



Petroleum Company
of Trinidad and Tobago Limited

Role of the National Oil Company in the Development of the Energy Sector

Presented by:
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Chairman, PETROTRIN

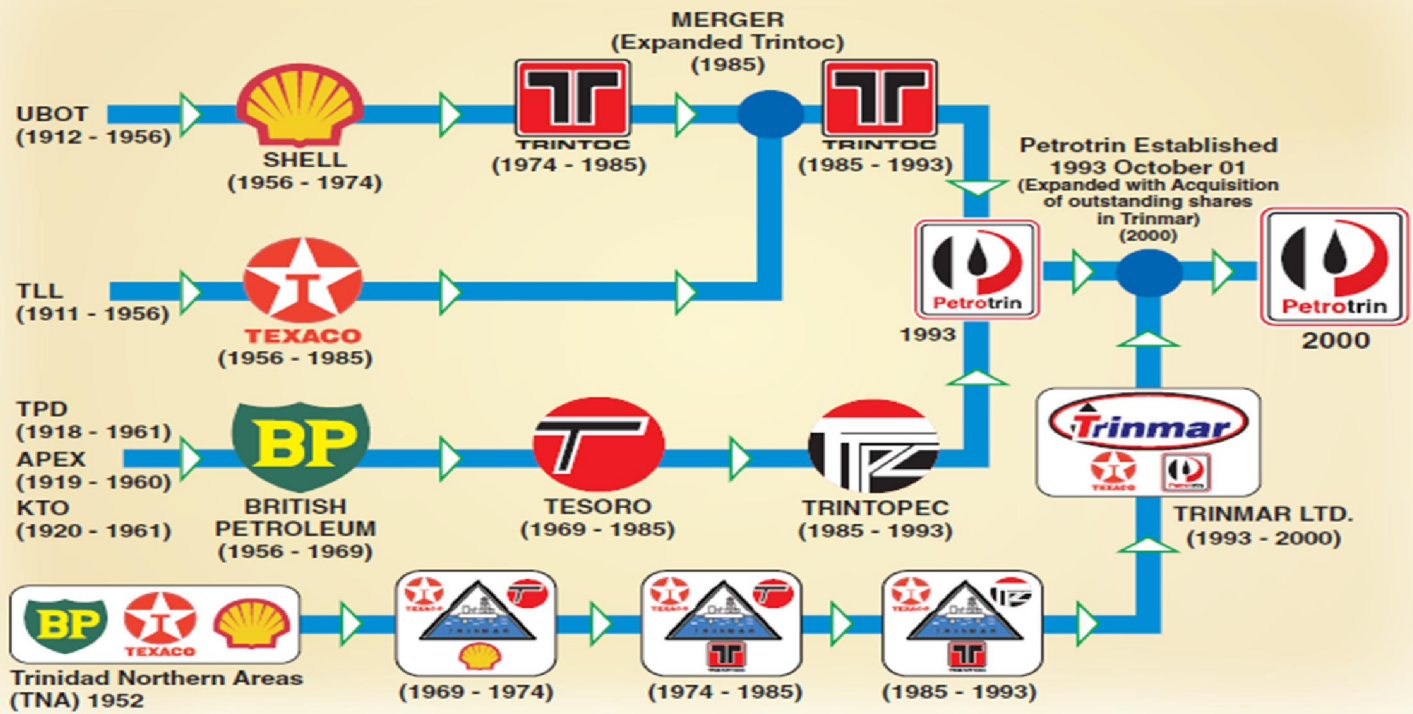
Energy Caribbean Conference 2016

Outline

- ♦ **Petrotrin at a Glance**
- ♦ **Roles of National Oil Companies**
- ♦ **Delivering Value...Upstream**
- ♦ **Delivering Value...Downstream**
- ♦ **Opportunities Abound**



Evolution of Petrotrin



Petrotrin
at a
Glance

About Us

Exploration & Production

- 45,116 BOPD
- Land: 84 MMBO (proved)
- Marine: 46.6 MMBO (proved)
- 203.9 BSCF gas reserves (proved)

Refining & Marketing

- 160,000 BPD Conversion Capacity

Acreage

- 189,000 acres Onshore
- 890,240 acres Offshore

Contributions to Trinidad & Tobago

•Contributions across all sectors of economy - royalties & taxes

•Largest crude oil producer in Trinidad & Tobago

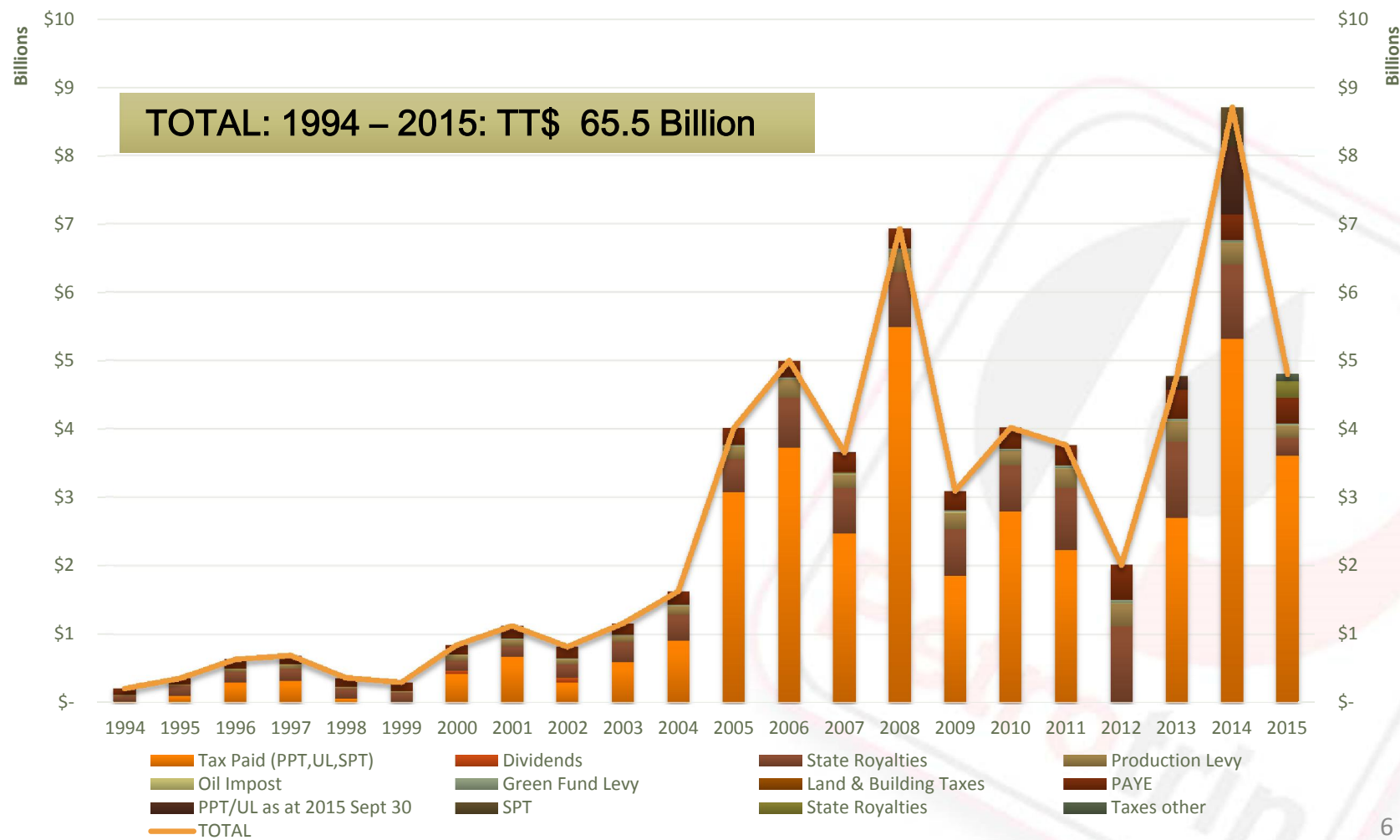
Second largest real estate holder in the country

Major purchaser of local goods and services

Supplier to the local market with LPG, gasoline, diesel, aviation fuel and bunker fuel

Support, sponsor and partner with organizations in sport, culture, education, environment and community empowerment

Contributions (Cont'd): Actual Cash Payments 1994 – 2015 TT\$ Billions





Roles of National Oil Companies



Roles of National Oil Companies

Typical NOCs

Wealth
Distribution

Job Creation

Economic
Development

Foreign Policy

Energy
Security

Vertical
Integration

Petrotrin (Historical)

Wealth
Distribution

Job Creation

Economic
Development

Energy Security

Vertical
Integration

Petrotrin (Future)

Wealth
Distribution
& Economic
Development

Efficiency

Demonstrate
Safety &
Environment
Excellence

Energy
Security

Vertical
Integration

NOC Challenges



- Lower performance efficiencies compared to international oil companies



Lower percent recovery and neglect of exploration and development



Non-commercial objectives constrain ability to replace reserves and expand production

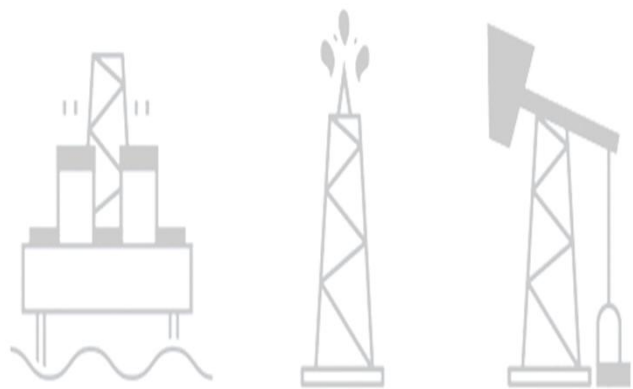


Weaker financial performance results in less favourable terms from international capital markets

The Future State: What Would Success Look Like?

• Continued delivery of value to our shareholder – Government of Trinidad and Tobago through:

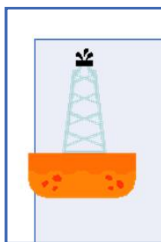
- Increased cash generation
- Conduct of safe, environmentally and socially responsible operations
- Increased human resource capabilities
- Arrest decline in crude oil production
- Efficient use of acreage
- Improved refining and marketing margins



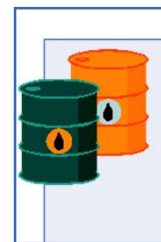
Delivering Value... UPSTREAM



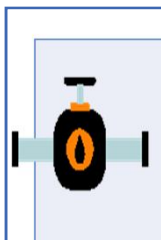
Understanding Our Current Position



Declining production and reserves



Insufficient cash generated to fund investment requirements due to low crude prices



High abandonment liabilities



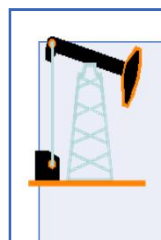
Aged and non-optimal infrastructure, inadequate for significant production increase



Increasing operating and capital costs



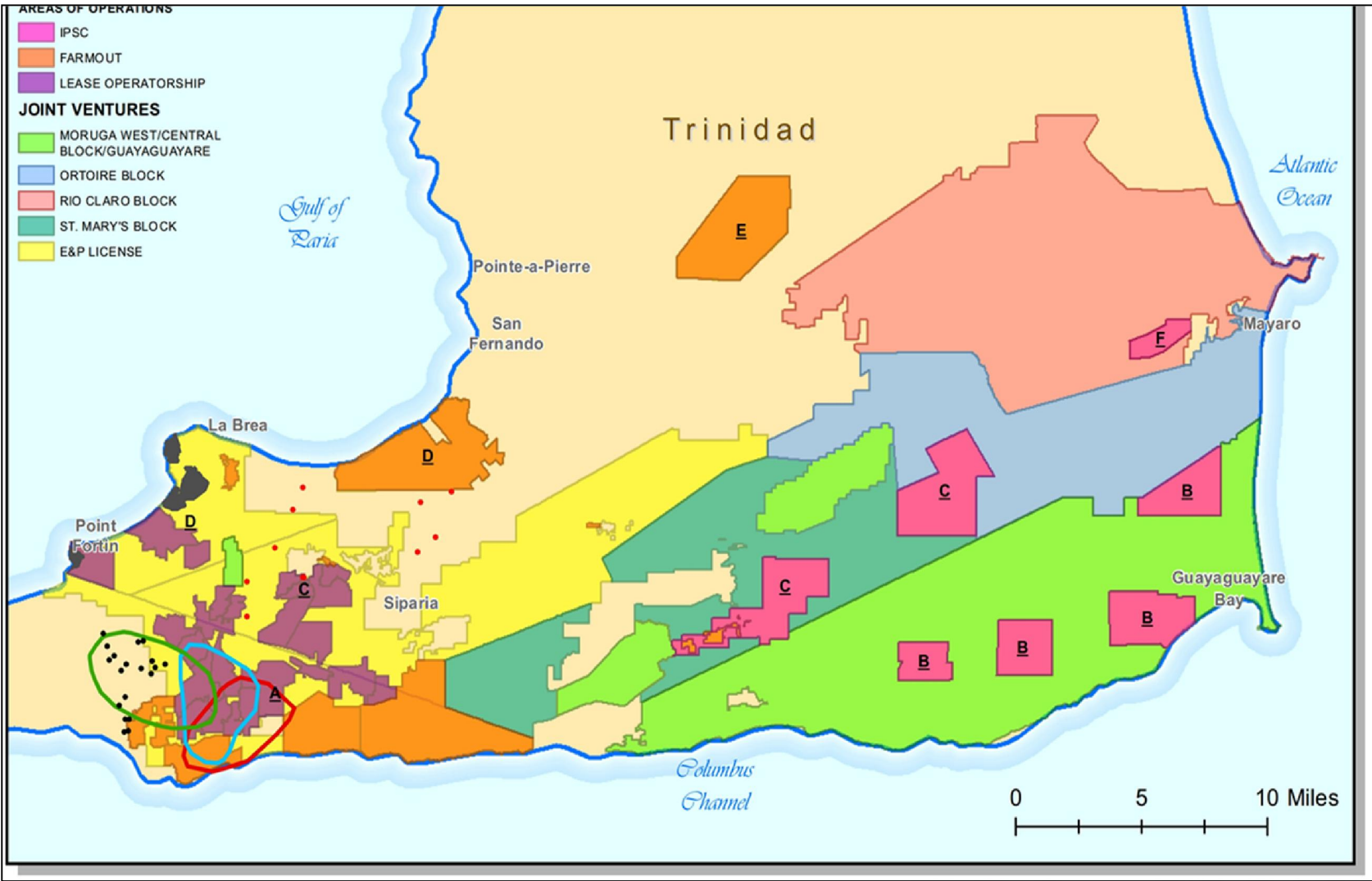
Inflexible work arrangements and consequent sub-optimal productivity



License Obligations (Exploration Drilling) due in 2017 and 2018

LOCATION MAP OF DEEP EXPLORATION SEISMIC PROSPECTS AND LEADS*

*Petrotrin does not have deep rights



Land License Statistics 2016

1

- Total E&P licensed area – 156,000 Ha (100%); down from 175,600 Ha in 1995

2

- Total licensed to Petrotrin (inclusive of IPSCs, LO, FO) – 57,000 Ha (36%)

3

- Petrotrin Operated acreage (exclusive of IPSCs, FOs) – 33,500 Ha (21% of total)

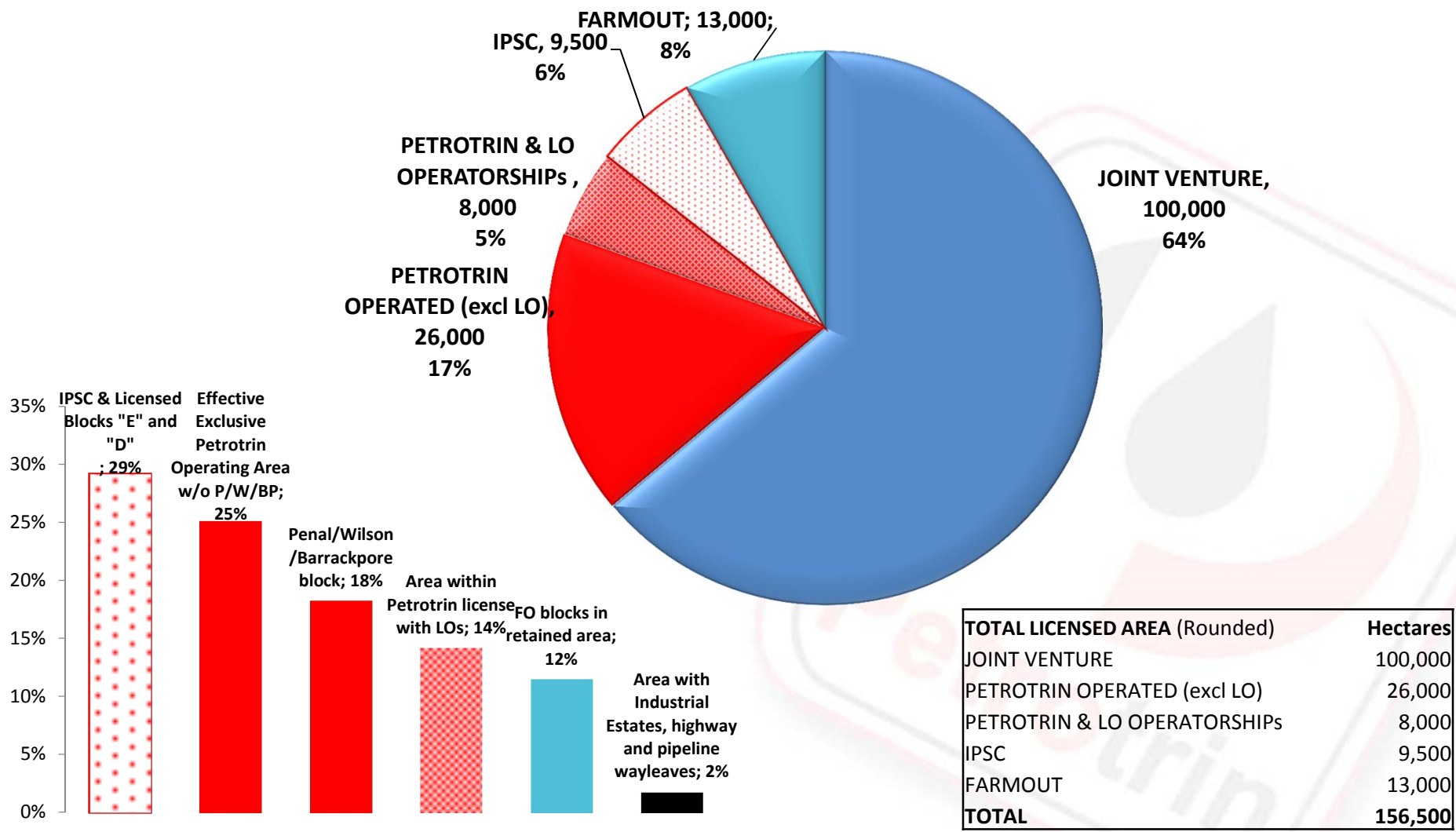
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- Petrotrin Exclusive operated acreage (exclusive of LOs) – 26,000 Ha (17% of total)

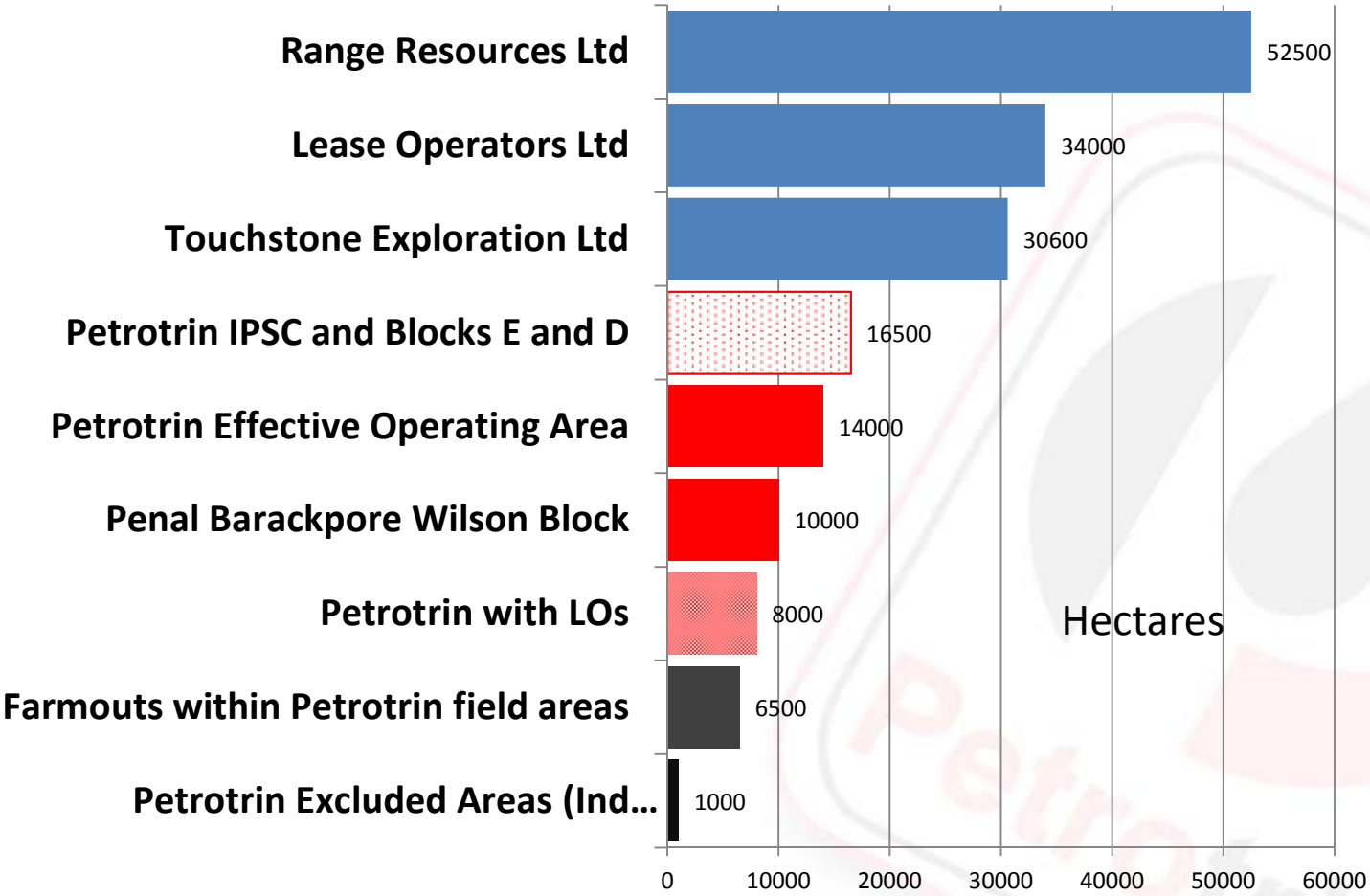
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- Petrotrin has only Shallow rights over land area

E&P LICENSED LAND ACREAGE BY TYPE OF OPERATOR



ACREAGE BREAKDOWN FOR MAJOR OPERATORS



KEY UPSTREAM VALUE DRIVERS – ONSHORE

• Acquire the Deep Rights under Petrotrin's Existing Acreage Licences

Enhanced Oil Recovery Approaches – CO₂, Steam Flooding, Polymer Flooding

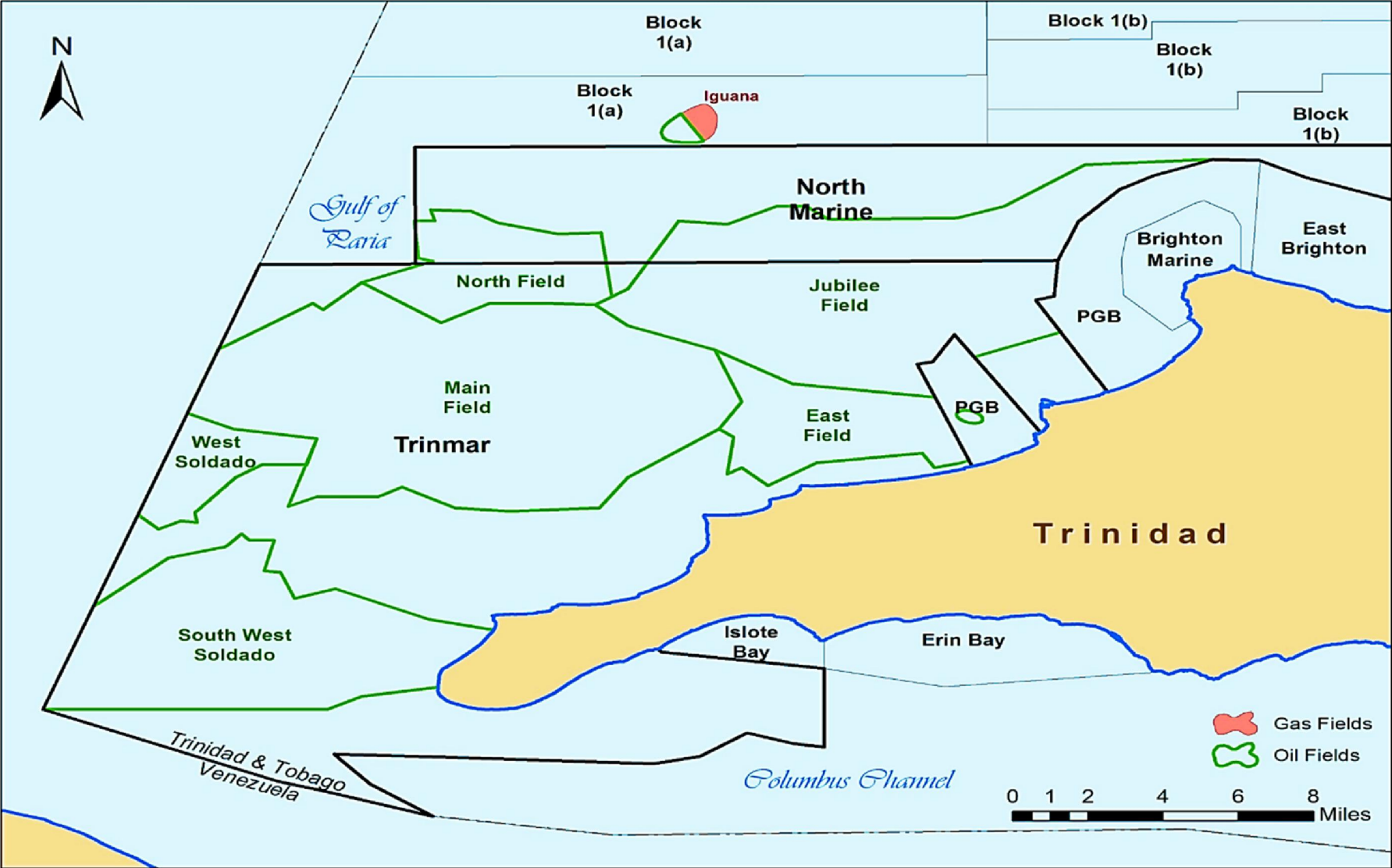
Request & Acquire the Acreage which was Relinquished to the State After 2012

Petrotrin

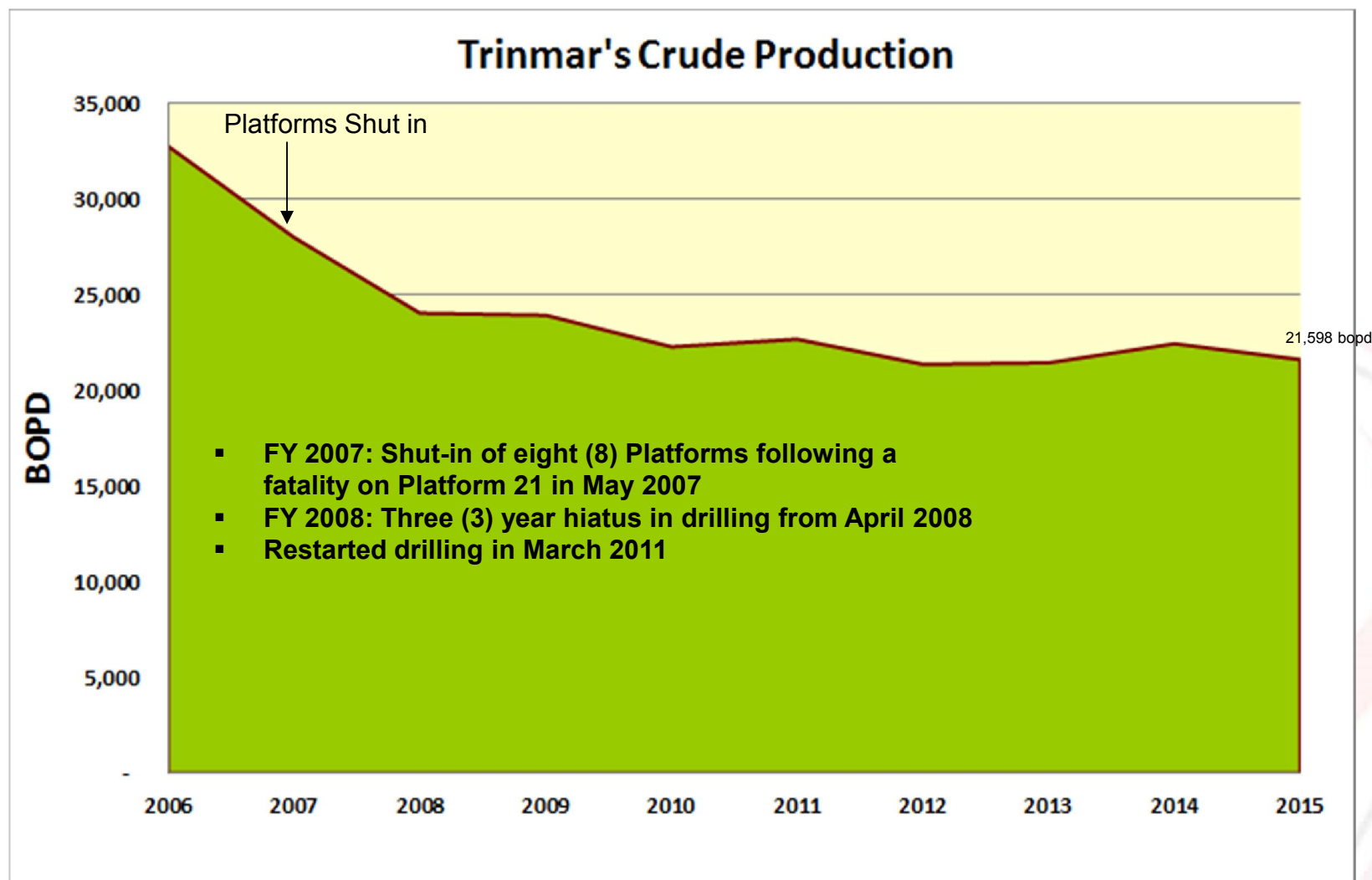
Asset Attributes

- 1 • Assets are located in prolific hydrocarbon basin
- 2 • Acreage is an attractive offering of existing production, redevelopment and exploration potential, with multiple opportunities
- 3 • Relatively unexplored, despite high chance of discoveries
- 4 • High upside potential, inclusive of exploration
- 5 • Technical / operational knowledge
- 6 • Large repository of data and reports
- 7 • Capable service sector support
- 8 • Ready access to local market
- 9 • New 3D seismic (2014), making almost full coverage of acreage

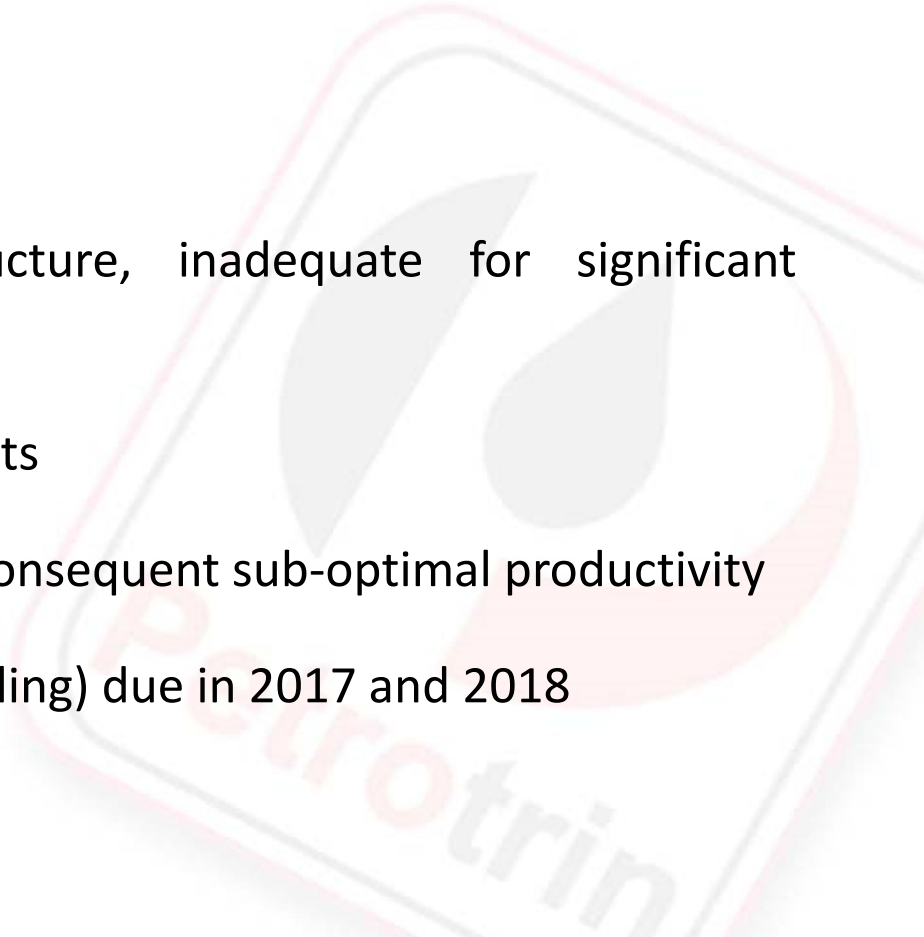
Trinmar Acreage



Trinmar Crude Oil Production



Situation Audit

- Declining production and reserves
 - Insufficient cash generated to fund investment requirements due to low crude prices
 - High abandonment liabilities
 - Aged and non-optimal infrastructure, inadequate for significant production increase
 - Increasing operating and capital costs
 - Inflexible work arrangements and consequent sub-optimal productivity
 - Licence obligations (exploration drilling) due in 2017 and 2018
- 

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- Assets are located in prolific hydrocarbon basin
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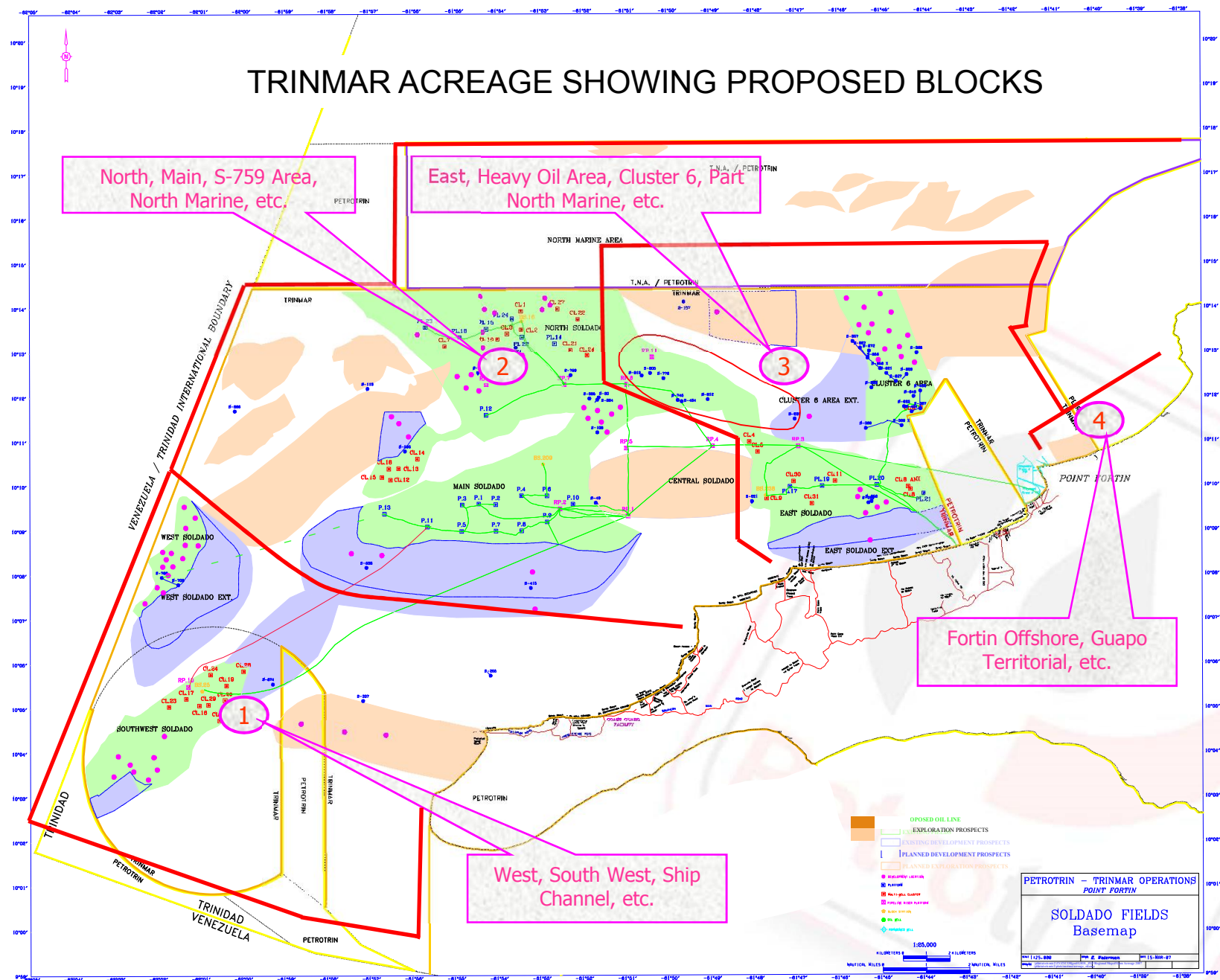
Challenges

- Licence obligations:
 - Two (2) exploration wells in North Marine by 2017
 - Three (3) exploration wells in Trinmar by 2018
 - No production attributable to these wells
- Limited access to investment capital
- Moderate success with new development programs
- Severe challenge with project execution capacity
- Aged and non-optimal infrastructure:
 - HSE & OSH compliance & production implications
 - Old infrastructure - compressors, platforms, production facilities, tank farm, etc.
 - Bottlenecks and reliability issues in production systems
 - Most facilities operating at maximum capacity
 - Some facilities de-rated to assure safe operability

Challenges (Cont'd)

- Increasingly heavier / lower quality crude production, with consequent negative impact on refinery operations/economics
- Inadequacy of internal staffing and resources
- Inability to achieve quantum production improvements





OPTIONS FOR TRINMAR:

a. Minimum Case

- No alliance; Petrotrin continues to operate 100%
- No future drilling. Limited workovers

b. Base Case

- No alliance; Petrotrin continues to operate 100%
- Continued drilling and workovers

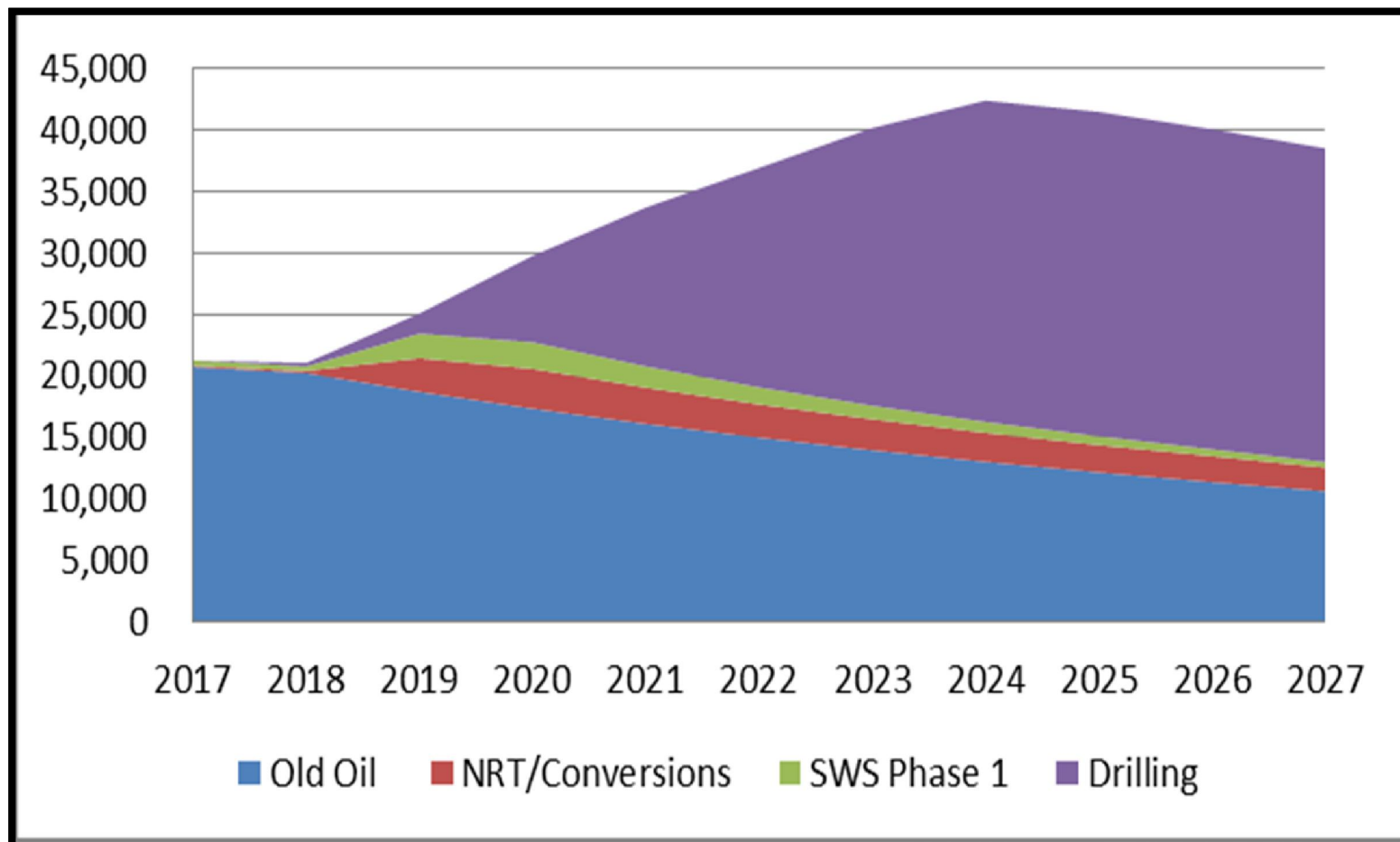
c. Accelerated Case - 3 Partners JV

- Individual partner for each of the three blocks
- Parallel activities assumed; full exploration & development of acreage

d. One (1) Partner JV Case

- One partner for entire Trinmar acreage
- Activities phased more sequentially

Current 10-Yr Production (BOPD) Forecast



KEY UPSTREAM VALUE DRIVERS

Portfolio
Optimisation
Study

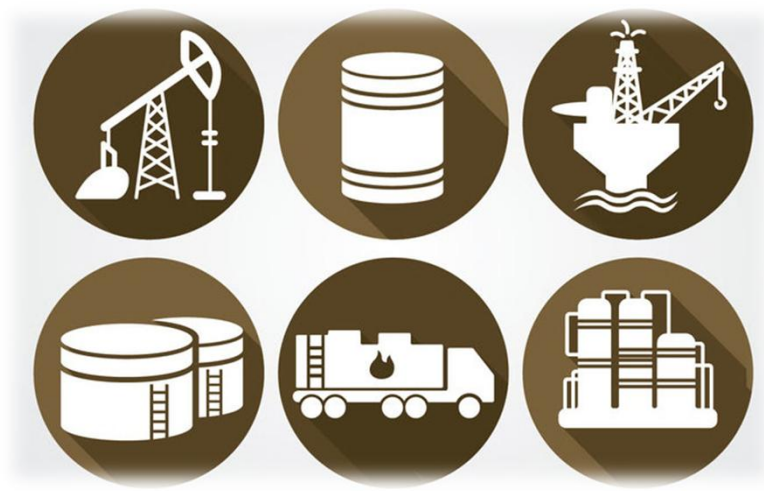
Own
Operations

Third Party
Arrangements
(JV / LO / FO /
IPSC / RSC)

EOR Projects

Resource
Capabilities

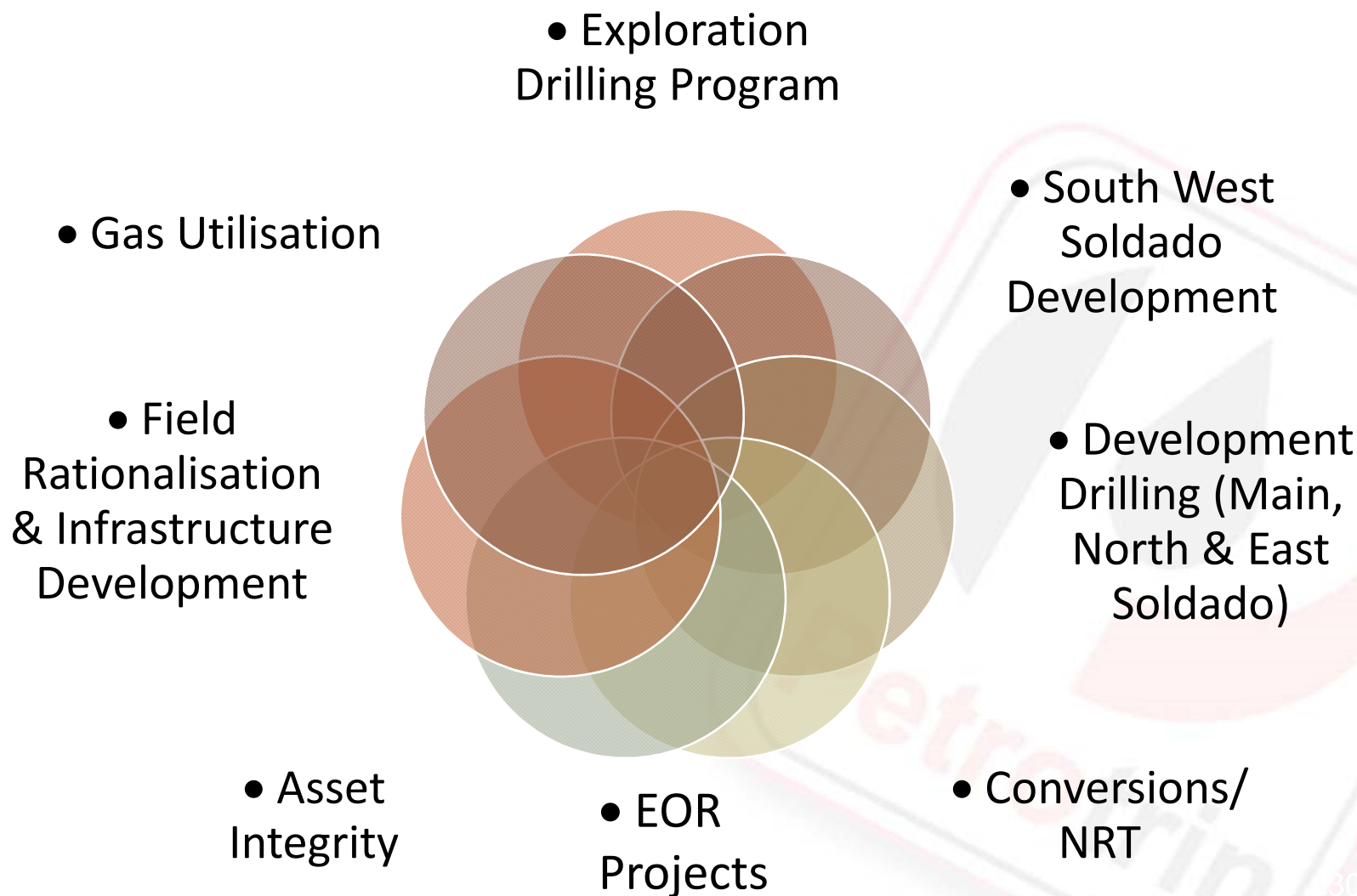
Petrotrin



Opportunities Abound



10-Year Capex Work Plan



The Road to Improved Efficiency



Assignment of coaches / mentors to the young engineers / geologists.



Initiation of a project management structure to interrogate new projects as well as to ensure quality assurance and provide support for ongoing projects



Implementation of a team based field development structure to drive field optimisation



Acquisition of and access to experienced technocrats (contractors / service providers)



Delivering Value... DOWNSTREAM



KEY DOWNSTREAM VALUE DRIVERS




- Completion of major upgrades & turnarounds as planned

- Improve reliability of supporting infrastructure

- Competent Workforce

- Safe & Efficient operations

- Predictability of Refinery Margin





Thank you