Why is everyone excited about São Tomé & Príncipe?

Matt Tyrrell - Principal Geoscientist, PGS
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1. Where is São Tomé & Príncipe?

2. Exploration - activity after a decade of quiescence.

3. The 4 key reasons why explorers are excited.

4. Where might the first offshore well be drilled?
Where is São Tomé & Príncipe?

- São Tomé & Príncipe EEZ was formed in 1978.
- Territorial waters ratified by UNCLOS in 1997.
- Tripartite petroleum neighborhood
- Why is everyone excited about it?
Agenda

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1971 to 1981 – early onshore exploration

- Ball & Collins - exploration license to the onshore.
- Drill 2 exploration wells (1973).
- Wells drilled near surface seeps.
- Drilling abandoned due to volcanic rocks.
1989 to 1994 – continued onshore exploration

- Island Oil - exploration license to the onshore.
- Wells drilled near surface seeps.
- Both wells penetrated beneath volcanic layers but were dry.

Location unknown, but a partial Onshore/offshore block at ~9,000 km²
1997 to 1998 – offshore ratification and permitting

- EEZ ratified by UNCLOS
- ERHC & Procura- exploration license to the onshore & offshore.
- Studies by ERHC show that prospectivity lies offshore, not on the islands.

200 mile Exclusive Economic Zone ratified by UNCLOS (1997)
1998 to 2001 – offshore seismic & technical evaluation

- Mobil & STPetro sign 18 month technical assistance agreement.
- Draw up 22 offshore blocks.
- 2,732 line km 2D seismic acquired to high-grade areas
1998 to 2001 – offshore seismic & technical evaluation

- Further 11,277 line km 2D seismic acquired over high-graded areas.
- Treaty to form the Nigeria – São Tomé & Príncipe Joint Development Zone (JDZ).
- 3,000 sq. km. MC3D acquired in JDZ
2000 to 2012 – a decade of exploration quiescence

- 12 year hiatus with no exploration licenses.
- 14,000 line km recently acquired seismic.
- Passive military coup – only lasted 1 week.
- Unlikely to have lasting effect on energy investments.
2012 to 2015 – renewed optimism and excitement!

- ERHC renew license to Blocks 11 & 4
- Equator Exploration license Blocks 5 & 12
2012 to 2018 – renewed optimism and excitement!

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- Kosmos farm-in to Block 12
- Sonangol farm-in to Block 2
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- Kosmos farm-in to Block 5 & 11
- Kosmos license Blocks 10 & 13
Comparison of 2000 to 2012 with 2012 to 2018 – why is everyone excited about São Tomé & Príncipe?

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- Kosmos license Blocks 10 & 13

10 Block licenses
4 farm-ins

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1. Continental & transitional crust provide source and structure

2. Syn-kinematic source rocks may be mature for oil.

3. Thick sand packages fed from long-lived fluvial systems

4. Sub-Akata Shale Cretaceous plays beneath the Niger Delta
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Reason 1: Continental & transitional crust provide source and structure

Possible Oceanic Crust

Inversion structure

Kribi Fracture Zone

Possible Continental Crust

Block 4

Block 5

Early Syn-kinematic Fill

Late Syn-kinematic Fill
Reason 1:
Continental & transitional crust provide source and structure
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Reason 2:
Syn-kinematic source rocks may be mature for oil
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Reason 3: Thick sand packages fed from long-lived fluvial systems
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- PSTM Enhanced Restricted Gradient (Far-Near) x Far
- Block 5
- Rio Muni influence
- Transform structure
- Kribi Fracture Zone
- Syn-kinematic Fill
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Conclusions

2012 to 2018

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2000 to 2012
Thank You

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