MINUTE ITEM 41

W 17000.1
PRC 208
PRC 308
PRC 309
PRC 3120
PRC 3242
Mount
Hight

APPROVE THE AGREEMENT FOR IMPLEMENTATION OF AN OPTIMIZED WATERFLOOD PROGRAM FOR THE LONG BEACH UNIT, LOS ANGELES COUNTY AND SETTLEMENT OF THE COAL OIL POINT LITIGATION INVOLVING STATE OIL AND GAS LEASES PRC 208, PRC 308, PRC 309, PRC 3120, AND PRC 3242, SANTA BARBARA COUNTY

Calendar Item 41 was presented by Paul Mount, Chief, Mineral Resources Management; Rick Ludlow, Senior Staff Counsel; and Alan Hager of the Attorney General's Office.

Cara Johnson, Chief of Staff, Representing Assemblyman Jack O'Connell; John Shira, Assistant City Manager, City of Long Beach; Casey Sparks-Kaneko, Legislative Representative, County of Santa Barbara; and Paul Norgaard, Vice President, Arco Oil and Gas, spoke before the Commission requesting implementation of AB 227. This bill authorizes the State Lands Commission to negotiate and execute, on behalf of the State of California, an agreement with a private contractor and the City of Long Beach for the implementation by the contractor and the City of an optimized waterflood program for the Long Beach Unit and the return to the State of oil and gas leases PRC 308 and 309.

Commissioner McCarthy asked Mr. Norgaard to verify if 918 million barrels of oil would be a close estimate as to the amount of oil that can be extracted from the Long Beach Unit without implementation of an optimized waterflood program.

Mr. Norgaard replied that Arco's figures indicate this would be a good estimate and that an additional 100 million barrels of oil or more can possibly be extracted through the Arco methodology and technology that will be put into effect. According to Mr. Norgaard this would translate into approximately $300 million to the public sector and $300 million to the private sector, depending on the price of oil and associated production.

Commissioner Burton advised that the Department of Finance (DOF) did a fiscal analysis on AB 227 and were satisfied with the answers. DOF feels that from an economic point of view it will be very beneficial to the State of California.

Calendar Item was approved 3-0.

CALENDAR PAGE
MINUTE PAGE 4060

MINUTE ITEM
This Calendar Item No. 41
was approved as Minute Item
No. 41 by the State Lands
Commission by a vote of 3
0 at its 11-5-91
meeting.

CALENDAR ITEM

A)
) Statewide
S)

41

11/05/91
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APPROVE THE AGREEMENT FOR IMPLEMENTATION OF AN OPTIMIZED WATERFLOOD PROGRAM FOR THE LONG BEACH UNIT, LOS ANGELES COUNTY AND SETTLEMENT OF THE COAL OIL POINT LITIGATION INVOLVING STATE OIL AND GAS LEASES PRC 208, PRC 308, PRC 309, PRC 3120 AND PRC 3242, SANTA BARBARA COUNTY

PARTIES:

City of Long Beach
City Manager
13th Floor, City Hall
333 Ocean Boulevard
Long Beach, CA 90802

Atlantic Richfield Company
ARCO Long Beach, Inc.
Attn: Vice President and General Manager
P. O. Box 147
Bakersfield, California 93302

SUMMARY:

AB 227, Chapter 941, Statutes of 1991, which was passed by the Legislature and signed by the Governor, authorizes the State Lands Commission to negotiate and execute, on behalf of the State of California, an agreement with a private contractor and the City of Long Beach (City) for the implementation, by the contractor and the City, of an optimized waterflood program for the Long Beach Unit (Unit).

The Long Beach Unit was established under the provisions of Chapter 138 of the Statutes of 1964, First Extraordinary Session. It is the major source of oil revenue to the State and is part of the Wilmington Oil Field, the fifth largest oil field in the

(ADDED pgs. 472-472.4)

United States. To date, the Unit has produced over 739 million barrels of oil and has generated more than $4 billion in income for the State.

The City of Long Beach is the unit operator and is responsible for managing the Unit's oil and gas production and subsidence prevention. Under the direction of the City, a private contractor, THUMS, provides the day-to-day field operations. THUMS is owned 80 percent by ARCO Long Beach, Inc. and 20 percent by Exxon.

Since its inception in 1965, the Unit has been operated as a sophisticated perimeter and line drive waterflood. Water is injected at various intervals in the oil-bearing sands driving the oil towards the well bore to enhance recovery. In addition, the reinjection of water prevents subsidence that may result from oil and gas production. The overwhelming majority of wells in the Unit have been drilled from four artificial islands located offshore downtown Long Bach.

Long-reach drilling, extraordinary water injection requirements, and maintenance of the artificial islands make Unit operations very expensive. After 25 years of operation, the field is seriously depleted. Production is declining. The price of oil is unstable at best and the Unit is in danger of becoming uneconomic leaving significant quantities of oil unrecovered. The State's engineers, the City's engineers and independent consultants, who have reviewed the Unit's operations, believe that an optimized waterflood program similar to the one presently before the Commission must be implemented if the maximum amount of oil is to be recovered from the Unit, and if it is to remain a significant contributor of revenue to the State.

Pursuant to the authority granted by AB 227 (Chapter 941, Statutes of 1991), Commission Staff has negotiated with the City of Long Beach, Atlantic Richfield Company (ARCO), and ARCO Long Beach, Inc. (ALBI), an agreement to implement an optimized waterflood program for the Long Beach Unit. ALBI is a wholly owned subsidiary of ARCO.

Under the proposed agreement, ALBI will design and oversee the implementation of an optimized waterflood program for the Long Beach Unit. ALBI is required to apply "state of the art" reservoir engineering and computer modeling techniques in order to extend the life of the Unit and increase its productivity beyond the level that could be achieved without such a program.

The proposed agreement also requires ALBI to invest a minimum of $100 million in capital expenditures in the Long Beach Unit during the first six-and-one-half years of the program. ALBI will bear the economic risks associated with implementation of the program. In return, ALBI will receive 50 percent of the State's share of the additional net profits ("incremental net profits") until December 31, 1999 and 49 percent thereafter. ARCO will guarantee ALBI's performance under the terms of the agreement.

In order to identify "incremental net profits", engineering analyses and programs were developed which predict, based on historic trends, the amount of oil the Unit would recover if the program were not implemented. This prediction is called "base production" and has associated with it "base costs". Production obtained above the base is "incremental production" and costs above base costs are "incremental costs". The State will retain 100 percent of its share of "base net profits" and will share "incremental net profits" with ALBI as stated above.

The "base production" predicts that the total Unit cumulative production will be approximately 918 million barrels of oil (at $15 per barrel) without implementation of an optimized waterflood. Limited price sensitivity is built into the program. If the optimized waterflood program is successful, the staff believes that an additional 60 to 80 million barrels of "incremental production" is possible. ALBI and ARCO's goal is even higher; perhaps achieving 100 million or more barrels of incremental oil production.

All existing agreements in the Long beach Unit, including the Contractor's Agreement, Tract No. 2 Agreement, Unit Agreement, and Unit Operating Agreement, will remain unchanged, except that the term of the Contractors' Agreement and Tract No. 2 Agreement will be extended from the current termination date of March 31, 2000, until the end of field life. Each party currently having an economic interest under the Contractors' and Tract No. 2 agreements will be given the option to maintain its same interest during the extended term. ARCO will succeed to the interest of any party that does not exercise this option.

The City of Long Beach will continue as Unit Operator.

Pursuant to AB 227 (Chapter 941, Statutes of 1991), the review and control authority of the State over the Unit's plan and budget will be changed. Presently, a detailed development plan and budget for the Unit is prepared annually. The State reviews

the plan and budget and has discretion to make any changes it deems appropriate subject only to the City's concerns for subsidence prevention. The optimized waterflood agreement provides for development plans covering five-year periods to be drawn up, the first two years of which are prepared in great detail. These plans are submitted to the State for its review and approval every two years. The State may order changes if the changes are necessary to insure: (1) good oil field practice; (2) consistency with the optimized waterflood program; (3) consistency with the Long Beach Unit and Unit Operating agreements; or (4) to insure that the program does not involve significant safety or environmental risks. An annual budget is prepared each year and submitted to the Commission for review for consistency with the five-year development plan. A change in the annual budget can only be made by the State to ensure that it is consistent with the development plan.

The changes in the review process are designed to allow ALBI the maximum flexibility in implementing its optimized waterflood program and reducing the time and costs involved. Since the costs associated with "base production" at any given oil price are fixed, ALBI's design and implementation of the optimized waterflood should not affect the State's "base net profits". These net profits will primarily be sensitive to the price of oil and insensitive to the annual budget, so long as the budget conforms to the development plan.

Under the proposed agreement, ARCO will quitclaim two State oil and gas leases (PRC 308 and PRC 309) located offshore of the University of California at Santa Barbara between Coal Oil and Goleta Points in Santa Barbara County. ARCO will also dismiss a significant lawsuit against the State arising from the Commission's denial, in 1987, of a development plan for those leases and leases PRC 208, PRC 3120, and PRC 3242.

AB 884:

N/A.

OTHER PERTINENT INFORMATION:

1. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (14 C.C.R. 15061), the staff has determined that this activity is exempt from the requirements of the CEQA because the activity is not a "project" as defined by CEQA and the State CEQA Guidelines.

   Authority: P.R.C. 21065 and 14 C.C.R. 15378.

IT IS RECOMMENDED THAT THE COMMISSION:

1. FIND THAT THE ACTIVITY IS EXEMPT FROM THE REQUIREMENTS OF THE CEQA PURSUANT TO 14 CAL. CODE REGS. 15061 BECAUSE THE ACTIVITY IS NOT A PROJECT AS DEFINED BY P.R.C. 21065 AND 14 C.C.R. 15378.

2. FIND THAT THE AGREEMENT FOR THE IMPLEMENTATION OF AN OPTIMIZED WATERFLOOD PROGRAM FOR THE LONG BEACH UNIT COMPLIES WITH THE REQUIREMENTS OF THE IMPLEMENTING LEGISLATION, AB 227 (CHAPTER 941, STATUES OF 1991).

3. APPROVE, ON BEHALF OF THE STATE OF CALIFORNIA AND IN ITS OWN RIGHT, THE AGREEMENT FOR IMPLEMENTATION OF AN OPTIMIZED WATERFLOOD PROGRAM FOR THE LONG BEACH UNIT OF THE WILMINGTON OIL FIELD, LOS ANGELES COUNTY, AND THE SETTLEMENT OF THE COAL OIL POINT LITIGATION INVOLVING STATE OIL AND GAS LEASES PRC 208, PRC 308, PRC 309, PRC 3120 AND PRC 3242, SANTA BARBARA COUNTY.

4. AUTHORIZE THE EXECUTION OF ALL DOCUMENT(S) NECESSARY TO EFFECT THE COMMISSION'S ACTION.