# **E&P Business of SK Energy** in Latin America



September 2009 E&P Division

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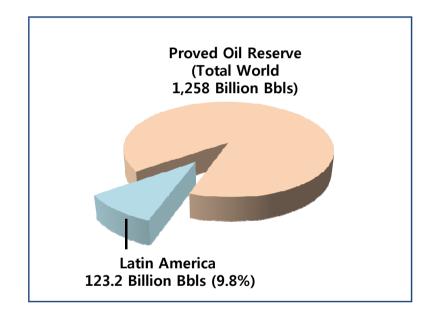


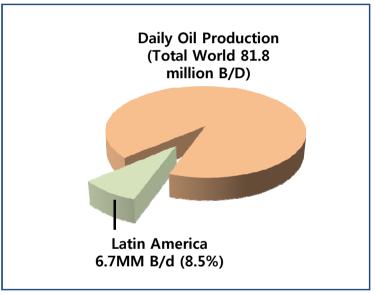
# I. Oil & Gas Reserves in Latin America

#### Oil & Gas Reserves in Latin America



☐ Oil reserve in Latin America is 123.2 billion barrels (9.8% of total reserve in the world), Daily oil production is 6.7 million barrels (8.2% of total daily production in the world)





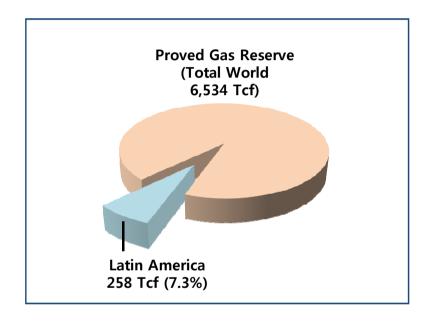
Source: BP Statistical Review 2009

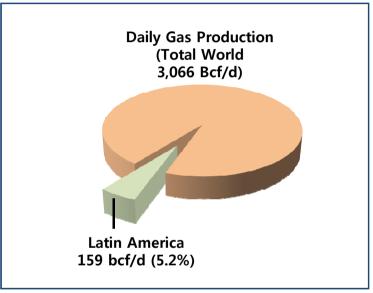
- ☐ Latin America is home to hearly two thirds of the recoverable **heavy oil reserves** on the world.
  - Worldwide 429 billion barrels, Latin America 266 billion barrels (Source: USGS)

#### Oil & Gas Reserves in Latin America



☐ Gas reserve in Latin America is 258.2 TCF (7.3% of total gas reserve in the world), daily gas production is 15.3 BCF (5.2% of total daily production in the world)





Source: BP Statistical Review 2009

□ Copper production covers 50% of total world production and also production of iron ore/zinc/tin/silver covers over 20% of total world production which make Latin America is one of the most attractive regions to invest.



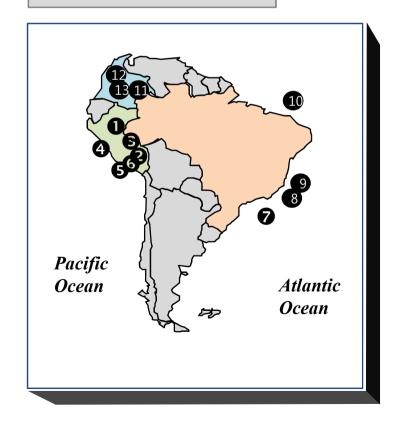
# II. SK's Business in Latin America

# SK's Projects in Latin America



- ☐ SK has participated in Latin America for resources development business since mid-'90s
- □ Currently SK is participating in <u>13 projects in Peru, Brazil and Colombia</u> varying from 11 E&P projects (Exploration 7, Production 4) to 1 LNG project and 1 transportation project.
- □ Especially SK is one of the major players in Peru participating in "Value Chain" as developing the biggest Peruvian gas field Camisea.

#### **SK Business in Latin America**



Country	Incumbent Biz	SK Stakes	Status
Peru	① Block 8	8 1/3%	Production (1996~)
	② Block 88 (Camisea)	17.6%	Production (2004~)
	3 Block 56	17.6%	Production (2008~)
	④ Z-46	100.0%	Exploration
	⑤ Peru LNG	20.0%	Construction
	⑥ TGP(Pipeline)	11.19%	Operation (2004~)
Brazil	⑦ BMC-8	40.0%	Production (2007~)
	® BMC-30	20.0%	Exploration
	9 BMC-32	26.7%	Exploration
	® Bar-3	30.0%	Exploration
Colombia	① CPE-5	28.6%	Exploration
	② SSJN-5	50%	Exploration
	③ CPO-4	100%	Exploration

#### SK Evolution in Latin America



☐ SK is making "Expansion History" in Latin America as carrying out Reserve acquisition of Block 8 in Peru in 1996, participating in Camisea in Peru & BMC-8 in Brazil in 2000, **BAR-3 Participation** Block 56 in Peru & BMC 30, 32 in Brazil in 2004, Wahoo Discovery CPO 4, SSJN 5, CPE 5 in Colombia in 2008 CPO 4, SSJN 5 Award Block Z-46 **Bid Success BMC 8 Production** Start-Up 2008 PLNG Launching CPO-4, SSJN5 Operated by SK BMC 30, BMC 32 2007 PLNG JV Formation **Award** Offshore Block Camisea Production Start-Up 2007 Operated by SK Block 56 Award Additional Reserve 2007 Secured FID BMC 8 Bid Success 2004 Camisea Bid Success 2004 TgP participation Leap to LNG Biz Long-term Profit Base Secured Block 8 2000 Additional Reserve Secured Acquisition 2000 Giant Gas & Liquids Field Expanded to Pipeline Transportation Biz

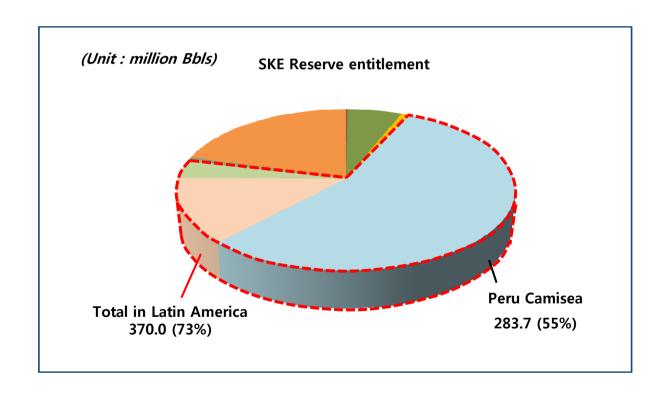
1st Reserve Acquisition of SK

1996

#### **Proven Reserve of SK**



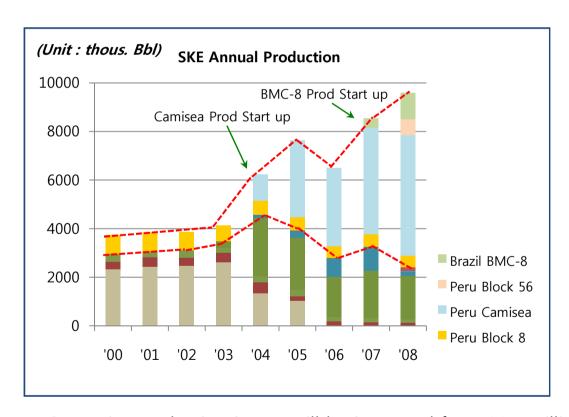
- ☐ 4 producing projects are located in Latin America
- As of the end of 2008, SK total proven reserve is 520 million barrels and Reserve entitlement in Peru & Brazil is 370 million barrels (73% of SKE total reserve entitlement)

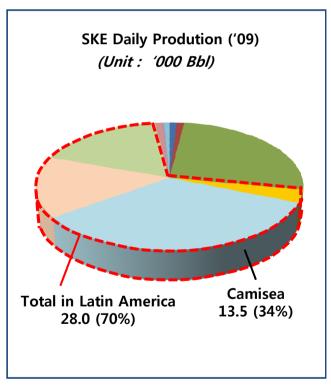


#### **SK Production Entitlement**



- ☐ In 2008, SK total equity production was 9.6 million barrels and 7.2 million barrels were from Peru & Brazil (75% of SKE total entitlement)
- ☐ Curretnly, SK's daily production from L.A. is 28,000 barrels out of 40,000 barrels worldwide (70% of SKE total Daily entitlement)



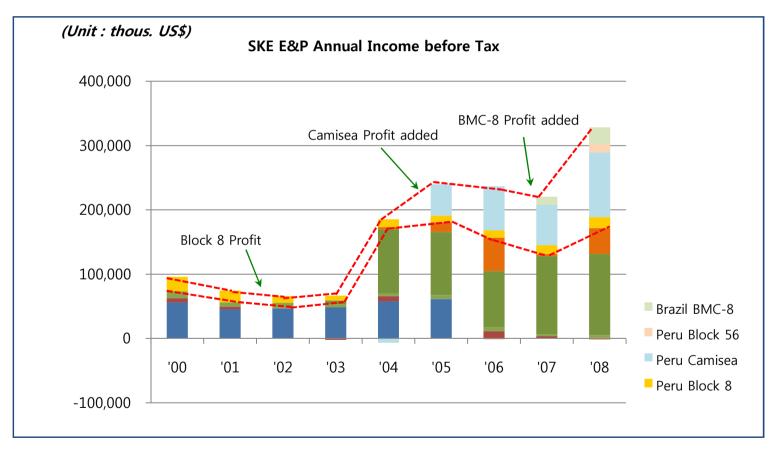


□ SK equity production in L.A. will be increased from 11.5 million barrels (Daily 31,000 barrels) in 2009 to 20.6 million barrels (Daily 56,000 barrels) in 2017.

#### **Income Status of SK in Latin America**



☐ In 2008, SKE E&P's total income before tax was 326.6 million US\$ and income before tax in Latin America (Peru & Brazil) was 156.6 million US\$ (48% of SKE E&P)



☐ The financial contribution from the LA region will continue to increase with the start-up of commercial operation of Peru LNG from 2010. The net income in 2013 in Latin America is projected to be 248million US\$.

# Project Status – Peru ①

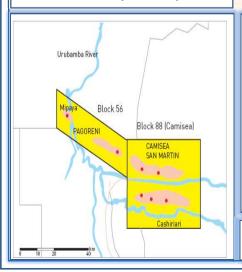


#### Peru Block 8



- Located in the northern Peruvian jungle
- Participated through privatization bid in 1996
- SK's first reserve acquisition
- First JV w/ Argentine Pluspetrol
- Originally valued for 60MM bbls of remaining reserve at the time of bidding but cumulative production by 2008 is over 100 MM bbls.
- Current Production 15,000 bbls
- Pluspetrol 60%, KNOC 20%, Daewoo 11.67%
- SK 8.33%

#### Peru Block 88 (Camisea) & 56

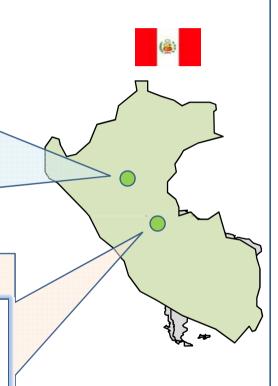


#### [Block 88 - Camisea]

- In 2000, awarded to Pluspetrol-Hunt-SK consortium
- Biggest gas field in Peru and has over 13 TCF of gas
- Production started in 2004 after 44 months development
- Producing Oil 42,000 b/d, Gas 600 mmcf/d

#### [Block 56]

- In 2004, Awarded to Camisea consortium
- •Gas reserves dedicated to Peru LNG operation
- In 2008, Production Start-up
- Produce Oil 35,000 b/d, Gas 400 mmcf/d
- Pluspetrol 27.2%, Hunt 25.2%, Tecpetrol 10%
- **SK 17.6%,** Repsol 10%, Sonatrach 10%



# **Project Status – Peru** ①

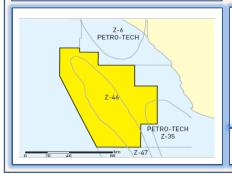


#### Peru Block 8



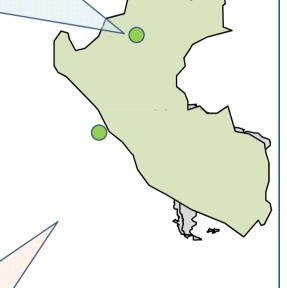
- Located in the northern Peruvian jungle
- Participated through privatization bid in 1996
- SK's first reserve acquisition
- First JV w/ Argentine Pluspetrol
- Originally valued for 60MM bbls of remaining reserve at the time of bidding but cumulative production by 2008 is over 100 MM bbls.
- Current Production 15,000 bbls
- Pluspetrol 60%, KNOC 20%, Daewoo 11.67%
- SK 8.33%

#### Z-46



- Awarded to SK thru 2007 bidding round
- SK first project in LA having operatorship
- Sea depth : 150 M ~ 200 M
- Area: 11,345 sq-Km (16 times of Seoul)
- G&G work is underway and 1st well planned in 2011

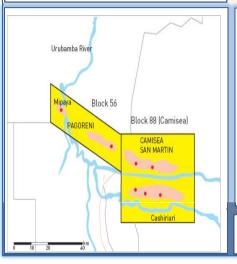
• SK 100%



# **Project Status – Peru 2**



#### Peru Block 88 (Camisea) & 56



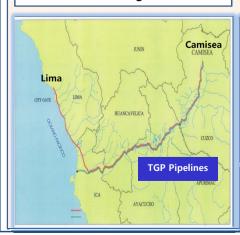
#### [Block 88 – Camisea]

- In 2000, awarded to Pluspetrol-Hunt-SK consortium
- Biggest gas field in Peru and has over 13 TCF of gas
- Production started in 2004 after 44 months development
- Producing Oil 42,000 b/d, Gas 600 mmcf/d

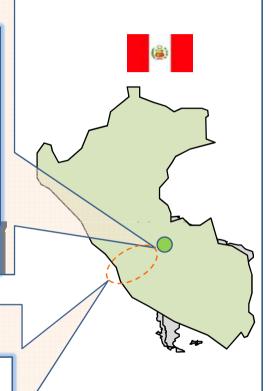
#### [Block 56]

- In 2004, Awarded to Camisea consortium
- •Gas reserves dedicated to Peru LNG operation
- In 2008, Production Start-up
- Produce Oil 35,000 b/d, Gas 400 mmcf/d
- Pluspetrol 27.2%, Hunt 25.2%, Tecpetrol 10%
- **SK 17.6%,** Repsol 10%, Sonatrach 10%

#### Peru TgP



- A regulated company established in 2000 to transport liquid and gas from Camisea field
- Parallel two pipelines : Gas Pipeline (734 km) & Liquid Pipeline (559 km) (Malvinas Plant ~ Peru West Coast)
- Commercial operation since Aug 2004.
- Plusepetrol 12.38%, Hunt 12.38%, Tecpetrol 23.6%
- **SK 11.19%**, Sonatrach 21.18%, Repsol 10%
- GyM 1.2% Suez-Tractebel 8.07%



# **Project Status – Peru 3**



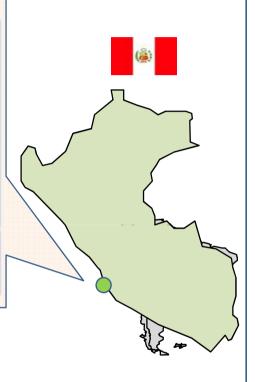
# Peru LNG 메루 브라질 HI평양 Fisco REFERENCE S GAS PAL Liquids PL Li

#### [PLNG]

- Peru LNG Company was established in 2003 by Hunt/SK.
- FID made in 2006
- Liquefaction Plant in Pampa Melchorita
- Capacity 4.45 MTA
- Investment : 3.6 billion US\$
- LNG Buyer : Repsol
- Construction works underway with planned 1<sup>st</sup> cargo of LNG in mid-2010



• SK 10%

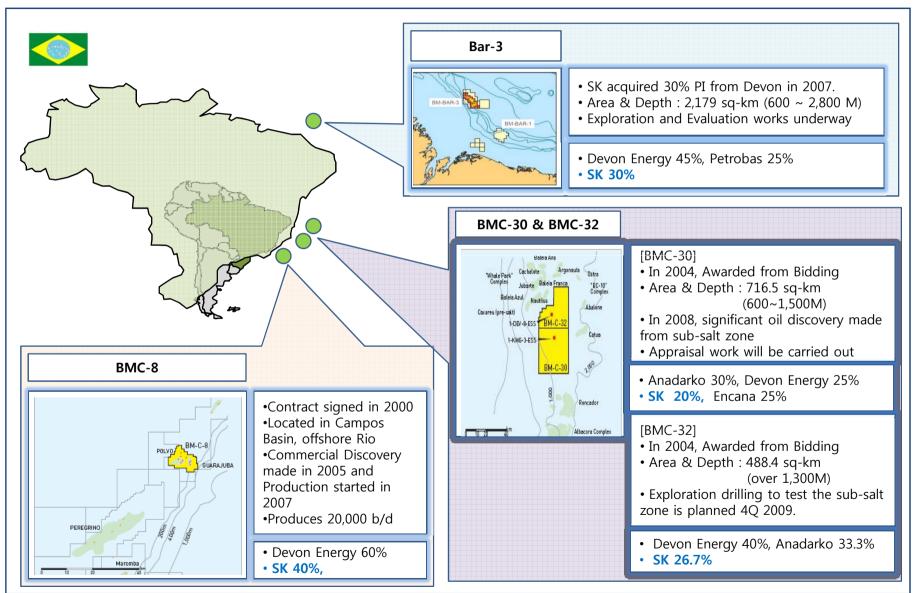




Peru LNG is the largest single private-sector project in Peru's history and will be one of the most significant contributors to the Peruvian economy.

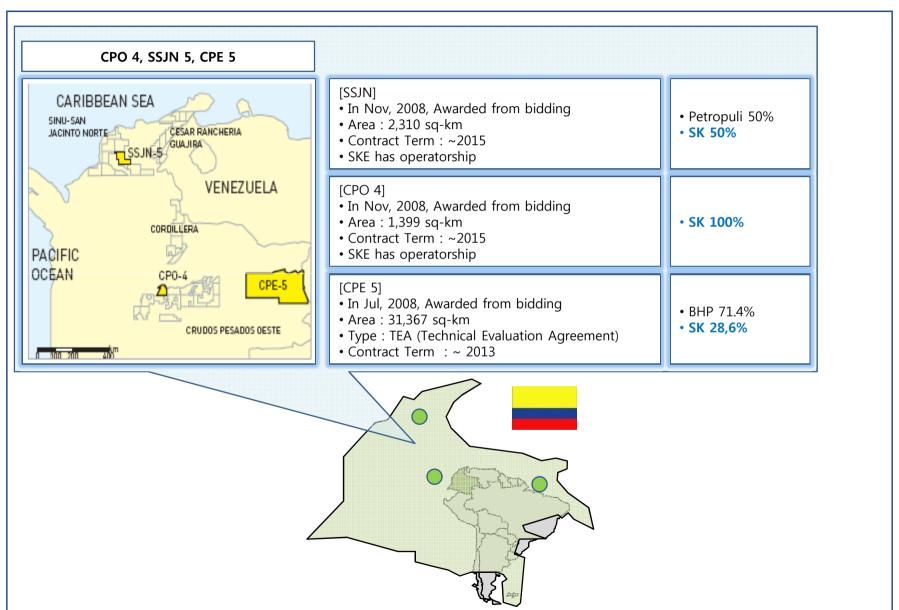
### **Project Status – Brazil**





# **Project Status – Colombia**







# III. SK's Strategy in Latin America

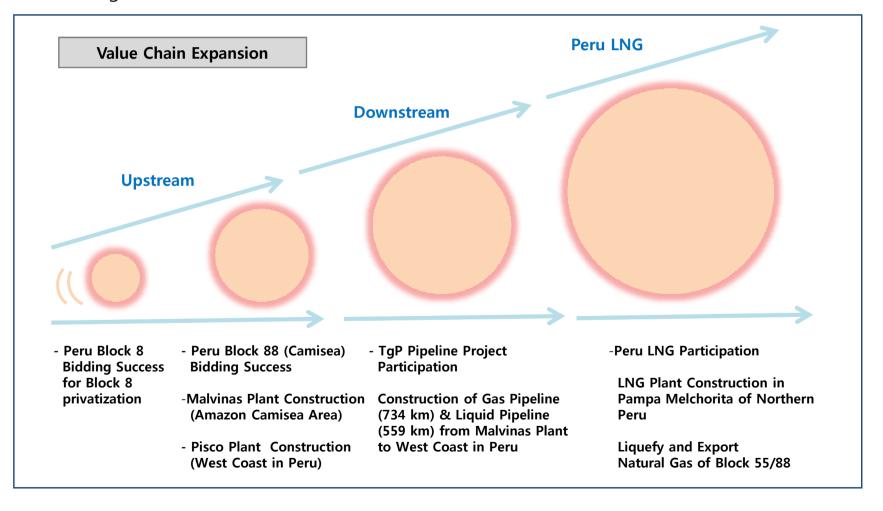
# SK's Strategy in Latin America ①



#### **☐** Heritage Growth

Starting from a small project and pursuing expansion based on the existing project

> As expanding E&P reserve & value chain to Downstream, SK became well-positioned major foreign investor in Peru

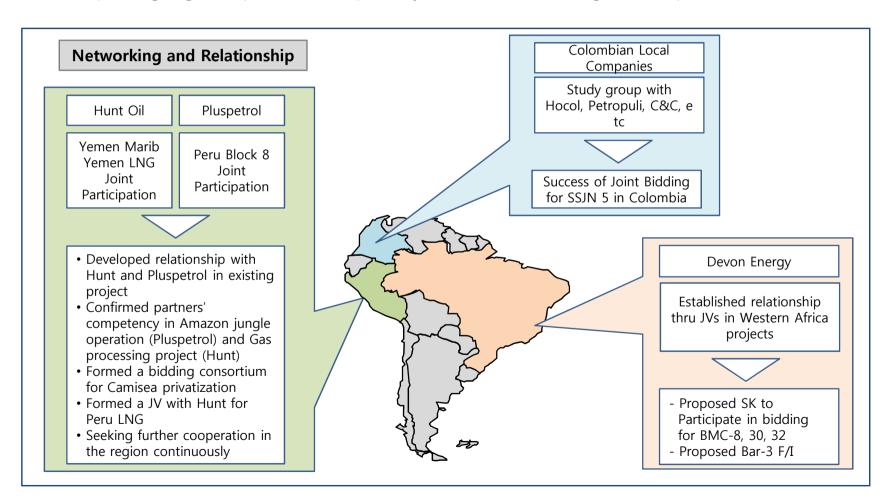


# SK's Strategy in Latin America 2



#### ☐ Go-together with regional players

- > Search business opportunity from close relationship with existing partners & local companies
- > Exploiting regional partners competency from their knowledge and experience

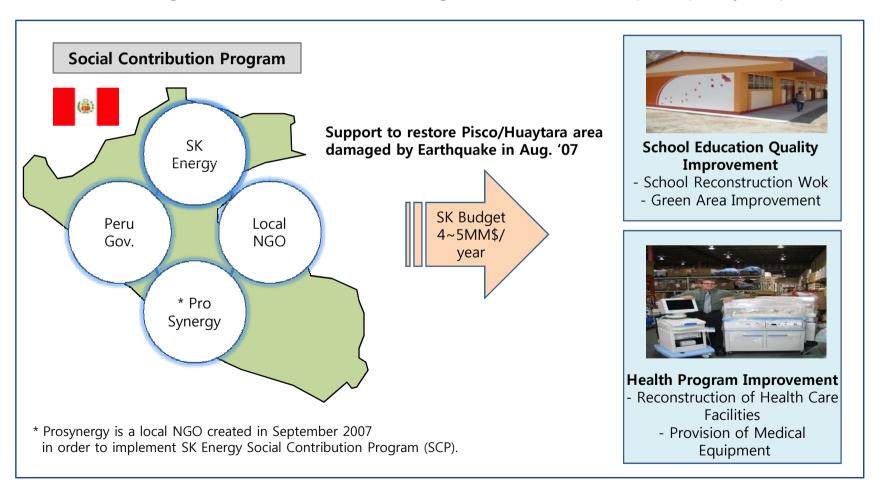


# SK's Strategy in Latin America ③



#### ☐ Cooperation with Host Government and Harmony with Local Community

- > Close cooperation with Governments to accommodate government needs into project agenda
- Dealing with the demands from Local Communities through close communications with GOVT
- > Conducting active Social Contribution Program as a reliable and participatory Corporate Citizen



# **End of Document**