



INVICTUS

ENERGY LIMITED

Invictus Energy Ltd (ASX: IVZ)

Cabora Bassa Project Overview – SG 4571 Zimbabwe

Investor Briefing and Webinar Presentation

22 December 2020

invictusenergy.com

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COMPETENT PERSON'S STATEMENT The information in this document relating to petroleum resources and exploration results is based on information compiled by Mr Scott Macmillan. Mr Macmillan is a Reservoir Engineer and has a Bachelor of Chemical Engineering and an MSc in Petroleum Engineering from Curtin University. He is a member of the Society of Petroleum Engineers (SPE) and has over 12 years experience in the industry in exploration, field development planning, reserves and resources assessment, reservoir simulation, commercial valuations and business development. Estimated resources are unrisks and it is not certain that these resources will be commercially viable to produce.

HYDROCARBON RESOURCE ESTIMATES The Prospective Resource estimates for Invictus' SG 4571 permit presented in this report are prepared as at 26 June 2019. The estimates have been prepared by the Company in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System, 2018, approved by the Society of Petroleum Engineer and have been prepared using probabilistic methods. The Prospective Resource estimates are unrisks and have not been adjusted for both an associated chance of discovery and a chance of development. The Company confirms that there have not been any material changes to the resource estimate since the release of the updated Prospective Resource Estimate on 1 July 2019. For further details on the Prospective Resource refer to the 1 July 2019 ASX announcement the Company is not aware of any new information and that all material assumptions and technical parameters underpinning prospective resource estimate continue to apply and have not materially changed

Summary



Invictus Energy Ltd is an upstream E&P company (ASX: IVZ) focused on oil and gas in Sub Saharan Africa

Invictus is the 80% owner and operator of the Cabora Bassa Project containing SG 4571 exploration licence in the Cabora Bassa Basin in northern Zimbabwe

SG 4571 licence contains potentially the largest, seismically defined, undrilled structure onshore Africa (200km² under closure)

- **8.2 Tcf + 249 million bbls[#] of conventional gas-condensate in Mzarabani Prospect alone**
- Independently assessed by Getech Group plc

New geological and geophysical work has de-risked the acreage - ingredients for working petroleum system present in the basin

- Source, reservoir and seal all present and sampled at outcrop to west of SG 4571 and mapped into the subsurface
- Lower Triassic source rock, key in large scale successful Karoo plays is present in the Cabora Bassa Basin

Substantial local and regional gas and liquids market that is supply constrained provides pathway to monetise large gas volumes

- Gas Sale MOU signed with Sable Chemicals fertilizer manufacturer to supply 70 mmscf/d for 20 years (510 Bcf total)
- Gas Sale MOU signed with Tatanga Energy gas to power project to supply 100 mmscf/d for 20 years (720 Bcf total)

Invictus is seeking to develop potential regional markets in addition to significant local natural gas demand in Zimbabwe

Non-binding farm-in offer received – execution of binding agreement in progress (subject to further DD and govt approvals[#])

[#]See ASX announcement on 22 December 2020 for further details

SG 4571 Asset Overview

Invictus is 80% owner and operator of SG 4571 in Cabora Bassa

- Licence area covers 250,000 acres in most prospective part of basin
- SG 4571 exploration licence renewed to 2023 (2nd term)
 - First term of work program completed to August 2020
 - Updated PSA nearing finalisation
- **Substantial \$30 million dataset acquired by Mobil during 1990s**
 - 2D seismic, gravity, aeromagnetic and geochemical data
 - Data unavailable in public domain post Mobil relinquishment
- **Experienced Zimbabwean management team with substantial operating experience and history in country**
- **Environmental Impact Assessment completed and approved**
- Invictus has reprocessed the dataset and applied updated understanding of other successful rift basin plays to Cabora Bassa
- **Elephant scale potential in one of the last undrilled rift basins in Africa on the doorstep of a massive market**



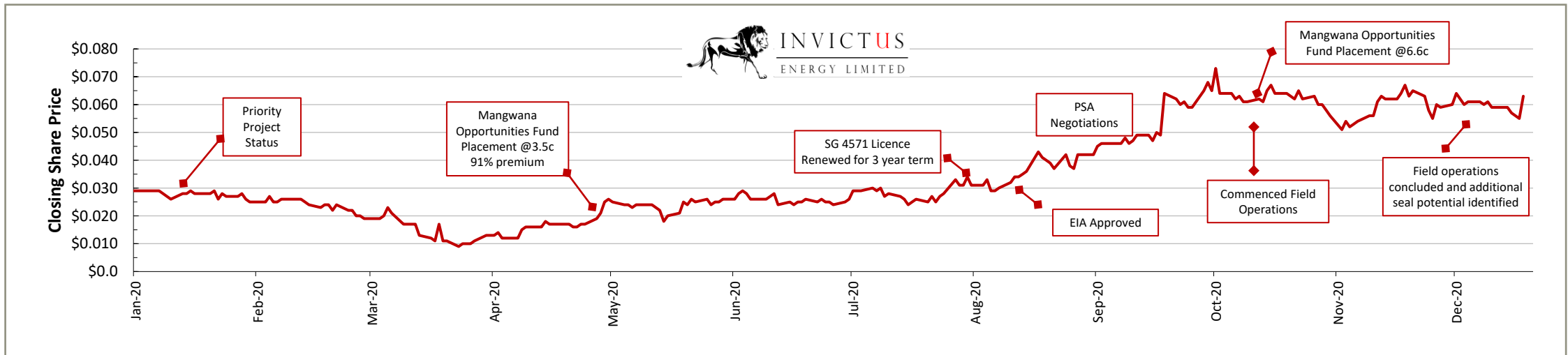
Company Overview



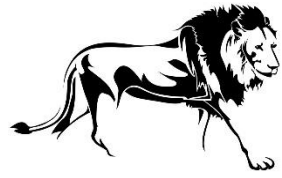
Key Statistics – ASX: IVZ

Shares Outstanding	461,758,343
Performance Shares	55,979,281
Options (ex 6c, 9c & 12c)	44,000,000
Directors, Management & Insiders	22.82%
Top 20 Shareholders (16 September 2020)	46.89%
Market Cap @ \$0.06	A\$27,705,501
Cash and available funding – no debt (30 Sept 2020)	A\$1,795,000
EV	A\$25,910,501
52 Week Range	A\$0.009 / 0.085

Positioned with strong register, significant director and management ownership with performance shares linked to milestones that will enhance the value of the company and share price.



2020 Review & Forward Plan



2020 Snapshot of Achievements

- **Priority Project Status awarded**
- Technical Committee (IMC) established to review Production Sharing Agreement
- Meetings and cultural ceremonies conducted with traditional leaders
- **Strategic Investor (Mangwana Capital) placement at 91% premium (3.5c) in April 2020**
- Appointment of Joe Mutizwa (Mangwana Chairman) to local subsidiary
- Negotiations of Petroleum Exploration Development and Production Agreement (PEDPA) and Petroleum Product Sharing Agreement (PPSA)
- Drilling cost estimate and rig identification
- Community Social Responsibility Program implemented
- Zimbabwe Investment Licence renewed for 5 year term
- **SG 4571 licence renewed for further 3 year term to 2023**
- **Environmental Impact Assessment approved**
- **Field operations and seismic reconnaissance program completed**
- Preferred seismic contractor selected

2021+ Major Planned Activity

- Conclude agreements and approvals with RoZ
- Conclude farm-in/partnering process
- Acquire, process and interpret infill seismic
- Select drilling location(s)
- Execute high impact basin opening drilling campaign

Why Zimbabwe?



Overlooked jurisdiction for last 20 years due to political and economic instability

New government is **pro-business, promoting foreign investment** and has implemented investor friendly reforms

Mines Minister is a former resources industry executive that understands the needs of the resources sector (ex. Anglo, Hwange Colliery and Mimosa Platinum)

Amended Indigenization and Empowerment Act

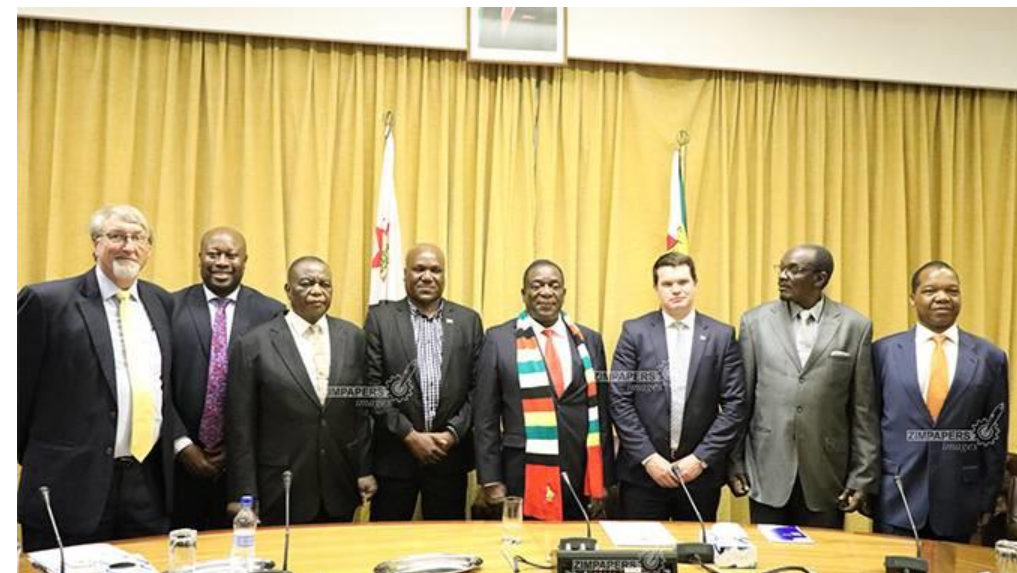
- 100% foreign ownership of assets
- Guarantee of investor rights
- 100% remittance of earnings

New Production Sharing Agreement nearing finalisation

- New PSA provides transparent legal and fiscal framework

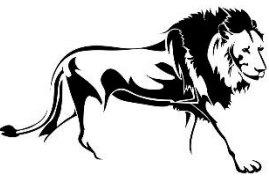
Special Economic Zones legislation enshrines:

- Legal and fiscal stability
- 5-year tax holiday
- 15% corporate tax rate thereafter
- Zero Capital Gains Tax
- Customs duty exemption on raw materials and capital equipment
- **Offshore banking and transacting outside local financial system safeguards against local currency effects**



Meeting held on 1 November 2018, Zimbabwe President, His Excellency CDE E.D. Mnangagwa, Minister of Mines Hon. Winston Chitando, Cabinet executives together with Invictus and One-Gas

Early entry into new plays can yield massive rewards



Transformational success for junior explorers has come from frontier exploration

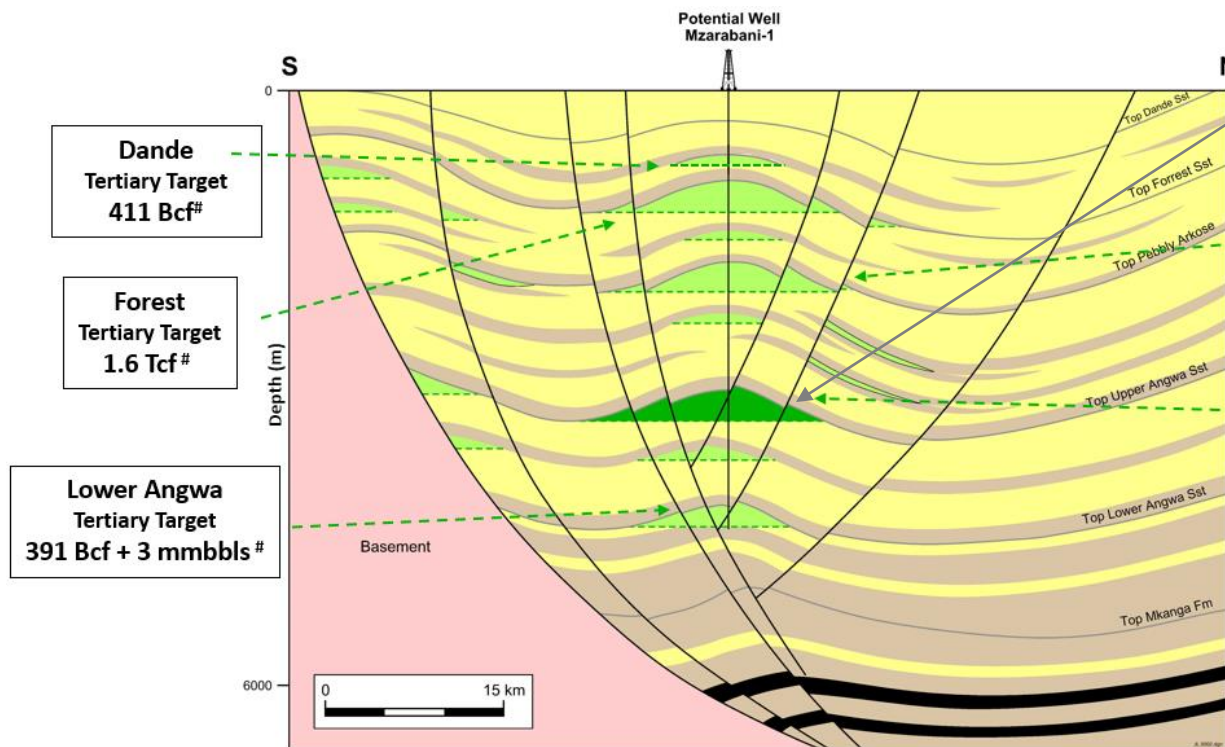
- First movers generally secure the best acreage, best terms and most lucrative markets

Company	Play Opening Discovery	HC Type
Carnarvon Petroleum	Dorado – Western Australia	Oil
Africa Oil Corp	Ngamia - Kenya	Oil
Cove Energy	Windjammer - Mozambique	Gas
Ophir Energy	Pweza – Tanzania	Gas
Hardman Resources	Mputa – Uganda Chinguetti – Mauritania	Oil
FAR	SNE – Senegal	Oil
Kosmos Energy	Jubilee – Ghana Greater Tortue – Senegal / Mauritania	Oil Gas
Cobalt	Cameia – Angola	Oil
Heritage	Kingfisher – Uganda	Oil
Tullow	Mputa – Uganda Kingfisher – Uganda Ngamia – Kenya	Oil

Mzarabani Prospect Schematic



- Single well in a huge stacked prospect to test gross 8 Tcf + 250 mmbbls
- Additional mapped potential provides running room on success
- Estimated well cost US\$12 million (dry hole cost)
- Largest, undrilled, seismically defined structure onshore Africa

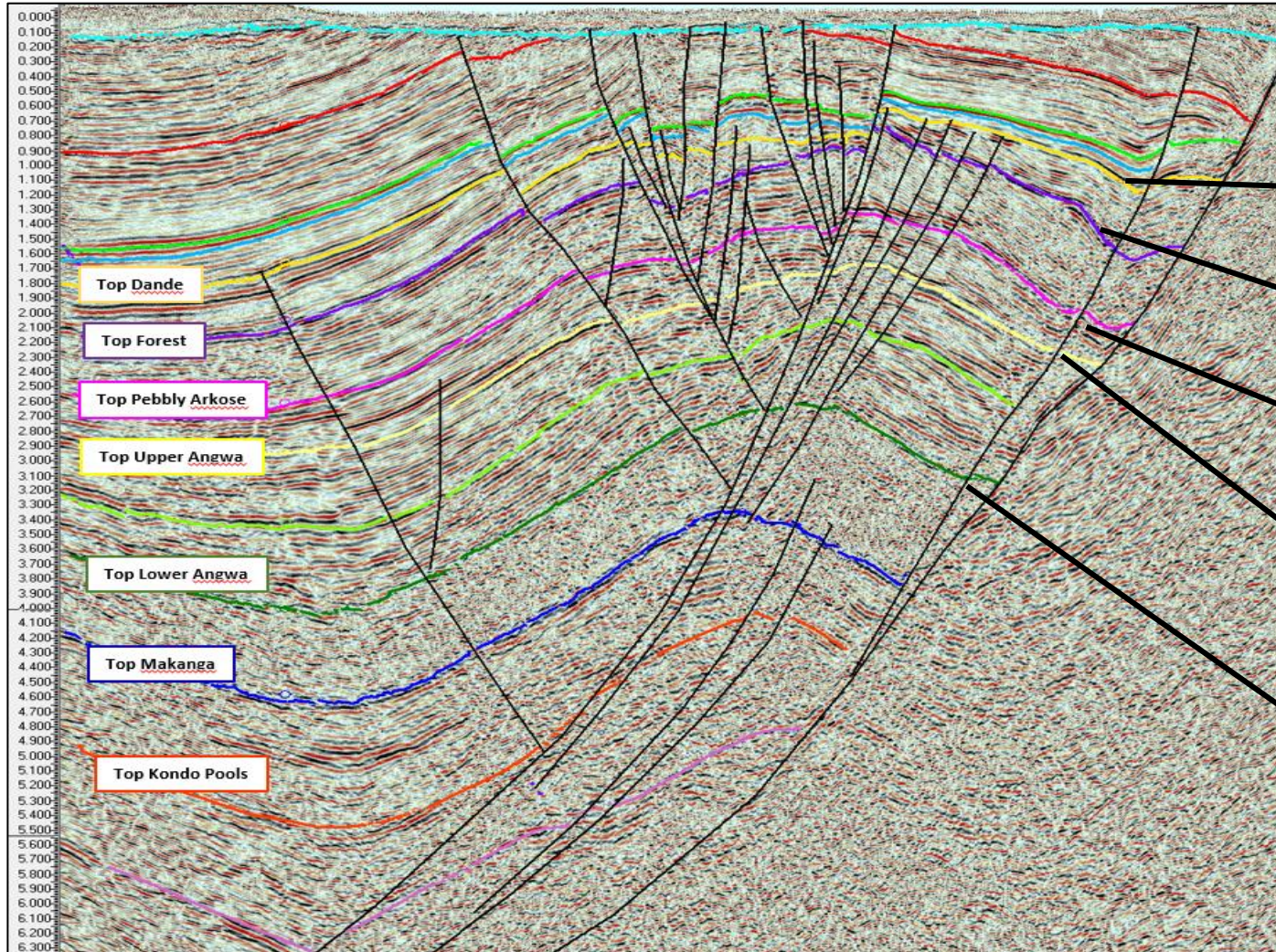


Multiple cycles of lower Triassic source rock present in Cabora Bassa, the key to successful Karoo plays

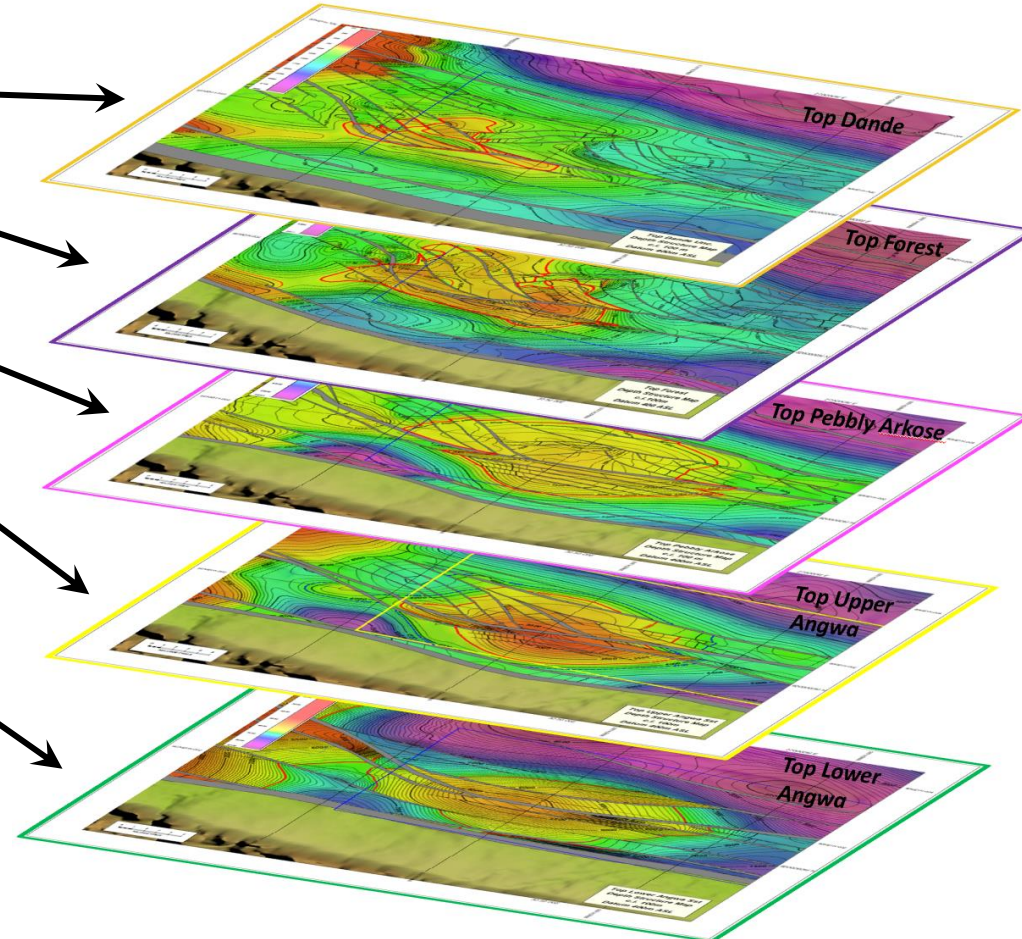
- Pebbly Arkose Secondary Target**
1.4 Tcf + 60 mmbbls#
- Upper Angwa Primary Target**
4.4 Tcf + 187 mmbbls#
Interbedded source and reservoir
- Mzarabani Prospect Total Gross Potential**
5 Horizons
8.2 Tcf + 250 mmbbls

PERIOD	SERIES	GROUP	FORMATION	LITHOLOGY	H/C IND'S
PRESENT TO TERTIARY			JESSE		
CRETACEOUS					
JURASSIC			UPPER DANDE SANDSTONE		
			LOWER DANDE SANDSTONE		
			FOREST SANDSTONE		
			PEBBLY ARKOSE		
TRIASSIC		STORMBERG	UPPER KAROO		
			MIDDLE KAROO		
			LOWER KAROO		
			ANGWA SANDSTONE		
PERMIAN		BEAUFORT	UPPER ALTERNATIONS MEMBER		
			LOWER ALTERNATIONS MEMBER		
			MKANGA		
			KONDO POOLS		
UPPER CARBONIFEROUS					
PRE-CAMBRIAN			BASEMENT		

Mzarabani Prospect – Massive Stacked Potential



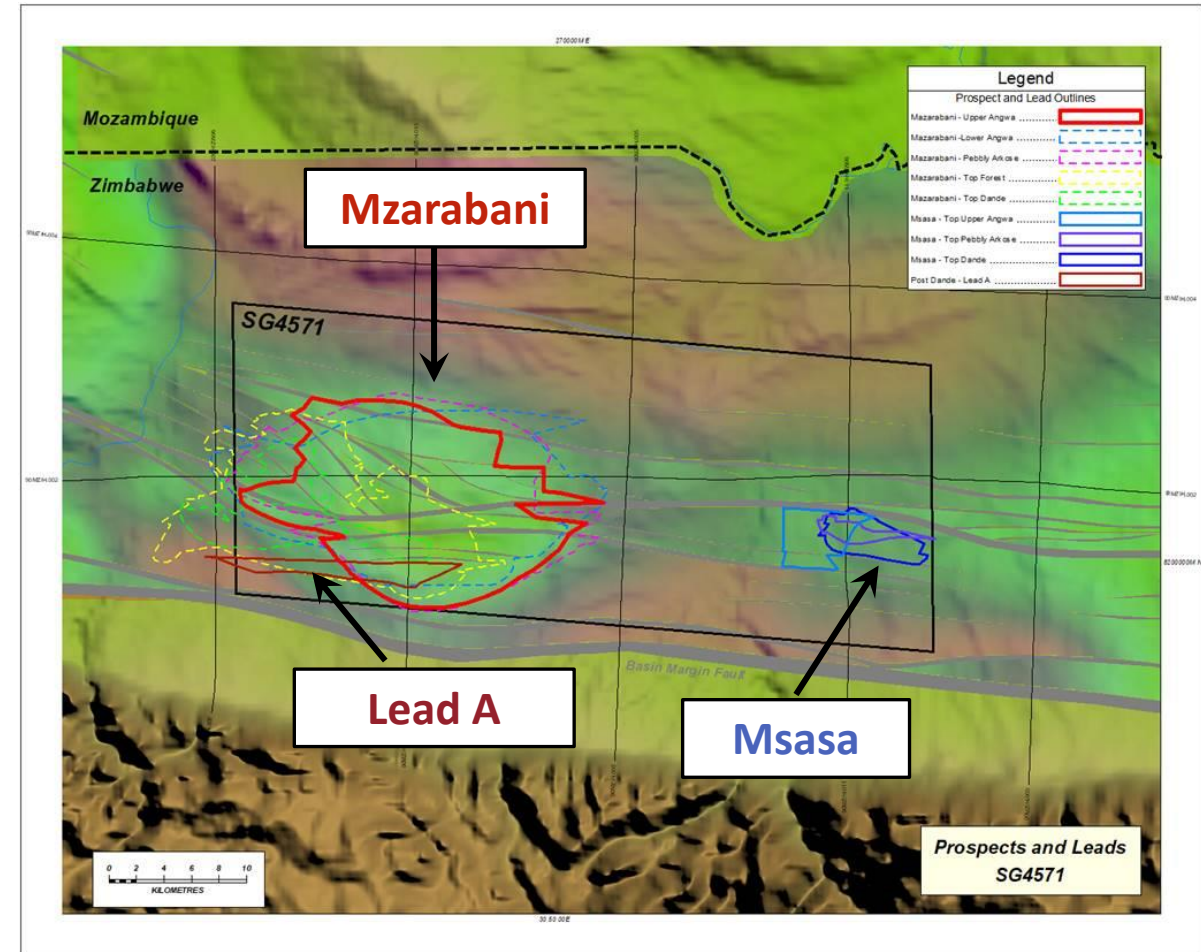
Top structure maps showing stacked, multi-target, 4-way dip anticline



SG 4571 Prospects and Leads Volumetrics



- **Mzarabani – structural 4 way dip closure**
 - Dande: 0.4 Tcf
 - Forest: 1.6 Tcf
 - Pebbly Arkose: 1.4 Tcf + 60 mmbbls
 - **Upper Angwa: 4.4 Tcf + 181 mmbbls**
 - Lower Angwa: 0.4 Tcf
 - **Total: 8.2 Tcf + 247 mmbbls**
- **Msasa – structural 4 way dip closure**
 - Pebbly Arkose: 99 Bcf + 4 mmbbls
 - Upper Angwa: 210 Bcf + 9 mmbbls
 - Lower Angwa: 743 Bcf + 31 mmbbls
 - **Total: 1.05 Tcf + 44 mmbbls**
- **Lead A – structural 3 way high side fault trap**
 - Dande



SG 4571 Prospect & Lead Map

Independent Prospective Resource Estimate



Elephant scale potential

Total Prospective Resource of **9.25 Tcf + 294 million barrels[#] of conventional gas / condensate** (gross mean unrisked) across SG 4571 in Mzarabani and Msasa prospects

- Independently verified by Getech Group plc from 12 month study on SG 4571

SG 4571		Gross Unrisked Estimated Prospective Resources [#]							
Cabora Bassa Project		Source: Getech Group plc as at 26 June 2019							
Prospect		Gas (Bcf) – 100% Gross				Condensate (mmbbl) – 100% Gross			
Stratigraphic Level		Low	Best	High	Mean	Low	Best	High	Mean
Mzarabani	Dande	51	230	950	411	-	-	-	-
	Forest	301	1,215	3,359	1,584	-	-	-	-
	Pebbly Arkose	271	1,037	2,973	1,404	7	38	136	60
	Upper Angwa	721	2,902	9,657	4,414	18	107	434	187
	Lower Angwa	95	317	775	391	0	2	6	3
	Total*	1,439	5,701	17,714	8,204	26	147	576	249
Msasa	Pebbly Arkose	49	93	156	99	1	4	8	4
	Upper Angwa	107	198	327	210	2	8	17	9
	Lower Angwa	71	351	1,738	743	2	13	74	31
	Total*	228	642	2,221	1,052	5	24	99	44
SG 4571 Licence	Total* Gross (100%)	1,666	6,343	19,935	9,256	31	171	676	294
SG 4571 Licence	Total* Net IVZ (80%)	1,333	5,074	15,948	7,405	25	137	541	235

Table 1: SG4571 Licence Area Prospective Resource Estimate Summary - Getech Group plc. (*Note: Total figures are the arithmetic sum of the individual horizons for each respective prospect)

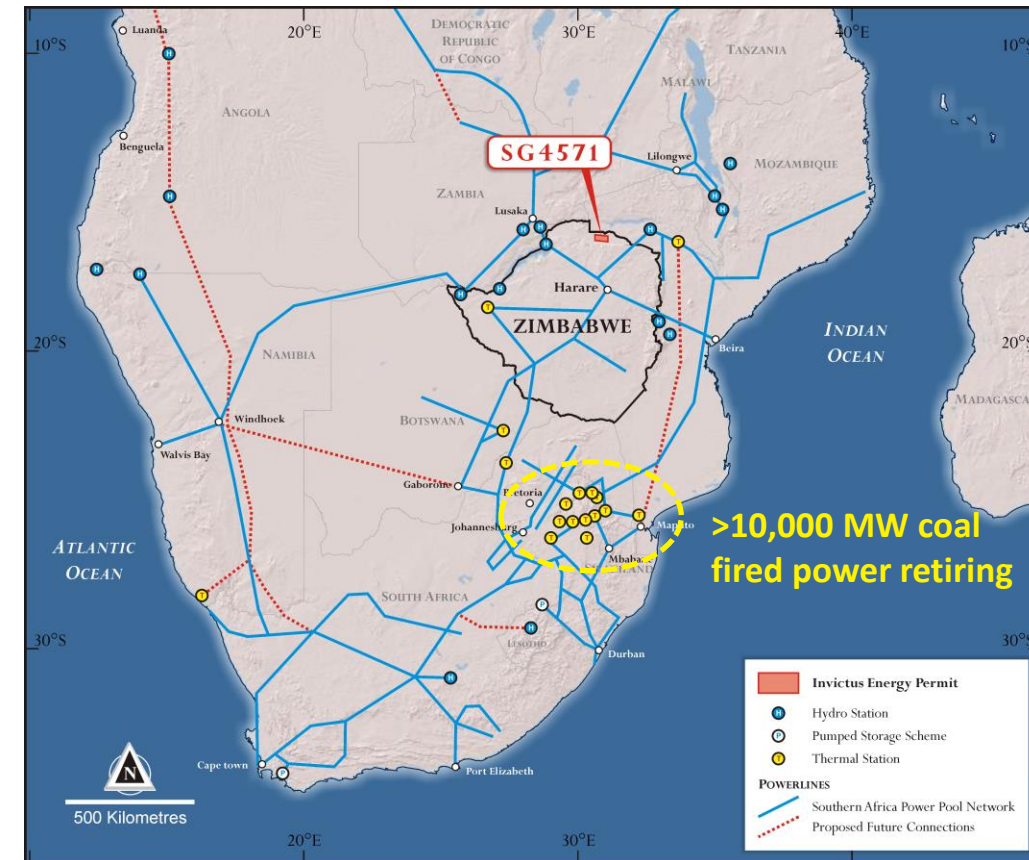
#Cautionary Statement: The estimated quantities of petroleum that may be potentially recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation are required to determine the existence of a significant quantity of potentially movable hydrocarbons. Prospective Resource assessments in this release were estimated using probabilistic methods in accordance with SPE-PRMS standards.

Southern Africa's Energy Crisis



Zimbabwe: Strategic Location

- Southern Africa is facing an energy crisis with increasing shortages of electricity hampering industry and investment
- Majority of power in the region is coal and hydroelectric
- Southern African Power Pool (SAPP) established in 1993 enables cross-border electricity trading between states
- 12 member countries representing a population of 230 million people
- Electricity trading across the SAPP is run out of Harare
- The spine of the SAPP transmission network runs through Zimbabwe giving it the greatest access to other member states
- **South Africa's aging coal fired power plants are being retired**
 - **>10,000 MW of power supply (~20%) will be lost in next few years**
 - **Expect short-medium term supply gap to be filled by diesel fired power generation (equivalent fuel cost ~US\$27/GJ gas price)**
 - Gas to Power has become increasingly important to the regional power needs
- **SAPP network provides a virtual pipeline route to monetise gas within and across borders through Gas to Power projects**



Source: Southern Africa Power Pool

Southern Africa Major Markets



Multiple Markets & Monetisation Options



Power Gen

Gas to Power can be generated locally and excess exported to neighbouring countries through the Southern Africa Power Pool (SAPP). Huge electricity shortfall in the region with >15,000 MW of new generation capacity required



Petrochemicals

Existing petrochemical demand exists in South Africa through Sasol's Secunda facility. Currently supplied from onshore Mozambique Pande-Temane fields and coal to liquid technology



Fertiliser

Zimbabwe and Zambia are large agricultural based economies and significant producers of tobacco and maize. Most fertiliser is imported from South Africa. Invictus has signed a gas sale MOU with Sable Chemicals for 70 mmscf/d for 20 years. Sable rail ammonia gas from South Africa to their facility in central Zimbabwe



Industrial

Industrial demand in South Africa serviced from onshore Mozambique. Top ten industrial gas users in South Africa contribute over ZAR150 billion per annum in turnover, consume >30 Bcf/yr and employ 46,000 people.



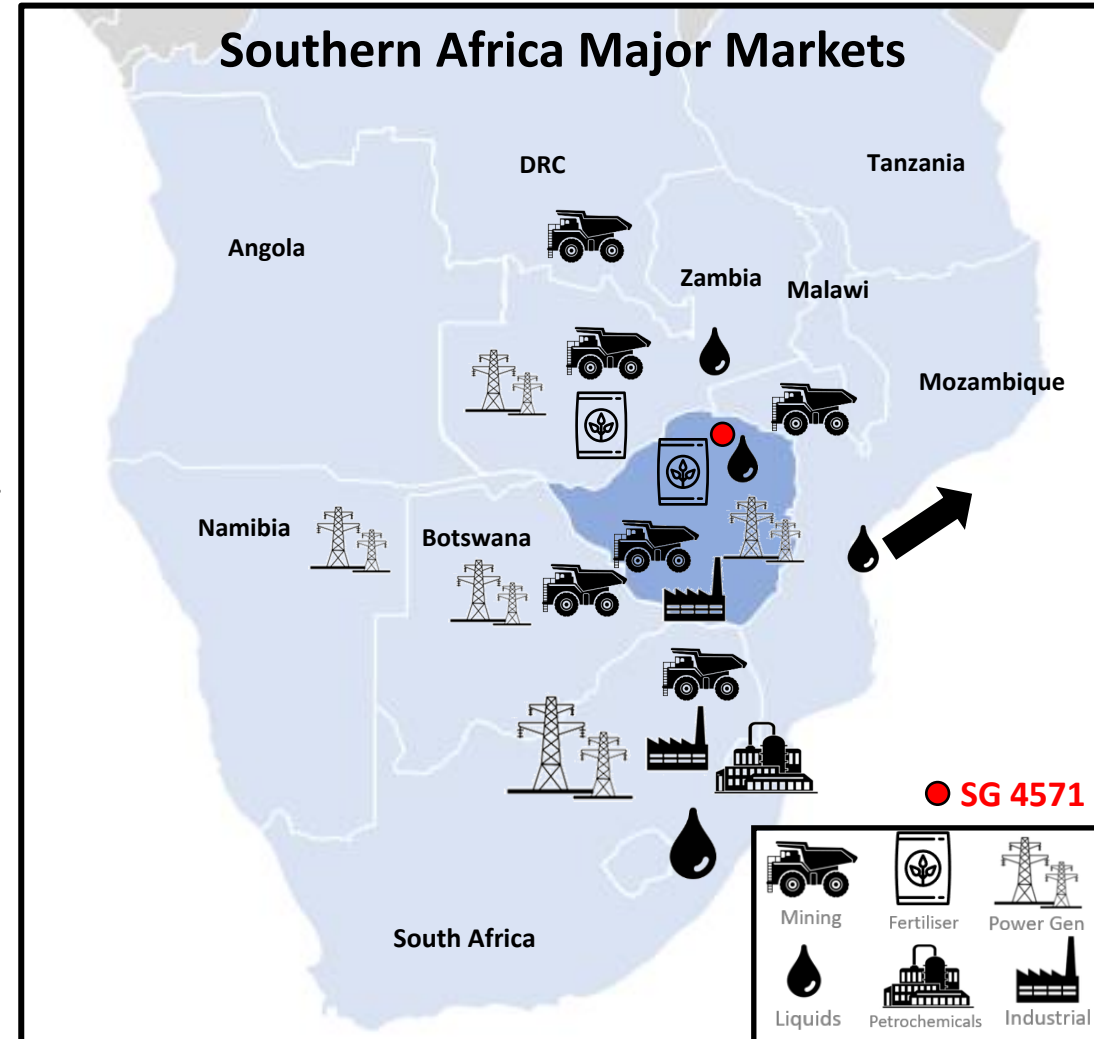
Mining

Significant number of mining houses (esp. Zambia & DRC) generate off grid power using diesel at ~30-40c/kWh vs. grid cost of 10-15c/kWh. Small scale LNG trucked to mining operations can displace diesel at ~40% of the cost. In addition, large smelters and refiners in Zimbabwe, Zambia and South Africa can switch to natural gas



Liquids

Liquid fuel consumption in the region is ~880kbpd. South Africa generates synthetic fuel from coal of ~180kbpd. Remainder consists of imports of crude oil which is refined locally as well as refined products. Condensate/crude can also be exported from Beira to international markets

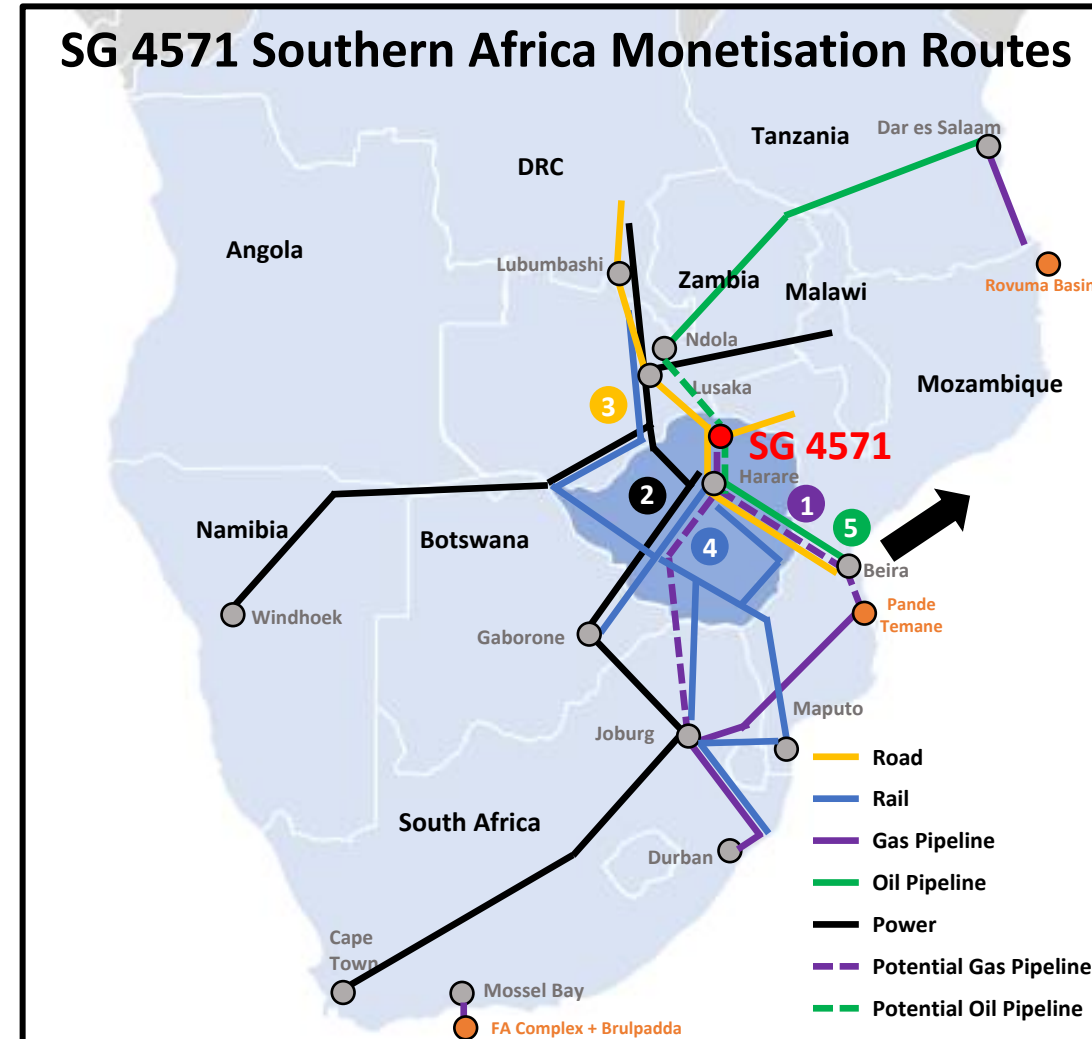


Southern Africa Monetisation Routes



Multiple Routes to Market

- 1 Gas Pipeline** - twin Harare-Beira liquids pipeline (800km) and connect to ROMPCO pipeline feeding Sasol Gas lines in Gauteng and industry. Existing easement and right of way enables quicker and cheaper pipeline construction than most greenfield projects
- 2 Power** – connect into SAPP grid to export electricity domestically and into regional market
- 3 Road** – Beira Corridor Route one of the major transit routes in Africa. Small Scale LNG (SSLNG) by road to mining and industrial users to replace diesel power generation. 500kms radius with 17-18 MT LNG trucks to Zambia and southern DRC. Truck condensate to Beira port
- 4 Rail** – 1,000kms from Harare to Johannesburg by rail. 900 MT LNG trains into Gauteng industrial centre. Crude railed to refineries
- 5 Liquids Pipeline** – Twin or reverse Harare-Beira liquids pipeline (800km) to enable export through Beira port to international markets. Harare and Feruka refinery upgrade to enable domestic production. Additional ability to connect to Indeni refinery in Ndola to displace crude imported from Dar es Salaam



Domestic and Regional Gas Market Overview



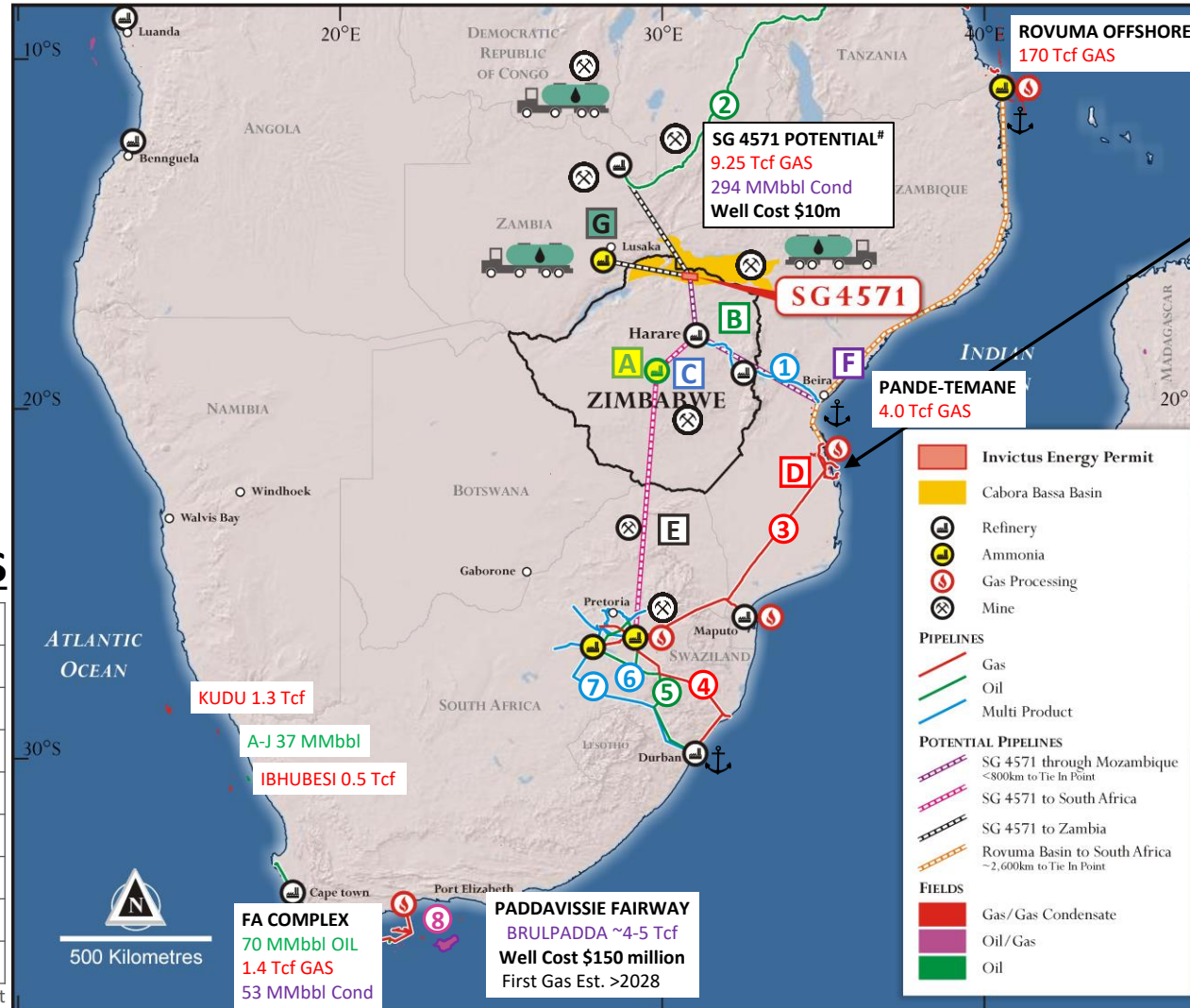
MARKET POTENTIAL

Customer	Use
A Sable Chemicals	Fertiliser
B Gas to Power	Power
C Industrial Customers	Industrial
D Export to South Africa (Secunda)	Industrial, Petrochem
E SA Energy & Metallurgical SEZ	Industrial
F Condensate Export	Petrochemicals
G Small Scale LNG Trucked	Power, Industrial

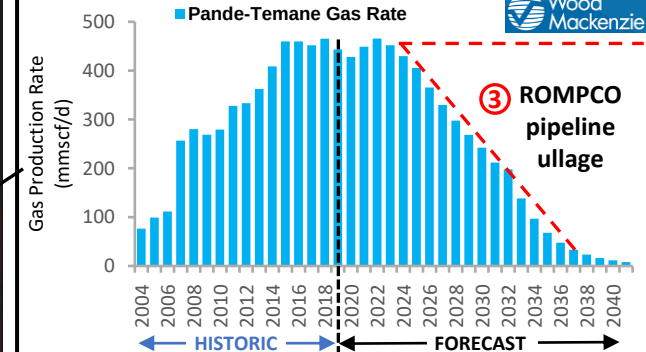
OPERATING MAJOR PIPELINES

Pipeline	Product	Dia	Capacity	Length
1 Harare-Beira	Multi	10"	25 mbpd	550km
2 TAZAMA	Crude	12"	22 mbpd	1,710km
3 ROMPCO	Gas	26"	475 mmscfd	870km
4 LILLY	Gas	16"	65 mmscfd	600km
5 COP	Crude	18"	127 mbpd	550km
6 MPP24	Multi	24"	150 mbpd	830km
7 DJP	Refined	12"	64 mbpd	570km
8 FA	Gas Cond	18"	250 mmscfd	85km

Source: Transnet



PANDE-TEMANE GAS PRODUCTION PROFILE



PANDE-TEMANE ONSHORE AREA: MOZAMBIQUE

4.0 Tcf GAS, 16 MMbbl OIL, 13 MMbbl Cond

- Commenced production in 2004
- Supplies ~85% of South Africa's gas consumed
- >300 customers serviced by ROMPCO pipeline
- Off plateau ~2023 – significant ullage in ROMPCO pipeline opens up development window for SG 4571

Zimbabwe Domestic Market Options: > 220mmscf/d

- Underpinned by Sable Chemicals Gas Sale MOU 70mmscf/d x 20 years: Total 510 Bcf
- Gas to Power plus industrial users

South Africa Export Market Options: > 500 mmscf/d

- Twin existing Harare-Beira pipeline route and tie into ROMPCO pipeline **1+3**
- New build pipeline through Zimbabwe to South Africa
- South Africa indicative LNG benchmark price of US\$7.53-\$7.95/mmbtu*
- Estimated supply shortfall of 1 billion cubic feet per day by 2030*

*Estimates from Power Africa

Brulpadda discovery has cost \$200 + \$150 million (original well + side track) to test 4-5 Tcf + condensate
Mzarabani will cost \$10 million to test up to 8.2 Tcf + 250 mmbbls condensate

Summary



Giant scale potential identified within SG 4571 in Cabora Bassa with multiple play types providing running room on success – first mover advantage

Gas Sale MOU secured with blue chip customer which will underpin development and monetisation of even a modest discovery

Strategically positioned to supply energy starved domestic and regional markets – particularly large South Africa market

Supportive government willing success

Low cost onshore exploration with proximity to infrastructure enables rapid monetisation of discoveries - mitigates risk vs. reward



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Appendix

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Directors and Management



Dr. Stuart Lake – Non-Executive Chairman

Dr Lake has over 34 years of global experience in the Petroleum industry and significant expertise, having operated assets in 20 countries worldwide, including in over ten African countries. He brings a combination of in-depth technical knowledge and a world class track record as an oil and gas finder, having led many teams in maintaining a 90% exploration success rate (from over 300 wells in 11 countries including deep-water and new plays) throughout his career. Dr Lake has held a wide variety of roles in international Oil and Gas companies including President and CEO for Castle Petroleum, As former CEO of AGM Petroleum, the operator of the offshore South Deepwater Tano Block in Ghana, he lead the company to a recently reported new oil discovery in July 2019 from the exploration drill campaign. He remains a Senior Advisor to Aker Energy, that recently acquired Hess Ghana assets, in which Dr Lake and his team at Hess Corporation had made 7 consecutive deepwater discoveries. He was also the former CEO of African Petroleum Corporation Ltd, where he successfully concluded a number of farmouts and commercial deals for their West African portfolio in a challenging market and successfully listed the company on the Oslo Bors in Norway. He is also former Vice President of Exploration in the Hess Corporation, leading highly successful Exploration campaigns, including Ghana, Libya and 30 onshore discoveries in Russia.

Scott Macmillan – Managing Director

Mr. Macmillan is a Reservoir Engineer and founder of Invictus Energy. He is a member of the Society of Petroleum Engineers (SPE) and has over 14 years experience in exploration, field development planning, reserves and resources assessment, reservoir simulation, commercial valuations and business development. He worked for Woodside Energy as a Senior Reservoir Engineer on large offshore oil and gas field developments and as Business Advisor in the Global New Ventures team focused on Africa exploration. He was the Senior Reservoir Engineer for AWE Ltd working on the Waitsia Gas Field which is the largest onshore gas discovery in Australia in the last 40 years. He has extensive business experience in Zimbabwe.

Brent Barber – Country Manager

Mr. Barber is an exploration geologist with over 40 years applied experience. He is the Technical Director of Invictus Energy Resources and Managing Director of Geological Organisation Logistics and Design (GOLD). He has been involved in the exploration and evaluation of mineral prospects and mining venture throughout Africa and in South America and SE Asia. When employed by Mobil Exploration he headed the hydrocarbon exploration undertaken along the Zambezi Valley in both Zambia and Zimbabwe. Mr. Barber is based in Harare and currently focuses on the acquisition, assessment and design and management of exploration prospects.

Barnaby Egerton-Warburton – Non-Executive Director

Mr. Egerton-Warburton holds a Bachelor of Economics and is a graduate of the Australian Institute of Company Directors and a member of the American Association of Petroleum Geologists. Mr. Egerton-Warburton is currently Managing Director of Eneabba Gas Limited (ASX: ENB) and Non-Executive Director of iSignthis Limited (ASX: ISX). Mr. Egerton-Warburton has over 20 years investment banking experience with a focus on the energy sector.

Gabriel Chiappini – Non-Executive Director and Company Secretary

Mr. Chiappini is an experienced ASX director and has been active in the capital markets for 17 years. He has assisted in raising \$AUD450m and has provided investment and divestment guidance to a number of companies and has been involved with 10 ASX IPO's in the last 12 years. He is a member of the AICD and CA ANZ. Mr. Chiappini is a director of Black Rock Mining, (ASX: BKT) Eneabba Gas Limited (ASX: ENB)

Regional Supply/Demand Balance – Power Africa Study

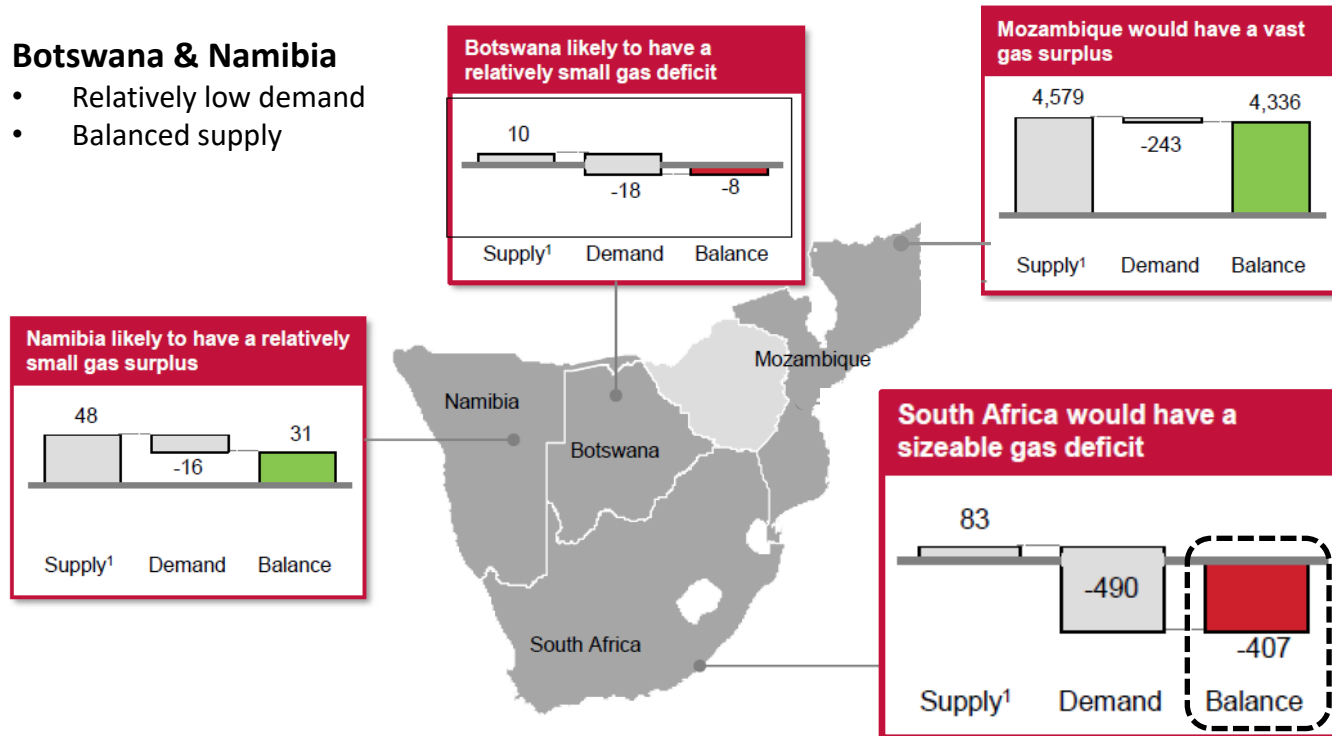


LOCAL GAS SUPPLY AND DEMAND BALANCES

PJ/year, 2030; (balances calculated using total recoverable reserves, assuming “medium” demand scenario)

Botswana & Namibia

- Relatively low demand
- Balanced supply



Mozambique sitting on vast gas surplus, however:

- Long distance to market > 2,600km
 - Equivalent to touted West-East Australia pipeline distance
- LNG volumes committed > 2030
- Controlled by large IOCs unwilling to supply gas for domestic/regional use
- Lack of customers along majority of pipeline route
- No regasification infrastructure in South Africa

South Africa facing a significant gas deficit before 2030 due to lack of supply:

- **Low Scenario Supply Deficit*: 730 mmscf/d (268 PJ/year)**
(equivalent to Eastern + South East Australia industrial consumption[#])
- **Med Scenario Supply Deficit*: 1,100 mmscf/d (407 PJ/year)**
(equivalent to Western Australia total domestic consumption[#])
- **High Scenario Supply Deficit*: 2,000 mmscf/d (725 PJ/year)**
(greater than Eastern + South East Australia total domestic consumption[#])

¹ Supply volumes estimated based on high level approach which assumes that remaining reserves are produced over 30 years (typical field life and most of fields are untapped yet), leading to a flat production profile, which is converted into PJ/year

SOURCE: Demand figure derived from bottom-up evaluation (IRP 2016, EIA energy balances, IPP gas-to-power programme, among others); supply volumes derived from WoodMackenzie, complemented with various public sources (e.g. Tlou Energy, South African journal of science)

*Estimates from Power Africa Natural Gas Roadmap for Southern Africa Report

[#]Estimates from Australian Energy Market Operator GSSO Report

South Africa's Gas Supply Crisis



Pande-Temane: Supplies 85% of South Africa's Gas Decline Commences 2023

South Africa approaching gas supply cliff edge, industrial users warn

18th September 2019 BY: [TERENCE CREAMER](#)
CREAMER MEDIA EDITOR

The Industrial Gas Users Association of Southern Africa (IGUA-SA) warned on Wednesday that South Africa is in the midst of a gas supply crunch, which will worsen dramatically from 2025 onwards in line with depleting production from Sasol's Pande and Temane gasfields, in southern Mozambique.

The association includes large industrial companies that collectively consume 50-million gigajoules of gas yearly, employ 46 000 people and have combined yearly revenues of R150-billion. It is forecasting a yearly shortfall of 98-million gigajoules from 2025 onwards, including Sasol gas demand.

Speaking at an energy event organised by Nedbank and EE Publishers, IGUA-SA executive officer **Jaco Human** said that the pace of the decline might be delayed by a few years as a result of proposed investments by Sasol in Mozambique. Nevertheless, additional sources would still be required not only to replace dwindling Mozambican supply, but also to meet any new industrial demand.

Mining Weekly 18 Sept 2019

Mossel Bay FA Complex: Supplies 15% of South Africa's Gas Depleted by December 2020

South Africa: Mossel Bay gas-to-liquid reserves close to depletion

By [Mandisa Nduli](#), Editor



Image: [capspire.com](#)

During a presentation to parliament, national oil company Petroleum, Oil and Gas Corporation of South Africa (PetroSA) said it expects its Mossel Bay gas-to-liquid refinery to run out of domestic gas supplies by the end of 2020.

Africa Oil and Power 9 Sept 2019

South Africa urgently seeking gas as energy transition stalls

South Africa's power sector plans envisage a big role for gas, but first the country needs to find the feedstock

South Africa is on the hunt for gas supply to realise its ambitions to shift its power sector from one based almost entirely on heavily polluting coal to a cleaner set-up relying largely on renewable energy supported by gas.

Petroleum Economist 18 October 2018

Sable Chemical Gas Sale MOU



- **Gas Sale MOU with Sable Chemicals signed May 2019**
- Sable Chemicals is sole manufacturer of ammonium nitrate fertiliser in Zimbabwe and has operated since 1966
- **Supply up to 70 mmscf/d x 20 years**
- Total Contract ~510 billion cubic feet
- Current ammonia feedstock imported by rail from South Africa
- Facility operating below capacity
- Sable located ~400km from SG 4571
 - Either new build facility closer to SG 4571
 - Construction of ammonia plant closer to SG 4571 and then rail to existing facility

**INVICTUS**
ENERGY LIMITED

ASX ANNOUNCEMENT
ASX: IVZ

ABOUT INVICTUS ENERGY LTD
Invictus Energy Ltd is an independent oil and gas exploration company focused on high impact energy resources in sub-Saharan Africa. Our asset portfolio consists of a highly prospective 250,000 acres within the Cabora Bassa Basin in Zimbabwe. Special Grant 4571 contains the world class multi-TCF and liquids rich Mzarabani conventional gas-condensate prospect.

BOARD & MANAGEMENT

Scott Macmillan
Managing Director

Brent Barber
Country Manager

Barnaby Egerton-Warburton
Non-Executive Director

Eric de Mori
Non-Executive Director

Gabriel Chiappini
Non-Executive Director and Company Secretary

invictusenergy.com

7 MAY 2019
INVICTUS & SABLE CHEMICAL INDUSTRIES LIMITED SIGN GAS SALES MOU
Highlights

- Invictus & Sable Chemical Industries Limited sign MOU to progress gas supply from Cabora Bassa Project
- MOU signed for the supply of up to 26 billion cubic feet of gas per year (Bcf) for 20 years (70 million cubic feet per day)
- Major step towards underpinning the development of the Cabora Bassa Project subject to a commercial discovery being made

Invictus Energy Limited ("Invictus" or "the Company"), is pleased to announce that the Cabora Bassa Project partners, comprising Invictus (80%) and One-Gas Resources (Pvt) Limited (20%), have entered into a non-binding Memorandum of Understanding (MOU) with Sable Chemical Industries Limited ("Sable") to progress gas supply from the Cabora Bassa Project subject to a commercial gas discovery being made from SG 4571.

Sable is the sole manufacturer of agriculture grade ammonium nitrate fertiliser in Zimbabwe and a potentially large gas consumer.

Under the MOU, Invictus and Sable have agreed to jointly work together and cooperate with regards to investigating the economic and commercial viability of supplying natural gas from the Cabora Bassa Project to the Sable fertilizer plant located in Kwekwe, Zimbabwe.

Key Terms

The key terms of the MOU are as follows:

- Minimum Daily Contract Quantity (DCQ) of 35 mmscf/d (~13 bcf per year)
- Sable can elect to increase DCQ to 70 mmscf/d (~26 bcf per year)
- Minimum Total Contract Quantity of 255 Bcf
- Maximum Total Contract Quantity of 510 Bcf
- Supply term of twenty (20) years from the date of First Commercial Gas Production
- Gas sales price commercial in confidence

Conditions Precedent

The conditions precedent in the MOU include:

- Confirmation of a commercial hydrocarbon discovery in SG 4571
- Completion of a Gas Sales and Purchase Agreement (GSPA) by 30 June 2021
- Completion of feasibility studies to upgrade Sable's existing process and replace the feedstock with natural gas

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Tatanga Energy Gas Sale MOU



- **Gas Sale MOU with Tatanga Energy signed December 2019**
- Tatanga Energy is an Independent Power Producer in Zimbabwe
 - Tatanga principals have extensive experience of gas to power projects in West Africa
- **Supply up to 100 mmscf/d x 20 years**
- Total Contract ~730Bcf
- Gas to Power facility to supply up to 500 MW
- First phase 150 MW
- Second phase additional 350 MW
- Potential project sites with access to SAPP export route (330 – 400kV lines) within 100km of SG 4571

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Invictus & Tatanga Energy Sign Gas Sales MOU for 500MW Gas to Power Project

DATE: 19 DECEMBER 2019



INVICTUS
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HIGHLIGHTS

- Invictus & Tatanga Energy sign Gas Sales MOU to progress gas supply from Cabora Bassa Project
- Tatanga Energy to develop 500MW Gas to Power Project in Zimbabwe
- MOU signed for the supply of up to 36.5 billion cubic feet of gas per year (Bcf) for 20 years (100 million cubic feet per day)
- Second major Gas Sale MOU executed by Invictus for the Cabora Bassa Project

Invictus Energy Limited ("Invictus" or "the Company"), is pleased to announce that the Cabora Bassa Project partners, comprising Invictus (80%) and One-Gas Resources (Pvt) Limited (20%), have entered into a non-binding Memorandum of Understanding (MOU) with Tatanga Energy (Private) Limited ("Tatanga Energy") to progress gas supply for a ±500 megawatt (MW) Gas to Power plant in the event of a commercial gas discovery from Special Grant 4571 in Muzarabani.

Under the MOU, Invictus and Tatanga have agreed to jointly work together and cooperate with regards to investigating the economic and commercial viability of supplying natural gas from the Cabora Bassa Project to the proposed Gas to Power Plant which will be sold to the national grid and / or to captive clients (i.e. mines, industrial and other large consumers of energy) in Zimbabwe, Zambia and Mozambique.

The proposed Gas to Power plant will be built in two phases with the first phase estimated at ±150MW and the second phase consisting of an additional ±350MW. The optimal location of the plant will be determined by factors including proposed pipeline routings and access to transmission infrastructure including the Southern Africa Power Pool (SAPP).

Preliminary studies have identified a number of suitable locations that provide the ability to supply electricity to the local grid as well as export customers through the Southern Africa Power Pool (SAPP).

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NON-EXECUTIVE CHAIRMAN

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This presentation was approved for release by Scott Macmillan, Managing Director

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