

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13D
(Rule 13d-101)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULE 13d-1(a) AND AMENDMENTS THERETO FILED
PURSUANT TO RULE 13d-2(a)

Under the Securities Exchange Act of 1934
(Amendment No. 6)

Lyondell Chemical Company
(Name of Issuer)

Common Stock
(Title of Class of Securities)

552078
(CUSIP Number)

Donald P. de Brier, Esq.
Occidental Petroleum Corporation
10889 Wilshire Boulevard
Los Angeles, California 90024
(310) 208-8800

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

February 2, 2007
(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 Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box:

1. NAME OF REPORTING PERSONS: Occidental Petroleum Corporation
S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only): 95-4035997
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF GROUP
(a)
(b)
3. SEC USE ONLY
4. SOURCE OF FUNDS
OO
5. (CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO
ITEMS 2(d) OR 2(e))
6. CITIZENSHIP OR PLACE OF ORGANIZATION
Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

7. SOLE VOTING POWER
0
8. SHARED VOTING POWER
20,990,070
9. SOLE DISPOSITIVE POWER
0
10. SHARED DISPOSITIVE POWER
20,990,070
11. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
20,990,070
12. CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
13. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
8.5%
14. TYPE OF REPORTING PERSON
CO

1. NAME OF REPORTING PERSONS: Occidental Petroleum Investment Co.
S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only): 95-2584267
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF GROUP
(a)
(b)
3. SEC USE ONLY
4. SOURCE OF FUNDS
OO
5. (CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO
ITEMS 2(d) OR 2(e))
6. CITIZENSHIP OR PLACE OF ORGANIZATION
California

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

7. SOLE VOTING POWER
0
8. SHARED VOTING POWER
20,990,070
9. SOLE DISPOSITIVE POWER
0
10. SHARED DISPOSITIVE POWER
20,990,070
11. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
20,990,070
12. CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
13. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
8.5%
14. TYPE OF REPORTING PERSON
CO

1. NAME OF REPORTING PERSONS: Occidental Chemical Holding Corporation
S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only): 95-2865897
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF GROUP
(a)
(b)
3. SEC USE ONLY
4. SOURCE OF FUNDS
OO
5. (CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO
ITEMS 2(d) OR 2(e))
6. CITIZENSHIP OR PLACE OF ORGANIZATION
California

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

7. SOLE VOTING POWER
0
8. SHARED VOTING POWER
20,990,070
9. SOLE DISPOSITIVE POWER
0
10. SHARED DISPOSITIVE POWER
20,990,070
11. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
20,990,070
12. CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
13. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
8.5%
14. TYPE OF REPORTING PERSON
CO

This Amendment No. 6 (this "Amendment") amends the Schedule 13D previously filed by Occidental Petroleum Corporation, a Delaware corporation ("Occidental"), Occidental Petroleum Investment Co., a California corporation ("OPIC"), and Occidental Chemical Holding Corporation, a California corporation ("OCHC" and, together with Occidental and OPIC, the "Reporting Persons"), with respect to the Reporting Persons' beneficial ownership in Lyondell Chemical Company ("Lyondell"). This Amendment is being filed to disclose a change in Item 5 to the previously filed Schedule 13D.

ITEM 4. PURPOSE OF TRANSACTION

Item 4 is amended as follows:

As described in Item 5(c), Occidental received 682,210 shares of common stock, par value \$1.00 per share ("Common Stock"), of Lyondell pursuant to the exercise of the Warrant (as defined in Item 5(c) below).

Other than as set forth in this Schedule 13D, Occidental currently has no plans that relate to, or would result in, any of the actions listed in clauses (a) through (j) of Item 4 of Schedule 13D. However, Occidental regularly reviews and analyzes its investments and other operations, including its investments in Lyondell, in order to determine whether value for Occidental's stockholders is best served by holding those investments, increasing, disposing of, or monetizing those investments, or recapitalizing or otherwise restructuring those investments. With respect to the Lyondell investment, these reviews and analyses depend on a variety of factors, including, without limitation, the price of, and other market conditions relating to, the Lyondell Common Stock, the investment return on the shares of Lyondell Common Stock owned by Reporting Persons, Lyondell's business and prospects, other investment and business opportunities available to Occidental, general stock market and economic conditions, tax considerations, and other factors deemed relevant.

ITEM 5. INTEREST IN SECURITIES OF THE ISSUER

Item 5 is amended as follows:

(a)-(b) OCHC directly owns 20,990,070 shares of Common Stock, representing approximately 8.5% of the issued and outstanding shares of Common Stock.

As the sole stockholder of OCHC, OPIC may be deemed to be the beneficial owner of, and for purposes of Rule 13d-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), to have the shared power to vote or direct the vote of and shared power to dispose or direct the disposition of, the 20,990,070 shares of Common Stock held by OCHC.

As the sole stockholder of OPIC, Occidental may be deemed to be the beneficial owner of, and for purposes of Rule 13d-3 under the Exchange Act, to have the shared power to vote or direct the vote of and shared power to dispose or direct the disposition of, the 20,990,070 shares of Common Stock held by OCHC.

(c) On February 2, 2007, OCHC exercised a warrant (the "Warrant") dated August 26, 2002, to purchase 5,000,000 shares of Common Stock, as previously described in the Schedule 13D filed with the Securities and Exchange Commission on September 3, 2002. The Warrant was included as Exhibit 3 thereto. Lyondell elected to settle the exercise of the Warrant by making a Net Payment (as defined in the

Warrant) of 682,210 shares of Common Stock, and delivered evidence of the issuance of such shares to OCHC on February 2, 2007. The number of shares of Common Stock was determined, pursuant to the terms of the Warrant, by averaging the high and low per share sales prices of the Common Stock reported on the New York Stock Exchange on Friday, January 26, 2007, the date OCHC delivered its exercise notice to Lyondell.

Accordingly, as a result of the exercise of the Warrant, the beneficial ownership of the Reporting Persons of the issued and outstanding Common Stock was reduced to approximately 8.5%, down from the previously reported 10.0%.

ITEM 7. MATERIAL TO BE FILED AS EXHIBITS

Exhibit 1 Agreement Pursuant to Rule 13d-1(k)

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.

Dated: February 6, 2007

OCCIDENTAL PETROLEUM CORPORATION

By: /s/ JIM A. LEONARD
Name: Jim A. Leonard
Title: Vice President, Controller and
Principal Accounting Officer

OCCIDENTAL PETROLEUM INVESTMENT CO.

By: /s/ JIM A. LEONARD
Name: Jim A. Leonard
Title: President

OCCIDENTAL CHEMICAL HOLDING
CORPORATION

By: /s/ JIM A. LEONARD
Name: Jim A. Leonard
Title: Vice President

AGREEMENT

Pursuant to Rule 13d-1(k) promulgated under the Securities Exchange Act of 1934, as amended, the undersigned agree that the Schedule 13D to which this Agreement is attached as Exhibit 1 is filed on behalf of each of us. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

Dated: February 6, 2007

OCCIDENTAL PETROLEUM CORPORATION

By: /s/ JIM A. LEONARD
Name: Jim A. Leonard
Title: Vice President, Controller and
Principal Accounting Officer

OCCIDENTAL PETROLEUM INVESTMENT CO.

By: /s/ JIM A. LEONARD
Name: Jim A. Leonard
Title: President

OCCIDENTAL CHEMICAL HOLDING
CORPORATION

By: /s/ JIM A. LEONARD
Name: Jim A. Leonard
Title: Vice President