

Mach Natural Resources LP
14201 Wireless Way, Suite 300
Oklahoma City, Oklahoma 73134

September 15, 2025

VIA EDGAR & FEDERAL EXPRESS

John Hodgin
Brad Skinner
Sandra Wall
Division of Corporation Finance
Office of Energy & Transportation
United States Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549-3561

Re: MACH NATURAL RESOURCES LP
Form 10-K for the Fiscal Year Ended December 31, 2024
Filed March 13, 2025
File No. 001-41849

Ladies and Gentlemen:

This letter sets forth the responses of Mach Natural Resources LP (the “Company”) to the comments of the Staff (the “Staff”) of the Securities and Exchange Commission (the “Commission”) set forth in your letter, dated September 5, 2025, with respect to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2024 (the “2024 Form 10-K”). For your convenience, each of the Staff’s comments is reprinted in bold below, followed by the Company’s responses thereto. With the Staff’s permission, where the responses indicate that the Company will revise its disclosures and/or make additional disclosures, the Company requests permission to do so in its future filings of the type to which the comment relates. Capitalized terms used but not otherwise defined herein shall have the meanings ascribed thereto in the 2024 Form 10-K.

Form 10-K for the Fiscal Year Ended December 31, 2024

Business and Properties

Summary Reserve Data, page 3

- 1. We note total proved PV-10 is disclosed as \$1,890 million, which based on the Cawley Gillespie reserve report, appears to include discounted midstream revenues associated with the Company’s ownership share of revenues processed through a Company owned plant.***

Please tell us the total dollar amount of the midstream revenues included in the PV-10 and standardized measure for each period disclosed here and on page 108.

Also, please explain your justification for the inclusion of midstream revenues based on the disclosure requirements in Rule 4-10(a)(16) of Regulation S-X, Instruction 1 to paragraph (a)(16)(i) and Rule 4-10(a)(26) of Regulation S-X, respectively.

RESPONSE:

The Company acknowledges the Staff’s comment and respectfully advises the Staff that, for each period presented, the total dollar amount of midstream revenues included in the PV-10 and standardized measure is as follows: (i) for the year ended December 31, 2024, midstream revenues included in the PV-10 and standardized measure were approximately \$762 million, with a corresponding PV-10 of approximately \$157 million; (ii) for the year ended December 31, 2023, midstream revenues included in the PV-10 and standardized measure were approximately \$760 million, with a corresponding PV-10 of approximately \$170 million; and (iii) for the year ended December 31, 2022, midstream revenues included in the PV-10 and standardized measure were approximately \$771 million, with a corresponding PV-10 of approximately \$247 million.

The Company further advises the Staff that the inclusion of midstream revenues in the PV-10 and standardized measure calculations is based on the specific structure of the Company’s operations and is consistent with the disclosure requirements of Rule 4-10(a)(16) of Regulation S-X, Instruction 1 to paragraph (a)(16)(i), and Rule 4-10(a)(26) of Regulation S-X.

The Company owns and operates certain midstream systems that are integral to its oil and gas production activities. The revenues generated from these systems are directly offset by the corresponding charges forecasted at the well level. For example, in the reserve report, if the Company’s midstream entity charges \$1.00 for transporting one MCF, this amount is recognized as revenue by the midstream system. Simultaneously, at the well level, the same \$1.00 is recorded as an expense, fully burdening the well and included as part of the price differential calculation in the reserve report. This approach ensures that the combined effects of both the well and the midstream system accurately reflect the gathering, treating, and field processing costs that are considered part of oil and gas activities, as outlined in Rule 4-10(a)(16)(i).

Furthermore, because the Company owns the midstream systems, the terminal point for the volumes is typically the tailgate of the processing plant, which serves as the sales point where volumes are delivered into the main line. All Company-owned midstream related expenses are included in the midstream reserve case, which reduces the overall cash flow reported. Importantly, no revenue from third parties or from other working interest owners in the Company's wells is included in the midstream revenues presented in the reserve report.

The Company believes that this methodology is consistent with the intent of the applicable SEC rules, as it provides a transparent and accurate representation of the net cash flows attributable to the Company's oil and gas producing activities, inclusive of the costs and revenues associated with Company-owned midstream operations.

Internal Controls Over Reserve Estimates, page 4

2. *We note disclosure on page two clarifying the estimates of proved reserves and related PV-10, as of December 31, 2024, were prepared by Cawley, Gillespie & Associates. Please expand your disclosure under the section "Internal Controls Over Reserves Estimates" to additionally provide the qualifications of the technical person within Cawley, Gillespie & Associates primarily responsible for overseeing the preparation of the reserve report, as of December 31, 2024. Refer to the disclosure requirements in Item 1202(a)(7) of Regulation S-K.*

RESPONSE:

The Company respectfully acknowledges the Staff's comment and in response to the Staff's comment, the Company intends to include in its future Form 10-K filings (beginning with our 2025 Form 10-K) additional disclosure providing the qualifications of the technical person within Cawley, Gillespie & Associates ("Cawley") primarily responsible for overseeing the preparation of the Company's reserve report.

The Company anticipates such additional disclosure will read substantially as follows (subject to final internal review and revision by the Company and Cawley):

Cawley, Gillespie & Associates is a Texas Registered Engineering Firm (F-693), made up of independent registered professional engineers and geologists that have provided petroleum consulting services to the oil and gas industry for over 60 years. The lead evaluator that prepared the reserve report was J. Zane Meekins, P.E., Executive Vice President at Cawley, Gillespie & Associates.

Mr. Meekins has been with Cawley, Gillespie & Associates since 1989 and graduated from Texas A&M University in 1987 with a Bachelor of Science degree in Petroleum Engineering. Mr. Meekins is a State of Texas registered professional engineer (License #71055) and a member of the Society of Petroleum Evaluation Engineers and the Society of Petroleum Engineers. Mr. Meekins meets or exceeds the education, training, and experience requirements set forth in the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers. Mr. Meekins is proficient in judiciously applying industry standard practices to engineering and geoscience evaluations as well as applying SEC and other industry reserves definitions and guidelines.

Oil, Natural Gas and NGL Production Prices and Production Costs
Operating Data, page 6

3. *Please revise the tabular disclosure to identify the units used to report the revenues, costs, and expenses, e.g. in thousands, except per common unit data, comparable to the disclosure on page 75.*

RESPONSE:

The Company acknowledges the Staff's comment and respectfully advises the Staff that the units used to report the revenues, costs, and expenses is in thousands, except per common unit data. The Company intends to include such clarification in its future Form 10-K filings (beginning with our 2025 Form 10-K unless we believe such revisions should be included in earlier disclosure in a quarterly report on Form 10-Q).

Notes to Consolidated Financial Statements

16. Subsequent Events

Flycatcher Acquisition, page 104

4. *Please expand the discussion of the Flycatcher Acquisition to clarify the reserve estimates, as of December 31, 2024, prepared by Cawley, Gillespie & Associates (Exhibits 99.2 and 99.3), are not included in the estimates of proved reserves and cash flows presented in Form 10-K, as of December 31, 2024.*

RESPONSE:

The Company acknowledges the Staff's comment and respectfully advises the Staff that the reserve estimates related to the Flycatcher Acquisition, as of December 31, 2024 (as presented in Exhibits 99.2 and 99.3), are not included in the estimates of proved reserves and cash flows presented in the 2024 Form 10-K as the Flycatcher Acquisition was closed in January 2025. Accordingly, the reserves and associated cash flows from the Flycatcher Acquisition were not eligible for inclusion in the year-end 2024 estimates reported in the 2024 Form 10-K.

To the extent applicable in future filings, the Company will ensure that it clearly discloses when reserve estimates related to acquisitions are not included in year-end reserve and cash flow estimates due to the timing of the transaction's closing.

17. Supplementary Financial Information for Oil and Gas Producing Activities (Unaudited)

Proved Reserves Summary, page 106

5. *For the years ended December 31, 2022, 2023, and 2024, we note the changes in your estimates of total proved reserves included "revisions of previous estimates" due to: 1) the addition of PUDs and 2) the addition of proved developed producing reserves associated with the drilling of wells within proved areas that were not booked as PUDs at the prior year-end, and that you added no new reserves as "extensions and discoveries" during these periods.*

Please expand your disclosure to explain in reasonable detail why reserves for these locations are classified as "revisions of previous estimates" and not "extensions and discoveries." Refer to the disclosure requirements in FASB ASC 932-235-50-5.

This comment also applies to the disclosure on page four of the changes that occurred in your proved undeveloped reserves, for the year ended December 31, 2024.

RESPONSE:

The Company acknowledges the Staff's comment and respectfully advises the Staff that the Company operates exclusively in mature basins with well-established production histories and clearly defined development patterns and that these areas have been extensively delineated and developed over many years, resulting in a high degree of predictability regarding reservoir characteristics and performance. As a result, the Company's drilling activities are confined to locations within previously proved areas, and the Company has not undertaken drilling operations that would extend the boundaries of proved acreage or result in the discovery of new fields or reservoirs. In accordance with ASC 932, "extensions and discoveries" are defined as additions to proved reserves resulting from (i) extension of the proved acreage of previously discovered reservoirs, or (ii) discovery of new fields or reservoirs. During the periods in question, the Company did not drill wells outside of the established proved areas, nor did it encounter new reservoirs or fields. Instead, the changes in proved reserves primarily resulted from the reclassification of reserves within existing proved areas based on updated development plans, technical data, or changes in economic conditions. This includes the addition of proved undeveloped reserves (PUDs) and the addition of proved developed producing reserves associated with the drilling of wells within previously proved areas that were not booked as PUDs at the prior year-end. These changes reflect updated information and actual drilling results within the established proved areas, rather than the identification of new areas or reservoirs.

As these reserve additions are attributable to updated technical assessments, changes in development plans, or the conversion of previously unbooked locations within existing proved areas, the Company believes they are appropriately classified as "revisions of previous estimates" under ASC 932.

The Company further advises the Staff that it intends to revise its disclosure in future filings to clarify the basis for classifying these reserve changes as "revisions of previous estimates" and to explicitly state that no extensions or discoveries occurred, consistent with the requirements of ASC 932.

6. Please expand your separate disclosure of the proved developed reserves and proved undeveloped reserves to include the volumes for the beginning period of the reconciliation, i.e. as of December 31, 2021. Refer to the disclosure requirements in FASB ASC 932-235-50-4.

RESPONSE:

The Company respectfully acknowledges the Staff's comment and in response to the Staff's comment, the Company intends to include in its future Form 10-K filings (beginning with our 2025 Form 10-K) additional disclosure providing the separate disclosure of the proved developed reserves and proved undeveloped reserves to include the volumes for the beginning period of the reconciliation.

The Company further advises the Staff that the proved developed reserves and proved undeveloped reserves as of December 31, 2021 were as follows, which were included in the Company's Form 10-K for the fiscal year ended December 31, 2023:

	Oil (MBbl)	Natural Gas (MMcf)	NGL (MBbl)	Oil Equivalents (MBoe)
<i>Proved Developed Reserves</i>				
December 31, 2021	22,794	415,141	29,736	121,719
<i>Proved Undeveloped Reserves</i>				
December 31, 2021	12,981	21,979	319	16,964

Standardized Measure, page 106

7. *We note disclosure on page 108 that future development costs include plugging expenses, net of salvage and net capital investment. Please provide us with the total undiscounted dollar amount of the abandonment costs included in your calculation of the standardized measure, and for comparison, the total undiscounted dollar amount of your asset retirement obligations reported on page 82, as of December 31, 2024.*

Please explain your rationale for any material differences in these undiscounted costs. For additional guidance regarding the costs to be included in the standardized measure, refer to the definition of “Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves” under Amendments to the XBRL Taxonomy, Accounting Standards Update 2010-03, Extractive Activities—Oil and Gas (Topic 932), Oil and Gas Reserve Estimation and Disclosures, January 2010.

The Company acknowledges the Staff’s comment and respectfully advises the Staff that, as of December 31, 2024, the total undiscounted dollar amount of abandonment costs included in the calculation of the standardized measure was approximately \$292 million. For comparison, the total undiscounted dollar amount of asset retirement obligations (AROs) reported on page 82 of the 2024 Form 10-K was approximately \$314 million. The difference of approximately \$22 million between these amounts is primarily attributable to two factors. First, approximately \$5 million of the difference relates to service wells that do not produce oil and gas and, as such, were not included in the reserve report. Second, the remaining difference is primarily due to acquisitions that closed in late 2024. In these cases, the original acquisition reserve report databases obtained from sellers did not include all wells. This is a common occurrence in acquisitions, and the Company continues to build out additional wells as data is received. Subsequent to December 31, 2024, the Company has built out cases for 199 out of 270 missing wells in the reserve report.

Exhibits

8. *Please explain the source(s) of the “Other” revenues shown in the composite summary tables in Exhibit 99.4 for 1) proved reserves on page one and 2) company-owned plants, gas gathering systems and water disposal systems on page three.*

RESPONSE:

The Company acknowledges the Staff’s comment and respectfully advises the Staff that the “Other” revenues presented in the composite summary tables in Exhibit 99.4 are attributable to midstream functions and are of a similar nature to the gas and NGL revenues reported on the company-owned midstream page.

The classification of certain revenues as “Other” originated from the designation used in Aries by the sellers of some acquired midstream cases. Upon acquisition, the Company maintained the original classification and did not reclassify these items. As a result, these revenues continue to be reported as “Other” in the relevant tables.

The Company believes the foregoing fairly responds to the Staff's questions in its letter dated September 5, 2025 and is prepared to provide the Staff with additional information. Thank you in advance for your assistance in this matter. If you have any questions or additional comments, please do not hesitate to contact Julian J. Seiguer or Michael W. Rigdon at (713) 836-3334 or (713) 836-3647, respectively.

Sincerely,

/s/ Tom L. Ward

Name: Tom L. Ward
Title: Chief Executive Officer

cc: Kevin R. White, Chief Financial Officer
Michael E. Reel, General Counsel and Secretary
Julian J. Seiguer, P.C. (Kirkland & Ellis LLP)
Michael W. Rigdon, P.C. (Kirkland & Ellis LLP)
