

Investor Presentation

September 2021



Disclaimer

FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements that involve a number of assumptions, risks and uncertainties that could cause actual results to differ materially from those contained in the forward-looking statements. Falcon cautions readers not to place any undue reliance on these forward-looking statements as forward-looking information is not a guarantee of future performance. Such forward-looking statements include, but are not limited to, statements about future financial and operating results, future dividends paid, the tax treatment of dividends paid, Falcon's plans, initiatives, objectives, expectations and intentions and other statements that are not historical facts. Risks, assumptions and uncertainties that could cause actual results to materially differ from the forward-looking statements include, but are not limited to, those associated with general economic and business conditions; the COVID-19 pandemic and its impact on Falcon and on the oil and gas industry as a whole; Falcon's ability to realize the anticipated benefits of its acquisitions; changes in commodity prices; uncertainties about estimates of reserves and resource potential; inability to obtain capital needed for operations; Falcon's ability to meet financial covenants under its credit agreement or its ability to obtain amendments or waivers to effect such compliance; changes in government environmental policies and other environmental risks; the availability of drilling equipment and the timing of production in Falcon's regions; tax consequences of business transactions; and other risks, assumptions and uncertainties detailed from time to time in Falcon's reports filed with the U.S. Securities and Exchange Commission, including under the heading "Risk Factors" in Falcon's most recent annual report on Form 10-K as well as any subsequently filed quarterly reports on Form 10-Q and current reports on Form 8-K. Forward-looking statements speak only as of the date hereof, and Falcon assumes no obligation to update such statements, except as may be required by applicable law.

RESERVE INFORMATION

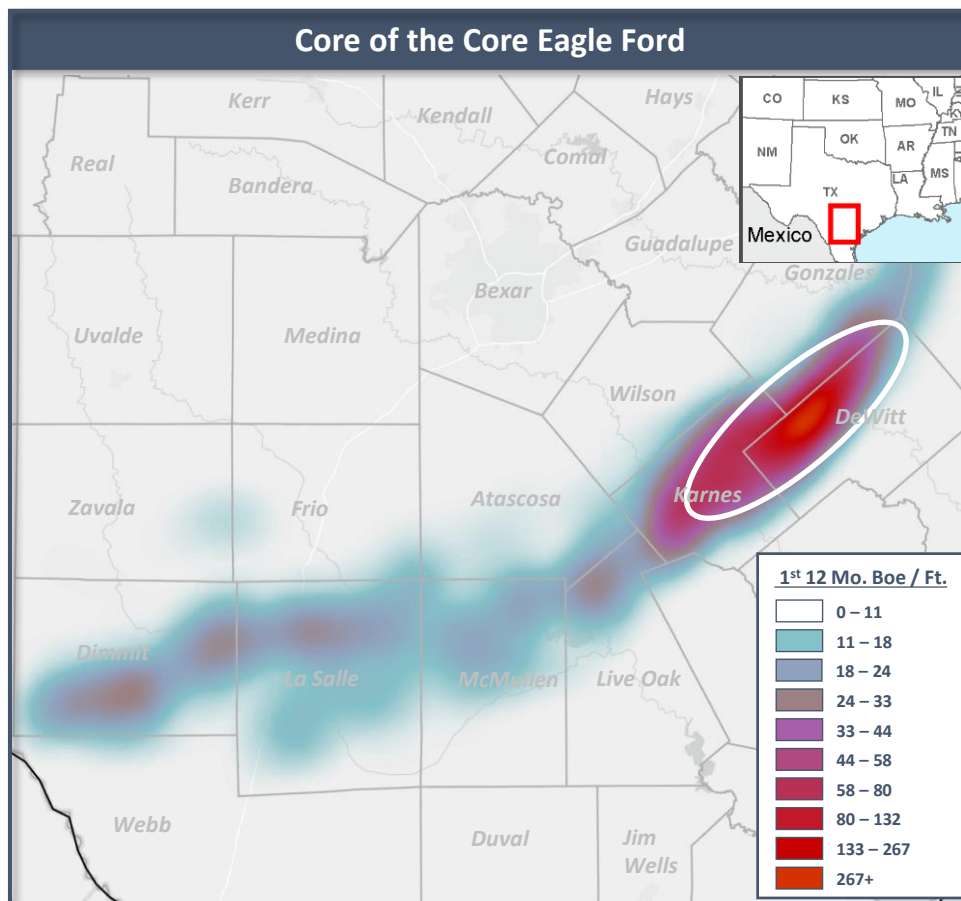
Reserve engineering is a process of estimating underground accumulations of hydrocarbons that cannot be measured in an exact way. The accuracy of any reserve estimate depends on the quality of available data, the interpretation of such data and price and cost assumptions made by reserve engineers. In addition, the results of drilling, testing and production activities may justify revisions of estimates that were made previously. If significant, such revisions could impact Falcon's strategy and change the schedule of any further production and development drilling. Accordingly, reserve estimates may differ significantly from the quantities of oil and natural gas that are ultimately recovered. Estimated Ultimate Recoveries, or "EURs," refers to estimates of the sum of total gross remaining proved reserves per well as of a given date and cumulative production prior to such given date for developed wells. These quantities do not necessarily constitute or represent reserves as defined by the SEC and are not intended to be representative of all anticipated future well results.

Overview

Falcon's primary assets are located in the core of the Eagle Ford under premier operators

Market Overview	
NASDAQ Ticker	FLMN
Market Capitalization ^(1,2)	\$375mm
Net Debt (6/30/21)	\$33.5mm
Total Enterprise Value	\$409mm

Asset Overview	
Key Eagle Ford Operators	COP, BP/DVN, EOG
Gross Unit Acres	EF: ~256,000 Marcellus: ~80,000
Net Acres (8/8ths) ⁽³⁾	EF: ~2,700 Marcellus: ~1,530
Producing Wells	EF: ~2,200 Marcellus: ~429



World class assets developed by world class operators

(1) Assumes share price as of September 8, 2021. Inclusive of Class C Shares.

(2) 86,303,614 shares reflect fully-diluted or as-converted shares outstanding, inclusive of 40,000,000 Class C shares. Excludes unvested RSAs. As of June 30, 2021.

(3) Represents 100% ownership equivalent; not normalized to 1/8th.

Investment Highlights

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- ❑ **Falcon Minerals holds one of the premier mineral positions available in any U.S. shale basin → the Karnes Trough in the Eagle Ford Shale is among the lowest breakeven assets in the U.S.**
- ❑ High exposure to recovering oil prices through industry leading payout ratio
 - Inception to date average payout ratio of ~95% with cumulative dividends of \$1.335 per share
- ❑ Conservative balance sheet → net leverage of 0.92x on an LTM basis as of June 30, 2021
- ❑ World class operators prosecuting decade long plans on Falcon's Eagle Ford position
- ❑ Announced \$0.15 per share dividend for Q2'21 (\$0.60 annualized) → 50% growth over Q1'21
 - Represents a 14% annualized yield as of 9/8/21
- ❑ 73% EBITDA margins in Q2'21 → ample free cash flow generation allows for dividend protection in low commodity price environments

Q2'21 Operational & Financial Highlights

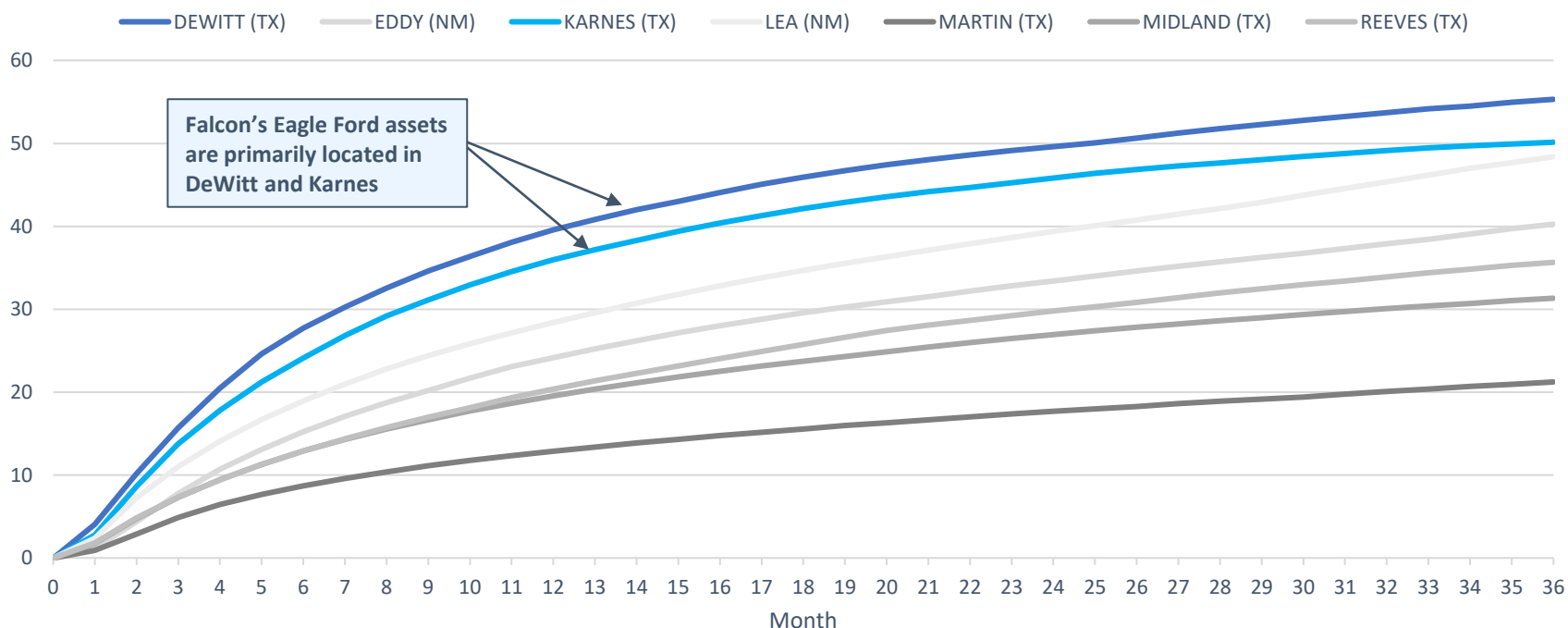
- ❑ **Q2'21 net production of ~5,034 Boe/d → production increased ~22% compared to Q1'21**
- ❑ Averaged 4 rigs on Falcon's Eagle Ford assets during Q2'21
- ❑ COP, EOG, and BP/DVN have substantial Karnes Trough activity → ~10 rigs
 - 55 gross wells (approximately 0.51 net) TIL during Q2'21
 - Total includes ~0.25 net wells TIL in May that will support production into Q3'21
- ❑ During 1H'21 operators focused on converting DUC backlog from 2020
 - ~1.74 net wells TIL in 1H'21
 - Exceeds full year 2019 net wells TIL by 13%
- ❑ 171 gross line-of-sight wells (1.80 net wells) permitted and in active development
- ❑ Top operators represent ~87% of Falcon's line-of-sight inventory
- ❑ Adjusted EBITDA of \$13.8 million for Q2'21
 - Excludes \$1.7 million of executive transition expenses

Exposure to Extraordinary Reservoirs

Well economics in the Karnes Trough are supported by its rapid delivery of oil volumes

- ❑ Prolific production profile supports operator economics
 - Best economics, highest oil cut, centralized around DeWitt and Karnes counties
- ❑ Cumulative oil recoveries of 50 BO/ft. in the first three years exceed the EURs of many other horizontal plays in the U.S.
- ❑ Thick, hydrocarbon rich assets allows for dense well spacing with a decade of proof
 - High oil recoveries and tight spacing are ideal for mineral owners seeking to maximize revenue potential

Cumulative Oil Production per Lateral Foot ⁽¹⁾



(1) Source: Enverus. All COP operated horizontal wells with first production on or after January 1, 2018, grouped by county.

Development Activity

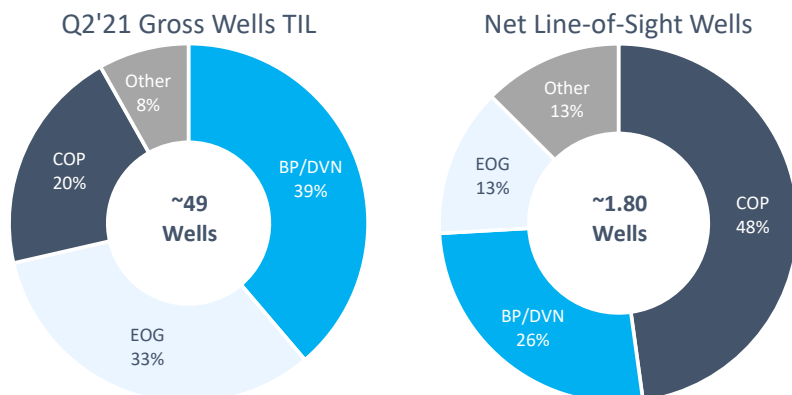
Highlights

- ❑ Averaged 4 rigs on Falcon's Eagle Ford assets in Q2'21
- ❑ 55 gross wells (0.51 net wells) TIL in Q2'21
- ❑ 171 gross line-of-sight wells (1.80 net wells) permitted and in active development
 - 83 gross wells and 0.59 net wells waiting on completion or connection

2021 YTD Development

	Active Rigs	Gross TIL	Average NRI	Net TIL
Q1'21	5	60	~2.04%	~1.23
Q2'21	4	55	~0.93%	~0.51





Falcon Eagle Ford Wells by Operator



Eagle Ford Line-of-Sight Development (July 2021)

	Gross Wells	Average NRI	Net Wells
Permitted	88	1.39%	1.22
Waiting on Completion	72	0.75%	0.54
Waiting on Connection	11	0.41%	0.05
Total	171	1.05%	1.80

Recent Operator Commentary

Key Operators		
	 	
<ul style="list-style-type: none"> <input type="checkbox"/> Eagle Ford Outlook – 10-year commitment to Eagle Ford <input type="checkbox"/> 4 rigs and 3 frac crews in the Karnes Trough <input type="checkbox"/> ConocoPhillips (“COP”) stated in June that the Eagle Ford remains one of the company’s lowest cost of supply areas <input type="checkbox"/> Plan to drill ~1,600 operated new wells over 10-year plan <input type="checkbox"/> ~3,800 top-tier locations remaining <input type="checkbox"/> Average cost of supply in Lower 48 below ~\$30 / Bbl (10% IRR threshold) <input type="checkbox"/> Upside – ~300 refracs in 10-year plan, ~75% EUR increase from mechanical isolation refracs 	<ul style="list-style-type: none"> <input type="checkbox"/> Eagle Ford Outlook – 10+ years of inventory life in the Eagle Ford <input type="checkbox"/> 2 rigs in the Karnes Trough <input type="checkbox"/> Expect to maintain production profile with 2 rigs in 2H’21 <input type="checkbox"/> Reestablished operational continuity and brought 21 new wells online 1H’21 <input type="checkbox"/> Successful redevelopment appraisal program during 1H’20 confirms resource upside and additional highly economic inventory <input type="checkbox"/> Upside – ~700+ potential refrac locations along with additional redevelopment / infill inventory 	<ul style="list-style-type: none"> <input type="checkbox"/> Eagle Ford Outlook – bellwether asset with 10+ years of inventory remaining <input type="checkbox"/> 4 rigs in the Karnes Trough <input type="checkbox"/> ~145 net Eagle Ford wells expected to TIL in 2021 with average 3 rigs and 2 frac crews <input type="checkbox"/> ~1,900 net undrilled premium locations in the Eagle Ford <input type="checkbox"/> ~6% reduction in Eagle Ford well costs expected in 2021 compared to 2020 levels <input type="checkbox"/> Upside – targeting Enhanced Oil Recovery (EOR) program with over 200 wells identified

10-year commitment to the Eagle Ford across key operators

Hooks Ranch Update

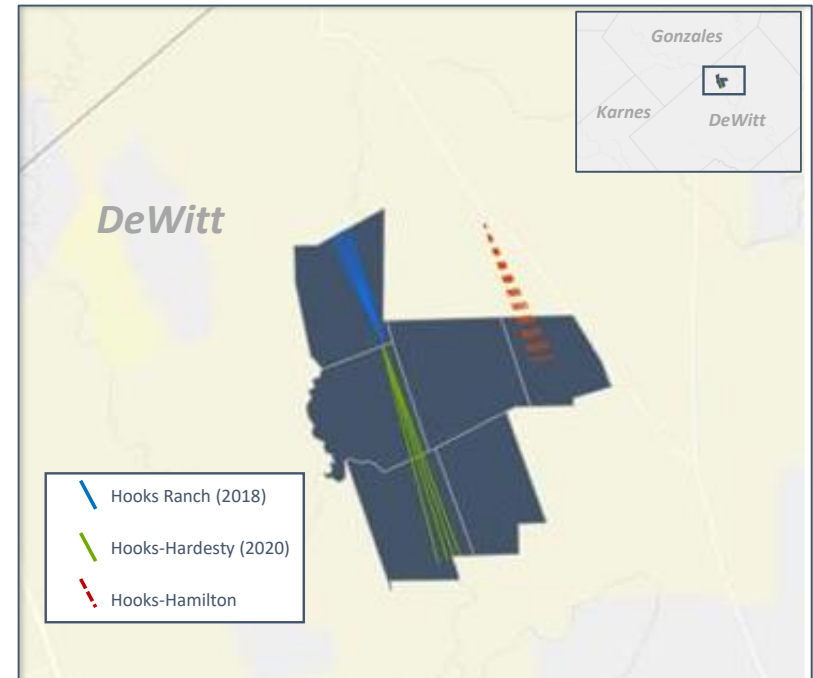
Falcon Minerals has a 22.5% royalty interest in ConocoPhillips'

Hooks Ranch position

- ❑ 75%+ undeveloped → 100% HBP and operated by ConocoPhillips
- ❑ ConocoPhillips permitted 6 new wells during September 2020
 - 4 Lower Eagle Ford / 2 Upper Eagle Ford
 - Wells will have laterals from adjacent Hamilton properties into the Hooks unit

Historical results at Hooks have been outstanding

- ❑ Four long-lateral Hooks Ranch wells TIL on February 7, 2020 extending into the Hardesty Unit
 - 12-month production outperformed average COP well in the Karnes Trough by over ~30% ⁽¹⁾
- ❑ February 2018 Hooks 6-well pad (4 Lower, 2 Upper) performed in top decile of performance in basin



(1) Data from Enverus.

Financial Overview

Falcon maintains a conservative balance sheet and is lightly hedged

- ❑ Maintained low leverage profile → net debt of \$33.5 million at Q2'21
- ❑ Net leverage below 1.0x
- ❑ Hedged 150,000 MMbtu/month for November – March winter gas sales at attractive pricing
 - Collars set a floor at \$4.20/MMbtu while retaining significant upside exposure

Capitalization as of June 30, 2021

Cash	\$3.0mm
Revolving Credit Facility Borrowing	\$36.5mm
Net Debt	\$33.5mm
Borrowing Base	\$70.0mm
Net Debt to LTM EBITDA ⁽¹⁾	0.92x

Crude Oil Swaps (Magellan East Houston)

Date	Swap Volumes (Bbls/d)	Swap Price (\$ / Bbl)
Q3'21	940	\$56.29
Q4'21	836	\$54.85

Natural Gas Collars (NYMEX)

Date	Collar Volumes (MMbtu / month)	Collar Prices
Nov '21 – March '22	150,000	\$4.20 x \$5.52

(1) Calculated by dividing the sum of total debt outstanding less total cash on hand as of June 30, 2021 by Adjusted EBITDA for the trailing 12 month period.

Dividend Payouts

Favorable Tax Treatment of Dividends

- ❑ Falcon announced second quarter 2021 dividend of \$0.15 per share → \$1.335 of cumulative dividends since inception
- ❑ Falcon expects that greater than 50% of the dividends paid to Class A shareholders during 2021 will be classified as non-dividend distributions in 2021 and therefore represent a reduction of basis rather than ordinary income
 - Non-dividend distributions are treated as a reduction of basis until such time that the investors' basis is fully recovered
 - Falcon generates non-dividend distributions due to the Company's high payout ratio coupled with the step up in the tax basis of Falcon's minerals interests that was received as a part of the transaction with Royal Resources in 2018

Cumulative Dividends Per Share

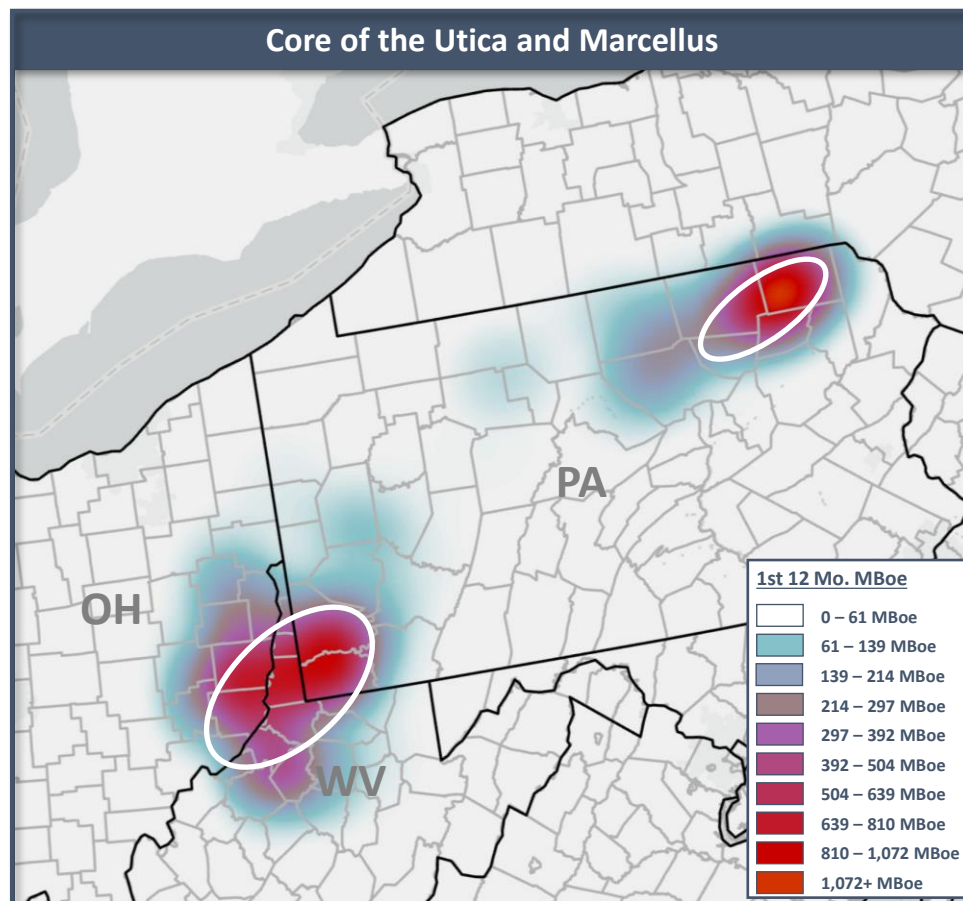


Note: This expected favorable tax treatment is the result of certain non-cash expenses (principally depletion) substantially offsetting Falcon's taxable income and tax "earnings and profit." Our estimates of the tax treatment of Falcon's earnings and dividends are based upon assumptions regarding the capital structure and earnings of Falcon Minerals Operating Company LP ("OpCo"), the capital structure of Falcon and the amount of the earnings OpCo allocates to Falcon. Many factors may impact these estimates, including changes in drilling and production activity, commodity prices, future acquisitions, or changes in the business, economic, regulatory, legislative, competitive or political environment in which Falcon operates. These estimates are based on current tax law and tax reporting positions that we have adopted and with which the Internal Revenue Service could disagree. These estimates are not fact and should not be relied upon as being necessarily indicative of future results, and no assurances can be made regarding these estimates. Investors are encouraged to consult with their tax advisor on this matter.

Appalachia Asset Overview

Falcon's Appalachia assets are located in the core of the Utica and Marcellus under premier operators

Asset Overview	
Gross Unit Acres	~80,000 acres
Net Royalty Acres ⁽¹⁾	~1,530 acres (~1.6% NRI)
Producing Wells	~429 wells
Key Operators	COG, EQT, CHK, SWN, Tug Hill
Rig Count	2 rigs
Waiting on Connection ⁽²⁾	2 gross / 0.03 net
Waiting on Completion ⁽²⁾	25 gross / 0.05 net
Permits ⁽²⁾	22 gross / 0.22 net



Appalachia assets provide additional upside to improved gas prices

(1) Net royalty acres include unleased acreage. NRI based on DSU averages.

(2) Marcellus line-of-sight not included in line-of-sight numbers on page 6.