HIGHPEAK ENERGY

INVESTOR PRESENTATION
AUGUST 2026

Disclaimer

FORWARD-LOOKING STATEMENTS

The information in this presentation and in any oral statements made in connection herewith contains forward-looking statements that involve risks and uncertainties. When used in connection with this document, the words “believes,” “plans,” “expects,” “anticipates,” “forecasts,” “intends,” “projects,” “continue,” “may,” “will,” “could,” “should,” “future,” “potential,” “estimate” or the negative of such terms and similar expressions as they relate to HighPeak Energy, Inc. (“HighPeak Energy” or the “Company”) are intended to identify forward-looking statements, which are generally not historical in nature. The forward-looking statements are based on the Company's current expectations, assumptions, estimates and projections about the Company and the industry in which the Company operates. Although the Company believes that the expectations and assumptions reflected in the forward-looking statements are reasonable as and when made, they involve risks and uncertainties that are difficult to predict and, in many cases, beyond the Company's control. For example, the Company’s review of strategic alternatives may not result in a sale of the Company, a recommendation that a transaction occur or result in a completed transaction, and any transaction that occurs may not increase shareholder value, in each case as a result of such risks and uncertainties.

These risks and uncertainties include, among other things, the results of the strategic review being undertaken by the Company’s Board and the interest of prospective counterparties, the Company’s ability to realize the results contemplated by its 2026 guidance , volatility of commodity prices, political instability or armed conflict in crude oil or natural gas producing regions such as the ongoing war between Russia and Ukraine and conflicts in the Middle East, OPEC+ policy decisions, potential new trade policies, such as tariffs, could adversely affect the Company’s operations, business and profitability, inflationary pressures on costs of oilfield goods, services and personnel, product supply and demand, the impact of a widespread outbreak of an illness, such as the coronavirus disease 2019 (“COVID-19”) pandemic, on global and U.S. economic activity, competition, the ability to obtain environmental and other permits and the timing thereof, other government regulation or action, the ability to obtain approvals from third parties and negotiate agreements with third parties on mutually acceptable terms, litigation, the costs and results of drilling and operations, availability of equipment, services, resources and personnel required to perform the Company’s drilling and operating activities, access to and availability of transportation, processing, fractionation, refining and storage facilities, HighPeak Energy’s ability to replace reserves, implement its business plans or complete its development activities as scheduled, access to and cost of capital, the financial strength of counterparties to any credit facility and derivative contracts entered into by HighPeak Energy, if any, and purchasers of HighPeak Energy's oil, NGL and gas production, uncertainties about estimates of reserves, identification of drilling locations and the ability to add proved reserves in the future, the assumptions underlying forecasts, including forecasts of production, expenses, cash flow from sales of oil and gas and tax rates, quality of technical data, environmental and weather risks, including the possible impacts of climate change, cybersecurity risks and acts of war or terrorism. These and other risks are described in the Company’s Annual Report on Form 10-K filed with the Securities and Exchange Commission (the “SEC”) on March 11, 2026 (the “Annual Report”), and in its other filings with the SEC. In addition, the Company may be subject to currently unforeseen risks that may have a materially adverse effect on it. Accordingly, no assurances can be given that the actual events and results will not be materially different than the anticipated results described in the forward-looking statements. See “Risk Factors,” “Business,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Quantitative and Qualitative Disclosures About Market Risk” in the Registration Statement for a description of various factors that could materially affect the ability of HighPeak Energy to achieve the anticipated results described in the forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date hereof. The Company undertakes no duty to publicly update these statements except as required by law.

RESERVE INFORMATION

Reserve engineering is a process of estimating the recovery of 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. Reserves estimates included herein may not be indicative of the level of reserves or PV-10 value of oil and natural gas production in the future. 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 HighPeak’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 reserves per well as of a given date and cumulative production prior to such given date for developed wells. “Resource” refers to gross volumes of hydrocarbons without giving effect to recovery efficiency or the economic viability of production. Neither EURs nor resource constitute represent reserves as defined by the SEC and neither is intended to be representative of anticipated future well results or aggregate production volumes. Each such metric is inherently more uncertain than proved reserve estimates prepared in accordance with SEC guidelines.

USE OF PROJECTIONS

The financial, operational, industry and market projections, estimates and targets in this presentation (including production, operating expenses, capital expenditures, EBITDAX and Free Cash Flow in future periods) are based on assumptions that are inherently subject to significant uncertainties and contingencies, many of which are beyond the Company’s control. The assumptions and estimates underlying the projected, expected or target results are inherently uncertain and are subject to a wide variety of significant business, economic, regulatory and competitive risks and uncertainties that could cause actual results to differ materially from those contained in the financial, operational, industry and market projections, estimates and targets, including assumptions, risks and uncertainties described in “Cautionary Note Regarding Forward-Looking Statements” above. These projections are speculative by their nature and, accordingly, are subject to significant risk of not being actually realized by the Company. Projected results of the Company for 2026 are particularly speculative and subject to change. Actual results may vary materially from the current projections, including for reasons beyond the Company’s control. The projections are based on current expectations and available information as of the date of this release. The Company undertakes no duty to publicly update these projections except as required by law.

Disclaimer (Cont'd)

USE OF NON-GAAP FINANCIAL MEASURES

This presentation may include non-GAAP financial measures, including adjusted net income, EBITDAX and adjusted EBITDAX, free cash flow before changes in working capital associated with oil and gas property additions, free cash flow, discretionary cash flow, unlevered free cash flow, EBITDAX per Boe and unhedged EBITDAX per Boe, and PV-10. HighPeak believes these non-GAAP measures are useful because they allow HighPeak to more effectively evaluate its operating performance and compare the results of its operations from period to period and against its peers without regard to financing methods, capital structure or tax status. HighPeak does not consider these non-GAAP measures in isolation or as alternatives to similar financial measures determined in accordance with GAAP. HighPeak's computations of these non-GAAP financial measures may not be comparable to other similarly titled measures of other companies.

HighPeak defines EBITDAX as net income before interest expense, interest and other income, income taxes, depletion, depreciation and amortization, accretion of discount on asset retirement obligations, exploration and abandonment expenses, non-cash stock-based compensation expense, noncash derivative gains and losses, loss on extinguishment of debt, other expense, gains and losses on divestitures and certain other items. HighPeak defines adjusted EBITDAX as EBITDAX excluding cash G&A expenses. HighPeak's management believes EBITDAX is useful as it allows them to more effectively evaluate HighPeak's operating performance and compare the results of its operations from period to period and against its peers without regard to financing methods or capital structure. HighPeak excludes the items listed above from net income in arriving at EBITDAX because these amounts can vary substantially from company to company within the industry depending upon accounting methods and book values of assets, capital structures and the method by which the assets were acquired. HighPeak also periodically presents EBITDAX on an "annualized" basis, which represents EBITDAX for a fiscal quarter annualized for a 12-month period as if EBITDAX for each fiscal quarter in such period was equal to the quarter specified. HighPeak defines adjusted EBITDAX per Boe as realized price less lease operating expenses, gathering, processing and transportation expenses and production taxes, on a per-Boe basis. HighPeak defines EBITDAX per Boe as realized price less lease operating expense, gathering, processing and transportation expenses, cash general and administrative expenses and production taxes, on a per-Boe basis. HighPeak defines unhedged as excluding the effects of derivatives and hedged as including the cash settlement effects of derivatives. HighPeak defines free cash flow as operating cash flow before working capital changes (i.e. discretionary cash flow) less capex excluding acquisitions. HighPeak defines unlevered free cash flow as EBITDAX less Capex. HighPeak defines PV-10 as the present value of estimated future net revenues to be generated from the production of proved reserves, without giving effect to non-property related expenses, discounted at 10% per year before income taxes. For reconciliations of each such non-GAAP measure as presented herein to its most comparable measure prepared in accordance with GAAP, see the Appendix to this presentation.

In the case of non-GAAP financial measures presented for future periods, HighPeak advises that it is unable to provide reconciliations of such measures without unreasonable efforts. Accordingly, such measures should be considered in light of the fact that no GAAP measure of performance or liquidity is available as a point of comparison to such non-GAAP measures.

INDUSTRY AND MARKET DATA

This presentation has been prepared by HighPeak and may include market data and other statistical information from sources believed by HighPeak to be reliable, including independent industry publications, governmental publications or other published independent sources. Some data is also based on HighPeak's good faith estimates, which are derived from its review of internal sources as well as the independent sources described above. Although HighPeak believes these sources are reliable, they have not independently verified the information and cannot guarantee its accuracy and completeness.

DRILLING LOCATIONS

The Company has estimated its drilling locations based on well spacing assumptions and upon the evaluation of its drilling results and those of other operators in its area, combined with its interpretation of available geologic and engineering data. The drilling locations actually drilled on the Company's properties will depend on the availability of capital, regulatory approvals, commodity prices, costs, actual drilling results and other factors. Any drilling activities conducted on these identified locations may not be successful and may not result in additional proved reserves. Further, to the extent the drilling locations are associated with acreage that expires, the Company would lose its right to develop the related locations.

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Avg. Production

45.3 MBoe/d

7% above midpoint of guidance range

Unit LOE[1]

$7.92/Boe

9% below midpoint of guidance range

Capex Spend

$107.5 MM

Accelerated frac activity in Q2. Highest planned quarterly spend rate in 2026.

EBITDAX[2]

$147.6 MM

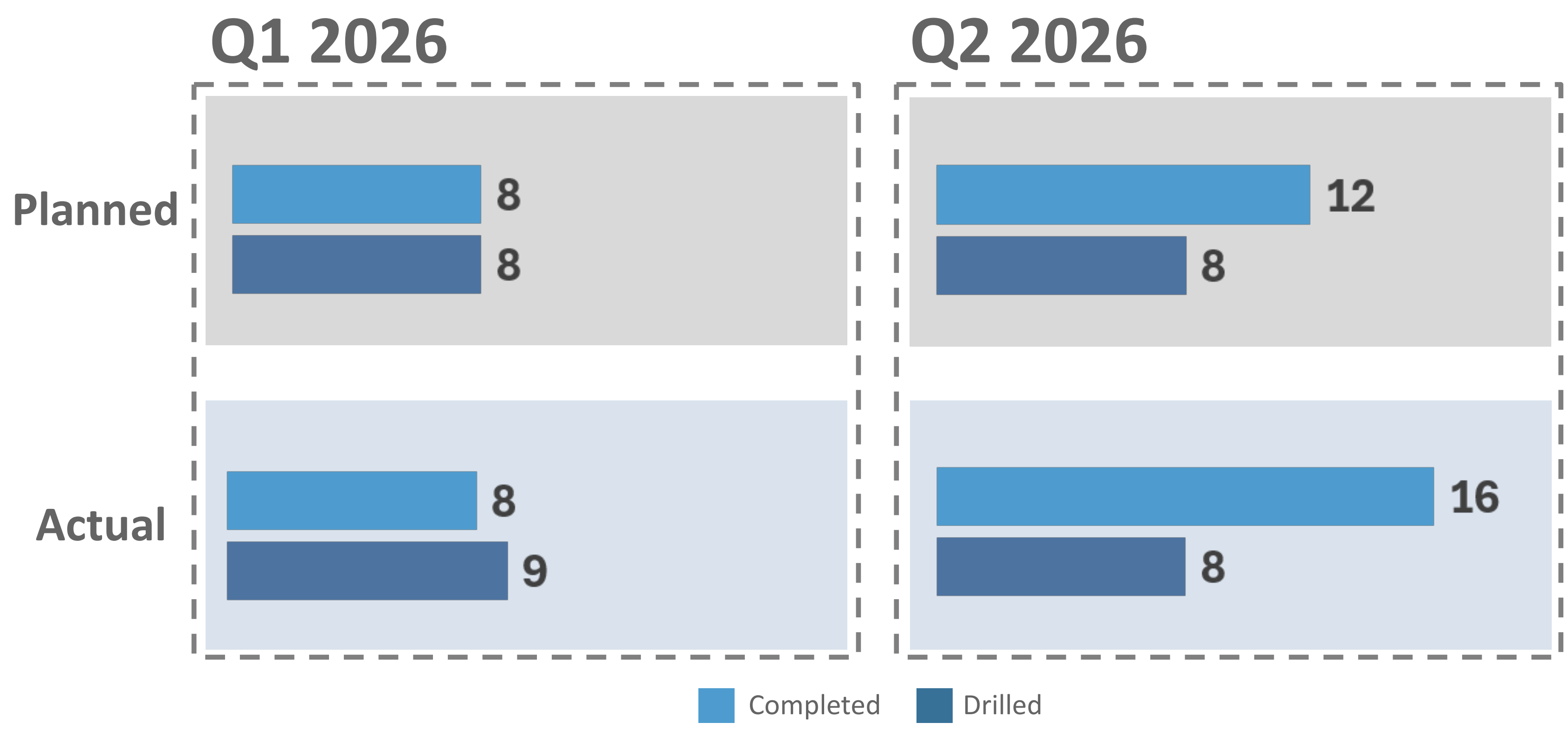
Free Cash Flow[2]

$37.6 MM

1) LOE including workover expenses.
2) See appendix for Non-GAAP financial measures reconciliations.

1H’26 Development Activity Summary

HIGHPEAK ENERGY



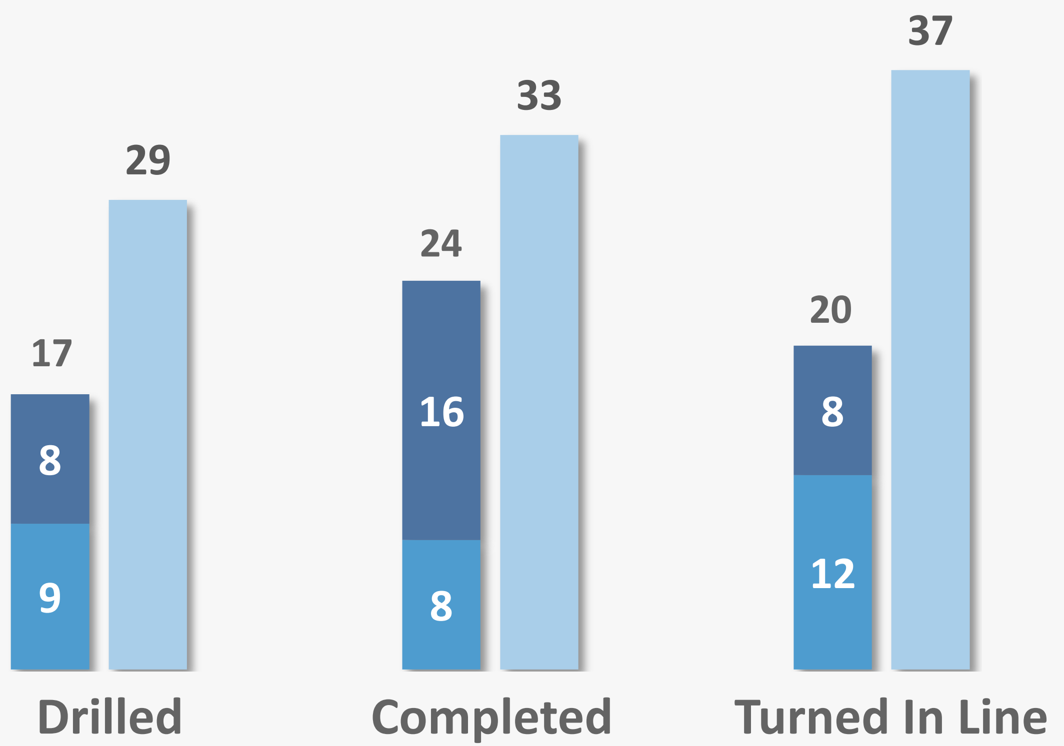
Ahead of Schedule

HighPeak pulled forward the completion of 4 wells into the 2nd quarter due to favorable pricing and simul-frac crew availability.

Accelerated activity creates increased optionality if market conditions warrant.

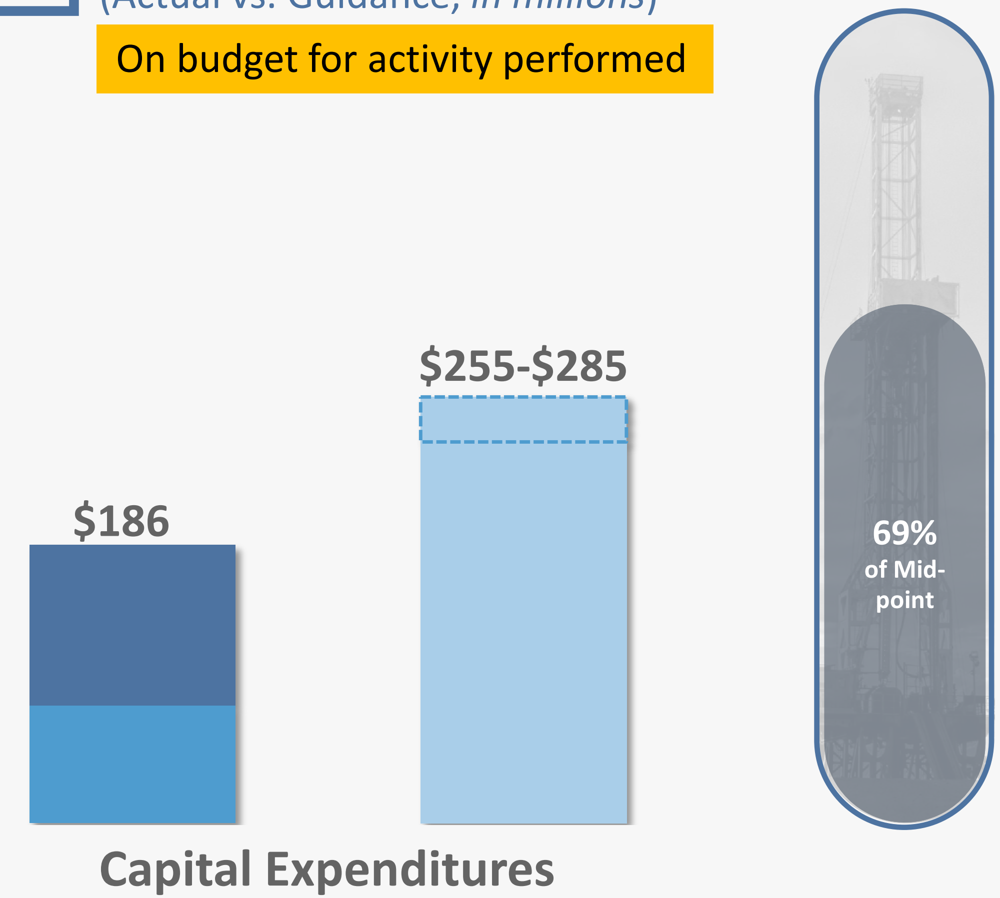
Plan versus Performance

Operational Performance: Well Counts
(Actual vs. Guidance)



Financial Performance: Capex Spend
(Actual vs. Guidance, *in millions*)

On budget for activity performed



Q1 Actual | Q2 Actual | 2026 Guidance

Base Production Optimization

Workover Candidate Identification

Systematic screening to isolate underperforming wells with higher production potential

- Uplift modeling
- Artificial lift evaluation
- Pressure history review

Opportunistic Deployment

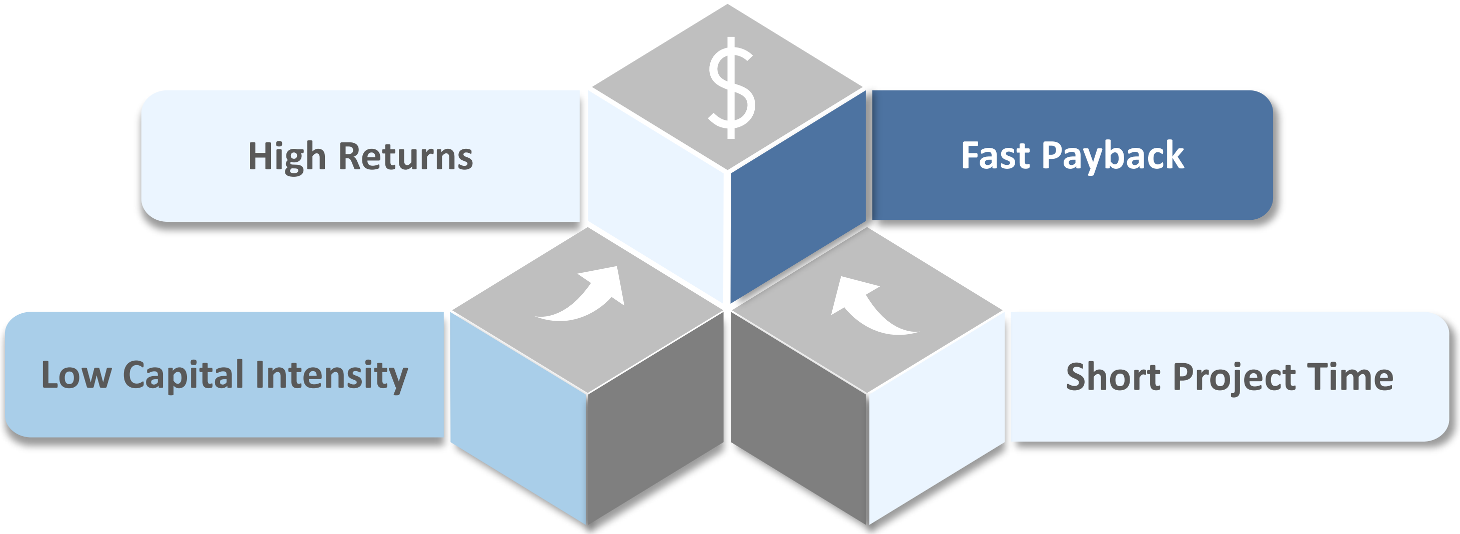
Rapid deployment of workover rigs during favorable commodity price windows

- Scalable rig capacity
- Dynamic capital allocation
- Pump optimizations

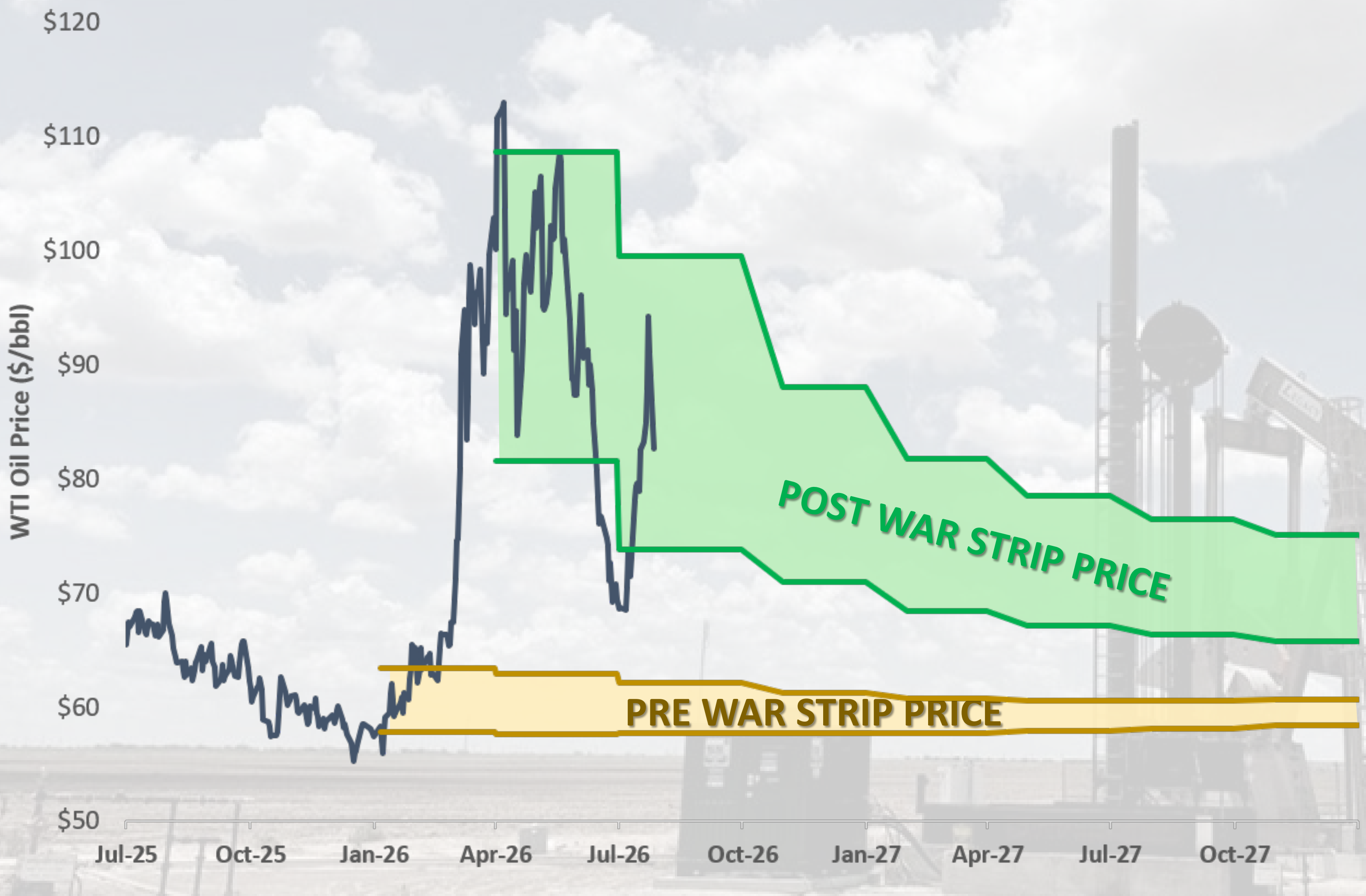
High-Margin Production

Workovers leverage existing wells and infrastructure to drive incremental production volumes

- Immediate volume response
- Zero infrastructure cost
- Incremental cash flow



Staying Steady in a Volatile Market



Capital allocation decisions based on long-term outlook

Increase in long term strip pricing is constructive but does not change fundamental development strategy

Higher pricing increases free cash flow and accelerates de-leveraging timeframe

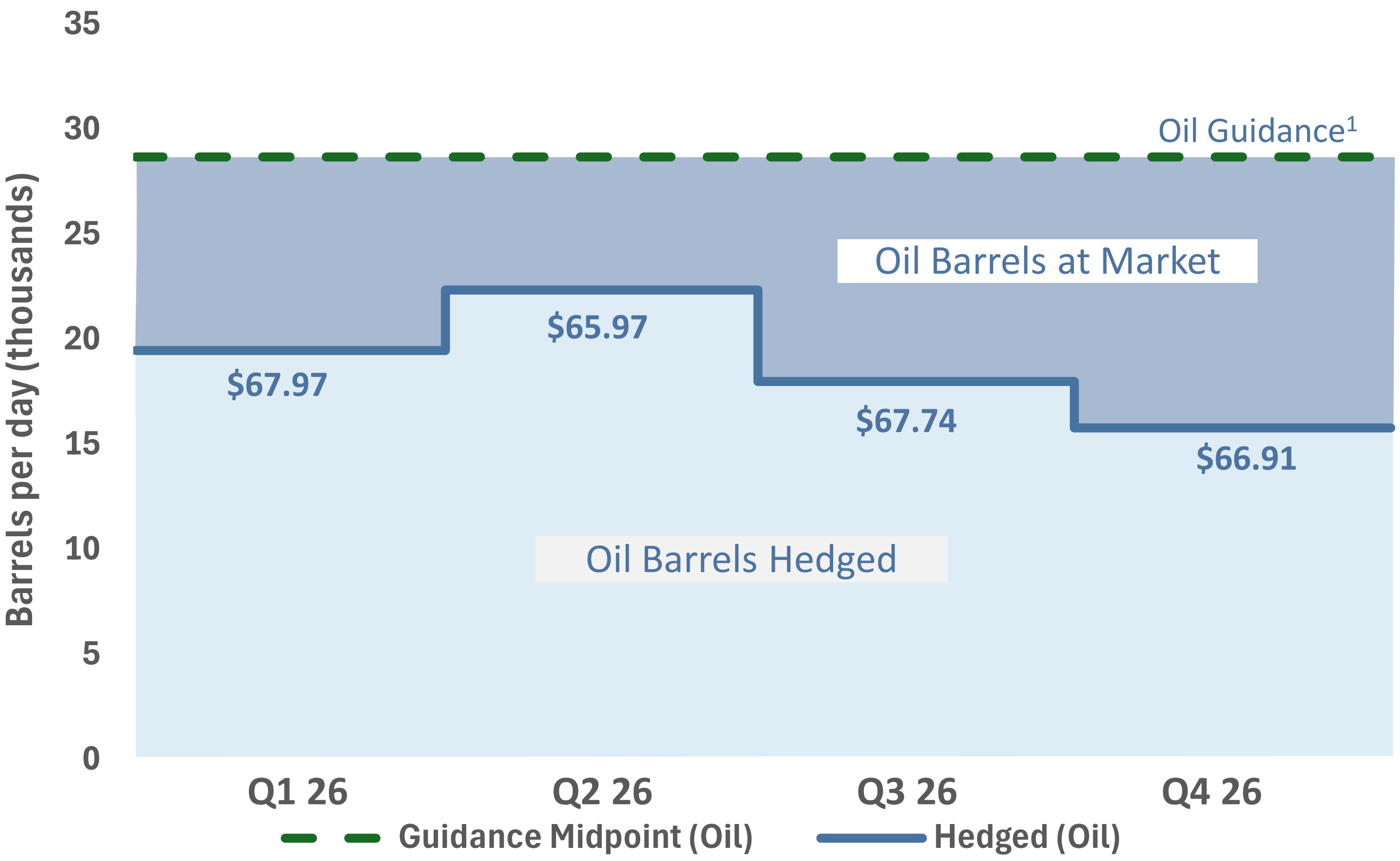
1) Includes WTI crude oil spot prices through July 27, 2026.

Increasing Market Exposure

Q2 had the highest overall crude volumes hedged and the lowest average hedged price per barrel. Moving forward, HighPeak is projected to have more barrels exposed to spot prices.

Additional Derivative Products

HighPeak has opportunistically hedged additional price exposures including Mid-Cush WTI Basis Swaps, Nymex WTI Roll Swaps, Nymex Henry Hub Swaps and WAHA Basis Swaps.



1) Assumes midpoints of 2026 production and % oil guidance ranges. Average quarterly crude oil hedge prices shown assume costless collar ceiling prices.

1H 2026 Scorecard

All Metrics At or Above Target

OUTPERFORMING GUIDANCE WHILE MAINTAINING RIGOROUS COST & CAPITAL DISCIPLINE

Metric	2026 Guide	1H'26 Actual	Performance
Average Daily Production (MBoe/d)	41 – 44	45.5	Above top end
Operated Wells Drilled	28 - 30	17	Ahead of pace
Operated Wells TIL'd	36 – 38	20	On pace
Operated Wells Completed	-	24	Ahead of pace
Unit LOE[1] ($/Boe)	$8.50 - $8.90	7.56	13% below
LOE[1,2] ($mm)	$67.5	$62.2	Under budget
GP&T ($/Boe)	$4.25 - $4.50	$4.25	Low end of range
Cash G&A ($/Boe)	$1.50 - $1.75	$1.55	Low end of range
Capex[3] ($mm)	$255 - $285	$185.9	In line
EBITDAX ($mm)	-	$281.1	Strong 1H'26

1) LOE including workover expenses.
2) Implied 1H'26 LOE ($mm) guidance using midpoints of production and unit LOE guidance ranges.
3) Initial 2026 capex guidance assumed ~60% capex deployment in 1H'26 compared to 69% actual, which was commensurate with the incremental D&C work completed during 1H'26.

2026 Company Objectives

Financial Resilience

- ✓ Maintain liquidity buffer through volatility
- ✓ Increase sustained free cash flow generation
- ✓ Execute disciplined deleveraging strategy

Asset Integrity

- ✓ Optimize development
- ✓ Delineate and increase premium inventory depth
- ✓ Continue maintenance capital program

Corporate Efficiency

- ✓ Prioritize value realization over volume growth
- ✓ Lower capital intensity
- ✓ Leverage infrastructure to lower LOE

Market Realization

- ✓ Enhance long-term NAV per share
- ✓ Strengthen equity valuation across commodity cycles
- ✓ Focus on consistency of shareholder returns

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Appendix

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Rig Released Wells

	2Q26		FY26	
	Gross	Net	Gross	Net
OP	8	7.7	17	16.6
Non-Op	0	0.0	0	0.0
Total	**8**	**7.7**	**17**	**16.6**
SWD	0	0	0	0

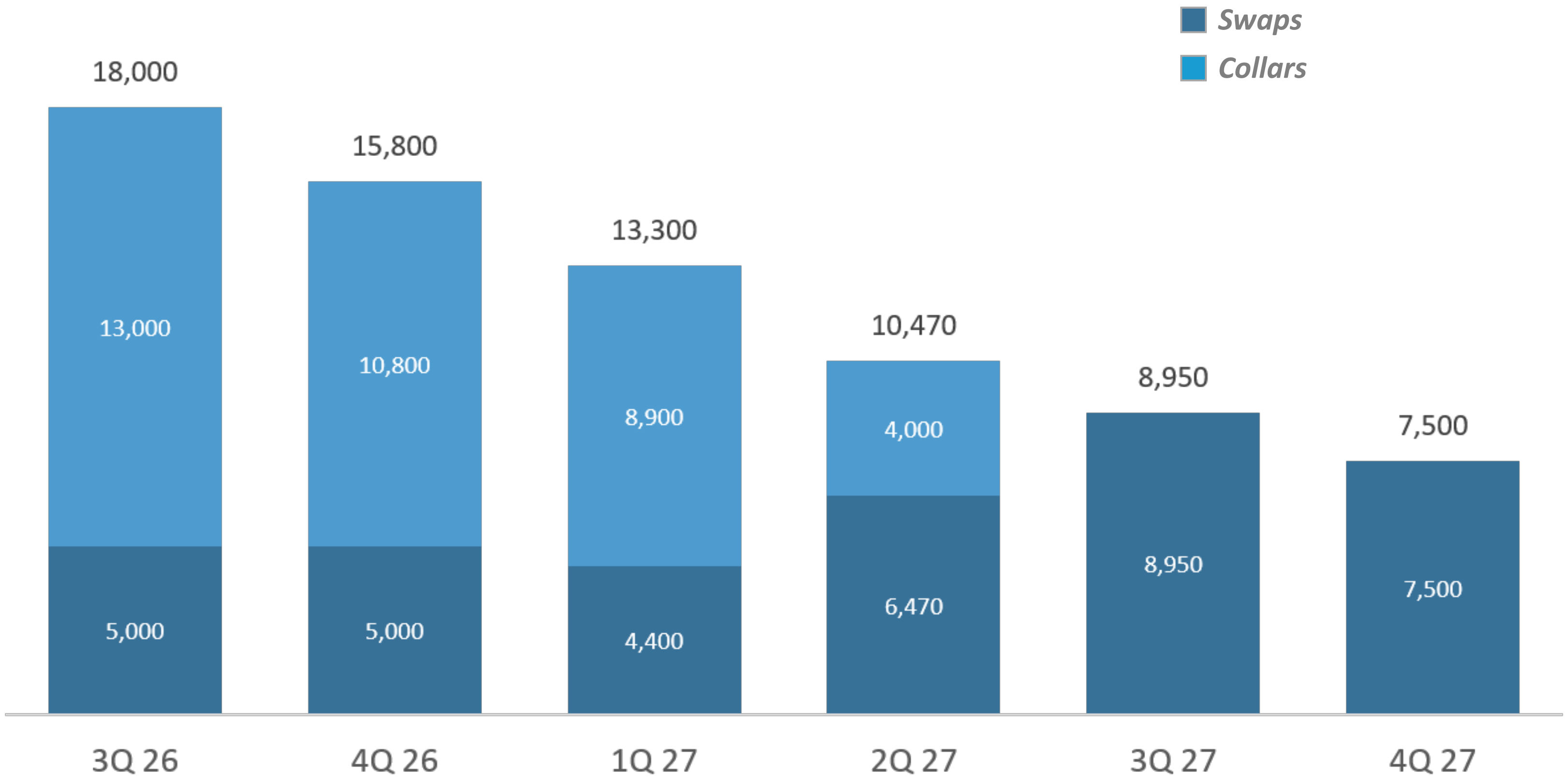
In Progress

	As of 6/30/2026	
	Gross	Net
OP	21	20.4
Non-Op	0	0.0
Total	**21**	**20.4**
SWD	0	0.0

Turned in Line

	2Q26		FY26	
	Gross	Net	Gross	Net
OP	8	8.0	20	19.6
Non-Op	0	0.0	0	0.0
Total	**8**	**8.0**	**20**	**19.6**
SWD	0	0.0	0	0.0

Updated Hedge Profile



HighPeak's hedging policy is focused on protecting cash flows to fund debt payments and capex budget

3Q26 – 4Q26 Avg. Oil Hedged
16.9 MBo/d

3Q26 – 4Q26 Avg. Gas Hedged
30,000 MMBtu/d

~59% of 2H26[(1)] Oil Volumes are Hedged
~74% of 2H26[(1)] Gas Volumes are Hedged

Note: Hedges as of 8/5/26.
(1) Production metrics are based off midpoints of 2026E guidance.

Hedge Summary

Index Hedges

Oil / **Gas**

	Oil Swaps		Oil Collars			Gas Swaps	
	Volume (Mbbl)	Price	Volume (Mbbl)	Price Low	Price High	Volume (Bbtu)	Price
3Q 2026	460.0	$63.45	1,196.0	$61.38	$69.39	2,760	$4.300
4Q 2026	460.0	$63.45	993.6	$61.67	$68.52	2,760	$4.300
2026 Total	**920.0**	**$63.45**	**2,190**	**$61.51**	**$69.00**	**5,520**	**$4.300**
1Q 2027	396.0	$62.14	801.0	$59.78	$65.24	1,770	$4.300
2Q 2027	588.8	$59.61	364.0	$52.00	$62.85		
3Q 2027	823.4	$61.46					
4Q 2027	690.0	$70.42					
2027 Total	**2,498.2**	**$63.61**	**1,165**	**$57.35**	**$64.49**	**1,770**	**$4.300**

Roll / Basis Hedges

	NYMEX Roll Swaps		Mid-Cush Basis Swaps		WAHA-HH Basis Swaps	
	Volume (Mbbl)	Price	Volume (Mbbl)	Price	Volume (BBtu)	Price
3Q 2026	2,393	$4.30	2,116	$1.37	0	
4Q 2026	2,300	$4.23	2,116	$1.37	2,300	($1.455)
2026 Total	**4,693**	**$4.26**	**4,232**	**$1.37**	**2,300**	**($1.455)**
1Q 2027			900	$1.00	2,250	($1.487)
2Q 2027			910	$1.00	2,275	($1.487)
3Q 2027			920	$1.00	2,300	($1.487)
4Q 2027			920	$1.00	2,300	($1.487)
2027 Total			**3,650**	**$1.00**	**9,125**	**($1.487)**

Note: Hedges as of 8/5/26.

Q2 2026 Summary

Production	2Q'26
Total sales volumes (MBoe)	4,121
Total daily sales volumes (MBoe/d)	45.3
Oil percentage	64%
Liquids percentage	83%
Realized Pricing	
Oil per Bbl	$98.82
NGL per Bbl	$24.14
Gas per Mcf	($1.50)
Total per Boe (excluding derivatives)	$66.11
Total per Boe (including derivatives) (1)	$52.82
Costs (per Boe)	
LOE	$6.43
Expense Workovers	$1.49
GP&T	$4.18
Production & Ad Valorem taxes	$3.22
G&A (Cash)	$1.70
Total cash costs	$17.02
EBITDAX per Boe (excluding derivatives)	$49.09
EBITDAX per Boe (including derivatives) (1)	$35.80

Earnings	2Q'26
Net Income ($MM)	$82.3
Income Per Diluted Share	$0.59
EBITDAX ($MM)	$147.6
EBITDAX Per Diluted Share	$1.06
Free Cash Flow ($MM)	$37.6
Other	
Capex ($MM) (2)	$107.5
Rig Released / Turn in Line (3)	8 / 8
Wells in Progress (gross / net) (4)	21 / 20.4

(1) Derivative cash settlements for Q2 2026 were negative ($13.29) per Boe.
(2) Excludes acquisitions.
(3) Rig Released / Turn in Line includes gross operated wells.
(4) As of 6/30/2026.

Non-GAAP Financial Measures Reconciliations

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Reconciliation of Net Income to EBITDAX

(in thousands)	Q1'26	Q2'26	1H'26
Net (loss) income	($127,448)	$82,275	($45,173)
Interest expense	35,038	35,978	71,016
Interest and other income	(949)	(1,032)	(1,981)
Income tax (benefit) expense	(27,651)	16,448	(11,203)
Depletion, depreciation and amortization	113,014	113,429	226,443
Accretion of discount	295	302	597
Exploration and abandonment expense	742	4,444	5,186
Stock based compensation	865	868	1,733
Derivative-related noncash activity	139,554	(108,154)	31,400
Other expense	50	3,000	3,050
EBITDAX	**$133,510**	**$147,558**	**$281,068**

Reconciliation of Net Cash Provided by Operating Activities to Free Cash Flow

(in thousands)	Q2'26
Net cash provided by operating activities	$126,345
Add back net change in operating assets and liabilities	(15,624)
Discretionary cash flow	110,721
Additions to oil and gas properties, excluding acquisitions	(107,593)
Free cash flow before changes in working capital associated with oil and gas property additions	3,128
Changes in working capital associated with oil and gas property additions	34,508
Free cash flow	**$37,636**

Net Debt

($MM)	As of 30-Jun-26
Long-term debt	$1,200
Cash and cash equivalents	(146)
Net debt	**$1,054**