

# ARROW EXPLORATION

### Growing & Socially-Responsible Colombia-Focused Energy Company

AIM | TSXV : AXL September 2024

**Corporate Presentation** 

Unless stated otherwise, all dollar figures refer to US dollars



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## Arrow Exploration

Growing & Socially-Responsible Colombia-Focused Energy Company



1.

### Corporate Snapshot



Enterprise Value = Market Cap plus Debt minus Cash

2.

Boury GEC December 31st, 2023 Reserve Report. Arrow's 50% interest in the Tapir block is contingent on the assignment by Ecopetrol of such interest to Arrow.

ARRO

EXPLORATIO



USD

### Share Price vs Production

FY24 P/E



1.9x

3.4x



## Remainder 2024 Management Plans

Funded through cash balance and operations cash flow. No external funding sources required.

#### 3 Additional HZ wells (6 in total)

- CN development focus
- Low Risk Exploration at Mateguafa, Baquiano, Carrizales Norte

#### **Baquiano Exploration Well**

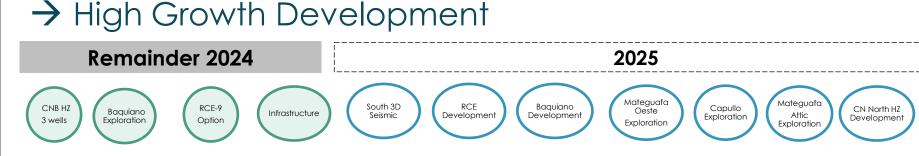
- Continuation of CN fault
- Possible HZ well development

#### **Option RCE Development Well**

- 1 optional well 2024
- 4 additional development wells 2025

#### Infrastructure

- Pipeline from the pad CN to RCE pad
- Road from CN pad to C, MO and MA pads
- Water disposal well stimulation



## Seasoned Leadership and Board of Directors



years

#### Collectively we have proven success

Historica Succes (8X Prove Execute

<b>al</b> ss ren ers)	Company	Area	Production at Exit (boe/d)	Return to Shareholder (CAGR)	15.	190+
	Cougar Hydrocarbons	Canada	3,000	280%	<b>15+</b> O&G jurisdictions worked in	Combined m
	Equatorial Energy	Indonesia	13,000	150%		experi
	Sabretooth Energy	Canada	1,700	100%		

#### Board of Directors



**Marshall Abbott** CEO & Director 2,4



P. Gage Jull Executive Chair 1,3



Grant Carnie Senior NED (I) 2\*,4

\* Denotes Chair

1. Audit Committee

4. Reserves Committee

2. Compensation Committee



Ravi Sharma



lan Langley





Alex Mora VP, Finance



Andrew Jones **SVP** Operations

#### Leadership





VP, Engineering



(I) Independent

3. Environment, Social & Governance Committee

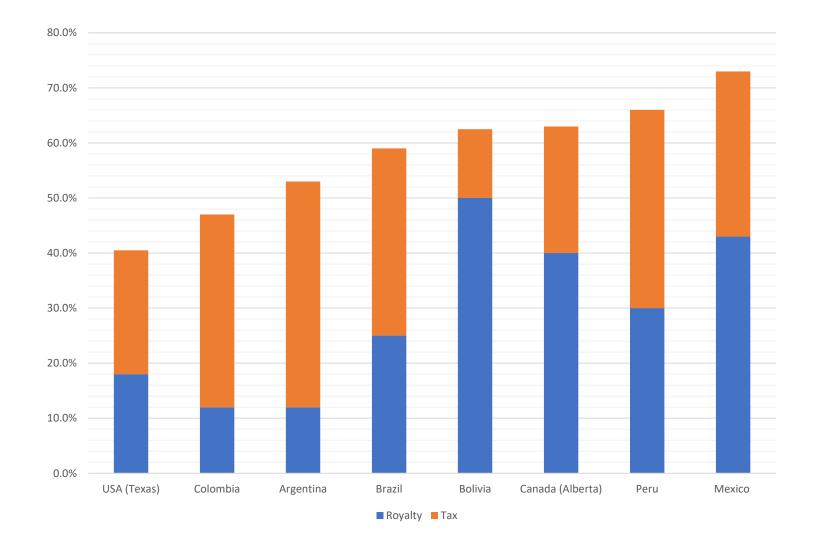
Nilanjan Ganguly SVP Exploration





## Attractive Fiscal Terms

Still top decile fiscal regime worldwide.





### Asset Overview

	Asset	Country	Basin	W.I.	Current Production (boe/d, net)	Operator
	1. Tapir	Colombia	Llanos	<b>50</b> % <sup>(1)</sup>	4,700	Arrow <sup>(2)</sup>
5)	2. Oso Pardo	Colombia	MMV	100%	200	Arrow
	3. Ombu * Expect 28	Colombia 10 Boe/d once	Putumayo back online	10%	0*	Emerald
	4. Alberta * Expect 250	Canada ) Boe/d additic	WCSB onal once gas	100% price reco	100 vers	Arrow & other
	Total Production				5,000+	

By way of a private commercial contract with the recognized interest holder before Ecopetrol S.A., 1. Arrow is entitled to receive 50% of the production from the Toppir block. By way of a private commercial contract with the recognized interest holder before Ecopetrol S.A.,

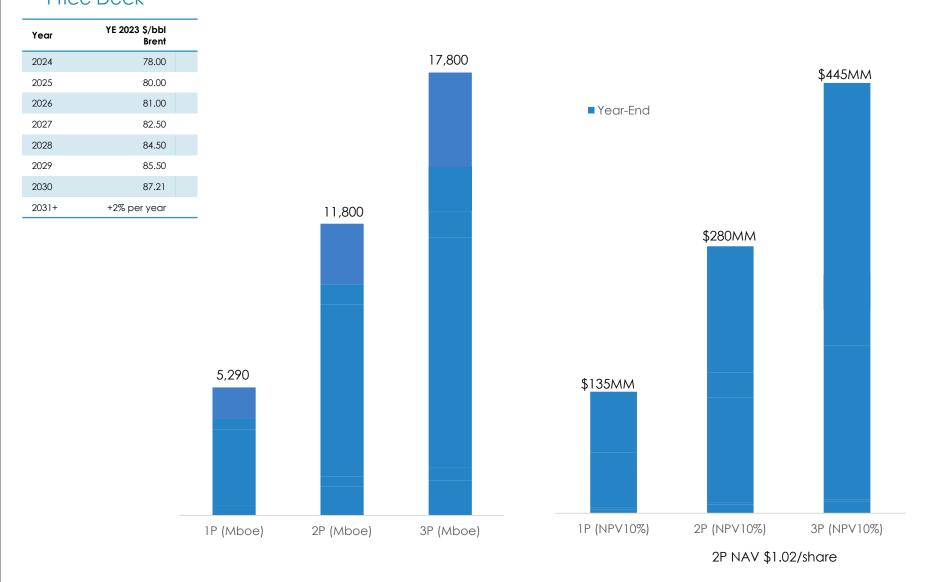
Production

2. Arrow is the contract operator of the Tapir block.





# 2023 Year-End Reserves



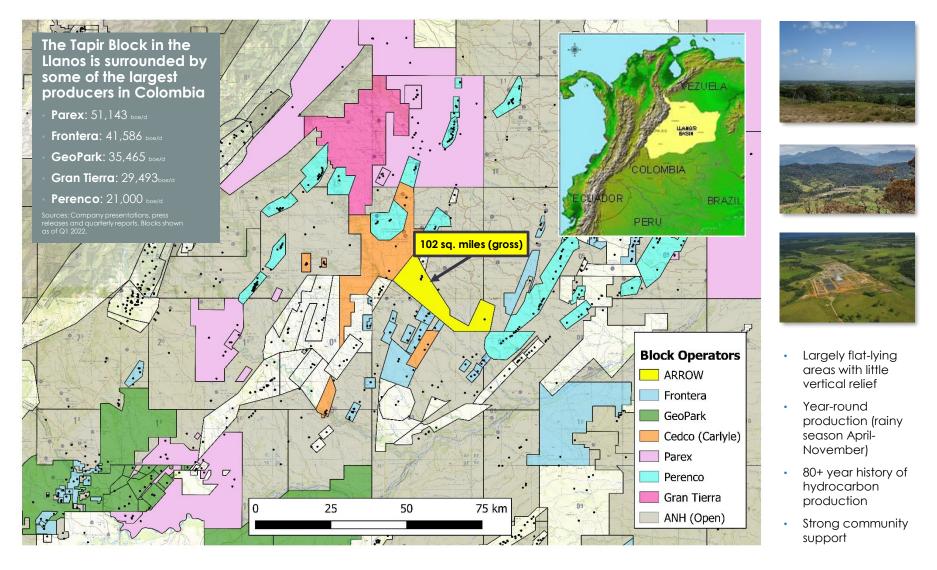


# Colombian Oil Portfolio Llanos Basin



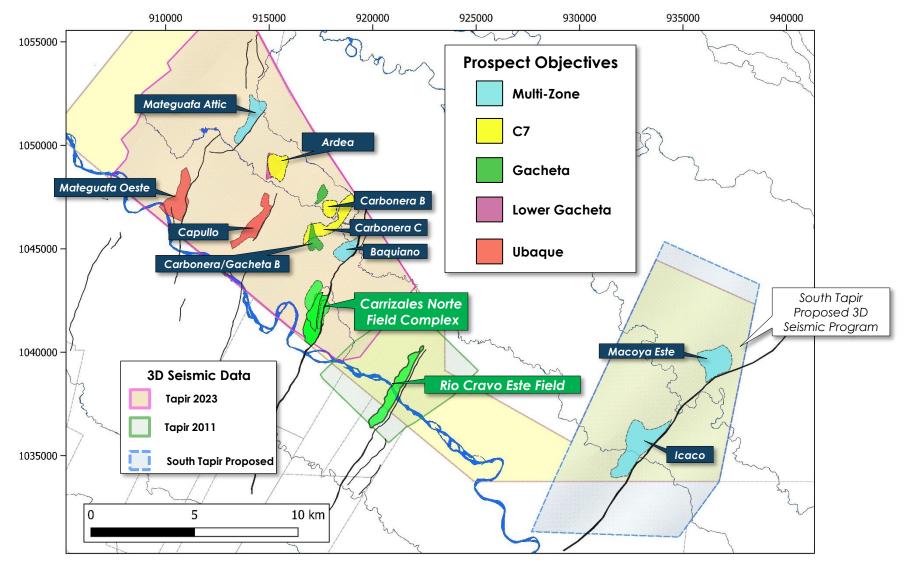
### Llanos Basin

The 'Park Avenue' of Colombia's Oil Industry – Safe, Secure and Highly-Desirable



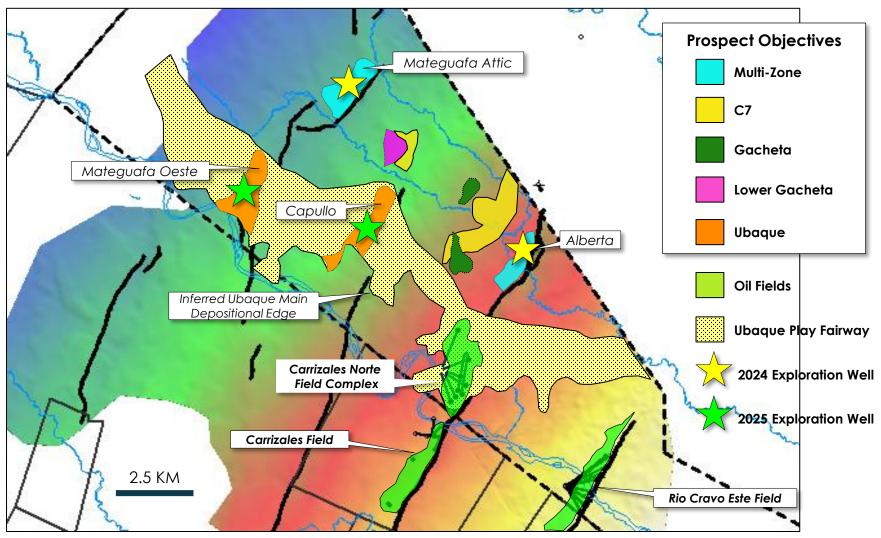


### Tapir Block: Prospects & Leads





### New 3D Data Reveals North Tapir Prospectivity





#### Current & Future Production Tapir Block (50% W.I.)\*

#### **Overview**

#### 1. Rio Cravo Este (RCE)

- 8 producing wells
- · Additional drilling targets and recompletion opportunities
- Water disposal well capable of <u>20,000 bwpd</u>

#### 2. Carrizales Norte

- 7 producing wells
- CN-5 proved up stratigraphic trap in Ubaque
- Water disposal well licensed to 13,000 bwpd

#### 3. Carrizales Norte B

- 3 HZ producing wells
- 3 additional HZ wells in 2024
- Additional development in 2025
- Water disposal well waiting on license approval

#### 5 Dispersion Fields each licensed of 2,700 bwpd (<u>13,500 bwpd</u>)

#### Adequate water disposal capacity for current development plans







#### \* Arrow's 50% interest in the Tapir block is contingent on the assignment by Ecopetrol of such interest to Arrow. \* Management estimates based on strip pricing as of December 2022

#### Vertical type well

IP forecast (per zone):321 bbls/d, net

Payback*:	less than 3 months, 35,000 bbls
CF (Yr1)*:	\$1.35M, net
Well cost:	\$1.6M net * (original budget \$2.0)
Opex/bbl:	< \$5.00

#### Horizontal type well (CNB HZ-1)

IP forecast:1,575 bbls/d, net

Payback*:	less than 2 months, 63,000 bbls
CF (Yr1)*:	\$8.9M, net
Well cost:	\$2.1M net * (original budget \$3.5)
Opex/bbl:	< \$8.50 estimated

\* Well costs improving with every well drilled



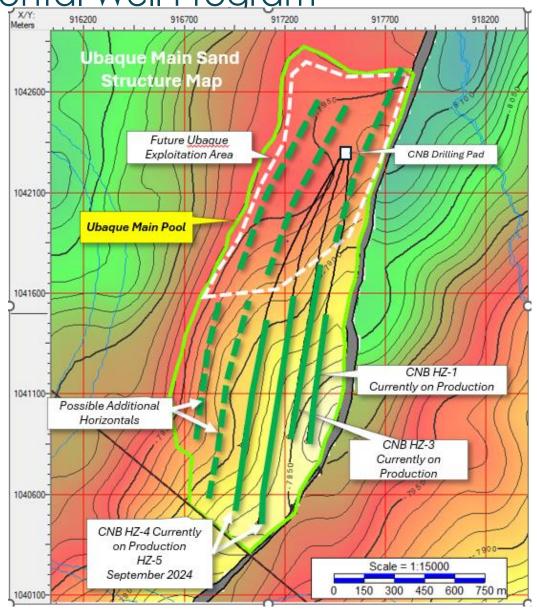
# Carrizales Norte Drilling Operations Carrizales Norte Field

**CNB** Pad



## Carrizales Norte: Horizontal Well Program

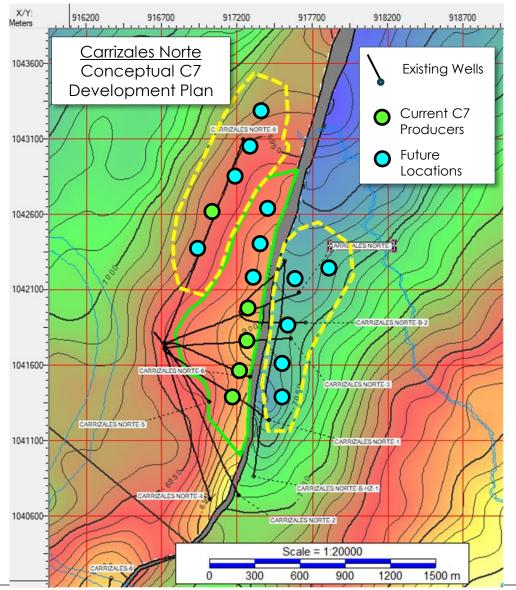
- The first horizontal well was spud on May 14th, 2024. A 622 m horizontal section was drilled within the Main Ubaque reservoir. The well was brought on production on June 15, 2024 and is currently producing over 3,000 bbl/d gross (1,500 net) oil
- The second and third HZ wells have been put on production. All wells have similar production rates. Three additional wells to follow.
- The Ubaque reservoir encountered at Carrizales Norte is material: up to 80 feet of stacked shoreface sands with 26-30% porosity and 7-10 Darcies permeability
- Low viscosity 13.4<sup>o</sup> crude and strong water drive allows for recovery factors of 30-35%
- Proven completion technology is being utilized to manage water production, extending the economic life of each well





## Carrizales Norte: C7 Potential

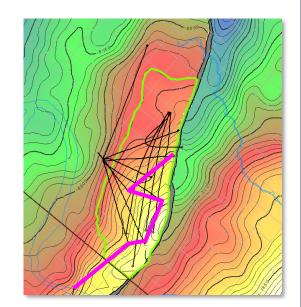
- Reservoirs consist of channelized sand bodies with excellent characteristics – porosity of 28 – 34% and multi-Darcy permeabilities
- Light oil (>30° API) and strong water drive allow for very high initial production rates and quick economic payback (~60 days/well)
- Superior reservoir characteristics and prudent reservoir management results in significantly lower decline rates and higher EUR relative to other C7 wells in the basin
- Recent drilling has revealed two additional C7 pools, both likely to be stratigraphic traps. Confirmation of the extent of these pools will add significant drilling opportunities

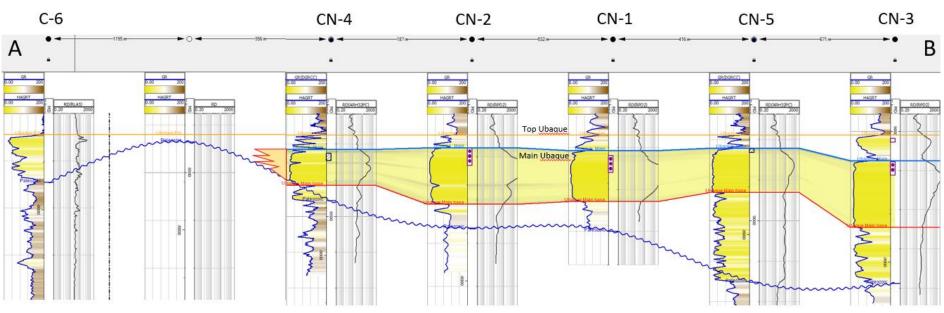




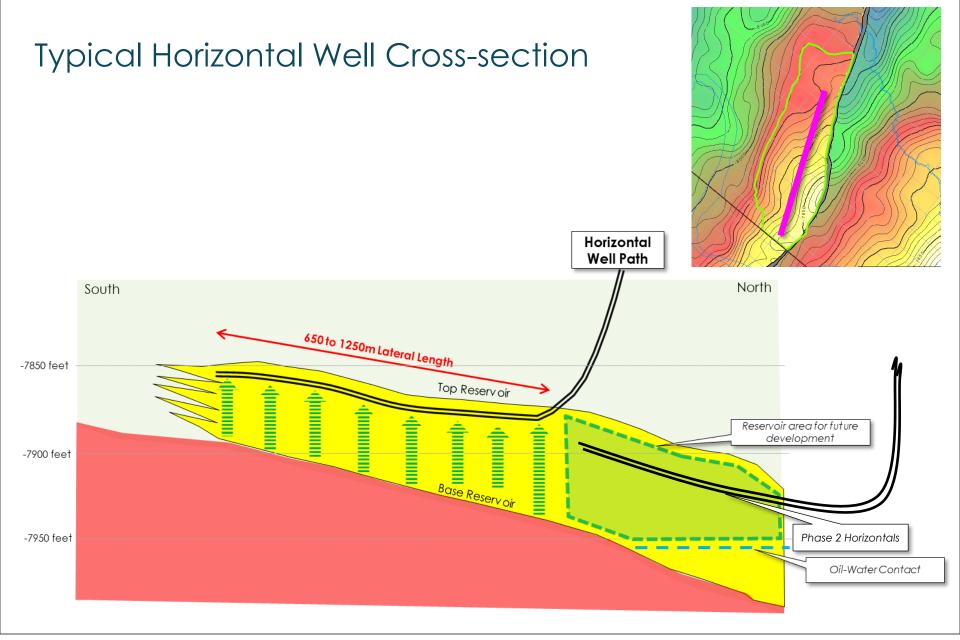
### Cross Section Carrizales Norte Field

Stratigraphic Cross Section (Datum= top Ubaque) Shows Main Ubaque truncation to the southwest





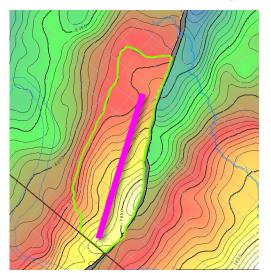


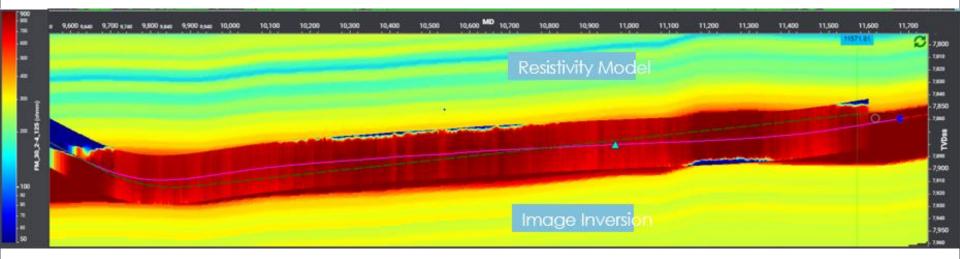




### CNB HZ-1 Well Cross-section

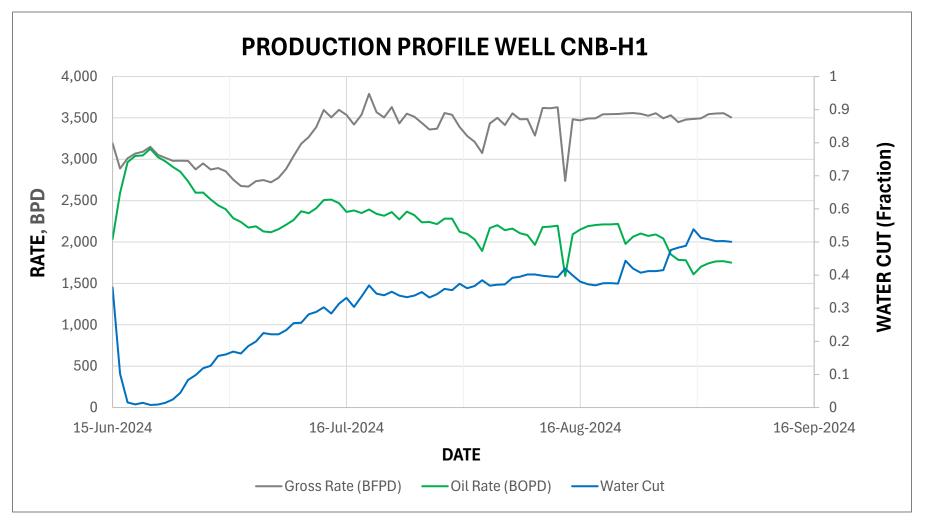
CNB HZ-1 drilled 100% in Ubaque zone with advanced sensor technology heretofore unseen in Colombia







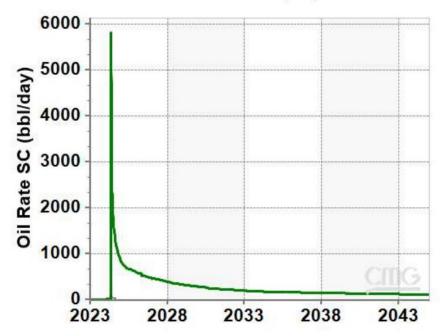
### CNB HZ-1 Production





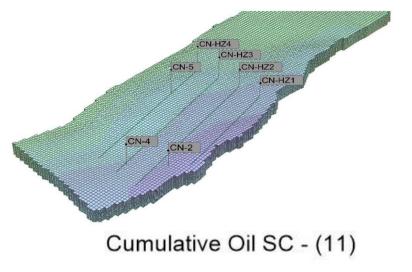
### HZ Well Simulation – CMG

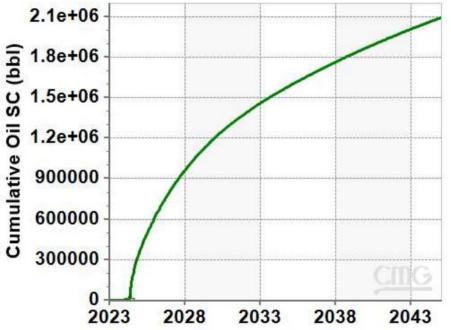
Oil Rate SC - (11)



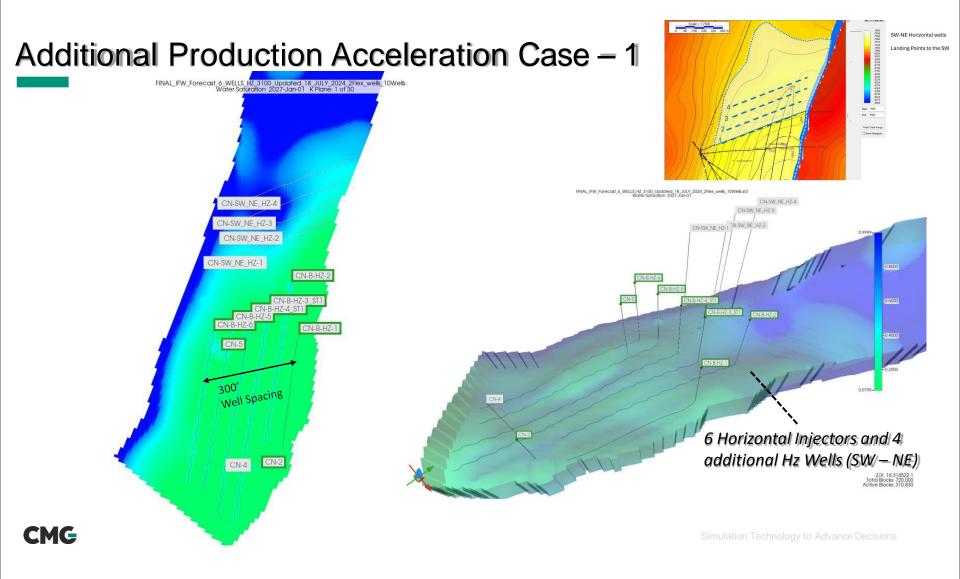
CNB HZ-1 is currently flowing at a restricted rate. Based on the simulation the well reservoir characteristics allow for higher production than the well is currently being produced at.

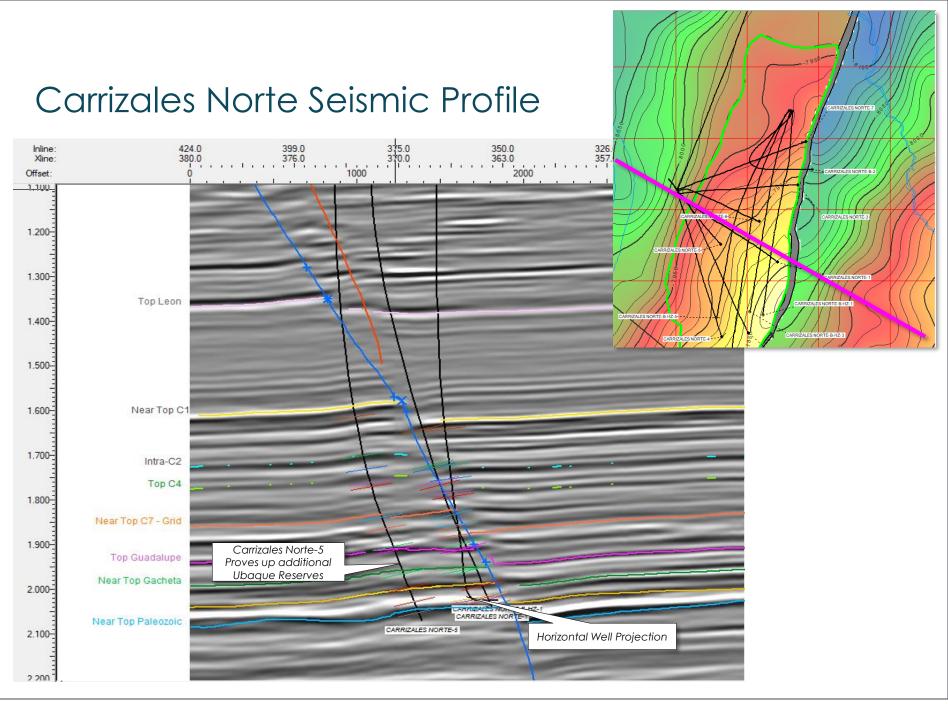
There is no guarantee that simulation production rates of recoveries will be achieved.







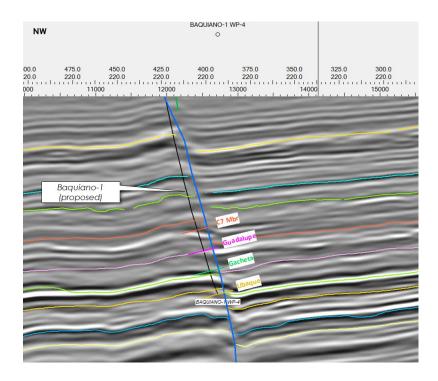




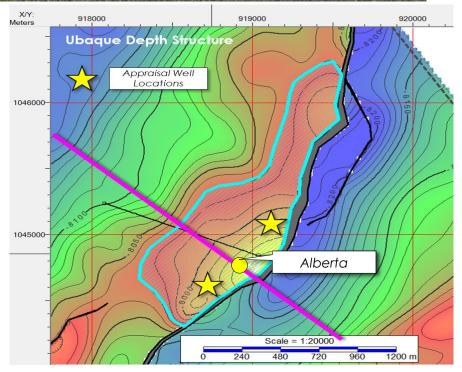


### Alberta\* Prospect

- Typical Llanos Basin prospect: three-way structural closure against a fault
- Multiple reservoir targets: C7, Guadalupe, Gacheta, & Ubaque
- Located approximately 3.5 km northeast of Carrizales Norte discovery on same fault trend



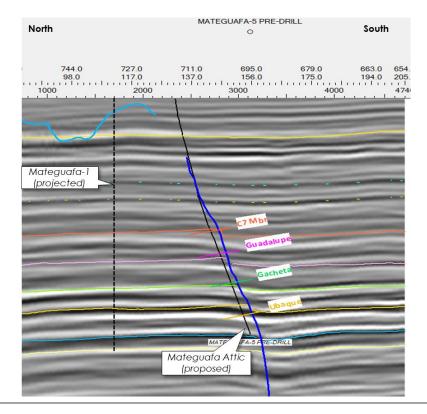


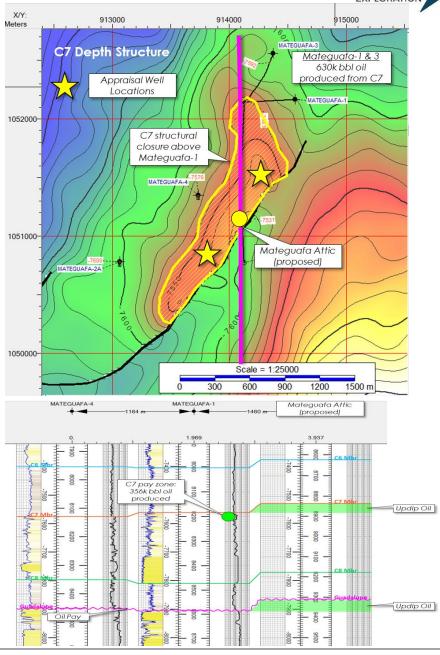




## Mateguafa Attic Prospect

- Mateguafa field discovered in 1998. Four wells were drilled, two produced oil from Carbonera C7 sands (total 630k barrels)
- Original wells drilled on poor quality 2D seismic grid. Recently acquired 3D data shows a different fault configuration and a large area of closure updip from existing wells

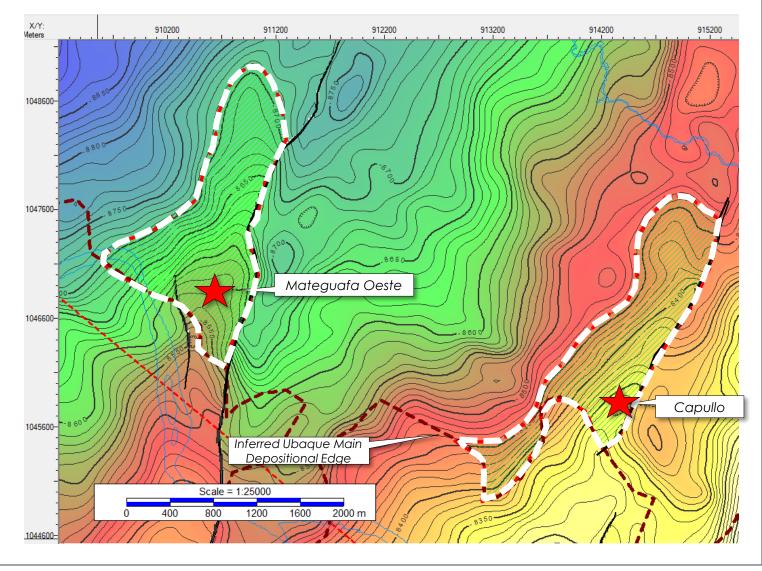


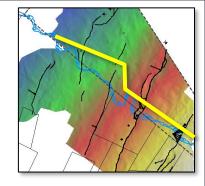




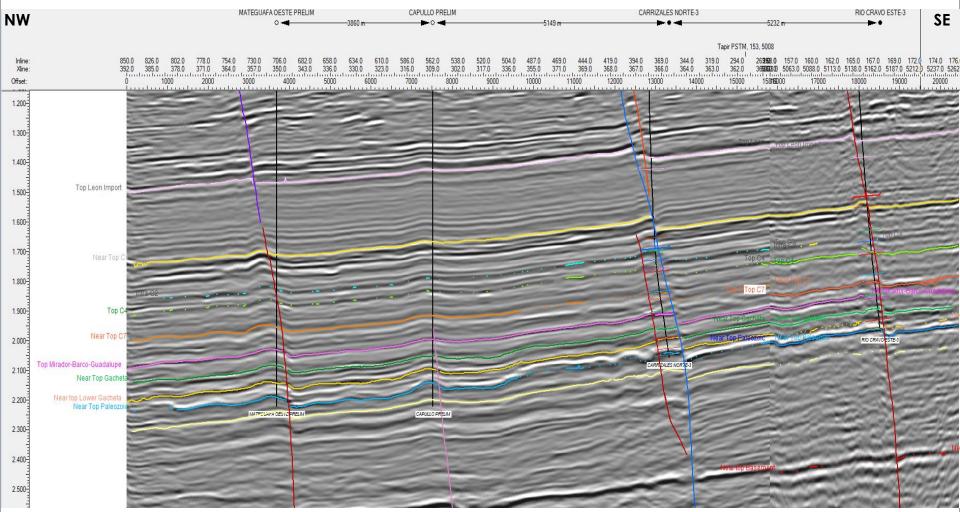
## Mateguafa Oeste & Capullo Prospects

- Large prospects enhanced by fault trends
- Truncation of Ubaque Main sands against depositional edge
- Look-alikes to Carrizales Norte Ubaque discovery
- Land acquisition complete, with environmental studies to follow





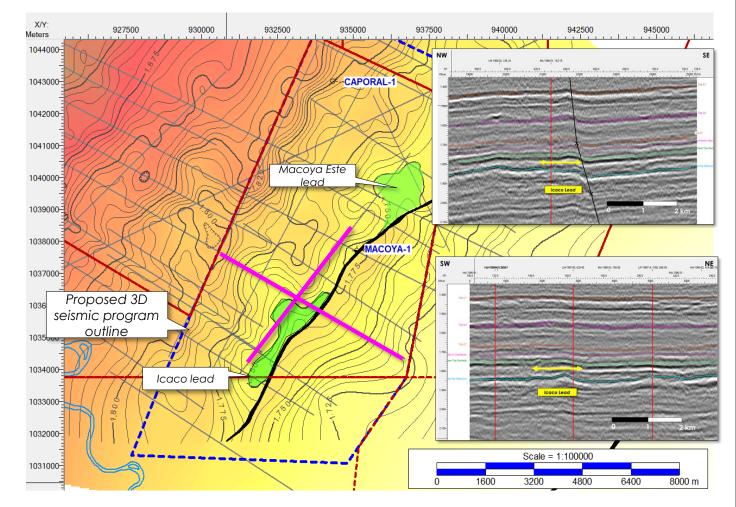
### **Regional Seismic Profile**





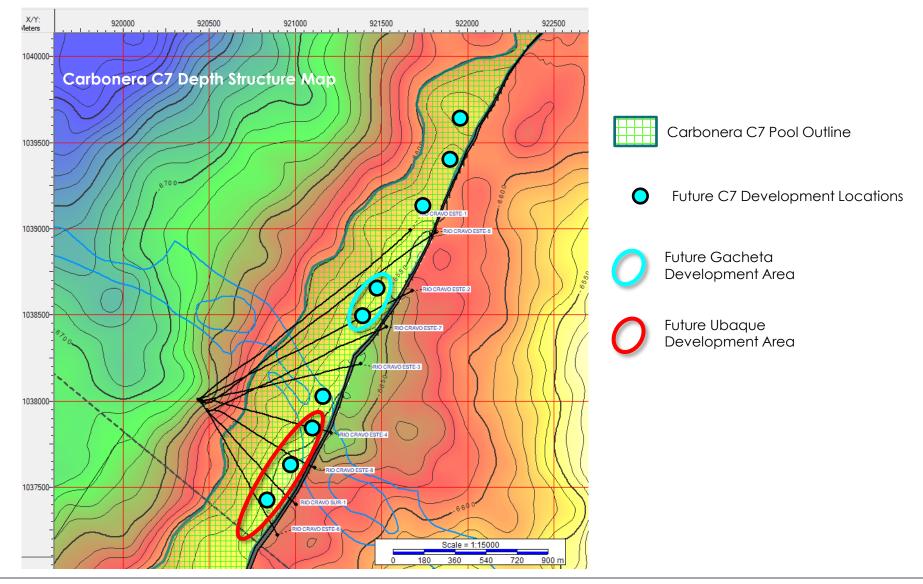
## South Tapir Leads

- Southern area of the Tapir block remains very under-explored
- Two wells were drilled in early 1990's on 2D seismic. One of these, Macoya-1, had oil shows despite being located outside of any structural closure
- Two large structural leads have been identified but 3D seismic will be required to mature these to drillable prospects
- Seismic environmental baseline study (MMA) and 3D design were completed in 2023





### Rio Cravo Este Field – Future Development

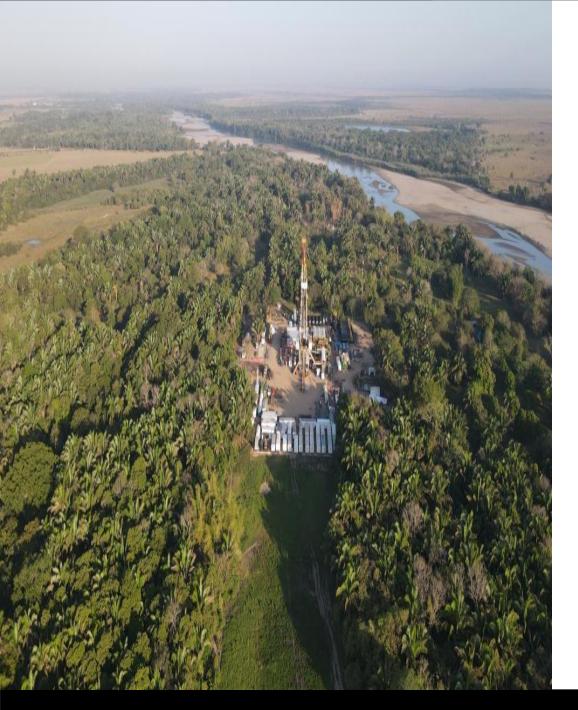


#### Prospect Matrix – Tapir Block Large inventory of strong prospects seismic ready (unrisked)

Based on indicative modelling assumptions by management. Actual IP rates and NPVs Will only be determined once Wells have been successfully Drilled and completed

	COST (NET)	NPV10 (NET)	BREAKEVEN	IP Net
	MM\$	MM\$	MONTHS	BOPD
CNB-HZ4	2.30	24.86	2	1,300
CNB-HZ5	2.30	20.99	2	1,10
CNB-HZ6	2.30	13.55	3	68
CNB-HZ7	2.30	7.59	7	422
CNB NORTH -HZ1	2.30	19.48	2	802
CNB NORTH -HZ2	2.30	17.31	3	72
CNB NORTH -HZ3	2.30	15.31	3	64
CNB NORTH -HZ4	2.30	12.95	3	56
CN-9	1.45	7.83	3	32
CN-10	1.45	7.83	3	32
CN-11	1.45	7.83	3	32
MAT-5	1.60	6.22	5	19
MAT-6	1.60	6.22	5	19
AB-1	1.60	6.52	4	32
AB-2	1.45	6.67	4	32
AB-3	1.45	6.67	4	32
RCE-9	1.30	13.77	3	34
RCE-10	1.30	13.77	3	34
RCE-11	1.30	13.77	3	34
RCE-12	1.30	13.77	3	34
MAT-OESTE 1	1.60	6.52	4	32
MAT-OESTE 2	1.60	6.52	4	32
MAT-OESTE 3	1.60	6.52	4	32
CAP-1	1.60	6.52	4	32
CAP-2	1.60	6.52	4	32
CAP-3	1.60	6.52	4	32
AB-HZ1	2.30	23.84	2	96
AB-HZ2	2.30	21.23	2	86
AB-HZ3	2.30	19.92	2	81
AB-HZ4	2.30	18.61	2	77
MTO-HZ1	2.30	23.84	2	96
MTO-HZ2	2.30	21.23	2	86
MTO-HZ3	2.30	19.92	2	81
MTO-HZ4	2.30	18.61	3	77
CAP-HZ1	2.30	23.84	2	96
CAP-HZ2	2.30	21.23	2	86
CAP-HZ3	2.30	19.92	2	81
CAP-HZ4	2.30	18.61	3	77
CN-C7-HZ1	2.30	16.27	3	64
CN-C7-HZ2	2.30	16.27	3	64





# Colombian Oil Portfolio MMV Basin



# Current Production Oso Pardo Field (100% W.I.)

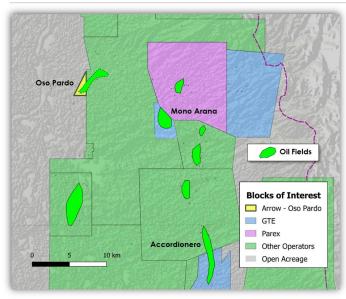
#### Overview

- Discovered in 2013 by Canacol; discovery well (Oso Pardo-1) had an IP of 200 bbls/d from stacked sands of the Umir formation
- 2 appraisal wells drilled in 2014; 150 ft proven oil column to Lowest Known Oil (LKO)
- Accordionero (2P reserves of 66 MMbbls; current production of 16,000 boe/d) located 25 km to SE
- 2024 OP-3, OP-4 waiting on stimulation
- Independent study by Gaffney, Cline & Associates supports a much larger field
  area than originally interpreted by Canacol

#### **Oso Pardo Site Photos**



#### Location | Map

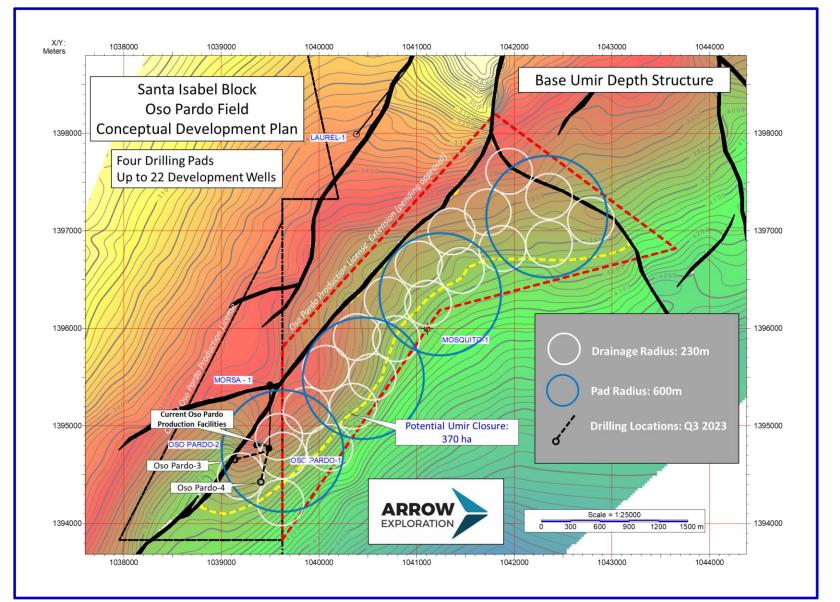


- Covered by 3D seismic – exclusive to Arrow
- Request to extend Oso Pardo
   Production License has been formally submitted to the ANH.



# ARROW

### Oso Pardo Development Concept





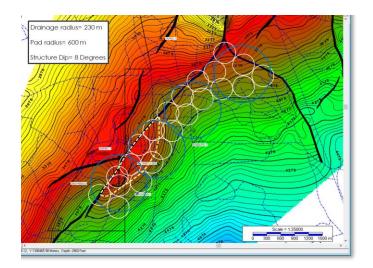
#### Future Opportunity Not Factored Into Production Forecast Oso Pardo Extension (100% W.I.) Existing block does not require a bid process

#### **Overview**

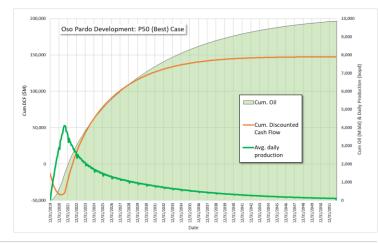
Gaffney, Cline & Associates reserve study\* snapshot:

GCA Cases	Oil EUR/well (Mbbl)	Capex (\$M)	Pre-Tax NPV10% (\$M)
Low	343	\$65.5	\$24.9
Expected	480	\$122.7	\$146.5
High	705	\$251.1	\$547.8

#### **Potential Field Development Configuration**



#### **Oso Pardo Extension Potential Production Profile\***



- Leveraging off the company's existing Oso Pardo development
- Arrow has applied for an extension to its existing license to cover the entire potential Oso Pardo development; Canacol has agreed to assist Arrow with obtaining the extension
- Based on P50 development size of 20 wells, Oso Pardo could contain 9.6MMbls
- Potential capex of \$4.0M per well, ex. well-pad\*
- Overall development has been modelled by Gaffney Cline as reaching as much as 4,000 bbls/d, 100% WI, in the P50 case\*
- Opportunity for Arrow to develop at 100%



### Near Time Catalyst



## **ESG** Overview



We prioritize ESG initiatives to create value for stakeholders, enhance business resilience, and benefit our broader community. Our inaugural **<u>ESG Report</u>** outlines the following focal areas:



Committed to developing and implementing sustainable strategies focused on land preservation, wildlife conservation, water resource management, responsible carbon footprint management, and waste reduction optimization.



Committed to supporting local communities through initiatives in health and safety, diversity, equity, and inclusion, employee development, stakeholder engagement, supply chain management, and community investment.



Committed to upholding rigorous ethical standards and accountability in our business operations, taking purposeful actions to maintain the highest standards in anti-corruption, ethical business practices, governance, data protection, cybersecurity, and risk management.

## Community & Stakeholder Engagement

Prioritizes stakeholder collaboration and supporting local communities

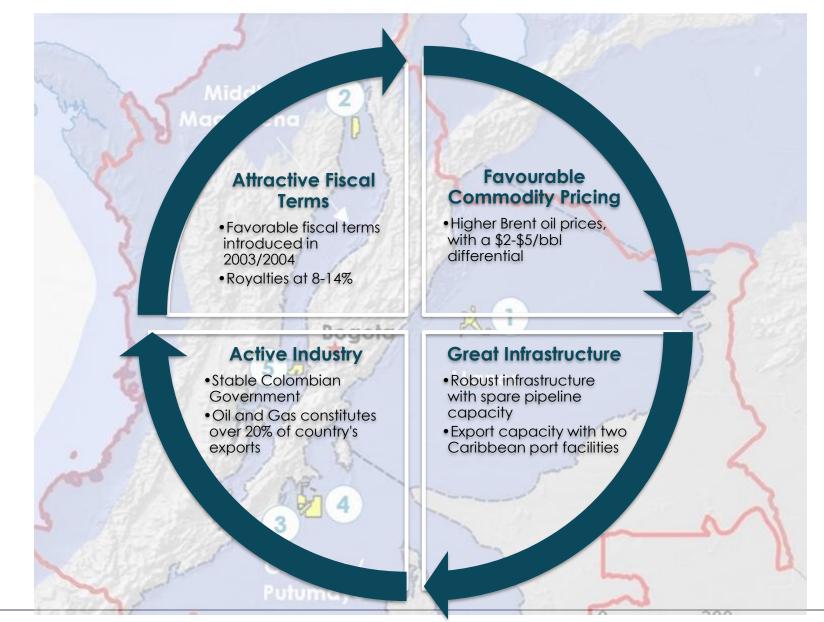


**ARROW** EXPLORATION

# Colombian Oil & Gas Industry



Key Takeaways









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