



A Unique Deal

Ecopetrol and Oxy form Strategic Joint Venture in the Midland Basin

August, 2019





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Overview of Transaction

Transaction

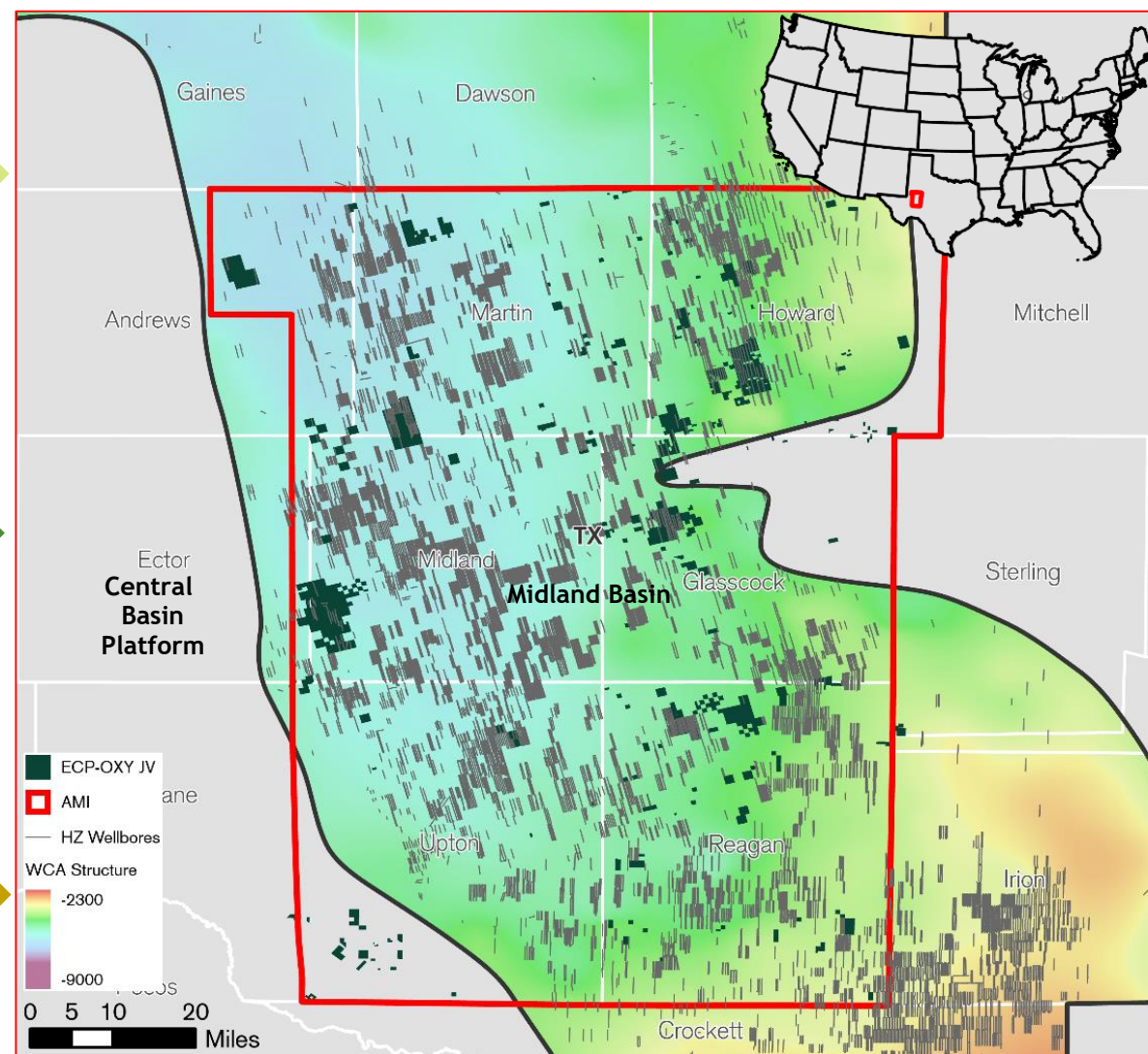
- Joint Venture (“JV”) agreement with Oxy to develop oil & gas properties in the prolific Midland Basin
 - Ecopetrol: 49% interest for US\$1.5bn in an all cash transaction
 - Oxy: 51% interest and serves as operator

Assets

- ~97,000 net acres¹ across Andrews, Martin, Howard, Ector, Midland, Glasscock, Upton and Reagan counties
- ~4,700 gross locations with rights to multiple benches, including Middle/Lower Spraberry and Wolfcamp A, B and C
- PUD² reserves to be booked at closing ~160 mmboe; additional ~115³ mmboe between 2020-2023

Agreement

- 50% of total consideration paid as an upfront cash payment at closing
- Remainder 50% to be paid as carried capital cost within the joint development period (within the next 5 years)
- Knowledge and technology transfer agreements in place



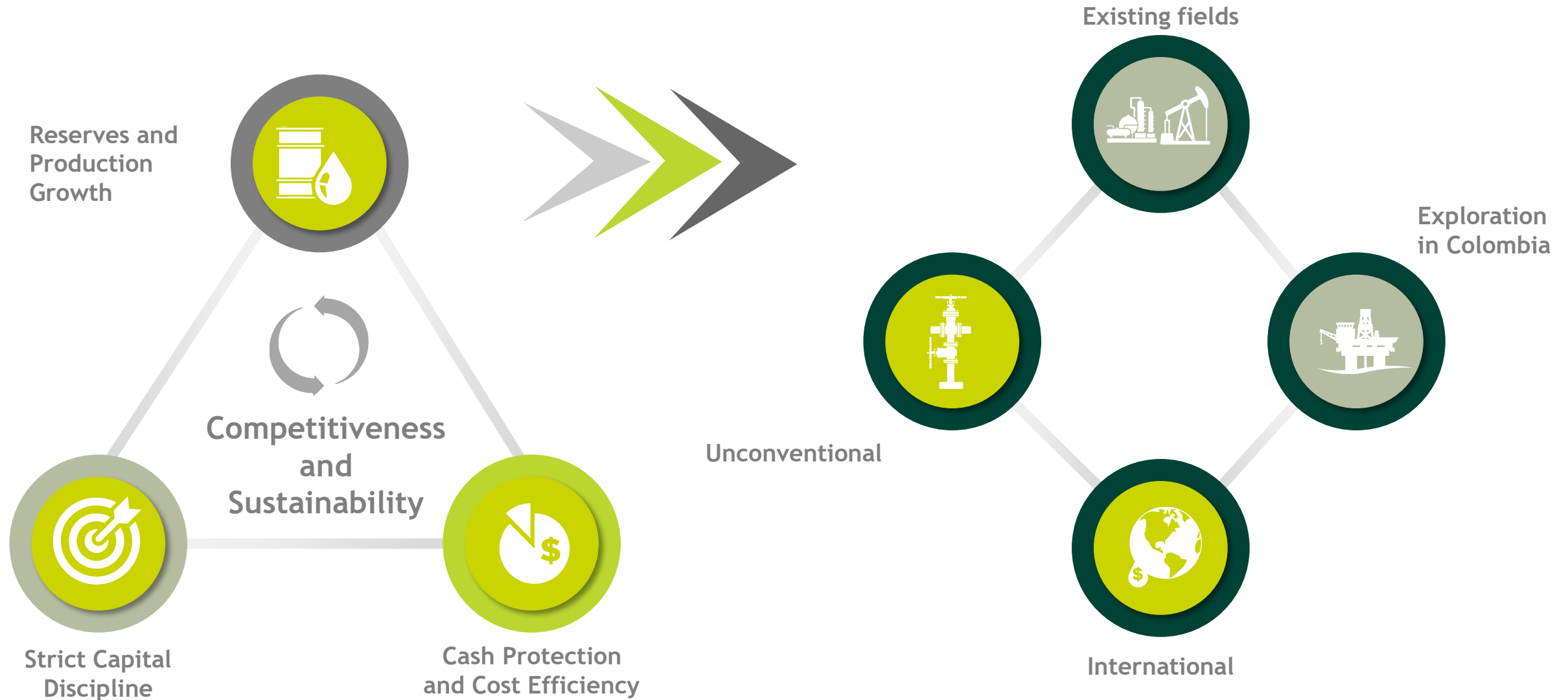
Source: Company materials

1. ~ 97,000 net acres to be developed out of ~112,000 net acres being acquired

2. PUD: Proved Undeveloped.

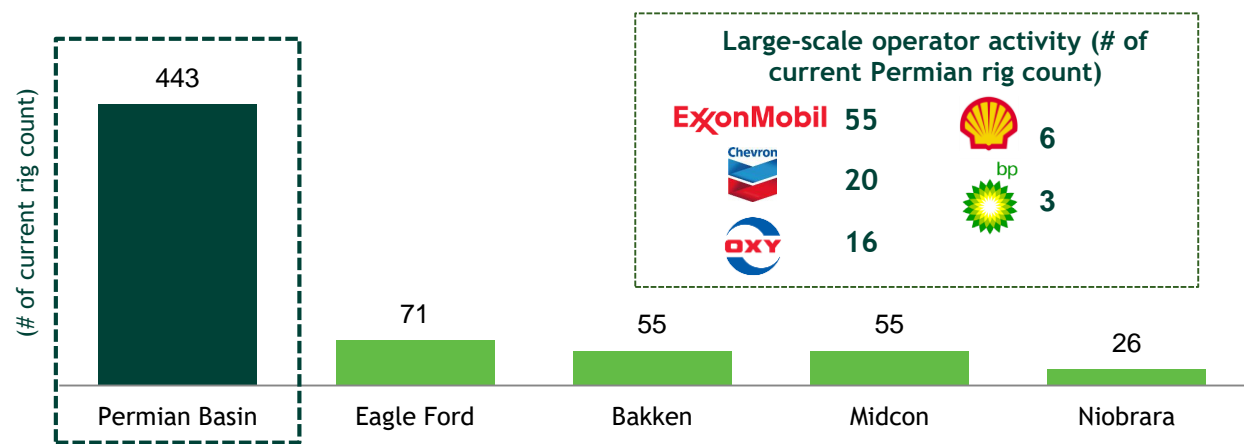
3. According to current development plan

Transaction fully aligned with Ecopetrol's strategy

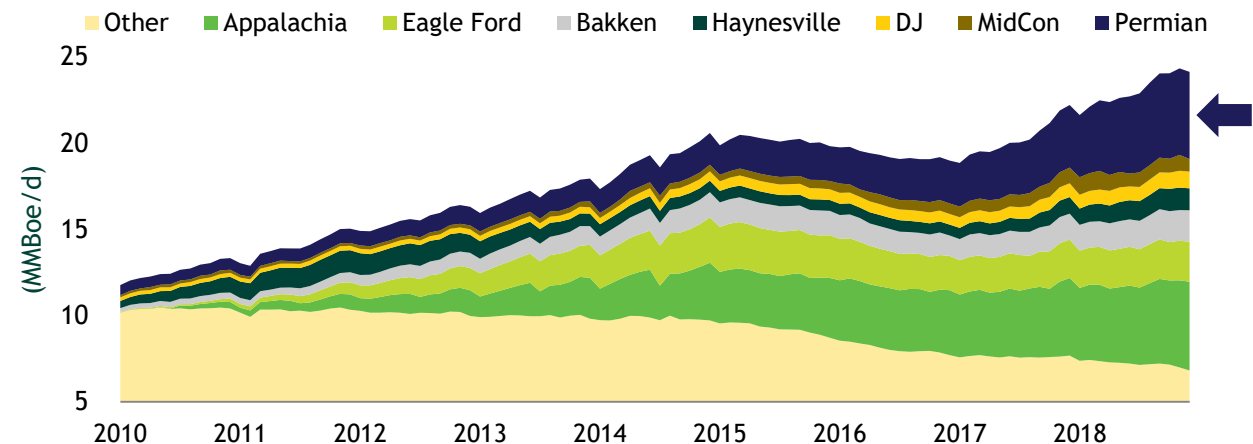


Permian: Fastest Growing U.S. Basin With Top-Tier Returns

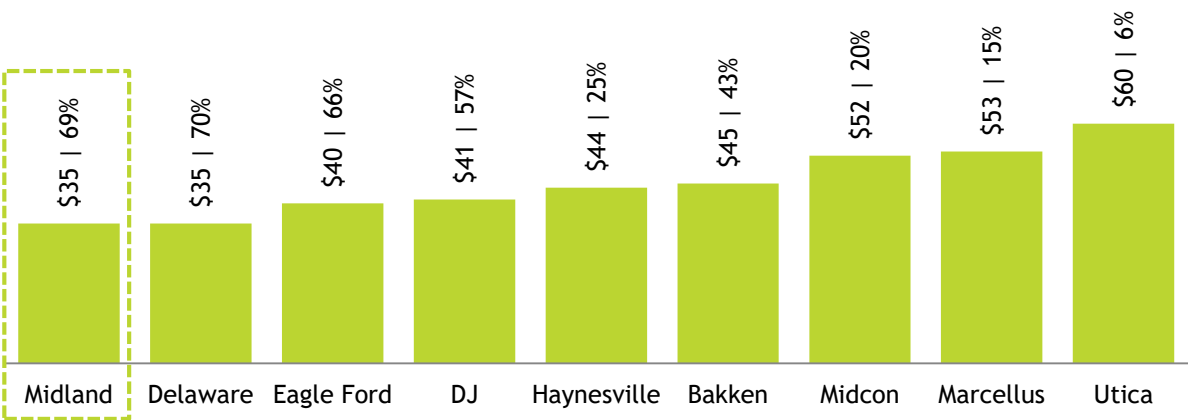
The Permian Basin has the Highest Amount of Drilling Activity in the U.S.



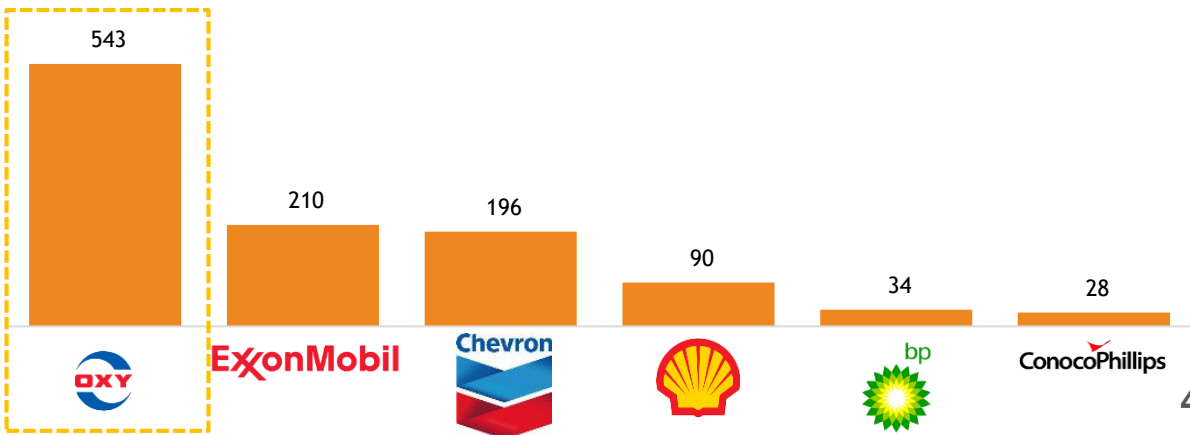
The Permian is the Leading Basin in Production Growth in the U.S.



Permian Break Evens: Most Competitive Across All Other U.S. Basins (½ Cycle)
(\$ / bbl and % IRR)



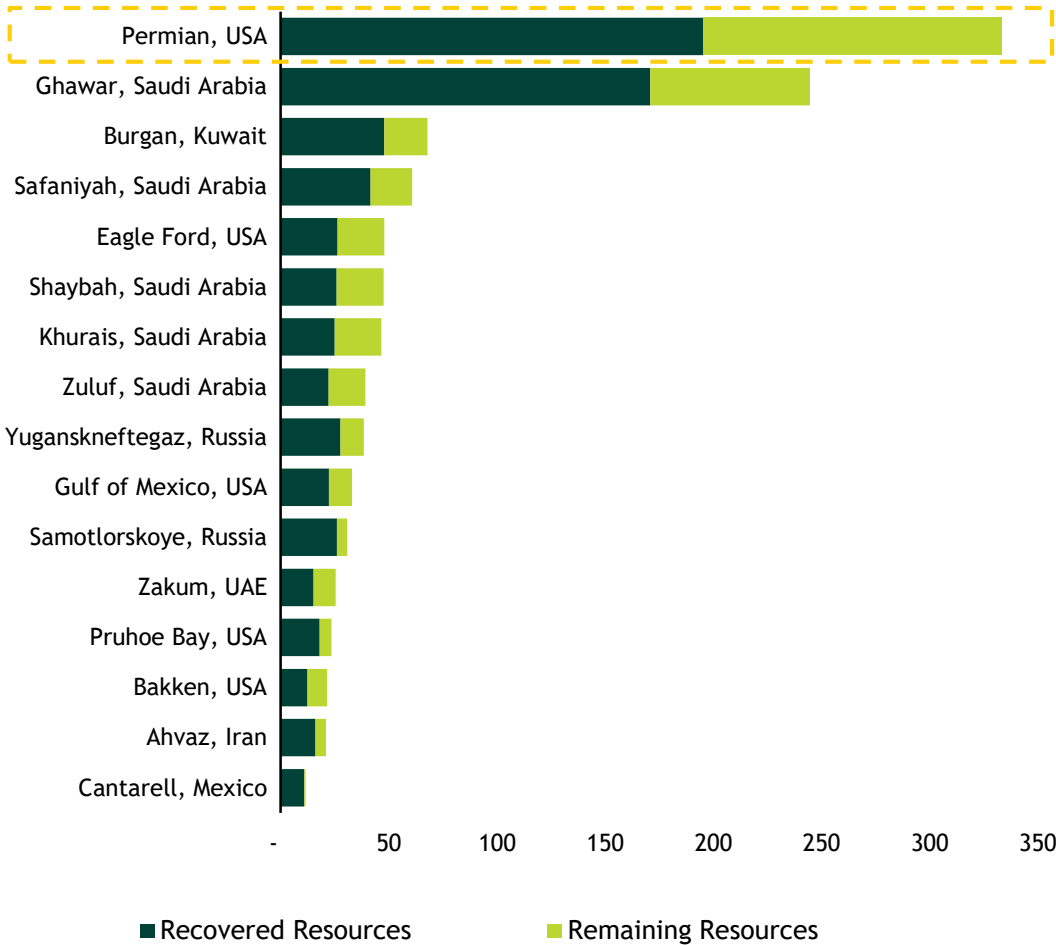
Ecopetrol Joins the Largest Global O&G Operators with presence in the Permian
(Gross Operated Permian Production - Mboe/d)



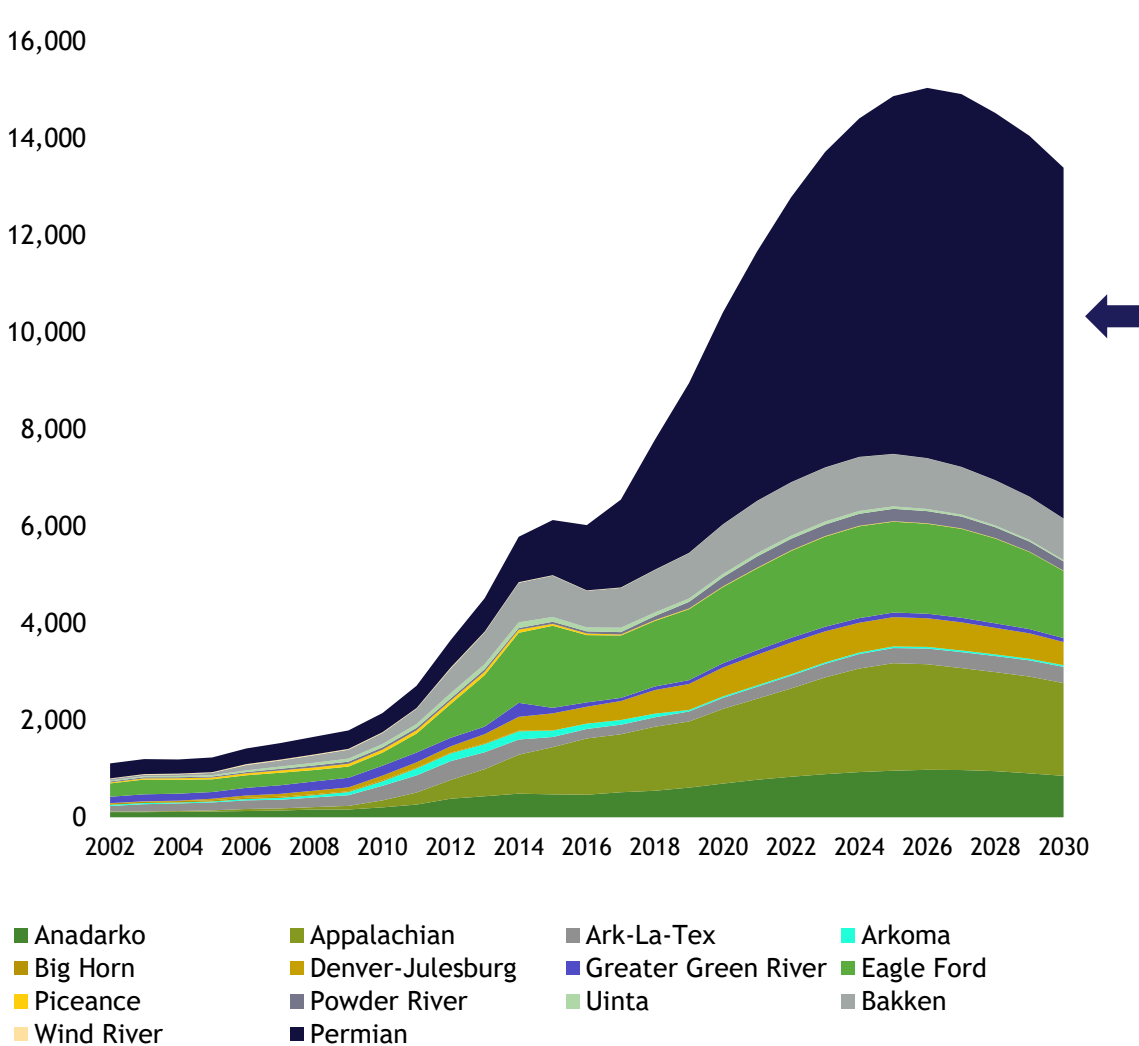
Source: RSEG, Baker Hughes, RigData as of 7/3/19.

The Permian Basin Has Best in Class Resource Potential to Support Significant Production Growth

Total Estimated Recoverable Resource¹
(Bboe)



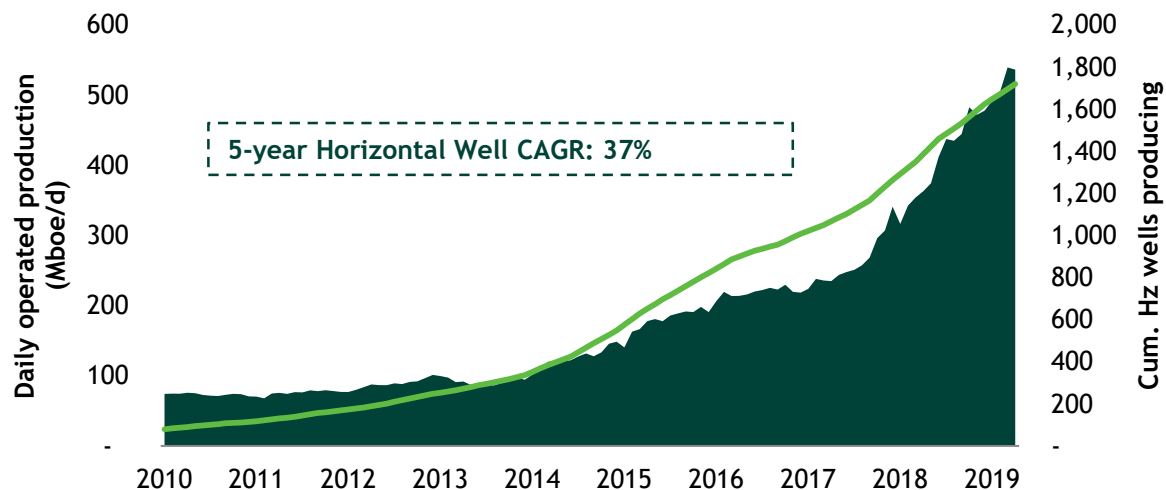
Total Estimated Production by Basin
(Mboe/d, 20:1 gas conversion)



Source: WoodMackenzie.
1. Assumes 6:1 gas conversion.

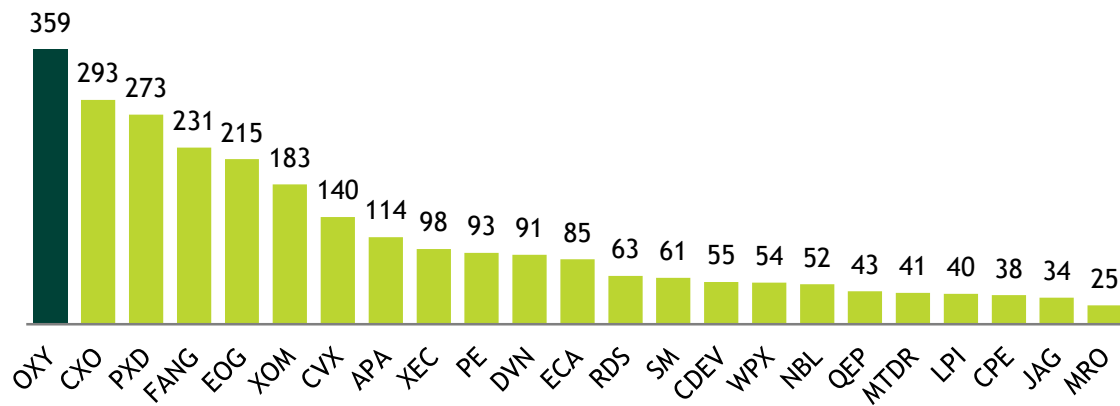
JV: Strategic Partnership with a Top-Tier and Experienced in-basin Operator

Oxy is a Proven, Large-scale Operator in the Permian



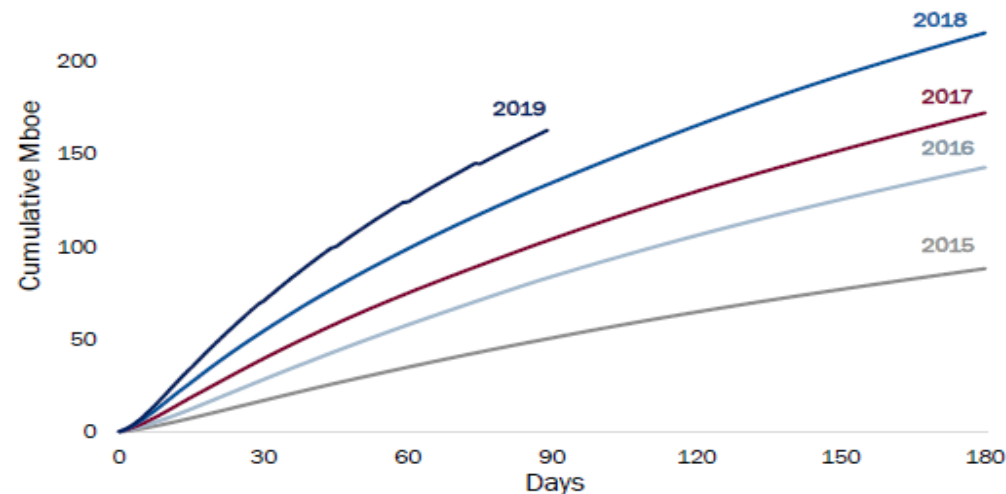
Oxy's Gross Operated Permian Oil Production Vs Top 20 Operators in Basin

(Mbo/d)



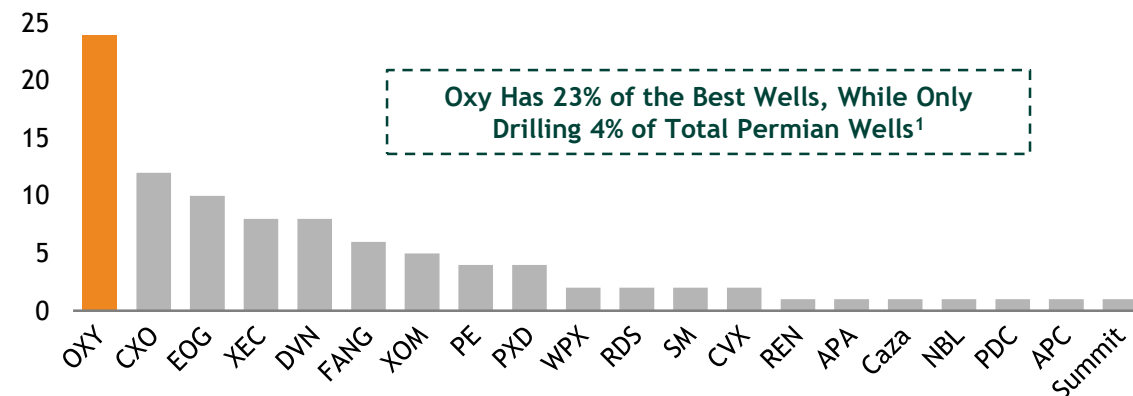
Oxy continues to improve its well performance

- ✓ 147% improvement since 2015
- ✓ 25% improvement from 2017 to 2018



Oxy has the highest number of top 100 Permian wells

(6 Month Cumulative Oil Top 100 Wells)

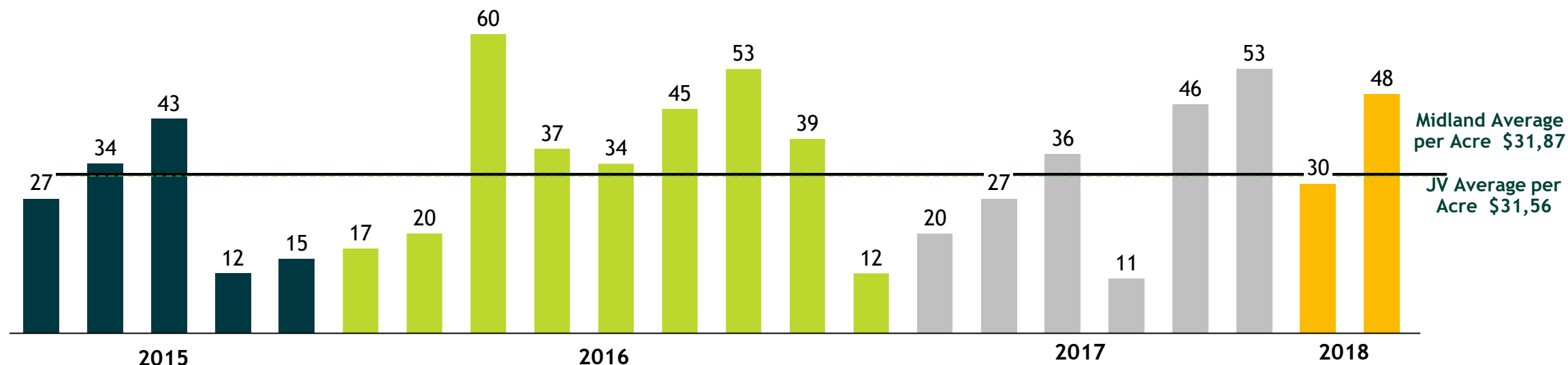


Source: RSEG, Oxy Investor Presentation

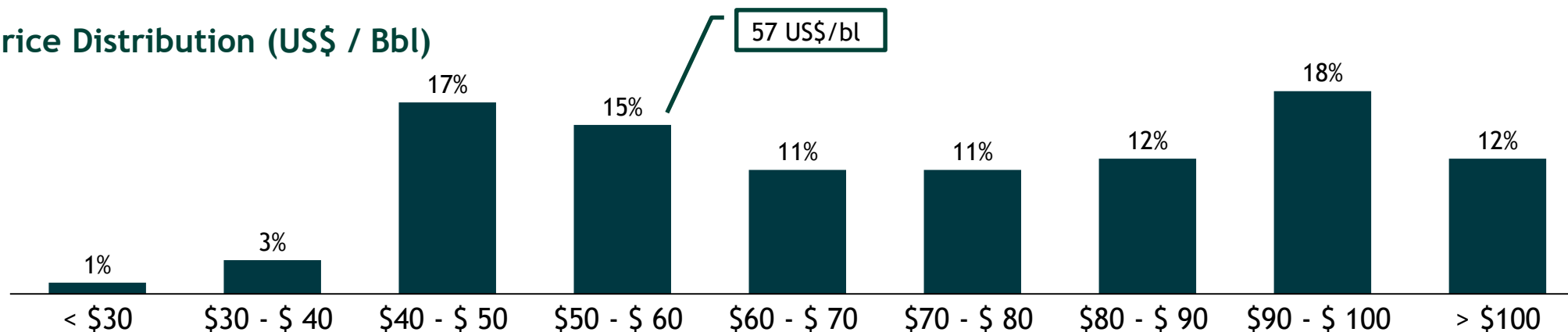
1. Total Permian wells drilled during time-frame includes 4,463 wells; includes horizontals with 6 months oil production available since September 2017 and laterals >500ft.

Midland Transaction Activity and Valuations Through Time

Acreage Multiples Adjusted for Production - Deals > US\$200mm (\$000 per Acre)¹



WTI Spot Price Distribution (US\$ / Bbl)

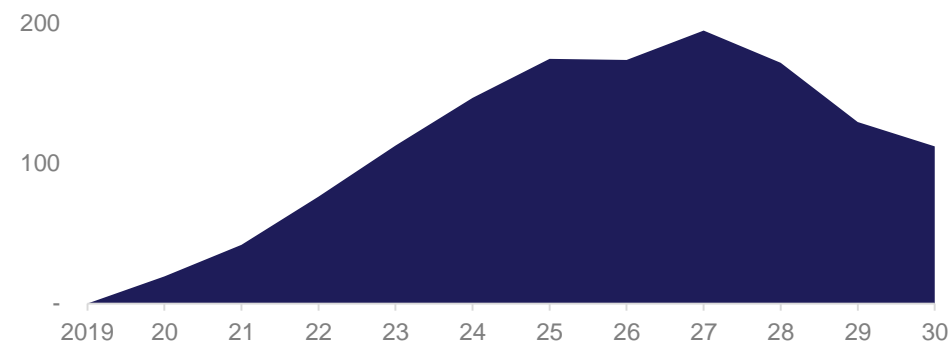


¹Assumes enterprise values and transaction values are adjusted downward by \$30,000 per Boepd of production. Metrics adjusted to reflect current NYMEX 12-month strip pricing of \$55.81 per Bbl and \$2.36 per MMBtu as of July 26, 2019.
Source: PLS, Petrie databases and Ecopetrol calculations. Market data per FactSet as of July 26, 2019.

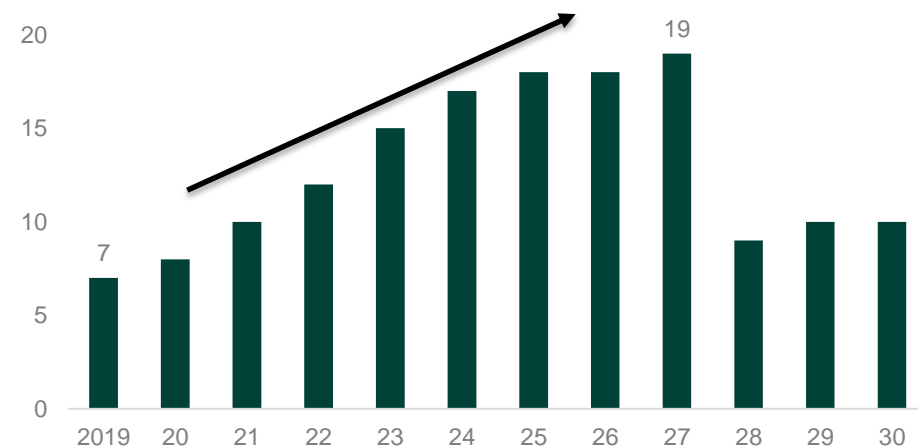
Ecopetrol to Book ~160 mmboe of Proven Reserves in 2019 and Reach a Peak Production of ~95 kboed in 2027

- ✓ Transaction expected to add ~160 mmboe of proved undeveloped reserves upon closing¹
- ✓ JV could add approximately 0.7 years to reserve life by the end of 2019
- ✓ 19 rigs expected in peak development (2027)
- ✓ ~4,700 gross remaining locations
- ✓ Access to Oxy's transportation and storage capacity

Expected Total JV Production (kboed)



Estimated Rig Count (#)



Achieves geographic and hydrocarbon play resource diversification, ~10% increase in 1P reserves compared with 2018

Summary of Selected Deal Terms



Corporate Governance

- Symmetric Board representation
- Parties to consent on critical development and capex allocation decisions
- Agreed instances for technical and commercial decision making



Knowledge and Transfer Agreement

- Secondment Agreement
- Ecopetrol secondees fully integrated into various operational functions of the JV
- Access to intellectual property developed by JV



Services Agreement

- Oxy serves as operator of the JV
- Use of Oxy's infrastructure and commercial capabilities

BoD
Advisor



Financial
Advisor



Legal
Counsel



Technical
Advisor



Land
Services



Transition



Transformational transaction for Ecopetrol



Significantly enhances reserves and production

- 160 mmboe of P1 reserves at closing (2019)
- 115 mmboe between 2020 and 2023
- Peak production of ~95 kboed in 2027



Value accretive transaction

- Shareholder value creation
- Self-funded operation



Knowledge and technology transfer

- High level of planned activity provides rapid knowledge transfer
- Ecopetrol's team will be continuously monitoring JV performance



Improved portfolio structure

- International onshore presence
- Lighter crude and natural gas
- Short cycle hydrocarbons



High quality acreage

- Undeveloped acreage in de-risked areas
- Several locations within the area providing useful information about productivity of formations

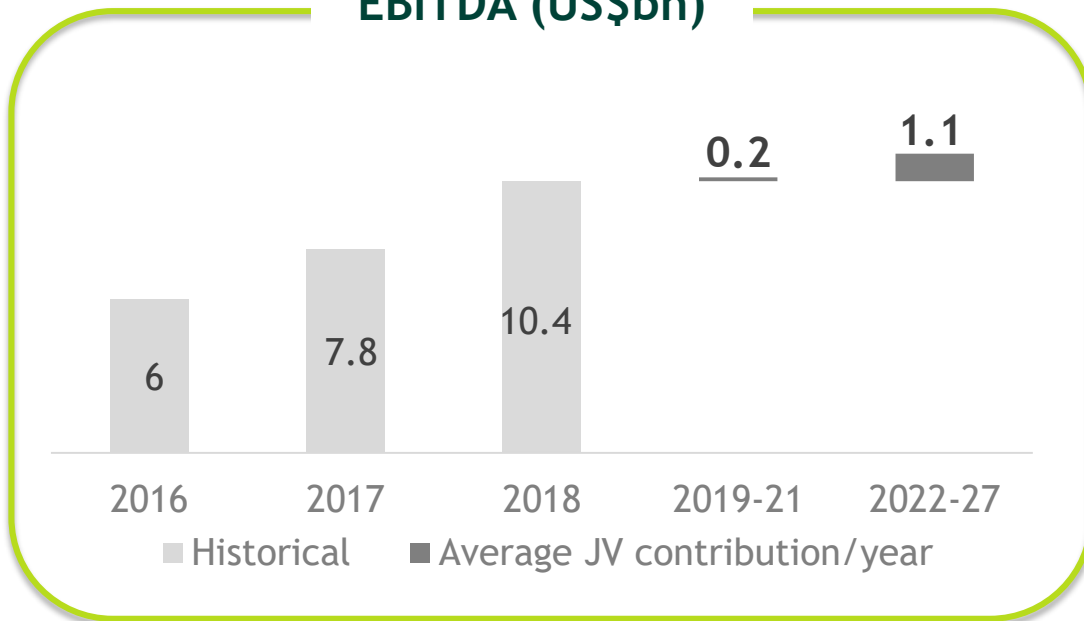


Partnership with OXY

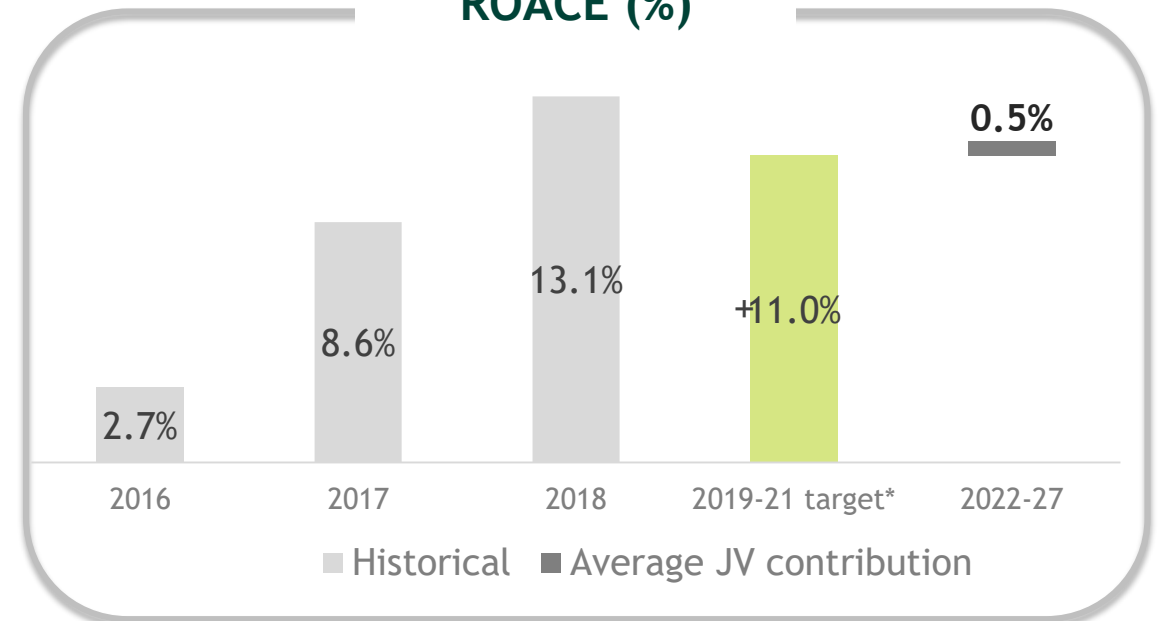
- Strategic relationship with Ecopetrol
- Long-standing presence in Colombia
- Upstream & Midstream infrastructure to streamline the development program

Value accretive transaction to Ecopetrol that enhances shareholder returns

EBITDA (US\$bn)



ROACE (%)



Source: Company materials.

*@ 65 US\$/barrel plan price

Knowledge and technology transfer accelerates Ecopetrol's learning curve in unconventional

Strategic link to Colombia



Tailored Secondment Agreement with Oxy to transfer knowledge and technology to Ecopetrol



Allows competency building for local teams vis-à-vis opportunities in Colombia



“Learning by doing”: Ecopetrol's secondees will be fully integrated into the different operational functions of the JV



Similarities among La Luna and Wolfcamp formations enable the application of best practices

Comparison of Colombia's Unconventional vs Midland Basin



Magdalena Valley

Midland

La Luna

Wolfcamp

Depth (unit)	4,000' - 17,000'	5,000' - 14,000'
Thickness (unit)	400' - 2,200'	2,000' - 3,000'
Average porosity	0.1	0.07
TOC	2%- 20%	2% - 8%
Thermal maturity	0.6 - 3.0%	0.8 - 1%
Clay content	40%	20-30%
Area extent	~139,859 Ha	~3,366,987 Ha



Q&A



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