



**Chevron U.S.A. Inc.**  
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Division Manager  
Production Department  
Hobbs Division

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| DEPARTMENT OF NATURAL RESOURCES<br>OIL AND GAS DIVISION |
| Chevron CREDIT NO. 13                                   |
| CASE NO. 10059-61                                       |

March 2, 1990

EUNICE MONUMENT SOUTH UNIT  
EUNICE MONUMENT SOUTH UNIT EXPANSION  
WORKING INTEREST OWNERS' MEETING  
FEBRUARY 27, 1990

**WORKING INTEREST OWNERS**

Gentlemen:

The Working Interest Owners' meeting for the Eunice Monument South Unit and the Eunice Monument South Unit Expansion was held on February 27, 1990. The minutes of the meeting are enclosed for your information.

The meeting minutes follow the agenda that was distributed at the meeting and cover the EMSU 1) Geology, 2) Waterflood Performance, 3) Simulation work, 4) Project AFE Status and 5) the Proposed Eunice Monument South Unit Expansion.

The status and disposition of the project AFE was specifically discussed. Further information will be sent in the near future regarding the partial closing of this AFE.

If you have any questions concerning these matters please contact Mr. Jimmy Dolan at (505) 393-4121.

Yours very truly,

R. C. ANDERSON

BHH/sad 03020/03

Eunice Monument South Unit  
Eunice Monument South Unit Expansion  
Working Interest Owners Meeting Minutes  
Hobbs, New Mexico  
February 27, 1990

A Working Interest Owners' Meeting for the Eunice Monument South Unit (EMSU) and the Eunice Monument South Unit Expansion Area was convened at 9:00 a.m. February 27, 1990 at Chevron's office in Hobbs, New Mexico. Nine companies representing 97.7% of the voting interest for the EMSU were present while 100% of the EMSU Expansion Area interest attended (see attached list).

Introduction

Mr. Mark Klins, Chevron, introduced the Chevron personnel involved with the Eunice Monument South Unit (EMSU) and the speakers who discussed both the EMSU and the proposed expansion. An overview of the agenda was given along with a brief history of the Unit, current status of the waterflood, and the projected response.

Geology

Mr. Rick Jones, Chevron, described the location of the EMSU project. He then discussed the unitized interval and the productive pay zones in detail. A description of the reservoir's producing mechanisms was detailed describing the water encroachment located primarily in sections 6, 7, and 18 with gas expansion being prevalent over the remaining Unit area. He then described the geological data gathered since unitization. Mr. Jones then described the data and methodology employed to obtain a porosity cutoff which was used to create net pay and  $\emptyset$ h maps for zones 1-5 and the Penrose.

Waterflood Performance

Mr. Jimmy Dolan, Chevron, described the current Unit status, performance, and reservoir parameters. Mr. Dolan briefly covered the reservoir parameters and explained that the most current data and values will be published at a later date. He then discussed the variance in OOIP calculated using the newer data which indicates a very optimistic 1.2 billion barrels versus the Technical Committee number of 671.5 MMBO. He discussed briefly the OOIP relationship to the water saturation in the shoal area of the Unit and said that the OOIP number would be refined. The flood prediction presented is the same one presented by the Technical Committee with a shift to show a later startup date. The prediction will be modified after the current simulation study is completed. Exhibits were then presented which

indicated the Unit's status with regards to fillup and flood response. Unit wide production, injection, and pressure data was then displayed. Mr. Dolan concluded his remarks by outlining the steps being taken to maximize profits by optimizing oil recovery.

### Simulation Work

Mr. Yogi Patel, Chevron, described the reservoir simulation objectives, methodology, and reasoning used in selecting the representative 9-pattern model area. This included a description of the model area and the reasoning behind its selection. He then described the models construction. The data which was necessary to run the simulation was presented and described. The history match simulation results were displayed to indicate the history match accuracy. A plot depicting the historical production, continued primary depletion, and predicted waterflood response was then displayed. Several members of the audience had questions concerning the "Depletion" portion of the curve. This segment of the curve shows an accelerated decline when compared to the "History" portion of the curve. Mr. Robert Fitzmorris, Chevron, described how the "Depletion" portion of the curve was based on a constant PI and declining reservoir pressure. Mr. Patel then described the method used to scale up the model to a Unit wide basis. This created several questions concerning the differences between Mr. Patels simulation and the Technical Committees reported OOIP figure and secondary to primary recovery ratio. The "scaling up" methodology was also discussed at length. Mr. Klins and Mr. Fitzmorris concluded the simulation session by stating that these problems are still under investigation and that the final report will be published in approximately 6 months.

### Project Activities AFE Status

Mr. John Clarke, Chevron, then described the actual work completed on the EMSU. He detailed the surface facilities, injection system, general facilities, drilling activity, workover history, and their associated costs since the Unit formation. He described the remaining workover activity and stated the objectives being pursued at this time.

Mr. Clarke discussed two successful programs which reduced cost and saved time while increasing production. First changing from a conventional to air/mist drilling system significantly reduced drilling and clean up time for new wells and improved the efficiency of well deepenings. Secondly, improved drilling practices eliminated the need for intermediate casing strings. Next Mr. Clarke displayed and described the results of using portable pump off controllers to significantly increase production by

optimizing pumping efficiency. Mr. Clarke then discussed the project AFE status. Mr. Larry Smith, Arco, and Mr. Don Barksdale, Shell, initiated a discussion on the merits of closing or partially closing the project AFE. Mr. Clarke and Mr. Klins then discussed the advantages and disadvantages to this proposal. It was concluded by common assent that a memo would be prepared that outlined the disposition of the remaining project funds.

#### EMSU Expansion

Mr. Dolan outlined the proposed EMSU expansion. He detailed the location, site and comparative cost of the expansion area as a stand alone project and as an expansion of the existing Unit. The expansion case was recommended. The cost of the expansion, including the investment adjustment for participation in the EMSU, was detailed. A performance prediction for the expansion area was shown to indicate the project area's potential. He then detailed the proposed methods for:

- 1) Determining an equitable Investment Adjustment.
- 2) Determining an equitable Expense Sharing Agreement.
- 3) Determining an equitable Method of Sharing Capital expenditures on the common injection system.

There were no challenges to the proposal and Mr. Mark Klins and Mr. Ray Vaden, Chevron, detailed the time schedule for the proposed expansion ballot and the possible time schedule involved in adding the expansion area to the project. The meeting was then adjourned at 1:30 p.m.

If you have any questions, additions, or corrections to the minutes, please contact Mr. Jimmy Dolan at (505) 393-4121.

Working Interest Owners Attending  
February 27, 1990

Eunice Monument South Unit

COMPANY'S REPRESENTED

WORKING INTEREST

|                          |                   |
|--------------------------|-------------------|
| Amerada Hess Corp.       | .013146200        |
| Amoco Production Company | .083840800        |
| Arco Oil and Gas Company | .204690800        |
| Chevron, U.S.A.          | .383030200        |
| Conoco, Inc.             | .094164900        |
| Exxon Company, U.S.A.    | .053926600        |
| Five States 1988-A, LTD. | .005405812        |
| Shell Western E&P, Inc.  | .067604000        |
| Texaco Producing, Inc.   | .073133700        |
|                          | <u>.978943012</u> |

Eunice Monument South Unit Expansion

COMPANY'S REPRESENTED

WORKING INTEREST

|                          |                    |
|--------------------------|--------------------|
| Amoco Production Company | .305419332         |
| Arco Oil and Gas Company | .293999073         |
| Chevron, U.S.A.          | .193976604         |
| Conoco, Inc.             | .138312840         |
| Shell Western E&P, Inc.  | .044693929         |
| Amerada Hess Corp.       | .017168789         |
| Texaco Producing, Inc.   | .006429433         |
|                          | <u>1.000000000</u> |

EMSU & EMSU EXPANSION  
 WORKING INTEREST OWNERS' MEETING  
 HOBBS, NEW MEXICO  
 February 27, 1990

| NAME                     | COMPANY - TITLE                   | TELEPHONE             |
|--------------------------|-----------------------------------|-----------------------|
| <u>RAY VADEN</u>         | <u>CHEVRON - LAND</u>             | <u>(713) 754-2681</u> |
| <u>DAVE CRAWFORD</u>     | <u>CHEVRON SR. PETR. ENGR.</u>    | <u>(505) 393-4121</u> |
| <u>JOHN CLARKE</u>       | <u>CHEVRON PROD. ENGR.</u>        | <u>(505) 393-4121</u> |
| <u>EMILIO LUNA</u>       | <u>CHEVRON D&amp;C ENGR.</u>      | <u>(505) 393-4121</u> |
| <u>MUSEBAR AHMAD</u>     | <u>CHEVRON D&amp;C ENGR.</u>      | <u>(505) 393-4121</u> |
| <u>BILL COBB</u>         | <u>5-STATES</u>                   | <u>(214) 385-0354</u> |
| <u>JERRY CLARK</u>       | <u>AMERADA HESS - LANDMAN</u>     | <u>(918) 599-4483</u> |
| <u>YOGI PATEL</u>        | <u>CHEVRON</u>                    | <u>(713) 754-3873</u> |
| <u>DAN MORRISON</u>      | <u>EXXON - JT. INT. ENGR.</u>     | <u>(915) 688-7135</u> |
| <u>JIMMY DOLAN</u>       | <u>CHEVRON - RES. ENGR.</u>       | <u>(505) 393-4121</u> |
| <u>RICHARD H. JONES</u>  | <u>CHEVRON - DEV. GEOL.</u>       | <u>(505) 393-4121</u> |
| <u>KYLE STEPHENSON</u>   | <u>TEXACO - RES. ENGR.</u>        | <u>(915) 688-4662</u> |
| <u>MIKE WALZIL</u>       | <u>TEXACO - RES. ENGR.</u>        | <u>(915) 688-4666</u> |
| <u>AL BLESSEN</u>        | <u>TEXACO - EVAL. ENGR.</u>       | <u>(915) 688-4646</u> |
| <u>LARRY SMITH</u>       | <u>ARCO - JT. INT. SUPT.</u>      | <u>(915) 688-5341</u> |
| <u>JIM ALMRUD</u>        | <u>AMERADA HESS</u>               | <u>(915) 758-6700</u> |
| <u>JOSH FU</u>           | <u>ARCO - G/A ENGR.</u>           | <u>(915) 688-5734</u> |
| <u>MARK KLINS</u>        | <u>CHEVRON - STAFF PETR. ENGR</u> | <u>(505) 393-4121</u> |
| <u>ROBERT FITZMORRIS</u> | <u>CHEVRON SR. RES. ENGR.</u>     | <u>(713) 754-3884</u> |
| <u>STEVE LUTHY</u>       | <u>CHEVRON SR. DEV. GEOL.</u>     | <u>(505) 393-4121</u> |
| <u>JERRY HOOVER</u>      | <u>CONOCO</u>                     | <u>(505) 397-5886</u> |

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