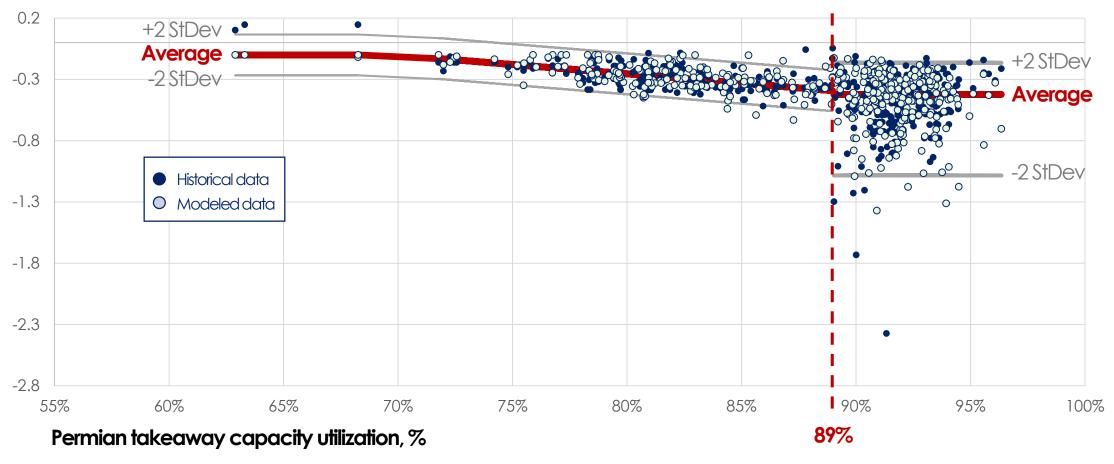


Waha basis regression model

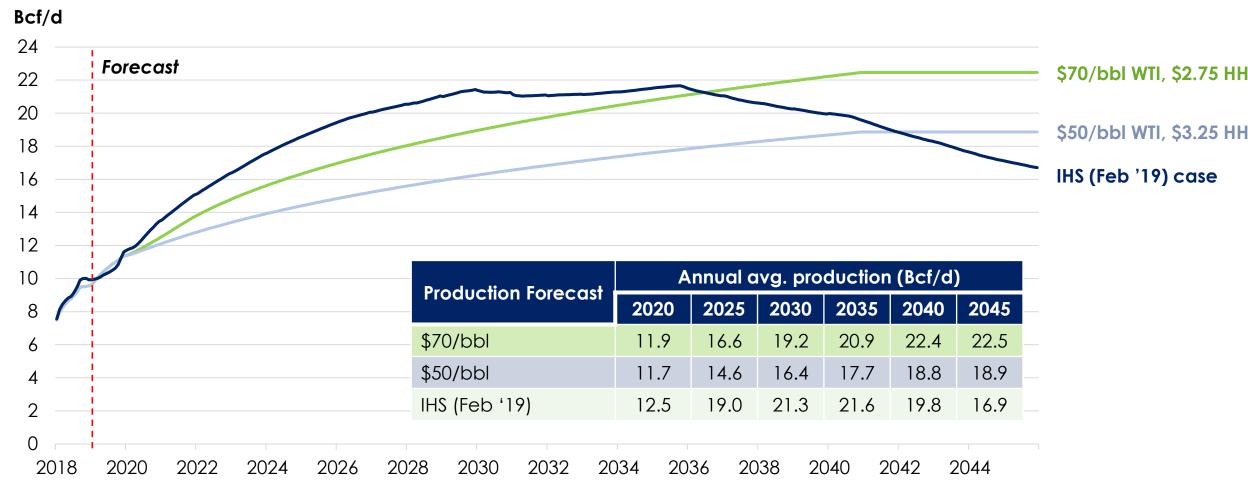
Historical¹ lookback at effective Permian takeaway capacity utilization vs. Waha basis to Henry Hub ratio

Waha daily cash basis/HH





Permian basin gas production scenarios

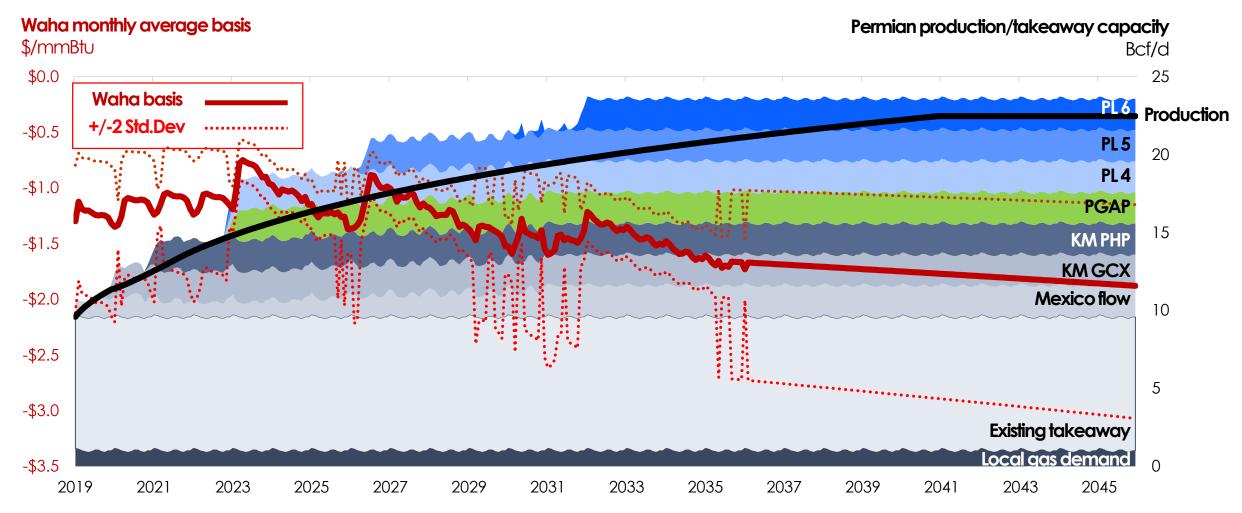




Higher oil price results in higher oil drilling activity and generates higher associated gas production from the Permian
 Lower oil price results in lower oil drilling activity and generates lower associated gas production from the Permian

Methodology example¹

\$70/bbl WTI² production outlook, Current HH forward curve³



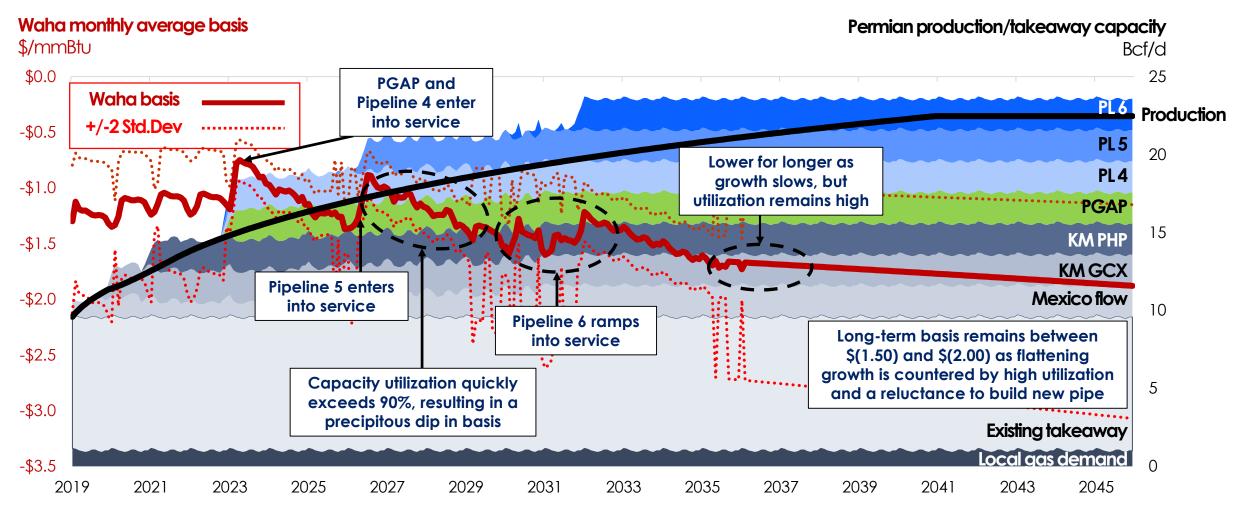
⁽¹⁾ Assumes minimum basis/HH ratio of -0.10 to represent marginal operating cost in overbuilt takeaway infrastructure situation; assumes maximum overbuild (takeaway capacity exceeding production of 4 Bcf/day

²⁾ Assumes \$70/bbl WTI price and \$2.75/mmBtu HH prices; generates higher associated gas production from Permian

Forward curve from 1st half March, 2019; escalated at 0.1%/month post 2032

Methodology example explained

\$70/bbl WTI² production outlook, Current HH forward curve³



⁽¹⁾ Assumes minimum basis/HH ratio of -0.10 to represent marginal operating cost in overbuilt takeaway infrastructure situation; assumes maximum overbuild (takeaway capacity exceeding production of 4 Bcf/day

²⁾ Assumes \$70/bbl WTI price and \$2.75/mmBtu HH prices; generates higher associated gas production from Permian

Forward curve from 1st half March, 2019; escalated at 0.1%/month post 2032

Summary of results Average Waha basis projections by scenario, \$/mmBtu



Maximum pending capacity assumption, Bcf/day

2.0 4.0 6.0

Production scenarios:

10-year average (2023-2033) \$0.65 mmBtu required

HH price scenarios:	\$50 WTI	\$70 WTI	IHS Markit	\$50 WTI	\$70 WTI	IHS Markit	\$50 WTI	\$70 WTI	IHS Markit
■\$3 flat	\$(1.32)	\$(1.30)	\$(1.28)	\$(1.01)	\$(1.18)	\$(1.23)	\$(0.53)	\$(0.71)	\$(0.82)
■ Forward curve	\$(1.40)	\$(1.36)	\$(1.39)	\$(1.10)	\$(1.24)	\$(1.32)	\$(0.58)	\$(0.74)	\$(0.89)
■ WoodMac	\$(1.26)	\$(1.27)	\$(1.26)	\$(1.00)	\$(1.13)	\$(1.19)	\$(0.54)	\$(0.69)	\$(0.82)

Production scenarios:

20-year average (2023-2043) \$0.65 mmBtu required

	HH price scenarios:	\$50 WTI	\$70 WTI	IHS Markit	\$50 WTI	\$70 WTI	IHS Markit	\$50 WTI	\$70 WTI	IHS Markit
	•\$3 flat	\$(1.29)	\$(1.31)	\$(1.21)	\$(1.07)	\$(1.17)	\$(1.03)	\$(0.62)	\$(0.76)	\$(0.68)
	■ Forward curve	\$(1.56)	\$(1.59)	\$(1.46)	\$(1.32)	\$(1.45)	\$(1.23)	\$(0.75)	\$(0.94)	\$(0.82)
	WoodMac	\$(1.67)	\$(1.69)	\$(1.54)	\$(1.41)	\$(1.54)	\$(1.26)	\$(0.81)	\$(1.03)	\$(0.84)