

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

DORCHESTER MINERALS, L.P.  
(Name of Issuer)

Common Units  
(Title of Class of Securities)

25820R 10 5  
(CUSIP Number)

December 31, 2003  
(Date of Event Which  
Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in 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).

Schedule 13G

CUSIP No. 25820R 10 5

1 NAME OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)

Preston A. Peak

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP  
(See Instructions)

(a) G

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(b) G

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3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

United States citizen

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

- 5 SOLE VOTING POWER  
1,577,412
- 6 SHARED VOTING POWER  
0
- 7 SOLE DISPOSITIVE POWER  
1,577,412
- 8 SHARED DISPOSITIVE POWER  
0

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,577,412

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  
(See Instructions)  G

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9  
5.8%

12 TYPE OF REPORTING PERSON (See Instructions)

IN

Item 1.

- (a) Name of issuer: Dorchester Minerals, L.P.
- (b) Address of issuer's principal executive offices:  
3738 Oak Lawn Avenue, Suite 300, Dallas, Texas 75219

Item 2.

- (a) Name of persons filing: Preston A. Peak
- (b) Address of principal business office:  
3738 Oak Lawn Avenue, Suite 300, Dallas, Texas 75219
- (c) Citizenship: United States
- (d) Title of class of Securities: Common Units
- (e) CUSIP Number: 25820R 10 5

Item 3. If this statement is filed pursuant to 240.13d(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e)  An investment adviser in accordance with 240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with 240.13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with 240.13d-1(b)(1)(ii)(G);
- (h)  A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i)  A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);

(j) [ ] Group, in accordance with 240.13d-1(b)(1)(ii)(J).

Item 4. Ownership

- (a) Amount beneficially owned: 1,577,412
- (b) Percent of Class: 5.8%
- (c) Number of shares to which the person has:
  - (i) Sole power to vote or to direct the vote: 1,577,412
  - (ii) Shared power to vote or direct the vote: None
  - (iii) Sole power to dispose or to direct the disposition of:  
1,577,412
  - (iv) Shared power to dispose or to direct the disposition of:  
None

Item 5. Ownership of Five Percent or Less of a Class

Not applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person

Not applicable.

Item 8. Identification and Classification of Members of the Group

Not applicable.

Item 9. Notice of Dissolution of Group

Not applicable.

Item 10. Certification

Not applicable.

SIGNATURE

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

Dated: February 17, 2004

/s/ Preston A. Peak  
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Preston A. Peak