

# PETROLEUM EXPLORATION AND PRODUCTION ACTIVITIES IN SOUTH AFRICA

## Mineral and Petroleum Resources Development Act, No 28 of 2002.

### Role of Petroleum Agency SA

Under section 71 of the above Act, Petroleum Agency SA has been appointed the designated Agency, with the following responsibilities:

- Promotion and regulation of exploration and production on and offshore
- Receive applications, evaluate and recommend the award of permits and rights
- Review, evaluate and recommend approval of EMPs
- Monitor compliance of licence conditions
- Maintain and add value to the national petroleum exploration and production database
- Acquire reconnaissance data
- Collect all prescribed fees

### Permits and rights

The above Act defines the following permits and rights:

- Reconnaissance Permit - 12 months, non-exclusive
- Technical Cooperation Permit - 12 months, exclusive desk-top study, exclusive right to apply for Exploration Right
- Exploration Right - exclusive, transferable, 3 years, renewable for a maximum of 3 periods of 2 years each.
- Production Right - exclusive, transferable, 30 years, renewable.

### KUDU GAS FIELD

(Gazprom/Namcor 54%-JVA, Tullow Oil 31%-Operator, ITOCHU 15%)

Discovered in 1974 by a Chevron / Regent /Soekor consortium. The reservoir comprises Barremian (Early Cretaceous) aeolian sandstones with average porosities up to 22 % at 4400 m.

### IBHUBESI GAS FIELD

Being appraised for development by Sunbird with 3D seismic and appraisal wells. This Albian (Early Cretaceous) fluvial play (part of the Orange Delta) extends northwards into Block 1 and upside gas resources are estimated as multi Tcf for the combined area of Blocks 1 and 2A.

### BHP BILLITON (Operator) (90%) GLOBAL OFFSHORE OIL (10%)

Evaluating deep water oil potential.

### ONSHORE / OFFSHORE KEY

- PETROLEUM EXPLORATION WELL
- OIL SHOWS
- ▲ COAL FIRED POWER STATION
- ▲ GAS TURBINE POWER STATION
- - - POSSIBLE FUTURE GAS PIPELINE
- SEISMIC LINES
- ☢ KOEBERG NUCLEAR POWER PLANT
- COAL FIELD
- ONSHORE OPEN ACREAGE
- OFFSHORE OPEN ACREAGE
- PRIOR APPLICATION AREAS
- AREAS UNDER APPLICATION
- AREAS AWAITING RIGHTS CONVERSION
- TCP TECHNICAL COOPERATION PERMIT
- ER EXPLORATION RIGHT
- PR PRODUCTION RIGHT
- MINING LEASE (OIL) - Block 9
- MINING LEASE (GAS) - Block 9



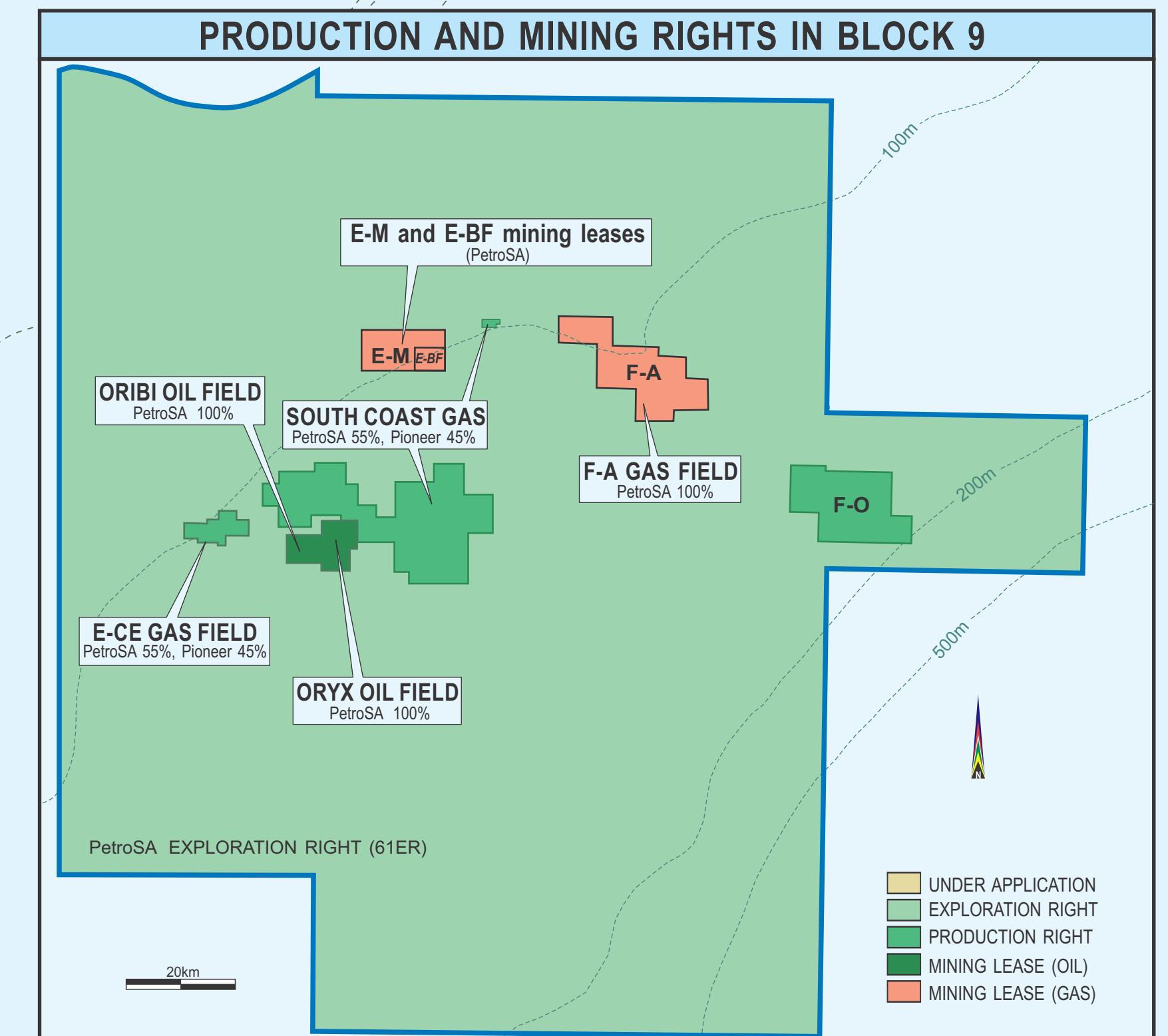
**BOTSWANA COALBED METHANE (CBM) EXPLORATION**  
Large Potential Resource

**PANDE & TEMANE GAS FIELDS**  
Combined reserves in excess of 5.5 Tcf. Now operated by Sasol/ENH partnership.

- Exports 300 million scf/day  
- To increase to 370 million scf/day by end 2009

**Eskom - Majuba Underground Coal Gasification Project**  
Trial production started Jan. 2007  
Planned full production by 2013 is 313 million scfd (natural gas equivalent)

ONSHORE APPLICATIONS (Under Evaluation)	ONSHORE RIGHTS
(118ER) - Misk	<b>NEW RIGHTS GRANTED:</b>
(134ER) - Misk	<b>ANCIL OPERATIONS</b>
(202ER) - Bantu Gas	(01ER) - Coalbrook 1
(207ER) - Inring 189	(02ER) - Waterberg 1
(208ER) - Falcon Oil & Gas	(03ER) - Grootevlei 1
(209ER) - Miley Falls	(04ER) - Waterberg 8
(210ER) - Gold One Africa	(05ER) - Waterberg 2
(211ER) - Gold One Africa	(06ER) - Waterberg 3
(212ER) - Gold One Africa	(07ER) - Waterberg 10
(213ER) - Gold One Africa	(08ER) - Waterberg 12
(214ER) - Gold One Africa	(09ER) - Coalbrook 2
(215ER) - Shell	(10ER) - Anglo Coal
(216ER) - Shell	<b>NT ENERGY AFRICA</b>
(220ER) - Umbono	(01ER) - Orogana Gas
(221ER) - Shell	(02ER) - Orogana Gas
(226ER) - Umbono	(12ER) - Tully Resources
(254ER) - Extrispex Investments	(13ER) - Welcome Gas
(255ER) - Moonstone Investments 89	(14ER) - Highveld Gas
(256ER) - Moonstone Investments 89	(49ER) - Moonstone Investments 81
(261ER) - Maasifa Resources	(52ER) - Moonstone Investments 81
(266ER) - Kineltiko Energy	(53ER) - Inring Investments
(267ER) - Kineltiko Energy	<b>MOLPO/EP</b>
(268ER) - Kineltiko Energy	(02ER) - Ingwe Area
(280ER) - Umbono CBM	(03ER) - Bantulu
(080TCP) - Kineltiko Energy	(07ER) - Evander Area 1
(082TCP) - Moonstone Investments 89	(08ER) - Evander Area 2
(104TCP) - Rhino Oil & Gas	(09ER) - Virginia 1
(118TCP) - Brilliant Oil Corporation	(10ER) - Virginia 2
(120TCP) - SOAR Energy	(11ER) - Virginia 4
(121TCP) - Silver Wave Energy	(12ER) - Virginia 5
(122TCP) - Brilliant Oil Corporation	(13ER) - Virginia 6
(007PR) - Highland EXP	(14ER) - Virginia 7
	<b>BADIMO</b>
	(11ER) - Amersfoort East
	(12ER) - Amersfoort West
	(13ER) - Amersfoort Townlands
	(14ER) - Amersfoort N Extension
	(15ER) - Koppies
	(16ER) - Springsbok Flats
	(17ER) - Alwal North
	<b>OTHER</b>
	(14ER) - Riwervak
	(15ER) - Bantu Gas
	(16ER) - Umbono Coal
	(17ER) - Umbono CBM
	(18ER) - Tahpise Energy
	(19ER) - Tahpise Energy
	(20ER) - Misk
	(21ER) - Misk
	(22ER) - Misk
	(23ER) - Misk
	(24ER) - Extrispex
	(25ER) - Alum Trading 234
	(26ER) - Aberdeen
	(27ER) - Inring Investments 189
	(28ER) - Boli Brothers
	<b>TCP (Technical Cooperation Permit)</b>
	(023TCP) - Surogi Surogi
	(024TCP) - Surogi Surogi
	(025TCP) - Moonstone
	(026TCP) - Kineltiko Energy
	(027TCP) - Kineltiko Energy
	(028TCP) - Umbono CBM
	(029TCP) - Cain Energy
	(070TCP) - Sasol Petroleum International
	(071TCP) - White River Exploration
	(072TCP) - White River Exploration
	(073TCP) - Silver Wave Energy
	(074TCP) - Rhino Oil & Gas
	(075TCP) - Rhino Oil & Gas
	(076TCP) - Rhino Oil & Gas
	(077TCP) - Silver Wave Energy
	(078TCP) - Silver Wave Energy
	(079TCP) - Surogi Surogi
	(112TCP) - Mokuane Energy
	(113TCP) - Mokuane Energy



Visit our website at [www.petroleumagency.co.za](http://www.petroleumagency.co.za) for more information  
This map does not constitute a final authority.  
Requests for further details should be addressed to the Chief Executive, Petroleum Agency SA.  
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