

Ronda Colombia 2012

Orlando Cabrales Segovia
President
ANH Colombia

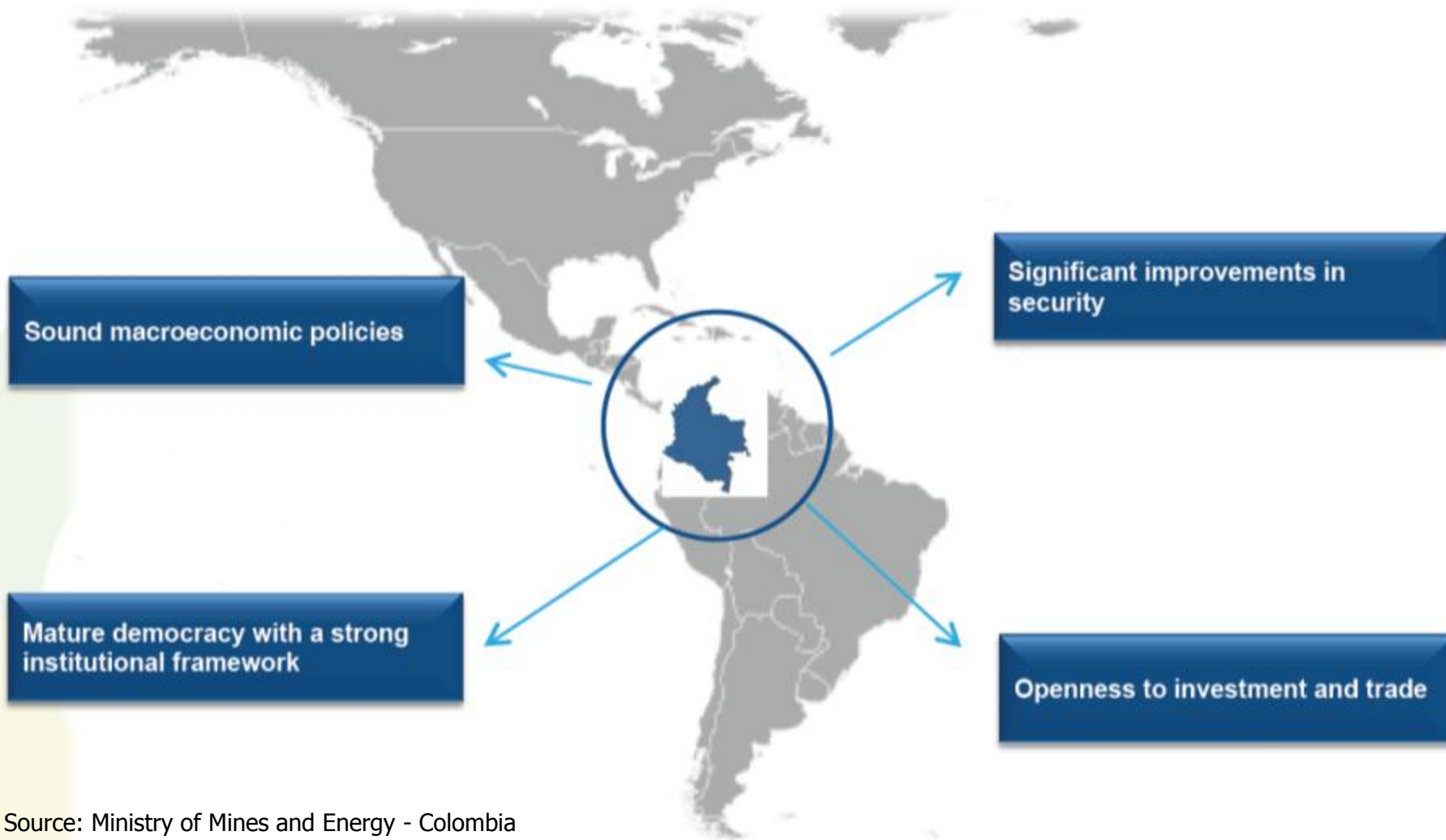


Content



- 1. Colombia – indicators / targets**
- 2. Potential**
- 3. Colombia Round 2012**
- 4. Environmental and Social Aspects**
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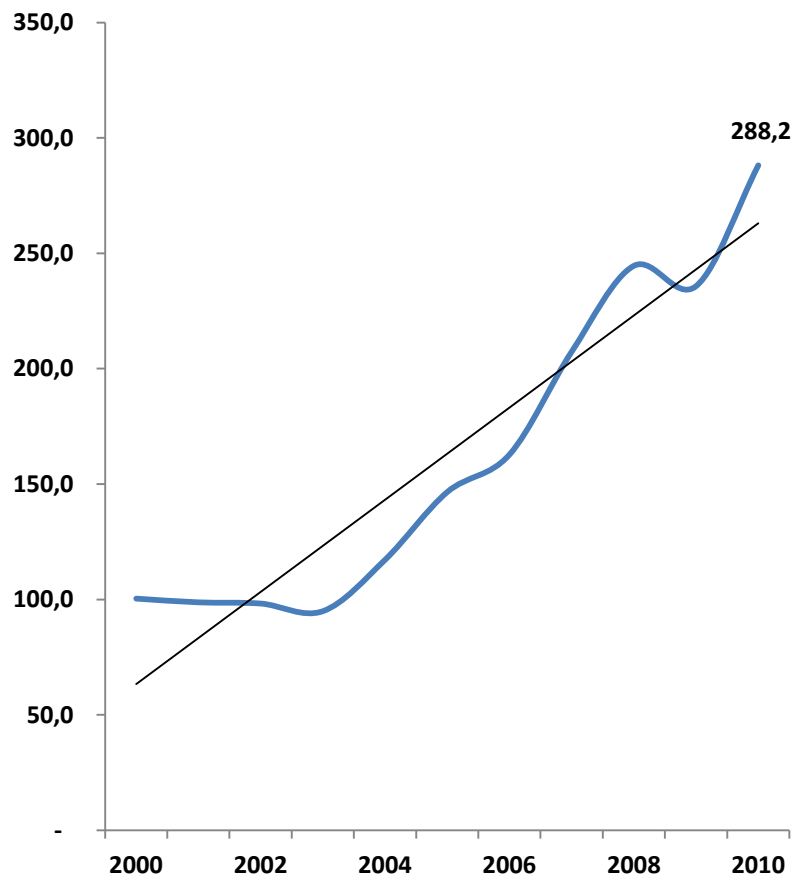
Colombia has strong fundamentals on which to build prosperity



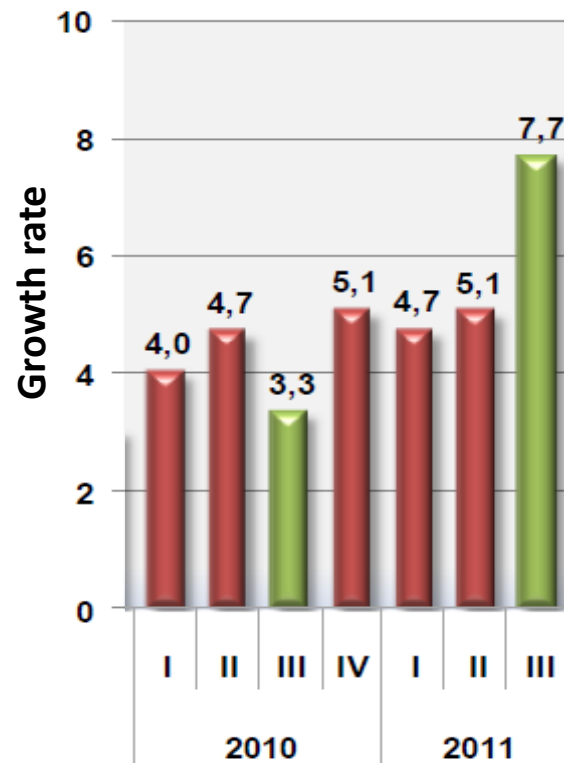
Source: Ministry of Mines and Energy - Colombia

This is shown by its recent economic performance

GDP (PIB US\$ Billion)



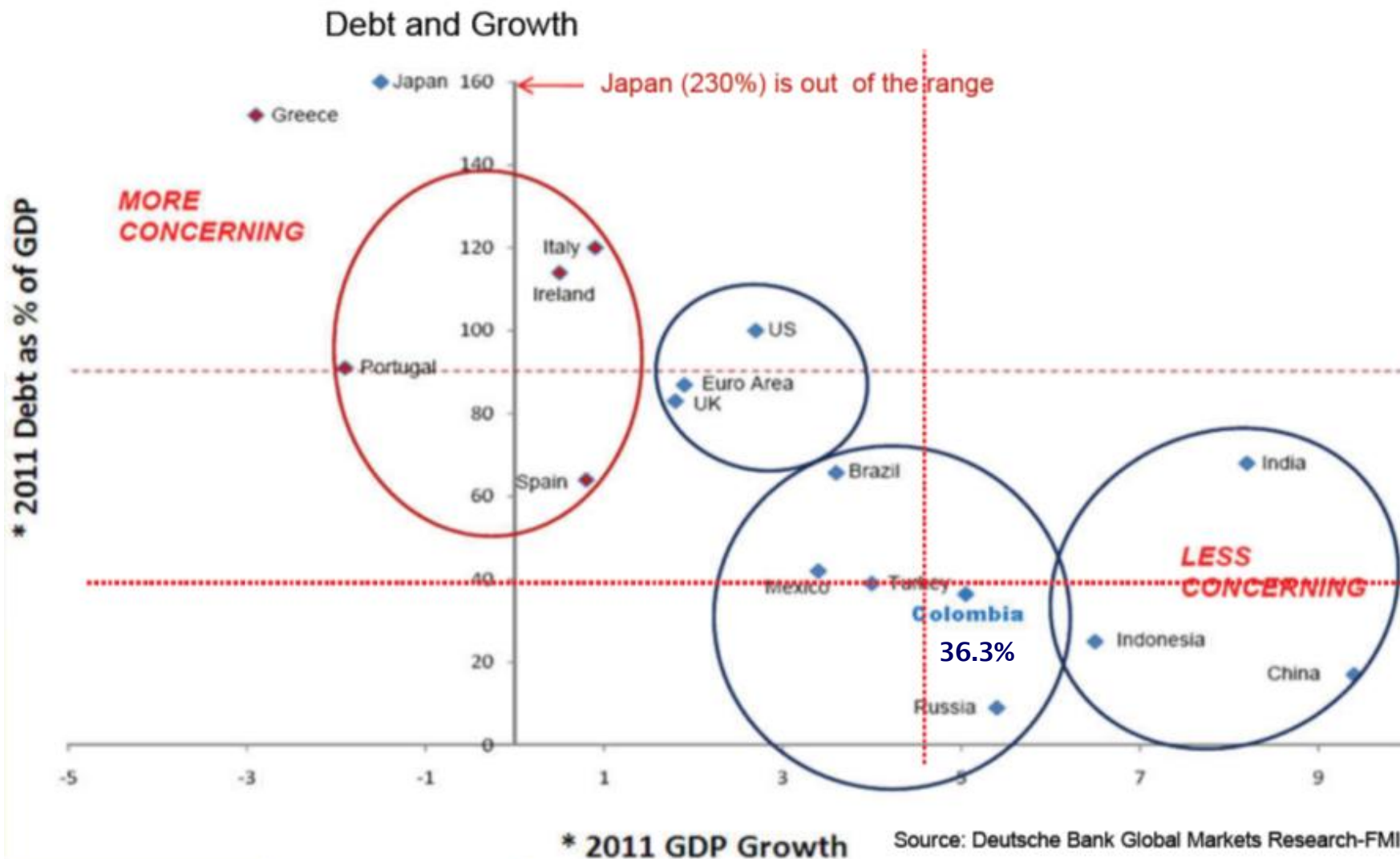
Source: World Bank



Source: Statistical Department of Colombia – DANE

During the third quarter of 2011, GDP grew 7.7% over the same period of 2010

Debt and Growth



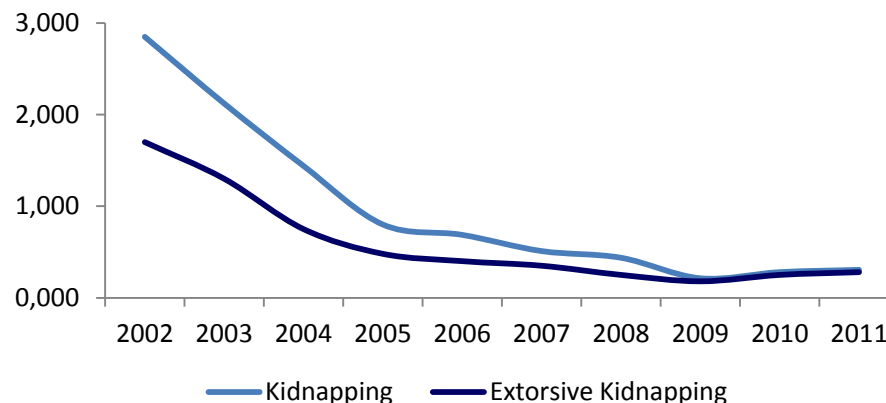
Improving Security

The security strategy is constantly adjusting

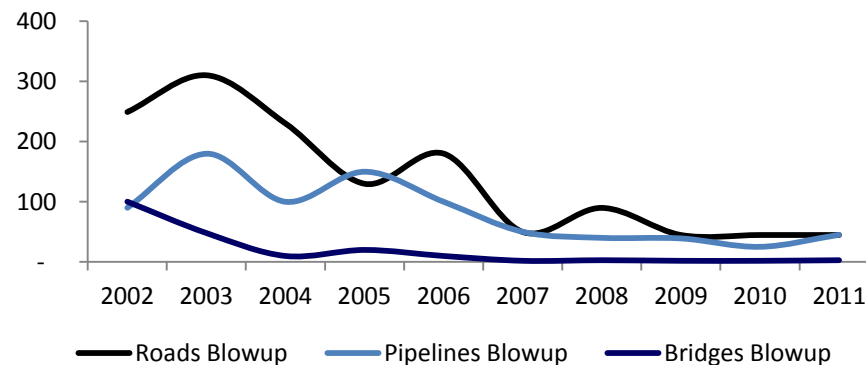
- Include security considerations in energy planning
- Increase troops as needed



Kidnapping



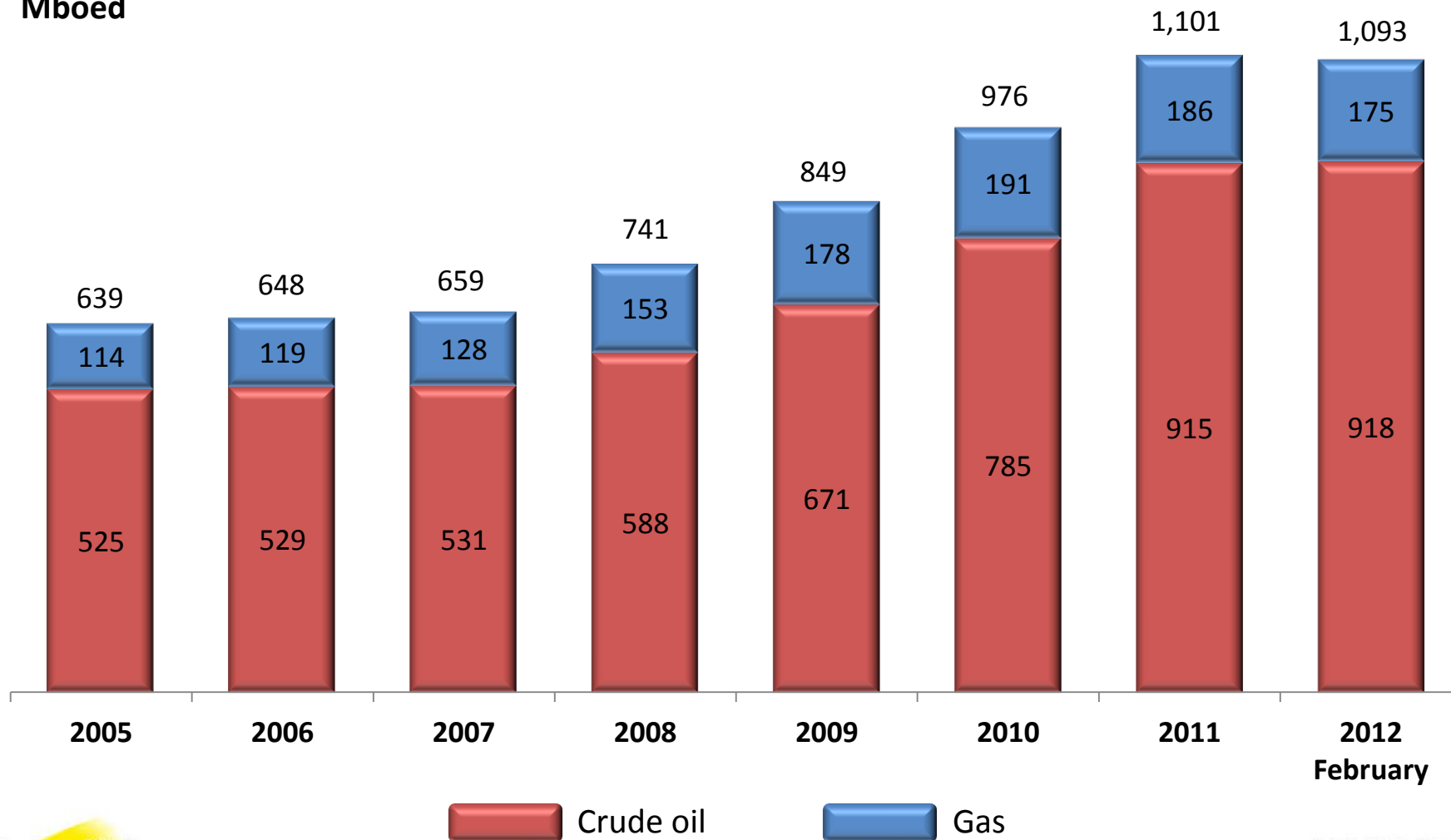
Attacks Against Infrastructure



Equivalent oil production in Colombia



Mboed

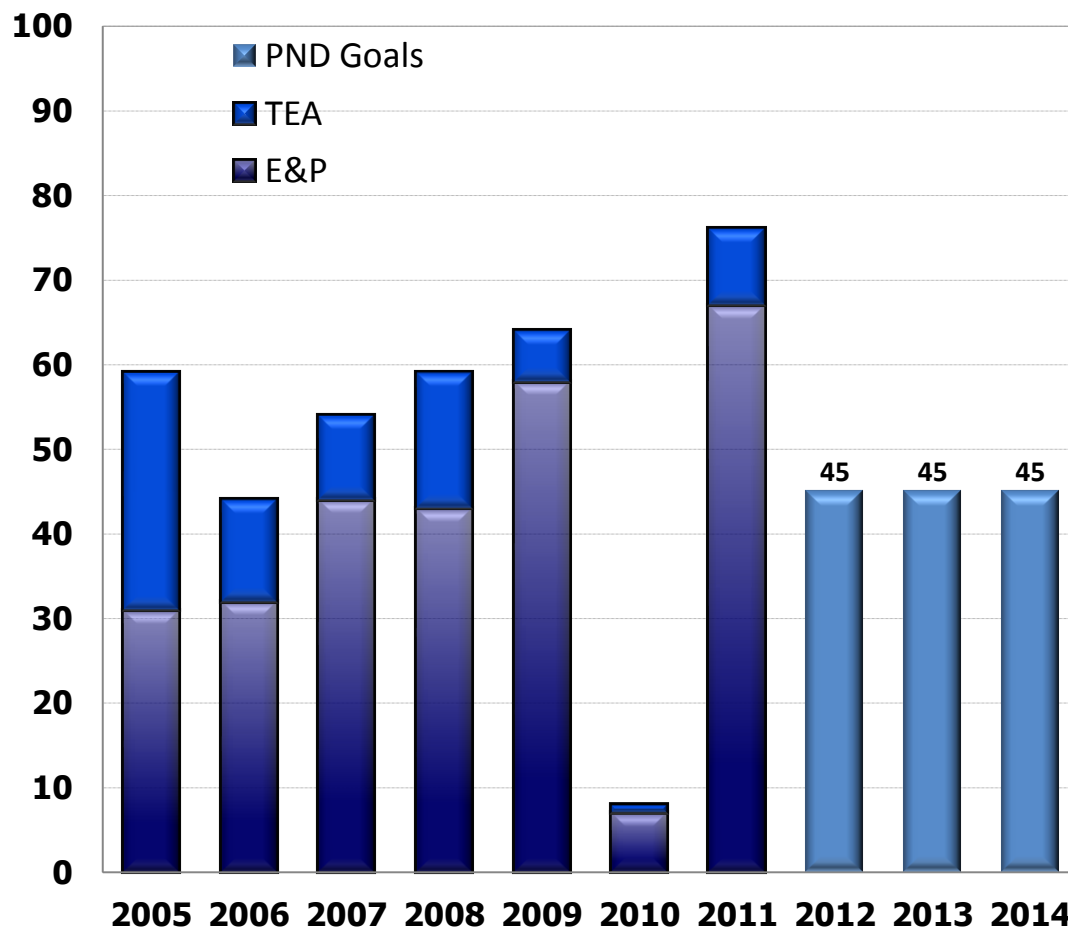


Executed Contracts

Year	TEA	E&P	Total
2005	28	31	59
2006	12	32	44
2007	10	44	54
2008	16	43	59
2009	6	58	64
2010	1	7	8
2011	9	67	76

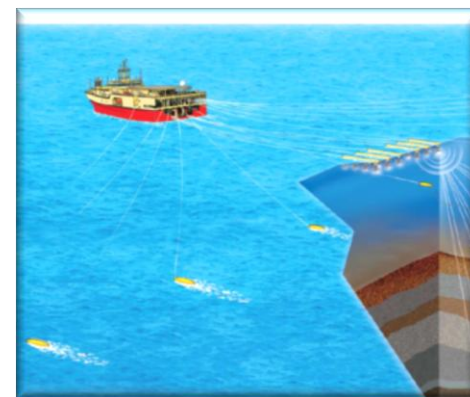
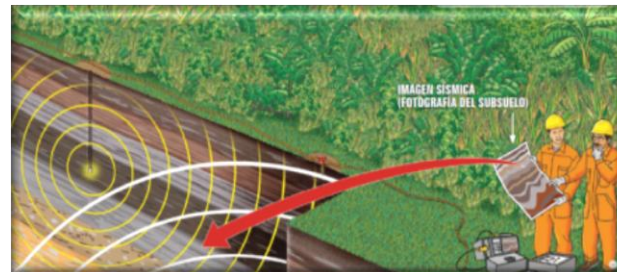
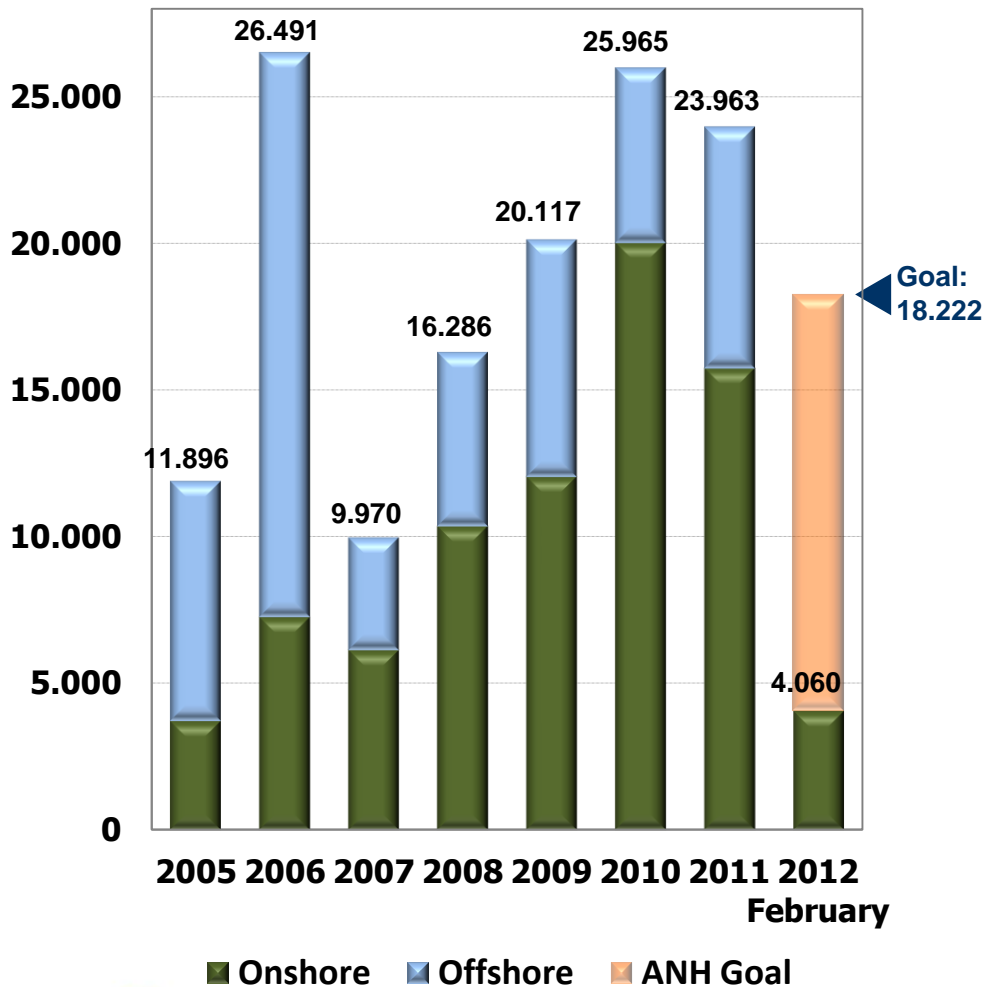
TEA: Technical Evaluation Agreement
E&P: Exploration and Production contract

No. contracts



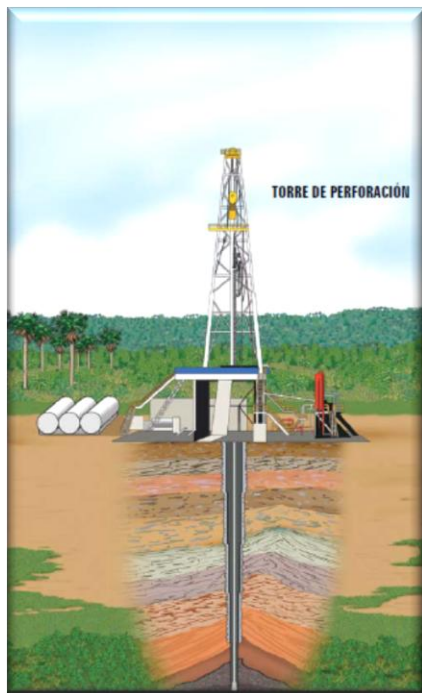
Seismic acquisition

Seismic: km of 2D equivalent



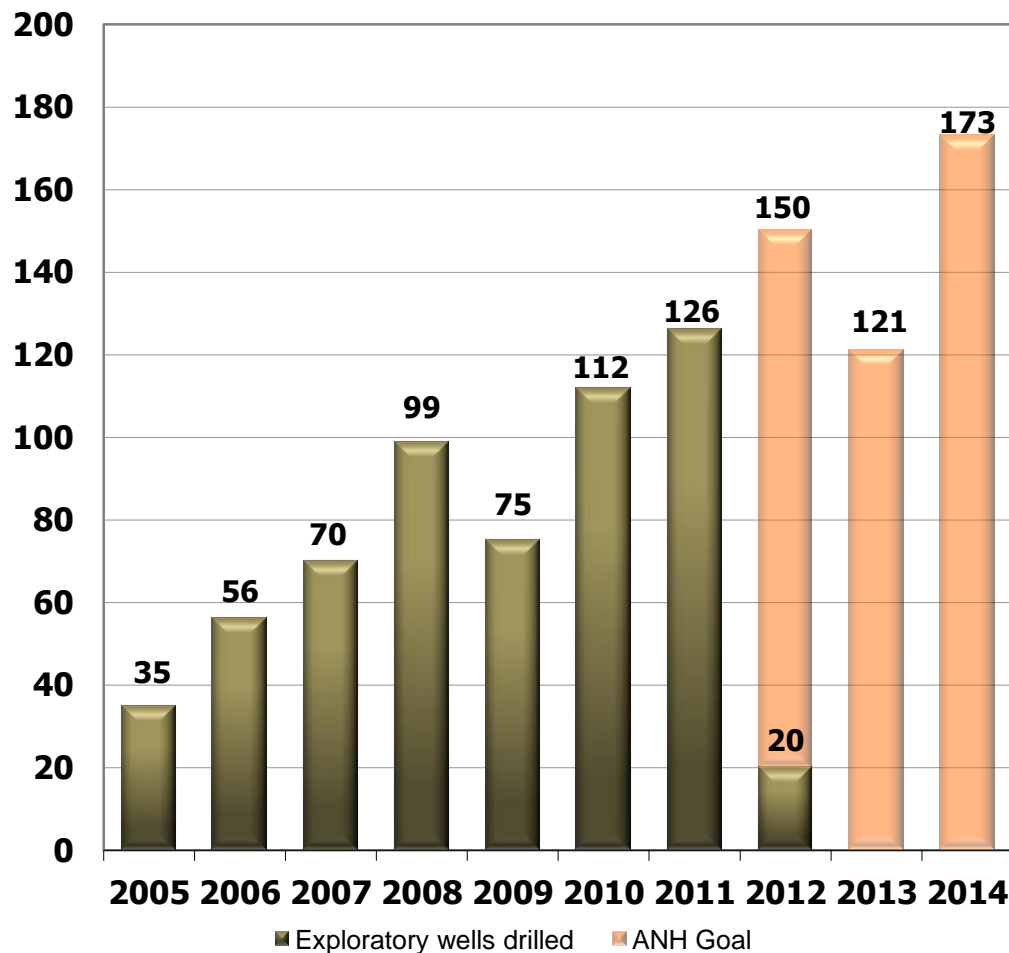
Investment in seismic acquisition (2012)	560 USD million
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Exploratory wells drilled



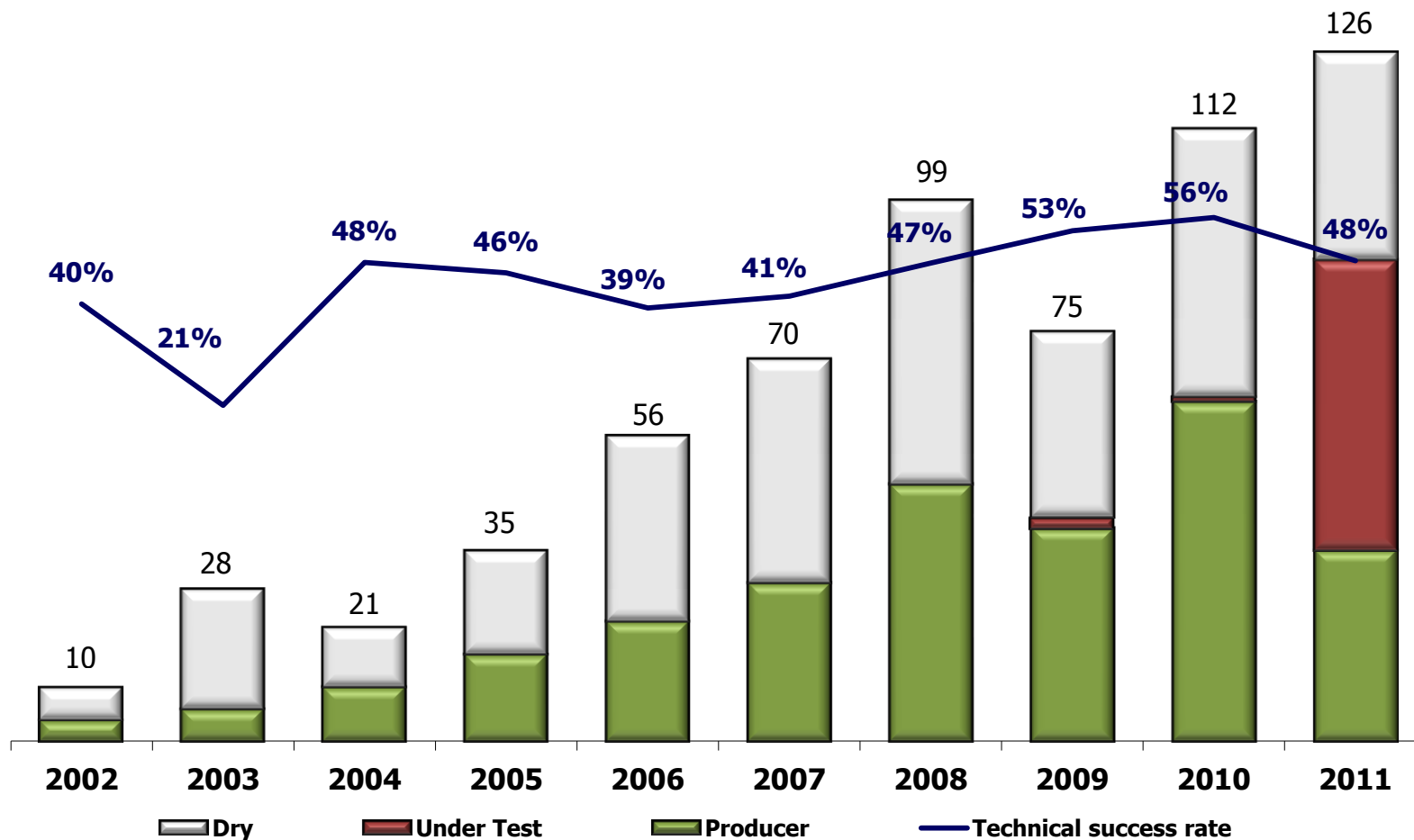
Investment in drilling (2012)	770 USD million
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Number of exploratory wells drilled



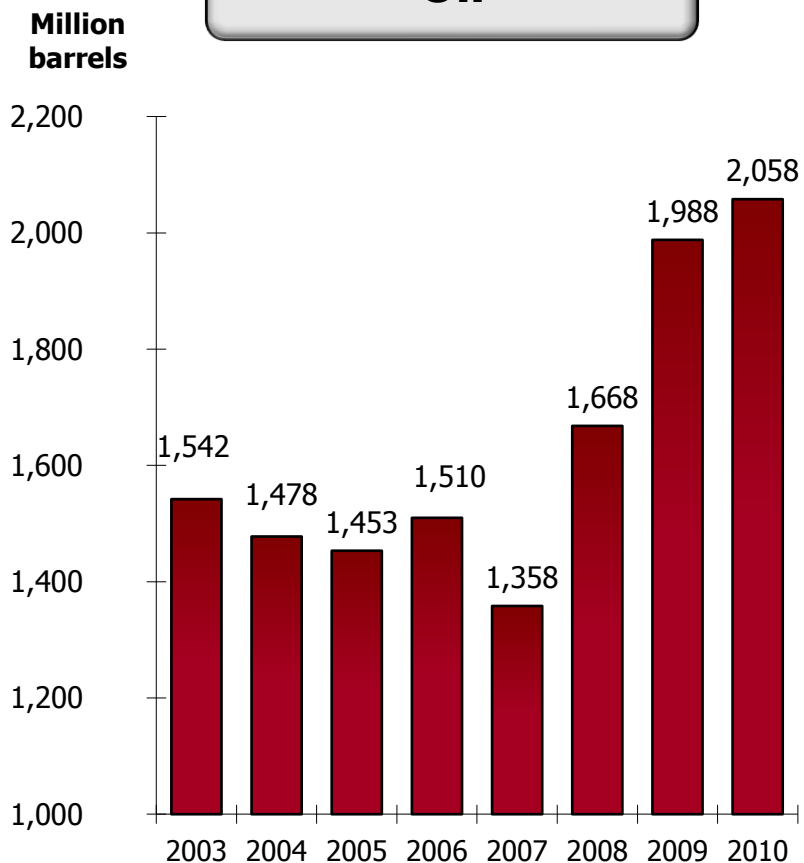
Exploratory wells in Colombia

The success rate



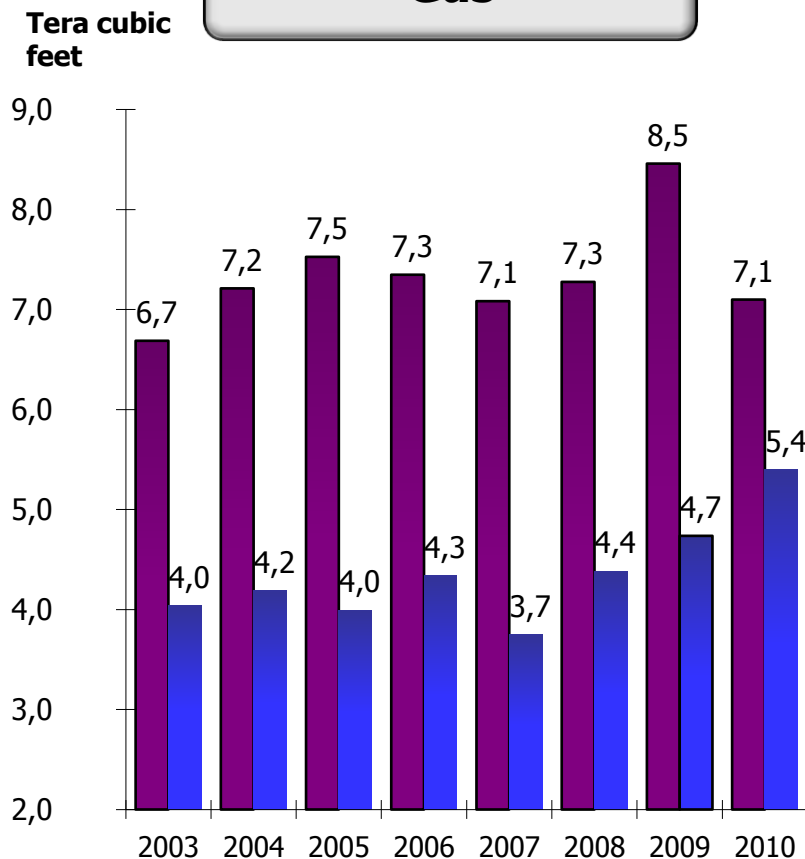
Reserves

Oil



■ Proven

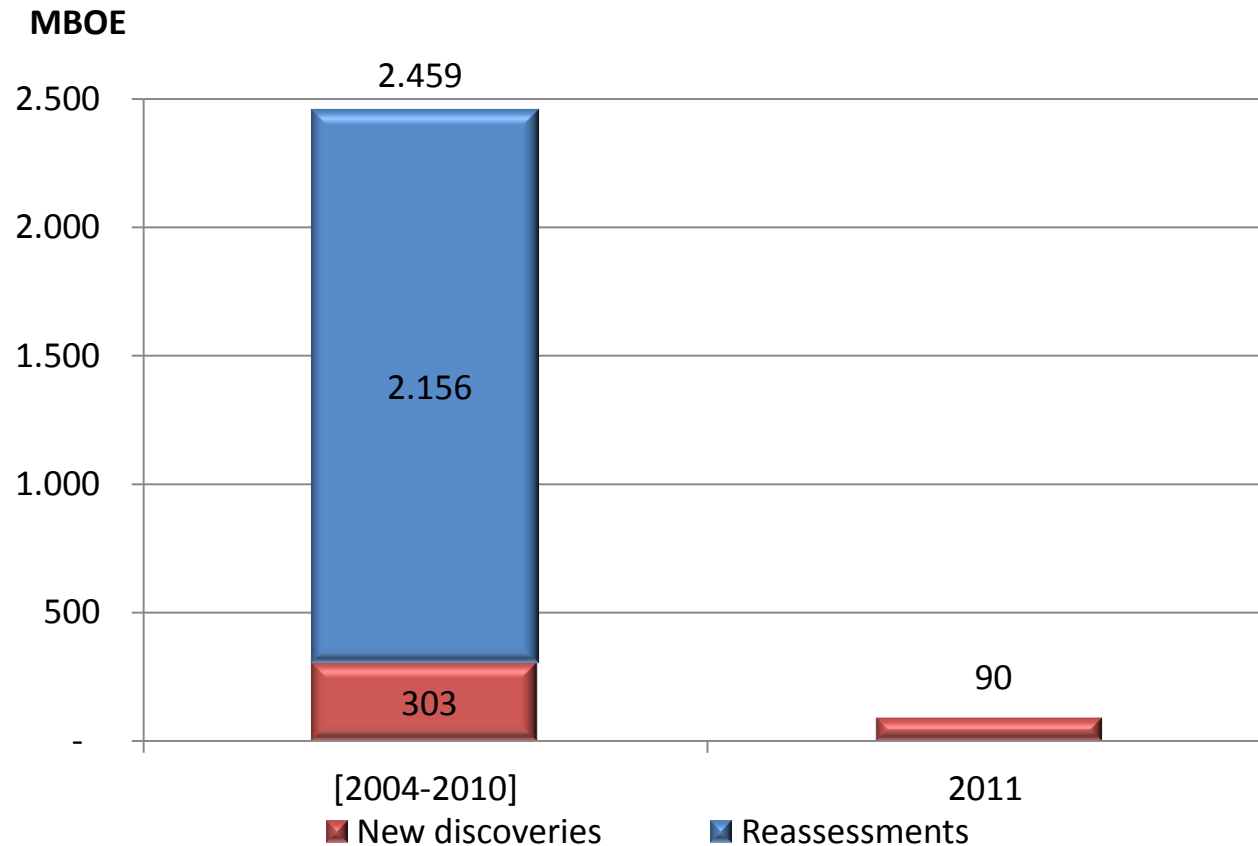
Gas



■ Totals ■ Proven

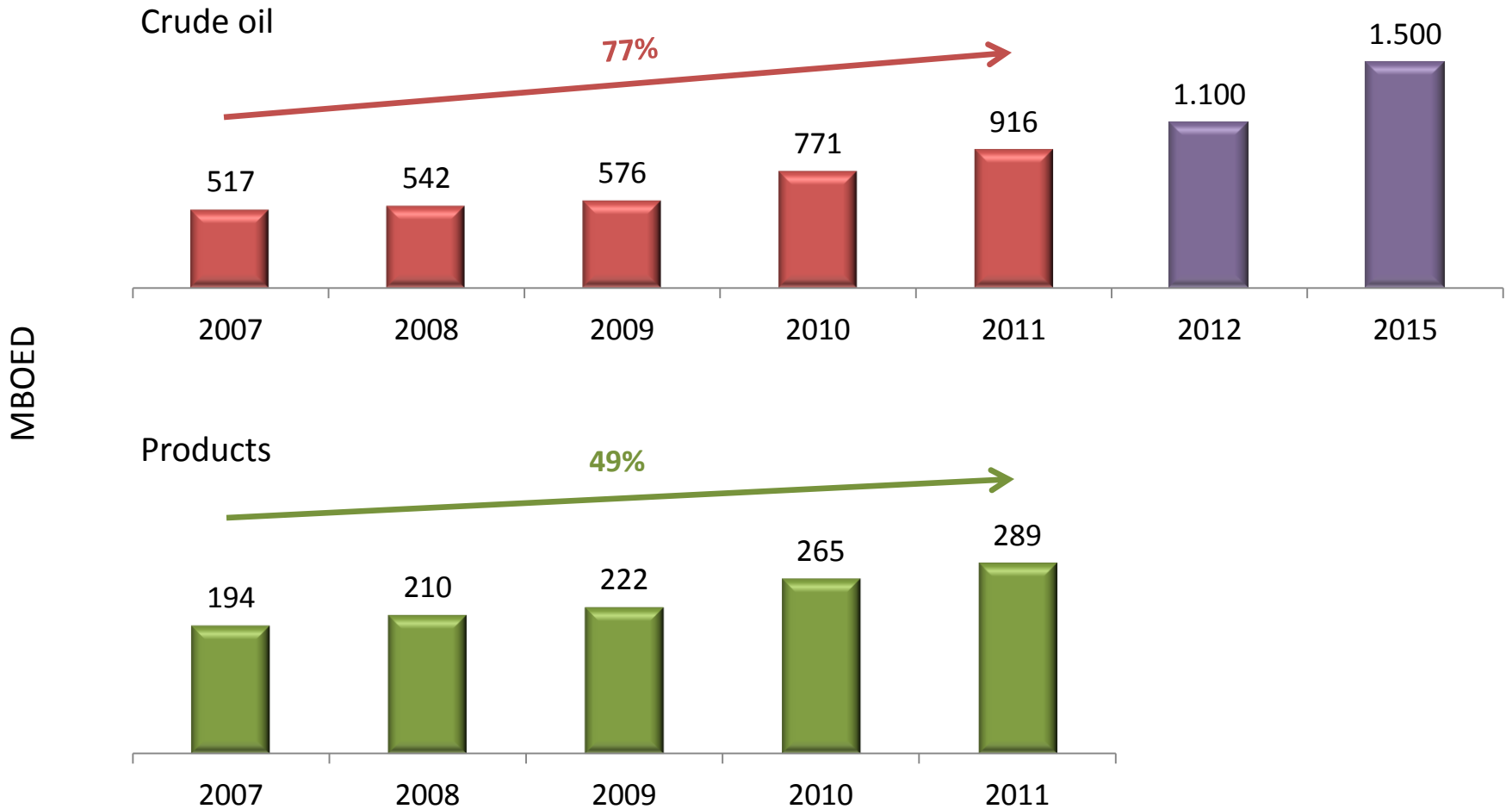
Proved reserves incorporated

Million barrels of oil equivalent

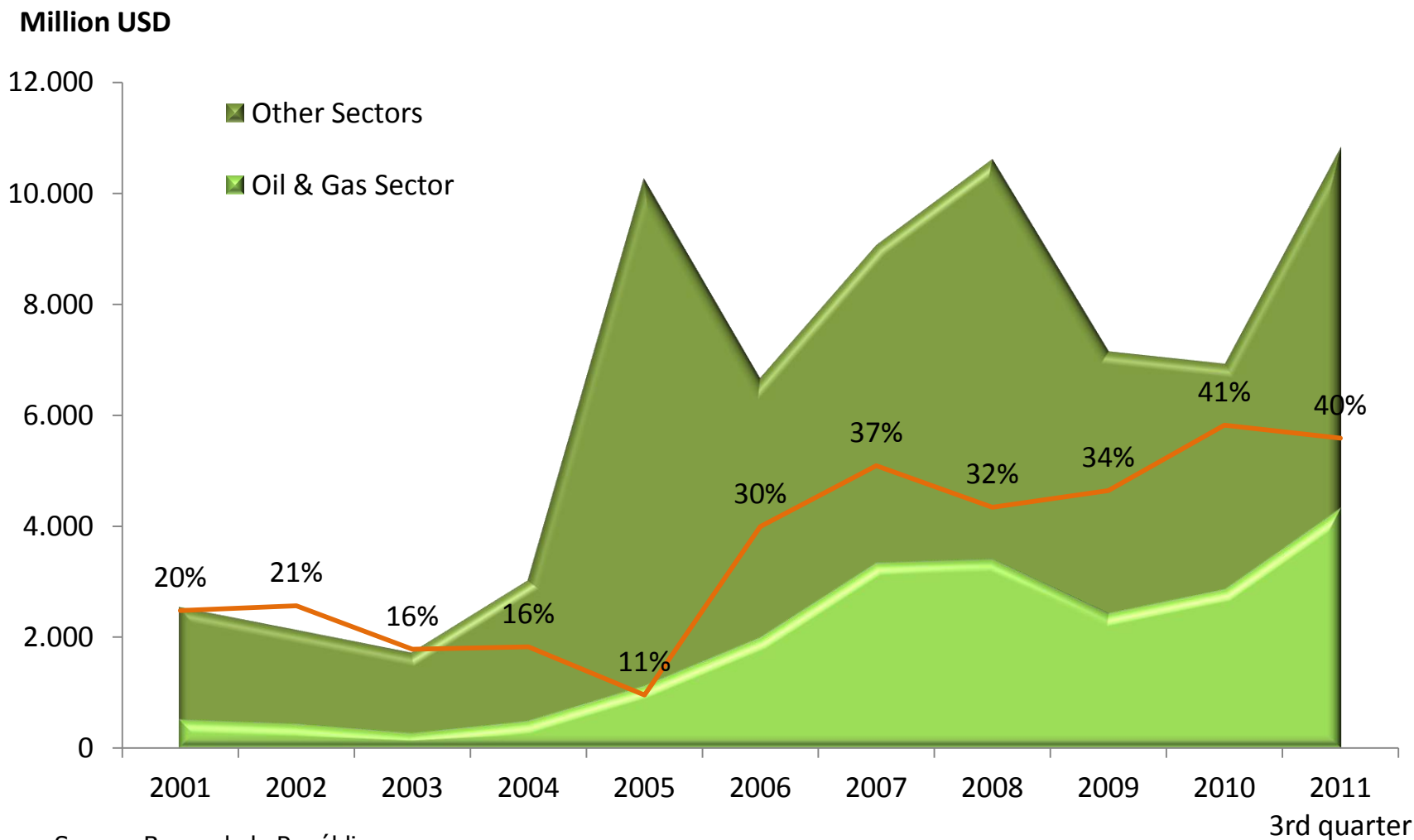


The figure of 2011 is the incorporation expected and correspond to areas of E&P contracts in the same year declared commerciality.

We have increased the volume transported



Foreign Direct Investment



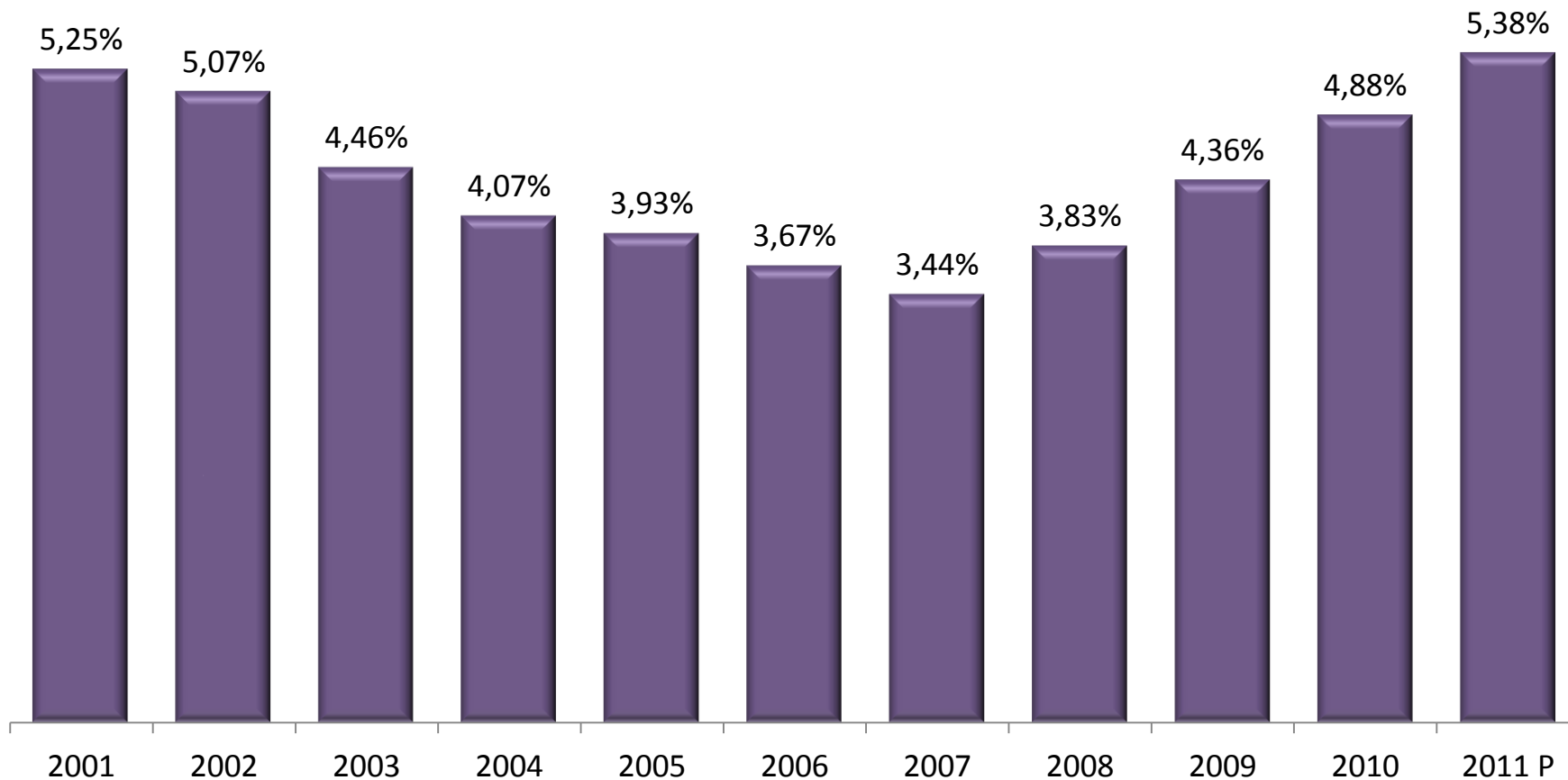
Source: Banco de la República

Growth of Oil and Gas sector



Source: Statistical Department of Colombia – DANE

Share of Oil and Gas sector in the national GDP



Source: Statistical Department of Colombia – DANE

Content



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Potential

Basin / Resource (MMbbl / Tcf)	Conventional crude			Gas (Associated and free, Bcf)			Heavy Oil (MMbbl)		
	<i>P₁₀</i>	<i>P₅₀</i>	<i>P₉₀</i>	<i>P₁₀</i>	<i>P₅₀</i>	<i>P₉₀</i>	<i>P₁₀</i>	<i>P₅₀</i>	<i>P₉₀</i>
OFFSHORE	276,413.0	75,815.0	12,570.0	205.8	20.6	1.9			
ONSHORE	153,952.0	42,148.0	7,436.0	289.4	25.6	1.8	388,653.0	71,386.0	14,224.0
TOTAL	430,365.0	117,963.0	20,006.0	495.1	46.3	3.8	388,653.0	71,386.0	14,224.0

Basin / Resource (MMbbl / Tcf)	Gas Hydrates (Tcf)			Coal bed methane (Bcf) ¹			Tar Sand		
	<i>P₁₀</i>	<i>P₅₀</i>	<i>P₉₀</i>	<i>P₁₀</i>	<i>P₅₀</i>	<i>P₉₀</i>	<i>P₁₀</i>	<i>P₅₀</i>	<i>P₉₀</i>
OFFSHORE	75.6	19.1	4.9						
ONSHORE				77,510.7	14,612.0	725.4	151,173.8	20,428.8	3,455.2
TOTAL	75.6	19.1	4.9	77,510.7	14,612.0	725.4	151,173.8	20,428.8	3,455.2

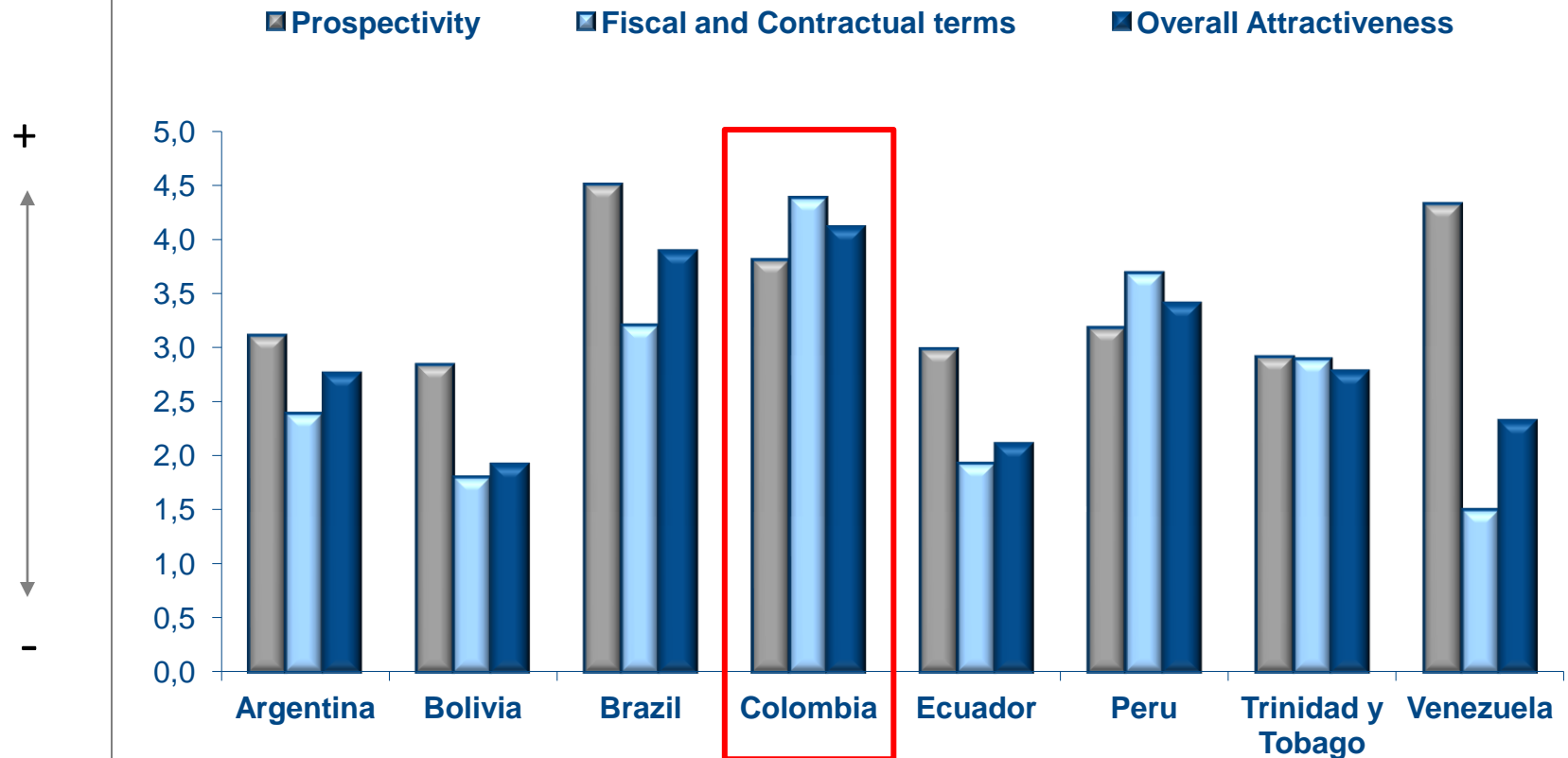
Potential

Basin / Resource (MMbbl / Tcf)	Oil Shale ³			Shale Oil ⁴			Shale Gas ⁴		
	<i>P</i> ₁₀	<i>P</i> ₅₀	<i>P</i> ₉₀	<i>P</i> ₁₀	<i>P</i> ₅₀	<i>P</i> ₉₀	<i>P</i> ₁₀	<i>P</i> ₅₀	<i>P</i> ₉₀
OFFSHORE									
ONSHORE	91,078.0	2,220.1	60.5	151,524.0	19,607.4	3,090.6	2,050.7	265.5	33.8
TOTAL	91,078.0	2,220.1	60.5	151,524.0	19,607.4	3,090.6	2,050.7	265.5	33.8

Basin / Resource (MMbbl / Tcf)	Gas in Tigh sands ⁵ (Tcf)		
	<i>P</i> ₁₀	<i>P</i> ₅₀	<i>P</i> ₉₀
OFFSHORE			
ONSHORE	43.7	5.5	1.0
TOTAL	43.7	5.5	1.0

Investors Perception

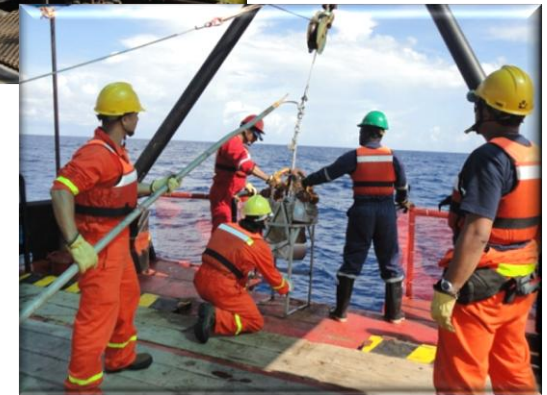
Perception of Attractiveness in LATAM



Source: ADL 2011

Colombia offers good business opportunities

- A prolific geology
- A good business environment
- A tradition of contractual stability
- A competitive institutional framework
- Competitive fiscal and economic terms
- Competitive and transparent rounds
- Oil and Gas marketing freedom overseas
- Opportunity cost will be covered to natural gas exporters whenever there are interruptions due to internal needs
- A window of opportunity



Content

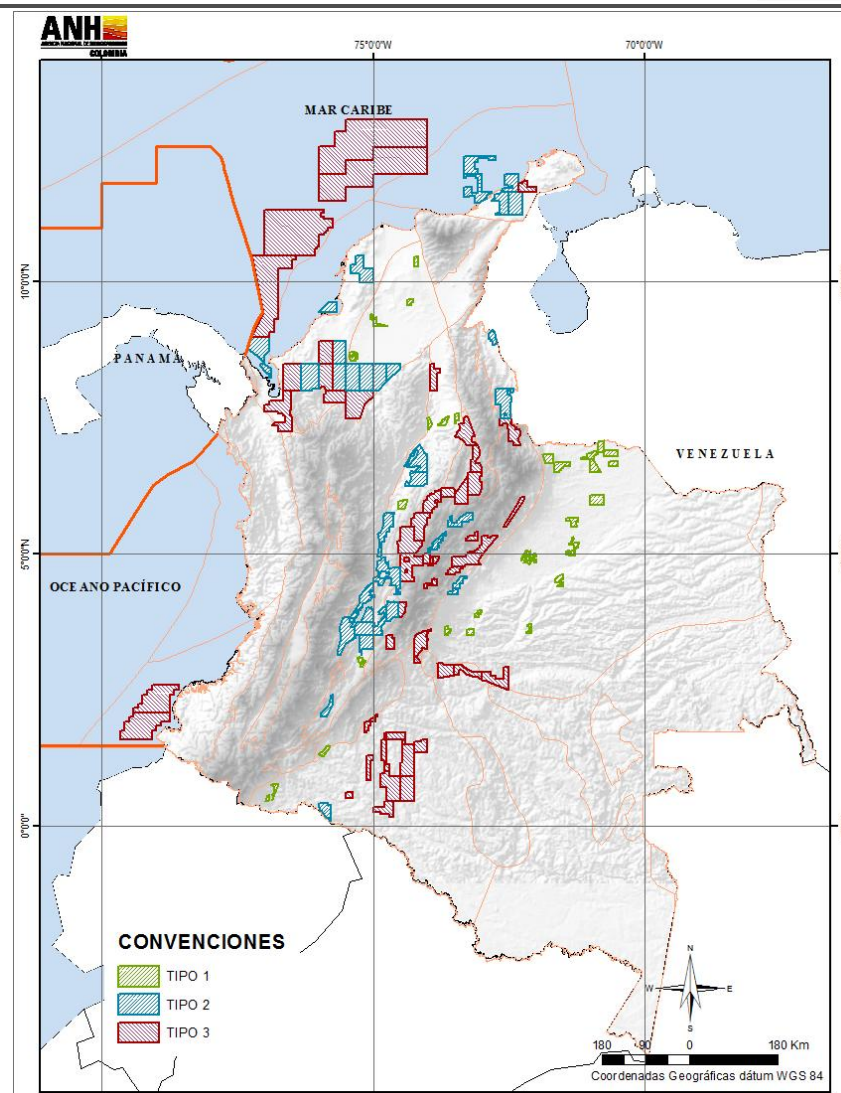


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Colombia Round 2012

Blocks - Ronda 2012

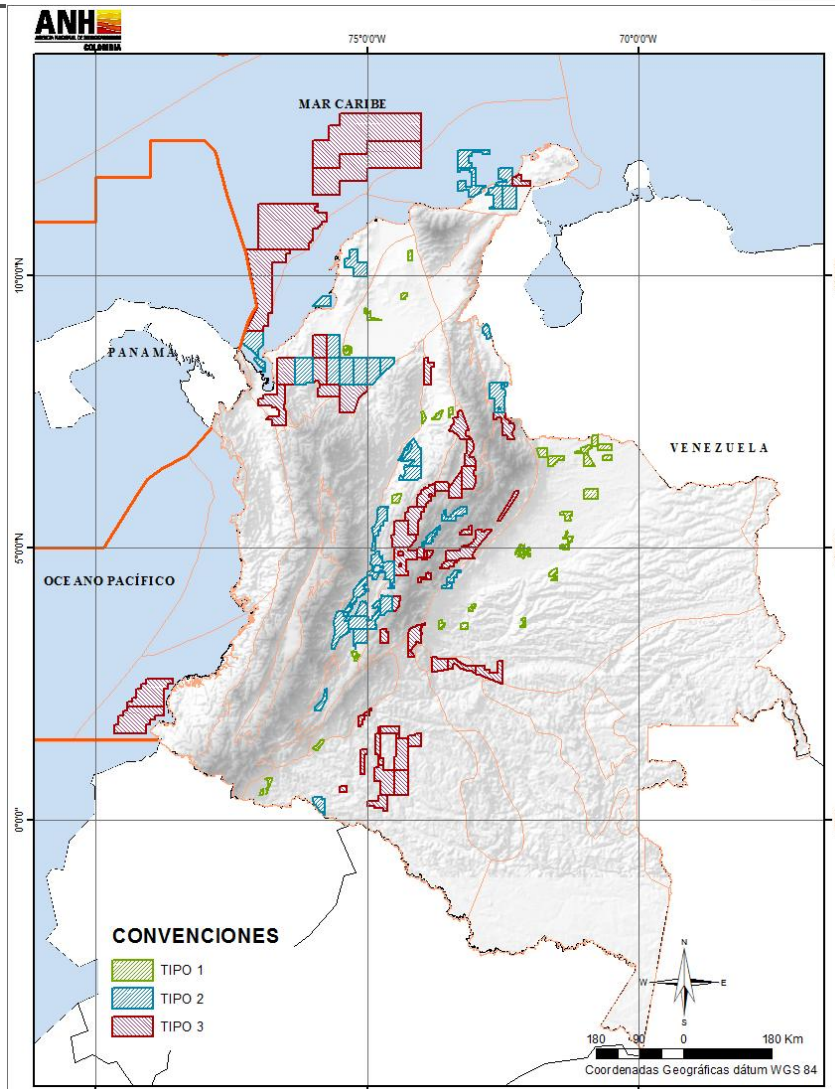
Basin	Type 1	Type 2	Type 3	Total
VAU AMAZ			2	2
CAT		2		2
COL			4	4
COR		4	19	23
GUA		2	1	3
GUA OFF		3		3
LLA	17	2	2	21
CAG PUT	3	1	9	13
SIN OFF		1		1
SIN SJ		4	4	8
TUM OFF			2	2
URA		1	1	2
VIM	4	4	1	9
VMM	4	4	1	9
VSM	1	6		7
Total	29	34	46	109



Colombia Round 2012

	On shore	Off shore
Type 1	29	
Type 2	29	5
Type 3	40	6
Total	98	11

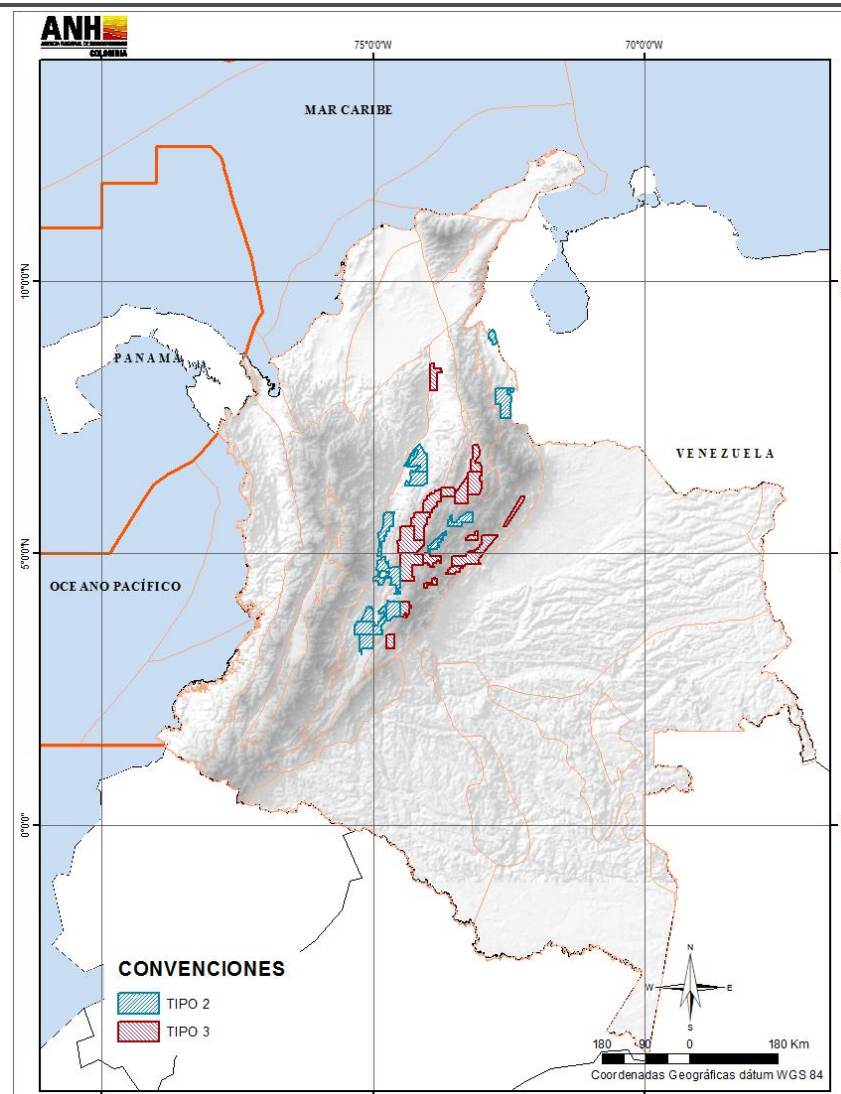
Type	Seismic 2D (km)	No. of Wells	Total (ha)
1	914	76	656.520
2	1.644	186	3.591.333
3	438	23	9.229.703
Total	2.996	285	13.477.556



Blocks located in basins with potential for Unconventionals

Total of blocks	Type 1	Type 2	Type 3
31	0	13	18

Basin	Type of block	Number of blocks
CAT	2	2
COR	2	4
	3	17
VMM	2	4
	3	1
VSM	2	3



Economics Incentives for Unconventionals



- 40% discount over royalty rates established for conventionals
- New P_o for Oil = 81 USD

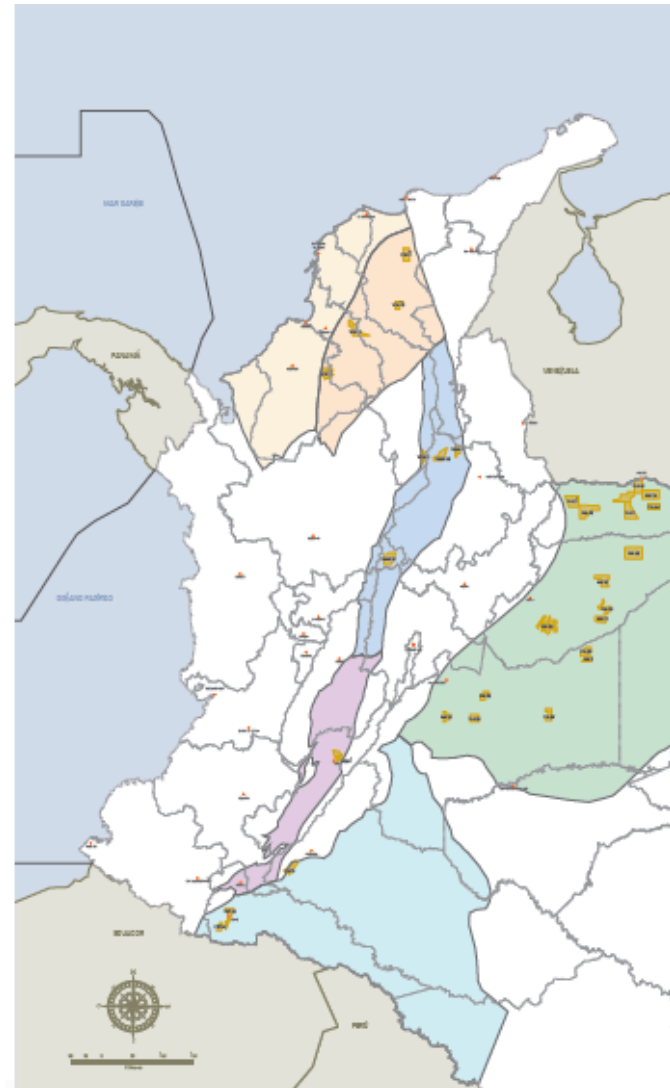
Type 1 blocks

Blocks located in mature basins- E&P contracts

Type 1		
BLOCK	Total Area (ha)	Area Range (ha)
29	656,520	7,600 – 57,300

Seismic lines	Wells
Seismic 2D (km)	Number of wells
914	76

Basins
<ul style="list-style-type: none"> • Lower Magdalena Valley • Middle Magdalena Valley • Upper Magdalena Valley • Caguán-Putumayo • Llanos



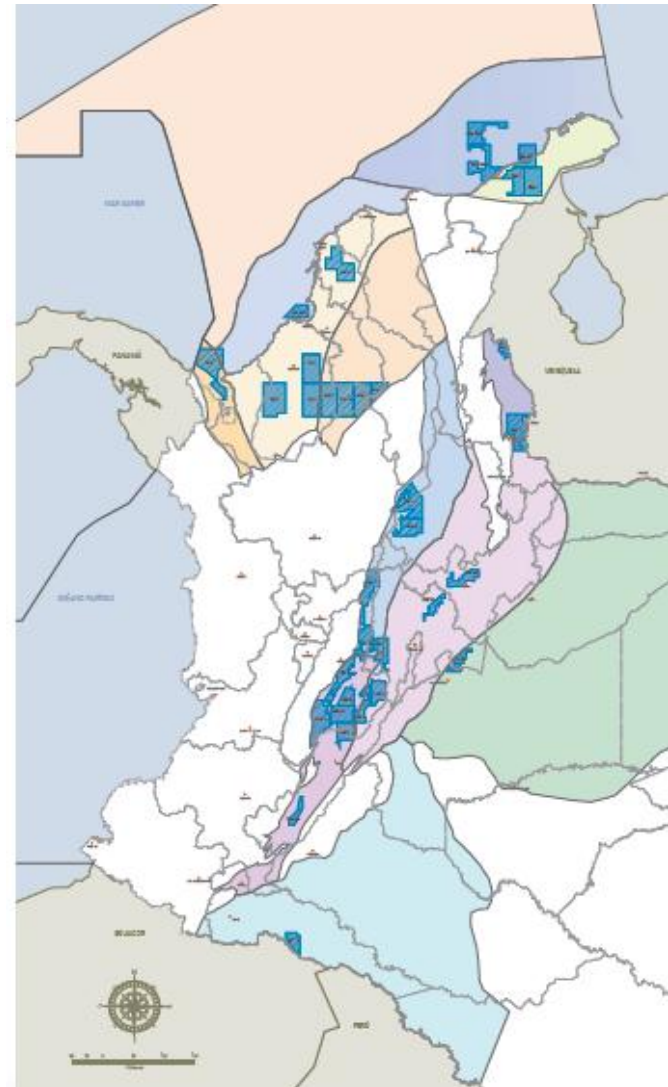
Type 2 blocks

Blocks with new prospectivity - E&P contracts

Type 2		
BLOCKS	Total Area (Has)	Area Range (Has)
34	3,591,333	22,700 – 195,400

Seismic Lines	Wells
Seismic 2D (km)	Number of wells
1,644	186

Basins	
<ul style="list-style-type: none"> • Guajira • Guajira Offshore • Sinú Offshore • Uraba • Sinú-San Jacinto • Lower Magdalena Valley 	<ul style="list-style-type: none"> • Middle Magdalena Valley • Upper Magdalena Valley • Caguán-Putumayo • Llanos • Cordillera • Catatumbo



Type 3 blocks

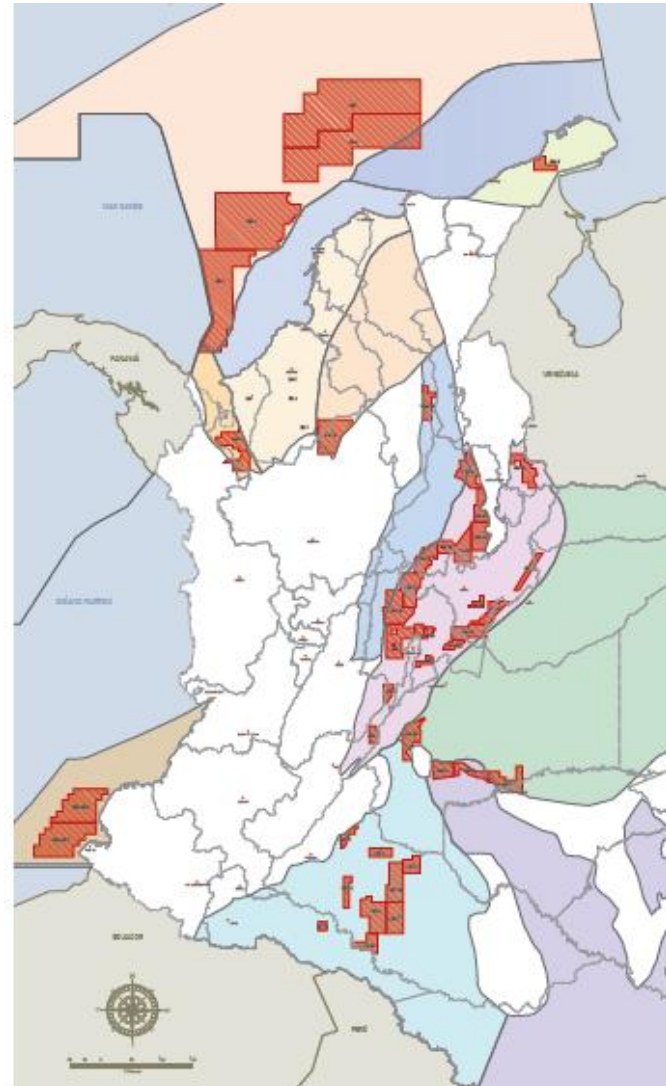
Exploration blocks in frontier areas - Technical Evaluation Agreements (TEA)

Type 3		
BLOCKS	Total Area (ha)	Area Range (ha)
46	9,229,703	18,600 – 1,427,500

Seismic Lines	Wells
Seismic 2D (km)	Number of wells
438	23

Basins

- | | |
|--|---|
| <ul style="list-style-type: none"> • Guajira • Guajira Offshore • Colombia • Uraba • Sinú-San Jacinto • Lower Magdalena Valley | <ul style="list-style-type: none"> • Vaupés-Amazonas • Middle Magdalena Valley • Caguán-Putumayo • Llanos • Cordillera |
|--|---|



Data Package

Block type	Cost USD
1	20.000
2 & 3	100.000

- The acquisition of the Data Package gives the company the right to bid if qualified.
- Data room sessions will be available in CeraWeek, Beijing and Bogotá.

Content

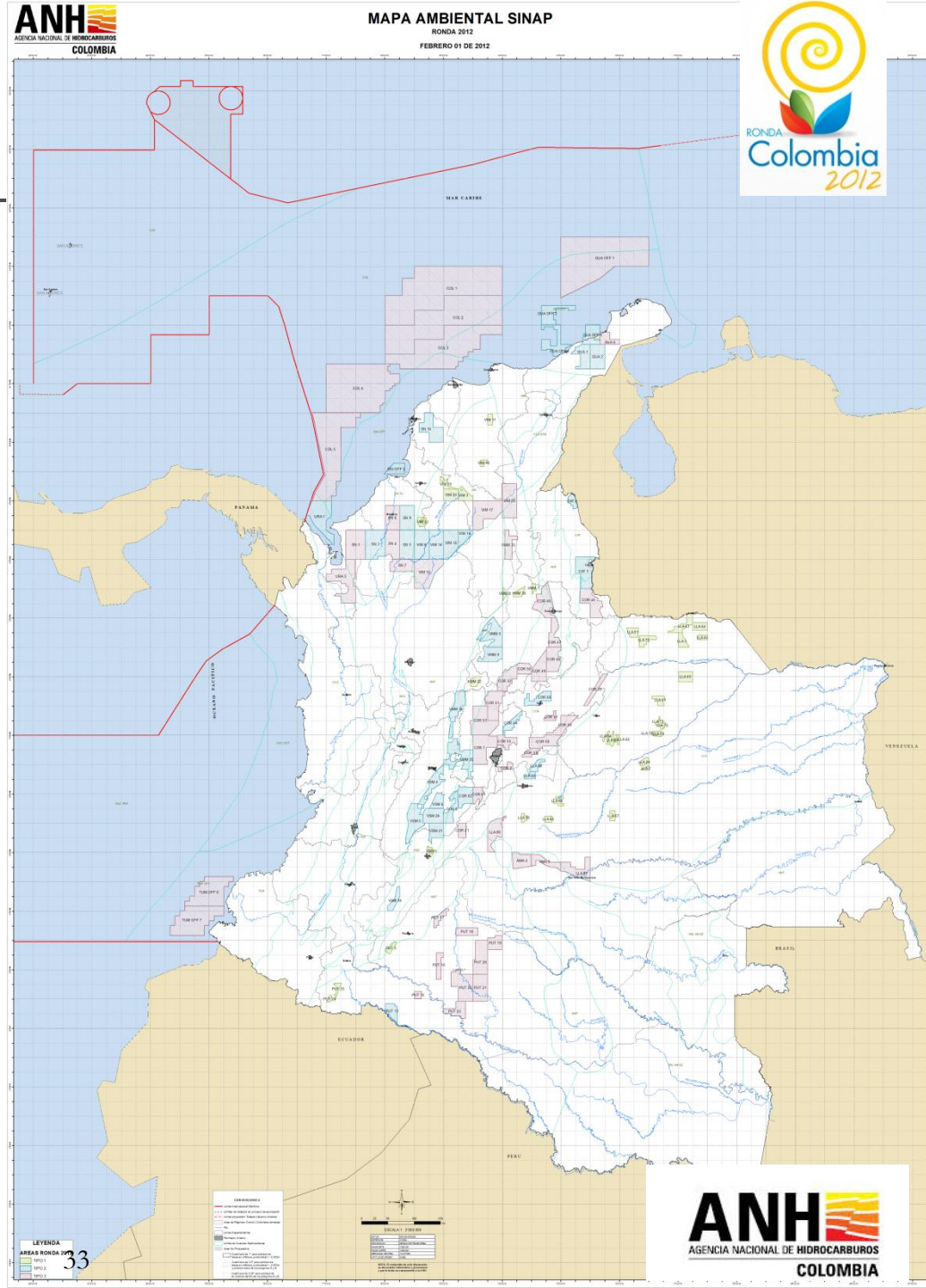


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Environmental and Social Aspects

The importance of social and environmental aspects in the Round 2012

- Compliance with environmental and social regulation
- Transparency and clear rules
- Viability of operations
- Sustainable development model




Colombia Round 2012 planning

1. Update of the information system of the ANH
2. Verification of the areas with special social and environmental restrictions
3. Interinstitutional cooperation of social, environmental and security authorities:
 - Ministry of Mines and Energy
 - Ministry of Foreign Affairs
 - Ministry of Environment and Sustainable Development
 - Ministry of Interior
 - Ministry of National Security
 - National Planning Department
 - Environmental Licensing Authority
 - Colombian National Natural Parks

Social and Environmental charts of each block

COLOMBIA:
The perfect environment for hydrocarbons
exploration and production



Nombre del Bloque	AMA 4	
Tipo de Bloque	Tipo 3	
Departamento(s)	Meta	
Municipio(s)	Puerto Rico, Vistahermosa	
Corporación(es) Autónoma(s) Regional (es) con jurisdicción en el Bloque	Corporación para el Desarrollo Sostenible del Área de Manejo Especial La Macarena – CORMACARENA	

Áreas Protegidas	Áreas de Manejo Especial	Descripción
	Reserva Forestal Ley 2ª de 1952	<ul style="list-style-type: none"> Áreas Presentes: Reserva de la Amazonia Definición: Son áreas definidas para el desarrollo de la economía forestal y protección de los suelos, las aguas y la vida silvestre, se establecen con carácter de Autoridad Ambiental Competente: Ministerio de Ambiente y Desarrollo Sostenible. Tipo de Restricción: Sujeta a sustracción, solicitada por el interesado ante la autoridad ambiental. Normatividad relacionada: Ley 2ª de 1959, Artículo 1
	Distritos de Manejo Integrado	<ul style="list-style-type: none"> Áreas Presentes: Ariari Guayabera, La Macarena Norte Definición: Espacio geográfico, en el que los paisajes y ecosistemas mantienen su composición y función, aunque su estructura haya sido modificada y cuyos valores naturales y culturales asociados se ponen al alcance de la población humana para destinarlos a su uso sostenible, preservación, restauración, conocimiento y disfrute. Autoridad Ambiental Competente: Corporaciones Autónomas Regionales con jurisdicción en el Bloque. Tipo de Restricción: No tiene restricción explícita, pero deberá consultarse la zonificación con la autoridad ambiental competente. Normatividad relacionada: Decreto 2372 de 2010, Artículo 14

ANH
AGENCIA NACIONAL DE HIDROCARBUROS

1. Name of Block
2. Block Type
3. Departments, Municipalities
4. Environmental authority having jurisdiction in the Block
5. Ethnic Communities (Indigenous communities, and minority groups)
6. Protected areas (National System of Protected Areas, Special Management Areas, Forest Reserves)
7. Strategic Ecosystems (wetlands, corals, High lands, Marine pastures, mangroves)

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 - Legal capacity
 - Financial capacity
 - Technical and Operational capacity
 - Environmental capacity
 - Corporate Social Responsibility - CSR
- Proposal Review
- Award Criteria
- Main changes from previous Round
- Timeline

Qualification

- Operator (in cases of Joint Ventures must have and maintain at least 30% share)
- Other JV Members

Qualification	Others	Operator
Legal	√	√
Economic and Financial	√	√
Technical and operational		√
Environmental		√
CSR		√

Legal capacity

- Nationals and foreign corporations can participate
 - Individually, or
 - Different types of Joint Ventures

Requirements:

Corporate purpose

Individual Participants or Operator: Exploration and Production of hydrocarbons.

JV Members : Related Exploration and Production activities.

Time of incorporation

Operator: Five (5) years

JV Members: One (1) year

Legal capacity

- Provide accurate and truthful information and authorize the **ANH**, at any time, to verify all information submitted for participating in the Bid Round.
- Execute undertakings on anticorruption and anti money laundering, as well as against terrorist financing and other criminal activities.

In any case, the ANH reserves the right to check the background of corporations and their partners, except those listed on stock exchanges, in databases, such as "World Check" and "World Compliance".

Economic and Financial Capacity

Average equity over the last three (3) years, per block:

	US\$
• Type 1:	6.000.000
• Type 2: (Except off shore and unconventional)	20.000.000
• Type 3, off shore and for unconventional	200.000.000

According to Financial statements duly audited with its notes, for Colombian Corporations; or Financial statements, with Certificates, under the "*International Financial Reporting Standards –IFRSs*" or "*Generally Accepted Accounting Principles- US GAAP*" , Duly audited, for foreign legal corporations.

Economic and Financial Capacity

Corporations included in “*The Energy Intelligence Top 100: Ranking the World's Top Oil Companies*” by “*Petroleum Intelligence Weekly*” as Upstream, and those able to endorse a risk qualification equal or higher than those mentioned below will qualify automatically, although they need to submit their financial information in any case.

Risk Qualifying Agency	Grade
Standard & Poor's	BBB
Moody's	Baa
Fitch Ratings ⁽¹⁾	BBB
(1) Rating equivalent to AAA level in the case of Colombia	

Technical and operational capacity

Type of Área	Reserves Boe	Production* Boed
1 *	2.000.000	1.000
2 (Except offshore and unconventional)	5.000.000	5.000
3 (offshore and unconventional)	50.000.000	20.000

*At least two (2) wells drilled during the last three (3) years.

The information about reserves should be endorsed under the 'System Management of Petroleum Resources', SPE-PRMS by an independent auditor, or by the competent authority in each country.

Technical and operational capacity



Corporations included in *“The Energy Intelligence Top 100: Ranking the World's Top Oil Companies”* in the upstream by *“Petroleum Intelligence Weekly”*, will qualify automatically.

Environmental capacity

Documents to endorse an environmental management system and the measures taken by the participant to mitigate the impact on natural resources and the environment, based on:

- ISO 14001 or an equivalent certification
- Document that endorses the environmental management **system of the participant, implemented or in execution** signed by the Legal representative and an independent auditor.

In any case, the participant or the operator, of a JV has the obligation to obtain an environmental certification during the first three (3) years of the contract execution.

Capacity on Social Responsibility



Documents endorsing participants' policies on **Social Responsibility** based on:

- ISO 26000 or an equivalent certification
- A document that endorses the implementation of programs on **Social Responsibility** signed by the legal representative and an independent auditor.

Award criteria

Area type	Criteria	
	Primary	Secondary (*)
1 & 2 Offshore included	Participation in production (X%)	Additional investment in exploration phase I
3 and Unconventionals	Additional investment in exploration phase I	Participation in production (X%)

(*) In case of a tie S1, and in any case, it is mandatory

Main changes from previous Colombia Round 2010



- The possibility of qualification as "Restricted Operator" is no longer allowed
- Participants can bid for adjacent blocks
- Higher requirements are set for technical and operational capacity in the case of Type 1 blocks
- Offshore areas and unconventional require participants with financial, technical and operational requirements established for type 3 blocks

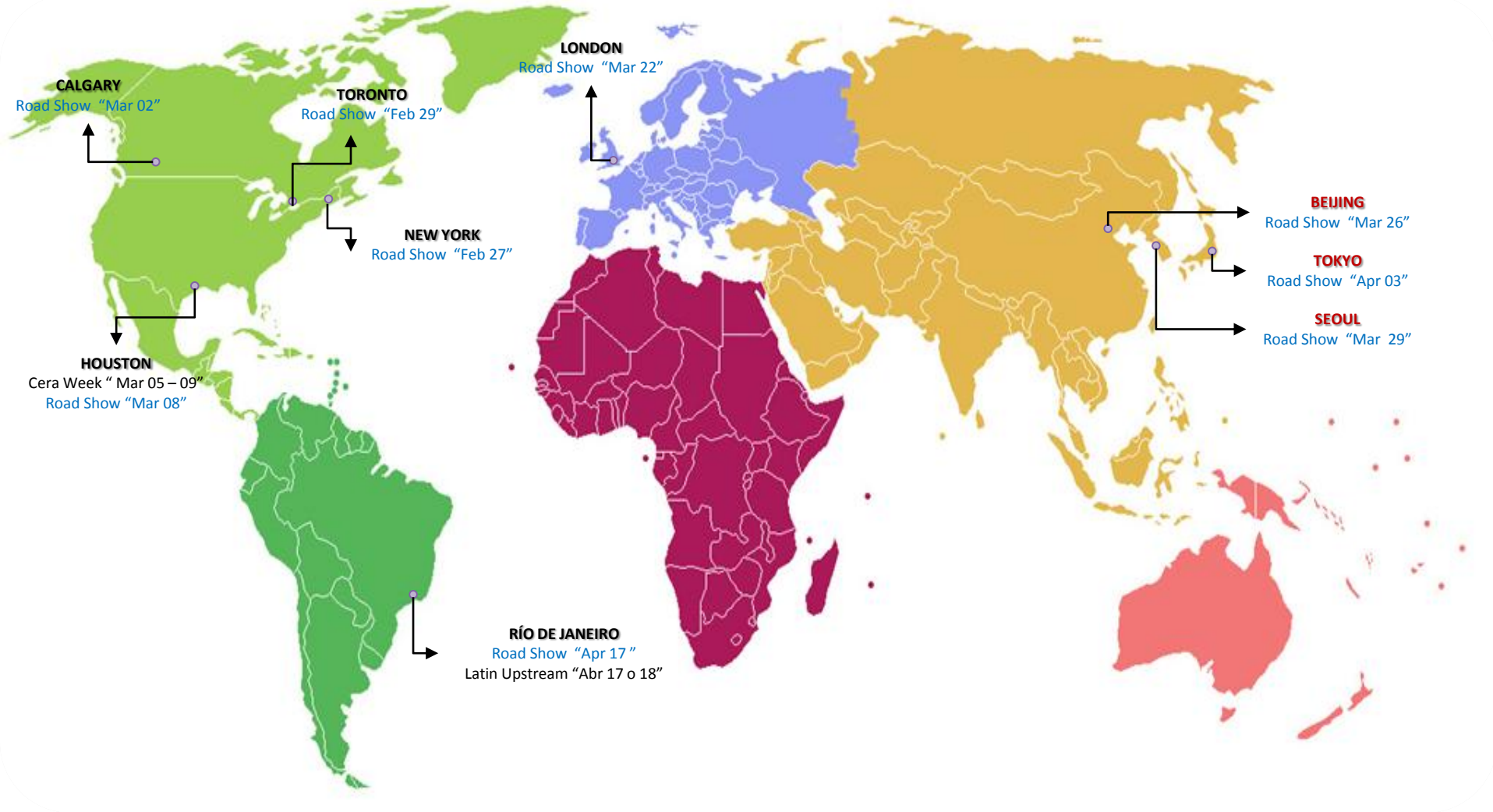
Colombia Round 2012

Schedule



Activities	Date
Pre – Kick off (Bogotá)	22-11-2011
Kick off (Bogotá)	21-02-2012
Initial technical packages sale	22-02-2012
Publication of "TOR" Project	01-03-2012
"Road Shows"	29-02-2012 Toronto 01 and 02-03-2012 Calgary ("Data Room") 08-03-2012 - Houston ("Data Room") 22 and 23-03-2012; London 26 and 27-03-2012 - Beijing ("Data Room") 29 and 30-03-2012 - Seoul 03 and 04-04-2012 - Tokyo 17-04-2012 - Río de Janeiro 20-03 to 30-06-2012 ("Data Room") Bogotá
Opening and publication of definitive TOR´s and contracts	23-04-2012
Submission of documents for qualification processes	16-06 until 16-07-2012
Study documents and publishing preliminary list	16-07 until 16-08-2012
Comments on the preliminary Bidders List	17-08 until 24-08-2012
Publication of definitive Bidders list	14-09-2012
Submission of Proposals, Bid Guarantees and Public Opening Act	17-10-2012
Preliminary List of Proposals	01-11-2012
Comments to the Preliminary List	02-11 until 13-11-2012
Awarding of areas	26-11-2012
Signing of contracts	November and December de 2012

Road Show



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Contractual aspects



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2. TEA Contract
3. E&P and TEA contracts common aspects

E&P contract (I)

Object

The exclusive right to:

- Explore the subsoil under the contracted area
- Produce the hydrocarbons property of the state discovered under such area
- Share of the production of the hydrocarbons within the contracted area

The contractor shall:

- Perform all activities at its own cost and risk
- Obtain all required permits and licenses
- Indemnify ANH in regards to any claim related to contractors work
- Use best oil industry practices
- Procure national good and services when possible, under equal conditions

Contract duration and stages



- Duration:
 - ✓ Exploration: 6 years conventional / 8 years unconventional
 - Production: 24 years
- Exploration period
 - ✓ Conventional Hydrocarbons: Two phases of 3 years each
 - ✓ Unconventional hydrocarbons: Two phases of 3 years each and one of 2 years.
 - ✓ First phase is mandatory.

Unconventionals



- Exploration: Cartography, geochemistry, seismic and stratigraphic well (3 years).
- Confirmation program: 2 phases of exploratory drilling and hydraulic fracturing (5 years)
- Relinquishment of areas after the 8th year of exploration, excluding those areas under development and evaluation

Notice of discovery and evaluation program



- Presence of hydrocarbons shall be reported within 4 months of discovery
- Submission of the evaluation plan will not be mandatory if commerciality is declared with reservoir delimitation **New !**
- Maximum duration of evaluation is one (1) year, with possible extensions:
 - ✓ 1 additional year when exploratory wells are included
 - ✓ 2 years in case of natural gas, heavy crude discoveries, or unconventional developments

Production period



- 24 years and the possibility of a 10 year extension
- Declaration of commerciality must include technical support with reservoir delimitation **New !**

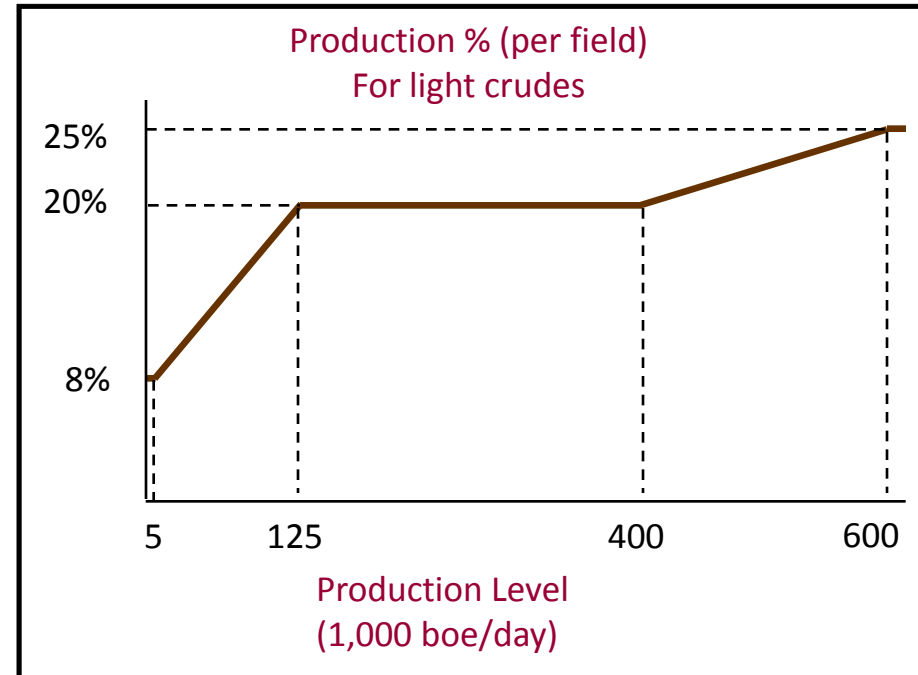
Economic rights



Category	Form	Value
Royalties	Share of production	8% - 25%
Use of subsoil (administration)	Surface fee/ charge per boe	USD1,66 to 4,95 per hectare Offshore: USD 0,82 Production: - US\$ 0,1255/bl
High prices	Share of the price upside	30% - 50% of WTI over trigger level - after first 5MMBls are produced
Technology transfer	Percent of Use of Subsoil payment	10% (Maximum USD100.000)

Royalties

- Paid monthly
- Applied to gross average volume of production by field
- Paid in cash or kind at ANH's choice



Discount relative to light crude rates

Gas	- 20%
Heavy Crude < 15° API	- 25%
Gas offshore (> 1000 ft)	- 40%
Unconventionals	- 40%

High price participation (oil)

A share of production (Q) equivalent to the established percent (S) of the part of the average monthly reference WTI price (P) that exceeds a base price (P_o), divided by the average monthly reference price (P) – applies after cumulative production reaches 5MMBl

$$Q = \frac{P - P_o}{P} \times S$$

Where:

P = WTI monthly average price (in USD)

P_o = Base price (in USD) [chart 1]

S = established percentage [chart 2]

Chart 2

P	S
P _o ≤ P < 2P _o	30 %
2P _o ≤ P < 3P _o	35 %
3P _o ≤ P < 4 P _o	40 %
4P _o ≤ P < 5P _o	45 %
5P _o ≤ P	50 %

Chart 1

API Gravity	P _o (2012 USD\$/bl)
Under 10°	N/A
>10° and ≤15°	50.18
>15° and ≤ 22°	35.14
>22° and ≤ 29°	33.87
>29°	32.61
Discoveries at more than 300m of water depth	40.15
Unconventional Hydrocarbons	81

High price participation (gas)

- Applies after the 5th year of production of gas for export, when the realized price exceeds the base price (P_o).
- A share in production (Q) is equivalent to:

$$Q = \frac{P - P_o}{P} \times S$$

Where:

- ✓ P = Realized price, and
- ✓ P_o = Reference base price (see table)
- ✓ S = Participation percentage (same as oil)

Distance to destination port (km)	P_o 2012 US\$/MMBTU
0 to 500	\$7.54
>500 to 1000	\$8.79
>1000 or LNG plant	\$10.04

Confidentiality of information

- All technical information must be submitted to the ANH as it is produced (includes data interpretation and reports)
- All information subject to confidentiality agreements:
 - ✓ Data : 5 years
 - ✓ Interpretation and analysis : 20 years

Contractual Aspects



- E&P Contract
- TEA Contract
- Common aspects of E&P and TEA contracts

TEA Contract

Technical Evaluation Agreement



- Object:

To conduct technical evaluation activities in an block with the possibility of converting into an E&P contract

- Duration: thirty six (36) months

- Economic terms:

- ✓ Surface fee

TEA Contract

Technical Evaluation Agreement



Appraiser 's rights:

- An exclusive extensive area to carry out technical evaluation activities
- Selection of part of the block to be converted into an E&P contract
- Exclusivity for conversion until the end of term

TEA Contract

Technical Evaluation Agreement



Confidentiality:

- Applies during the term of the TEA or,
- Until the TEA holder proposes an E&P

Contractual aspects



- E&P Contract
- TEA Contract
- Common aspects of E&P and TEA contracts

Common aspects

- The contractual model will be adapted according to the development of conventional or unconventional oilfields.

- Area relinquishment:

Within the first eighteen months of the contract, contractor may relinquish up to 50% of the contracted area.

- Obligation to:
 - Follow community consultation procedures when required
 - Obtain environmental license when required
- Right to farm out
- Right to invoke arbitration for dispute resolution

Guarantees



Stand-by letter of credit for:

- For 50% of minimum exploratory program
- 100% of additional investment
 - ✓ 50% upon signature of the contract
 - ✓ 50% at end of the first half of a phase
- Additional investment guarantee may be reduced as the value of activities are credited after their completion

Contract relinquishment



Opportunity: within the first half of the first phase

Condition: the contractor shall transfer to the ANH 50% of the value of all non-fulfilled activities of the Minimum Exploratory Program and 100% of the balance of additional investment not used in exploration.

Main modifications



Change of control

- A definition about controllers and beneficial owner and those who are to be considered as such.
- Obligation to inform any change of control or change of Operator and to obtain previous authorization from ANH

Thank you !

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