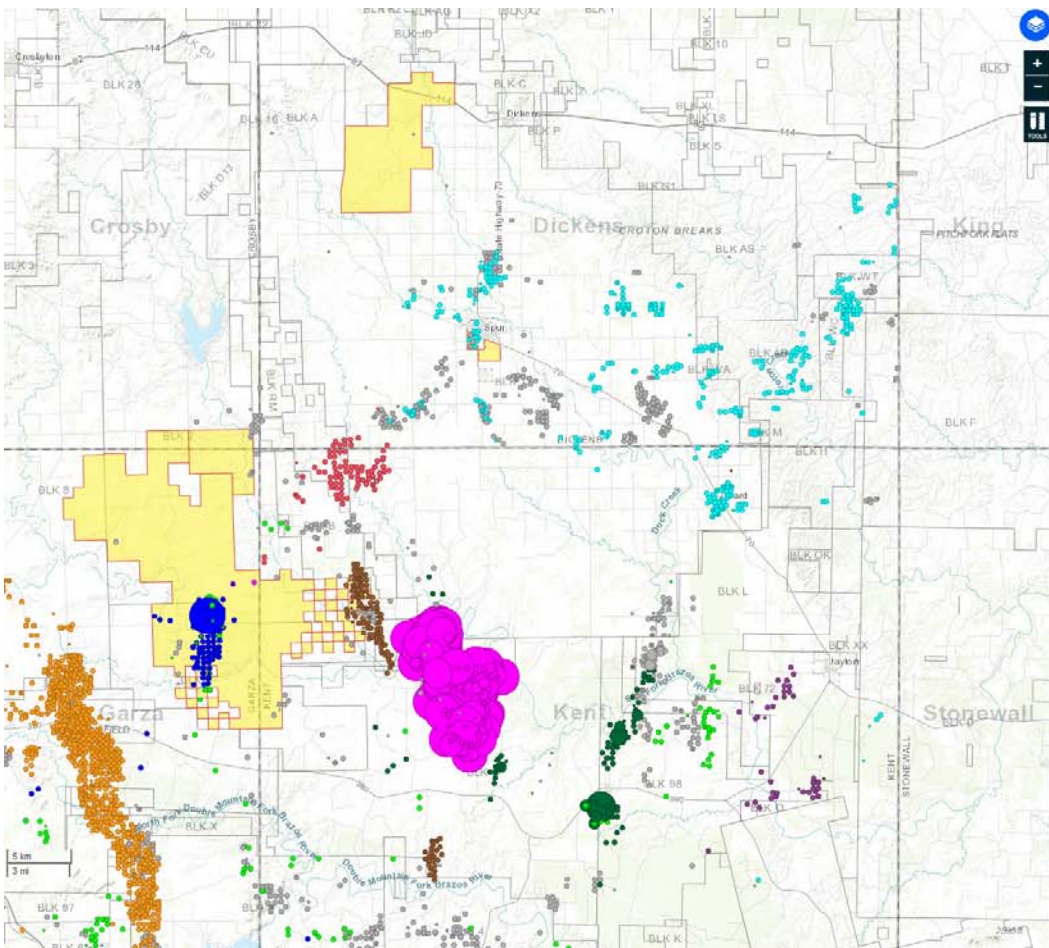


CUMULATIVE
WATER by
PRODUCING
RESERVOIR Spur
Ranch Regional
Area

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COMPARITIVE CUMULATIVE PRODUCTION by RESERVOIR Spur Ranch Regional Area

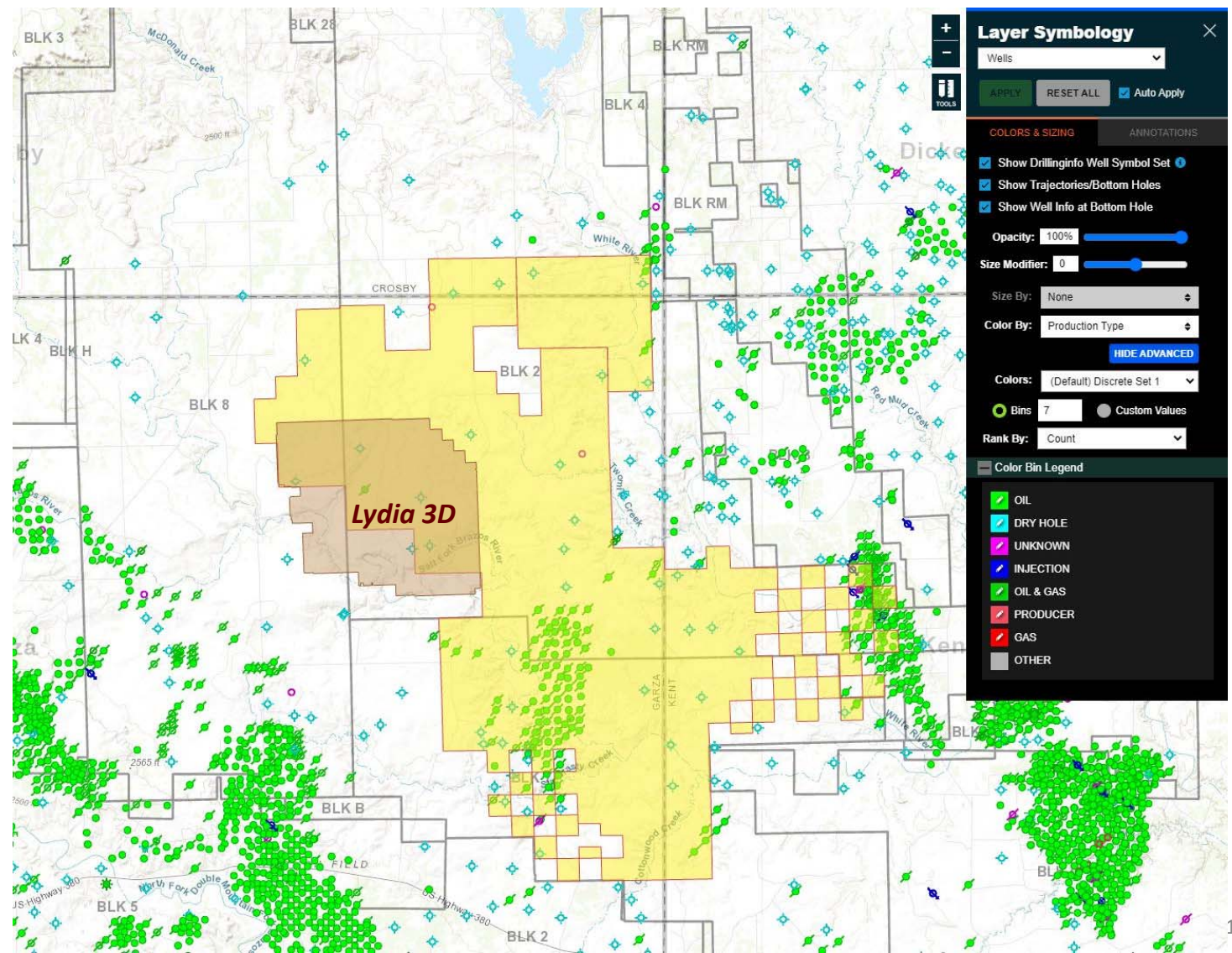


Values dominated by Canyon "reef" reservoir at large Salt Creek Field. Smaller ICBs (Isolated Carbonate Buildups (reefs) may exist on NE Spur – Swenson Ranch Minerals in NE Garza County. Tannehill sandstone & Stockwether limestone play has been a recent target in Dickens County. Soldier Mound field north of Spur has made over 8 MMBL oil.

Lydia 3D Seismic Survey

~ 70% of 3D Survey is on Spur Ranch Minerals

Acquired by Dawson in 2013
Processing by Fairfield
Post- and Pre-Stack volumes available from Seismic Exchange



Lydia 3D Seismic Survey

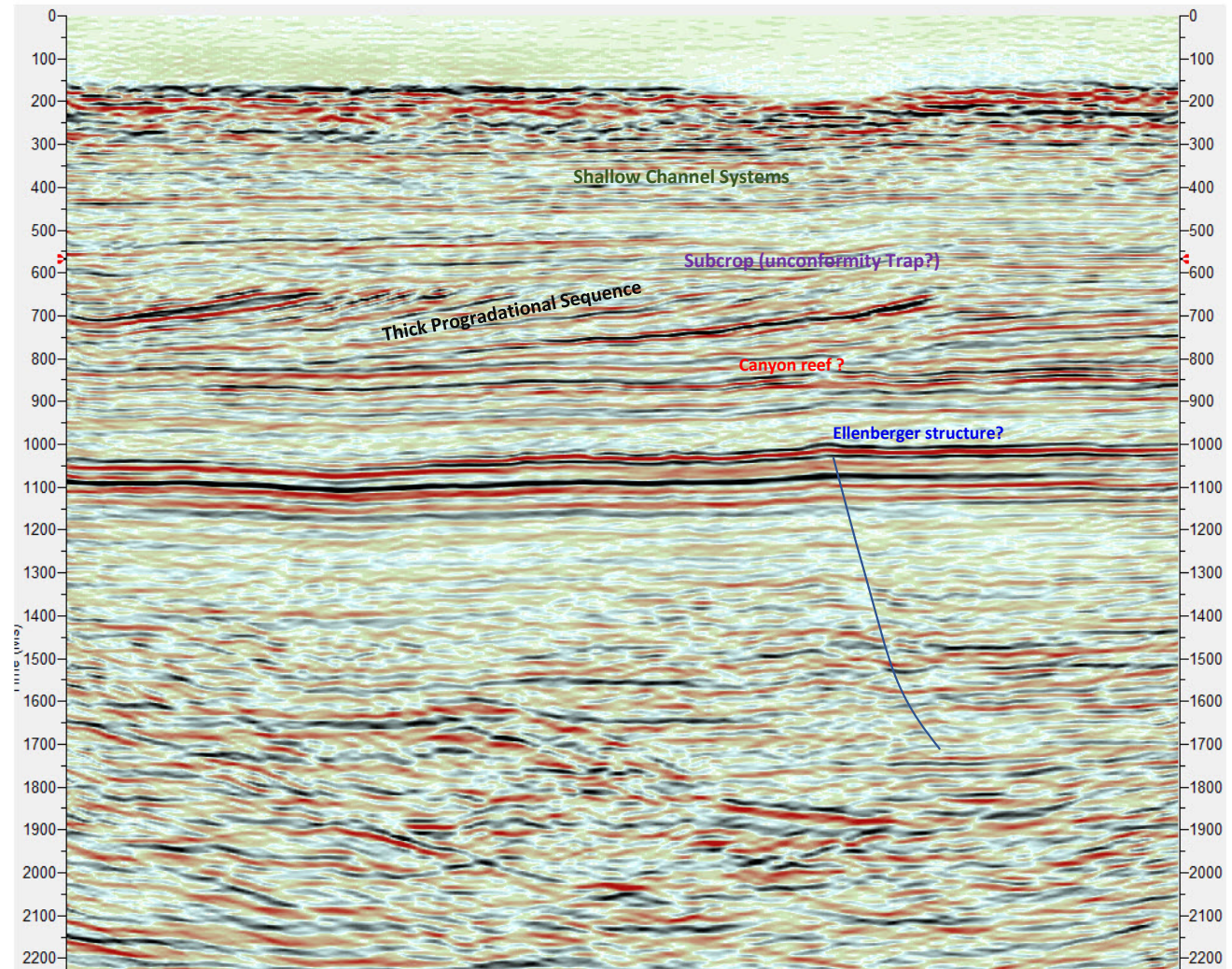
Example vertical seismic section

Processing Sequence

PRODUCT: PRE-STACK MIGRATION WITH FILTER OR
SCALING
DATUM: 2400 FEET REPLACEMENT VELOCITY: 12000 FT./SEC.
PROCESSING

1. Reformat field tapes
2. Build Geometry Databases
3. Pick first breaks
4. Refraction statics modeling
5. TAR
6. X-Spread F-K Enhancement
7. Spectral Whitening
8. Velocity Analysis 2 Passes
9. Residual Statics 4 Passes
10. Time Variant Scaling 500 msec.
11. CDP Stack
12. 3D Pre-stack Kirchhoff Migration
13. BandPass Filter 6-118 Hz. 0 - 3.0 sec
14. Time Variant Scaling 500 msec

Data Sample:



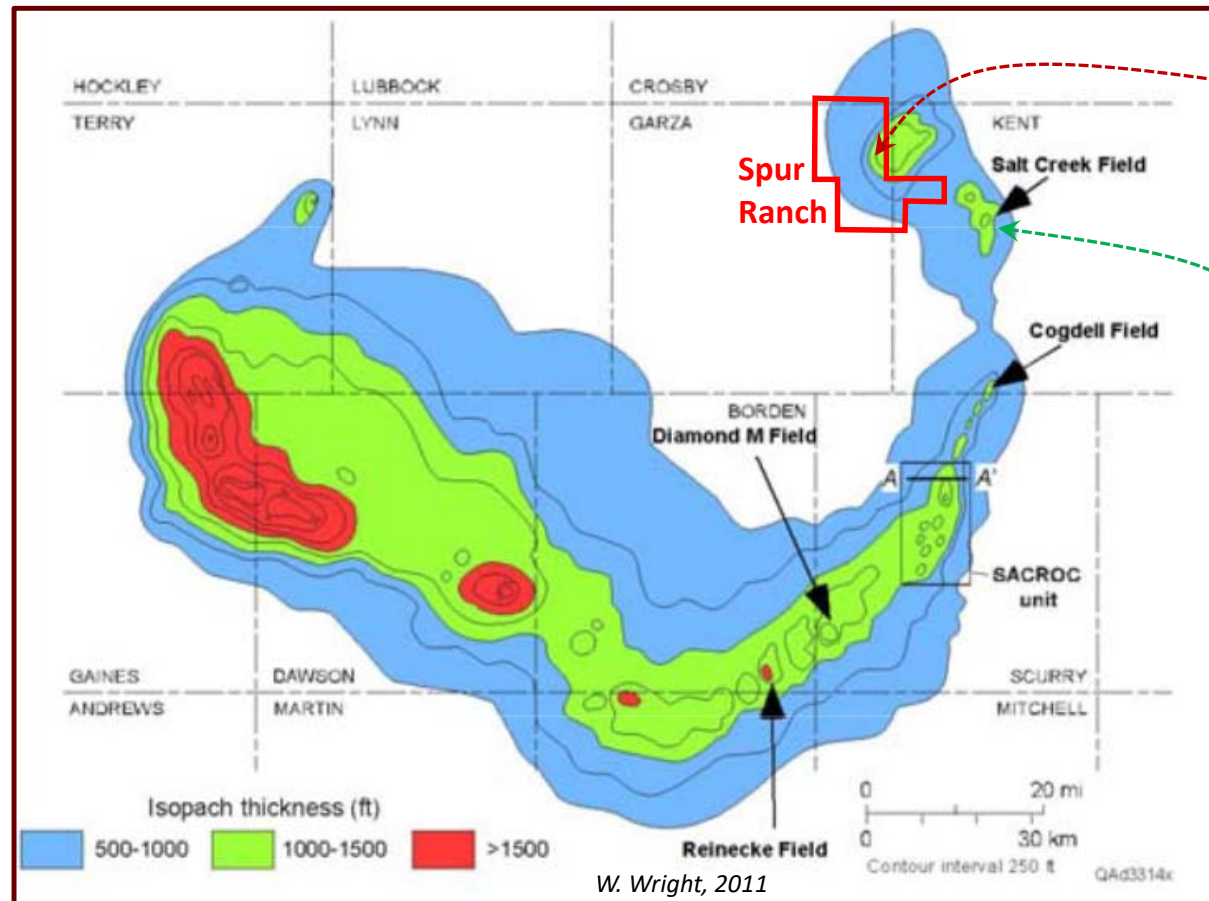
Canyon-Cisco Play Map

Regional isopach (thickness) map of total carbonate thickness in the Horseshoe Atoll area for Canyon – Cisco interval

Increased thickness generally corresponds to increased proportions of Virgilian-age sediments

Seismic data, both existing 2D and the Lydia 3D is very effective in locating optimum drilling locations for Canyon-Cisco ICBs (reefs)

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LEAD AREA:

Eastern Spur Ranch where thick Canyon-Cisco ICBs (Isolated Carbonate Buildups or reefs) is present.

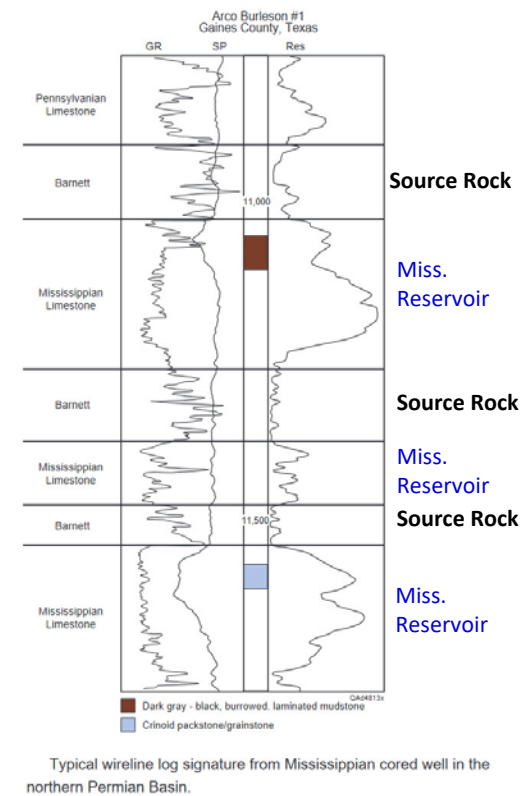
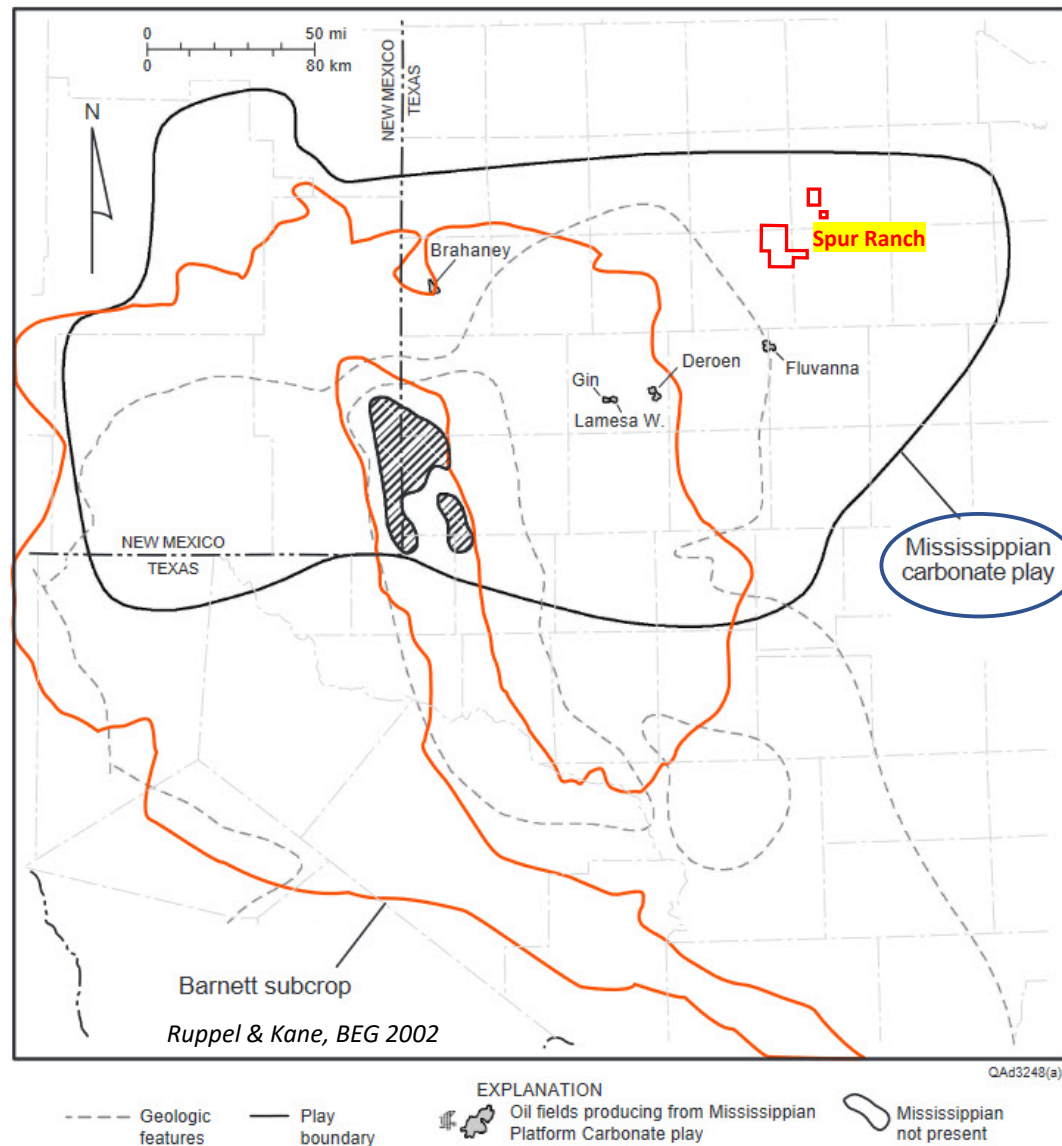
CUMULATIVE OIL PRODUCTION for SALT CREEK field exceeds 420 MILLION BBLs (2021)

March 2021 monthly production at Salt Creek field was 153,971 Barrels of Oil.

Potential Mississippian Platform Carbonate play

Spur Ranch minerals
completely within the
play area.

Very few wells have
tested this play



*An explorationist's dream:
Thick sequence of
interbedded world class
Barnett Source Rock and
Mississippian Platform
Carbonate reservoirs*

2MG
Swenson Minerals Group