



“Contour allows you to assess the commerciality of the Alpine High wet gas development under different price scenarios.”

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for L48 Upstream Research

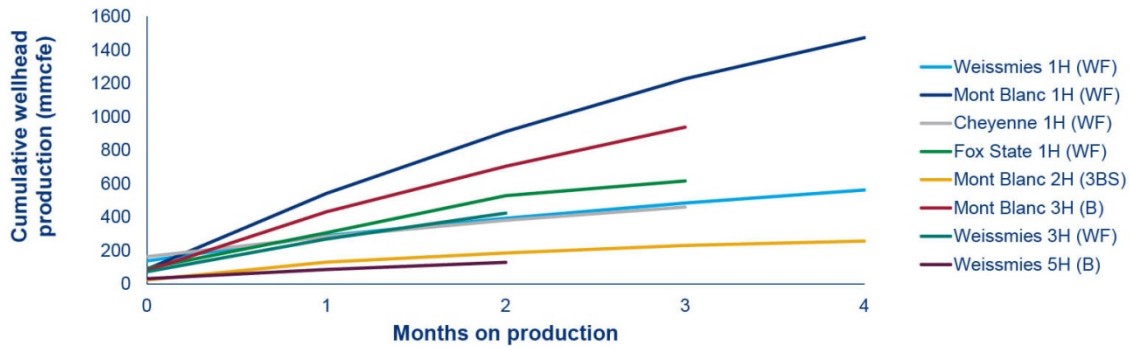
High expectations for Apache's Permian discovery

Apache announced the first gas sales from the Alpine High wet gas development, two months ahead of schedule, prompting an increase in 2017 production guidance.

Apache also provided results from three new wells that outperformed the previously released batch of wells by 34% on a 24 hr boe per day basis.

The chart below shows production data from eight Apache-operated wells available in our [North America Well Analysis Tool \(NAWAT\)](#).

Previously released batch of Apache wells




Source: Wood Mackenzie North America Analysis Tool (NAWAT)

Using [Contour, Wood Mackenzie's Lower 48 valuation tool](#), you have the ability to assess the commerciality of Alpine High under different scenarios. Our initial Alpine High view incorporated well results following Apache's discovery announcement last September. This month we have incorporated three additional sets of well results, while accounting for 10% cost inflation.

Apache has cautioned investors the wells drilled and completed to date are not fully optimized. In other words, shorter laterals have been drilled and smaller frac jobs completed for the purposes of standardization. We have extrapolated an upside scenario adjusting our well design for longer laterals (7,500 ft) and the cost savings from pad drilling. In an upside scenario, Alpine High wells could breakeven at a gas price as low as \$1/mcf and approach 50% returns, post-tax.

	Alpine High (Sept 2016)	Alpine High (May 2017)	Alpine High Upside
Type Well Equivalency	Gas	Gas	Gas
- Total EUR	7.13 bcfe	8.24 bcfe	9.31 bcfe
Oil EUR (mbbls)	103	152	160
Gas EUR (bcf)	4.00	4.03	4.43
NGL EUR (mbbls)	448	589	699
Well Breakeven (WTI/HH)	\$ 2.94 /mcf	\$ 2.41 /mcf	\$ 1.00 /mcf
Well IRR	12.12 %	15.99 %	48.90 %
Well NPV (US \$mil)	\$ 0.40	\$ 1.16	\$ 3.38
Well Opex (incl. tariff)	\$ 1.74 /mcf	\$ 1.80 /mcf	\$ 1.83 /mcf



Apache will continue to invest the lion's share of its 2017 capital budget in the Permian (roughly two-thirds) with the focus of running at least four rigs in the Alpine High area and building out its midstream footprint. Egypt and the North Sea will continue to fund Permian investment, alongside proceeds from non-core Lower 48 divestments (\$440M in Q1).

Register your interest for a **complimentary demo of Contour.**



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