

Case 8397

1990

Correspondance

State of New Mexico



W.R. HUMPHRIES  
COMMISSIONER

Commissioner of Public Lands

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

November 28, 1990

Chevron U.S.A. Inc.  
P.O. Box 1150  
Midland, TX 79702

Attn: Ray M. Vaden

Re: Eunice Monument South Unit  
Lea County, New Mexico  
Expansion "B" Unit Agreement  
Final Approval

Dear Mr. Vaden:

Please be advised that the Commissioner of Public Lands has this date granted final approval to the Eunice Monument South Unit, Expansion "B" Unit Agreement, Lea County, New Mexico. It is our understanding that 97.22% of the Royalty Owners and 98.27% of the Working Interest Owners have ratified the Unit Agreement and December 1, 1990, is the effective date of the expansion. NMOCD has approved the subject expansion with Orders R-7765-B and R-7767-A. BLM granted approval November 21, 1990.

Enclosed are five (5) Certificates of Approval and one (1) copy of the Approved Unit Agreement. Also, please note that the Commissioner of Public Lands this date approves the Initial Plan of Development. We are in receipt of the filing fee in the amount of two hundred ten dollars (\$210.00).

If you have any questions please contact Clyde Langdale at (505) 827-5791.

Sincerely,

W. R. HUMPHRIES  
COMMISSIONER OF PUBLIC LANDS

By: *Floyd O. Prando*

Floyd O. Prando, Director  
Oil, Gas & Minerals Division

WRH/FOP/CL/dm

cc: TRD - Oil & Gas Accounting Division  
OCD - Santa Fe  
BLM - Jerry Dutchover  
SLO - Royalty Management

REPORT TO DEPARTMENTS

UNIT NAME EUNICE MONUMENT SOUTH EXPANSION B  
OPERATOR CHEVRON U.S.A. INC.  
COUNTY LEA COUNTY, NEW MEXICO

DATE APPROVED	OCC CASE NO. OCC ORDER NO.	EFFECTIVE DATE	TOTAL ACREAGE	STATE	FEDERAL	INDIAN-FEE	SEGREGATION CLAUSE	TERM
11-28-90	10059 R-7765-B	1-1-90	3000.00	400.00	2280.00	320.00	ALL LEASES EXTENDED IF SHARING IN ROYALTY.	SO LONG AS
10061 R-7767-A								

UNIT AREA

TOWNSHIP 20 SOUTH, RANGE 36 EAST  
SECTION 10: E/2 E/2  
SECTION 11: W/2, W/2 NE/4, SE/4  
SECTION 13: W/2, S/2 SE/4  
SECTION 14: ALL  
SECTION 15: NE/4 NE/4  
SECTION 23: ALL  
SECTION 24: N/2, SW/4, W/2 SE/4



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

'90 NOV 26

AM 10 35

Roswell District Office

P.O. Box 1397

Roswell, New Mexico 88202-1397



IN REPLY  
REFER TO:

Eunice Monument South  
Expansion Area  
3180 (065)

NOV 21 1990

Chevron U.S.A, Incorporated  
Attention: Ray M. Vaden  
P.O. Box 1150  
Midland, TX 79702

Gentlemen:

On November 21, 1990, your application for the expansion of the Eunice Monument South Unit Area, Lea County, New Mexico, No. NM-061P35-85U494, was approved. Approval of the expansion, effective as of December 1, 1990, increases the unit area from 14,189.84 acres to 17,189.84 acres.

One approved copy of the application is enclosed. You are requested to furnish the Commissioner of Public Lands, the New Mexico Oil Conservation Division, and other interested principals with appropriate evidence of this approval.

Sincerely,

(S) JOE G. LARA

Joe G. Lara  
ADM, Minerals

1 Enclosure  
Copy of Approved Application

cc:  
✓NMOCD, Santa Fe



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
ROSWELL DISTRICT OFFICE  
P.O. BOX 1397  
ROSWELL, NEW MEXICO 88201



90 MAY 14 AM 9 20

Eunice Monument South UA  
3180 (065)

MAY 10 1990

Chevron U.S.A., Inc.  
P. O. Box 1635  
Houston, TX 77251

Gentlemen:

Your application of April 2, 1990, filed with the BLM requests the designation of the expansion to the Eunice Monument South Unit area, embracing 3,000 acres, more or less, Lea County, New Mexico, as logically subject to secondary operations under the unitization provisions of the Mineral Leasing Act as amended.

Pursuant to unit plan regulations 43 CFR 3180, and Section 4 of the unit agreement, the lands requested as outlined on your plat marked Chevron U.S.A., Inc., Eunice Monument South Expansion Area, Lea County, New Mexico, is hereby designated as a logical unit area expansion for the purpose of conducting secondary recovery operations by waterflooding. Waterflooding will be limited to the following interval: the top of the Grayburg or - 100 feet, whichever is the higher, to the lower limit of the San Andres formation, as defined by Section 2(h) of the unit agreement.

Your basis for allocation of unitized substances are acceptable. This designation is valid for a period of one year from the date of this letter.

If conditions are such that further modification of said standard form is deemed necessary, three copies of the proposed modifications with appropriate justification must be submitted to this office for preliminary approval.

In the absence of any type of land requiring special provisions or any objections not now apparent, a duly executed agreement identical with said form, modified as outline above, will be approved if submitted in approvable status within a reasonable period of time. However, notice is hereby given that the right is reserved to deny approval of any executed agreement submitted which in our opinion, does not have the full commitment of sufficient lands to afford effective control of operations in the unit area.

When the executed agreement is transmitted to the BLM for approval, include the latest status of all acreage. In preparation of Exhibits "A" and "B", follow closely the format of the sample exhibits attached to the reprint of the aforementioned form.

Inasmuch as this unit agreement involves State land and Patented land, we are sending a copy of the letter to the Commissioner of Public Lands and the NMOCD. Please contact the State of New Mexico before soliciting joinders regardless of prior contacts or clearances from the State.

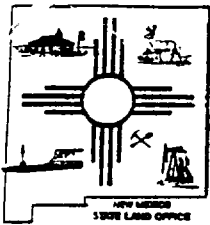
Sincerely,

(SIGNED) JOE G. LARA

Joe G. Lara  
Assistant District Manager,  
Minerals

Enclosure  
1 - Exhibit "B"

cc:  
✓ NMOCD, Santa Fe



*State of New Mexico*  
*Commissioner of Public Lands*

W. R. Humphries  
COMMISSIONER

Advisory Board

George Clark  
Chairman

Kristin Conniff  
Vice Chairman

Melvin Cordova  
Joe Kelly

Robert Portillos

Nancy Lynch Vigil

Rex Wilson

April 23, 1990

#8397

Chevron, U.S.A. Inc.  
P.O. Box 1635  
Houston, Texas 77251

ATTN: Mr. Ray Vaden

RE: Proposed Expansion of Eunice Monument South Unit  
Lea County, New Mexico

Gentlemen:

We received your letter, dated April 2, 1990, requesting preliminary concurrence and approval of the proposed expansion of the Eunice Monument South Unit.

This office has reviewed the proposal which meets the general requirements of the Commissioner of Public Lands who has this date granted you preliminary approval to the proposed expansion of the Eunice Monument South Unit.

Preliminary approval shall not be construed to mean final approval in any way and will not extend any short term leases until final approval and an effective date for the expansion have been given.

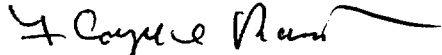
In order to grant final approval to this proposed unit expansion, we require the following additional information:

1. Initial Plan of Operations
2. Ratifications of Lessees of Record and Working Interest Owners. Please submit two sets of ratifications: one set must contain original signatures.
3. A letter that identifies which tracts have been committed and which are not committed to the Unit Agreement.
4. Concurrence by the Oil and Gas Conservation Division and the BLM.

If we may be of further help, please do not hesitate to call this office at (505) 827-5746.

Very truly yours,

W.R. HUMPHRIES  
COMMISSIONER OF PUBLIC LANDS

BY:   
FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5746





**Chevron U.S.A. Inc.**

P.O. Box 1635, Houston, TX 77251 • Phone (713) 754-2681

*OCD*

*This was sent to  
incorrect address!*

Ray M. Vaden  
Land Representative  
Interior Division  
Land Department  
Central Region

April 2, 1990

Request for Preliminary  
Concurrence and Approval of  
the Proposed Expansion of  
the Eunice Monument South Unit,  
Lea County, New Mexico

Commissioner of Public Lands  
Attention: Mr. Floyd O. Prando  
Director Oil and Gas Division  
and Mr. William J. LeMay,  
Member and Director of the  
Oil Conservation Division  
State of New Mexico  
P.O. Box 1148  
Santa Fe, NM 87504-1148

Gentlemen:

In reference to Section 4 of the Unit Agreement for the Eunice Monument South Unit, Chevron as unit operator and on behalf of the working interest owners in the proposed expansion area and the working interest owners in the existing unit area, requests your preliminary concurrence to proceed with expansion of this unit. In confirmation of our recent telephone conversation, we also request a meeting with the State Land Office and the Oil Conservation Division at 10:00 AM in the State Land Office Building on Thursday, April 19, 1990.

The purpose of the meeting will be to review our method of expansion (i.e. the big tank/little tank approach that we discussed with the OCD and State Land Office in 1988), the procedures we plan to utilize to commit interest in the expansion area under the subsequent joinder provision (Section 32 of the Unit Agreement), the target date for the expansion to become effective, and any conditions or requirements the State of New Mexico may have concerning the methods and procedures we plan to utilize for this expansion.

In support of this request I am enclosing an excerpt of the Unit Agreement as it pertains to Section 4 and Section 32. I am also enclosing a copy of exhibits A and B for the expansion area. I am currently working on revising exhibits A, B, and C for the existing unit area so we will have current information at the hearing for statutory unitization of the expansion area.

Additionally I am enclosing a copy of Amoco's letter requesting, on behalf of the working interest owners in the expansion area, that Chevron expand the Eunice Monument South Unit (EMSU) to include the proposed Eunice Monument West Unit (EMWU). I am also enclosing the minutes of our working interest owner's meeting which was held in Hobbs, New Mexico on February 27, 1990 and a copy of the ballot and package that was sent to all working interest owners under cover letter dated February 28, 1990 signed by Mr. R. C. Anderson and captioned "Basis of Admission Proposal..."

We plan to utilize the existing unit and unit operating agreement for the expansion area, and I have prepared ratification and joinders with an addendum for execution by the working interest, lessees of record and royalty interest owners in the expansion area. Because of questions we have concerning the wording of 70-7-9 (B) of the Statutory Unitization Act, and because of our desire to have the ability of consolidating unit areas A and B prior to the commencement of tertiary operations, I want to discuss these instruments with our attorney, Mr. Kellahin, prior to your review. We will bring these to our meeting along with copies of the technical committee's report and addendum for the expansion area, and written geological and engineering objectives and comments including justifications of the unit boundaries and the unitized formation. We will also present a structure map, representative structural cross sections, and injection pattern map for the expansion area as well as, our initial plan of operation, and the redesignation of all well names and numbers for the expansion area.

Should you have any questions concerning the above, please contact me or Jimmy Dolan (505) 393-4121 prior to our scheduled meeting.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Ray M. Vaden", with a stylized flourish at the end.

Ray M. Vaden

RMV:dm349

Enclosure

cc: Mr. Armando Lopez, BLM  
Mr. Tom Kellahin



**Chevron U.S.A. Inc.**

P.O. Box 1635, Houston, TX 77251 • Phone (713) 754-2681

Ray M. Vaden  
Land Representative  
Interior Division  
Land Department  
Central Region

April 2, 1990

Bureau of Land Management  
1717 W. Second Street  
P. O. Box 1397  
Roswell, New Mexico 88201

Attention: Mr. Armando Lopez

Request for Preliminary  
Concurrence and Approval of  
the Proposed Expansion of  
the Eunice Monument South Unit,  
Lea County, New Mexico

Gentlemen:

In reference to Section 4 of the Unit Agreement for the Eunice Monument South Unit, Chevron as unit operator and on behalf of the working interest owners in the proposed expansion area and the working interest owners in the existing unit area, requests your preliminary concurrence to proceed with expansion of this unit. In confirmation of our recent telephone conversation, we also request a meeting with the B.L.M. at 10:00 AM in your Roswell office on Wednesday, April 18, 1990.

The purpose of the meeting will be to review our method of expansion (i.e. the big tank/little tank approach that we discussed in a previous meeting), the procedures we plan to utilize to commit interest in the expansion area under the subsequent joinder provision (Section 32 of the Unit Agreement), the target date for the expansion to become effective, and any conditions or requirements the B.L.M. may have concerning the methods and procedures we plan to utilize for this expansion.

In support of this request I am enclosing an excerpt of the Unit Agreement as it pertains to Section 4 and Section 32. I am also enclosing a copy of exhibits A and B for the expansion area. I am currently working on revising exhibits A, B, and C for the existing unit area so we will have current information at the hearing for statutory unitization of the expansion area.

Additionally I am enclosing a copy of Amoco's letter requesting, on behalf of the working interest owners in the expansion area, that Chevron expand the Eunice Monument South Unit (EMSU) to include the proposed Eunice Monument West Unit (EMWU). I am also enclosing the minutes of our working interest owner's meeting which was held in Hobbs, New Mexico on February 27, 1990 and a copy of the ballot and package that was sent to all working interest owners under cover letter dated February 28, 1990 signed by Mr. R. C. Anderson and captioned "Basis of Admission Proposal..."

We plan to utilize the existing unit and unit operating agreement for the expansion area, and I have prepared ratification and joinders with an addendum for execution by the working interest, lessees of record and royalty interest owners in the expansion area. Because of questions we have concerning the wording of 70-7-9 (B) of the Statutory Unitization Act, and because of our desire to have the ability of consolidating unit areas A and B prior to the commencement of tertiary operations, I want to discuss these instruments with our attorney, Mr. Kellahin, prior to your review. We will bring these to our meeting along with copies of the technical committee's report and addendum for the expansion area, and written geological and engineering objectives and comments, including justifications of the unit boundaries and the unitized formation. We will also present a structure map, representative structural cross sections, and an injection pattern map for the expansion area as well as, our initial plan of operation, and the redesignation of all well names and numbers for the expansion area.

To the best of our knowledge, there are no Federal lands within the proposed unit expansion area requiring the inclusion of special provisions in the Unit Agreement, and it is not the intent of the parties to create horizontal segregation of the leasehold estates. We will continue to review the status of Federal lands in the expansion area in order to reiterate this statement in our request for final approval of the unit expansion.

Should you have any questions concerning the above, please contact me or Jimmy Dolan (505) 393-4121 prior to our scheduled meeting.

Very truly yours,



Ray M. Vaden

RMV:Imm363  
Enclosure

cc: Mr. Floyd O. Prando  
Mr. William L. LeMay  
Mr. W. Thomas Kellahin



J.C. Allen  
Regional Unitization and  
Proration Manager

October 31, 1989

Working Interest Owners  
Proposed Eunice Monument West Unit (EMWU)  
(Addressee List Attached)

File: JCA-234-416

Gentlemen:

EMWU/EMSU Expansion Ballot (7/6/89)  
Lea County, New Mexico

This is to advise you that Ballot (7/6/89) has been approved by the Eunice Monument West Unit (EMWU) Working Interest Owners, thereby (1) approving the Technical Committee Study, (2) approving the use of the Eunice Monument South Unit (EMSU) participation formula for the basis of EMWU participation in the expanded EMSU, and (3) authorizing Amoco, as EMWU expediter, to apply to Chevron (EMSU operator) for expansion of the EMSU to include the EMWU area. Attached are the ballot voting results and a copy of Amoco's letter to Chevron applying for an expansion of the EMSU to include the EMWU area.

Also attached is an Information Request Sheet we received from Chevron. Information of this type will greatly aid Chevron in preparation of an EMSU expansion proposal to the EMWU Working Interest Owners and in preparation for the New Mexico Oil Conservation Division (NMOCD) unit expansion hearing. We ask that you send the requested information to the following address as soon as possible:

Chevron U.S.A. Inc.  
P. O. Box 670  
Hobbs, NM 88240  
Attn: Mr. J. D. Dolan

We thank you again for your support and request your continued cooperation as Chevron, as EMSU operator, now expedites this unit expansion project.

Yours very truly,

DAJ

Attachments

**Amoco Production Company**

Houston Region  
501 WestLake Park Boulevard  
Post Office Box 3092  
Houston, Texas 77253  
713-556-2000

RECEIVED

NOV 06 1989

LAND - CENTRAL REGION  
INTERIOR DIVISION

EUNICE MONUMENT WEST STUDY AREA  
WORKING INTEREST OWNERS  
ADDRESS LIST

Amerada Hess Corporation  
P. O. Box 2040  
Tulsa, OK 74102  
Attn: Mr. J. C. Hefley

Conoco Inc.  
P. O. Box 460  
Hobbs, NM 88240  
Attn: Mr. D. W. Johnson

Amoco Production Company  
P. O. Box 3092  
Houston, TX 77253  
Attn: Mr. J. C. Allen

Shell Western E&P Inc.  
P. O. Box 576  
Houston, TX 77001  
Attn: Mr. J. H. Smitherman

Chevron U.S.A. Inc.  
P. O. Box 670  
Hobbs, NM 88240  
Attn: Mr. R. C. Anderson  
Mr. J. C. Prindle

ARCO Oil and Gas Company  
P. O. Box 1610  
Midland, TX 79702

Attn: Mr. Sam Keasler  
Mr. J. A. Nicholson

Chevron U.S.A. Inc.  
P. O. Box 1635  
Houston, TX 77251  
Attn: Mr. R. M. Vaden  
Mr. G. C. Thakur

BALLOT (7/6/89)  
EMWU/EMSU EXPANSION  
LEA COUNTY, NEW MEXICO

It is recommended that the Eunice Monument West Unit (EMWU) Working Interest Owners hereby:

1. Approve the EMWU Technical Committee Study (which includes the March 12, 1987 report, the February 19, 1988 addendum, and data from the May 12, 1989 letter to the Technical Committee representatives).
2. Approve the use of the Eunice Monument South Unit (EMSU) participation formula for the basis of EMWU participation in the expanded EMSU. This formula is as follows:

$$\begin{aligned} \text{Tract Participation} = & 50\% \text{ (Tract Oil Cumulative} \\ & \text{Production as of 9/30/82 / EMWU} \\ & \text{Total Cumulative Oil Production as} \\ & \text{of 9/30/82)} \\ & + 40\% \text{ (Remaining Primary Oil} \\ & \text{Reserves for the Tract as of} \\ & \text{10/1/82 / Remaining Primary Oil} \\ & \text{Reserves for all EMWU Tracts as of} \\ & \text{10/1/82)} \\ & + 10\% \text{ (Oil Production by the Tract} \\ & \text{from 1/1/82 through 9/30/82 / Oil} \\ & \text{Production by all EMWU Tracts from} \\ & \text{1/1/82 through 9/30/82)} \end{aligned}$$

3. Authorize Amoco Production Company, as EMWU expediter, to apply to Chevron (EMSU operator) for expansion of the EMSU to include the EMWU area.

VOTING RESULTS

	<u>YES</u>	<u>NO</u>	<u>NO RESPONSE</u>
Amerada Hess ( 4.4215%)		x	
Amoco (27.7913%)	x		
ARCO (29.5221%)	x		
Chevron (18.6067%)	x		
Conoco (12.9670%)			x
SWEPI ( 5.4760%)	x		
Texaco ( 1.2154%)			x
Total	81.3961%	4.4215%	14.1824%

BALLOT APPROVED.

Eunice Monument West Unit

Information Request Sheet

1. List of tentative wells to be relinquished to the unit.
2. Copy of available New Mexico OCD forms by well, lease. - Forms 1, 2, 3, SW-1, C-101, C-102, C-103, C-104, C-116, etc.
3. Detailed, updated Well Data Sheets for all proposed unit area wells. Also include well data sheets for any well operated by EMWU WIO within two locations of the proposed unit boundary. Include the following:
  - Casings, perfs, completions and recompletions, cumes by well by completion horizon, work performed (ie. plugback, acid job, etc.) and work results (before & after).
  - Core analysis, temperature surveys, production logs, DST's, etc, if available.
  - Results of well tests; production, flow and pressure buildups.
  - Subsurface oil sample reports, if available.
  - Water analysis by well.
4. Map of lease(s) showing all wells on the lease, current and past producing horizons, well classification (oil and gas) and well status (T/A, P&A, SI, active).
5. List of existing surface facilities. Identify any commingled batteries.
6. Well inventory (preliminary) showing pumping unit size, motor size, etc.
7. Two sets of Tank Tables by Facility.
8. Casing head Gas Contracts by Property.





J.C. Allen  
Regional Unitization and  
Proration Manager

**Amoco Production Company**

Houston Region  
501 WestLake Park Boulevard  
Post Office Box 3092  
Houston, Texas 77253  
713-556-2000

October 31, 1989

Chevron U.S.A. Inc.  
P. O. Box 670  
Hobbs, NM 88240

Attention: Mr. R. C. Anderson

File: JCA-235-416

Gentlemen:

Proposed EMWU/EMSU Expansion  
Lea County, New Mexico

Amoco Production Company has been authorized by the proposed Eunice Monument West Unit (EMWU) Working Interest Owners to apply to Chevron, the Eunice Monument South Unit (EMSU) operator, for expansion of the EMSU to include the EMWU area (see attached map). This letter is the formal application for this expansion in accordance with the provisions of Section 4(a) of the EMSU Unit Agreement.

For your evaluation of this proposed expansion, please refer to the previous correspondence and technical studies you have received as an EMWU Working Interest Owner. If you have any questions or requests, please call Dan Janik at 713/556-3930.

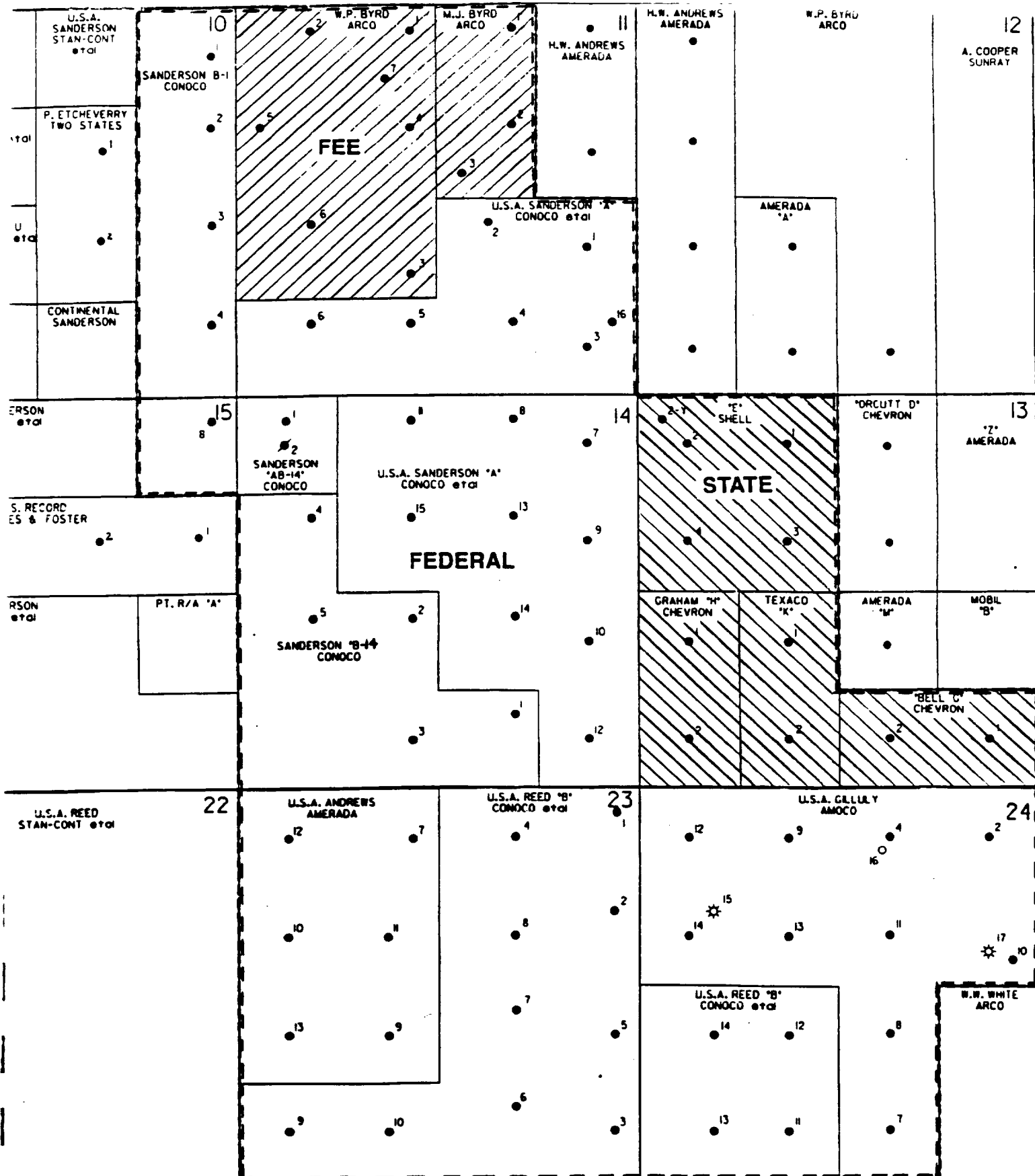
We look forward to working with you to accomplish a successful unit expansion as soon as possible.

Yours very truly,

DAJ

Attachment

cc: EMWU Working Interest Owners



**Legend**

Amoco Production Company  
EUNICE MONUMENT WEST UNIT  
LEA COUNTY, N.M.

0 500' 1000' 1500' 2000'  
Graphic scale

Meeting Minutes  
Proposed Eunice Monument West Unit  
Working Interest Owners' Meeting  
February 6, 1990

A Technical Committee meeting for the proposed Eunice Monument West Unit (hereafter referred to as EMWU) was held at 8:30 a.m. on February 6, 1990 at Chevron's Division office in Hobbs, New Mexico. Twenty-three attendees representing seven companies or 100% of the proposed participation were present (see attendance list).

Mr. R. C. Anderson, Chevron's Hobbs Division Manager, opened the meeting and welcomed all attendees to the meeting. Mr. Anderson commented on the positive contributions of all Working Interest Owners over the past 4 years and the importance of expediantly initiating this Unit from an economic standpoint. He also pointed out that the New Mexico Oil Conservation Division, Bureau of Land Management, and other State of New Mexico Agencies had been made aware and kept abreast of the status of this proposed Unit and were in full support of its development. Mr. Anderson gave a brief overview of injection, production, and fill-up at the Eunice Monument South Unit (EMSU), operated by Chevron, and restated the fact that EMWU injection should be commenced as soon as possible. He then introduced Mr. Mark Klins, the New Mexico Staff Petroleum Engineer.

Mr. Klins introduced the Chevron attendees and asked that the remaining attendees introduce themselves. He then reviewed the meeting agenda (See Attachment Page 1) and presented the chronology of events that led to the February 6th meeting. Mr. Klins told the attendees that a Working Interest Owners' meeting for the Eunice Monument South Unit is tentatively scheduled for Tuesday, February 27, 1990. He then presented a cost comparison of a "Stand Alone Unit" versus an "Expansion Case" which showed a difference of about \$1,000,000 in favor of the "Expansion Case" (See Attachment Page 3). Mr. John Clarke, Production Engineer, was then introduced to give an overview of the Proposed Eunice Monument West Unit Technical Committee Report and Addendum.

Mr. Clarke began by showing a locator map of the proposed Unit. He then presented a map showing the existing and proposed Grayburg/San Andres Units in the immediate area of the EMWU. Next, Mr. Clarke showed a list of Working Interest Owners and their respective participation in the proposed EMWU. Mr. Clarke stated that the Texaco State 'K' lease was a marginally economic Unit property and was initially excluded from the proposed Unit. However, at the request of the NMOC and BLM the State 'K' has since been included in the Unit boundary.

This 80-acre tract constituted all of Texaco's interest in the proposed EMWU and that Chevron was in the early stages of making an offer to purchase this tract. If Chevron was successful, Texaco's interest would be offered to all of the other Working Interest Owners on a prorated basis.

Mr. Clarke then presented the proposed well status of producers and injectors for the fully developed Unit. When fully developed, the Unit would be composed of 37 producers and 38 injectors. Of this total, two producers and three injectors would have to be drilled, as well as converting 35 producing wells to injectors; 12 of which would be lease line injectors. Mr. Clarke also previewed the \$11,265,000 proposed project cost associated with the wells and facilities. At that time Mr. Larry Smith, Arco, requested that Mr. Clarke repeat his explanation of lease line injection wells. Mr. Clarke did so and said that some of the lease line injection wells may not require lease line agreements. Mr. Jimmy Dolan interjected saying that wells along the EMSU boundary would not require agreements. At that point Mr. Jim Hefley, Amerada, asked "Why not?" Mr. Ray Vaden, Chevron, responded by saying that it was due to the cooperative development of the acreage and pattern alignment due to the expansion of an existing Unit. Mr. Clarke then described the location of the common EMSU/EMWU boundary. Mr. Clarke then presented and explained the waterflood prediction curve for the EMWU.

The next speaker on the agenda was Mr. Jimmy Dolan who discussed the basis of the EMWU's admission into the EMSU. Mr. Dolan began by stating three issues regarding the above topic. These issues are 1) Determination of an equitable investment adjustment of buying into the existing EMSU injection system, 2) Determination of an equitable expense sharing agreement of common injection system monthly expenses, and 3) Determination of an equitable method of sharing capital expenditures of the common injection system. Mr. Dolan then explained and reviewed the methodology used in addressing these issues. He explained and stated the following:

- 1) The cost basis for the EMSU common facilities was \$6,580,005 (Attachment Pages 11, 21, 22, 23, 24).
- 2) The current depreciated capital cost of the EMSU facilities based on the units of production method is \$6,153,048 (Attachment Page 12).
- 3) 11 different methods were calculated to determine the ownership of the common EMSU facilities. The results of the methods gave high values of about 84% EMSU and 18% EMWU, low values of about 82% EMSU and 16% EMWU, and an average ownership split of 82.76% EMSU and 17.24% EMWU (Attachment Page 13).

- 4) Mr. Dolan stated that the average of the 11 methods would be most equitable to all parties and recommended its use. Following that statement a presentation was made showing the impact on each Working Interest Owner (Attachment Page 14).
- 5) A hypothetical capital expenditure of \$200,000 was then reviewed to show the impact on the individual owners using the high, low, and average range ownership shares (Attachment Page 15).
- 6) ✓ The shared operating expenses for the EMSU and EMWU would be based on measured volumes of monthly injection water and water supply as well as measured electrical usage. Indirect charges would be coded differently and shared proportionally and system interruptions would affect both areas equally. A formula for handling expenses was presented and explained (Attachment Page 16).
- 7) A forecast of water supply and injection water needs was reviewed. An example of future operating expenses and water requirements was also presented for the Working Interest Owners consideration.

During Mr. Dolan's presentation on Item #2 above, Mr. Larry Smith, Arco, asked why there was a change in the DD&A Expenses for the actual years shown. Mr. Dolan responded that it was probably due to differences in the amount of capital expenditures made in individual years and that these figures were taken directly from Chevron's accounting records. Mr. Mark Klins, Chevron, interjected that it was also dependent on reserves and that reserves could have been added for different years. Mr. Jim Hefley, Amerada, asked what the reserves base was. Mr. Dolan responded that the reserves base was 65.8 MM barrels of oil and that reserves were reviewed yearly and revisions were based on production or forecast changes.

Following the discussion of Item #4, Mr. Dolan said that should either area request or require increased capital expenditures for the sole use of that area, then that area would bear 100% of the capital expenditures for that request. Mr. Smith, Arco, stated that that requirement should be clearly addressed in the Unit Operating Agreement. Mr. Dolan then continued with a review of the Texaco State 'K' lease by restating Mr. Clarke's comments as follows:

- 1) The State 'K' lease is an 80-acre tract with 1 active Eumont gas well and 1 P&A'd Eunice Monument well.
- 2) The lease has marginal project economics but is required to be included in the Unit by the NMOCD and BLM.

- 3) Chevron plans to pursue purchase of the unitized interval rights from Texaco.
- 4) If successful, Chevron will offer the rights to all EMWU Working Interest Owners at their working interest; thereby, allowing each owner the option to participate.

Mr. Dolan summarized by reviewing each major topic that he presented. He then introduced Mr. Ray Vaden of Chevron's Land Department in Houston.

Mr. Vaden began his discussion by referencing three plats; one showing the geographical relationship of the EMSU and EMWU, one showing the EMSU, and one showing the 11 tracts that make up the EMWU by state, federal, and patented lands.

He then stated that some initial work has been done in preparing to sign up the royalty interest and that he anticipated a hearing during the third quarter of 1990; possibly as late as September. He further said that Chevron would pursue balloting the EMWU Working Interest Owners to accept some of the items discussed today in the near future. Mr. Vaden then announced that in order to expedite unitization and expansion efforts that Chevron would not charge its partners any unitization expenses except for legal expenses required for the hearing.

He then explained that Chevron had prepared an addendum to the EMSU Unit and Operating Agreement but that it was awaiting legal approval. Furthermore he said that the regulatory orders pertaining to the EMSU Unit expansion to include the EMWU had been reviewed and were thought to be relatively simple.

Mr. Vaden then reiterated Chevron's position on the Texaco State 'K' lease and stated that Texaco had three options 1) To keep their .64% working interest 2) To sell their rights to Chevron or 3) To be force pooled into the Unit. Mr. Kyle Stephenson, Texaco, then asked Mr. Vaden what stage the sales proposal was in. Mr. Vaden responded that the proposal was still in house with Chevron but would be made within the next 2 weeks. Mr. Stephenson replied that Texaco would give the offer due consideration but that he was not prepared to state Texaco's position at the time.

Mr. Klins summarized the meeting as follows:

- 1) The EMWU will buy into the common facilities of the EMSU for approximately \$1,000,000 and own 17.24% interest in those facilities. These values were calculated based on a depreciated cost of \$6,100,000 using the units of production method and a 17.24% share, based on the average of 11 different ownership methods.

- 2) Operating expenses will be based on metered volumes of injection water and supply water as they pertain to each Unit. Other operating expenses will be proportioned based on each Unit's share of monthly water injection as a function of the total.
- 3) Any major capital investment required by either Area will be paid by that Area.
- 4) Chevron is pursuing the purchase of Texaco's State 'K' lease which will then be offered on a prorata share to the remaining owners.
- 5) Chevron will be drafting an addendum to the EMSU Unit and Operating Agreement to include the items mentioned above.

Mr. Anderson, Chevron, closed the meeting, thanked all of the attendees for their participation, and invited those who were interested to lunch at the Hobbs Country Club and a subsequent field trip to the EMSU.

EMWU WORKING INTEREST OWNERS' MEETING

HOBBS, NEW MEXICO

February 6, 1990

NAME	COMPANY	TELEPHONE
Jimmy Dolan	Chevron U.S.A.	505-393-4121
Mark Klins	Chevron U.S.A.	505-393-4121
Dave Crawford	Chevron U.S.A.	505-393-4121
Jerry Clark	Amerada Hess	918-599-4483
Jim Hefley	Amerada Hess	918-599-4526
Bill Baum	Amerada Hess	918-599-4200
Ray Vaden	Chevron U.S.A.	713-754-2681
Larry Smith	Arco	915-688-5341
Josh Fu	Arco	915-688-5734
Jim Nicholson	Arco	915-688-5324
Jack Lowder	Arco	915-688-5557
Bob Sykes	Shell Western	713-870-3868
Kyle Stephenson	Texaco	915-688-4662
Hugh Ingram	Conoco	505-397-5885
Jerry Hoover	Conoco	505-397-5886
Jim Smitherman	Shell Western	713-870-3210
Emilio Luna	Chevron U.S.A.	505-393-4121
Steve Luthy	Chevron U.S.A.	505-393-4121
John Ladd	Chevron U.S.A.	505-393-4121
Elvin Allen	Chevron U.S.A.	505-397-4121
Mike Allison	Chevron U.S.A.	505-393-4121
Dan Janik	Amoco Prod. Co.	713-556-3930
Bill Bledsoe	Amoco Prod. Co.	713-556-3240



*R. Vaden*



**Chevron U.S.A. Inc.**  
P.O. Box 670, Hobbs, NM 88240

R. C. Anderson  
Division Manager  
Production Department  
Hobbs Division

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MAR 08 1990

LAND - CENTRAL REGION  
INTERIOR DIVISION

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*

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 Øh 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

<u>COMPANY'S REPRESENTED</u>	<u>WORKING INTEREST</u>
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

<u>COMPANY'S REPRESENTED</u>	<u>WORKING INTEREST</u>
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>



**Chevron U.S.A. Inc.**  
P.O. Box 670, Hobbs, NM 88240

R. C. Anderson  
Division Manager  
Production Department  
Hobbs Division

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LAND - CENTRAL REGION  
INTERIOR DIVISION

Hobbs, New Mexico  
February 28, 1990

BASIS OF ADMISSION PROPOSAL  
FOR EXPANSION OF THE EXISTING  
EUNICE MONUMENT SOUTH UNIT  
LEA COUNTY, NEW MEXICO

WORKING INTEREST OWNERS  
Eunice Monument South Unit  
Eunice Monument South Unit Expansion  
(Address List Attached)

Gentlemen:

Attached for your consideration is an additional copy of the Notice of Proposed Expansion that was presented to the Working Interest Owners on February 27, 1990 at the Eunice Monument South Unit Working Interest Owners' meeting, and an amendment to the Notice of Proposed Expansion. The proposed 3,000-acre Eunice Monument South Unit Expansion Area will be incorporated into the existing Eunice Monument South Unit with the following "Basis of Admission."

- 1) An Investment Adjustment (buy-in) for acquisition of an interest in the existing Eunice Monument South Unit's water injection plant, a portion of a main injection trunk line, the water disposal and supply wells and related equipment and facilities previously constructed to serve the existing unit area (see attachment).
- 2) A procedure to apportion future Capital Expenditures on the common injection system as described in (1) above.
- 3) A sharing plan for Operating Expenses on the common injection system as described in (1) above.

Please review the attached ballot and indicate your approval or disapproval of the expansion plan and return your ballot by March 23, 1990.

If you have any questions concerning this matter, please contact Jimmy Dolan at (505) 393-4121.

Yours very truly,

  
R. C. ANDERSON

To: Working Interest Owners of  
the Eunice Monument South  
Unit and Working Interest  
Owners of the Proposed  
Eunice Monument West Unit  
Study Area.

Re: Ballot for Expansion  
of the Eunice Monu-  
ment South Unit Area.

BALLOT

Gentlemen:

Chevron, as operator of the Eunice Monument South Unit (EMSU), requests your vote to expand the EMSU to incorporate the Eunice Monument West Unit Study Area (EMWU) into the EMSU under the terms of the attached Ballot Proposal, and Amendment to Notice of Expansion with reference to the attached Notice of Expansion and its attachment A (Interest of Parties) and Exhibit A (for Expansion Area "B" and for Unit Area "A")

\_\_\_\_\_ For Expansion of the Eunice Monument South Unit

\_\_\_\_\_ Against Expansion of the Eunice Monument South Unit

Company: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

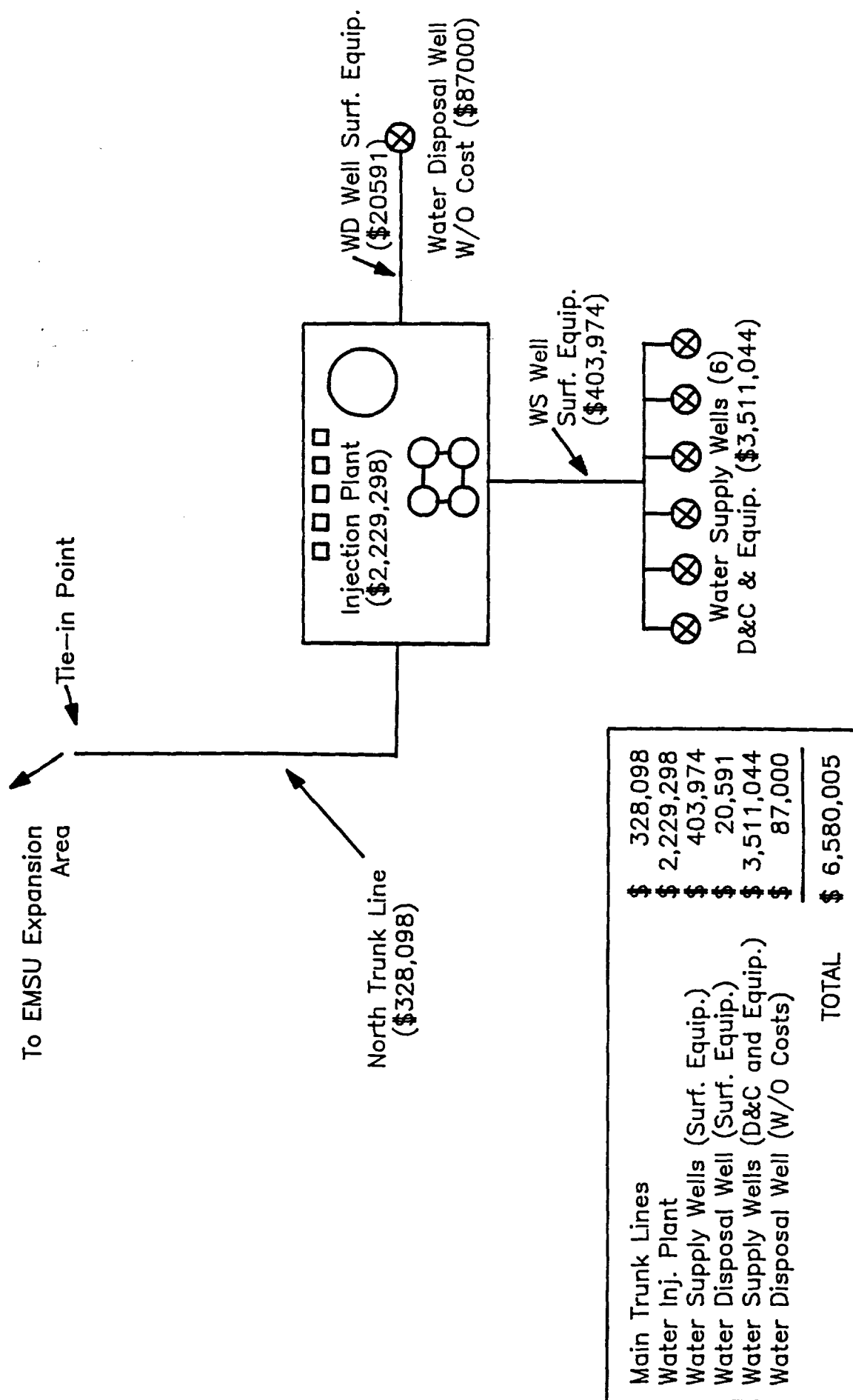
Please return by March 23, 1990 to:

Chevron U.S.A. Inc.  
P.O. Box 670  
Hobbs, New Mexico 88240  
Attn: Jimmy Dolan

\* A vote by a common EMSU/EMSU Expansion Working Interest Owner represents the respective working interest in each area (EMSU/EMSU Expansion).

JDD/sad 03020/05

# INVESTMENT ADJUSTMENT COST BASIS





Amerada Hess Corporation  
D. W. (David) Brubaker  
P.O. Box 2040  
Tulsa, Oklahoma 74102

Koch Exploration Company  
Jim Whisnand  
P. O. Box 2256  
Wichita, Kansas 67201

Texaco Inc.  
Joint Operations Manager  
P. O. Box 3109  
Midland, Texas 79702

Arco Oil & Gas Company  
Dan Dodd  
P.O. Box 1610  
Midland, Texas 79702

Wiser Oil Company  
700 Petroleum Building  
Wichita Falls, Texas 76301

James A. Gibbs  
Five States 1988-A, Ltd.  
1106 One Energy Square  
4925 Greenville Avenue  
Dallas, Texas 75206

Thomas B. Catron III, Trustee  
P.O. Box 788  
Santa Fe, New Mexico 87501

John S. Catron  
Thomas B. Catron III  
Catron, Catron & Sawtell  
P. O. Box 788  
Santa Fe, New Mexico 87504

Conoco, Inc.  
Joint Interest Operations  
P. O. Box 460  
Hobbs, New Mexico 88240

Five States Limited - 1987  
1106 One Energy Square  
4925 Greenville Avenue  
Dallas, Texas 75206

Carl R. Pfluger  
2133 Office Park Drive  
San Angelo, Texas 76904

Bruin Energy, Ltd.  
Angelo Mazzone, President  
Suite 200  
21011 Ventura Blvd.  
Woodland Hills, CA 91364

First National Bank  
William E. Perdew Trust  
105 North Main  
Wichita, Kansas 67202

Shell Western E & P Inc.  
W.F.N. Kelldorf  
Room 4432 Woodcreek  
P. O. Box 576  
Houston, Texas 77001

Carpenter Oil & Gas Co.  
ATTN: Martha Sjostrom  
P. O. Box 27205  
Richmond, Virginia 23261

Amoco Production Company U.S.A.  
Dursion Production Manager West  
P.O. Box 3092  
Houston, Texas 77253

Fred Turner, Jr. Trust  
Mr. Ray Floyd  
P. O. Box 910  
Midland, Texas 79702

Exxon Company U.S.A.  
Donna Littlefield  
P. O. Box 1700  
Midland, Texas 79702

Energy Production Corporation  
613 Glen Lakes Tower  
9400 N. Central Expressway  
Dallas, Texas 75231

Amerada Hess Corporation  
P. O. Box 2040  
Tulsa, OK 74102  
Attn: Mr. J. C. Hefley

Texaco Producing, Inc.  
P. O. Box 3109  
Midland, TX 79702  
Attn: Mr. Robert Solburg

Amoco Production Company  
P. O. Box 3092  
Houston, TX 77253  
Attn: Mr. J. C. Allen

Texaco USA  
500 North Loraine  
Midland, Texas 79701  
Attn: Mr. S. G. Snyder

ARCO Oil and Gas Company  
P. O. Box 1610  
Midland, TX 79702  
Attn: Mr. D. C. Dodd  
Mr. J. A. Nicholson

Chevron U.S.A., Inc.  
P. O. Box 670  
Hobbs, NM 88240  
Attn: Mr. J. C. Prindle

Chevron U.S.A., Inc.  
P. O. Box 1635  
Houston, TX 77251  
Attn: Mr. R. M. Vaden

Conoco, Inc.  
P. O. Box 460  
Hobbs, NM 88240  
Attn: Mr. D. W. Johnson

Shell Western E&P Inc.  
P. O. Box 576  
Houston, TX 77001  
Attn: Mr. J. H. Smitherman

AMENDMENT TO NOTICE OF PROPOSED EXPANSION

EUNICE MONUMENT SOUTH UNIT EXPANSION  
BASIS OF ADMISSION

Following discussions at the February 27, 1990 Working Interest Owners' meeting in Hobbs, New Mexico, these amendments are to be incorporated into the Notice of Proposed Expansion:

1. Under the Basis of Admission, item one, Common Injection System, the following revision shall apply:

Paragraph one, last sentence - In lieu of determining the amount of investment adjustment at the date of first water delivery, it is anticipated that first water delivery will be in early 1991 and therefore the investment adjustment of 1,060,785.53, as shown in the Notice of Proposed Expansion, shall be adopted as the fixed cost for said investment adjustment.

2. Under the Basis of Admission, item three, Common Investment, the following shall be substituted for and replace the entire item:

3. Capital Expenditures - Common Injection System

Future capital expenditures, as prescribed by the Internal Revenue Service Rules and Regulations then in effect, on the common injection system described above will be proportionately shared with 17.24% allocated to the expansion area and 82.76% allocated to the existing area; with the following exception:

Capital expenditures which benefit only one area (either expansion or existing area) will be borne solely (100%) by the area (either expansion or existing or existing area) which initiated the expenditure.

## NOTICE OF PROPOSED EXPANSION

The working interest owners of the proposed Eunice Monument West Unit Study Area have applied to Chevron, as operator of the Eunice Monument South Unit, for expansion of the Eunice Monument South Unit (EMSU) to include the Eunice Monument West Unit (EMWU) Study Area.

The proposed expansion area is shown on the attached plat as Exhibit "A", and titled Eunice Monument South Unit Expansion Area B, and encompasses the following lands:

Township 20 South, Range 36 East, N.M.P.M., Lea County, New Mexico

Section 10: E/2E/2

Section 11: W/2, W/2NE/4, SE/4

Section 13: W/2, S/2SE/4

Section 14: All

Section 15: NE/4NE/4

Section 23: All

Section 24: N/2, SW/4, W/2SE/4

The expansion area encompasses 3,000 acres, more or less, and it is proposed that until such time as the working interest owners agree to consolidate facilities and operations under the terms of the unit and unit operating agreement (and receive the consent of the Authorized Officer, Land Commissioner, and Oil Conservation Commission), the original Unit Area (Area A) and the above unit expansion Area (Area B) will be operated as separate entities under a common unit and unit operating agreement.

If approved, the proposed expansion will be completed under the terms of Section 4 (unit expansion) and Section 32 (Nonjoinder and Subsequent Joinder) of the Unit Agreement and in compliance of the Statutory Unitization Act of the State of New Mexico (Section 70-7-9 NMSA, 1978).

Chevron proposes that the EMSU working interest owners consider the expansion to include the Eunice Monument West Unit Study Area, based upon the following:

### BASIS OF ADMISSION

#### 1) Common Injection System -

The working interest owners in the proposed expansion area B (EMWU) will pay to the owners of the existing unit Area A (EMSU) an agreed upon investment adjustment for acquisition of an interest in the existing

Eunice Monument South Unit's (1) water injection plant (2) a portion of a main injection trunk line, (3) the water supply wells, (4) the water disposal well and (5) the related equipment and facilities previously constructed for the injection system to serve the existing and expansion unit areas. The basis for the investment adjustment was derived from actual costs associated with purchasing and installing the equipment. The resultant actual cost is \$6,580,005. The investment adjustment, which will be based upon the date of first water delivery to the Expansion area (EMWU) will be calculated using the units of production method where:

- A = EMSU Depreciation 01-01-1987 thru 12-31-1989 = \$2,393,583.62
- B = Additional depreciation from 01-01-1990 to initial EMWU water delivery  
= Calculated DD&A/BOEG \* BOEG (EMSU) to initial EMWU water delivery  
where BOEG = Bbls. of oil equivalent gas where 6 mcf gas = 1 Bbl. oil
- C = Gross EMSU Project Capital Expenditures prior to initial EMWU water delivery

$$\text{Depreciation Factor for Water Injection System Base Cost} \\ = 1 - [(A + B) / C]$$

The injection system value was proportioned between the existing unit (EMSU) and expansion area (EMWU) based upon a 82.76% EMSU and 17.24% EMWU prorata share. Utilizing the above depreciation factor and 17.24% prorated share for the expansion area (EMWU), yields the following Investment Adjustment acquisition equation for the expansion area (EMWU) buy-in:

$$\text{EMWU Investment Adjustment} = \$6,580,005 * \text{Depreciation Factor} * .1724$$

An example of the above Investment Adjustment Calculation is as follows:

- \* Assume First EMWU water delivery is on 1-1-91
- \* 1987-1989 Depreciation Expense = \$2,393,583.62
- \* 1990 production = 487200 BO & 1938317 mcf; BOEG = 810252.8
- \* 1990 DD&A/BOEG = \$1.05/BOEG
- \* 1990 Depreciation Expense = \$850,765.48
- \* Cumulative Gross Project Expenditures thru 12-31-90 = \$50,000,000
- \* Depreciation Factor =  $1 - [(2,393,583.62 + 850,765.48) / 50,000,000]$   
= .93511
- \* Depreciated EMSU Injection System Value as of 1-1-91  
=  $\$6,580,005 * .93511 = \$6,153,048.33$
- \* EMWU Prorata Share = 17.24%
- \* EMWU Investment Adjustment =  $6,153,048.33 * .1724$   
= \$1,060,785.53

2) Capital Costs -

All direct capital costs necessary to implement the secondary recovery operations for the expansion area B (EMWU) will be borne by working interest owners of the expansion area at no cost to the existing unit.

3) Common Investment -

Future capital expenditures on the common injection system, as set forth in number 1 above, will be proportionally shared with 17.24% allocated to the expansion area (EMWU) and 82.76% allocated to the EMSU; with the following exception:

- ° capital expenditures which benefit only one area (either EMSU or EMWU) will be borne solely (100%) by the area (either EMSU or EMWU) which initiated the expenditure.

4) Expenses & Operating Costs -

All expense and operating costs for the expansion area (EMWU) that are not related to the common injection system will be maintained separately from the costs and expenses of the existing unit area. All expenses and operating costs for the common injection system set forth in number 1 above, will be shared proportionally between the existing unit area and the expansion area based on the percentage of monthly injection and monthly water supplied to the existing unit area and expansion area. Monthly operating expenses on the common injection system will be proportioned based on the following direct measurement approach:

Injection Facility Monthly Expenses \*  $\frac{\text{Monthly Water Injection to an Area}}{\text{Total Monthly Injection to both areas}}$

+ Water Supply Well Monthly Expenses \*  $\frac{\text{Monthly Water Supply to an Area}}{\text{Total Monthly Water Supplied to both areas}}$

5) Development -

Plans of development, AFE's, budgets, and actual development costs for secondary and tertiary recovery operations in the expansion area (EMWU) shall be maintained separate from the existing unit area.

6) Production & Proceeds -

All production from the expansion area (EMWU) shall be held separate from the existing unit area and will be accounted for, sold, and allocated back to the tracts within the expansion area based upon the tract participation established for the expansion area.

#### PARTICIPATION TO BE ASSIGNED WITHIN THE ENLARGED AREA

Unless changed by agreement and vote of the working interest owners and approval of the Authorized officer, Land Commissioner, and Oil Conservation Commission prior to commencing tertiary operations, participation within the expansion area (EMWU) and existing area (EMSU) will be held separate, and each such area will be treated as a separate entity. The tract participation shall remain unchanged for the existing unit area, and production and costs allocations will continue to be made to the owners of the existing area on the same basis as they were before expansion.

Unless modified as stated above, participation in the expansion area (EMWU) will be separately determined based upon the existing EMSU participation formula. By treating these as separate entities, each area's tract participation will total 100%. Ownership interests in the existing unit and in the expansion area is shown on attachment A.

#### REQUIREMENTS FOR EXPANSION

Ballots approving unit expansion will be presented at the working interest owners meeting. If sufficient approval is received for expansion, Chevron will begin expansion procedures on behalf of EMSU and EMWU working interest owners.

# ATTACHMENT A

## INTEREST OF PARTIES BY AREA

### UNIT AREA A

#### EXISTING AREA (EMSU) - 14,189.84 acres

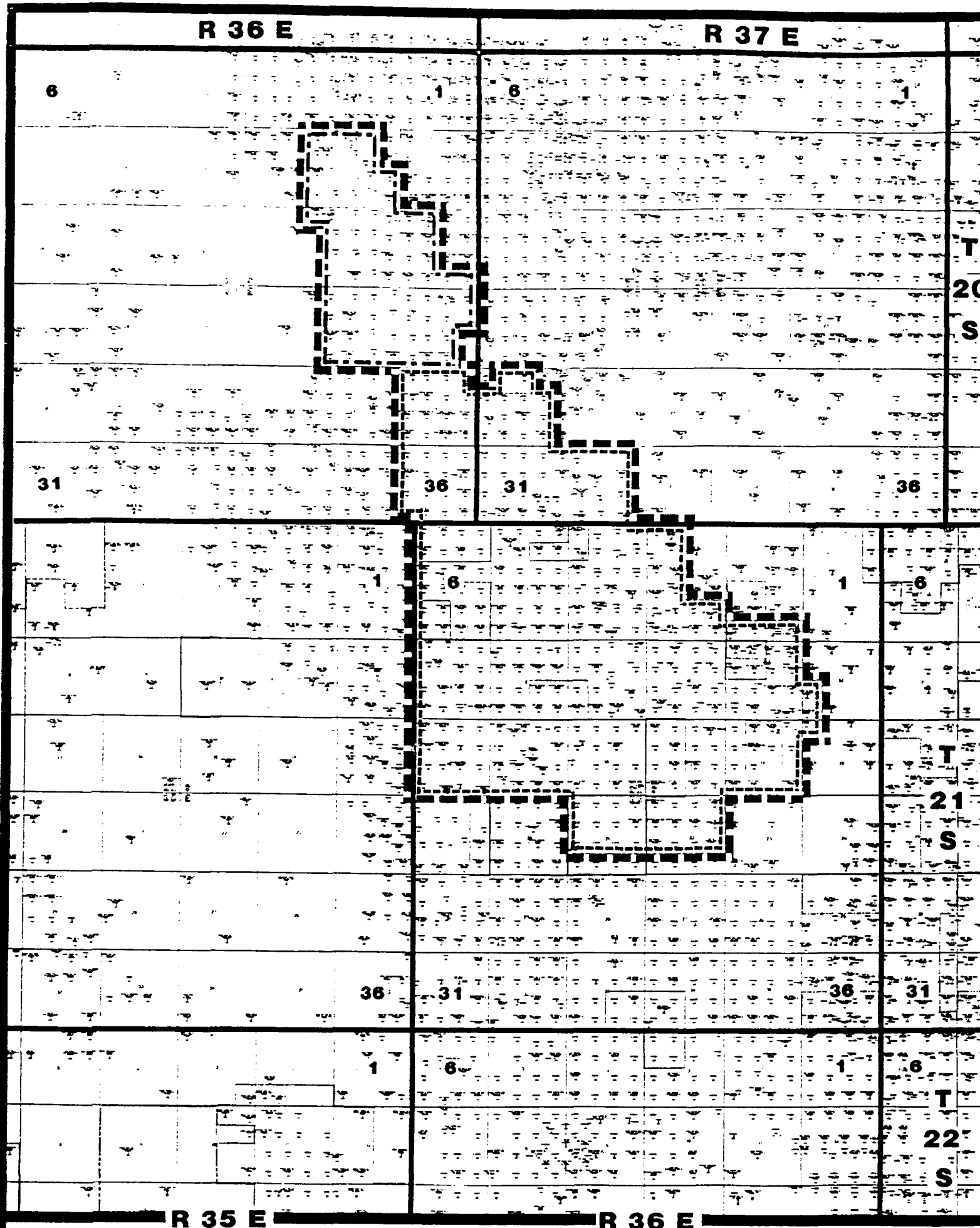
AMERADA HESS CORP.	.013146200
EXXON COMPANY U.S.A.	.053926600
SHELL WESTERN E&P INC.	.067604000
WISER OIL CO.	.001059400
KOCH EXPLORATION CO.	.003297500
TURNER, FRED W. JR. ESTATE	.000871800
CATRON, T.R. 222 TRUSTEE	.000181500
FIVE STATES LIMITED - 1987	.002394692
BRUIN ENERGY LTD	.005338319
FIVE STATES 1988-A, LTD	.003011120
TEXACO PRODUCING INC.	.073133700
AMOCO PRODUCTION CO.	.083840800
ARCO OIL & GAS CO	.204690800
PFLUGER, CARL	.000580000
CONOCO INC.	.094164900
CATRON, JS & TB	.000181500
PERDEW, WILLIAM E TRUST	.000171900
CARPENTER OIL & GAS CO.	.002101900
ENERGY PRODUCTION CORP.	.007273169
CHEVRON U.S.A. INC.	.383030200
TOTAL	1.000000000

### UNIT AREA B

#### EXPANSION AREA (EMWU) - 3,000 acres

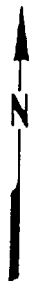
AMOCO PRODUCTION CO.	.305419332
ARCO OIL & GAS CO.	.293999073
CHEVRON U.S.A. INC.	.193976604
CONOCO INC.	.138312840
SHELL WESTERN E&P INC	.044693929
AMERADA HESS CORP.	.017168789
TEXACO PRODUCING INC.	.006429433
TOTAL	1.000000000






### LEGEND

- UNIT BOUNDARY
- ORIGINAL UNIT AREA "A"
- ..... UNIT EXPANSION AREA "B"



Revisions	 <b>Chevron U.S.A. Inc.</b> Central Region - Exploration, Land and Production
<b>EUNICE MONUMENT SOUTH UNIT</b>	
LEA CO., NEW MEXICO	
DATE: 1-17-90	
SCALE: IN MILES	



R 36 E

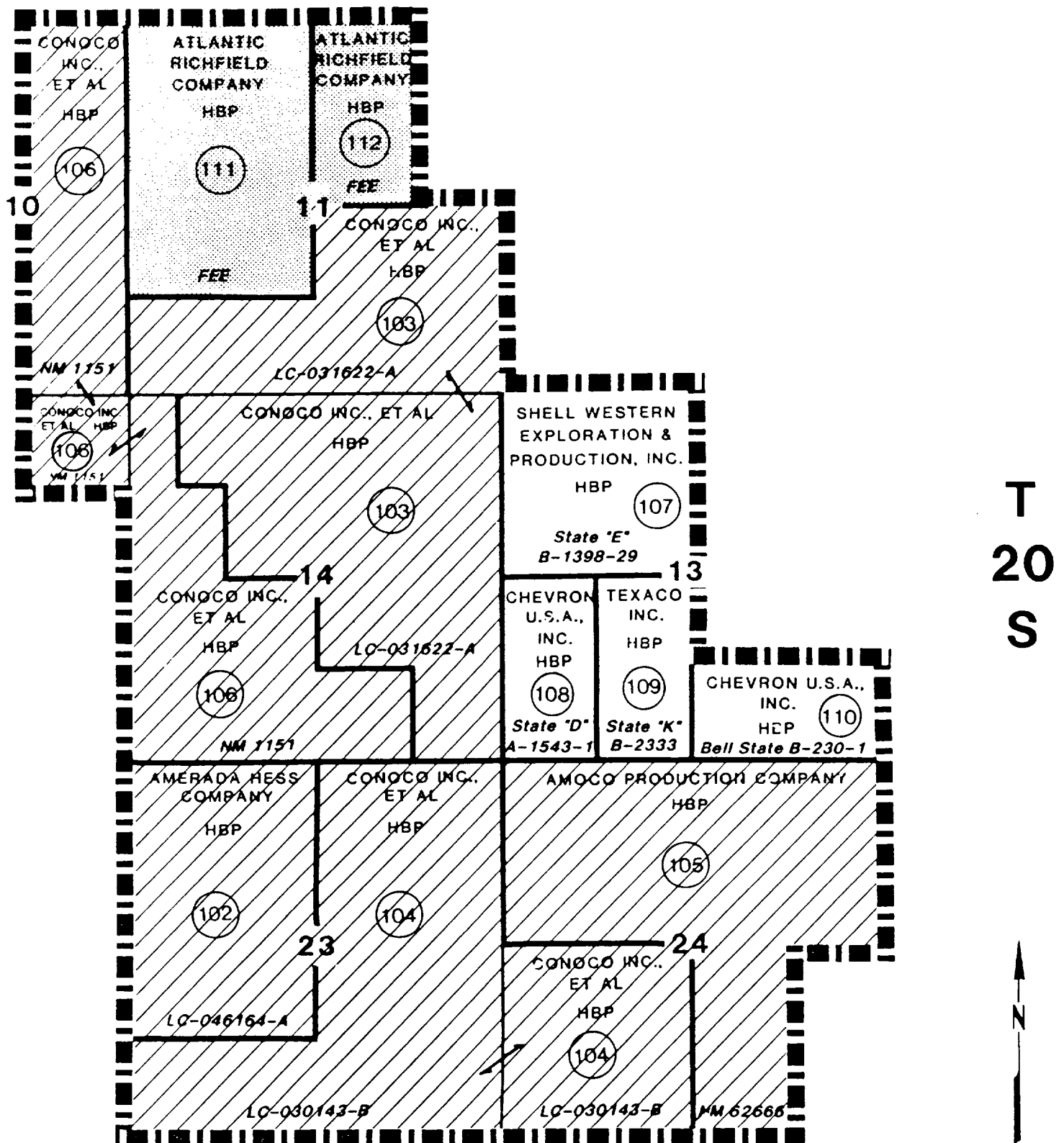





EXHIBIT "A"


## EUNICE MONUMENT SOUTH UNIT EXPANSION AREA "B"

LEA CO., NEW MEXICO  
UNIT EFFECTIVE 2-1-85  
EXPANDED/REV. 9-1-90

CHEVRON U.S.A. INC.  
HOUSTON, TEXAS

1-17-90

	ACREAGE	PERCENTAGE
	FEDERAL LANDS	2280 76.00
	STATE LANDS	400 13.33
	PATENTED LANDS	320 10.87
	TOTAL	3000 100.00

 UNIT OUTLINE       TRACT NUMBER



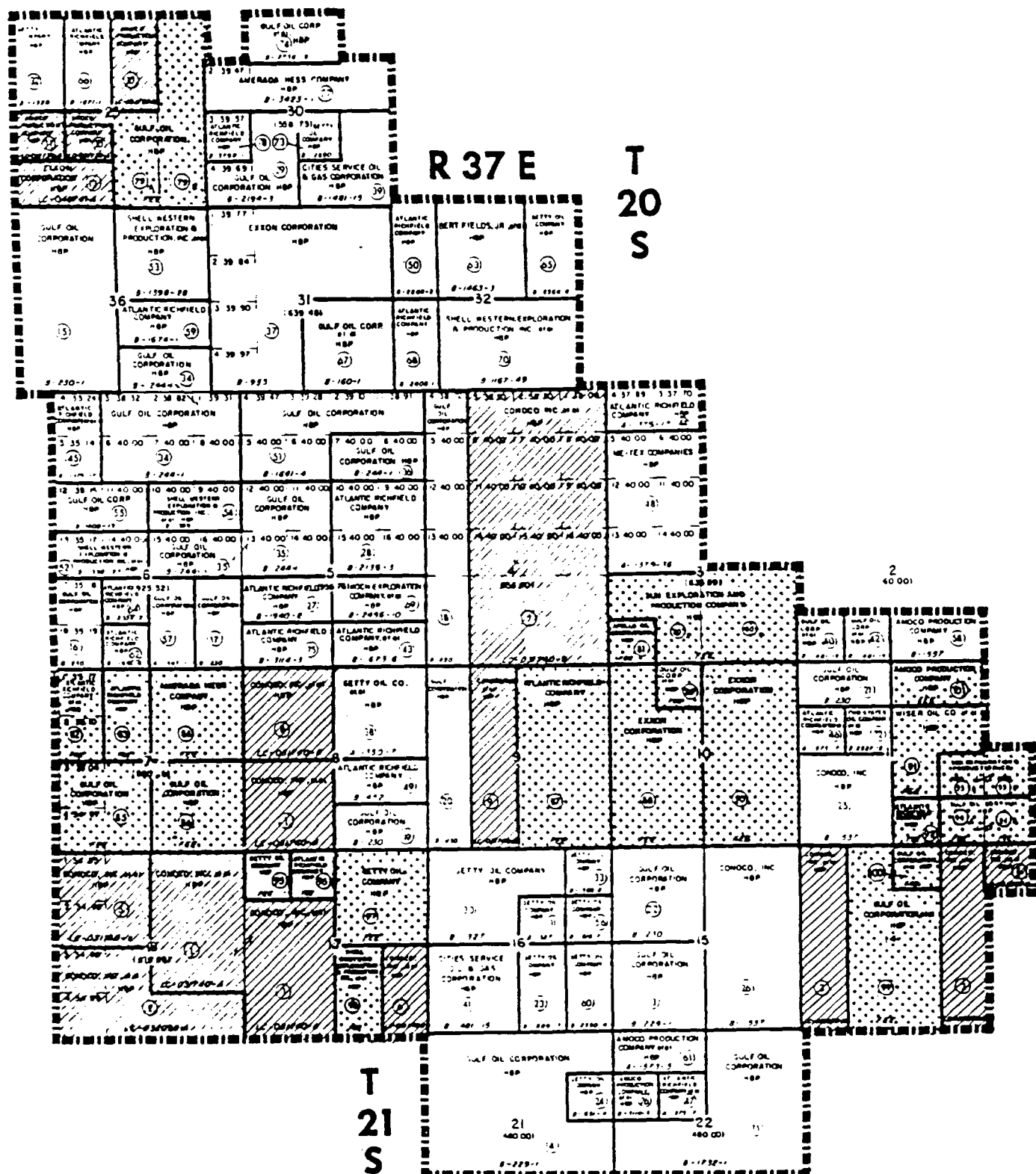
NOTE: UNLESS OTHERWISE INDICATED, THE VARIOUS SECTIONS ON THIS PLAT CONTAIN 640.00 ACRES

R 36 E

T  
20  
S

R 37 E

T  
20  
S






12  
60 001  
T  
21  
S  
13  
60 001

R 36 E

EXHIBIT "A"

# EUNICE MONUMENT SOUTH UNIT AREA "A"

	ACREAGE	PERCENTAGE
	FEDERAL LANDS	2,734.76 19.27 %
	STATE LANDS	8,274.80 58.32 %
	PATENTED LANDS	3,180.28 22.41 %
	TOTAL	14,189.84 100.00 %

UNIT OUTLINE      TRACT NUMBER

SCALE IN MILES

NOTE: UNLESS OTHERWISE INDICATED THE VARIOUS SECTIONS ON THIS PLAT CONTAIN 360.00 ACRES

LEA COUNTY, NEW MEXICO  
UNIT EFFECTIVE 2-1-85  
Rev. 10-4-84  
Rev. 2-1-85

CHEVRON U.S.A. INC.  
HOUSTON, TEXAS

UNIT EXPANSTON AREA B

EXHIBIT "B"

SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF OIL AND GAS INTERESTS  
IN ACCORDANCE WITH THE PARTICIPATION FORMULA FOR THE UNITIZED FORMATION FOR THE  
EUNICE MONUMENT SOUTH UNIT AREA  
LEA COUNTY, NEW MEXICO

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	PARTICIPATION OF TRACT	
							WORKING INTEREST OWNER AND PERCENTAGE	IN UNIT AREA B
102	Andrews Federal T-20-S, R-36-E, NRPW Sec. 23: NW/4, N/2SW/4	240	LC-046164-(a) HBP 09/23/35 Renewal 09/01/85	U.S.A. Schedule "C"	Amerada Hess Corp.	Jeanne A. Saunders Trust 2.5%	Amerada Hess 100%	1.71687894
103	Sanderson "A" T-20-S, R-36-E, NRPW Sec. 14: NE/4, N/2SE/4, SE/4SE/4, E/2NW/4, E/2 NW4/NW/4 Sec. 11: SE/4, S/2SW/4	620	LC-031622-(a) HBP 10/30/36 Exchanged 10/01/56	U.S.A. Schedule "C"	Helen T. Sanderson	Lena Grace Nesrsta .7031% Girvin H. Sanderson .7031% Francis K. Thompson .7031% Francis Thompson .7031% Western Mineral 2.8125% Deed Assoc.	Conoco Inc. Amoco Prod. Co. Atlantic Richfield Co. Chevron U.S.A. Inc.	25% 25% 25% 25% 25%
104	Reed "B" T-20-S, R-36-E, NRPW Sec. 23: E/2, S/2SW/4 Sec. 24: SW/4	560	LC-030143-(b) HBP 02/01/37 Exchanged 06/01/57	U.S.A. Schedule "D"	Conoco, Inc. Chevron U.S.A. Inc. Amoco Prod. Co. Atlantic Richfield Co.	None	Conoco, Inc. Amoco Prod Co. Atlantic Richfield Co. Chevron U.S.A. Inc.	25% 25% 25% 25% 25%

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	PARTICIPATION OF TRACT IN UNIT AREA B	
							WORKING INTEREST OWNER AND PERCENTAGE	-----
105	Gilluly "A" T-20-S, R-36-E, NWPN Sec. 24: N/2, W/2SE/4	400	NW-62666 HBP 03/30/37 Exchanged 03/01/52 Segregation of LC-031736-(a) 02/01/85	U.S.A. Schedule "C"	Amoco Prod. Co.	Andrews, Selma E. Trust 5188 Beans Minerals Company Braille Institute of America Inc. Brauchli, C R Dolley, Robert C Gallant, Claredean Haenni, Margaret B Jenkins, Marlin H and of Muriel L Jenkins, Marvin G Keefer, Leonard D Maccaughtry, Lina R and Lawrence R Oryx Energy Company Payne, Julia H Payne, Julia H, Trustee Union Texas Petroleum Corporation Ward, Daniel Robert Ward, Linda Dolley	Amoco Prod. Co. 100%	16.71064916
106	U. M. Sanderson T-20-S, R-36-E, NWPN Sec. 10: E/2E/2 Sec. 14: SW/4NW/4, SW/4, SW/4SE/4, W/2NW/4NW/4 Sec. 15: NE/4NE/4	460	NW-1151 HBP 10/01/56 Exchanged 10/01/56 Segregation of LC-031622-(b) 10/30/36	U.S.A. Schedule "C"	Helen T. Sanderson	None	Conoco, Inc. 25% Amoco Prod. Inc. 25% Atlantic 25% Richfield Co. Chevron U.S.A. Inc. 25%	7.70321920

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	PARTICIPATION OF TRACT IN UNIT AREA 8	
							WORKING INTEREST OWNER AND PERCENTAGE	
107	State "E" T-20-S, R-36-E, NWPM ----- Sec. 13: NW/4	160	B-1398-29 HBP 01/26/28	State of New Mexico 12 1/2%	Shell Western E & P, Inc. and El Paso Natural Gas Co.		Shell Western E & P, Inc. 100%	4.46939289
108	State "D" T-20-S, R-36-E, NWPM ----- Sec. 13: W/2SW/4	80	A-1543-1 HBP 12/29/28	State of New Mexico 12 1/2%	Chevron U.S.A. Inc.		Chevron U.S.A. Inc. 100%	3.37264319
109	State "K" T-20-S, R-36-E, NWPM ----- Sec. 13: E/2SW/4	80	B-2333-3 HBP 01/02/29	State of New Mexico 12 1/2%	Texaco Producing Co. U.S.A. Inc.		Texaco Prod. Co. U.S.A. Inc. 100%	.64294328
110	Bell State T-20-S, R-36-E, NWPM ----- Sec. 13: S/2SE/4	80	B-230-1 HBP 09/10/31	State of New Mexico 12 1/2%	Chevron U.S.A. Inc.		Chevron U.S.A. Inc. 100%	2.19373312

4 STATE TRACTS TOTALING 400 ACRES OR 13.33% OF UNIT AREA

[illegible]

John W Mouser Company	.173610
WCHB Texas National Bank,	.520840
As Successor Escrow Agent	
Sabine Royalty Trust	
Eula Corder	.000030
J Patrick Corrigan	.260420
Bank of Oklahoma, Tulsa,	.001520
W A, F/A/O Mary Elizabeth	
Ellinghausen	
Rollins W Koppel	.001090
Hosea V Price	.000010
Ann Stiernberg Stone	.001090
Dorothy Diewiger	.026045
The Greenfield Family Trust	.048830
Edwin F Hyland	.032550
Christine Warflett and	.078120
Nancy Monteith	
Penn Royalty Company	.001830
Irma J Rushing	.0347230
Frances Schneider	.019530
Pomona College	.032550
The Estate of William	.045570
B Baker	
Deltax Royalty Company	.0520830
The Estate of Marie	.071610
Ellinghausen	
The Estate of Emma W Griggs	.000010
Dec	
Harlow Royalties, Inc.	.000430
Jerry L Hooper	1.388886
James W Knowles	.347220
Marion L Header	.000120
Luther C Anderson, Charles	.195310
W Partridge and Carl M	
Franklin, as Trustees Under	
the Will of Seeley G Mudd	
The Estate of Jack Skaggs	.001090
Way Enterprises, Inc.	.00520830
Mack W Wooldridge	.0694440
Mack W Wooldridge	.347220



TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE		WORKING INTEREST OWNER AND PERCENTAGE		PARTICIPATION OF TRACT IN UNIT AREA 8
112	M. J. Byrd	T-20-S, R-36-E, NWPM	HBP	Elsie D Bickford & Harold E Bickford Irrevocable Trust Timothy Ian Thompson Timothy Ian Thompson Ruth C Kendall Jane Jennings Charles Downing The Estate of Lucille T. Smith Leland Downing Janice Lynn Cleboski M G Murdoch Geodyne Resources, Inc. Bank of Oklahoma, N A, Trustee of the Witwer Oil and Gas Trust Jerome T Hanners Roy G Barton Jr Marvin M Rosen, Trustee U/T/A Dated 2-16-79 F/B/O M Blair Danson, Laura C Danson, and Bethany E Danson Amroy Co MCNB Texas National Bank, As Successor Escrow Agent Sabine Royalty Trust Eula Corder Bank of Oklahoma, Tulsa, N A, F/A/O Mary Elizabeth Ellinghausen	80		.097660  .078120 .078130 .026045 .08681 .08682 .045570  .08682 .0117185 .078130 .05859370 .01145830  .039060 .0117185 .048830   0.035778 .0520830	100%	4.76175390
		Sec. 11: W/2NE/4					Atlantic Richfield Co.		

Alice H Af Petersens	.234380
Poulton Farm Limited	.156250
for the Acct of Herbert	
Edward Hill	
Hosea V Price	.000020
Anne H Warner	.0234370
Dorothy Duewiger	.013020
Dorothy Duewiger	.04340
Dorothy Duewiger	.06515
Dorothy Duewiger	.02170
Peter G Greenfield	.048830
Trustee of the	
Greenfield Family Trust	
Official Receiver for	.078130
Michael I A Mendoza	
Edwin F Hyland	.032550
Christine Marfleet	.078120
and Nancy Monteith	
Penn Royalty Company	.010700
Ruby Ridgway	.937500
Frances Schneider	.13020
Frances Schneider	.04340
Frances Schneider	.06515
Frances Schneider	.02170
Pomona College, A	.032550
Corporation Investment	
Acct	
Atlantic Richfield Company	.87500000
Elizabeth Murchison Baker,	.045570
as Independent Executrix of	
the Estate of William	
B Baker	

George Eager	.0625000
Bank of Oklahoma, N.A.,	.075490
Executor of the Estate	
of Marie Ellinghausen	
Bettine Ethel Goldberg	.078120
Susan G Young	.000010
Administratrix of the Estate	
of Emma M Griggs Dec	
Harlow Royalties, Inc.	.002430
Marion L Meader	.000730
Luther C Anderson, Charles	.0195320
W Partridge & Carl M	
Franklin, as Trustees Under	
the Will of Seeley G Hudd	
Nancy Taylor Smith	.0312500
Mack W Wooldridge	.0625000

2 PATENTED (FEE) TRACTS TOTALING 320 ACRES OR 10.67% OF UNIT AREA

SUMMARY OF UNIT EXPANSION AREA B

FEDERAL LANDS	2,280 Acres	-	76.00%
STATE LAND	400 Acres	-	13.33%
PATENTED LANDS	320 Acres	-	10.67%
	=====		=====
	3,000 Acres	-	100.00%

UNIT AGREEMENT  
EUNICE MONUMENT SOUTH UNIT  
LEA COUNTY, NEW MEXICO

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Exhibit "A" (Map of Unit Area)  
Exhibit "B" (Schedule of Ownership and Tract Participation)

the Unit Area and the boundaries and identity of tracts and leases in said Unit Area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each Tract, percentages and kind of ownership of oil and gas interests in all land in the Unit Area, and Tract Participation of each Tract. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. The shapes and descriptions of the respective Tracts have been established by using the best information available. Each Working Interest Owner is responsible for supplying Unit Operator with accurate information relating to each Working Interest Owner's interest. If it subsequently appears that any Tract, because of diverse royalty or working interest ownership on the Effective Date hereof, should be divided into more than one Tract, or when any revision is requested by the A.O., or any correction of any error other than mechanical miscalculations or clerical is needed, then the Unit Operator, with the approval of the Working Interest owners, may correct the mistake by revising the exhibits to conform to the facts. The revision shall not include any reevaluation of engineering or geological interpretations used in determining Tract Participation. Each such revision of an exhibit made prior to thirty (30) days after the Effective Date shall be effective as of the Effective Date. Each other such revision of an exhibit shall be effective at 7:00 a.m. on the first day of the calendar month next following the filing for record of the revised exhibit or on such other date as may be determined by Working Interest Owners and set forth in the revised exhibit. Copies of such revision shall be filed with the Land Commissioner, and not less than four copies shall be filed with the A.O. In any such revision, there shall be no retroactive allocation or adjustment of Unit Expense or of interests in the Unitized Substances produced, or proceeds thereof.

**SECTION 4. EXPANSION.** The above described Unit Area may, with the approval of the A.O. and Land Commissioner, when practicable be expanded to include therein any additional Tract or Tracts regarded as reasonably necessary or advisable for the purposes of this Agreement provided however, in such expansion there shall be no retroactive allocation or adjustment of Unit Expense or of interests in the Unitized Substances produced, or proceeds thereof. Pursuant to Subsection (b), the Working Interest Owners may agree upon an adjustment of investment by reason of the expansion. Such expansion shall be effected in the following manner:

(a) The Working Interest Owner or Owners of a Tract or Tracts desiring to bring such Tract or Tracts into this unit, shall file an application therefor with Unit Operator requesting such admission.

(b) Unit Operator shall circulate a notice of the proposed expansion to each Working Interest Owner in the Unit Area and in the Tract proposed to be included in the unit, setting out the basis for admission, the Tract Participation to be assigned to each Tract in the enlarged Unit Area and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise) if at least three Working Interest Owners having in the aggregate seventy-five percent (75%) of the Unit Participation then in effect have agreed to inclusion of such Tract or Tracts in the Unit Area, then Unit Operator shall:

(1) After obtaining preliminary concurrence by the A.O. and Land Commissioner, prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reason therefor, the basis for admission of the additional Tract or Tracts, the Tract Participation to be assigned thereto and the proposed effective date thereof; and

(2) Deliver copies of said notice to Land Commissioner, the A.O. at the Proper BLM Office, each Working Interest Owner and to the last known address of each lessee and lessor whose interests are affected, advising such parties that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion; and

(3) File, upon the expiration of said thirty (30) day period as set out in (2) immediately above with the Land Commissioner and A.O. the following: (a) evidence of mailing or delivering copies of said notice of expansion; (b) an application for approval of such expansion; (c) an instrument containing the appropriate joinders in compliance with the participation requirements of Section 14, and Section 34, infra; and (d) a copy of all objections received along with the Unit Operator's response thereto.

The expansion shall, after due consideration of all pertinent information and approval by the Land Commissioner and the A.O., become effective as of the date prescribed in the notice thereof, preferably the first day of the month subsequent to the date of notice. The revised Tract Participation of the respective Tracts included within the Unit Area prior to such enlargement shall remain the same ratio one to another.

SECTION 5. UNITIZED LAND. All land committed to this Agreement as to the Unitized Formation shall constitute land referred to herein as "Unitized Land" or "Land subject to this Agreement". Nothing herein shall be construed to unitize, pool, or in any way affect the oil, gas and other minerals contained in or that may be produced from any formation other than the Unitized Formation as defined in Section 2(h) of this Agreement.

SECTION 6. UNIT OPERATOR. GULF OIL CORPORATION is hereby designated the Unit Operator, and by signing this instrument as Unit Operator, agrees and consents to accept the duties and obligations of Unit Operator for the operation, development, and production of Unitized Substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interests in Unitized Substances, when such interests are owned by it and the term "Working Interest Owner" when used herein shall include or refer to the Unit Operator as the owner of a Working Interest when such an interest is owned by it.

Unit Operator shall have a lien upon interests of Working Interest Owners in the Unit Area to the extent provided in the Unit Operating Agreement.

SECTION 7. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners, the Land Commissioner and the A.O. unless a new Unit Operator shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

The Unit Operator shall, upon default or failure in the performance of its duties and obligations hereunder, be subject to removal by Working Interest Owners having in the aggregate eighty percent (80%) or more of the Unit Participation then in effect exclusive of the Working Interest Owner who is the Unit Operator. Such removal shall be effective upon notice thereof to the Land Commissioner and the A.O.

In all such instances of effective resignation or removal, until a successor to Unit Operator is selected and approved as hereinafter provided, the Working Interest Owners shall be jointly responsible for the performance of the duties of the Unit Operator and shall, not later than thirty (30) days before such resignation or removal becomes effective, appoint a Unit Manager to represent them in any action to be taken hereunder.

The resignation or removal of Unit Operator under this Agreement shall not terminate its right, title or interest as the owner of a Working Interest or other interest in Unitized Substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all wells, equipment, books and records, materials, appurtenances and any

have the right at his or its own expense to be heard in any such proceeding.

SECTION 28. NOTICES. All notices, demands, objections or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if made in writing and personally delivered to the party or parties or sent by postpaid certified or registered mail, addressed to such party or parties at their last known address set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party or parties may have furnished in writing to the party sending the notice, demand or statement.

SECTION 29. NO WAIVER OF CERTAIN RIGHTS. Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the State wherein said Unitized Lands are located, or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive; provided, however, each party hereto covenants that it will not resort to any action to partition the unitized land or the Unit Equipment.

SECTION 30. EQUIPMENT AND FACILITIES NOT FIXTURES ATTACHED TO REALTY. Each Working Interest Owner has heretofore placed and used on its Tract or Tracts committed to this Agreement various well and lease equipment and other property, equipment and facilities. It is also recognized that additional equipment and facilities may hereafter be placed and used upon the Unitized Land as now or hereafter constituted. Therefore, for all purposes of this Agreement, any such equipment shall be considered to be personal property and not fixtures attached to realty. Accordingly, said well and lease equipment and personal property is hereby severed from the mineral estates affected by this Agreement, and it is agreed that any such equipment and personal property shall be and remain personal property of the Working Interest Owners for all purposes.

SECTION 31. UNAVOIDABLE DELAY. All obligations under this Agreement requiring the Unit Operator to commence or continue improved recovery operations or to operate on or produce Unitized Substances from any of the lands covered by this Agreement shall be suspended while, but only so long as, the Unit Operator, despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or municipal law or agency, unavoidable accident, uncontrollable delays in transportation, inability to obtain necessary materials or equipment in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

SECTION 32. NONJOINDER AND SUBSEQUENT JOINDER. Joinder by any Royalty Owner, at any time, must be accompanied by appropriate joinder of the corresponding Working Interest Owner in order for the interest of such Royalty Owner to be regarded as effectively committed. Joinder to this Agreement by a Working Interest Owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement in order for such interest to be regarded as effectively committed to this Agreement.

Any oil or gas interest in the Unitized Formations not committed hereto prior to submission of this Agreement to the Land Commissioner and the A.O. for final approval may thereafter be committed hereto upon compliance with the applicable provisions of this Section and of Section 14 (Tracts Qualified for Participation) hereof, at any time up to the Effective Date hereof on the same basis of Tract Participation as provided in Section 13, by the owner or owners thereof subscribing, ratifying, or consenting in writing to this Agreement and, if the interest is a Working Interest, by the owner of such interest subscribing also to the Unit Operating Agreement.

It is understood and agreed, however, that from and after the Effective Date hereof the right of subsequent joinder as provided

in this Section shall be subject to such requirements or approvals and on such basis as may be agreed upon by Working Interest Owners owning not less than sixty-five percent (65%) of the Unit Participation then in effect, and approved by the Land Commissioner and A.O. Such subsequent joinder by a proposed Working Interest Owner must be evidenced by his execution or ratification of this Agreement and the Unit Operating Agreement and, where State or Federal land is involved, such joinder must be approved by the Land Commissioner or A.O. Such joinder by a proposed Royalty Owner must be evidenced by his execution, ratification or consent of this Agreement and must be consented to in writing by the Working Interest Owner responsible for the payment of any benefits that may accrue hereunder in behalf of such proposed Royalty Owner. Except as may be otherwise herein provided, subsequent joinder to this Agreement shall be effective as of the first day of the month following the filing with the Land Commissioner and A.O. of duly executed counterparts of any and all documents necessary to establish effective commitment of any Tract or interest to this Agreement, unless objection to such joinder by the Land Commissioner or the A.O., is duly made sixty (60) days after such filing.

SECTION 33. COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties and may be ratified or consented to by separate instrument in writing, specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the land within the described Unit Area. Furthermore, this Agreement shall extend to and be binding on the parties hereto, their successors, heirs and assigns.

SECTION 34. JOINDER IN DUAL CAPACITY. Execution as herein provided by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests owned or controlled by such party; provided, that if the party is the owner of a Working Interest, he must also execute the Unit Operating Agreement.

SECTION 35. TAXES. Each party hereto shall, for its own account, render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the unitized land; provided, however, that if it is required or if it be determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes shall be reimbursed therefor by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated share of said Unitized Substances. No taxes shall be charged to the United States or to the State of New Mexico, nor to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

SECTION 36. NO PARTNERSHIP. The duties, obligations and liabilities of the parties hereto are intended to be several and not joint or collective. This Agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligation as herein provided.

SECTION 37. PRODUCTION AS OF THE EFFECTIVE DATE. Unit Operator shall make a proper and timely gauge of all leases and other tanks within the Unit Area in order to ascertain the amount of merchantable oil above the pipeline connection, in such tanks as of 7:00 a.m. on the Effective Date hereof. All such oil which has then been produced in accordance with established allowables shall be and remain the property of the Working Interest Owner entitled thereto, the same as if the unit had not been formed; and the responsible Working Interest Owner shall promptly remove said oil