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E&P IN SUB-SAHARAN AFRICA: 2018-2019

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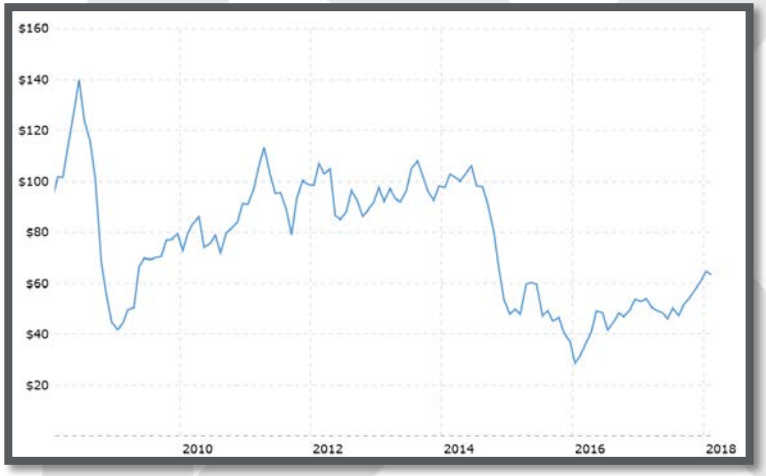
INTRODUCTION

Entered the next phase of the oil price cycle

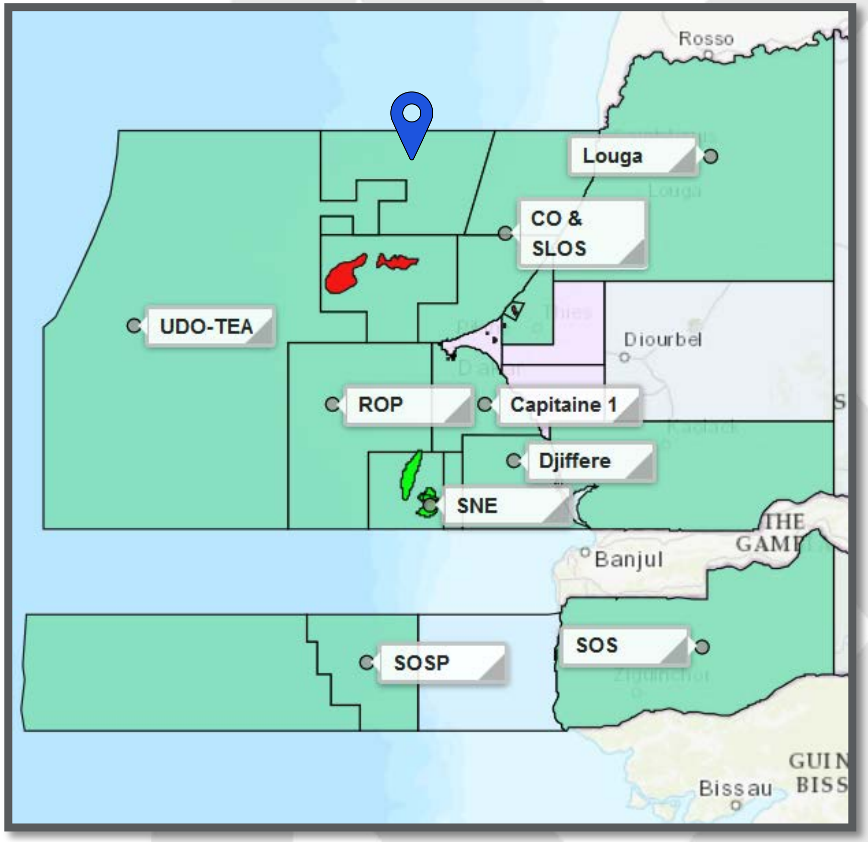
- Oil companies have generally either successfully reduced operational costs and budgets or gone under
  - Service costs significantly reduced
  - Great time for companies with cash to be undertaking exploration and development programmes
  - Seismic/rig companies still feeling strain

- Beginning to see more awards, acquisitions, farm-ins
  - Driven by majors/supermajors
  - Independents with healthy cashsheet will follow
  - Will lead to increase in seismic activity/drilling
    - Will *eventually* result in higher prices
  - And a renewal of the jobs market
    - Important for future of industry



SENEGAL

First mover advantage now gone



- New Petroleum Code in the making
  - Bid round planned H1 2019?
    - 10 blocks to be available
  - Government announces only majors will be awarded new acreage

- Total awarded ROP & UDO-TEA May 2017
  - ROP award still disputed by APCL
  - Seismic acquired Q2 2018
  - PETRONAS farm-in August 2018
  - Drilling 2019?
  - UDO PSC
    - 10,000 sq km area to be selected

- Cairn/Woodside/FAR SNE development
  - 2C recoverable resources 563MMbo, + gas (~1.3 Tcf)
  - FID in H1 2019? First Oil in 2021-2023
    - FAR/ConocoPhillips dispute

- BP/Kosmos blocks
  - FID for Tortue project expected end-2018
  - Further exploration drilling under consideration for 2019

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THE GAMBIA

Growing interest from oil companies

- Government requested information from parties interested in acquiring open blocks
  - All acreage available
    - APCL dispute regarding A1 & A4 ongoing
  - Government now reviewing submissions & will invite its chosen parties to negotiate for licences

- PETRONAS farm-in with FAR & Erin Energy (blocks A2 & A5)
  - FAR planning Samo 1 in October 2018
    - P50 unrisked prospective resources – 825 MMbo
    - 55% CoS (FAR estimates)
    - Erin Energy bankruptcy

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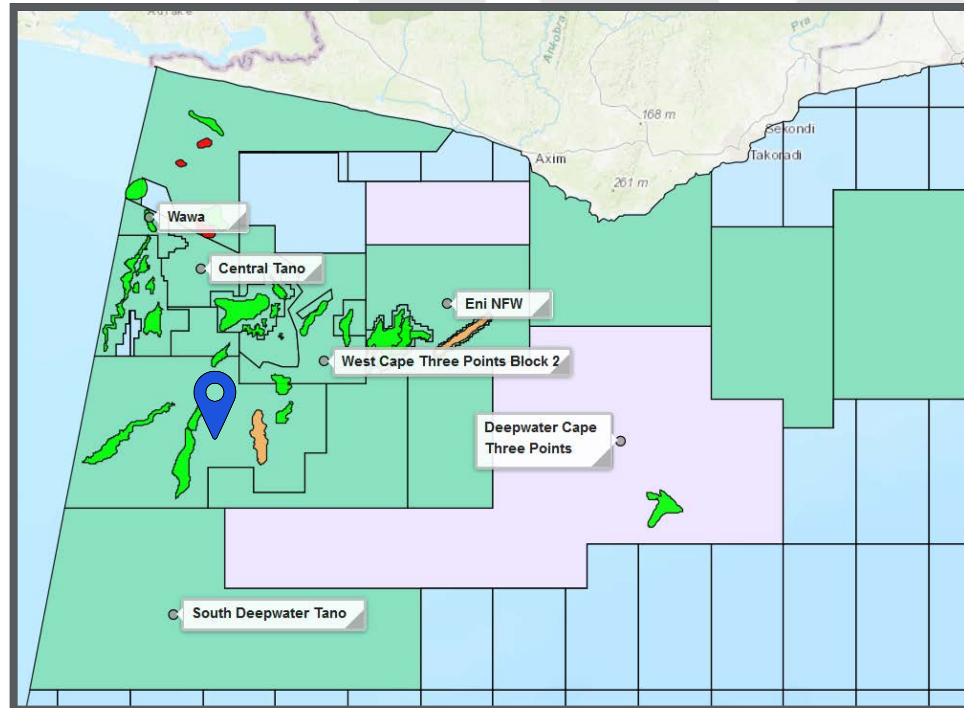
GHANA

New phase of exploration

- ExxonMobil awarded Deepwater Cape Three Points
  - Local partner to be identified before licence ratified

- Petroleum Code 2016 states bid rounds must be held going forward
  - 2018 Licensing Round planned
    - To be launched 5 October
    - Six blocks to be made available
    - 3 via competitive bidding



- Multiple farm-ins available
  - Springfield – WCTP Block 2
    - NFW in 2019?
  - AMNI – Central Tano
    - 2 planned wells before 2020
  - AGM Petroleum – South Deepwater Tano

- Aker Energy to commence appraisal drilling in October 2018 on DT/CTP

- Eni to drill NFW?

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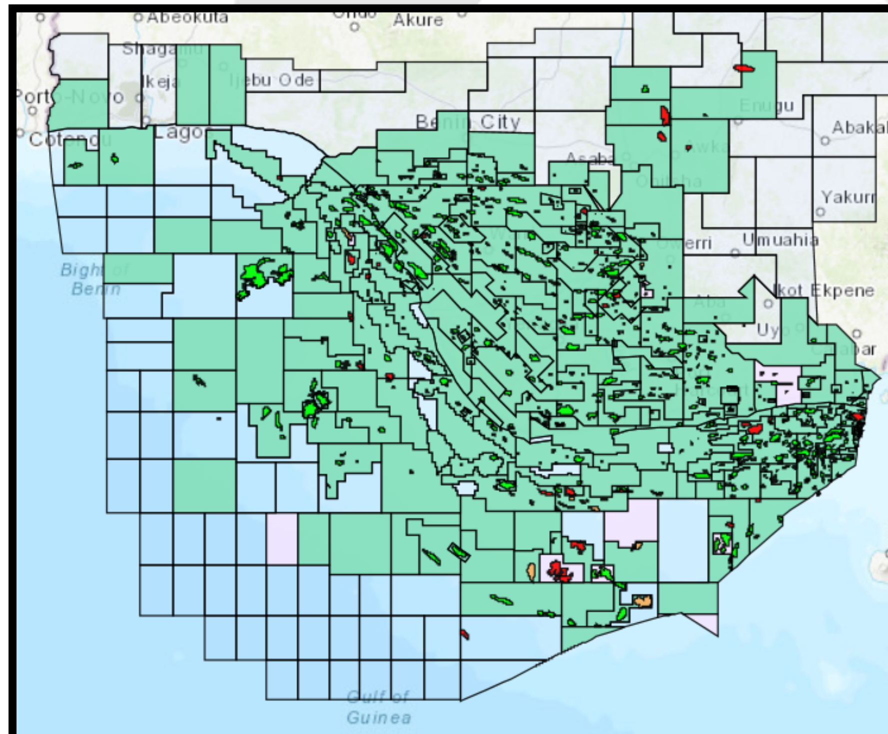
NIGERIA

Another electoral cycle almost over: PIB still not passed

- Presidential elections February 2019
- Petroleum Industries Bill split into four parts
  - Petroleum Industries Governance Bill passed by Senate & House of Representatives
    - President Buhari refuses to sign it off
  - Petroleum Industries Administration, Fiscal and Host Communities Bills published

- Nigerian production has declined, due to terrorism & lack of investment
  - IOCs are not expected to invest significantly until PIB passed

- Future deepwater licensing round?
  - Multi-client seismic planned



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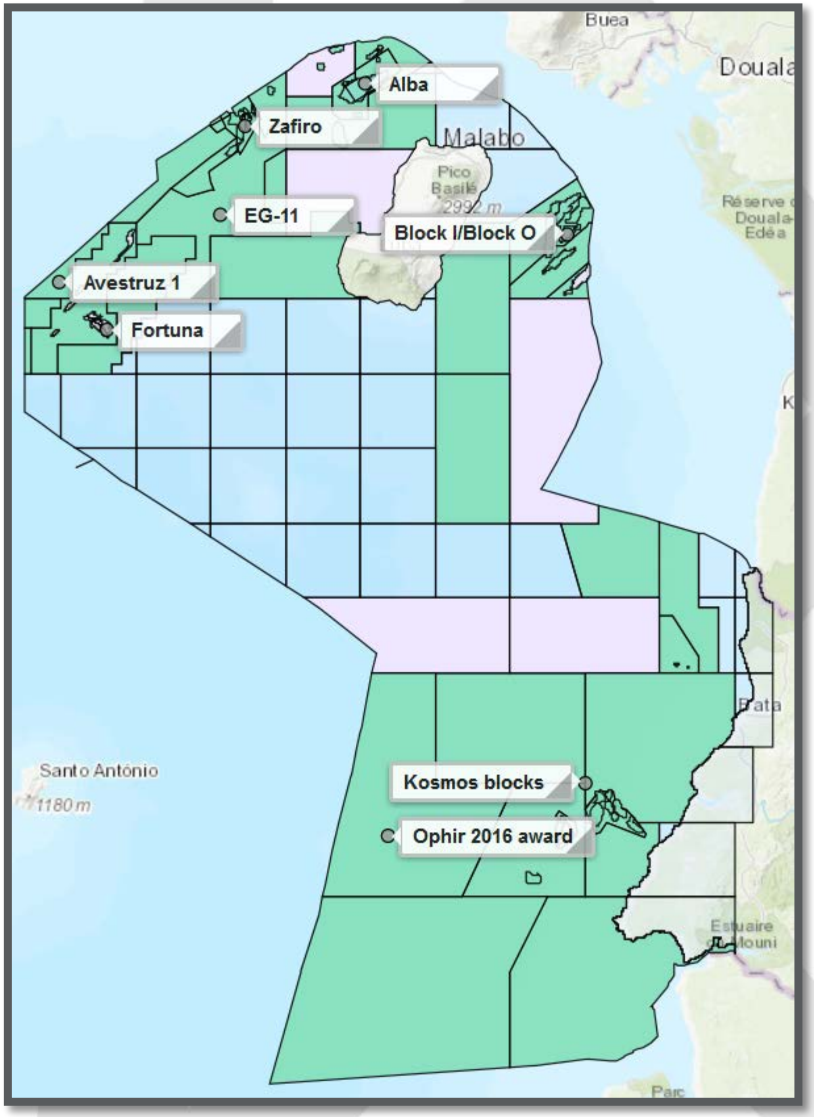
EQUATORIAL GUINEA

Seeking to expand regional influence

- Demanding IOCs met work commitments & local content requirements
  - Renewals could be refused
- New Licensing Round in 2019
  - Previous round only resulted in one award
    - Government more successful in attracting partners through direct negotiations
- LNG developments
  - Noble signs agreement for Alen gas (Block I/O) to be processed at EGLNG plant
  - Ophir Fortuna project fails to attract funding
    - Licence expires December 2018



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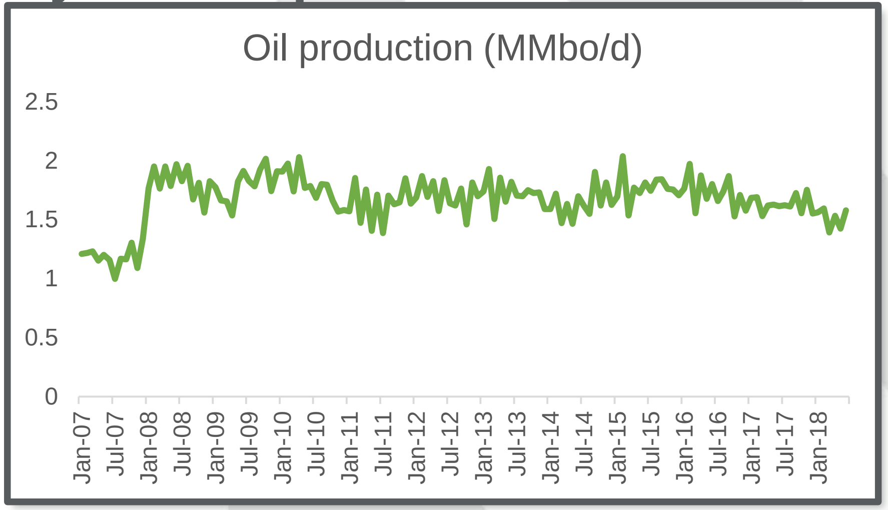
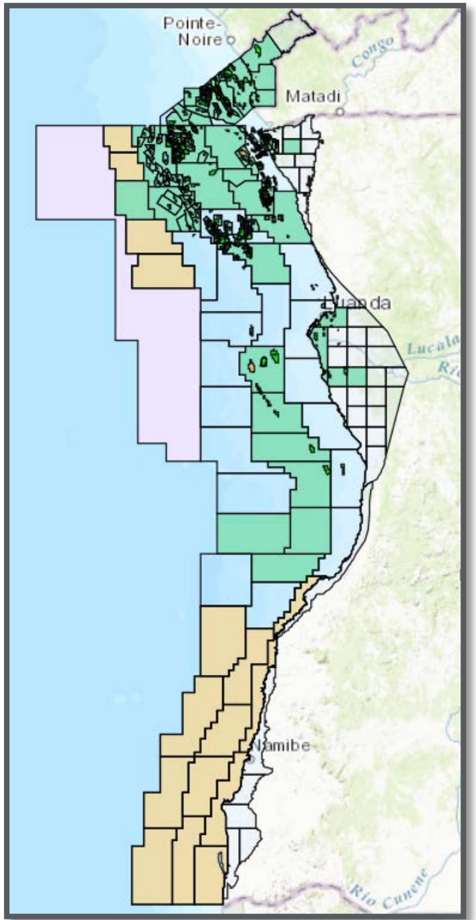
ANGOLA

Action needed if economic recovery to take place

- Angola production expected to begin decline after 2020
  - Currently around 1.5 MMbo/d
  - Expected to be 1 MMbo/d by 2023





- Three new laws passed
  - Addressing development of marginal fields
  - Clarifying gas terms & ownership
  - New regime for additional exploration in development areas

- New Oil & Gas agency created
  - To take over from Sonangol as concessionaire
  - Will be responsible for future bid rounds
  - Transition to take place through to December 2020
  - Reorganisation at Sonangol
    - Sonangol divesting other business areas

- Future licensing round?

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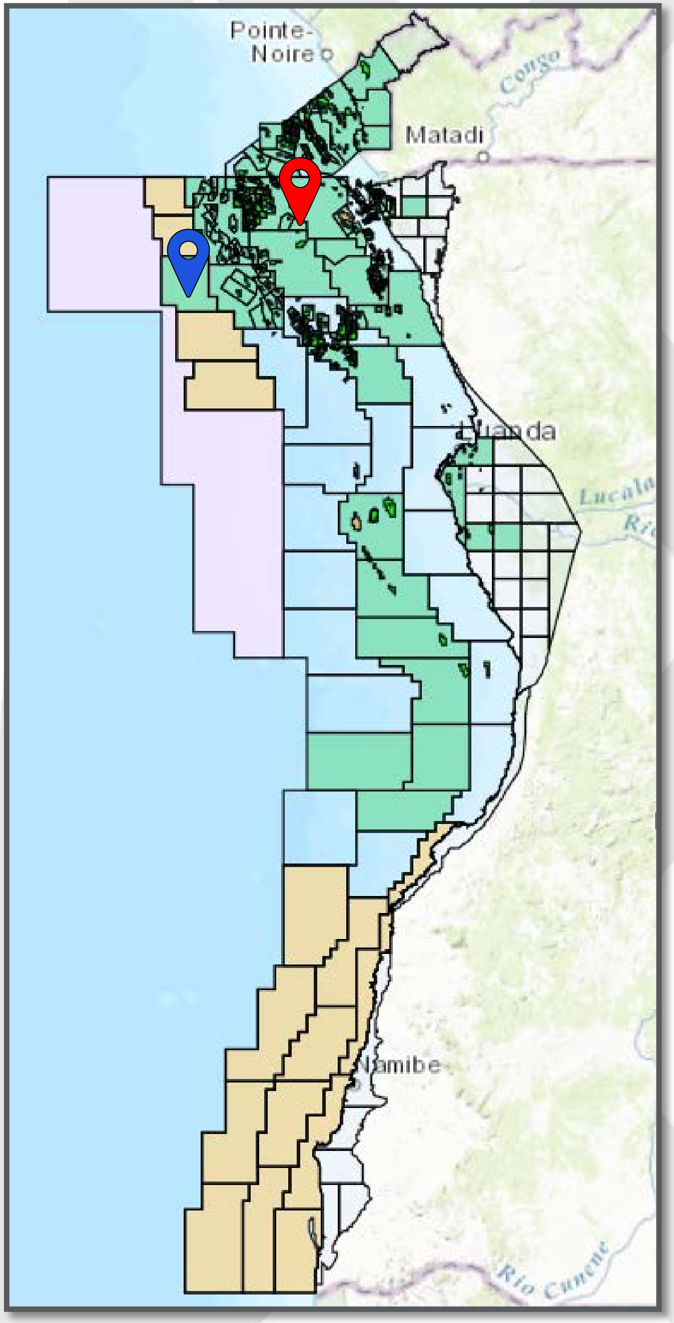
ANGOLA

Will investors be reassured by changes?

- Don’t expect to see new exploration in Kwanza Basin in near-term future
  - Activity likely to be focused in Lower Congo
- Sonangol/Cobalt dispute settled
  - Sonangol hosting “mini bid round” for Block 20 & 21
- Total enters Block 48/16 with Sonangol
  - Commitment well in first 2 years
    - However 2 year extension now granted
  - Also agrees contractual terms for Zinia Phase II (Pazflor, Block 17)
    - First new development project since downturn
- Eni oil discovery
  - Kalimba 1, Block 15/06
  - 230-300 Mmbo *in-place* in Miocene sandstones



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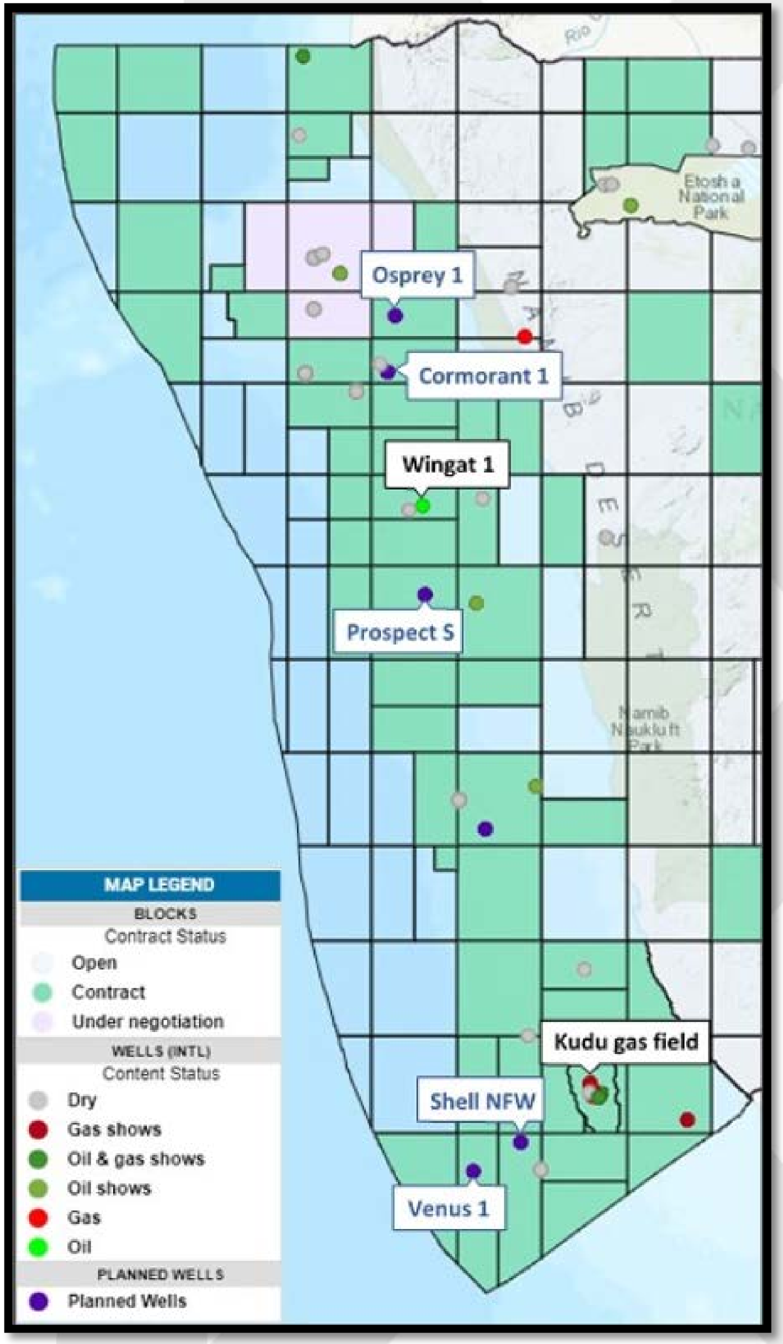
NAMIBIA

Renewed interest

- Namcor good at extending/modifying work commitments
  - Also hosted data promotions through 2017

- Supermajors beginning to grow footprint
  - Still plenty of farm-in opportunities available

- Upcoming wells
  - Tullow – Cormorant 1, PEL 37 – Spudded
  - Chariot – S1, PEL 71
    - Chariot secures funding
  - Eco Atlantic/Tullow – Osprey 1, PEL 30
    - Subject to Tullow completing second part of farm-in
  - Total/Impact – Venus 1 – PEL 56 - 2019?
  - Shell – PEL 39 – Planned 2020?
  - Serica – PEL 47
    - Subject to farm-out



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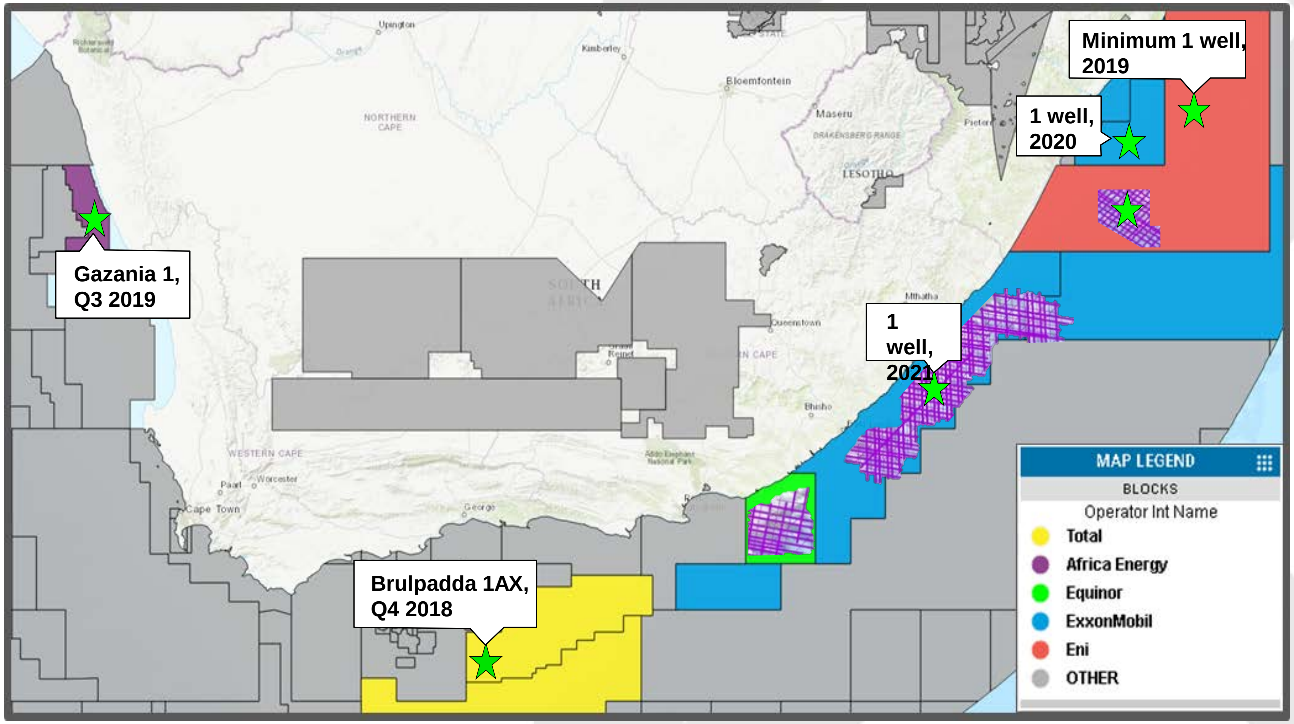
SOUTH AFRICA

Political upheaval, but lots of E&P activity

- Political upheaval
  - New President & Minister of Mineral Resources & Energy
  - Delays to legislation (MPRDA)
  - Country still not close to meeting energy demand
- Majors betting on deepwater
  - ExxonMobil, Equinor, Total & Eni taking offshore acreage
- Total: re-drill of Brulpadda 1AX
  - Block 11B/12B, end 2018 / early 2019, rig contracted
- Eni, ExxonMobil & AEC planning wells
  - Will depend on successful farm-outs/passage of legislation



CONCLUSIONS

CONCLUSIONS

- MSGBC Basin only major area of E&P activity through downturn
  - Operations elsewhere were generally depressed

- E&P activity is now picking up
  - Supermajors, some majors and "Asian majors" acquiring vast amounts of acreage
    - Including Frontier & deepwater areas
      - Ultra-deepwater MSGBC, deepwater Cote d'Ivoire, STP, South Africa, Madagascar
  - Expect larger independents to follow suit
    - Minnows not yet returned to the game

- Drilling/seismic activity expected to increase in 2019
  - Including in frontier areas
    - eg, Namibia & South Africa

- East Africa still sluggish

- Many government remain behind the curve
  - eg, Angola & Nigeria still resolving legislation issues dating to before downturn
    - Severely hampers E&P operations

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THANK YOU

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