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**SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**SCHEDULE 13D**

Under the Securities Exchange Act of 1934

**(Amendment No. 1)\***

**Verde Clean Fuels, Inc.**

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**(Name of Issuer)**

**Class A Common Stock, par value \$0.0001 per share**

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**(Title of Class of Securities)**

**923372106**

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**(CUSIP Number)**

**Teresa L. Dick EVP CAO Ast Sec  
Diamondback Energy, Inc., 900 NW 63rd Street, Suite 200  
Oklahoma City, OK, 73105  
(405) 463-6900**

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**(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)**

**12/18/2024**

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**(Date of Event Which Requires Filing of This Statement)**

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

The information required on the remainder of this cover page shall not be deemed to be “filed” for the purpose of Section 18 of the Securities Exchange Act of 1934 (“Act”) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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**SCHEDULE 13D**

**CUSIP No. 923372106**

Name of reporting person

1

Diamondback Energy, Inc.

2

Check the appropriate box if a member of a Group (See Instructions)

(a)

(b)

3 SEC use only  
Source of funds (See Instructions)

4 AF  
Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5   
Citizenship or place of organization

6 DELAWARE

Sole Voting Power

7

2,000,000.00

Number of Shares Beneficially Owned by Each Reporting Person With:

Shared Voting Power

8

0.00

Sole Dispositive Power

9

2,000,000.00

Shared Dispositive Power

10

0.00

Aggregate amount beneficially owned by each reporting person

11 2,000,000.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12   
Percent of class represented by amount in Row (11)

13 20.9 %

Type of Reporting Person (See Instructions)

14 CO, HC

## SCHEDULE 13D

**CUSIP No.** 923372106

Name of reporting person

1 Diamondback E&P LLC

Check the appropriate box if a member of a Group (See Instructions)

2  (a)  
 (b)

3 SEC use only  
Source of funds (See Instructions)

4 AF  
Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5   
Citizenship or place of organization

6 DELAWARE

Number of 7 Sole Voting Power

Shares Beneficially Owned by Each Reporting Person With: 2,000,000.00  
 Shared Voting Power  
 8  
 0.00  
 Sole Dispositive Power  
 9  
 2,000,000.00  
 Shared Dispositive Power  
 10  
 0.00  
 Aggregate amount beneficially owned by each reporting person  
 11  
 2,000,000.00  
 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)  
 12  
  
 Percent of class represented by amount in Row (11)  
 13  
 20.9 %  
 Type of Reporting Person (See Instructions)  
 14  
 OO

## SCHEDULE 13D

**CUSIP No.** 923372106

1 Name of reporting person  
 Cottonmouth Ventures LLC  
 Check the appropriate box if a member of a Group (See Instructions)  
 2  
 (a)  
 (b)  
 3 SEC use only  
 Source of funds (See Instructions)  
 4  
 WC  
 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)  
 5  
  
 Citizenship or place of organization  
 6  
 DELAWARE  
 Sole Voting Power  
 7  
 Number of Shares Beneficially Owned by Each Reporting Person With: 2,000,000.00  
 Shared Voting Power  
 8  
 0.00  
 Sole Dispositive Power  
 9  
 2,000,000.00  
 Shared Dispositive Power  
 10  
 0.00  
 11 Aggregate amount beneficially owned by each reporting person

2,000,000.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12



Percent of class represented by amount in Row (11)

13

20.9 %

Type of Reporting Person (See Instructions)

14

OO

## SCHEDULE 13D

### Item 1. Security and Issuer

Title of Class of Securities:

(a)

Class A Common Stock, par value \$0.0001 per share

Name of Issuer:

(b)

Verde Clean Fuels, Inc.

Address of Issuer's Principal Executive Offices:

(c)

711 Louisiana Street, Suite 2160, Houston, TEXAS , 77002.

**Item 1 Comment:** This Statement on Schedule 13D initially filed with the U.S. Securities and Exchange Commission (the "Commission") on March 1, 2023 (the "Original Schedule 13D"), with respect to the Class A Common Stock of Verde Clean Fuels, Inc. (the "Issuer"), is hereby amended and supplemented by this Amendment No. 1 to Schedule 13D (the "Amendment No. 1"). All capitalized terms contained herein but not otherwise defined shall have the meanings ascribed such terms in the Original Schedule 13D and this Amendment No.1. Except as otherwise provided herein, each Item of the Statement remains unchanged. Information given in response to each item shall be deemed to be incorporated by reference in all other items, as applicable.

### Item 2. Identity and Background

This Amendment No. 1 is filed by Diamondback Energy, Inc. ("Diamondback"), a Delaware corporation, Diamondback E&P LLC ("Diamondback E&P"), a Delaware limited liability company, and Cottonmouth Ventures LLC ("Cottonmouth," and collectively with Diamondback and Diamondback E&P, the "Reporting Persons"), a Delaware limited liability company. All disclosures herein with respect to the Reporting Persons is made by such Reporting Persons. Any disclosures herein with respect to persons other than the Reporting Persons is made on information and belief after making inquiry to such party.

(a)

The address of the principal business and principal office of the Reporting Persons is c/o Diamondback Energy, Inc., 500 West Texas, Suite 100, Midland, Texas 79701.

(b)

Diamondback is a publicly traded holding company operating through its wholly-owned subsidiary, Diamondback E&P. Diamondback E&P is a wholly-owned subsidiary of Diamondback and is in the business of the acquisition, development, exploration and exploitation of unconventional, onshore oil and natural gas reserves in the Permian Basin in West Texas. Cottonmouth is a wholly-owned subsidiary of Diamondback E&P and is in the business of investing in and owning assets relating to the energy transition. The name and present principal occupation of each director and executive officer of Diamondback (collectively, the "Listed Persons") are set forth on Exhibit 99.1 to this Schedule 13D, which is incorporated herein by reference. None of the Listed Persons individually beneficially owns any securities of the Issuer.

(c)

During the last five years, none of the Reporting Persons have been and, to the Reporting Persons' knowledge, none of the Listed Persons have been, convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(d)

During the last five years, none of the Reporting Persons have been and, to the Reporting Persons' knowledge, none of the Listed Persons have been, a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and, as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(e)

Diamondback is a Delaware corporation. Diamondback E&P is a Delaware limited liability company. Cottonmouth is a Delaware limited liability company. All Listed Persons are citizens of the United States of America.

(f)

### Item 3. Source and Amount of Funds or Other Consideration

The information in Item 6 is incorporated herein by reference.

### Item 4. Purpose of Transaction

Item 4 is hereby amended to add the following: On December 18, 2024, Cottonmouth, a subsidiary of Diamondback, entered into a Class A Common Stock Purchase Agreement (the "Purchase Agreement") with the Issuer, as further described in Item 6 below, which disclosure is incorporated herein by reference.

Item 5. Interest in Securities of the Issuer

- (a) Item 5 of Amendment No. 1 is supplement and superseded, as the case may be, as follows: As of the close of business on December 20, 2024, the Reporting Persons beneficially owned an aggregate of 2,000,000 shares of Class A Common Stock of the Issuer, which represents approximately 20.9% of the outstanding shares of Class A Common Stock, based upon 9,549,621 shares of Class A Common Stock outstanding as of November 11, 2024, which is the total number of shares of Class A Common Stock outstanding as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Commission on November 13, 2024. The number of shares of Class A Common Stock reported as beneficially owned does not reflect the shares issuable upon the closing of the PIPE Investment (as defined below) due to the conditions precedent to the consummation of the PIPE Investment.
- (b) Sole Voting Power: 2,000,000 Shared Voting Power: 0 Sole Dispositive Power: 2,000,000 Shared Dispositive Power: 0
- (c) Except as otherwise described herein, none of the Reporting Persons nor, to the Reporting Persons' knowledge, the Listed Persons has effected any transactions in the shares of Class A Common Stock during the past 60 days.
- (d) The Reporting Persons have the right to receive distributions from, and the proceeds from the sale of, the shares of Class A Common Stock reported for the Reporting Persons on the cover pages of this Amendment No. 1 and in this Item 5. No other person is known by the Reporting Persons to have the right to receive or the power to direct the receipt of distributions from, or the proceeds from the sale of, the shares of Class A Common Stock beneficially owned by the Reporting Persons.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer

Item 6 is hereby amended to add the following: On December 18, 2024, Cottonmouth, a subsidiary of Diamondback, entered into the Purchase Agreement with the Issuer, pursuant to which, on the terms and subject to the conditions set forth therein, the Issuer agreed to issue and sell to Cottonmouth in a private placement an aggregate of 12,500,000 shares (the "PIPE Shares") of the Issuer's Class A Common Stock, at a price of \$4.00 per share for an aggregate purchase price of \$50,000,000 (the "PIPE Investment"). Consummation of the PIPE Investment (the "Closing") is subject to certain customary conditions set forth in the Purchase Agreement, including, but not limited to (i) the Issuer receiving the Written Consent (as defined below) (which has been satisfied, as described below), (ii) the absence of any governmental authority issuing any order or other legal restraint that makes consummation of the PIPE Investment illegal or otherwise prohibited, (iii) at least 20 business days having elapsed since the Company's mailing to its stockholders of an information statement on Schedule 14C (as contemplated by Regulation 14C of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (the "Information Statement")) with respect to the adoption of the Fifth Amended and Restated Certificate of Incorporation, the form of which is attached as an exhibit to the Purchase Agreement (the "Restated Charter"), pursuant to the Written Consent, (iv) the PIPE Shares having been approved for listing on The Nasdaq Stock Market, subject only to official notice of the issuance thereof, (v) the filing of the Restated Charter, and (vi) the Issuer taking all necessary action to effect the appointment of a Cottonmouth Director (as defined in the Restated Charter) on the date of Closing, or as promptly as practicable thereafter. The Purchase Agreement contains customary representations, warranties and agreements by each of the Issuer and Cottonmouth, indemnification and other obligations of the Issuer and Cottonmouth and termination provisions. Additionally, on December 18, 2024, the Issuer received an executed written consent (the "Written Consent") from the holder of a majority of the outstanding shares of Class A Common Stock and Class C common stock, par value \$0.0001 per share ("Class C Common Stock" and, together with the Class A Common Stock, the "Common Stock"), (i) approving the amendment and restatement of the Issuer's Fourth Amended and Restated Certificate of Incorporation, in the form of the Restated Charter, and adopting the Restated Charter, which provides for, among other things, an increase to the number of authorized shares of Class C Common Stock, an increase to the size of the Issuer's board of directors (the "Board") from seven to eight, and the granting to the Cottonmouth certain Board designation, replacement and observer rights (the "Designation and Observer Rights"), and (ii) approving the transactions contemplated by the Purchase Agreement. Pursuant to rules adopted by the SEC under the Exchange Act, the Information Statement will be filed with the SEC as soon as practicable and mailed to the holders of Common Stock. Cottonmouth's Designation and Observer Rights contemplated by the Restated Charter will be subject to certain customary conditions, including that the Cottonmouth Stockholders (as defined in the Restated Charter) and their respective Affiliates continue to beneficially own ten percent (10%) or more of the then outstanding voting power of the Common Stock of the Issuer. In connection with the Closing, Cottonmouth will be granted certain customary registration rights with respect to their shares of Class A Common Stock pursuant to the terms of a registration rights agreement (the "Registration Rights Agreement"). The Registration Rights Agreement will contain other customary terms and conditions, including mutual indemnifications by the Issuer and Cottonmouth. The foregoing description of the Purchase Agreement is qualified in its entirety by reference to the full text of the Purchase Agreement, which is incorporated by reference as Exhibit 99.2 and incorporated herein by reference.

Item 7. Material to be Filed as Exhibits.

Exhibit 99.1 Executive Officers and Directors of Diamondback Energy, Inc. (filed herewith) Exhibit 99.2 Class A Common Stock Purchase Agreement, dated as of December 18, 2024 by and between Verde Clean Fuels, Inc. and Cottonmouth Ventures LLC (incorporated by reference to Exhibit 10.1 to the Issuer's Current Report on Form 8-K, filed with the SEC on December 19, 2024).

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Diamondback Energy, Inc.

Signature: /s/ Teresa L. Dick

Name/Title: Teresa L. Dick/Executive Vice President, Chief  
Accounting Officer and Assistant Secretary

Date: 12/20/2024

Diamondback E&P LLC

Signature: /s/ Teresa L. Dick

Name/Title: Teresa L. Dick/Executive Vice President, Chief  
Accounting Officer and Assistant Secretary

Date: 12/20/2024

Cottonmouth Ventures LLC

Signature: /s/ Teresa L. Dick

Name/Title: Teresa L. Dick/Executive Vice President, Chief  
Accounting Officer and Assistant Secretary

Date: 12/20/2024