

MINUTE ITEM

This Calendar Item No. 45
was approved as Minute Item
No. 45 by the State Lands
Commission by a vote of
10-10-0 at its 8-23-79
meeting.

INFORMATIVE
CALENDAR ITEM

8/79
Thompson

45.

REVIEW OF PILOT SCALE DEMONSTRATION OF MICELLAR-POLYMER
WATERFLOODING TECHNIQUES FOR ENHANCED OIL RECOVERY,
WILMINGTON OIL FIELD

The Commission, at its July, 1976 meeting, approved a request by the City of Long Beach to enter into a cost-sharing contract with the Federal Department of Energy to conduct a pilot scale demonstration of micellar-polymer waterflooding techniques in the Upper Terminal Zone of Fault Block VB, Wilmington Oil Field. The Long Beach Oil Development Company is the oil contractor for the City in this area.

Under the terms of this cost-sharing contract, the City and the federal government agree to share the total estimated project cost of \$7 million on a 50/50 basis. The total federal obligation, however, is limited to \$3.5 million. Total project expenditures through June 30, 1979 were \$6,036,000.

The federal government does not share in any incremental oil revenue produced by the pilot demonstration. It is considered an enhanced recovery project by the DOE for which uncontrolled crude oil prices are allowable. Total oil produced since the project began has been 27,299 barrels resulting in gross revenue of approximately \$323,000.

The final slug design and polymer optimization runs for the project have been completed. Marathorn's Denver Research Center will continue to provide laboratory support during the chemical injection phase of the project.

Initiation of the micellar slug injection has been delayed since January due to unavailability of diesel as a hydrocarbon slug component. The diesel is now available, and injection began in early July, approximately 19 months behind the original schedule. The slug injection phase is expected to take about 3 months.

During the review period, 15,599 barrels of crude oil were produced. The current production rate is about 70 B/D. Producing rates from the project showed minor declines during the period. Pump failures occurred in 3 wells. A fiberglass inner liner was installed in 1 well and an attempt

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to install an inner liner has been aborted in a second. This well could not be cleaned out and it is now planned to recomplete it with a stainless steel screen. Five of the 6 producers were on production at the end of the period. Severe hydrogen sulfide corrosion has been experienced in most of the project producing wells.

The injection wells have been maintained at rates closely approaching those prescribed in the project -- about 500 B/D. Some reduction in injectivity has been noted in 2 of the wells.

All of the project producing wells are being monitored with tracer materials, which have been detected in all active project wells.

The Commission's staff will continue to analyze the progress and effectiveness of this pilot scale demonstration for enhanced oil recovery and present semi-annual progress summaries to the Commission for its information.