April 23, 2024

Keyvan Samini President and Chief Financial Officer Mobix Labs, Inc. 15420 Laguna Canyon Road, Suite 100 Irvine, California 92618

> Re: Mobix Labs, Inc. Registration

Statement on Form S-1

2024

Filed April 16,

File No. 333-278710

Dear Keyvan Samini:

We have conducted a limited review of your registration statement and have the

following comments.

Please respond to this letter by amending your registration statement and providing the

requested information. If you do not believe a comment applies to your facts and circumstances

or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you

provide in response to this letter, we may have additional comments.

Registration Statement on Form S-1 filed April 16, 2024

Cover Page

For each of the securities being registered for resale, disclose the price that the Selling Securityholders paid for such securities.

Disclose the exercise price(s) of the warrants compared to the market price of the underlying security. We note that the warrants are out the money. Please disclose the likelihood that warrant holders will not exercise their warrants. Provide similar disclosure in the prospectus summary, risk factors, MD&A and use of proceeds section and disclose that cash proceeds associated with the exercises of the warrants are dependent on the stock price. As applicable, describe the impact on your liquidity and update the discussion on your ability to fund your operations on a prospective basis with your current cash on hand. We note the significant

number of redemptions of your Class A Common Stock in connection with your

business combination and that the shares being registered for Keyvan Samini

Mobix Labs, Inc.

April 23, 2024

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resale on this Form S-1 and your Form S-1 filed on April 2, 2024, relating to your

committed equity facility with B. Riley Principal Capital II, LLC, will exceed your public

float. We also note that certain of the shares being registered for resale were purchased by

the Selling Securityholders for prices considerably below the current market price of the

Class A Common Stock. Please highlight the significant negative impact sales of shares

on this registration statement, and separately, combined with the sales of shares in your

Form S-1 filed on April 2, 2024, could have on the public trading

price of the Class A Common Stock. Highlight the significant negative impact sales of shares on this registration statement could have on the public trading price of the Class A Common Stock. Please ensure that the disclosure on the cover page about the number of shares registered for resale is consistent with the disclosure about the number of shares disclosed in the Selling Securityholders table beginning on page 90. For example, the disclosure in the twelfth bullet point on the cover page about up to an additional 1,052,030 make-up shares does not appear to be consistent with the disclosure beginning on page 90. Summary of the Prospectus, page 1 In light of the significant number of redemptions, expand your discussion of capital resources to address any changes in the company s liquidity position since the business combination. If the company is likely to have to seek additional capital, outside of the Form S-1 filed on April 2, 2024, which we note you already discuss in your document, discuss the effect of this offering on the company s ability to raise additional capital. Please expand your discussion here to reflect the fact that this offering involves the potential sale of a substantial portion of shares for resale and discuss how such sales could should sell their shares for so long as the registration statement of which this prospectus forms a part is available for use. Risk Factors, page 8 Include an additional risk factor highlighting the negative pressure potential sales of

impact the market price of the company's common stock. Your discussion

highlight the fact that the selling securityholders will be able to

shares pursuant to this registration statement could have on the public trading price of the

Class A Common Stock. To illustrate this risk, disclose the purchase price of the securities

being registered for resale and the percentage that these shares currently represent of the

total number of shares outstanding. Also disclose that even though the current trading

FirstName LastNameKeyvan Samini

price is significantly below the SPAC IPO price, the private investors have an incentive to

Comapany NameMobix

sell because Labs, still

they will Inc.profit on sales because of the lower price that they purchased

their

April 23, shares

2024 Pagethan

2 the public investors.

FirstName LastName

Keyvan Samini

FirstName LastNameKeyvan Samini

Mobix Labs, Inc.

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FirstName LastName

Security Ownership of Certain Beneficial Owners and Management, page 88

Please ensure that the disclosure about the amount of beneficial ownership in the table on

page 88 is consistent with the disclosure in the table beginning on page 90. General

9. Revise your prospectus to disclose the price that each selling securityholder paid for the

shares being registered for resale. Highlight any differences in the current trading price,

the prices that the selling securityholders acquired their shares, and the price that the

public securityholders acquired their shares. Disclose that while the selling securityholders

 $\,$  may experience a positive rate of return based on the current trading price, the public

security holders may not experience a similar rate of return on the securities they

 $\,$  purchased due to differences in the purchase prices and the current trading price. Please

also disclose the potential profit the selling security holders will earn based on the current  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left($ 

trading price. Lastly, please include appropriate risk factor disclosure.

10. Please tell us why you are registering for resale at this time the 3,500,000 earnout shares

 $% \left( 1\right) =\left( 1\right) \left( 1\right)$  mentioned in the second bullet point on the cover page. In this regard, we note

the disclosure on page F-35 that the earnout shares have a seven-year earnout period  $% \left( 1\right) =\left( 1\right) +\left( 1\right$ 

commencing on the date that is the one year anniversary of the closing.

We remind you that the company and its management are responsible for the accuracy  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{2}$ 

and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Thomas Jones at 202-551-3602 or Erin Purnell at 202-551-3454 with any questions.

Sincerely,

Office of

Division of

Corporation Finance

Manufacturing

cc: Raymond Lee, Esq.