2022 Prospect Inventory in South Texas/Texas Gulf Coast

16 Conventional Vertical Study Areas – 3D/2D Seismic and/or Subsurface – Reserves: ~37,050,000 Bo & ~414 Bcfg - ~160 Vertical Wells

2 Unconventional Horizontal Study Areas – Subsurface – Reserves: ~44,000,000 Bo & ~5.98 Bcfg - ~4,300 Horizontal Wells

44+ Individual Prospects - ~4,460 Wells – Reserves: ~81,050,000 Bo and ~420 Bcfg

Thunder Rock Exploration, Inc. is pleased to announce its available Prospects. Most prospects have 3D seismic and subsurface support. Some are only supported by subsurface mapping due to no 3D seismic ever having been shot over the areas. A few could use 3D seismic to verify key components if available but most un-shot prospects are on the edge of available 3D’s. These Prospects are unleased and available for purchase or Joint Venture. Prospect reviews are available at any time. These prospects are subject to prior sale and may be pulled at any time. NDNC required.

Vaquero Development Prospect – Starr County, Texas - VERTICAL
429 Acres – FARMOUT 5 Updip Gas/Condensate Development Wells

- 5 Locations - 3D Seismic Updip Gas/Condensate Development Package.
- Downdip well under Fraced.
- Acreage recently had Title cleared. Could not drill on it until now.
- Targeted Formation: Reklaw.
- Trap: Updip Pinchout with Amplitude Support.
- Sand Thickness: 70' >15% Porosity. Net Section Thickness: 400'.
- Total Depth: 6,500’ – Pressured.
- Estimated Prospect Reserves: 15+ Bcfg and 150,000 Bo.

Berclair Field, East Prospect - 5 Prospects in Texas Gulf Coast

- Area 1: 100 Acres to be leased. Areas 2-5: ~700 Acres to be leased.
- Subsurface support for Vicksburg, Frio and Miocene Oil and Gas within productive structural closure limits of the Berclair Field located in Goliad County, Texas. Proprietary modern Open Hole Log and Sidewall Core Analysis opening up 16 Oil and Gas pays, many with no production history in the Field, are behind pipe in Proprietary well and are newly discovered Oil and Gas Pays in the Field.
- 5 Prospect Package – 11+ Well Potential.
- Targeted Formations: Miocene, Frio and Vicksburg
- Trap: Berclair Field is a 4,000+ acre faulted anticlinal closure. Local traps include: anticlinal closures, stratigraphic sand pinch-outs, multiple up-thrown fault closures all within the structural closure limits of the Berclair Field.
• Sand Thickness: Five 20’+ Thick Miocene Gas Sands, Eleven Plus 4’-25’ Thick Frio Oil and/or Gas Sands, One 10’ Thick Vicksburg Oil/Gas Sand.
• Total Depth: 3,300’
• Total Estimated Prospect Reserves: Area 1: 6.7 Bcfg and 151,000 Bo. Area’s 2-5: 16.8 Bcfg and 800,000 Bo.

Alpha Prospects Study Area – 3 Prospects in South Texas

• 3D seismic and subsurface support for Jackson aged channel oil sand cutting across structural nose with up dip Amplitude pinch-out. Multiple 1950’s and early 1960’s wells with production tests of 1.3 Mmcf/d – 5.0 Mmcf/d and 81 Bo/d from Wilcox Hinnant sands.
• 3 Prospect Package - 9 Well Potential.
• Targeted Formations: Jackson Sand and Wilcox Sands (Hinnant Series).
• Trap: Channel sands pinching out across easterly plunging nose (Jackson Oil Sand).
• Trap: Fault Wedge. (Wilcox Hinnant Sand Series)
• Sand Thickness: ~20’ Jackson Oil Sand and ~150’ Wilcox Hinnant Gas/Condensate Sand.
• Total Depth: 2,000’ (Oil) and 8,800’ Gas/Condensate - non-pressured.
• Total Estimated Prospect Reserves: 1,125,000 Bo – 2,500,000 Bo & 30 – 60 Bcfg.

Beta Prospect Study Area – 1 Prospect in Texas Gulf Coast

• Subsurface control for multiple up-thrown fault closures trapping stacked Frio sands on trend with Major Oil Company oil production plugged out in 1977. 150’ of stacked non-pressured Frio sands expected and 100’ of geo-pressured sands expected. Located on the edge of available 3D’s. Directional drilling candidate.
• 36 Well Potential.
• Targeted Formation: Frio.
• Trap: Multiple up-thrown three way fault closures.
• Sand Thickness: ~250’.
• Total Depth: 9,100’ non-pressured. 9,500’ geo-pressured.
• Total Estimated Prospect Reserves: 8,100,000 Bo & 42.5 Bcfg.

PS Prospects Study Area – 16 Prospects in Texas Gulf Coast

• 3D seismic and subsurface support across Miocene gas field whose production exceeded 800 Bcfg in local area from 19 stratigraphic controlled gas sands. Amplitude support for more isolated sands around flank of old field. Mapping shows lightly tested (1 Well) anticline with Amplitude support pinching out on flank on various intervals and untested on structural high of anticline at various intervals. Oil development potential on one flank of field.
• 16 Prospect Package - 30+ Well Potential.
• Targeted Formation: Miocene.
• Trap: Isolated stratigraphic channel and bar sands separated from the main producing field. Anticlinal development with amplitude support.
• Sand Thickness: ~10’ – 30’.
• Total Depth: 2,000’ - 6,100’ non-pressured.
• Total Estimated Prospect Reserves: 73.53 Bcfg & 3,293,500 Bo.
Epsilon Prospect Study Area – 1 Prospect in South Texas

- Subsurface support for at least 4 stacked Cretaceous Oil and Gas limestone’s on rollover anticline. New technology in area really increasing flow rates with flush production rates of 20-30 Bo/d with sustained rates of 15 Bo/d. No 3D seismic ever shot over area.
- 300+Well Potential. Great Horizontal Project.
- Targeted Formations: Lit, Anacacho, Austin Chalk, Eagleford Benches and Buda.
- Trap: Roll over anticline.
- Limestone Thickness’s: Lit (~20’), Anacacho (~60’), Austin Chalk (~70’), Eagleford Benches (30’), (Buda (~20’).
- Total Depth: 2,000’ non-pressured.
- Total Estimated Prospect Reserves: 4,365,400 Bo & 5.98 Bcfg.

Epsilon Extension Prospect Study Area – 1 Prospect in South Texas

- Subsurface support for very large oil and gas productive area in the Cretaceous Limestone’s. New technology in area really increasing flow rates with flush production rates of 20-30 Bo/d with sustained rates of 15 Bo/d. No 3D seismic ever shot over area.
- 4,000+ Well Potential. Great Horizontal Project.
- Targeted Formations: Lit, Anacacho, Austin Chalk, Eagleford Benches and Buda.
- Trap: North – South trending plunging nose along downthrown side of regional fault.
- Limestone Thickness’s: Lit (~20’), Anacacho (~45’), Austin Chalk (~70’), Eagleford Benches (30’), (Buda (~20’).
- Total Depth: 2,000’ non-pressured.
- Total Estimated Prospect Reserves: 40,000,000 Bo.

Zeta Prospects Study Area – 3 Prospects in South Texas

- Some 3D seismic and subsurface support for 3 up-thrown fault closures. Down-dip show logs from 1940’s and 1950’s. 10+ square mile 3D shoot needed to fully image fault blocks. 2D available for purchase.
- 3D seismic never been shot over the ranch.
- 20+ Well Potential.
- Up thrown Fault Closures – 3 separate structures possible.
- Sand Thickness: Crockett (~30’), Queen City Upper (~100’), Queen City Lower (~30’)
- Total Depth: 6,000’ non-pressured.
- Total Estimated Prospect Reserves: 7,056,000 Bo & 8.7 Bcfg

Eta Prospects Study Area – 3 Prospects in South Texas

- 3D seismic and subsurface support for fault wedge/horst block with great down dip show log from 1951. Possible extension of trapping antithetic fault to north extending trap size that needs additional 3D seismic to confirm. Localized strong Amplitude development in Lower Queen City along downthrown side of fault. Reklaw up-thrown fault closure with Amplitude support and pinch out visible on 3D seismic. Behind pipe pay in local area wells.
- 3 Prospect Package - 14 Well Potential.
- Targeted Formations: Yegua, Cook Mountain, Queen City and Reklaw.
- Trap: Fault wedge/Horst block and up-thrown three way fault closure along antithetic fault in Upper Queen City. Stratigraphic sand development on downthrown side of fault in Lower Queen City. Up-thrown fault closure with Amplitude support and pinch out visible on 3D.
- **Sand Thickness’s:** Yegua (~10’), Cook Mountain (~25’), Queen City Upper (~100’) and Lower (~30’) Reklaw (~60’).
- **Total Depth:** 5,300’, 5,500’ and 5,800’ non-pressured.
- **Total Estimated Prospect Reserves:** 4,262,000 Bo & 30.23 Bcfg.

**Theta Prospect Study Area – 1 Prospect in South Texas**

- 3D seismic and subsurface support for deeper sand trapped in old plugged out oil field revealed by modern sidewall core analysis and production (>100 Bo/d) in local area on up-thrown fault closure. Untested up-thrown three way fault closure on anthithetic fault high structurally to field pays. Behind pipe pay in local area wells. New sand possible on structure with Amplitude support.
- **6 Well Potential.**
- **Target Formations:** Yegua, Cook Mountain, Queen City.
- **Trap:** Up-thrown three way fault closure.
- **Sand Thickness’s:** Yegua (~10’), Cook Mountain (~25’), Queen City (~100’).
- **Total Depth:** 6,000’ non-pressured.
- **Total Estimated Prospect Reserves:** 1,682,750 Bo & 11.25 Bcfg.

**Iota Prospect Study Area – 1 Prospect in South Texas**

- 3D seismic and subsurface support for multiple areas of up-thrown fault closures on three separate faults with good down-dip show well with behind pipe pay but producing from deeper zone. Behind pipe pay in local area wells.
- **4 Well Potential.**
- **Target Formations:** Yegua, Cook Mountain, Queen City.
- **Trap:** Up-thrown three way fault closures.
- **Sand Thickness’s:** Yegua (~10’), Cook Mountain (~25’), Queen City (~100’).
- **Total Depth:** 5,000’ non-pressured.
- **Total Estimated Prospect Reserves:** 2.70 Bcfg & 675,000 Bo.

**Kappa Prospect Study Area – 1 Prospect in South Texas**

- 3D seismic and subsurface support for multiple up thrown fault closures along structural ridge. Re-entry of down dip well last year resulted in heavy gas flow/flare with 7,000# flowing pressure. ~200’ of structure can be gained from this down dip show well to top of structure as yet undrilled. Re-entry attempt failed due to twisted off BHA which was never recovered. Stacked Frio gas/condensate pays expected.
- **6+ Well Potential.**
- **Target Formation:** Frio (Marg. tex – Nodosaria blan).
- **Trap:** 3 up-thrown fault closures.
- **Sand Thickness’s:** 300’+
- **Total Depth:** 11,000’ Directional - Pressured.
- **Total Estimated Prospect Reserves (All Three Fault Blocks):** 492.3 Bcfg and 12,300,000 Bo.

**Lambda Prospects Study Area – 4 Prospects in South Texas**

- 3D seismic and subsurface support for multiple channel sands pinching out across a structural nose coming off the flank of a large faulted anticline with stacked Frio and Vicksburg oil and gas sands. Lower Queen City/Reklaw faulted anticline (Turtle Structure) with Class III AVO anomaly.
- **4 Prospect Package - 17 Well Potential.**
• Targeted Formations: Vicksburg, Frio and Lower Queen City/Reklaw.
• Trap: Channel sands pinching out across structural nose. Faulted anticline deeper prospect.
• Sand Thickness’s: Vicksburg (~20’) and Frio (~20’). Lower Queen City/Reklaw (~50’).
• Total Depth: 6,400’ non-pressured. 12,000’ geo-pressured.
• Total Estimated Prospect Reserves: 158.78 Bcfg & 5,171,000 Bo (Could be much oilier).

Mu Prospect Study Area – 1 Prospect in South Texas

• 3D seismic and subsurface support for up-thrown fault wedge closure.
• 3 Well Potential.
• Target Formation: Upper Queen City and Lower Queen City
• Trap: Up-thrown three way fault wedge closure.
• Sand Thickness’s: Queen City (~100’).
• Total Depth: 8,500’ non-pressured or 10,500 pressured.
• Total Estimated Prospect Reserves: Upper Queen City: 1,161,000 Bo & 2.0 Bcfg.
• Lower Queen City: 1.56 Bcfg & 31,000 Bo.
• Reklaw: 4.4 Bcfg & 110,000 Bo.

Nu Prospect Study Area – 1 Prospect in South Texas

• 3D seismic and subsurface support for up-thrown fault wedge closure with counter regional dip.
• 5 Well Potential.
• Target Formation: Queen City
• Trap: Up-thrown three way fault wedge closure.
• Sand Thickness’s: Queen City (~100’)
• Total Depth: 5,800’ non-pressured.
• Total Estimated Prospect Reserves: 772,000 Bo & 2.0 Bcfg.

Xi Prospect Study Area – 1 Prospect in South Texas

• 3D seismic and subsurface support for downthrown fault wedge closure.
• 10 Well Potential.
• Target Formation: Upper Queen City and Lower Queen City
• Trap: Downthrown fault wedge closure.
• Sand Thickness’s: Queen City (~100’).
• Total Depth: 5,850’ non-pressured.
• Total Estimated Prospect Reserves: Upper Queen City: 1,528,000 Bo & 4 Bcfg. Lower Queen City: 5.73 Bcfg & 115,000 Bo.
• Multiple Reklaw Amplitudes untested in immediate area. 5 Bcfg & 75,000 Bo.

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