

S O U T H E M P I R E A R E A

BEFORE EXAMINER UTZ

4578

Townships 17 and 18 South

Ranges 28 and 29 East

Eddy County, New Mexico

Prepared May 26, 1968 for: Harvey E. Yates

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LIST OF ILLUSTRATIONS

Figure 1	Index Map
Figure 2	Land Plat
Cross Section	A-A ¹
Cross Section	B-B ¹
Cross Section	C-C ¹
Cross Section	D-D ¹
Cross Section	E-E ¹
Enclosure 1	Seismic Structure Map - Devonian (Adjusted)
Enclosure 2	Subsurface Structure Map - Top San Andres Dolomite
Enclosure 3	Regional Structure Map - Top L-Wolfcamp "Rake"
Enclosure 4	Lower Wolfcamp Shelf Margins
Enclosure 5	Pennsylvanian Shelf Margins
Enclosure 6	Isopach Map - Cisco Series
Enclosure 7	Isopach Map - Canyon Series
Enclosure 8	Isopach Map - Upper Strawn Series
Enclosure 9	Isopach Map - Top Lower Strawn Limestone to Chester "Dunken Cycle"
Appendix "A"	Seismic Report by Colin McMillan
Appendix "B"	Supplemental Seismic Report by Colin McMillan

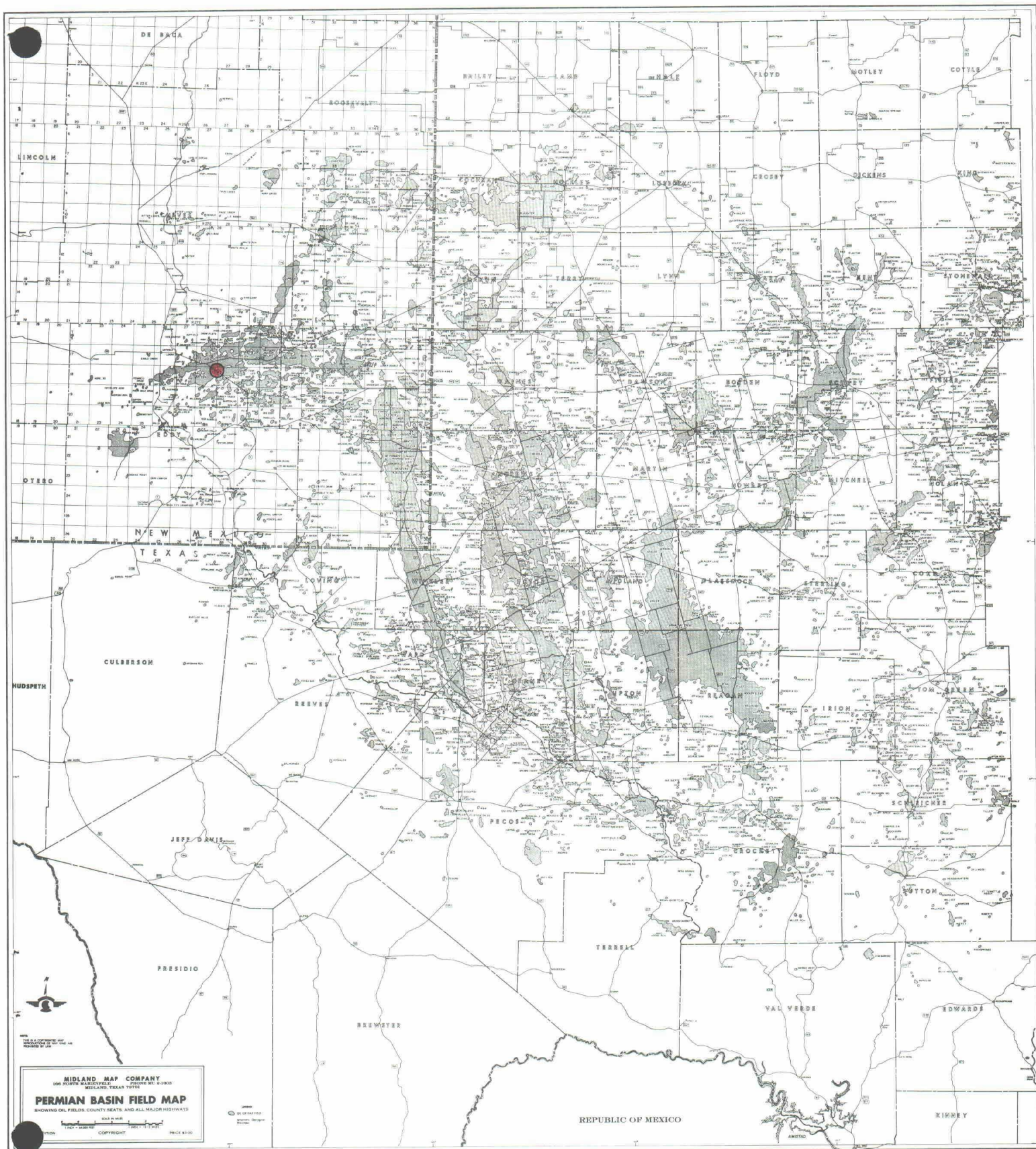
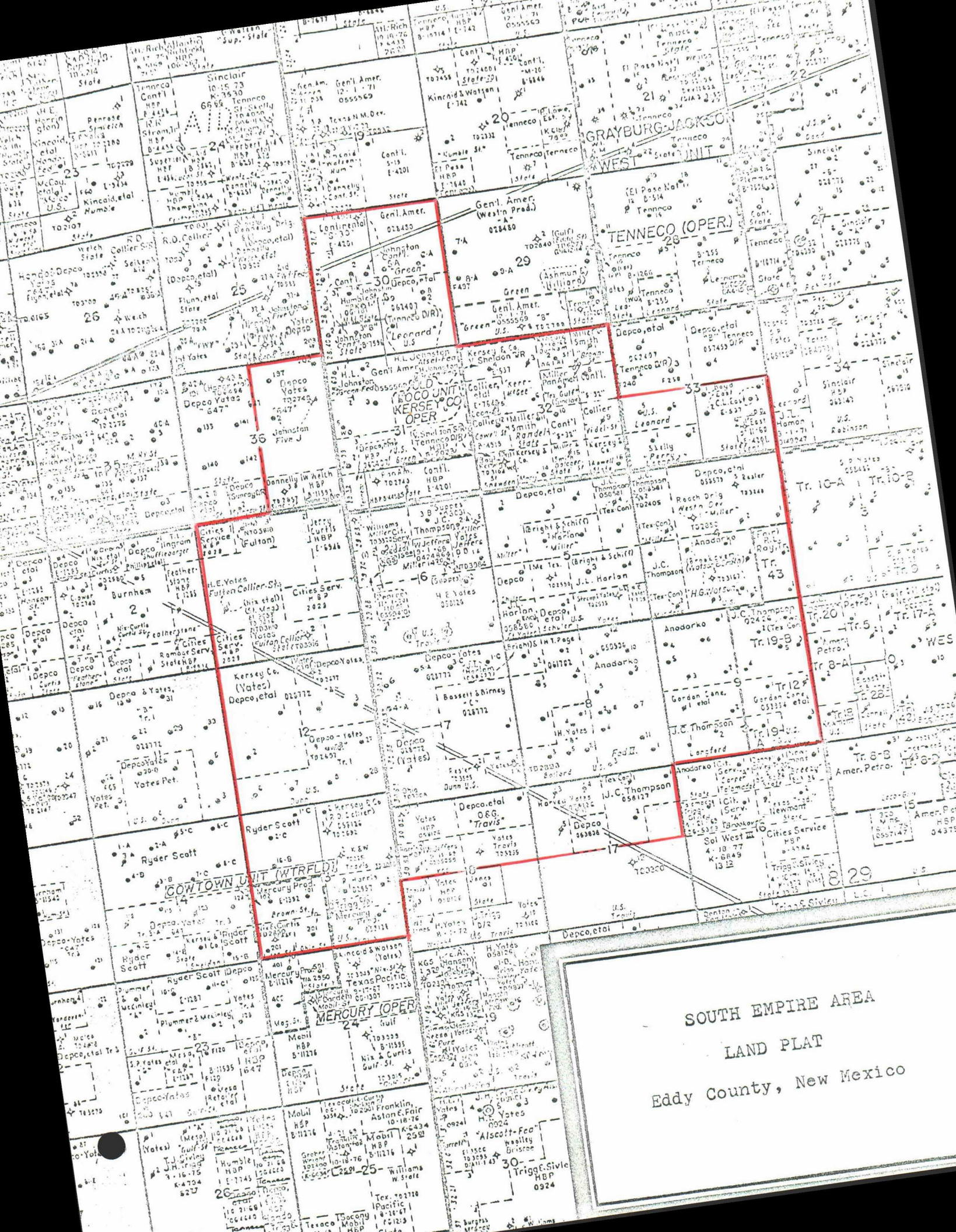


FIGURE 1

● SOUTH EMPIRE AREA



SOUTH EMPIRE AREA
LAND PLAT
Eddy County, New Mexico

SOUTH EMPIRE AREA
T-17 & 18-S; R-28 & 29-E
EDDY COUNTY, NEW MEXICO

I. SUMMARY

Seventeen miles east-southeast of Artesia, New Mexico in the Artesia-Vacuum trend and just south of the east end of Empire Abo field (Fig. 1), this prospect is a north-south seismic anticline at the Devonian level, 3 miles long and 2 to 3 miles wide, with a suggested 450 feet of closure covering about 5 sections (Encl. 1). Measured counter-regional critical west dip is approximately 600 feet at the Devonian level (Encl. 1) and about 300 feet at the Wolfcamp level (Appendix "B", Map).

The South Empire prospect is truly a multi-reservoir prospect, since, in addition to the obviously large potential in the Devonian and Ellenburger, the structure is crossed east-west by a major porous shelf margin or reef reservoirs of Lower Wolfcamp (Encl. 4) and Cisco age (Encl. 6), and northeast-southwest by porous shelf margins of Canyon (Encl. 7) and Upper Strawn Age (Encl. 8). Secondary objectives include the Upper Strawn shelf margin, the middle Abo "Goodrich Zone" (Encl. 4), Atoka and Morrow sandstones, and south of the Lower Wolfcamp zones, Wolfcamp dolomites and limestones and the Upper Cisco "Seaman Pay Zone".

Primary reserves of over 30,000,000 barrels of oil are possible of which half would be in the Lower Paleozoic and half in the Wolfcamp-Pennsylvanian section. Potential gas reserves in the Atoka and Morrow sands have not been estimated.

In view of the 300 feet of seismic west dip at the Wolfcamp level, the number of Wolfcamp-Pennsylvanian objectives, and the strong stratigraphic trap possibilities, it is recommended that a 10,800 foot Mississippian test be drilled in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 6, T-18-S, R-29-E on a three-section working interest unit covering Sections 5 and 6, T-18-S, R-29-E and Section 31, T-17-S, R-29-E. If structural conditions warrant, the well should be continued to the Devonian and Ellenburger formations.

--2--

Alternatively, as recommended by Mr. Colin McMillan, who made the seismic interpretations, "a minimum program of 7 miles of stacked digital vibroseis could be run north-south and east-west across the apex of the seismic anomaly at an estimated cost of \$10,000 to \$12,000."

In any event, with a possible 30,000,000 barrel accumulation at stake, either of the above courses of action is warranted, assuming that the recommended working interest unit can be assembled.

II. STRUCTURE

A north-south seismic anticline at the Devonian level, 3 miles long and 2 to 3 miles wide, with a suggested 450 feet of closure covering about 5 sections, is the structural basis for the South Empire Prospect (Encl. 1). This structure is based upon a review by Mr. Colin McMillan, consulting geophysicist, Roswell, New Mexico, of seismic work by Gulf in 1952 and 1958, and Stanolind in 1952. Mr. McMillan's report is presented as Appendix "A".

Mr. McMillan states that "the measured critical west dip of approximately 600 feet is believed to be reliable," and "approximately 450 feet of suggested north dip. . . . is based on scattered dip segments plus the relationship between shot point values by going around long loops."

When the detailed geologic work comprising most of this report indicated that multiple porous Lower Wolfcamp and Pennsylvanian shelf margins or "reef" trends cross east-west and northeast-southwest through the prospect area, Mr. McMillan reviewed the data at the Wolfcamp-Pennsylvania level and found that "the Stanolind data at the Wolfcamp level across the north end of Section 1, T-18-S, R-28-E. . . . shows approximately 300 feet of critical west dip (see Appendix 2), or slightly more than half the dip shown at the Devonian." Mr. McMillan states further that "the study strengthens the theory that the Devonian structure mapped in the original Empire South Prospect (Encl. 1) is overlain by a Permo-Pennsylvanian nose. Therefore, porosity zones which cross this nose should be considered highly prospective for gas and oil." Mr. McMillan's letter dated May 7, 1968 together with a plat showing the results of a study of the Wolfcamp structure is presented as Appendix "B".

A definite broad terracing and anticlinal nosing is demonstrated over most of the deep seismic structure by well-controlled subsurface structure contouring on top of the San Andres dolomite (Encl. 2).

The eastward-projecting anticlinal nose shown in Section 5, T-18-S, R-29-E, on Enclosure 1 is quite possibly a result of locally higher velocities caused by the pile-up of thick porous dolomites and limestones comprising a number of Lower Wolfcamp shelf margin zones or "reefs" which pass east-west through Sections 5 and 6 (see Encl. 4). The fact that only minor westward nosing is present in Section 1, T-18-S, R-28-E on the west extension of these Wolfcamp trends supports the concept that the 300 feet of west dip indicated by the Wolfcamp seismic control is tectonic in origin and is sufficient to mask most of the high-velocity effect of the Wolfcamp reefing. Several major Lower Wolfcamp structural-stratigraphic traps are a distinct possibility, particularly in Sections 5 and 6, T-18-S, R-29-E, since the Wolfcamp porosity disappears abruptly to the north as demonstrated on Cross Sections A-A¹ and D-D¹.

The anticlinal nose projecting northeast from Section 31, T-17-S, R-29-E is coincident with the area enclosed by the 500-foot contour on the Cisco isopach map (Encl. 6). This 500-foot contour encloses a highly porous carbonate mass comprising most of the Cisco shelf margin or "reef". Wells numbered C-4 through C-9 on Cross Section C-C¹ and Well No. D-5 on Cross Section D-D¹ demonstrate the quality of the Cisco reservoir. Several hundred feet of gross reservoir is possible. A slight anticlinal bulge extending west from Section 31, T-17-S, R-29-E, may be a tectonically-dampened reflection of the west extension of the Cisco reef mass. A major hydrocarbon accumulation is possible in Section 31 in the Cisco "reef" especially since free oil was recovered by drill stem tests in two wells in the Grayburg Deep Area 6 to 7 miles along trend to the northeast (Encl. 6).

In summary, the subsurface structural and stratigraphic evidence taken together with the seismic data indicates a north-south anticline with a steep west flank of tectonic origin probably in early Pennsylvanian time (since there is 600 feet of west dip on the Devonian compared to 300 feet on the Wolfcamp) with structural rejuvenation during Pennsylvanian time and continued tectonic activity to as late as San Andres and Queen Time. The anticlinal noses projecting northeast from the structure on the Devonian seismic map probably are a result of high-velocity "reef" or shelf margin carbonate masses.

In view of the multiplicity of Wolfcamp and Pennsylvanian reservoirs to be discussed in more detail under "Objectives", and the presence of both Devonian and Ellenburger hydrocarbons in similar structures in the Lucky Lake and Henshaw

Fields on the next structural axis to the east, together with the large size of the deep seismic anomaly, this can only be rated as a prospect of major importance.

III. OBJECTIVES

A. General Statement

It would be difficult to place a major structure in Eddy County which would have more objectives than the South Empire structure as the following tabulation indicates:

Primary Objectives

<u>Objective</u>	<u>Depth (Feet)</u>	<u>Potential Reserves (Barrels of Oil)</u>
L. Wolfcamp Shelf Margins	7150-8400	8,000,000
Cisco Shelf Margin	8500	4,000,000
Canyon Shelf Margin	8975	3,200,000
*Devonian Dolomite	11,040	12,000,000
*Ellenburger Dolomite	12,140	4,000,000

Secondary Objectives

Abo "Goodrich Zone" Dolomite	6700	1,000,000
Upper Wolfcamp Carbonates	8100	2,000,000
Upper Cisco "Seaman Pay Zone"	8800	No estimate
Upper Strawn Shelf Margin	9575	No estimate
*Atoka Sandstones	10,000	No estimate (Gas)
*Morrow Sandstones	10,350	No estimate (Gas)

Outstanding shelf margin or "reef" carbonate reservoirs of Lower Wolfcamp (Encl. 4) and Cisco age (Encls. 5 and 6) pass east-west through the prospect and probably account for the nosing on the Devonian seismic map. About 300 feet of seismic west dip coupled with the rapid northward wedge-out of both the Lower Wolfcamp and Cisco porosity zones should create excellent trapping conditions.

The main Canyon shelf margin passes northeastward through the prospect (Encls. 5 and 7), and should contain commercial reservoirs although of less thickness than the Cisco and Lower Wolfcamp zones.

*Depth based upon Devonian Seismic Map.

South of the Lower Wolfcamp reservoirs shown on Enclosure 4, the Upper Wolfcamp, and the Seaman Pay Zone of uppermost Cisco age, are objectives of secondary importance (Cross Section E-E¹).

Cross sections and isopach maps, together with shelf margin maps, have been prepared to show the position and quality of porous facies of Wolfcamp and Pennsylvanian age. All drill stem tests and available porosity data are shown on these cross sections.

Correlations were made using fusulinid data together with physical correlations of good lithologic markers such as those in the Lower Wolfcamp, Lower Strawn, and Chester.

B. PRIMARY OBJECTIVES

1. Lower Wolfcamp Shelf Margins

The multiple Lower Wolfcamp reservoirs expected in Sections 5 and 6, T-18-S, R-29-E are well illustrated on Cross Section A-A¹ in wells A-13, A-14, A-15, and A-16. Enclosure 4 shows that most of these reservoirs are coincident in Sections 5 and 6, T-18-S, R-29-E. These reservoirs are located at the edges of several Lower Wolfcamp shelves in zones of high energy carbonate deposition and later dolomitization and include the Sombrero, Townsend-Kimnitz, Leamex, Baish, "Rake" and A-B-C zone shelf margins. Each of these shelf margins is oil-bearing in either Lea or Eddy County.

On the Devonian seismic map, the anti-clinal nose projecting eastward through Section 5, T-18-S, R-29-E, and the minor nose in Section 1, T-18-S, R-28-E are probably a reflection of the pile-up of Lower Wolfcamp carbonate facies associated with these shelf margins (Encl. 4).

The 300 feet of seismic west dip at the Wolfcamp level along the north line of Section 1, T-18-S, R-29-E, coupled with the very rapid northward wedge-out of the Lower Wolfcamp porosity zones should create excellent traps of major importance in Sections 5 and 6, T-18-S, R-29-E.

The Sombbrero shelf margin is clearly defined by well penetrations in the Grayburg Deep Area, and its trend is through Section 31, T-17-S, R-29-E, whereas, the younger and main bulk of Lower Wolfcamp shelf margins are developed about a mile further south. Cross section D-D¹ shows the predominant shelf faces in the Grayburg Deep Area, and the southward development of good reservoirs in well D-11.

Cross section C-C¹ shows the predominantly shelf facies in the deep tests in the southwest part of T-17-S, R-28-E except for the Sombbrero and Saunders-Henshaw Zones. Some oil has been produced from thin porous zones in the "Rake" in this area.

As is shown on Cross-Section B-B¹, all of the post-Sombbrero shelf margins pass between wells B-10 and B-11 thus fixing accurately the positions of these trends in this locality.

The Lower Wolfcamp trends are approximately parallel to the Abo reef trend which helps in positioning the various units along trend. Excellent correlations in the Wolfcamp shelf facies is another important factor in positioning the Lower Wolfcamp trends.

The Upper Wolfcamp section in the Carlsbad shelf is a younger facies deposited, in a low-stand of sea level as shown on Cross-Sections B-B¹ and E-E¹. Oil has been produced from numerous dolomite and limestone mounds in the Upper Wolfcamp as shown on Cross-Section E-E¹. In the south part of the South Empire Prospect, in front of the Lower Wolfcamp shelf margins, reservoirs of this type are expected.

Most of the post-Sombbrero Lower Wolfcamp shelf margins occur in the same belt from the Henshaw Area to the Huapache Monocline. This is probably due to a steep slope at the edge of the basin. Generally, there are several separate reservoirs in spite of this superimposition. Major porous dolomites of Lower Wolfcamp Age are present along trend to the southwest on the west side of Indian Basin Field, and in Section 1, T-19-S, R-25-E in the Pan American, Matlock No. 1.

These Lower Wolfcamp reservoirs are probably the best post-Devonian objectives in the South Empire prospect because of an excellent productive history to the east in Lea County

2. Cisco Shelf Margin

The Cisco Shelf Margin porosity trend is shown in light blue on Enclosure 6. An idea as to the magnitude of this reservoir is apparent in wells C-4 through C-9 on Cross Section C-C¹, and Well D-5 on Cross Section D-D¹. A further example is Well A-12 on A-A¹.

As shown by the isopach of the Cisco series (Encl. 6), the thickest reservoir development should be in Section 31, T-17-S, R-29-E in the north part of the South Empire Structure. This conforms with a seismic nose in this area probably due to high velocities. Porosity can also be expected in the north half of Section 6, T-18-S, R-29-E, and in Section 30, T-17-S, R-29-E.

Two wells were completed in the Cisco in the Henshaw Deep Unit in T-16-S, R-30-E, and free oil was recovered on DST in two wells in the Grayburg Deep Unit immediately northeast of the prospect (Encl. 6). Oil and gas-distillate is present in the Upper Cisco Seaman Pay Zone in the area south of the South Empire Prospect.

If structural movement took place at the right time, these major reservoirs in the Cisco could be oil-productive in the South Empire Area. The 300 feet of west dip at the Wolfcamp level indicates that a trap may be present since the porosity in the Cisco diminished rapidly to the north as is evident on Cross-Section D-D¹.

As much as 400 feet of gross porosity is possible in the Cisco in Section 31, T-17-S, R-29-E so that a major field is possible in light of the oil recoveries in the Grayburg Deep Area to the east.

3. Canyon Shelf Margin

The northeast trend of the main Canyon Shelf margin is demonstrated by the isopach contours of the Canyon on Enclosure 7. This

northeast trend is further demonstrated by intersection of the shelf margins of the Canyon by Cross Sections A-A¹, B-B¹, and D-D¹.

Important porosity developments in the Canyon shelf margin carbonates are shown by Wells B-11 and B-12 on B-B¹. Cross Section D-D¹ presents a profile through the Canyon shelf margins in the Grayburg Deep Area immediately northeast of the South Empire Prospect. The facies expected in the Canyon in the South Empire Area should be very similar to that in the wells on the west end of D-D¹. Several zones of porosity can be expected, and it is possible that the structure may result in enhancement of the porosity, particularly if it were effective during the time of deposition. Briefly stated, the porosity in the South Empire Area will probably not be as good as it is further southwest in E-11 and E-12 of E-E¹, and it should be somewhat better than the porosity shown in the Canyon on D-D¹. Overall, the Canyon porosity diminishes from a maximum in the Canyon Bank in T-18-S and T-19-S, R-27-E to considerably less in the Grayburg Deep Area.

Gas shows have been found in the Canyon Bank area to the southwest, and a major gas field is present in the Canyon at Indian Basin Field to the southwest. Oil and gas shows are present in the north part of the Henshaw Area

4. Devonian Dolomite

A field of substantial size is possible in the Devonian in the South Empire Area based upon the 5-section seismic anomaly in this area which has been discussed under the structural heading of this report.

Three areas produce or have produced on similar structures along the Lucky Lake-Henshaw-Sugart-Lusk Trend to the east. Oil is present at Lucky Lake and gas-distillate

at Henshaw and Sugart. In view of the proximity of these fields, the South Empire structure would appear to have an excellent potential.

The requirements for Devonian hydrocarbon production would seem to be met since,

- 1) The closure covers 5 sections
- 2) Over 300 feet of closure is possible
- 3) Major Devonian reservoirs are present at or very near the top of the Devonian east, west, and north of the prospect.
- 4) The structure appears to be of early Pennsylvanian age in large part.

Dips in all directions are indicated by the seismic work, although the amount of north dip is not clearly determined.

Since there is ample reason to drill a test through the Morrow to the Mississippian Limestone and the Mississippian top should indicate the structural position of the Devonian, additional seismic work might be relatively academic.

5. Ellenburger Dolomite

The Ellenburger has produced gas and distillate in the Lucky Lake Area, and oil was recovered on a drill stem test in the Shell, Henshaw Deep Unit No. 1. In both of these areas, the Ellenburger is relatively tight. However, a large water recovery in Pan American, State 1-"AD", Section 10, T-19-S, R-28-E indicates a good reservoir to the south and water on DST in the Gulf, Federal General American #1, Section 24, T-17-S, R-29-E shows a reservoir to the east.

Should Devonian production be obtained or a good structural position be indicated, the Ellenburger should be tested. In the Midland Basin it is possible to produce water from the Devonian and oil from the Ellenburger.

C. SECONDARY OBJECTIVES

1. The Abo "Goodrich Zone"

The trend of this porosity zone is shown on Enclosure 4, and it will probably pass through Section 6, T-18-S, R-29-E. This

zone occurs in the first 150 feet above the Third Bone Spring Sandstone, and it passes into the middle Abo at Dayton field in T-18-S, R-26-E. It is productive in the southeast part of T-18-S, R-26-E.

The "Goodrich Zone" can be seen on Cross Section B-B¹ in Well B-12 where a drill stem test yielded 5400 feet of salt water with initial and a final shut in pressures of 2745 pounds. This zone is present and yielded water on DST in the Odessa well in Section 36, T-17-S, R-30-E to the east of the South Empire prospect. It is a regional porosity zone which has been traced from the South Henshaw area to the Indian Basin Field.

In addition to the "Goodrich Zone" production is possible from mounds and/or detrital zones derived from the Abo reef, although most of the so-called "Abo detrital" fields in Lea County, such as Midway, Double-X, and Buckeye Fields really produce from a low-stand shelf margin in the Lower Clearfork or Yeso.

Sufficient nosing is probably present at the Abo level to produce a structural-stratigraphic trap in the "Goodrich Zone" in the South Empire Area.

2. Upper Wolfcamp Carbonate

The Upper Wolfcamp carbonates include massive dolomite and limestone mounds which were deposited during a low sea level stand following deposition of the Lower Wolfcamp shelf and shelf margin facies. Thus the Upper Wolfcamp laps up against the Lower Wolfcamp.

Although many of these thick but areally restricted Upper Wolfcamp carbonate mounds have proven to be limited reservoirs, the facies adjacent to the Lower Wolfcamp margins on the flank of the basin may contain more continuous reservoirs. Therefore, the area south of the Lower Wolfcamp shelf margins on the South Empire structure offers distinct producing possibilities, especially since oil has been produced from Upper Wolfcamp dolomite reservoirs immediately to the south in T-18-S, R-29-E as shown on Cross Section E-E¹.

The structurally positive condition in the South Empire area may have been particularly conducive to the development of a large bank of porous carbonate in Upper Wolfcamp time since this structure is also in the more favorable basin-flank area.

3. Upper Cisco "Seaman Pay Zone"

This zone is oil-bearing and gas-distillate bearing in several wells immediately to the south and southwest of the South Empire Prospect in T-18-S, R-29-E and T-19-S, R-28-E.

The "Seaman Pay Zone" was deposited in a low-stand of sea level following the development of the main Cisco shelf margin or "reef". At the time of Seaman deposition, the main Cisco shelf was probably exposed. In the Artesia area and southwest toward Indian Basin, large amounts of clastics were dumped over the main Cisco shelf edge into the basin at this time. Proximity to the Pedernal Land Mass of this area facilitated this process. The "Seaman Pay Zone" developed in the clear waters to the east.

South of the main Cisco development shown on Enclosure 6, the "Seaman Pay Zone" will be an objective. It could be exceptionally well developed over the South Empire structure, so it is a better than average objective. Generally, as in the Upper Wolfcamp, it contains thick carbonate mounds of limited areal extent apparently due to a bathymetric condition which permitted as much as 100 feet of vertical growth, but very limited horizontal growth.

The structure at South Empire could have resulted in extensive horizontal development and, therefore, a better than average reservoir development.

4. Upper Strawn Objective

Although a major massive carbonate development is present in the Upper Strawn shelf margin as shown by Cross Sections B-B¹ and E-E¹, only two wells, B-12 and E-1 have penetrated these carbonates. Shows were found on drill stem tests in both of these wells, but porosity

in both cases is poorly developed. It is probable that neither of these two wells penetrated the optimum position for porosity in the Upper Strawn shelf margin. Some dolomite was present in E-1 indicating that a porous dolomite facies is possible locally.

All wells in the Grayburg Deep Area north of the South Empire Area have a basin facies, as do the wells south and southwest of the prospect (Encl. 8). On the other hand, the deep well group to the west in T-17-S, R-28-E around the Pan American, State 1-AB have a shelf facies. It is therefore evident that the Upper Strawn shelf margin must pass between, and, therefore, through a part of the South Empire Prospect. Although the structure may have been effective in Upper Strawn time so that there is a possibility that the Upper Strawn shelf margin carbonates cover the structure, it would be prudent to look for this zone in the NW $\frac{1}{4}$ of Section 31, T-17-S, R-29-E.

Since major porosity is yet to be proven in this zone in this area, the Upper Strawn is regarded as a secondary objective. It might be pointed out, however, that shows are present in the Pecos Deep Unit to the southwest, and major reservoirs have been found between the Pecos Deep Unit and the Huapache monocline.

5. Atoka Sandstone

Several permeable sandstones are present in the Henshaw Field and south of Henshaw Field in the Atoka series as shown on Cross Section A-A¹. Permeable sands are also present in the Atoka in the east part of the Grayburg Deep Area. Permeable sands are absent in the Pan Am, AB area and Chalk Bluff areas at this level.

There is a moderate chance for sand developments in the South Empire Area and oil or gas production is possible.

6. Morrow Sandstones

The South Empire Area lies in an important Morrow producing belt which includes Dayton

Field, Chalk Bluff, the Pan Am, State 1-"AB", two wells in the Grayburg Deep Area, and four wells in the Henshaw South Area.

Both beach and thick channel sands are productive. Thick channel sands lie both to the east and west of the prospect (see Encl. 9). Outstanding production was found in the Pan Am, State 1-"AB" from a 72-foot channel which has yielded 19 billion cubic feet of gas rich in distillate, with an additional 13 billion CFG in reserve.

The presence of an anticlinal structure in the South Empire area considerably enhances the Atoka and Morrow gas possibilities.

An isopach of the interval from the top of the Lower Strawn Limestone to the Mississippian Chester Dunken Cycle is presented as Enclosure 9. A suggested isopach thin is present in the South Empire Area suggesting possible early Pennsylvanian structural activity.

IV. POSSIBLE PRIMARY RESERVES

Potential reserves on this prospect are so large, because of the size of the structure and the multiplicity of reservoirs, that only an approximate estimation is required.

Approximately two sections could produce from the Devonian. Assuming 80 acre spacing and 750,000 barrels of oil per well, a reserve of 12,000,000 barrels results. If the Ellenburger reservoir is about one-third as good as the Devonian, a reserve of 4,000,000 barrels is reasonable.

The Lower Wolfcamp could produce over a 2-section area in Sections 5 and 6, T-18-S, R-29-E. Assuming reservoir development of at least 100 feet and, therefore, about 500,000 barrels of oil per well on 80 acre spacing, 8,000,000 barrels of oil is possible.

The Cisco shelf margin can have up to 400 feet of gross porous section. Assuming 100 feet of pay in Section 31, T-17-S, R-29-E and 80 acre spacing, a primary reserve of about 4,000,000 barrels of oil results.

The Canyon should average about 50 feet of porosity over a 2-section producing area giving a potential for perhaps 3,200,000 barrels of oil.

Without considering a number of secondary objectives, over 30,000,000 barrels of oil is possible.

Gas production from the Morrow and Atoka sandstones is not estimated.

V. RECOMMENDATIONS

In view of the presence of a very large deep seismic anomaly in the South Empire Area, the indication of 300 feet of west dip at the Wolfcamp level, and the presence of major primary objectives in the Wolfcamp, Cisco, Canyon, Devonian, and Ellenburger, and good secondary objectives in the Middle Abo, Upper Wolfcamp, Upper Cisco, Upper Strawn, Atoka, and Morrow, it is recommended that a well be drilled 660FN ad 1650 FEL of Section 6, T-18-S, R-29-E to 10,500 feet or the top of the main Mississippian Limestone, and if structural conditions on the Mississippian warrant, the well should be carried to the Devonian and possibly to the Ellenburger.

Alternatively, east-west and north-south seismic lines, using the latest seismic techniques should be shot to verify the presence of the structure. Cost for this work estimated at about \$10,000 to \$12,000.

The drilling of a Mississippian test is preferred since critical west dip is satisfactorily established at both the Devonian and Wolfcamp levels, and north dip is not critical to hydrocarbon entrapment in the Lower Wolfcamp reservoirs and most of the Pennsylvanian reservoirs.

Prepared for Harvey E. Yates

by



Mark D. Wilson

APPENDIX "A"

December 6, 1967

Yates Petroleum Corporation
Yates Building
Artesia, New Mexico

Empire South
Eddy County, New Mexico

Gentlemen:

The following report and the Devonian adjusted map represent the results of a seismic review of the above area.

Geology

This area is located on the south flank of the Artesia Vacuum trend in the vicinity of the prolific Empire Abo Reef Field. Regional dip on all beds is generally south and east.

In addition to the Abo Reef, the upper Permian produces from several zones. Although of lesser quality, production in the Raddock, Wolfcamp, Atoka and "Brown Dolomite Above Reef" (see Symposium of Oil and Gas Fields--S.E. N.M. 1960) has been encountered in the vicinity of the Empire Abo Field. Of significance is the Trigg No. 5 Bivley (1980 L & W, Section 20, T18S - R29E). This well flowed oil on DST from the Wolfcamp and was eventually completed as a marginal Wolfcamp producer. In addition this well encountered shows of oil and gas in the Cisco formation.

Although not productive in this area, it should be noted that production has been encountered in an Abo Reef Detrital zone in several areas on the south flank of the Vacuum Field and of the Lovington Field. This production is 1/2 to 3 miles south of the main Abo Reef body and generally associated with deeper structural trends.

Field and Computing Techniques

Three sets of data appear on the enclosed map and each set may be identified from the legend. The Stanolind data was shot in 1952 using a single hole offset one mile in line with the center of the geophone spread. This data was transcribed by Independent Exploration Company and played out with statics and dynamics applied using a 20 x 47 single cut filter and a 25 - 50 - 25 mix. This data was shot using a 9 trace field layout and recorded on a 36 trace oscillograph with different filter and gain selections on at least 2 of the 4 presentations. The widest band filter pass was transcribed in nearly every instance.

The Gulf data (1952) was shot single hole, 1/3 mile split spread, 24 traces, and 8 geophones per trace. The Gulf data (1958) was shot using 2 to 5 deep

holes, a 1/2 mile split spread, 24 traces and 32 geophones per trace. This data was recorded on magnetic tape and played out using a 2/47 filter with statics and dynamics applied.

All data was computed to a 3500 feet above sea level datum using the uphole-geophone computing technique.

Weathering

Depth of weathering varied from 50 to 250 feet within the project area. A detailed weathering study was made using available uphole and "P" wave data. It is believed that all shots were placed below the weathered layer and that weathering variations were therefore properly compensated for.

Record Quality

The Stanolind data is generally of fair quality. The Gulf (1958) data varied from good to fair with some poor data. The Gulf (1952) data was fair to poor. In those areas of the interpretation where the Gulf (1952) data shows dip arrows instead of values at shot points, the interpretation is open to some question.

Velocity

Velocity control was available in the Stanolind AB well in the northwest portion of the project and the Trigg - Sivley well in the southeast part of the project. An adequate amount of regional velocity data was available in the vicinity of the prospect to allow for proper velocity corrections.

Velocity increases from the Basin toward the Abo Reef trend. It was therefore necessary to tilt the Devonian down to the north to compensate for the increase in velocity in this direction.

Results

6-18-29

This anticlinal fold measures approximately 600 feet of critical west dip and shows approximately 450 feet of suggested north dip.

The measured west dip is believed to be reliable. However the north dip is based on scattered dip segments plus the relationship between shot point values determined by going around long loops.

The strong points of this prospect include the following:

1. The Grayburg - San Andres production which has been trending east - west through the Loco Hills Field changes to a southwest trend over the south-east flank of the Devonian seismic high.

2. The Empire Abo trend changes from a southwest - northeast trend to a southeast - northwest trend across the northern flank of the Devonian seismic high, i.e. it tends to wrap around the north end of the seismic high.
3. The upper Permian beds indicate an east plunging nose across the bottom of Section 6, T18S - R29E.
4. At least 6 horizons are known to produce in the vicinity of the above anomaly. In addition the Cisco horizon gave up oil and water from the Trig - Sivley (20-18-29) a marginal oilcamp producer on the south flank of the prospect area.
5. The measured west seismic dip of approximately 600 feet is believed to be reliable.

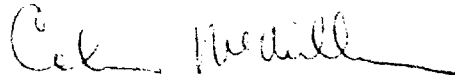
The weak points of this anomaly are as follows:

1. The north dip on the anomaly is very poorly controlled.
2. Seismic anomalies in Addy County have historically had a poor history for favorable results. (It should be pointed out however, that major breakthroughs have been made in seismic exploration in the last five years which should lead to considerable data enhancement in this area with new shooting.)

Recommendations

1. It is recommended that a detailed subsurface study be done to determine the location of major reef trends known to exist in the general vicinity of this prospect.
2. If the geological study results are favorable, it is recommended that a minimum program of 7 miles of stacked digital vibroseis be run north - south and east - west across the apex of the seismic anomaly. The estimated cost of this work is \$10,000 to \$12,000.

Very truly yours,



Colin McMillan

APPENDIX "B"

May 7, 1968

RECEIVED
MAY 7 1968

Travis Deep Project

Mr. Harvey Yates
Yates Building
Artesia, New Mexico

Re: Empire South Prospect
Eddy County, New Mexico

Dear Mr. Yates:

Enclosed is a plat showing the results of a study of the Wolfcamp zone within the subject prospect area.

All of the data on the original Empire South prospect lying within T17 & 18S-R29E and the western tier of Sections in T17 & 18S-R28E were studied with the idea in mind of constructing a Wolfcamp map. Unfortunately the Wolfcamp reflector was not of sufficient quality within the prospect area to come up with any meaningful dips on the Gulf data in the area of interest. However, the Stanolind data across the north end of Section 1, T18S-R28E was of sufficient quality to make a dip map of that line. The dips shown on the enclosed plat represent the average dips within the Wolfcamp zone. It is of some interest that this line shows approximately 300 feet of critical west dip or slightly more than one half the critical dip shown at the Devonian.

The above study strengthens the theory that the Devonian structure mapped on the original Empire South Prospect is overlain by a Permo-Pennsylvanian nose. Therefore porosity zones which cross this nose should be considered highly prospective for oil and gas.

Very truly yours,

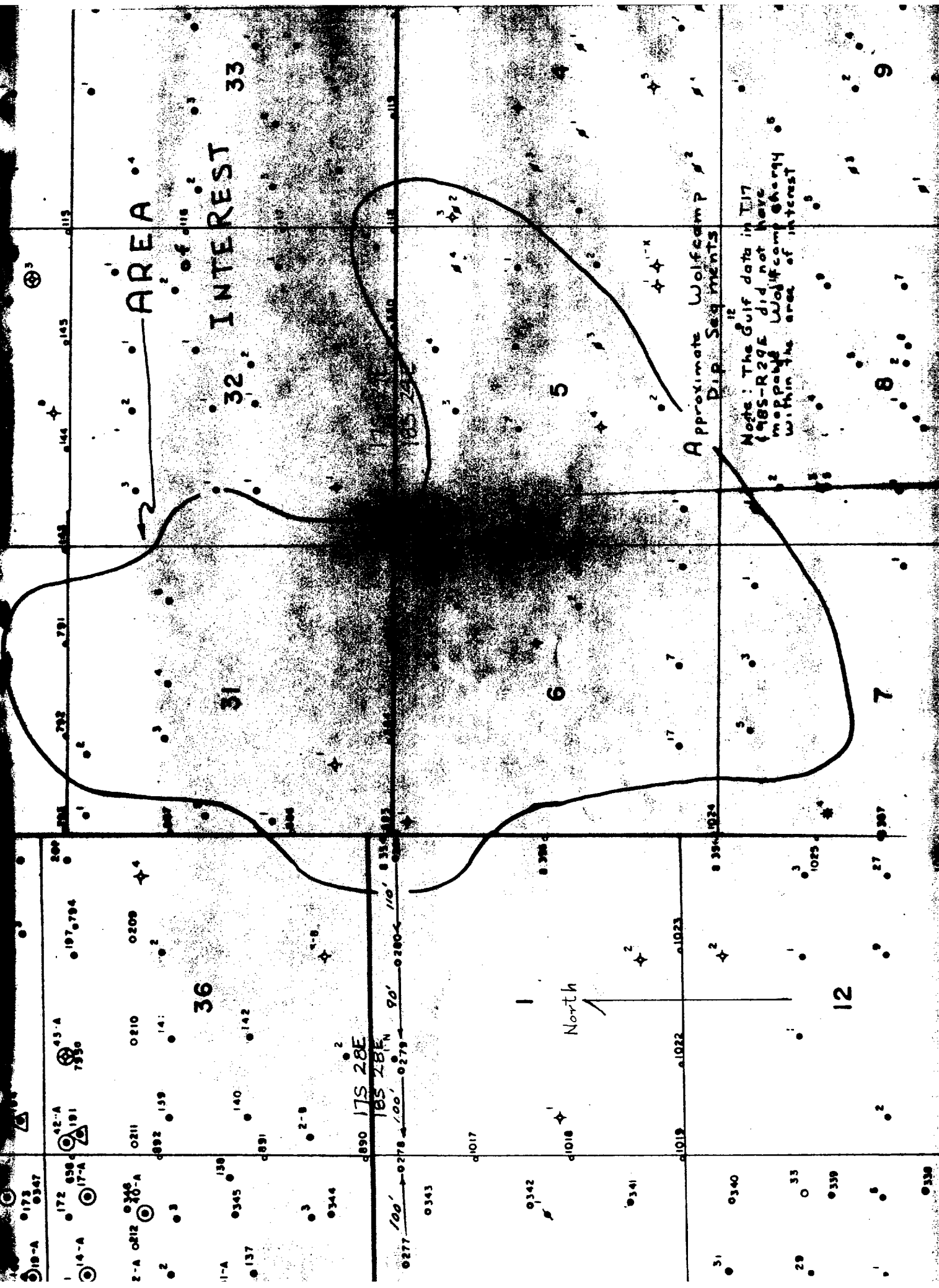


Colin McMillan

CM/jb

AREA
32 INTEREST 33

Approximate Wolfcamp
Dip Segments
Note: The Gulf data in T17
(98S-R29E) did not have
magnetic Wolfcamp energy
within the area of interest



RECEIVED
SEP 20 1971

OIL CONSERVATION COMM.
SANTA FE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

EMPIRE SOUTH DEEP UNIT

EDDY COUNTY, NEW MEXICO

There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, the attached Agreement for the development and operation of acreage which is described within the attached Agreement, dated July 28, 1971, which said Agreement has been executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the state, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 7-11-39, 7-11-40, 7-11-41, 7-11-47, and 7-11-48, New Mexico Statutes Annotated, 1953 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, do hereby consent to and approve the said Agreement, however, such consent and approval being limited and restricted to such lands within the Unit Area, which are effectively committed to the Unit Agreement as of this date, and, further, that leases insofar as the lands covered thereby committed to this Unit Agreement shall be and the same are hereby amended to conform with the terms of such Unit Agreement, and said leases shall remain in full force and effect in accordance with the terms and conditions of said Agreement. This approval is subject to all of the provisions and requirements of the afore-said statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 1st. day of September, 19 71.



Alfred J. Ramirez
COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

9/14/71

Unit Name EMPIRE SOUTH DEEP UNIT (EXPLORATORY)
Operator MIDWEST OIL CORPORATION
County EDDY

4275

dec

DATE	OCC CASE NO. 4578	EFFECTIVE DATE	TOTAL ACREAGE	STATE	FEDERAL	SENDER-FEE	SEGREGATION CLAUSE	TERM
APPROVED	OCC. ORDER NO. R-4185	9-13-71	4,967.87	1,992.22	2,655.65	320.00	Yes	5 yrs.
Commissioner	8-25-71							
9-1-71								

UNIT AREA

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM
SECTION 36: E/2

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM
SECTION 30: All
Section 31: All
SECTION 32: All
SECTION 33: SW/4

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM
SECTION 1: All
SECTION 12: NE/4

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM
SECTION 4: NW/4
SECTION 5: All
Section 6: All
Section 7: N/2
Section 8: NW/4

Unit Name EMPIRE SOUTH DEEP UNIT (EXPLORATORY)
 Operator MIDWEST OIL CORPORATION
 County EDDY

STATE TRACT NO.	LEASE NO.	INST-TUTION	SEC.	TWP.	RGE.	SUBSECTION	RATIFIED DATE	ACRES	ACREAGE NOT RATIFIED	LESSEE
20.	647-368	C.S.	36	17S	28E	NE/4, N/2SE/4	8-16-71 8-19-71	240.00		Depco, Inc. and Husky Oil Company
21.	2029-6	C.S.	1	18S	28E	NW/4NW/4, SW/4SW/4, N/2SE/4	8-20-71 8-5-71	160.00		Cities Service Oil Co & Myrtle McCann Lar Est. Tenneco Oil Company
22.	B-2023-10	C.S.	32	17S	29E	SW/4SW/4	8-23-71	40.00		Amoco Production Co
23.	B-2023-13	C.S.	32	17S	29E	SW/4NE/4	8-27-71	40.00		Harvey E. Yates Co.
24.	B-4458-33	C.S.	31	17S	29E	SE/4SW/4	7-30-71	40.00		Mrs. Irene Cowell
25.	B-4918-85	C.S.	32	17S	29E	NW/4SW/4	8-18-71	40.00		M. W. Smith and Kathleen Miller
26.	B-4918-100	C.S.	32	17S	29E	NE/4SW/4	8-13-71	40.00		Harold Kersey
27.	B-4918-98	C.S.	32	17S	29E	SE/4SW/4	8-20-71	40.00		Featherstone Farms, Inc.
28.	B-5084-134	C.S.	32	17S	29E	SE/4SE/4	8-5-71	40.00		P. J. Vidal
29.	B-5084-95	C.S.	32	17S	29E	NE/4SE/4	8-12-71	40.00		M. W. Smith and Kathleen Miller
30.	B-5084-135	C.S.	32	17S	29E	SW/4SE/4	8-13-71 8-13-71	40.00		Continental Oil Co.
31.	B-7596	C.S.	30	17S	29E	Lot 4 (SW/4SW/4) SE/4SW/4	8-20-71	68.40		

Unit Name EMPIRE SOUTH DEEP UNIT (EXPLORATORY)
 Operator MIDWEST OIL CORPORATION
 County EDDY

STATE TRACT NO.	LEASE NO.	INSTI-TUTION	SEC.	TWP.	RGE.	SUBSECTION	RATIFIED DATE	ACRES	ACREAGE NOT RATIFIED	LESSEE
32.	E-7640-3	C.S.	32	17S	29E	SW/4NW/4	8-23-71	40.00		Tenneco Oil Company
33.	B-11593-8	C.S.	36	17S	28E	SE/4SE/4	8-13-71	40.00		Sun Oil Company
34.	E-537-5	C.S.	32	17S	29E	N/2NW/4, SE/4NW/4	8-12-71 8-12-71	120.00		Leland Wittkopp and Virginia L. Wittkopp
35.	E-949	C.S.	36	17S	28E	SW/4SE/4	8-24-71	40.00		Atlantic Richfield Co.
36.	E-1284-3	C.S.	1	18S	28E	W/2NE/4, E/2NW/4, SW/4NW/4, N/2SW/4, SE/4SW/4, SW/4SE/4	7-30-71	360.00		Harvey E. Yates Co.
37.	E-4201	C.S.	30 31 32	17S 17S 17S	29E 29E 29E	Lots 1, 2, 3, E/2NW/4 S/2SE/4 SE/4NE/4, NW/4SE/4,	8-20-71	323.82		Continental Oil Co.
38.	E-6946-2	C.S.	1	18S	28E	E/2NE/4	7-30-71	80.00		Harvey E. Yates Co.
39.	E-7664-2	C.S.	32	17S	29E	NE/4NE/4	8-13-71 8-13-71	40.00		M. W. Smith and Kathleen Miller
40.	L-1645-1	C.S.	1	18S	28E	SE/4SE/4	8-9-71	40.00		Anadarko Prod. Co.
41.	OG-181-1	C.S.	30 32	17S 17S	29E 29E	NE/4SW/4 NW/4NE/4	7-30-71	80.00		Harvey E. Yates Co.

Case 4578

UNIT AGREEMENT FOR THE DEVELOPMENT
AND OPERATION OF THE EMPIRE SOUTH DEEP UNIT AREA
COUNTY OF EDDY, STATE OF NEW MEXICO

INDEX

<u>Section</u>	<u>Title</u>	<u>Page</u>
	Preliminary recitals	1
1	ENABLING ACT AND REGULATIONS	2
2	UNIT AREA	3
3	UNITIZED LAND AND UNITIZED SUBSTANCES	6
4	UNIT OPERATOR	6
5	RESIGNATION OR REMOVAL OF UNIT OPERATOR	6
6	SUCCESSOR UNIT OPERATOR	8
7	ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT	9
8	RIGHTS AND OBLIGATIONS OF UNIT OPERATOR	10
9	DRILLING TO DISCOVERY	10
10	PLAN OF FURTHER DEVELOPMENT AND OPERATION	11
11	PARTICIPATION AFTER DISCOVERY	13
12	ALLOCATION OF PRODUCTION	15
13	DEVELOPMENT OR OPERATION OF NON-PARTICIPATING LAND OR FORMATIONS	17
14	ROYALTY SETTLEMENT	17
15	RENTAL SETTLEMENT	19
16	CONSERVATION	20
17	DRAINAGE	20
18	LEASES AND CONTRACTS CONFORMED AND EXTENDED	20
19	COVENANTS RUN WITH LAND	24
20	EFFECTIVE DATE AND TERM	25
21	RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION	26
22	APPEARANCES	27
23	NOTICES	27
24	NO WAIVER OF CERTAIN RIGHTS	27
25	UNAVOIDABLE DELAY	27
26	NONDISCRIMINATION	28
27	LOSS OF TITLE	28
28	NON-JOINDER AND SUBSEQUENT JOINDER	29
29	COUNTERPARTS	30
30	SURRENDER	30
31	TAXES	32
32	CONFLICT OF SUPERVISION	32
33	NO PARTNERSHIP	33

Exhibit "A" (Map)

Exhibit "B" (Description of interests subject to agreement)

BEFORE EXAMINER

4578

UNIT AGREEMENT

FOR THE DEVELOPMENT AND OPERATION

OF THE

EMPIRE SOUTH DEEP UNIT AREA

COUNTY OF EDDY

STATE OF NEW MEXICO

NO. _____

THIS AGREEMENT, entered into as of the ____ day of _____,
1971, by and between the parties subscribing, ratifying, or con-
senting hereto, and herein referred to as the "parties hereto,"

W I T N E S S E T H:

WHEREAS, the parties hereto are the owners of working,
royalty, or other oil and gas interests in the unit area sub-
ject to this agreement; and

WHEREAS, the Mineral Leasing Act of February 25, 1920, 41
Stat. 437, as amended, 30 U.S.C., Secs. 181 et seq., authorizes
Federal lessees and their representatives to unite with each
other, or jointly or separately with others, in collectively
adopting and operating a cooperative or unit plan of develop-
ment or operation of any oil or gas pool, field, or like area,
or any part thereof for the purpose of more properly conserving
the natural resources thereof whenever determined and certified
by the Secretary of the Interior to be necessary or advisable
in the public interest; and

WHEREAS, the Commissioner of Public Lands of the State of
New Mexico is authorized by an Act of the Legislature (Sec. 1,
Chap. 162, Laws of 1951, and Secs. 1 and 2, Chap. 176, Laws of
1961, See Sections 7-11-39, 40 and 41 New Mexico Statutes, 1953
Annotated) to consent to or approve this agreement on behalf of
the State of New Mexico, insofar as it covers and includes lands
and mineral interests of the State of New Mexico; and

1 WHEREAS, the Oil Conservation Commission of the State of New 1
2 Mexico is authorized by Act of Legislature (Chap. 168, Laws 1949) 2
3 to approve this agreement and the conservation provisions hereof; 3
4 and; 4
5 WHEREAS, the parties hereto hold sufficient interests in the 5
6 Empire South Deep Unit Area covering the land hereinafter des- 6
7 cribed to give reasonably effective control of operations therein; 7
8 and 8
9 WHEREAS, it is the purpose of the parties hereto to conserve 9
10 natural resources, prevent waste, and secure other benefits ob- 10
11 tainable through development and operation of the area subject to 11
12 this agreement under the terms, conditions, and limitations herein 12
13 set forth; 13
14 NOW, THEREFORE, in consideration of the premises and the 14
15 promises herein contained, the parties hereto commit to this 15
16 agreement their respective interests in the below-defined unit 16
17 area, and agree severally among themselves as follows: 17
18 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act 18
19 of February 25, 1920, as amended, supra, and all valid pertinent 19
20 regulations, including operating and unit plan regulations, here- 20
21 tofore issued thereunder or valid, pertinent, and reasonable 21
22 regulations hereafter issued thereunder are accepted and made 22
23 a part of this agreement as to Federal lands, provided such regu- 23
24 lations are not inconsistent with the terms of this agreement; and 24
25 as to non-Federal lands, the oil and gas operating regulations 25
26 in effect as of the effective date hereof governing drilling and 26
27 producing operations, not inconsistent with the terms hereof or 27
28 the laws of the State in which the non-Federal land is located, 28
29 are hereby accepted and made a part of this agreement. 29

1 2. UNIT AREA. The area specified on the map attached here- 1
2 to marked Exhibit A is hereby designated and recognized as con- 2
3 stituting the unit area, containing 4,967.87 acres, more or less. 3

4 Exhibit A shows, in addition to the boundary of the unit 4
5 area, the boundaries and identity of tracts and leases in said 5
6 area to the extent known to the Unit Operator. Exhibit B at- 6
7 tached hereto is a schedule showing, to the extent known to the 7
8 Unit Operator, the acreage, percentage, and kind of ownership of 8
9 oil and gas interests in all land in the unit area. However, 9
10 nothing herein or in said schedule or map shall be construed as 10
11 a representation by any party hereto as to the ownership of any 11
12 interest other than such interest or interests as are shown in 12
13 said map or schedule as owned by such party. Exhibits A and B 13
14 shall be revised by the Unit Operator whenever changes in the 14
15 unit area render such revision necessary, or when requested by 15
16 the Oil and Gas Supervisor, hereinafter referred to as "Super- 16
17 visor" and not less than five copies of the revised exhibits shall 17
18 be filed with the Supervisor, and two copies each with the Com- 18
19 missioner of Public Lands of the State of New Mexico, hereinafter 19
20 referred to as the "Commissioner," and the Oil Conservation Com- 20
21 mission, hereinafter referred to as "Commission." 21

22 The above-described unit area shall when practicable be 22
23 expanded to include therein any additional lands or shall be 23
24 contracted to exclude lands whenever such expansion or con- 24
25 traction is deemed to be necessary or advisable to conform with 25
26 the purposes of this agreement. Such expansion or contraction 26
27 shall be effected in the following manner: 27

28 (a) Unit Operator, on its own motion or on demand of 28
29 the Director of the Geological Survey, hereinafter referred to 29
30 as "Director," or on demand of the Commissioner after prelimin- 30
31 ary concurrence by the Director, shall prepare a notice of 31

1 proposed expansion or contraction describing the contemplated 1
2 changes in the boundaries of the unit area, the reasons there- 2
3 for, and the proposed effective date thereof, preferably the 3
4 first day of a month subsequent to the date of notice. 4

5 (b) Said notice shall be delivered to the Supervisor 5
6 and the Commissioner and copies thereof mailed to the last known 6
7 address of each working interest owner, lessee, and lessor whose 7
8 interests are affected, advising that 30 days will be allowed for 8
9 submission to the Unit Operator of any objections. 9

10 (c) Upon expiration of the 30-day period provided in 10
11 the preceding item (b) hereof, Unit Operator shall file with the 11
12 Supervisor and the Commissioner evidence of mailing of the notice 12
13 of expansion or contraction and a copy of any objections thereto 13
14 which have been filed with the Unit Operator, together with an 14
15 application in sufficient number, for approval of such expansion 15
16 or contraction and with appropriate joinders. 16

17 (d) After due consideration of all pertinent informa- 17
18 tion, the expansion or contraction shall, upon approval by the 18
19 Supervisor and the Commissioner, become effective as of the date 19
20 prescribed in the notice thereof. 20

21 (e) All legal subdivisions of lands (i.e., 40 acres 21
22 by Government survey or its nearest lot or tract equivalent; in 22
23 the instances of irregular surveys unusually large lots or tracts 23
24 shall be considered in multiples of 40 acres or the nearest ali- 24
25 quot equivalent thereof), no parts of which are entitled to be in 25
26 a participating area on or before the fifth anniversary of the 26
27 effective date of the first initial participating area estab- 27
28 lished under this unit agreement, shall be eliminated auto- 28
29 matically from this agreement, effective as of said fifth anni- 29
30 versary, and such lands shall no longer be a part of the unit 30

1 area and shall no longer be subject to this agreement, unless 1
2 diligent drilling operations are in progress on unitized lands 2
3 not entitled to participation on said fifth anniversary, in which 3
4 event all such lands shall remain subject hereto for so long as 4
5 such drilling operations are continued diligently, with not more 5
6 than 90 days' time elapsing between the completion of one such 6
7 well and the commencement of the next such well. All legal sub- 7
8 divisions of lands not entitled to be in a participating area 8
9 within 10 years after the effective date of the first initial 9
10 participating area approved under this agreement shall be auto- 10
11 matically eliminated from this agreement as of said tenth anni- 11
12 versary. All lands proved productive by diligent drilling opera- 12
13 tions after the aforesaid 5-year period shall become participating 13
14 in the same manner as during said 5-year period. However, when 14
15 such diligent drilling operations cease, all nonparticipating 15
16 lands shall be automatically eliminated effective as of the 91st 16
17 day thereafter. The Unit Operator shall within 90 days after 17
18 the effective date of any elimination hereunder, describe the 18
19 area so eliminated to the satisfaction of the Supervisor and the 19
20 Commissioner and promptly notify all parties in interest. 20

21 If conditions warrant extension of the 10-year period 21
22 specified in this subsection 2(e), a single extension of not 22
23 to exceed 2 years may be accomplished by consent of the owners 23
24 of 90% of the working interests in the current non-participating 24
25 unitized lands and the owners of 60% of the basic royalty 25
26 interests (exclusive of the basic royalty interests of the 26
27 United States) in nonparticipating unitized lands with 27
28 approval of the Director and the Commissioner, provided such 28
29 extension application is submitted to the Director and the Com- 29
30 missioner not later than 60 days prior to the expiration of said 30
31 10-year period.

Any expansion of the unit area pursuant to this section which embraces lands theretofore eliminated pursuant to this subsection 2(e) shall not be considered automatic commitment or recommitment of such lands.

3. UNITIZED LAND AND UNITIZED SUBSTANCES. All oil and gas in and produced from the hereinabove specified lands committed to this agreement, as to all formations at all depths lying beneath a point 4,200 feet below the top of the San Andres formation, such formation top is hereby identified for the purpose of this agreement at 2,350 feet as shown on the Laterolog-Gamma Ray-Neutron log run on January 13, 1961, by Schlumberger Well Surveying Corporation in the Continental State S-30 No. 1 well located 330 feet from the West line and 2,310 feet from the North line of Section 30, Township 17 South, Range 29 East, N.M.P.M., are unitized and designated as unitized substances under the terms of this agreement and said lands shall constitute lands referred to as Unitized Land or land subject to this agreement.

4. UNIT OPERATOR. Midwest Oil Corporation is hereby designated as Unit Operator and by signature hereto as Unit Operator agrees and consents to accept the duties and obligations of Unit Operator for the discovery, 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 interest in unitized substances, and the term "working interest owner" when used herein shall include or refer to Unit Operator as the owner of a working interest when such an interest is owned by it.

5. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time prior to the establishment of a participating area or areas hereunder, but such

1 resignation shall not become effective so as to release Unit 1
2 Operator from the duties and obligations of Unit Operator and 2
3 terminate Unit Operator's rights as such for a period of 6 months 3
4 after notice of intention to resign has been served by Unit Oper- 4
5 ator on all working interest owners and the Supervisor and the 5
6 Commissioner, and until all wells then drilled hereunder are 6
7 placed in a satisfactory condition for suspension or abandonment 7
8 whichever is required by the Supervisor, as to the wells on 8
9 Federal lands, the Commissioner as to the wells on State lands, 9
10 unless a new Unit Operator shall have been selected and approved 10
11 and shall have taken over and assumed the duties and obligations 11
12 of Unit Operator prior to the expiration of said period. 12
13 Unit Operator shall have the right to resign in like man- 13
14 ner and subject to like limitations as above provided at any time 14
15 a participating area established hereunder is in existence, but, 15
16 in all instances of resignation or removal, until a successor 16
17 Unit Operator is selected and approved as hereinafter provided, 17
18 the working interest owners shall be jointly responsible for per- 18
19 formance of the duties of Unit Operator, and shall not later than 19
20 30 days before such resignation or removal becomes effective 20
21 appoint a common agent to represent them in any action to be 21
22 taken hereunder. 22
23 The resignation of Unit Operator shall not release Unit 23
24 Operator from any liability for any default by it hereunder 24
25 occurring prior to the effective date of its resignation. 25
26 The Unit Operator may, upon default or failure in the 26
27 performance of its duties or obligations hereunder, be subject 27
28 to removal by the same percentage vote of the owners of working 28
29 interests as herein provided for the selection of a new Unit 29
30 Operator. Such removal shall be effective upon notice thereof 30
31 to the Supervisor and the Commissioner. 31

1 The resignation or removal of Unit Operator under this 1
2 agreement shall not terminate its right, title, or interest as the 2
3 owner of a working interest or other interest in unitized sub- 3
4 stances, but upon the resignation or removal of Unit Operator 4
5 becoming effective, such Unit Operator shall deliver possession 5
6 of all wells, equipment, materials, and appurtenances used in 6
7 conducting the unit operations to the new duly qualified successor 7
8 Unit Operator or to the common agent, if no such new Unit Opera- 8
9 tor is elected, to be used for the purpose of conducting unit 9
10 operations hereunder. Nothing herein shall be construed as 10
11 authorizing removal of any material, equipment and appurtenances 11
12 needed for the preservation of any wells. 12

13 6. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator 13
14 shall tender his or its resignation as Unit Operator or shall be 14
15 removed as hereinabove provided, or a change of Unit Operator is 15
16 negotiated by working interest owners, the owners of the working 16
17 interests in the participating area or areas according to their 17
18 respective acreage interests in such participating area or areas, 18
19 or, until a participating area shall have been established, the 19
20 owners of the working interests according to their respective 20
21 acreage interests in all unitized land, shall by majority vote 21
22 select a successor Unit Operator: Provided, That, if a majority 22
23 but less than 75 per cent of the working interests qualified to 23
24 vote are owned by one party to this agreement, a concurring vote 24
25 of one or more additional working interest owners shall be re- 25
26 quired to select a new operator. Such selection shall not become 26
27 effective until 27

28 (a) a Unit Operator so selected shall accept in writing 28
29 the duties and responsibilities of Unit Operator, and 29

30 (b) the selection shall have been approved by the Super- 30
31 visor and the Commissioner. 31

1 If no successor Unit Operator is selected and qualified 1
2 as herein provided, the Director and the Commissioner at their 2
3 election may declare this unit agreement terminated. 3

4 7. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. If 4
5 the Unit Operator is not the sole owner of working interests, 5
6 costs and expenses incurred by Unit Operator in conducting unit 6
7 operations hereunder shall be paid and apportioned among and 7
8 borne by the owners of working interests, all in accordance with 8
9 the agreement or agreements entered into by and between the Unit 9
10 Operator and the owners of working interests, whether one or more, 10
11 separately or collectively. Any agreement or agreements entered 11
12 into between the working interest owners and the Unit Operator 12
13 as provided in this section, whether one or more, are herein re- 13
14 ferred to as the "unit operating agreement." Such unit operating 14
15 agreement shall also provide the manner in which the working inter-15
16 est owners shall be entitled to receive their respective propor- 16
17 tionate and allocated share of the benefits accruing hereto in 17
18 conformity with their underlying operating agreements, leases, 18
19 or other independent contracts, and such other rights and obliga- 19
20 tions as between Unit Operator and the working interest owners as 20
21 may be agreed upon by Unit Operator and the working interest own- 21
22 ers; however, no such unit operating agreement shall be deemed 22
23 either to modify any of the terms and conditions of this unit 23
24 agreement or to relieve the Unit Operator of any right or obliga- 24
25 tion established under this unit agreement, and in case of any in- 25
26 consistency or conflict between this unit agreement and the unit 26
27 operating agreement, this unit agreement shall govern. Three true 27
28 copies of any unit operating agreement executed pursuant to this 28
29 section should be filed with the Supervisor and two true copies 29
30 with the Commissioner, prior to approval of this unit agreement. 30

1 8. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as other- 1
2 wise specifically provided herein, the exclusive right, privilege, 2
3 and duty of exercising any and all rights of the parties hereto 3
4 which are necessary or convenient for prospecting for, producing, 4
5 storing, allocating, and distributing the unitized substances 5
6 are hereby delegated to and shall be exercised by the Unit Oper- 6
7 ator as herein provided. Acceptable evidence of title to said 7
8 rights shall be deposited with said Unit Operator and, together 8
9 with this agreement, shall constitute and define the rights, privi-9
10 leges, and obligations of Unit Operator. Nothing herein, however, 10
11 shall be construed to transfer title to any land or to any lease 11
12 or operating agreement, it being understood that under this agree- 12
13 ment the Unit Operator, in its capacity as Unit Operator, shall 13
14 exercise the rights of possession and use vested in the parties 14
15 hereto only for the purposes herein specified. 15

16 9. DRILLING TO DISCOVERY. Within 6 months after the effect- 16
17 ive date hereof, the Unit Operator shall begin to drill an ade- 17
18 quate test well at a location approved by the Supervisor if such 18
19 location is upon lands of the United States, and if upon State 19
20 lands, such location shall be approved by the Commissioner, unless 20
21 on such effective date a well is being drilled conformably with 21
22 the terms hereof, and thereafter continue such drilling dili- 22
23 gently to a depth sufficient to penetrate 150 feet into the 23
24 Mississippian formation, or until at a lesser depth unitized 24
25 substances shall be discovered which can be produced in paying 25
26 quantities (to wit: quantities sufficient to repay the costs of 26
27 drilling, completing, and producing operations, with a reason- 27
28 able profit) or the Unit Operator shall at any time establish to 28
29 the satisfaction of the Supervisor as to wells on Federal lands, 29
30 or to the Commissioner as to wells on State lands, that further 30

1 drilling of said well would be unwarranted or impracticable, 1
2 provided, however, that Unit Operator shall not in any event be 2
3 required to drill said well to a depth in excess of 11,500 feet. 3
4 Until the discovery of a deposit of unitized substances capable 4
5 of being produced in paying quantities, the Unit Operator shall 5
6 continue drilling one well at a time, allowing not more than 6
7 months between the completion of one well and the beginning of 7
8 the next well, until a well capable of producing unitized sub- 8
9 stances in paying quantities is completed to the satisfaction of 9
10 said Supervisor and Commissioner or until it is reasonably proved 10
11 that the unitized land is incapable of producing unitized sub- 11
12 stances in paying quantities in the formation drilled hereunder. 12
13 Nothing in this section shall be deemed to limit the right of the 13
14 Unit Operator to resign as provided in Section 5, hereof, or as 14
15 requiring Unit Operator to commence or continue any drilling dur- 15
16 ing the period pending such resignation becoming effective in 16
17 order to comply with the requirements of this section. The Super- 17
18 visor and the Commissioner may modify the drilling requirements 18
19 of this section by granting reasonable extensions of time when, 19
20 in their opinion, such action is warranted. 20

21 Upon failure to commence any well provided for in this 21
22 section within the time allowed, including any extension of time 22
23 granted by the Supervisor and the Commissioner, this agreement 23
24 will automatically terminate; upon failure to continue drilling 24
25 diligently any well commenced hereunder, the Supervisor and Com- 25
26 missioner may, after 15 days' notice to the Unit Operator, de- 26
27 clare this unit agreement terminated.

28 10. PLAN OF FURTHER DEVELOPMENT AND OPERATION. Within 6 28
29 months after completion of a well capable of producing unitized 29
30 substances in paying quantities, the Unit Operator shall submit 30

1 for the approval of the Supervisor and the Commissioner an 1
2 acceptable plan of development and operation for the unitized 2
3 land which, when approved by the Supervisor and the Commissioner 3
4 shall constitute the further drilling and operating obligations 4
5 of the Unit Operator under this agreement for the period speci- 5
6 fied therein. Thereafter, from time to time before the expira- 6
7 tion of any existing plan, the Unit Operator shall submit for the 7
8 approval of the Supervisor and the Commissioner a plan for an 8
9 additional specified period for the development and operation of 9
10 the unitized land. 10

11 Any plan submitted pursuant to this section shall provide 11
12 for the exploration of the unitized area and for the diligent 12
13 drilling necessary for determination of the area or areas thereof 13
14 capable of producing unitized substances in paying quantities in 14
15 each and every productive formation and shall be as complete and 15
16 adequate as the Supervisor and the Commissioner may determine to 16
17 be necessary for timely development and proper conservation of 17
18 the oil and gas resources of the unitized area and shall 18

19 (a) specify the number and locations of any wells to be 19
20 drilled and the proposed order and time for such drilling; and 20

21 (b) to the extent practicable specify the operating 21
22 practices regarded as necessary and advisable for proper con- 22
23 servation of natural resources. 23

24 Separate plans may be submitted for separate productive zones, 24
25 subject to the approval of the Supervisor and the Commissioner. 25

26 Plans shall be modified or supplemented when necessary to 26
27 meet changed conditions or to protect the interests of all par- 27
28 ties to this agreement. Reasonable diligence shall be exercised 28
29 in complying with the obligations of the approved plan of develop- 29
30 ment. The Supervisor and the Commissioner are authorized to grant 30

1 a reasonable extension of the 6-month period herein prescribed 1
2 for submission of an initial plan of development where such action 2
3 is justified because of unusual conditions or circumstances. After 3
4 completion hereunder of a well capable of producing any unitized 4
5 substance in paying quantities, no further wells, except such as 5
6 may be necessary to afford protection against operations not 6
7 under this agreement and such as may be specifically approved by 7
8 the Supervisor and the Commissioner, shall be drilled except in 8
9 accordance with a plan of development approved as herein provided. 9

10 11. PARTICIPATION AFTER DISCOVERY. Upon completion of a well 10
11 capable of producing unitized substances in paying quantities or 11
12 as soon thereafter as required by the Supervisor and the Commis- 12
13 sioner, a schedule, based on subdivisions of the public-land sur- 13
14 vey or aliquot parts thereof, of all land then regarded as reason- 14
15 ably proved to be productive in paying quantities; all lands in 15
16 said schedule on approval of the Supervisor and the Commissioner 16
17 to constitute a participating area, effective as of the date of 17
18 completion of such well or the effective date of the unit agree- 18
19 ment, whichever is later. The acreages of both Federal and non- 19
20 Federal lands shall be based upon appropriate computations from 20
21 the courses and distances shown on the last approved public-land 21
22 survey as of the effective date of each initial participating 22
23 area. Said schedule shall also set forth the percentage of uni- 23
24 tized substances to be allocated as herein provided to each tract 24
25 in the participating area so established, and shall govern the 25
26 allocation of production commencing with the effective date of 26
27 the participating area. A separate participating area shall be 27
28 established for each separate pool or deposit of unitized sub- 28
29 stances or for any group thereof which is produced as a single 29
30 pool or zone, and any two or more participating areas so 30

1 established may be combined into one, on approval of the Super- 1
2 visor, and the Commissioner. When production from two or more 2
3 participating areas, so established, is subsequently found to be 3
4 from a common pool or deposit said participating areas shall be 4
5 combined into one effective as of such appropriate date as may be 5
6 approved or prescribed by the Supervisor, and the Commissioner. 6
7 The participating area or areas so established shall be revised 7
8 from time to time, subject to like approval, to include addi- 8
9 tional land then regarded as reasonably proved to be productive 9
10 in paying quantities or necessary for unit operations, or to ex- 10
11 clude land then regarded as reasonably proved not to be productive 11
12 in paying quantities and the schedule of allocation percentages 12
13 shall be revised accordingly. The effective date of any revision 13
14 shall be the first of the month in which is obtained the knowledge 14
15 or information on which such revision is predicated, provided, 15
16 however, that a more appropriate effective date may be used if 16
17 justified by the Unit Operator and approved by the Supervisor and 17
18 the Commissioner. No land shall be excluded from a participating 18
19 area on account of depletion of the unitized substances, except 19
20 that any participating area established under the provisions of 20
21 this unit agreement shall terminate automatically whenever all 21
22 completions in the formation on which the participating area is 22
23 based are abandoned. 23

24 It is the intent of this section that a participating 24
25 area shall represent the area known or reasonably estimated to 25
26 be productive in paying quantities; but, regardless of any revi- 26
27 sion of the participating area, nothing herein contained shall 27
28 be construed as requiring any retroactive adjustment for pro- 28
29 duction obtained prior to the effective date of the revision of 29
30 the participating area.

1 In the absence of agreement at any time between the Unit 1
2 Operator, the Supervisor and the Commissioner as to the proper 2
3 definition or redefinition of a participating area, or until a 3
4 participating area has, or areas have, been established as pro- 4
5 vided herein, the portion of all payments affected thereby shall 5
6 be impounded in a manner mutually acceptable to the owners of 6
7 working interests and the Supervisor and the Commissioner. Roy- 7
8 alties due the United States and the State of New Mexico shall be 8
9 determined by the Supervisor and the Commissioner, respectively, 9
10 and the amount thereof shall be deposited, as directed by the Super-10
11 visor and the Commissioner, respectively, to be held as unearned 11
12 money until a participating area is finally approved and then ap- 12
13 plied as earned or returned in accordance with a determination of 13
14 the sum due as Federal and State royalty on the basis of such ap- 14
15 proved participating area. 15

16 Whenever it is determined, subject to the approval of the 16
17 Supervisor, as to the wells on Federal lands, and the Commissioner 17
18 as to wells on State lands, that a well drilled under this agree- 18
19 ment is not capable of production in paying quantities and inclu- 19
20 sion of the land on which it is situated in a participating area 20
21 is unwarranted, production from such well shall, for the purposes 21
22 of settlement among all parties other than working interest owners, 22
23 be allocated to the land on which the well is located unless such 23
24 land is already within the participating area established for the 24
25 pool or deposit from which such production is obtained. Settle- 25
26 ment for working interest benefits from such a well shall be made 26
27 as provided in the unit operating agreement. 27

28 12. ALLOCATION OF PRODUCTION. All unitized substances pro- 28
29 duced from each participating area established under this agree- 29
30 ment, except any part thereof used in conformity with good 30

1 13. DEVELOPMENT OR OPERATION OF NONPARTICIPATING LAND OR 1
2 FORMATIONS. Any party hereto owning or controlling the working 2
3 interest in any unitized land having thereon a regular well loca- 3
4 tion may with the approval of the Supervisor, as to locations on 4
5 Federal lands, and the Commissioner as to locations on State lands, 5
6 at such party's sole risk, costs, and expense, drill a well to 6
7 test any formation for which a participating area has not been 7
8 established or to test any formation for which a participating 8
9 area has been established if such location is not within said 9
10 participating area, unless within 90 days of receipt of notice 10
11 from said party of his intention to drill the well the Unit Oper- 11
12 ator elects and commences to drill such a well in like manner as 12
13 other wells are drilled by the Unit Operator under this agreement. 13

14 If any well drilled as aforesaid by a working interest 14
15 owner results in production such that the land upon which it is 15
16 situated may properly be included in a participating area, such 16
17 participating area shall be established or enlarged as provided 17
18 in this agreement and the well shall thereafter be operated by 18
19 the Unit Operator in accordance with the terms of this agreement 19
20 and the unit operating agreement. 20

21 If any well drilled as aforesaid by a working interest 21
22 owner obtains production in quantities insufficient to justify 22
23 the inclusion of the land upon which such well is situated in a 23
24 participating area, such well may be operated and produced by the 24
25 party drilling the same subject to the conservation requirements 25
26 of this agreement. The royalties in amount or value of produc- 26
27 tion from any such well shall be paid as specified in the under- 27
28 lying lease and agreements affected. 28

29 14. ROYALTY SETTLEMENT. The United States and the State of 29
30 New Mexico and any royalty owner, who is entitled to take in kind 30

1 a share of the substances now unitized hereunder shall hereafter 1
2 be entitled to the right to take in kind its share of the uni- 2
3 tized substances, and Unit Operator, or the working interest owner 3
4 as herein provided for in special cases, shall make deliveries of 4
5 such royalty share taken in kind in conformity with the applicable 5
6 contracts, laws, and regulations. Settlement for royalty inter- 6
7 est not taken in kind shall be made by working interest owners 7
8 responsible therefor under existing contracts, laws, and regula- 8
9 tions, or by the Unit Operator on or before the last day of each 9
10 month for unitized substances produced during the preceding calen- 10
11 dar month; provided, however, that nothing herein contained shall 11
12 operate to relieve the lessees of any land from their respective 12
13 lease obligations for the payment of any royalties due under their 13
14 leases. 14

15 If gas obtained from lands not subject to this agreement 15
16 is introduced into any participating area hereunder, for use in 16
17 repressuring, stimulation of production, or increasing ultimate 17
18 recovery, in conformity with a plan of operations approved by the 18
19 Supervisor and the Commissioner, a like amount of gas, after set- 19
20 tlement as herein provided for any gas transferred from any other 20
21 participating area and with appropriate deduction for loss from 21
22 any cause, may be withdrawn from the formation into which the gas 22
23 is introduced, royalty free as to dry gas, but not as to any 23
24 products which may be extracted therefrom; provided that such 24
25 withdrawal shall be at such time as may be provided in the ap- 25
26 proved plan of operations or as may otherwise be consented to by 26
27 the Supervisor and the Commissioner as conforming to good petrol- 27
28 eum engineering practice; and provided further, that such right 28
29 of withdrawal shall terminate on the termination of this unit 29
30 agreement. 30

1 Royalty due the United States shall be computed as pro- 1
2 vided in the operating regulations and paid in value or delivered 2
3 in kind as to all unitized substances on the basis of the amounts 3
4 thereof allocated to unitized Federal land as provided herein at 4
5 the rates specified in the respective Federal leases, or at such 5
6 lower rate or rates as may be authorized by law or regulation; 6
7 provided, that for leases on which the royalty rate depends on 7
8 the daily average production per well, said average production 8
9 shall be determined in accordance with the operating regulations 9
10 as though each participating area were a single consolidated lease. 10
11 Royalty due the State of New Mexico shall be computed and paid on 11
12 the basis of the amounts allocated to unitized State land as pro- 12
13 vided herein at the rate specified in the State Oil and Gas Lease. 13
14 15. RENTAL SETTLEMENT. Rental or minimum royalties due on 14
15 leases committed hereto shall be paid by working interest owners 15
16 responsible therefor under existing contracts, laws, and regulations, 16
17 provided that nothing herein contained shall operate to relieve 17
18 the lessees of any land from their respective lease obligations 18
19 for the payment of any rental or minimum royalty due under their 19
20 leases. Rental or minimum royalty for lands of the United States 20
21 subject to this agreement shall be paid at the rate specified in 21
22 the respective leases from the United States unless such rental 22
23 or minimum royalty is waived, suspended, or reduced by law or by 23
24 approval of the Secretary or his duly authorized representative. 24
25 Rentals on State of New Mexico lands subject to this agreement 25
26 shall be paid at the rates specified in the respective leases, 26
27 or may be reduced and suspended upon the order of the Commissioner 27
28 of Public Lands of the State of New Mexico pursuant to applicable 28
29 laws and regulations.

1 With respect to any lease on non-Federal land containing 1
2 provisions which would terminate such lease unless drilling oper- 2
3 ations are commenced upon the land covered thereby within the time 3
4 therein specified or rentals are paid for the privilege of defer- 4
5 ring such drilling operations, the rentals required thereby shall, 5
6 notwithstanding any other provision of this agreement, be deemed 6
7 to accrue and become payable during the term thereof as extended 7
8 by this agreement and until the required drilling operations are 8
9 commenced upon the land covered thereby or until some portion of 9
10 such land is included within a participating area. 10

11 16. CONSERVATION. Operations hereunder and production of 11
12 unitized substances shall be conducted to provide for the most 12
13 economical and efficient recovery of said substances without waste, 13
14 as defined by or pursuant to State or Federal law or regulation. 14

15 17. DRAINAGE. The Unit Operator shall take such measures as 15
16 the Supervisor and the Commissioner deem appropriate and adequate 16
17 to prevent drainage of unitized substances from unitized land by 17
18 wells on land not subject to this agreement. 18

19 18. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, 19
20 conditions, and provisions of all leases, subleases, and other 20
21 contracts relating to exploration, drilling, development, or 21
22 operation for oil or gas on lands committed to this agreement are 22
23 hereby expressly modified and amended to the extent necessary to 23
24 make the same conform to the provisions hereof, but otherwise to 24
25 remain in full force and effect; and the parties hereto hereby 25
26 consent that the Secretary and the Commissioner, respectively, 26
27 shall and by their approval hereof, or by the approval hereof 27
28 by their duly authorized representatives, do hereby establish, 28
29 alter, change, or revoke the drilling, producing, rental, minimum 29
30 royalty, and royalty requirements of Federal and State leases 30

1 committed hereto and the regulations in respect thereto to con- 1
2 form said requirements to the provisions of this agreement, and, 2
3 without limiting the generality of the foregoing, all leases, sub- 3
4 leases, and contracts are particularly modified in accordance with 4
5 the following: 5

6 (a) The development and operation of lands subject to 6
7 this agreement under the terms hereof shall be deemed full per- 7
8 formance of all obligations for development and operation with 8
9 respect to each and every separately owned tract subject to this 9
10 agreement, regardless of whether there is any development of any 10
11 particular tract of the unit area. 11

12 (b) Drilling and producing operations performed here- 12
13 under upon any tract of unitized lands will be accepted and deemed 13
14 to be performed upon and for the benefit of each and every tract 14
15 of unitized land, and no lease shall be deemed to expire by rea- 15
16 son of failure to drill or produce wells situated on the land 16
17 therein embraced. 17

18 (c) Suspension of drilling or producing operations on 18
19 all unitized lands pursuant to direction or consent of the Secre- 19
20 tary or his duly authorized representative, and on all unitized 20
21 lands of the State of New Mexico pursuant to the consent of the 21
22 Commissioner, or his duly recognized representative, shall be 22
23 deemed to constitute such suspension pursuant to such direction 23
24 or consent as to each and every tract of unitized land. A sus- 24
25 pension of drilling or producing operations limited to specified 25
26 lands shall be applicable only to such lands. 26

27 (d) Each lease, sublease or contract relating to the 27
28 exploration, drilling, development or operation for oil or gas of 28
29 lands other than those of the United States and the State of New 29
30 Mexico committed to this agreement, which, by its terms might 30

1 expire prior to the termination of this agreement, is hereby ex- 1
2 tended beyond any such terms so provided therein so that it shall 2
3 be continued in full force and effect for and during the term of 3
4 this agreement. 4

5 (e) Any Federal lease for a fixed term of twenty (20) 5
6 years or any renewal thereof or any part of such lease which is 6
7 made subject to this agreement shall continue in force beyond the 7
8 term provided therein until the termination hereof. Any other 8
9 Federal lease committed hereto shall continue in force beyond the 9
10 term so provided therein or by law as to the land committed so 10
11 long as such lease remains subject hereto, provided that produc- 11
12 tion is had in paying quantities under this unit agreement prior 12
13 to the expiration date of the term of such lease, or in the event 13
14 actual drilling operations are commenced on unitized land, in 14
15 accordance with the provisions of this agreement, prior to the 15
16 end of the primary term of such lease and are being diligently 16
17 prosecuted at that time, such lease shall be extended for two 17
18 years and so long thereafter as oil or gas is produced in paying 18
19 quantities in accordance with the provisions of the Mineral Leas- 19
20 ing Act Revision of 1960. 20

21 (f) Each sublease or contract relating to the operation 21
22 and development of unitized substances from lands of the United 22
23 States committed to this agreement, which by its terms would ex- 23
24 pire prior to the time at which the underlying lease, as extended 24
25 by the immediately preceding paragraph, will expire, is hereby 25
26 extended beyond any such term so provided therein so that it 26
27 shall be continued in full force and effect for and during the 27
28 term of the underlying lease as such term is herein extended. 28

29 (g) The segregation of any Federal lease committed to 29
30 this agreement is governed by the following provision in the 30

1 fourth paragraph of Sec. 17(j) of the Mineral Leasing Act, as 1
2 amended by the Act of September 2, 1960 (74 Stat. 781-784): "Any 2
3 (Federal) lease heretofore or hereafter committed to any such 3
4 (unit) plan embracing lands that are in part within and in part 4
5 outside of the area covered by any such plan shall be segregated 5
6 into separate leases as to the lands committed and the lands not 6
7 committed as of the effective date of unitization: Provided, 7
8 however, That any such lease as to the nonunitized portion shall 8
9 continue in force and effect for the term thereof but for not 9
10 less than two years from the date of such segregation and so long 10
11 thereafter as oil or gas is produced in paying quantities." 11

12 (h) Any lease embracing lands of the State of New Mexico 12
13 which is made subject to this agreement shall continue in force 13
14 beyond the term provided therein as to the lands committed hereto 14
15 until the termination hereof. 15

16 (i) Any lease embracing lands of the State of New Mexico 16
17 having only a portion of its lands committed hereto, shall be seg- 17
18 regated as to that portion committed and that not committed, and 18
19 the terms of such lease shall apply separately to such segregated 19
20 portions commencing as of the effective date hereof. Provided, 20
21 however, notwithstanding any of the provisions of this agreement 21
22 to the contrary, such lease shall continue in full force and 22
23 effect beyond the term provided therein as to all lands embraced 23
24 in such lease, if oil or gas is, or has heretofore been discovered 24
25 in paying quantities from some part of the lands embraced in such 25
26 lease committed to this agreement or, so long as a portion of the 26
27 unitized substances produced from the unit area is, under the 27
28 terms of this agreement, allocated to the portion of the lands 28
29 covered by such lease committed to this agreement, or, at any time 29
30 during the term hereof, as to any lease that is then valid and 30

1 subsisting and upon which the lessee or the Unit Operator is then 1
2 engaged in bona fide drilling, reworking, or secondary recovery 2
3 operations on any part of the lands embraced in such lease, then 3
4 the same as to all lands embraced therein shall remain in full 4
5 force and effect so long as such operations are diligently prose- 5
6 cuted, and if they result in the production of oil or gas, said 6
7 lease shall continue in full force and effect as to all of the 7
8 lands embraced therein, so long thereafter as oil or gas in pay- 8
9 ing quantities is being produced from any portion of said lands. 9

10 (j) Any lease, other than a Federal lease, having only 10
11 a portion of its lands committed hereto shall be segregated as to 11
12 the portion committed and the portion not committed, and the pro- 12
13 visions of such lease shall apply separately to such segregated 13
14 portions commencing as of the effective date hereof. In the 14
15 event any such lease provides for a lump-sum rental payment, such 15
16 payment shall be prorated between the portions so segregated in 16
17 proportion to the acreage of the respective tracts. 17

18 19. COVENANTS RUN WITH LAND. The covenants herein shall be 18
19 construed to be covenants running with the land with respect to 19
20 the interest of the parties hereto and their successors in inter- 20
21 est until this agreement terminates, and any grant, transfer, or 21
22 conveyance, of interest in land or leases subject hereto shall be 22
23 and hereby is conditioned upon the assumption of all privileges 23
24 and obligations hereunder by the grantee, transferee, or other 24
25 successor in interest. No assignment or transfer of any working 25
26 interest, royalty, or other interest subject hereto shall be bind- 26
27 ing upon Unit Operator until the first day of the calendar month 27
28 after Unit Operator is furnished with the original, photostatic, 28
29 or certified copy of the instrument of transfer. 29

1 20. EFFECTIVE DATE AND TERM. This agreement shall become 1
2 effective upon approval by the Secretary and the Commissioner or 2
3 their duly authorized representatives and shall terminate five 3
4 (5) years from said effective date unless 4

5 (a) such date of expiration is extended by the Director 5
6 and the Commissioner, or 6

7 (b) it is reasonably determined prior to the expiration 7
8 of the fixed term or any extension thereof that the unitized land 8
9 is incapable of production of unitized substances in paying 9
10 quantities in the formations tested hereunder and after notice 10
11 of intention to terminate the agreement on such ground is given 11
12 by the Unit Operator to all parties in interest at their last 12
13 known addresses, the agreement is terminated with the approval of 13
14 the Supervisor and the Commissioner, or 14

15 (c) a valuable discovery of unitized substances has been 15
16 made or accepted on unitized land during said initial term or any 16
17 extension thereof, in which event the agreement shall remain in 17
18 effect for such term and so long as unitized substances can be 18
19 produced in quantities sufficient to pay for the cost of produc- 19
20 ing same from wells on unitized land within any participating 20
21 area established hereunder and, should production cease, so long 21
22 thereafter as diligent operations are in progress for the restora- 22
23 tion of production or discovery of new production and so long 23
24 thereafter as the unitized substances so discovered can be pro- 24
25 duced as aforesaid, or 25

26 (d) it is terminated as heretofore provided in this 26
27 agreement. 27

28 This agreement may be terminated at any time by not less than 75 28
29 per centum, on an acreage basis, of the working interest owners 29
30 signatory hereto, with the approval of the Supervisor and the 30

1 Commissioner; notice of any such approval to be given by the 1
2 Unit Operator to all parties hereto. 2

3 21. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. The 3
4 Director is hereby vested with authority to alter or modify from 4
5 time to time in his discretion the quantity and rate of production 5
6 under this agreement when such quantity and rate is not fixed 6
7 pursuant to Federal or State law or does not conform to any state- 7
8 wide voluntary conservation or allocation program, which is estab- 8
9 lished, recognized, and generally adhered to by the majority of 9
10 operators in such State, such authority being hereby limited to 10
11 alteration or modification in the public interest, the purpose 11
12 thereof and the public interest to be served thereby to be stated 12
13 in the order of alteration or modification. Without regard to the 13
14 foregoing, the Director is also hereby vested with authority to 14
15 alter or modify from time to time in his discretion the rate of 15
16 prospecting and development and the quantity and rate of produc- 16
17 tion under this agreement when such alteration or modification 17
18 is in the interest of attaining the conservation objectives 18
19 stated in this agreement and is not in violation of any applicable 19
20 Federal or State law; provided, further, no such alteration or 20
21 modification shall be effective as to any land of the State of 21
22 New Mexico as to the rate of prospecting and development in the 22
23 absence of the specific written approval thereof by the Commis- 23
24 sioner and as to lands of the State of New Mexico or privately 24
25 owned lands subject to this agreement as to the quantity and rate 25
26 of production in the absence of specific written approval thereof 26
27 by the Commissioner. 27

28 Powers in this section vested in the Director shall only 28
29 be exercised after notice to Unit Operator and opportunity for 29
30 hearing to be held not less than 15 days from notice. 30

1 22. APPEARANCES. Unit Operator shall, after notice to other 1
2 parties affected, have the right to appear for and on behalf of 2
3 any and all interests affected hereby before the Department of the 3
4 Interior and to appeal from orders issued under the regulations of 4
5 said Department or to apply for relief from any of said regula- 5
6 tions or in any proceedings relative to operations before the 6
7 Department of the Interior, the Commissioner, the Commission or 7
8 any other legally constituted authority; provided, however, that 8
9 any other interested party shall also have the right at his own 9
10 expense to be heard in any such proceeding. 10

11 23. NOTICES. All notices, demands or statements required 11
12 hereunder to be given or rendered to the parties hereto shall be 12
13 deemed fully given if given in writing and personally delivered to 13
14 the party or sent by postpaid registered or certified mail, ad- 14
15 dressed to such party or parties at their respective addresses 15
16 set forth in connection with the signatures hereto or to the rati- 16
17 fication or consent hereof or to such other address as any such 17
18 party may have furnished in writing to party sending the notice, 18
19 demand or statement. 19

20 24. NO WAIVER OF CERTAIN RIGHTS. Nothing in this agreement 20
21 contained shall be construed as a waiver by any party hereto of 21
22 the right to assert any legal or constitutional right or defense 22
23 as to the validity or invalidity of any law of the State wherein 23
24 said unitized lands are located, or of the United States, or regu- 24
25 lations issued thereunder in any way affecting such party, or as 25
26 a waiver by any such party of any right beyond his or its auth- 26
27 ority to waive. 27

28 25. UNAVOIDABLE DELAY. All obligations under this agreement 28
29 requiring the Unit Operator to commence or continue drilling or to 29
30 operate on or produce unitized substances from any of the lands 30

1 covered by this agreement shall be suspended while the Unit 1
2 Operator, despite the exercise of due care and diligence, is pre- 2
3 vented from complying with such obligations, in whole or in part, 3
4 by strikes, acts of God, Federal, State, or municipal law or 4
5 agencies, unavoidable accidents, uncontrollable delays in trans- 5
6 portation, inability to obtain necessary materials in open market, 6
7 or other matters beyond the reasonable control of the Unit 7
8 Operator whether similar to matters herein enumerated or not. 8
9 No unit obligation which is suspended under this section shall be- 9
10 come due less than thirty (30) days after it has been determined 10
11 that the suspension is no longer applicable. Determination of 11
12 creditable "Unavoidable Delay" time shall be made by the Unit 12
13 Operator subject to approval of the Supervisor and Commissioner. 13
14 26. NONDISCRIMINATION. In connection with the performance 14
15 of work under this agreement, the operator agrees to comply with 15
16 all the provisions of Section 202 (1) to (7) inclusive of Execu- 16
17 tive Order 11246 (30 F.R. 12319), which are hereby incorporated 17
18 by reference in this agreement. 18
19 27. LOSS OF TITLE. In the event title to any tract of 19
20 unitized land shall fail and the true owner cannot be induced to 20
21 join in this unit agreement, such tract shall be automatically 21
22 regarded as not committed hereto and there shall be such read- 22
23 justment of future costs and benefits as may be required on 23
24 account of the loss of such title. In the event of a dispute as 24
25 to title as to any royalty, working interest, or other interests 25
26 subject thereto, payment or delivery on account thereof may be 26
27 withheld without liability for interest until the dispute is 27
28 finally settled; provided, that, as to Federal and State land or 28
29 leases, no payments of funds due the United States or the State 29
30 of New Mexico should be withheld, but such funds shall be 30

1 deposited as directed by the Supervisor and the Commissioner, 1
2 respectively, to be held as unearned money pending final settle- 2
3 ment of the title dispute, and then applied as earned or returned 3
4 in accordance with such final settlement. 4

5 Unit Operator as such is relieved from any responsibility 5
6 for any defect or failure of any title hereunder. 6

7 28. NON-JOINDER AND SUBSEQUENT JOINDER. If the owner of any 7
8 substantial interest in a tract within the unit area fails or 8
9 refuses to subscribe or consent to this agreement, the owner of 9
10 the working interest in that tract may withdraw said tract from 10
11 this agreement by written notice delivered to the Supervisor, the 11
12 Commissioner and the Unit Operator prior to the approval of this 12
13 agreement by the Supervisor and the Commissioner. Any oil or gas 13
14 interests in lands within the unit area not committed hereto 14
15 prior to submission of this agreement for final approval may 15
16 thereafter be committed hereto by the owner or owners thereof 16
17 subscribing or consenting to this agreement, and, if the interest 17
18 is a working interest, by the owner of such interest also sub- 18
19 scribing to the unit operating agreement. After operations are 19
20 commenced hereunder, the right of subsequent joinder, as pro- 20
21 vided in this section, by a working interest owner is subject to 21
22 such requirements or approvals, if any, pertaining to such 22
23 joinder, as may be provided for in the unit operating agreement. 23
24 After final approval hereof, joinder by a non-working interest 24
25 owner must be consented to in writing by the working interest 25
26 owner committed hereto and responsible for the payment of any 26
27 benefits that may accrue hereunder in behalf of such non-working 27
28 interest. A non-working interest may not be committed to this 28
29 unit agreement unless the corresponding working interest is com- 29
30 mitted hereto. Joinder to the unit agreement by a working- 30

1 interest owner, at any time, must be accompanied by appropriate 1
2 joinder to the unit operating agreement, if more than one com- 2
3 mitted working interest owner is involved, in order for the inter- 3
4 est to be regarded as committed to this unit agreement. Except 4
5 as may otherwise herein be provided, subsequent joinders to this 5
6 agreement shall be effective as of the first day of the month fol- 6
7 lowing the filing with the Supervisor and the Commissioner of duly 7
8 executed counterparts of all or any papers necessary to establish 8
9 effective commitment of any tract to this agreement unless objec- 9
10 tion to such joinder is duly made within 60 days by the Super- 10
11 visor or the Commissioner; provided that, as to State lands all 11
12 subsequent joinders must be approved by the Commissioner. 12

13 29. COUNTERPARTS. This agreement may be executed in any 13
14 number of counterparts no one of which needs to be executed by 14
15 all parties or may be ratified or consented to by separate instru- 15
16 ment in writing specifically referring hereto and shall be binding 16
17 upon all those parties who have executed such a counterpart, rati- 17
18 fication or consent hereto with the same force and effect as if 18
19 all such parties had signed the same document and regardless of 19
20 whether or not it is executed by all other parties owning or claim-20
21 ing an interest in the lands within the above-described unit area. 21

22 30. SURRENDER. Nothing in this agreement shall prohibit the 22
23 exercise by any working interest owner of the right to surrender 23
24 vested in such party by any lease, sublease, or operating agree- 24
25 ment as to all or any part of the lands covered thereby, provided 25
26 that each party who will or might acquire such working interest 26
27 by such surrender or by forfeiture as hereafter set forth, is 27
28 bound by the terms of this agreement. 28

29 If as a result of any such surrender the working interest 29
30 rights as to such lands become vested in any party other than the 30

1 fee owner of the unitized substances, said party may forfeit such 1
2 rights and further benefits from operation hereunder as to said 2
3 land to the party next in the chain of title who shall be and 3
4 become the owner of such working interest. 4

5 If as a result of any such surrender or forfeiture working 5
6 interest rights become vested in the fee owner of the unitized 6
7 substances, such owner may: 7

8 (1) Accept those working interest rights subject to this 8
9 agreement and the unit operating agreement; or 9

10 (2) Lease the portion of such land as is included in a 10
11 participating area established hereunder subject to this agreement 11
12 and the unit operating agreement: 12

13 (3) Provide for the independent operation of any part of 13
14 such land that is not then included within a participating area 14
15 established hereunder. 15

16 If the fee owner of the unitized substances does not 16
17 accept the working interest rights subject to this agreement and 17
18 the unit operating agreement or lease such lands as above pro- 18
19 vided within six (6) months after the surrender or forfeited work- 19
20 ing interest rights become vested in the fee owner, the benefits 20
21 and obligations of operations accruing to such lands under this 21
22 agreement and the unit operating agreement shall be shared by the 22
23 remaining owners of unitized working interests in accordance with 23
24 their respective working interest ownerships, and such owners of 24
25 working interests shall compensate the fee owner of unitized sub- 25
26 stances in such lands by paying sums equal to the rentals, mini- 26
27 mum royalties, and royalties applicable to such lands under the 27
28 lease in effect when the lands were unitized. 28

29 An appropriate accounting and settlement shall be made for 29
30 all benefits accruing to or payments and expenditures made or 30

1 incurred on behalf of such surrendered or forfeited working 1
2 interest subsequent to the date of surrender or forfeiture, and 2
3 payment of any moneys found to be owing by such an accounting 3
4 shall be made as between the parties within thirty (30) days. In 4
5 the event no unit operating agreement is in existence and a mutu- 5
6 ally acceptable agreement between the proper parties thereto can- 6
7 not be consummated, the Supervisor and the Commissioner may pres- 7
8 cribe such reasonable and equitable agreement as they deem war- 8
9 ranted under the circumstances. 9

10 The exercise of any right vested in a working interest 10
11 owner to reassign such working interest to the party from whom 11
12 obtained shall be subject to the same conditions as set forth in 12
13 this section in regard to the exercise of a right to surrender. 13

14 31. TAXES. The working interest owners shall render and pay 14
15 for their account and the account of the royalty owners all valid 15
16 taxes on or measured by the unitized substances in and under or 16
17 that may be produced, gathered and sold from the land subject to 17
18 this contract after the effective date of this agreement, or upon 18
19 the proceeds or net proceeds derived therefrom. The working inter-19
20 est owners on each tract shall and may charge the proper propor- 20
21 tion of said taxes to the royalty owners having interests in said 21
22 tract, and may currently retain and deduct sufficient of the 22
23 unitized substances or derivative products, or net proceeds 23
24 thereof from the allocated share of each royalty owner to secure 24
25 reimbursement for the taxes so paid. No such taxes shall be 25
26 charged to the United States or to the State of New Mexico or to 26
27 any lessor who has a contract with his lessee which requires the 27
28 lessee to pay such taxes. 28

29 32. CONFLICT OF SUPERVISION. Neither the Unit Operator nor 29
30 the working interest owners, nor any of them, shall be subject to 30
31 any forfeiture, termination, or expiration of any rights hereunder 31

1 or under any leases or contracts subject hereto, or to any pen- 1
2 alty or liability for delay or failure in whole or in part to com- 2
3 ply therewith to the extent that the said Unit Operator, working 3
4 interest owners or any of them are hindered, delayed, or prevented 4
5 from complying therewith by reason of failure of the Unit Operator 5
6 to obtain with the exercise of due diligence the concurrence of 6
7 the representatives of the United States and the representatives 7
8 of the State of New Mexico in and about any matters or thing con- 8
9 cerning which it is required herein that such concurrence be ob- 9
10 tained. The parties hereto, including the Commission, agree that 10
11 all powers and authority vested in the Commission in and by any 11
12 provisions of this contract are vested in the Commission and shall 12
13 be exercised by it pursuant to the provisions of the laws of the 13
14 State of New Mexico and subject in any case to appeal or judicial 14
15 review as may now or hereafter be provided by the laws of the 15
16 State of New Mexico. 16

17 33. NO PARTNERSHIP. It is expressly agreed that the relation 17
18 of the parties hereto is that of independent contractors and 18
19 nothing in this agreement contained, expressed or implied, nor 19
20 any operations conducted hereunder, shall create or be deemed to 20
21 have created a partnership or association between the parties 21
22 hereto or any of them. 22

23 IN WITNESS WHEREOF, the parties hereto have caused this 23
24 agreement to be executed and have set opposite their respective 24
25 names the date of execution. 25

UNIT OPERATOR

ATTEST: DATE: MIDWEST OIL CORPORATION

Secretary By: _____
President

Address: 1500 Wilco Building, Midland, Texas, 79701

WORKING INTEREST OWNERS

ATTEST: DATE: HARVEY E. YATES COMPANY

Secretary _____ By: _____

President

Address: 1515 National Building, 505 Marquette Avenue, Albuquerque,
New Mexico, 87101

ATTEST: DATE:

Secretary _____ By: _____

President

Address: _____

ATTEST: DATE:

Secretary _____ By: _____

President

Address: _____

ATTEST: DATE:

Secretary _____ By: _____

President

Address: _____

ATTEST: DATE:

Secretary _____ By: _____

President

Address: _____

STATE OF TEXAS)
COUNTY OF MIDLAND) ss.

The foregoing instrument was acknowledged before me this _____
day of _____, 1971, by _____,
President of MIDWEST OIL CORPORATION, a _____ corporation,
on behalf of said corporation.

My commission expires:

Notary Public

STATE OF NEW MEXICO)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____
day of _____, 1971, by _____,
President of HARVEY E. YATES COMPANY, a New Mexico corporation, on
behalf of said corporation.

My commission expires: _____

Notary Public

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____
day of _____, 1971, by _____,
President of _____, a _____
corporation, on behalf of said corporation.

My commission expires: _____

Notary Public

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____
day of _____, 1971, by _____,
President of _____, a _____
corporation, on behalf of said corporation.

My commission expires: _____

Notary Public

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____
day of _____, 1971, by _____,
President of _____, a _____
corporation, on behalf of said corporation.

My commission expires: _____

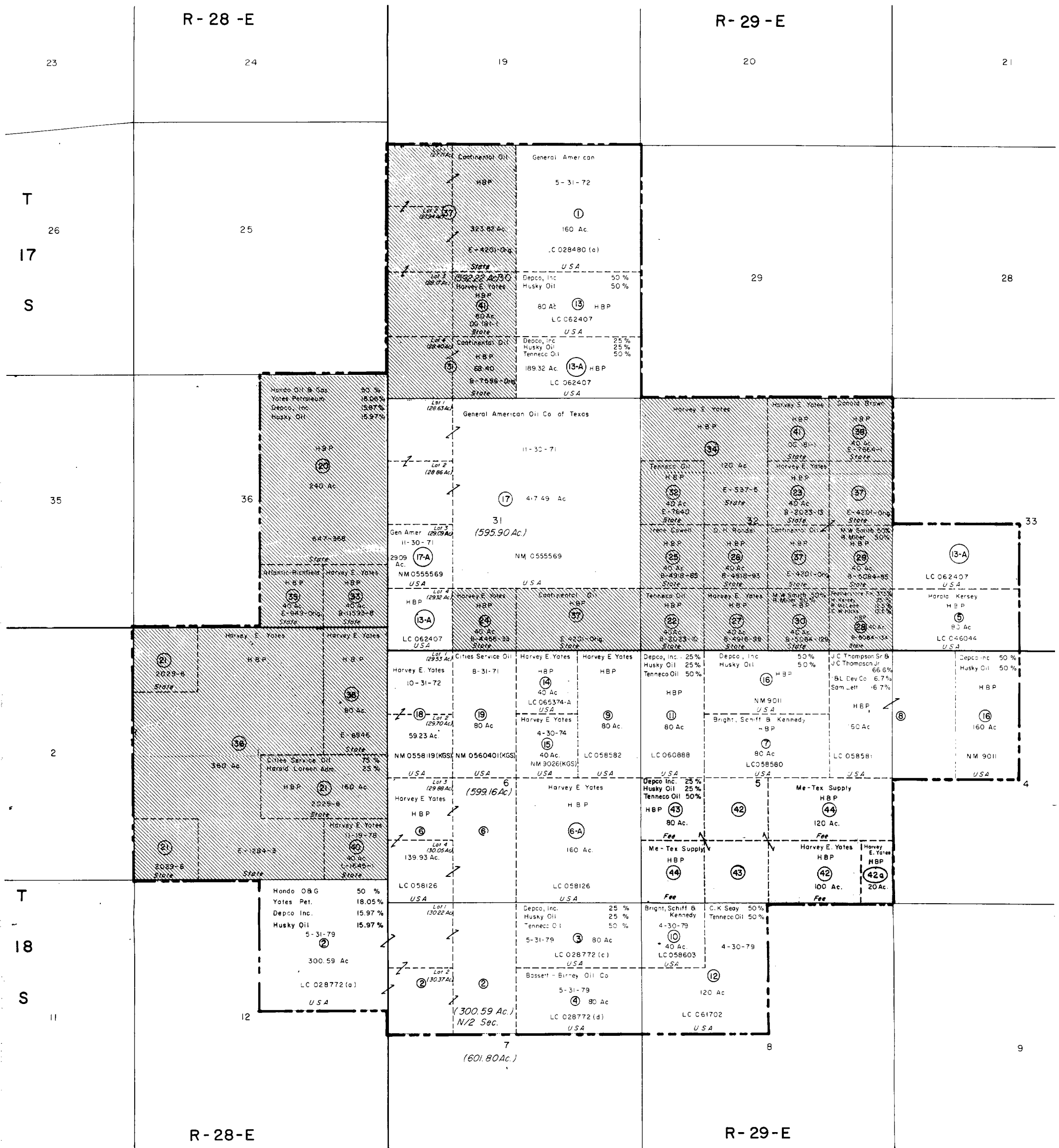
Notary Public

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____
day of _____, 1971, by _____,
President of _____, a _____
corporation, on behalf of said corporation.

My commission expires: _____

Notary Public



LEGEND

- Unit Outline
- ① Tract Number
- Federal Lands
2655.65 Acres
53.4565 %
- State Lands
1922.22 Acres
40.1021 %
- Fee Lands
320 Acres
6.4414 %

EMPIRE SOUTH DEEP UNIT
A FEDERAL UNIT

DEPTH RIGHTS BELOW APPROX. 4000'
4967.87 Acres

T's 17&18S, R's 28 & 29E
Eddy County, New Mexico

EXHIBIT "A"

TPWS 17 & 185, RNGS 28 & 29E

(Working Interest Ownership below 4000 feet except as otherwise noted)

			Basic			
Tract	Serial No. & Royalty	Working Interest				
No.	Description of Land	No. of Acres	Expiration Date of Lease	centage Lessee of Record	Ownership	
<u>Federal Lands</u>						
U.S.A.						
1.	T17S, R29E Sec. 30: NE/4	160.00	LC 028480(a) 3-31-72	Sch "C" 12.5 Limit	General American Oil Co. of Texas	
Leah F. McDonald Kennedy I. D. Walker E. H. Ward, Testa- mentary Trustee U/W/O J. Brainard for:						
Barbara Kruece .625 Sandra Terry .625 Susan Terry .625 Tract Total 7.500						
2.	T18S, R28E Sec. 12: NE/4 T18S, R29E Sec. 7: Lots 1,2 (W/2 NW/4), E/2 NW/4	300.59	LC 028772(a) 5-31-79	U.S.A. Sch "C" 12.5 Limit	Hondo Oil & Gas Co. Yates Petro- leum Corp. Depco, Inc. Husky Oil Co. of Delaware	
Ruby M. Dunn, Exec. of Est. of Calvin Preston						
1.68750 Yates Petro- leum Corp. 18.05556 .28125 Depco, Inc. 15.97222 .28125 Husky Oil Co. of Delaware 15.97222 .05625 John Paul Dunn Janet Ruth Dunn Phillips .05625 Robert Preston Dunn .05625 Alice Lucille Dunn Francis .28125						

		Basic			
Tract	No. of Acres	Serial No. & Royalty Expiration & Per-	Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership
2. (continued)					
			Jerry Curtis	2.81250	
			Howard W.		
			Jennings	1.36719	
			B.R. Polk, Jr.	1.36719	
			Olga M. Atwood	.93750	
			Robert Grant Keyes,		
			Exec. Estate of		
			F. Grant Keyes		
			A/K/A F. G.		
			Keyes	.93750	
			Ben Lee Dunn, Jr.	.05625	
			Yates Brothers	<u>2.25695</u>	(1)
			Tract Total	12.49133	
U.S.A.					
3. T18S, R29E	80.00	LC 028772(c)	Sch "C" Depco, Inc.	50%	H. Dillard
Sec. 7: N/2 NE/4		5-31-79	25 Husky Oil Co.		Schench
			Max. of Delaware	50%	W. E. Flint
					Roy G. Barton
					John D. Simon
					Lester F. Colby &
					Laverne W.
					Colby & Dorothy A.
					Colby Feltz
					Eva I. Cernich
					<u>.08789</u>
					Tract Total
					7.50000

EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration	Basic Royalty & Percentage Lessee of Record	Royalty	
					Overriding Royalty & Percentage	Working Interest Ownership
6.	T18S, R29E	139.93	LC 058126	U.S.A. Anadarko Produc-	Olen F.	Harvey E. Yates Co.
	Sec. 6: Lots 3, 4		HBP	Sch "B" tion Co.	Featherstone	
	(W/2 SW/4),			12.5 Southland	Josephine D.	
	E/2 SW/4			Limit Royalty Co.	Hawley	
				50%	.25000	
					Eudora Hawley	
					Heilman	
					.25000	
					Dolores Ponton	
					.08333	
					Robert F. Travis	
					.25000	
					Robert F.	
					Travis, Jr.	
					.41667	
					Yates Brothers	
					.25000	
					Harvey E. Yates	
					1.50000	
					Louise D.Yates	
					1.50000	
					Tract Total	
					5.00000	
6-A	T18S, R29E	160.00	LC 058126	U.S.A. Anadarko Produc-	Olen F.	Harvey E. Yates Co.
	Sec. 6: SE/4		HBP	Sch "B" tion Co.	Featherstone	
				32 Southland	Josephine D.	
				Max. Royalty Co.	Hawley	
				50%	.25000	
					Eudora Hawley	
					Heilman	
					.25000	
					Dolores Ponton	
					.08333	
					Robert F.Travis	
					.25000	
					Robert F.	
					Travis, Jr.	
					.41667	
					Yates Brothers	
					.25000	
					Harvey E. Yates	
					1.50000	
					Louise D.Yates	
					1.50000	
					Tract Total	
					5.00000	

EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration	Royalty & Percentage of Lease	Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership
7.	T18S, R29E Sec. 5: SE/4 NW/4, SW/4 NE/4	80.00	LC 058580 HBP	U.S.A. Sch "B" 32 Max.	Texas American Oil Corp.	Mary Anne Berliner Me-Tex Supply Co. Tract Total	Bright, Schiff & Kennedy, a partnership 3.12500 5.00000
8.	T18S, R29E Sec. 4: W/2 NW/4 Sec. 5: E/2 NE/4	160.00	LC 058581 HBP	U.S.A. Sch "B" 32 Max.	J. Cleo Thompson, Sr.	Betty Flint Bayer First National Bank of Dona Ana County, Trustee For the W. E. and Elaine V. Flint Trust Sue Flint Floore Kitty Flint Livingston Leah B. Waltrip Sue Floore and Russell Floore Execs. of the Will & Estate of Anna M. Flint, Deceased	J. Cleo Thompson, Sr. & J. Cleo Thompson, Jr. I & L Development Co. Sam Lett 16.67% 16.67%
						6.26532	
Tract Total						12.81250	

				Basic					
Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date of Lease	Royalty & Per-centage	Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership		
9.	T18S, R29E Sec. 6: E/2 NE/4	80.00	LC 058582 HBP	U.S.A. Harvey E. Yates Co. Sch "B" 32 Max.	Mary Anne Berliner W. L. Ivey & Ben E. Ivey Kennedy Oil Co. Tract Total	1.87500 9.06250 <u>3.12500</u> 14.06250	Harvey E. Yates Co. (3)		
10.	T18S, R29E Sec. 8: NW/4 NW/4	40.00	LC 058603 4-30-79	U.S.A. Texas American Oil Corp. Sch "D" 33-1/3 Max.	Me-Tex Supply Co. Tract Total	<u>3.12500</u> 3.12500	Bright, Schiff & Kennedy, a partnership		
11.	T18S, R29E Sec. 5: W/2 NW/4	80.00	LC 060888 HBP	U.S.A. Depco, Inc. Sch "B" Husky Oil Co. 32 Max.	Mary Anne Berliner Tract Total	<u>1.87500</u> 1.87500	Depco, Inc. 25% Husky Oil Co. 25% of Delaware Tenneco Oil Co.		50%
12.	T18S, R29E Sec. 8: E/2 NW/4, SW/4 NW/4	120.00	LC 061702 4-30-79	U.S.A. Anadarko Production Co. Sch "D" 33-1/3 Max.	- -	-0-	Charlene K. Seay Tenneco Oil Co.		50%

Tract No.	Description of Land	No. of Acres	Basic		Date of Lease	Lessee of Record	Overriding Royalty & Percentage		Working Interest Ownership
			Serial No. & Royalty	No. of Expiration & Per-					
13.	T17S, R29E Sec. 30: N/2 SE/4	80.00	LC 062407	U.S.A. Depco, Inc.	50%	Tenneco Oil Co.	25.00000	Depco, Inc.	50%
			HBP	Sch "B" Husky Oil Co.		Robert J. Leonard	1.66667	Husky Oil Co.	
				12.5 of Delaware	50%	Patrick J.		of Delaware	50%
				Limit		Leonard	1.66667		
						Timothy T.			
						Leonard	<u>1.66666</u>		
						Tract Total	30.00000		
13-A	T17S, R29E	189.32	LC 062407	U.S.A. Depco, Inc.	50%	Robert J. Leonard	1.66667	Depco, Inc.	25%
	Sec. 30: S/2 SE/4		HBP	Sch "B" Husky Oil Co.		Patrick J.		Husky Oil Co.	
	Sec. 31: Lot 4			12.5 of Delaware	50%	Leonard	1.66667	of Delaware	25%
	(SW/4 SW/4)			Limit		Timothy T.		Tenneco Oil	
	Sec. 33: N/2 SW/4					Leonard	<u>1.66666</u>	Co.	50%
						Tract Total	5.00000		
14.	T18S, R29E	40.00	LC 065374-A	U.S.A. Harvey E. Yates Co.		Betty Flint Bayer	.53286	Harvey E. Yates Co.	
	Sec. 6: NW/4 NE/4		HBP	Sch "B"		First National			
				32		Bank of Dona Ana			
				Max.		County Trustee for			
						the W. E. and			
						Elaine V. Flint			
						Trust	.39107		
						Sue Flint Floore	.54369		
						Kitty Flint			
						Livingston	.54369		
						Leah B. Waltrip	.54369		

Tract no.	Description of Land	No. of Acres	Basic		Overriding Royalty & Percentage	Working Interest Ownership
			Serial No. & Expiration	Royalty & Per- centage		

14. (continued)

Sue Floore and
Russell Floore,
Exes. of the Will
& Estate of Anna M.
Flint, Deceased 2.44500
Kennedy Oil Co. 3.12500 (3)
Tract Total 8.12500

15.	T18S, R29E Sec. 6: SW/4 NE/4	40.00	NM 9026 (KGS) 4-30-74	U.S.A. Anadarko Production Co. Sch "B" 25 Max.	- -	-0-	Harvey E. Yates Co.
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16.	T18S, R29E Sec. 4: E/2 NW/4 Sec. 5: NW/4 NE/4, NE/4 NW/4	160.00	NM 9011 HBP	U.S.A. Depco, Inc. 50% Sch "B" Husky Oil Co. of 32 Delaware 50% Max.	Betty Flint Bayer First National Bank of Dona Ana County Trustee for the W. E. and Elaine V. Flint Trust Sue Flint Floore Kitty Flint Livingston Leah B. Waltrip Sue Floore and Russell Floore, Execs. of the Will & Estate of Anna M. Flint, Deceased	Depco, Inc. 50% Husky Oil Co. of Delaware 50%
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.53286
.54369
.54369
.54369
2.44500
2.44500
Tract Total 5.00000

Tract		Basic		Working Interest	
No.	Description of Land	No. of Acres	Serial No. & Royalty & Per- Date of Lease centage Lessee of Record	Overriding Royalty & Percentage	Ownership
17.	T17S, R29E				
Sec. 31:	Lots 1, 2	417.49	NM 0555569		General American
	(W/2 NW/4),		Sch "D" Oil Co. of Texas		Oil Co. of Texas
	NE/4, NE/4 SW/4,		12.5		
	N/2 SE/4, E/2 NW/4		Limit		
				Bank of America	
				National Trust &	
				Savings Assoc.,	
				Exec. of Estate	
				of C.J. Dexter	2.50000
				Willie Berry and	
				Wilma Connor, Co-	
				Execs. of the	
				Last Will and	
				Testament of J. W.	
				Berry, Deceased	<u>2.50000</u>
				Tract Total	5.00000
17-A	T17S, R29E	29.09	NM 0555569		General American
Sec. 31:	Lot 3		Sch "D" Oil Co. of Texas		Oil Co. of Texas
	(NW/4 of SW/4)		33-1/3		
			Max.		
				Bank of America	
				National Trust &	
				Savings Assoc.,	
				Exec. of Estate	
				of C. J. Dexter	2.50000
				Willie Berry and	
				Wilma Connor, Co-	
				Execs. of the	
				Last Will and	
				Testament of J. W.	
				Berry, Deceased	<u>2.50000</u>
				Tract Total	5.00000

EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

Tract	Description of Land	No. of Acres	Basic		Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership
			Serial No. & Expiration Date of Lease	Royalty & Per-centage			
18.	T18S, R29E Sec. 6: Lots 1, 2 (W/2 NW/4)	59.23	NM 0558119 (KGS) 10-31-72	U.S.A. Sch "B" 25 Max.	Harvey E. Yates Co.	Penrock Oil Corp. 5.00000 Tract Total 5.00000	(4) Harvey E. Yates Co.
19.	T18S, R29E Sec. 6: E/2 NW/4	80.00	NM 0560401 8-31-71	U.S.A. Sch "B" 25 Max.	Cities Service Oil Co.	- - -0-	Cities Service Oil Co.

22 FEDERAL TRACTS, 2655.65 ACRES OR 53.4565%

State Lands

[illegible]

		Basic			
Tract	No.	Serial No. & Royalty	Working Interest		
No.	Description of Land	Acres	Date of Expiration & Per-	Lease centage	Lessee of Record

21. (continued)

Estate of Myrtle					
Schneider					
McLaughlin		.083333			
Hester Terpening		.083333			
Dorothy Schneider		.020833			
Elizabeth J. Schneider					
Fullingim		.010417			
Francis D.					
Schneider		.010417			
W. R. Atkinson		.250000			
National Bank of					
Commerce Trust &					
Savings Assoc.,					
Trustee for the					
Estate of Blanch					
Widaman, Dec'd.		.250000			
Tracy P. Clark		.375000			
Robert E. Boling		<u>.375000</u>			
Tract Total		2.250000	(6)		

22.	T17S, R29E	40.00	B-2023-10	12.5	Tenneco Oil Co.	Amoco Produc-	Tenneco Oil Co.
	Sec. 32: SW/4 SW/4		HBP	State		tion Co.	<u>12.500000</u> (7)
				of N.M.		Tract Total	12.500000

		Basic						
Tract		Serial No. & Royalty		Working Interest				
No.	Description of Land	No. of Acres	Expiration Date of Lease	centage Lessee of Record	Overriding Royalty & Percentage	Ownership		
23.	T17S, R29E Sec. 32: SW/4 NE/4	40.00	B-2023-13 HBP	12.5 State of N.M.	Amoco Production Co.	Yates Investment Co. Harvey E. Yates Tract Total	Harvey E. Yates Co. 3.12500 <u>3.12500</u> 6.25000	
24.	T17S, R29E Sec. 31: SE/4 SW/4	40.00	B-4458-33 HBP	12.5 State of N.M.	Harvey E. Yates Co.	Julia M. Williams, formerly Paschall Jack Plemons Tract Total	Harvey E. Yates Co. 3.1250 <u>3.1250</u> 6.2500	
25.	T17S, R29E Sec. 32: NW/4 SW/4	40.00	B-4918-85 HBP	12.5 State of N.M.	Mrs. Irene Cowell	- -	-0- Irene Cowell	
26.	T17S, R29E Sec. 32: NE/4 SW/4	40.00	B-4918-93 HBP	12.5 State of N.M.	Miller-Smith Contractors, Inc.	P. J. Vidal Tract Total	<u>5.0000</u> 5.0000	O. H. Randel
27.	T17S, R29E Sec. 32: SE/4 SW/4	40.00	B-4918-98 HBP	12.5 State of N.M.	Harold Kersey	Harold Kersey Harold Kersey, Trustee for Lorena Mae Tallmadge Irene Cowell W. L. Shaner P. J. Vidal Thelma Methvin Margaret Holcomb J. R. Butler	4.357150 	

EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

				Basic						
Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration	Royalty & Per-centage of Lease	Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership			
27. (continued)										
28.	T17S, R29E Sec. 32: SE/4 SE/4	40.00	B-5084-134 HBP	12.5 State of N.M.	Featherstone Farms, Ltd.	Irene Cowell	(8) Featherstone Farms, Ltd Harold Kersey Roland McLean Charles W. Hicks	37.5%		
						Tract Total				6.25000
29.	T17S, R29E Sec. 32: NE/4 SE/4	40.00	B-5084-95 HBP	12.5 State of N.M.	P. J. Vidal	P. J. Vidal	M. W. Smith Kathleen Miller	50%		
						Tract Total				12.50000
30.	T17S, R29E Sec. 32: SW/4 SE/4	40.00	B-5084-129 HBP	12.5 State of N.M.	Miller-Smith Contractors, Inc.	Rudolph L. Dalager	M. W. Smith Kathleen Miller	50%		
						Tract Total				6.25000
31.	T17S, R29E Sec. 30: Lot 4 (SW/4 SW/4), SE/4 SW/4	68.40	B-7596-Orig. HBP	12.5 State of N.M.	Continental Oil Co.	- -	Continental Oil Co.			
						-0-				

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration	Basic Royalty & Percentage	Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership
32.	T17S, R29E Sec. 32: SW/4 NW/4	40.00	E-7640 HBP	12.5 State of N.M.	Tenneco Oil Co.	Robert J. Leonard Patrick J. Leonard Timothy T. Leonard <u>3.1250</u> Tract Total 9.3750 (9)	Tenneco Oil Co.
33.	T17S, R28E Sec. 36: SE/4 SE/4	40.00	B-11593-8 HBP	12.5 State of N.M.	Sun Oil Company	Sun Oil Company <u>12.5000</u> Tract Total 12.5000	Harvey E. Yates Co.
34.	T17S, R29E Sec. 32: N/2 NW/4, SE/4 NW/4	120.00	E-537-5 HBP	12.5 State of N.M.	Leland Wittkopp and Virginia L. Wittkopp	Kerr-McGee Corp. <u>12.5000</u> Tract Total 12.5000	Harvey E. Yates Co.
35.	T17S, R28E Sec. 36: SW/4 SE/4	40.00	E-949-Orig. HBP	12.5 State of N.M.	Atlantic Richfield Co.	- - -0-	Atlantic Richfield Co.
36.	T18S, R28E Sec. 1: W/2 NE/4 E/2 NW/4, SW/4 NW/4, N/2 SW/4, SE/4 SW/4, SW/4 SE/4	360.00	E-1284-3 HBP	12.5 State of N.M.	Harvey E. Yates Co.	C. O. Fulton <u>3.1250</u> Tract Total 3.1250	Harvey E. Yates Co.

EXHIBIT "B" - EMPIRE SOUTH DEEP AREA, EDDY COUNTY, NEW MEXICO

Tract No.	Description of Land	No. of Acres	Basic		Date of Lease	Lessees of Record	Overriding Royalty & Percentage	Working Interest Ownership
			Serial No. & Expiration	Royalty & Per-				
37.	T17S, R29E Sec. 30: Lots 1,2,3, E/2 NW/4 Sec. 31: S/2 SE/4 Sec. 32: SE/4 NE/4, NW/4 SE/4	323.82	E-4201-Orig. HBP	12.5 State of N.M.		Continental Oil Co.	- -	-0- Continental Oil Co.
38.	T18S, R28E Sec. 1: E/2 NE/4	80.00	E-6946 HBP	12.5 State of N.M.		Harvey E. Yates Co.	Jerry Curtis Ralph Nix Tract Total	3.7500 3.7500 7.5000 (10) Harvey E. Yates Co.
39.	T17S, R29E Sec. 32: NE/4 NE/4	40.00	E-7664-1 HBP	12.5 State of N.M.		Miller & Smith Contractors, Inc.	- -	-0- Donald Brown
40.	T18S, R28E Sec. 1: SE/4 SE/4	40.00	L-1645-1 11-19-78	12.5 State of N.M.		Anadarko Production Co.	- -	-0- Harvey E. Yates Co.
41.	T17S, R29E Sec. 30: NE/4 SW/4 (11) Sec. 32: NW/4 NE/4	80.00	OG 181-1 HBP	12.5 State of N.M.		Harvey E. Yates Co.	Humble Oil & Refining Co. Tract Total	5.46875 5.46875 5.46875 Harvey E. Yates Co.
22 STATE OF NEW MEXICO TRACTS 1992.22 ACRES OR 40.1021%								

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration		Date of Lease	Basic Royalty & Percentage	Lessee of Record	Over-riding Royalty & Percentage		Working Interest Ownership

Fee Lands

42	T18S, R29E Sec. 5: NE/4 SW/4, SW/4 SE/4, W/2 SE/4 SE/4	100.00	HBP							
				Anna Auriemma		.41667	Harvey E. Yates Co.	-0-		Harvey E. Yates Co.
				J. C. Burleson		.19791				
				J. R. Cone		.62500				
				George L. Dahl		.34636				
				Olen F. Featherstone		.41667				
				M. A. Genaro		.34635				
				Vera H. Herren, Ind. & as Exec. of Est. of Harry H. Herren		1.14583				
				Don E. McInturff		.02084				
				Midland National Bank, Trust Acct.						
				0339-01-6		.02083				
				Julia M. Williams		.48828				
				Omaha National Bank, Trustee for Kathleen Drake		.41667				
				Mildred L. Otte		.04167				
				Donald M. Phillips		.08333				
				Ross M. Phillips		.08333				
				Laurence G. Phillips		.08333				
				Paul M. Phillips		.08334				
				John W. Phillips		.08334				
				Rabinowitz Agencies Nos. 2085, 1-4 and 2086		.34635				

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration		Basic Royalty & Percentage	Lessee of Record	Over-riding Royalty & Percentage		Working Interest Ownership
			No.	Date of Lease			centage	Ownership	
42. (continued)									
	George L. Reese, Jr.				.57291				
	Holly C. Shuler				1.56250				
	Leona L. Stagner				.57292				
	R. G. Storey & Sons				.34636				
	George Howell								
	Williams				.48828				
	Yates Brothers				<u>3.71093</u>				
	Tract Total				12.50000				
42-A	T18S, R29E	20.00	HBP						
Sec. 5:	E/2 SE/4 SE/4								
	Holly C. Shuler				6.25000	Harvey E. Yates Co.	-0-		Harvey E. Yates Co.
	Julia M. Williams				.48828				
	Yates Brothers				5.27344				
	George Howell								
	Williams				<u>.48828</u>				
	Tract Total				12.50000				
43.	T18S, R29E	80.00	HBP						
Sec. 5:	NW/4 SW/4, SE/4 SW/4								
	Anna Auriemma				.41667	Depco, Inc.	25%	-0-	Depco, Inc.
	J. C. Burleson				.19791	Husky Oil Co.	25%		Husky Oil Co.
	J. R. Cone				.62500	of Delaware			of Delaware
	George L. Dahl				.34636	Tenneco Oil	50%		Tenneco Oil
	Olen F. Featherstone				.41667	Co.			Co.
	M. A. Genaro				.34635				
	Vera H. Herren, Ind. & as Exec. of Est. of Harry H. Herren				1.14583				
	Don E. McInturff				.02084				

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Percentage	Lessee of Record	Over-	
						riding Royalty & Per- centage	Working Interest Ownership
43. (continued)							
	Midland National Bank, Trust Acct. 0339-01-6			.02083			
	Julia M. Williams Omaha National Bank, Trustee for Kathleen Drake			.48828			
	Mildred L. Otte			.41667			
	Donald M. Phillips			.04167			
	Ross M. Phillips			.08333			
	Laurence G. Phillips			.08333			
	Paul M. Phillips			.08334			
	John W. Phillips			.08334			
	Rabinowitz Agencies Nos. 2085, 1-4 and 2086						
	George L. Reese, Jr.			.34635			
	Holly C. Shuler			.57291			
	Leona L. Stagner			1.56250			
	R. G. Storey & Sons			.57292			
	George Howell			.34636			
	Williams			.48828			
	Yates Brothers			<u>3.71093</u>			
	Tract Total			12.50000			

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration		Basic Royalty & Percentage	Lessee of Record	Over-riding Royalty & Percentage	
			Date of Lease	Date of Expiration			Working Interest Ownership	Working Interest Ownership
14.	T18S, R29E Sec. 5: N/2 SE/4, SW/4 SW/4	120.00	HBP				-0-	Me-Tex Supply Co.
				Anna Auriemma	.41667	Me-Tex Supply Co.		
				J. C. Burleson	.19791			
				J. R. Cone	.62500			
				George L. Dahl	.34636			
				Olen F. Featherstone	.41667			
				M. A. Genaro	.34635			
				Vera H. Herren, Ind. & as Exec. of Est. of				
				Harry H. Herren	1.14583			
				Don E. McInturff	.02084			
				Midland National Bank, Trust Acct.				
				0339-01-6	.02083			
				Julia M. Williams	.48828			
				Omaha National Bank, Trustee for Kathleen Drake	.41667			
				Mildred L. Otte	.04167			
				Donald M. Phillips	.08333			
				Ross M. Phillips	.08333			
				Laurence G. Phillips	.08333			
				Paul M. Phillips	.08334			
				John W. Phillips	.08334			
				Rabinowitz Agencies Nos. 2085, 1-4 and 2086	.34635			

Tract No.	Description of Land	Acres	Serial No. & No. of Expiration		Date of Lease	Basic Royalty & Percentage	Lessee of Record	Over-riding Royalty & Per-		Working Interest Ownership
								centage		
14. (continued)										
						George L. Reese, Jr.	.57291			
						Holly C. Shuler	1.56250			
						Leona L. Stagner	.57292			
						R. G. Storey & Sons	.34636			
						George Howell				
						Williams	.48828			
						Yates Brothers	3.71093			
						Tract Total	12.50000			

4 FEE TRACTS 320 ACRES OR 6.4414%

TOTAL 48 TRACTS 4967.87 ACRES IN ENTIRE UNIT AREA

- (1) Tract No. 2: In addition to an overriding royalty in the amount of 10.23438%, which is charged to the working interest owners in accordance with their percentage ownership in the tract, the interest of Yates Petroleum Corporation is subject to an overriding royalty in the amount of 2.25695% owned by Yates Brothers.
- (2) Tract No. 5: Tenneco Oil Company owns a production payment in the original amount of \$4,000.00 payable out of 6.25% of 8/8ths when daily average production per well averages 10 BOPD or more on a monthly basis. The unpaid balance as of 9-1-70 was \$2,773.22. In the event this production payment is retired the interest shall be credited to Harold Kersey.
- (3) Tracts Nos. 9 and 14: Kennedy Oil Company's interest is a production payment in the amount of \$1,000,000.00 payable out of 3.125% of 8/8ths from depth rights below 3500 feet on Tract Nos. 9 and 14. In the event this production payment is retired this interest shall be credited to Harvey E. Yates Company 50% and Midwest Oil Corporation 50%.

- (4) Tract No. 18: The Penrock Oil Corporation interest is a production payment in the amount of \$44,422.50 payable out of 5% of 8/8ths. In the event this production payment is retired this interest shall be credited to Harvey E. Yates 50% and Midwest Oil Corporation 50%.
- (5) Tract No. 20: This 2.25695% of 8/8ths overriding royalty is payable only out of the interest owned by Yates Petroleum Corporation.
- (6) Tract No. 21: All payable out of the interest of Cities Service Oil Co.
- (7) Tract No. 22: When daily average production on a monthly basis is 20 BOPD or less the overriding royalty is 6.25% of 8/8ths and when it is over 20 BOPD the overriding royalty is 12.5% of 8/8ths. In the event of a pumping well the extra 6.25% revenue interest shall be credited to Tenneco Oil Company 50%; Harvey E. Yates Company 25% and Midwest Oil Corporation 25%.
- (8) Tract No. 28: The overriding royalty on this tract is 6.25% of 8/8ths when daily average production on a monthly basis is 10 BOPD or greater; 5% of 8/8ths between 5 and 10 BOPD and 3.125% of 8/8ths less than 5 BOPD. Any additional revenue interest resulting from these royalty rates shall be credited to Featherstone Farms, Ltd. 50%, Harvey E. Yates Company 25% and Midwest Oil Corporation 25%.
- (9) Tract No. 32: This interest is a production payment in the initial amount of \$3,000,000.00 payable out of 3/32 of 8/8ths (9.375%) covering this and other lands. In the event this production payment is retired the increase in revenue interest shall be credited to Tenneco Oil Company 50%; Harvey E. Yates Company 25% and Midwest Oil Corporation 25%.
- (10) Tract No. 38: This interest is a production payment in the amount of \$80,000.00 payable out of 7-1/2% of 8/8ths. In the event this production payment is retired the increase in revenue interest shall be credited to Harvey E. Yates Company 50% and Midwest Oil Corporation 50%.
- (11) Tract No. 41: As to the NE/4 SW/4 of Sec. 30, T17S, R29E, depth rights below 6463 feet subsurface.

RECEIVED
SEP 20 1971
OIL CONSERVATION COMM.
SANTA FE

UNIT AGREEMENT FOR THE DEVELOPMENT
AND OPERATION OF THE EMPIRE SOUTH DEEP UNIT AREA
COUNTY OF EDDY, STATE OF NEW MEXICO

INDEX

<u>Section</u>	<u>Title</u>	<u>Page</u>
	Preliminary recitals	1
1	ENABLING ACT AND REGULATIONS	2
2	UNIT AREA	3
3	UNITIZED LAND AND UNITIZED SUBSTANCES	6
4	UNIT OPERATOR	6
5	RESIGNATION OR REMOVAL OF UNIT OPERATOR	6
6	SUCCESSOR UNIT OPERATOR	8
7	ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT	9
8	RIGHTS AND OBLIGATIONS OF UNIT OPERATOR	10
9	DRILLING TO DISCOVERY	10
10	PLAN OF FURTHER DEVELOPMENT AND OPERATION	11
11	PARTICIPATION AFTER DISCOVERY	13
12	ALLOCATION OF PRODUCTION	15
13	DEVELOPMENT OR OPERATION OF NON-PARTICIPATING LAND OR FORMATIONS	17
14	ROYALTY SETTLEMENT	17
15	RENTAL SETTLEMENT	19
16	CONSERVATION	20
17	DRAINAGE	20
18	LEASES AND CONTRACTS CONFORMED AND EXTENDED	20
19	COVENANTS RUN WITH LAND	24
20	EFFECTIVE DATE AND TERM	25
21	RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION	26
22	APPEARANCES	27
23	NOTICES	27
24	NO WAIVER OF CERTAIN RIGHTS	27
25	UNAVOIDABLE DELAY	27
26	NONDISCRIMINATION	28
27	LOSS OF TITLE	28
28	NON-JOINDER AND SUBSEQUENT JOINDER	29
29	COUNTERPARTS	30
30	SURRENDER	30
31	TAXES	32
32	CONFLICT OF SUPERVISION	32
33	NO PARTNERSHIP	33

Exhibit "A" (Map)

Exhibit "B" (Description of interests subject to agreement)

1	UNIT AGREEMENT	1
2	FOR THE DEVELOPMENT AND OPERATION	2
3	OF THE	3
4	EMPIRE SOUTH DEEP UNIT AREA	4
5	COUNTY OF EDDY	5
6	STATE OF NEW MEXICO	6
7	NO. _____	7
8	THIS AGREEMENT, entered into as of the <u>28</u> day of <u>July</u> ,	8
9	1971, by and between the parties subscribing, ratifying, or con-	9
10	senting hereto, and herein referred to as the "parties hereto,"	10
11	<u>W I T N E S S E T H</u> :	11
12	WHEREAS, the parties hereto are the owners of working,	12
13	royalty, or other oil and gas interests in the unit area sub-	13
14	ject to this agreement; and	14
15	WHEREAS, the Mineral Leasing Act of February 25, 1920, 41	15
16	Stat. 437, as amended, 30 U.S.C., Secs. 181 et seq., authorizes	16
17	Federal lessees and their representatives to unite with each	17
18	other, or jointly or separately with others, in collectively	18
19	adopting and operating a cooperative or unit plan of develop-	19
20	ment or operation of any oil or gas pool, field, or like area,	20
21	or any part thereof for the purpose of more properly conserving	21
22	the natural resources thereof whenever determined and certified	22
23	by the Secretary of the Interior to be necessary or advisable	23
24	in the public interest; and	24
25	WHEREAS, the Commissioner of Public Lands of the State of	25
26	New Mexico is authorized by an Act of the Legislature (Sec. 1,	26
27	Chap. 162, Laws of 1951, and Secs. 1 and 2, Chap. 176, Laws of	27
28	1961, See Sections 7-11-39, 40 and 41 New Mexico Statutes, 1953	28
29	Annotated) to consent to or approve this agreement on behalf of	29
30	the State of New Mexico, insofar as it covers and includes lands	30
31	and mineral interests of the State of New Mexico; and	31

1 WHEREAS, the Oil Conservation Commission of the State of New 1
2 Mexico is authorized by Act of Legislature (Chap. 168, Laws 1949) 2
3 to approve this agreement and the conservation provisions hereof; 3
4 and; 4
5 WHEREAS, the parties hereto hold sufficient interests in the 5
6 Empire South Deep Unit Area covering the land hereinafter des- 6
7 cribed to give reasonably effective control of operations therein; 7
8 and 8
9 WHEREAS, it is the purpose of the parties hereto to conserve 9
10 natural resources, prevent waste, and secure other benefits ob- 10
11 tainable through development and operation of the area subject to 11
12 this agreement under the terms, conditions, and limitations herein 12
13 set forth; 13
14 NOW, THEREFORE, in consideration of the premises and the 14
15 promises herein contained, the parties hereto commit to this 15
16 agreement their respective interests in the below-defined unit 16
17 area, and agree severally among themselves as follows: 17
18 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act 18
19 of February 25, 1920, as amended, supra, and all valid pertinent 19
20 regulations, including operating and unit plan regulations, here- 20
21 tofore issued thereunder or valid, pertinent, and reasonable 21
22 regulations hereafter issued thereunder are accepted and made 22
23 a part of this agreement as to Federal lands, provided such regu- 23
24 lations are not inconsistent with the terms of this agreement; and 24
25 as to non-Federal lands, the oil and gas operating regulations 25
26 in effect as of the effective date hereof governing drilling and 26
27 producing operations, not inconsistent with the terms hereof or 27
28 the laws of the State in which the non-Federal land is located, 28
29 are hereby accepted and made a part of this agreement. 29

2. UNIT AREA. The area specified on the map attached hereto marked Exhibit A is hereby designated and recognized as constituting the unit area, containing 4,967.87 acres, more or less.

Exhibit A shows, in addition to the boundary of the unit area, the boundaries and identity of tracts and leases in said 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, percentage, and kind of ownership of oil and gas interests in all land in the unit area. 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. Exhibits A and B shall be revised by the Unit Operator whenever changes in the unit area render such revision necessary, or when requested by the Oil and Gas Supervisor, hereinafter referred to as "Supervisor" and not less than five copies of the revised exhibits shall be filed with the Supervisor, and two copies each with the Commissioner of Public Lands of the State of New Mexico, hereinafter referred to as the "Commissioner," and the Oil Conservation Commission, hereinafter referred to as "Commission."

The above-described unit area shall when practicable be expanded to include therein any additional lands or shall be contracted to exclude lands whenever such expansion or contraction is deemed to be necessary or advisable to conform with the purposes of this agreement. Such expansion or contraction shall be effected in the following manner:

(a) Unit Operator, on its own motion or on demand of the Director of the Geological Survey, hereinafter referred to as "Director," or on demand of the Commissioner after preliminary concurrence by the Director, shall prepare a notice of

1 proposed expansion or contraction describing the contemplated 1
2 changes in the boundaries of the unit area, the reasons there- 2
3 for, and the proposed effective date thereof, preferably the 3
4 first day of a month subsequent to the date of notice. 4

5 (b) Said notice shall be delivered to the Supervisor 5
6 and the Commissioner and copies thereof mailed to the last known 6
7 address of each working interest owner, lessee, and lessor whose 7
8 interests are affected, advising that 30 days will be allowed for 8
9 submission to the Unit Operator of any objections. 9

10 (c) Upon expiration of the 30-day period provided in 10
11 the preceding item (b) hereof, Unit Operator shall file with the 11
12 Supervisor and the Commissioner evidence of mailing of the notice 12
13 of expansion or contraction and a copy of any objections thereto 13
14 which have been filed with the Unit Operator, together with an 14
15 application in sufficient number, for approval of such expansion 15
16 or contraction and with appropriate joinders. 16

17 (d) After due consideration of all pertinent informa- 17
18 tion, the expansion or contraction shall, upon approval by the 18
19 Supervisor and the Commissioner, become effective as of the date 19
20 prescribed in the notice thereof. 20

21 (e) All legal subdivisions of lands (i.e., 40 acres 21
22 by Government survey or its nearest lot or tract equivalent; in 22
23 the instances of irregular surveys unusually large lots or tracts 23
24 shall be considered in multiples of 40 acres or the nearest ali- 24
25 quot equivalent thereof), no parts of which are entitled to be in 25
26 a participating area on or before the fifth anniversary of the 26
27 effective date of the first initial participating area estab- 27
28 lished under this unit agreement, shall be eliminated auto- 28
29 matically from this agreement, effective as of said fifth anni- 29
30 versary, and such lands shall no longer be a part of the unit 30

1 area and shall no longer be subject to this agreement, unless 1
2 diligent drilling operations are in progress on unitized lands 2
3 not entitled to participation on said fifth anniversary, in which 3
4 event all such lands shall remain subject hereto for so long as 4
5 such drilling operations are continued diligently, with not more 5
6 than 90 days' time elapsing between the completion of one such 6
7 well and the commencement of the next such well. All legal sub- 7
8 divisions of lands not entitled to be in a participating area 8
9 within 10 years after the effective date of the first initial 9
10 participating area approved under this agreement shall be auto- 10
11 matically eliminated from this agreement as of said tenth anni- 11
12 versary. All lands proved productive by diligent drilling opera- 12
13 tions after the aforesaid 5-year period shall become participating 13
14 in the same manner as during said 5-year period. However, when 14
15 such diligent drilling operations cease, all nonparticipating 15
16 lands shall be automatically eliminated effective as of the 91st 16
17 day thereafter. The Unit Operator shall within 90 days after 17
18 the effective date of any elimination hereunder, describe the 18
19 area so eliminated to the satisfaction of the Supervisor and the 19
20 Commissioner and promptly notify all parties in interest. 20

21 If conditions warrant extension of the 10-year period 21
22 specified in this subsection 2(e), a single extension of not 22
23 to exceed 2 years may be accomplished by consent of the owners 23
24 of 90% of the working interests in the current non-participating 24
25 unitized lands and the owners of 60% of the basic royalty 25
26 interests (exclusive of the basic royalty interests of the 26
27 United States) in nonparticipating unitized lands with 27
28 approval of the Director and the Commissioner, provided such 28
29 extension application is submitted to the Director and the Com- 29
30 missioner not later than 60 days prior to the expiration of said 30
31 10-year period.

Any expansion of the unit area pursuant to this section which embraces lands theretofore eliminated pursuant to this subsection 2(e) shall not be considered automatic commitment or recommitment of such lands.

3. UNITIZED LAND AND UNITIZED SUBSTANCES. All oil and gas in and produced from the hereinabove specified lands committed to this agreement, as to all formations at all depths lying beneath a point 4,200 feet below the top of the San Andres formation, such formation top is hereby identified for the purpose of this agreement at 2,350 feet as shown on the Laterolog-Gamma Ray-Neutron log run on January 13, 1961, by Schlumberger Well Surveying Corporation in the Continental State S-30 No. 1 well located 330 feet from the West line and 2,310 feet from the North line of Section 30, Township 17 South, Range 29 East, N.M.P.M., are unitized and designated as unitized substances under the terms of this agreement and said lands shall constitute lands referred to as Unitized Land or land subject to this agreement.

4. UNIT OPERATOR. Midwest Oil Corporation is hereby designated as Unit Operator and by signature hereto as Unit Operator agrees and consents to accept the duties and obligations of Unit Operator for the discovery, 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 interest in unitized substances, and the term "working interest owner" when used herein shall include or refer to Unit Operator as the owner of a working interest when such an interest is owned by it.

5. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time prior to the establishment of a participating area or areas hereunder, but such

1 resignation shall not become effective so as to release Unit 1
2 Operator from the duties and obligations of Unit Operator and 2
3 terminate Unit Operator's rights as such for a period of 6 months 3
4 after notice of intention to resign has been served by Unit Oper- 4
5 ator on all working interest owners and the Supervisor and the 5
6 Commissioner, and until all wells then drilled hereunder are 6
7 placed in a satisfactory condition for suspension or abandonment 7
8 whichever is required by the Supervisor, as to the wells on 8
9 Federal lands, the Commissioner as to the wells on State lands, 9
10 unless a new Unit Operator shall have been selected and approved 10
11 and shall have taken over and assumed the duties and obligations 11
12 of Unit Operator prior to the expiration of said period. 12

13 Unit Operator shall have the right to resign in like man- 13
14 ner and subject to like limitations as above provided at any time 14
15 a participating area established hereunder is in existence, but, 15
16 in all instances of resignation or removal, until a successor 16
17 Unit Operator is selected and approved as hereinafter provided, 17
18 the working interest owners shall be jointly responsible for per- 18
19 formance of the duties of Unit Operator, and shall not later than 19
20 30 days before such resignation or removal becomes effective 20
21 appoint a common agent to represent them in any action to be 21
22 taken hereunder. 22

23 The resignation of Unit Operator shall not release Unit 23
24 Operator from any liability for any default by it hereunder 24
25 occurring prior to the effective date of its resignation. 25

26 The Unit Operator may, upon default or failure in the 26
27 performance of its duties or obligations hereunder, be subject 27
28 to removal by the same percentage vote of the owners of working 28
29 interests as herein provided for the selection of a new Unit 29
30 Operator. Such removal shall be effective upon notice thereof 30
31 to the Supervisor and the Commissioner. 31

1 The resignation or removal of Unit Operator under this 1
2 agreement shall not terminate its right, title, or interest as the 2
3 owner of a working interest or other interest in unitized sub- 3
4 stances, but upon the resignation or removal of Unit Operator 4
5 becoming effective, such Unit Operator shall deliver possession 5
6 of all wells, equipment, materials, and appurtenances used in 6
7 conducting the unit operations to the new duly qualified successor 7
8 Unit Operator or to the common agent, if no such new Unit Opera- 8
9 tor is elected, to be used for the purpose of conducting unit 9
10 operations hereunder. Nothing herein shall be construed as 10
11 authorizing removal of any material, equipment and appurtenances 11
12 needed for the preservation of any wells. 12

13 6. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator 13
14 shall tender his or its resignation as Unit Operator or shall be 14
15 removed as hereinabove provided, or a change of Unit Operator is 15
16 negotiated by working interest owners, the owners of the working 16
17 interests in the participating area or areas according to their 17
18 respective acreage interests in such participating area or areas, 18
19 or, until a participating area shall have been established, the 19
20 owners of the working interests according to their respective 20
21 acreage interests in all unitized land, shall by majority vote 21
22 select a successor Unit Operator: Provided, That, if a majority 22
23 but less than 75 per cent of the working interests qualified to 23
24 vote are owned by one party to this agreement, a concurring vote 24
25 of one or more additional working interest owners shall be re- 25
26 quired to select a new operator. Such selection shall not become 26
27 effective until 27

28 (a) a Unit Operator so selected shall accept in writing 28
29 the duties and responsibilities of Unit Operator, and 29

30 (b) the selection shall have been approved by the Super- 30
31 visor and the Commissioner. 31

1 If no successor Unit Operator is selected and qualified 1
2 as herein provided, the Director and the Commissioner at their 2
3 election may declare this unit agreement terminated. 3

4 7. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. 4
5 the Unit Operator is not the sole owner of working interests, 5
6 costs and expenses incurred by Unit Operator in conducting unit 6
7 operations hereunder shall be paid and apportioned among and 7
8 borne by the owners of working interests, all in accordance with 8
9 the agreement or agreements entered into by and between the Unit 9
10 Operator and the owners of working interests, whether one or more, 10
11 separately or collectively. Any agreement or agreements entered 11
12 into between the working interest owners and the Unit Operator 12
13 as provided in this section, whether one or more, are herein re- 13
14 ferred to as the "unit operating agreement." Such unit operating 14
15 agreement shall also provide the manner in which the working inter-15
16 est owners shall be entitled to receive their respective propor- 16
17 tionate and allocated share of the benefits accruing hereto in 17
18 conformity with their underlying operating agreements, leases, 18
19 or other independent contracts, and such other rights and obliga- 19
20 tions as between Unit Operator and the working interest owners as 20
21 may be agreed upon by Unit Operator and the working interest own- 21
22 ers; however, no such unit operating agreement shall be deemed 22
23 either to modify any of the terms and conditions of this unit 23
24 agreement or to relieve the Unit Operator of any right or obliga- 24
25 tion established under this unit agreement, and in case of any in- 25
26 consistency or conflict between this unit agreement and the unit 26
27 operating agreement, this unit agreement shall govern. Three true 27
28 copies of any unit operating agreement executed pursuant to this 28
29 section should be filed with the Supervisor and two true copies 29
30 with the Commissioner, prior to approval of this unit agreement. 30

1 8. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as other- 1
2 wise specifically provided herein, the exclusive right, privilege, 2
3 and duty of exercising any and all rights of the parties hereto 3
4 which are necessary or convenient for prospecting for, producing, 4
5 storing, allocating, and distributing the unitized substances 5
6 are hereby delegated to and shall be exercised by the Unit Oper- 6
7 ator as herein provided. Acceptable evidence of title to said 7
8 rights shall be deposited with said Unit Operator and, together 8
9 with this agreement, shall constitute and define the rights, privi-9
10 leges, and obligations of Unit Operator. Nothing herein, however, 10
11 shall be construed to transfer title to any land or to any lease 11
12 or operating agreement, it being understood that under this agree- 12
13 ment the Unit Operator, in its capacity as Unit Operator, shall 13
14 exercise the rights of possession and use vested in the parties 14
15 hereto only for the purposes herein specified. 15

16 9. DRILLING TO DISCOVERY. Within 6 months after the effect- 16
17 ive date hereof, the Unit Operator shall begin to drill an ade- 17
18 quate test well at a location approved by the Supervisor if such 18
19 location is upon lands of the United States, and if upon State 19
20 lands, such location shall be approved by the Commissioner, unless 20
21 on such effective date a well is being drilled conformably with 21
22 the terms hereof, and thereafter continue such drilling dili- 22
23 gently to a depth sufficient to penetrate 150 feet into the 23
24 Mississippian formation, or until at a lesser depth unitized 24
25 substances shall be discovered which can be produced in paying 25
26 quantities (to wit: quantities sufficient to repay the costs of 26
27 drilling, completing, and producing operations, with a reason- 27
28 able profit) or the Unit Operator shall at any time establish to 28
29 the satisfaction of the Supervisor as to wells on Federal lands, 29
30 or to the Commissioner as to wells on State lands, that further 30

1 drilling of said well would be unwarranted or impracticable, 1
2 provided, however, that Unit Operator shall not in any event be 2
3 required to drill said well to a depth in excess of 11,500 feet. 3
4 Until the discovery of a deposit of unitized substances capable 4
5 of being produced in paying quantities, the Unit Operator shall 5
6 continue drilling one well at a time, allowing not more than 6
7 months between the completion of one well and the beginning of 7
8 the next well, until a well capable of producing unitized sub- 8
9 stances in paying quantities is completed to the satisfaction of 9
10 said Supervisor and Commissioner or until it is reasonably proved 10
11 that the unitized land is incapable of producing unitized sub- 11
12 stances in paying quantities in the formation drilled hereunder. 12
13 Nothing in this section shall be deemed to limit the right of the 13
14 Unit Operator to resign as provided in Section 5, hereof, or as 14
15 requiring Unit Operator to commence or continue any drilling dur- 15
16 ing the period pending such resignation becoming effective in 16
17 order to comply with the requirements of this section. The Super- 17
18 visor and the Commissioner may modify the drilling requirements 18
19 of this section by granting reasonable extensions of time when, 19
20 in their opinion, such action is warranted. 20

21 Upon failure to commence any well provided for in this 21
22 section within the time allowed, including any extension of time 22
23 granted by the Supervisor and the Commissioner, this agreement 23
24 will automatically terminate; upon failure to continue drilling 24
25 diligently any well commenced hereunder, the Supervisor and Com- 25
26 missioner may, after 15 days' notice to the Unit Operator, de- 26
27 clare this unit agreement terminated. 27

28 10. PLAN OF FURTHER DEVELOPMENT AND OPERATION. Within 6 28
29 months after completion of a well capable of producing unitized 29
30 substances in paying quantities, the Unit Operator shall submit 30

1 for the approval of the Supervisor and the Commissioner an 1
2 acceptable plan of development and operation for the unitized 2
3 land which, when approved by the Supervisor and the Commissioner 3
4 shall constitute the further drilling and operating obligations 4
5 of the Unit Operator under this agreement for the period speci- 5
6 fied therein. Thereafter, from time to time before the expira- 6
7 tion of any existing plan, the Unit Operator shall submit for the 7
8 approval of the Supervisor and the Commissioner a plan for an 8
9 additional specified period for the development and operation of 9
10 the unitized land. 10

11 Any plan submitted pursuant to this section shall provide 11
12 for the exploration of the unitized area and for the diligent 12
13 drilling necessary for determination of the area or areas thereof 13
14 capable of producing unitized substances in paying quantities in 14
15 each and every productive formation and shall be as complete and 15
16 adequate as the Supervisor and the Commissioner may determine to 16
17 be necessary for timely development and proper conservation of 17
18 the oil and gas resources of the unitized area and shall 18

19 (a) specify the number and locations of any wells to be 19
20 drilled and the proposed order and time for such drilling; and 20

21 (b) to the extent practicable specify the operating 21
22 practices regarded as necessary and advisable for proper con- 22
23 servation of natural resources. 23

24 Separate plans may be submitted for separate productive zones, 24
25 subject to the approval of the Supervisor and the Commissioner. 25

26 Plans shall be modified or supplemented when necessary to 26
27 meet changed conditions or to protect the interests of all par- 27
28 ties to this agreement. Reasonable diligence shall be exercised 28
29 in complying with the obligations of the approved plan of develop- 29
30 ment. The Supervisor and the Commissioner are authorized to grant 30

1 a reasonable extension of the 6-month period herein prescribed 1
2 for submission of an initial plan of development where such action 2
3 is justified because of unusual conditions or circumstances. After 3
4 completion hereunder of a well capable of producing any unitized 4
5 substance in paying quantities, no further wells, except such as 5
6 may be necessary to afford protection against operations not 6
7 under this agreement and such as may be specifically approved by 7
8 the Supervisor and the Commissioner, shall be drilled except in 8
9 accordance with a plan of development approved as herein provided. 9
10 11. PARTICIPATION AFTER DISCOVERY. Upon completion of a well 10
11 capable of producing unitized substances in paying quantities or 11
12 as soon thereafter as required by the Supervisor and the Commis- 12
13 sioner, a schedule, based on subdivisions of the public-land sur- 13
14 vey or aliquot parts thereof, of all land then regarded as reason- 14
15 ably proved to be productive in paying quantities; all lands in 15
16 said schedule on approval of the Supervisor and the Commissioner 16
17 to constitute a participating area, effective as of the date of 17
18 completion of such well or the effective date of the unit agree- 18
19 ment, whichever is later. The acreages of both Federal and non- 19
20 Federal lands shall be based upon appropriate computations from 20
21 the courses and distances shown on the last approved public-land 21
22 survey as of the effective date of each initial participating 22
23 area. Said schedule shall also set forth the percentage of uni- 23
24 tized substances to be allocated as herein provided to each tract 24
25 in the participating area so established, and shall govern the 25
26 allocation of production commencing with the effective date of 26
27 the participating area. A separate participating area shall be 27
28 established for each separate pool or deposit of unitized sub- 28
29 stances or for any group thereof which is produced as a single 29
30 pool or zone, and any two or more participating areas so 30

1 established may be combined into one, on approval of the Super- 1
2 visor, and the Commissioner. When production from two or more 2
3 participating areas, so established, is subsequently found to be 3
4 from a common pool or deposit said participating areas shall be 4
5 combined into one effective as of such appropriate date as may be 5
6 approved or prescribed by the Supervisor, and the Commissioner. 6
7 The participating area or areas so established shall be revised 7
8 from time to time, subject to like approval, to include addi- 8
9 tional land then regarded as reasonably proved to be productive 9
10 in paying quantities or necessary for unit operations, or to ex- 10
11 clude land then regarded as reasonably proved not to be productive 11
12 in paying quantities and the schedule of allocation percentages 12
13 shall be revised accordingly. The effective date of any revision 13
14 shall be the first of the month in which is obtained the knowledge 14
15 or information on which such revision is predicated, provided, 15
16 however, that a more appropriate effective date may be used if 16
17 justified by the Unit Operator and approved by the Supervisor and 17
18 the Commissioner. No land shall be excluded from a participating 18
19 area on account of depletion of the unitized substances, except 19
20 that any participating area established under the provisions of 20
21 this unit agreement shall terminate automatically whenever all 21
22 completions in the formation on which the participating area is 22
23 based are abandoned. 23

24 It is the intent of this section that a participating 24
25 area shall represent the area known or reasonably estimated to 25
26 be productive in paying quantities; but, regardless of any revi- 26
27 sion of the participating area, nothing herein contained shall 27
28 be construed as requiring any retroactive adjustment for pro- 28
29 duction obtained prior to the effective date of the revision of 29
30 the participating area.

1 In the absence of agreement at any time between the Unit 1
2 Operator, the Supervisor and the Commissioner as to the proper 2
3 definition or redefinition of a participating area, or until a 3
4 participating area has, or areas have, been established as pro- 4
5 vided herein, the portion of all payments affected thereby shall 5
6 be impounded in a manner mutually acceptable to the owners of 6
7 working interests and the Supervisor and the Commissioner. Roy- 7
8 alties due the United States and the State of New Mexico shall be 8
9 determined by the Supervisor and the Commissioner, respectively, 9
10 and the amount thereof shall be deposited, as directed by the Super-10
11 visor and the Commissioner, respectively, to be held as unearned 11
12 money until a participating area is finally approved and then ap- 12
13 plied as earned or returned in accordance with a determination of 13
14 the sum due as Federal and State royalty on the basis of such ap- 14
15 proved participating area. 15

16 Whenever it is determined, subject to the approval of the 16
17 Supervisor, as to the wells on Federal lands, and the Commissioner 17
18 as to wells on State lands, that a well drilled under this agree- 18
19 ment is not capable of production in paying quantities and inclu- 19
20 sion of the land on which it is situated in a participating area 20
21 is unwarranted, production from such well shall, for the purposes 21
22 of settlement among all parties other than working interest owners, 22
23 be allocated to the land on which the well is located unless such 23
24 land is already within the participating area established for the 24
25 pool or deposit from which such production is obtained. Settle- 25
26 ment for working interest benefits from such a well shall be made 26
27 as provided in the unit operating agreement. 27

28 12. ALLOCATION OF PRODUCTION. All unitized substances pro- 28
29 duced from each participating area established under this agree- 29
30 ment, except any part thereof used in conformity with good 30

1 operating practices within the unitized area for drilling, oper- 1
2 ating, camp and other production or development purposes, for 2
3 repressuring or recycling in accordance with a plan of development 3
4 approved by the Supervisor and the Commissioner, or unavoidably 4
5 lost, shall be deemed to be produced equally on an acreage basis 5
6 from the several tracts of unitized land of the participating 6
7 area established for such production and, for the purpose of 7
8 determining any benefits accruing under this agreement, each such 8
9 tract of unitized land shall have allocated to it such percentage 9
10 of said production as the number of acres of such tract included 10
11 in said participating area bears to the total acres of unitized 11
12 land in said participating area, except that allocation of pro- 12
13 duction hereunder for purposes other than for settlement of the 13
14 royalty, overriding royalty, or payment out of production obliga- 14
15 tions of the respective working interest owners, shall be on the 15
16 basis prescribed in the unit operating agreement whether in con- 16
17 formity with the basis of allocation herein set forth or otherwise. 17
18 It is hereby agreed that production of unitized substances from a 18
19 participating area shall be allocated as provided herein regard- 19
20 less of whether any wells are drilled on any particular part or 20
21 tract of said participating area. If any gas produced from one 21
22 participating area is used for repressuring or recycling purposes 22
23 in another participating area, the first gas withdrawn from such 23
24 last-mentioned participating area for sale during the life of this 24
25 agreement shall be considered to be the gas so transferred until 25
26 an amount equal to that transferred shall be so produced for sale 26
27 and such gas shall be allocated to the participating area from 27
28 which initially produced as such area was last defined at the time 28
29 of such final production.

1 13. DEVELOPMENT OR OPERATION OF NONPARTICIPATING LAND OR 1
2 FORMATIONS. Any party hereto owning or controlling the working 2
3 interest in any unitized land having thereon a regular well loca- 3
4 tion may with the approval of the Supervisor, as to locations on 4
5 Federal lands, and the Commissioner as to locations on State lands, 5
6 at such party's sole risk, costs, and expense, drill a well to 6
7 test any formation for which a participating area has not been 7
8 established or to test any formation for which a participating 8
9 area has been established if such location is not within said 9
10 participating area, unless within 90 days of receipt of notice 10
11 from said party of his intention to drill the well the Unit Oper- 11
12 ator elects and commences to drill such a well in like manner as 12
13 other wells are drilled by the Unit Operator under this agreement. 13
14 If any well drilled as aforesaid by a working interest 14
15 owner results in production such that the land upon which it is 15
16 situated may properly be included in a participating area, such 16
17 participating area shall be established or enlarged as provided 17
18 in this agreement and the well shall thereafter be operated by 18
19 the Unit Operator in accordance with the terms of this agreement 19
20 and the unit operating agreement. 20
21 If any well drilled as aforesaid by a working interest 21
22 owner obtains production in quantities insufficient to justify 22
23 the inclusion of the land upon which such well is situated in a 23
24 participating area, such well may be operated and produced by the 24
25 party drilling the same subject to the conservation requirements 25
26 of this agreement. The royalties in amount or value of produc- 26
27 tion from any such well shall be paid as specified in the under- 27
28 lying lease and agreements affected. 28
29 14. ROYALTY SETTLEMENT. The United States and the State of 29
30 New Mexico and any royalty owner, who is entitled to take in kind 30

1 a share of the substances now unitized hereunder shall hereafter 1
2 be entitled to the right to take in kind its share of the uni- 2
3 tized substances, and Unit Operator, or the working interest owner 3
4 as herein provided for in special cases, shall make deliveries of 4
5 such royalty share taken in kind in conformity with the applicable 5
6 contracts, laws, and regulations. Settlement for royalty inter- 6
7 est not taken in kind shall be made by working interest owners 7
8 responsible therefor under existing contracts, laws, and regula- 8
9 tions, or by the Unit Operator on or before the last day of each 9
10 month for unitized substances produced during the preceding calen- 10
11 dar month; provided, however, that nothing herein contained shall 11
12 operate to relieve the lessees of any land from their respective 12
13 lease obligations for the payment of any royalties due under their 13
14 leases. 14

15 If gas obtained from lands not subject to this agreement 15
16 is introduced into any participating area hereunder, for use in 16
17 repressuring, stimulation of production, or increasing ultimate 17
18 recovery, in conformity with a plan of operations approved by the 18
19 Supervisor and the Commissioner, a like amount of gas, after set- 19
20 tlement as herein provided for any gas transferred from any other 20
21 participating area and with appropriate deduction for loss from 21
22 any cause, may be withdrawn from the formation into which the gas 22
23 is introduced, royalty free as to dry gas, but not as to any 23
24 products which may be extracted therefrom; provided that such 24
25 withdrawal shall be at such time as may be provided in the ap- 25
26 proved plan of operations or as may otherwise be consented to by 26
27 the Supervisor and the Commissioner as conforming to good petrol- 27
28 eum engineering practice; and provided further, that such right 28
29 of withdrawal shall terminate on the termination of this unit 29
30 agreement. 30

1 Royalty due the United States shall be computed as pro- 1
2 vided in the operating regulations and paid in value or delivered 2
3 in kind as to all unitized substances on the basis of the amounts 3
4 thereof allocated to unitized Federal land as provided herein at 4
5 the rates specified in the respective Federal leases, or at such 5
6 lower rate or rates as may be authorized by law or regulation; 6
7 provided, that for leases on which the royalty rate depends on 7
8 the daily average production per well, said average production 8
9 shall be determined in accordance with the operating regulations 9
10 as though each participating area were a single consolidated lease.10
11 Royalty due the State of New Mexico shall be computed and paid on 11
12 the basis of the amounts allocated to unitized State land as pro- 12
13 vided herein at the rate specified in the State Oil and Gas Lease. 13
14 15. RENTAL SETTLEMENT. Rental or minimum royalties due on 14
15 leases committed hereto shall be paid by working interest owners 15
16 responsible therefor under existing contracts, laws, and regulations, 16
17 provided that nothing herein contained shall operate to relieve 17
18 the lessees of any land from their respective lease obligations 18
19 for the payment of any rental or minimum royalty due under their 19
20 leases. Rental or minimum royalty for lands of the United States 20
21 subject to this agreement shall be paid at the rate specified in 21
22 the respective leases from the United States unless such rental 22
23 or minimum royalty is waived, suspended, or reduced by law or by 23
24 approval of the Secretary or his duly authorized representative. 24
25 Rentals on State of New Mexico lands subject to this agreement 25
26 shall be paid at the rates specified in the respective leases, 26
27 or may be reduced and suspended upon the order of the Commissioner 27
28 of Public Lands of the State of New Mexico pursuant to applicable 28
29 laws and regulations.

1 With respect to any lease on non-Federal land containing 1
2 provisions which would terminate such lease unless drilling oper- 2
3 ations are commenced upon the land covered thereby within the time 3
4 therein specified or rentals are paid for the privilege of defer- 4
5 ring such drilling operations, the rentals required thereby shall, 5
6 notwithstanding any other provision of this agreement, be deemed 6
7 to accrue and become payable during the term thereof as extended 7
8 by this agreement and until the required drilling operations are 8
9 commenced upon the land covered thereby or until some portion of 9
10 such land is included within a participating area. 10

11 16. CONSERVATION. Operations hereunder and production of 11
12 unitized substances shall be conducted to provide for the most 12
13 economical and efficient recovery of said substances without waste, 13
14 as defined by or pursuant to State or Federal law or regulation. 14

15 17. DRAINAGE. The Unit Operator shall take such measures as 15
16 the Supervisor and the Commissioner deem appropriate and adequate 16
17 to prevent drainage of unitized substances from unitized land by 17
18 wells on land not subject to this agreement. 18

19 18. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, 19
20 conditions, and provisions of all leases, subleases, and other 20
21 contracts relating to exploration, drilling, development, or 21
22 operation for oil or gas on lands committed to this agreement are 22
23 hereby expressly modified and amended to the extent necessary to 23
24 make the same conform to the provisions hereof, but otherwise to 24
25 remain in full force and effect; and the parties hereto hereby 25
26 consent that the Secretary and the Commissioner, respectively, 26
27 shall and by their approval hereof, or by the approval hereof 27
28 by their duly authorized representatives, do hereby establish, 28
29 alter, change, or revoke the drilling, producing, rental, minimum 29
30 royalty, and royalty requirements of Federal and State leases 30

1 committed hereto and the regulations in respect thereto to con- 1
2 form said requirements to the provisions of this agreement, and, 2
3 without limiting the generality of the foregoing, all leases, sub- 3
4 leases, and contracts are particularly modified in accordance with 4
5 the following: 5

6 (a) The development and operation of lands subject to 6
7 this agreement under the terms hereof shall be deemed full per- 7
8 formance of all obligations for development and operation with 8
9 respect to each and every separately owned tract subject to this 9
10 agreement, regardless of whether there is any development of any 10
11 particular tract of the unit area. 11

12 (b) Drilling and producing operations performed here- 12
13 under upon any tract of unitized lands will be accepted and deemed 13
14 to be performed upon and for the benefit of each and every tract 14
15 of unitized land, and no lease shall be deemed to expire by rea- 15
16 son of failure to drill or produce wells situated on the land 16
17 therein embraced. 17

18 (c) Suspension of drilling or producing operations on 18
19 all unitized lands pursuant to direction or consent of the Secre- 19
20 tary or his duly authorized representative, and on all unitized 20
21 lands of the State of New Mexico pursuant to the consent of the 21
22 Commissioner, or his duly recognized representative, shall be 22
23 deemed to constitute such suspension pursuant to such direction 23
24 or consent as to each and every tract of unitized land. A sus- 24
25 pension of drilling or producing operations limited to specified 25
26 lands shall be applicable only to such lands. 26

27 (d) Each lease, sublease or contract relating to the 27
28 exploration, drilling, development or operation for oil or gas of 28
29 lands other than those of the United States and the State of New 29
30 Mexico committed to this agreement, which, by its terms might 30

1 expire prior to the termination of this agreement, is hereby ex- 1
2 tended beyond any such terms so provided therein so that it shall 2
3 be continued in full force and effect for and during the term of 3
4 this agreement. 4

5 (e) Any Federal lease for a fixed term of twenty (20) 5
6 years or any renewal thereof or any part of such lease which is 6
7 made subject to this agreement shall continue in force beyond the 7
8 term provided therein until the termination hereof. Any other 8
9 Federal lease committed hereto shall continue in force beyond the 9
10 term so provided therein or by law as to the land committed so 10
11 long as such lease remains subject hereto, provided that produc- 11
12 tion is had in paying quantities under this unit agreement prior 12
13 to the expiration date of the term of such lease, or in the event 13
14 actual drilling operations are commenced on unitized land, in 14
15 accordance with the provisions of this agreement, prior to the 15
16 end of the primary term of such lease and are being diligently 16
17 prosecuted at that time, such lease shall be extended for two 17
18 years and so long thereafter as oil or gas is produced in paying 18
19 quantities in accordance with the provisions of the Mineral Leas- 19
20 ing Act Revision of 1960. 20

21 (f) Each sublease or contract relating to the operation 21
22 and development of unitized substances from lands of the United 22
23 States committed to this agreement, which by its terms would ex- 23
24 pire prior to the time at which the underlying lease, as extended 24
25 by the immediately preceding paragraph, will expire, is hereby 25
26 extended beyond any such term so provided therein so that it 26
27 shall be continued in full force and effect for and during the 27
28 term of the underlying lease as such term is herein extended. 28

29 (g) The segregation of any Federal lease committed to 29
30 this agreement is governed by the following provision in the 30

1 fourth paragraph of Sec. 17(j) of the Mineral Leasing Act, as 1
2 amended by the Act of September 2, 1960 (74 Stat. 781-784): "Any 2
3 (Federal) lease heretofore or hereafter committed to any such 3
4 (unit) plan embracing lands that are in part within and in part 4
5 outside of the area covered by any such plan shall be segregated 5
6 into separate leases as to the lands committed and the lands not 6
7 committed as of the effective date of unitization: Provided, 7
8 however, That any such lease as to the nonunitized portion shall 8
9 continue in force and effect for the term thereof but for not 9
10 less than two years from the date of such segregation and so long 10
11 thereafter as oil or gas is produced in paying quantities." 11

12 (h) Any lease embracing lands of the State of New Mexico 12
13 which is made subject to this agreement shall continue in force 13
14 beyond the term provided therein as to the lands committed hereto 14
15 until the termination hereof. 15

16 (i) Any lease embracing lands of the State of New Mexico 16
17 having only a portion of its lands committed hereto, shall be seg- 17
18 regated as to that portion committed and that not committed, and 18
19 the terms of such lease shall apply separately to such segregated 19
20 portions commencing as of the effective date hereof. Provided, 20
21 however, notwithstanding any of the provisions of this agreement 21
22 to the contrary, such lease shall continue in full force and 22
23 effect beyond the term provided therein as to all lands embraced 23
24 in such lease, if oil or gas is, or has heretofore been discovered 24
25 in paying quantities from some part of the lands embraced in such 25
26 lease committed to this agreement or, so long as a portion of the 26
27 unitized substances produced from the unit area is, under the 27
28 terms of this agreement, allocated to the portion of the lands 28
29 covered by such lease committed to this agreement, or, at any time 29
30 during the term hereof, as to any lease that is then valid and 30

1 subsisting and upon which the lessee or the Unit Operator is then 1
2 engaged in bona fide drilling, reworking, or secondary recovery 2
3 operations on any part of the lands embraced in such lease, then 3
4 the same as to all lands embraced therein shall remain in full 4
5 force and effect so long as such operations are diligently prose- 5
6 cuted, and if they result in the production of oil or gas, said 6
7 lease shall continue in full force and effect as to all of the 7
8 lands embraced therein, so long thereafter as oil or gas in pay- 8
9 ing quantities is being produced from any portion of said lands. 9

10 (j) Any lease, other than a Federal lease, having only 10
11 a portion of its lands committed hereto shall be segregated as to 11
12 the portion committed and the portion not committed, and the pro- 12
13 visions of such lease shall apply separately to such segregated 13
14 portions commencing as of the effective date hereof. In the 14
15 event any such lease provides for a lump-sum rental payment, such 15
16 payment shall be prorated between the portions so segregated in 16
17 proportion to the acreage of the respective tracts. 17

18 19. COVENANTS RUN WITH LAND. The covenants herein shall be 18
19 construed to be covenants running with the land with respect to 19
20 the interest of the parties hereto and their successors in inter- 20
21 est until this agreement terminates, and any grant, transfer, or 21
22 conveyance, of interest in land or leases subject hereto shall be 22
23 and hereby is conditioned upon the assumption of all privileges 23
24 and obligations hereunder by the grantee, transferee, or other 24
25 successor in interest. No assignment or transfer of any working 25
26 interest, royalty, or other interest subject hereto shall be bind- 26
27 ing upon Unit Operator until the first day of the calendar month 27
28 after Unit Operator is furnished with the original, photostatic, 28
29 or certified copy of the instrument of transfer. 29

1 20. EFFECTIVE DATE AND TERM. This agreement shall become 1
2 effective upon approval by the Secretary and the Commissioner or 2
3 their duly authorized representatives and shall terminate five 3
4 (5) years from said effective date unless 4
5 (a) such date of expiration is extended by the Director 5
6 and the Commissioner, or 6
7 (b) it is reasonably determined prior to the expiration 7
8 of the fixed term or any extension thereof that the unitized land 8
9 is incapable of production of unitized substances in paying 9
10 quantities in the formations tested hereunder and after notice 10
11 of intention to terminate the agreement on such ground is given 11
12 by the Unit Operator to all parties in interest at their last 12
13 known addresses, the agreement is terminated with the approval of 13
14 the Supervisor and the Commissioner, or 14
15 (c) a valuable discovery of unitized substances has been 15
16 made or accepted on unitized land during said initial term or any 16
17 extension thereof, in which event the agreement shall remain in 17
18 effect for such term and so long as unitized substances can be 18
19 produced in quantities sufficient to pay for the cost of produc- 19
20 ing same from wells on unitized land within any participating 20
21 area established hereunder and, should production cease, so long 21
22 thereafter as diligent operations are in progress for the restora- 22
23 tion of production or discovery of new production and so long 23
24 thereafter as the unitized substances so discovered can be pro- 24
25 duced as aforesaid, or 25
26 (d) it is terminated as heretofore provided in this 26
27 agreement. 27
28 This agreement may be terminated at any time by not less than 75 28
29 per centum, on an acreage basis, of the working interest owners 29
30 signatory hereto, with the approval of the Supervisor and the 30

Commissioner; notice of any such approval to be given by the
Unit Operator to all parties hereto.

21. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. The
Director is hereby vested with authority to alter or modify from
time to time in his discretion the quantity and rate of production
under this agreement when such quantity and rate is not fixed
pursuant to Federal or State law or does not conform to any state-
wide voluntary conservation or allocation program, which is estab-
lished, recognized, and generally adhered to by the majority of
operators in such State, such authority being hereby limited to
alteration or modification in the public interest, the purpose
thereof and the public interest to be served thereby to be stated
in the order of alteration or modification. Without regard to the
foregoing, the Director is also hereby vested with authority to
alter or modify from time to time in his discretion the rate of
prospecting and development and the quantity and rate of produc-
tion under this agreement when such alteration or modification
is in the interest of attaining the conservation objectives
stated in this agreement and is not in violation of any applicable
Federal or State law; provided, further, no such alteration or
modification shall be effective as to any land of the State of
New Mexico as to the rate of prospecting and development in the
absence of the specific written approval thereof by the Commis-
sioner and as to lands of the State of New Mexico or privately
owned lands subject to this agreement as to the quantity and rate
of production in the absence of specific written approval thereof
by the Commissioner.

Powers in this section vested in the Director shall only
be exercised after notice to Unit Operator and opportunity for
hearing to be held not less than 15 days from notice.

1 22. APPEARANCES. Unit Operator shall, after notice to other 1
2 parties affected, have the right to appear for and on behalf of 2
3 any and all interests affected hereby before the Department of the 3
4 Interior and to appeal from orders issued under the regulations of 4
5 said Department or to apply for relief from any of said regula- 5
6 tions or in any proceedings relative to operations before the 6
7 Department of the Interior, the Commissioner, the Commission or 7
8 any other legally constituted authority; provided, however, that 8
9 any other interested party shall also have the right at his own 9
10 expense to be heard in any such proceeding. 10

11 23. NOTICES. All notices, demands or statements required 11
12 hereunder to be given or rendered to the parties hereto shall be 12
13 deemed fully given if given in writing and personally delivered to 13
14 the party or sent by postpaid registered or certified mail, ad- 14
15 dressed to such party or parties at their respective addresses 15
16 set forth in connection with the signatures hereto or to the rati- 16
17 fication or consent hereof or to such other address as any such 17
18 party may have furnished in writing to party sending the notice, 18
19 demand or statement. 19

20 24. NO WAIVER OF CERTAIN RIGHTS. Nothing in this agreement 20
21 contained shall be construed as a waiver by any party hereto of 21
22 the right to assert any legal or constitutional right or defense 22
23 as to the validity or invalidity of any law of the State wherein 23
24 said unitized lands are located, or of the United States, or regu- 24
25 lations issued thereunder in any way affecting such party, or as 25
26 a waiver by any such party of any right beyond his or its auth- 26
27 ority to waive. 27

28 25. UNAVOIDABLE DELAY. All obligations under this agreement 28
29 requiring the Unit Operator to commence or continue drilling or to 29
30 operate on or produce unitized substances from any of the lands 30

1 covered by this agreement shall be suspended while the Unit 1
2 Operator, despite the exercise of due care and diligence, is pre- 2
3 vented from complying with such obligations, in whole or in part, 3
4 by strikes, acts of God, Federal, State, or municipal law or 4
5 agencies, unavoidable accidents, uncontrollable delays in trans- 5
6 portation, inability to obtain necessary materials in open market, 6
7 or other matters beyond the reasonable control of the Unit 7
8 Operator whether similar to matters herein enumerated or not. 8
9 No unit obligation which is suspended under this section shall be- 9
10 come due less than thirty (30) days after it has been determined 10
11 that the suspension is no longer applicable. Determination of 11
12 creditable "Unavoidable Delay" time shall be made by the Unit 12
13 Operator subject to approval of the Supervisor and Commissioner. 13
14 26. NONDISCRIMINATION. In connection with the performance 14
15 of work under this agreement, the operator agrees to comply with 15
16 all the provisions of Section 202 (1) to (7) inclusive of Execu- 16
17 tive Order 11246 (30 F.R. 12319), which are hereby incorporated 17
18 by reference in this agreement. 18
19 27. LOSS OF TITLE. In the event title to any tract of 19
20 unitized land shall fail and the true owner cannot be induced to 20
21 join in this unit agreement, such tract shall be automatically 21
22 regarded as not committed hereto and there shall be such read- 22
23 justment of future costs and benefits as may be required on 23
24 account of the loss of such title. In the event of a dispute as 24
25 to title as to any royalty, working interest, or other interests 25
26 subject thereto, payment or delivery on account thereof may be 26
27 withheld without liability for interest until the dispute is 27
28 finally settled; provided, that, as to Federal and State land or 28
29 leases, no payments of funds due the United States or the State 29
30 of New Mexico should be withheld, but such funds shall be 30

1 deposited as directed by the Supervisor and the Commissioner, 1
2 respectively, to be held as unearned money pending final settle- 2
3 ment of the title dispute, and then applied as earned or returned 3
4 in accordance with such final settlement. 4

5 Unit Operator as such is relieved from any responsibility 5
6 for any defect or failure of any title hereunder. 6

7 28. NON-JOINDER AND SUBSEQUENT JOINDER. If the owner of any 7
8 substantial interest in a tract within the unit area fails or 8
9 refuses to subscribe or consent to this agreement, the owner of 9
10 the working interest in that tract may withdraw said tract from 10
11 this agreement by written notice delivered to the Supervisor, the 11
12 Commissioner and the Unit Operator prior to the approval of this 12
13 agreement by the Supervisor and the Commissioner. Any oil or gas 13
14 interests in lands within the unit area not committed hereto 14
15 prior to submission of this agreement for final approval may 15
16 thereafter be committed hereto by the owner or owners thereof 16
17 subscribing or consenting to this agreement, and, if the interest 17
18 is a working interest, by the owner of such interest also sub- 18
19 scribing to the unit operating agreement. After operations are 19
20 commenced hereunder, the right of subsequent joinder, as pro- 20
21 vided in this section, by a working interest owner is subject to 21
22 such requirements or approvals, if any, pertaining to such 22
23 joinder, as may be provided for in the unit operating agreement. 23
24 After final approval hereof, joinder by a non-working interest 24
25 owner must be consented to in writing by the working interest 25
26 owner committed hereto and responsible for the payment of any 26
27 benefits that may accrue hereunder in behalf of such non-working 27
28 interest. A non-working interest may not be committed to this 28
29 unit agreement unless the corresponding working interest is com- 29
30 mitted hereto. Joinder to the unit agreement by a working- 30

1 interest owner, at any time, must be accompanied by appropriate 1
2 joinder to the unit operating agreement, if more than one com- 2
3 mitted working interest owner is involved, in order for the inter- 3
4 est to be regarded as committed to this unit agreement. Except 4
5 as may otherwise herein be provided, subsequent joinders to this 5
6 agreement shall be effective as of the first day of the month fol- 6
7 lowing the filing with the Supervisor and the Commissioner of duly 7
8 executed counterparts of all or any papers necessary to establish 8
9 effective commitment of any tract to this agreement unless objec- 9
10 tion to such joinder is duly made within 60 days by the Super- 10
11 visor or the Commissioner; provided that, as to State lands all 11
12 subsequent joinders must be approved by the Commissioner. 12

13 29. COUNTERPARTS. This agreement may be executed in any 13
14 number of counterparts no one of which needs to be executed by 14
15 all parties or may be ratified or consented to by separate instru- 15
16 ment in writing specifically referring hereto and shall be binding 16
17 upon all those parties who have executed such a counterpart, rati- 17
18 fication or consent hereto with the same force and effect as if 18
19 all such parties had signed the same document and regardless of 19
20 whether or not it is executed by all other parties owning or claim-20
21 ing an interest in the lands within the above-described unit area. 21

22 30. SURRENDER. Nothing in this agreement shall prohibit the 22
23 exercise by any working interest owner of the right to surrender 23
24 vested in such party by any lease, sublease, or operating agree- 24
25 ment as to all or any part of the lands covered thereby, provided 25
26 that each party who will or might acquire such working interest 26
27 by such surrender or by forfeiture as hereafter set forth, is 27
28 bound by the terms of this agreement. 28

29 If as a result of any such surrender the working interest 29
30 rights as to such lands become vested in any party other than the 30

1 fee owner of the unitized substances, said party may forfeit such 1
2 rights and further benefits from operation hereunder as to said 2
3 land to the party next in the chain of title who shall be and 3
4 become the owner of such working interest. 4

5 If as a result of any such surrender or forfeiture working 5
6 interest rights become vested in the fee owner of the unitized 6
7 substances, such owner may: 7

8 (1) Accept those working interest rights subject to this 8
9 agreement and the unit operating agreement; or 9

10 (2) Lease the portion of such land as is included in a 10
11 participating area established hereunder subject to this agreement 11
12 and the unit operating agreement: 12

13 (3) Provide for the independent operation of any part of 13
14 such land that is not then included within a participating area 14
15 established hereunder. 15

16 If the fee owner of the unitized substances does not 16
17 accept the working interest rights subject to this agreement and 17
18 the unit operating agreement or lease such lands as above pro- 18
19 vided within six (6) months after the surrender or forfeited work- 19
20 ing interest rights become vested in the fee owner, the benefits 20
21 and obligations of operations accruing to such lands under this 21
22 agreement and the unit operating agreement shall be shared by the 22
23 remaining owners of unitized working interests in accordance with 23
24 their respective working interest ownerships, and such owners of 24
25 working interests shall compensate the fee owner of unitized sub- 25
26 stances in such lands by paying sums equal to the rentals, mini- 26
27 mum royalties, and royalties applicable to such lands under the 27
28 lease in effect when the lands were unitized. 28

29 An appropriate accounting and settlement shall be made for 29
30 all benefits accruing to or payments and expenditures made or 30

1 incurred on behalf of such surrendered or forfeited working 1
2 interest subsequent to the date of surrender or forfeiture, and 2
3 payment of any moneys found to be owing by such an accounting 3
4 shall be made as between the parties within thirty (30) days. In 4
5 the event no unit operating agreement is in existence and a mutu- 5
6 ally acceptable agreement between the proper parties thereto can- 6
7 not be consummated, the Supervisor and the Commissioner may pres- 7
8 cribe such reasonable and equitable agreement as they deem war- 8
9 ranted under the circumstances. 9

10 The exercise of any right vested in a working interest 10
11 owner to reassign such working interest to the party from whom 11
12 obtained shall be subject to the same conditions as set forth in 12
13 this section in regard to the exercise of a right to surrender. 13

14 31. TAXES. The working interest owners shall render and pay 14
15 for their account and the account of the royalty owners all valid 15
16 taxes on or measured by the unitized substances in and under or 16
17 that may be produced, gathered and sold from the land subject to 17
18 this contract after the effective date of this agreement, or upon 18
19 the proceeds or net proceeds derived therefrom. The working inter-19
20 est owners on each tract shall and may charge the proper propor- 20
21 tion of said taxes to the royalty owners having interests in said 21
22 tract, and may currently retain and deduct sufficient of the 22
23 unitized substances or derivative products, or net proceeds 23
24 thereof from the allocated share of each royalty owner to secure 24
25 reimbursement for the taxes so paid. No such taxes shall be 25
26 charged to the United States or to the State of New Mexico or to 26
27 any lessor who has a contract with his lessee which requires the 27
28 lessee to pay such taxes. 28

29 32. CONFLICT OF SUPERVISION. Neither the Unit Operator nor 29
30 the working interest owners, nor any of them, shall be subject to 30
31 any forfeiture, termination, or expiration of any rights hereunder 31

1 or under any leases or contracts subject hereto, or to any pen- 1
2 alty or liability for delay or failure in whole or in part to com- 2
3 ply therewith to the extent that the said Unit Operator, working 3
4 interest owners or any of them are hindered, delayed, or prevented 4
5 from complying therewith by reason of failure of the Unit Operator 5
6 to obtain with the exercise of due diligence the concurrence of 6
7 the representatives of the United States and the representatives 7
8 of the State of New Mexico in and about any matters or thing con- 8
9 cerning which it is required herein that such concurrence be ob- 9
10 tained. The parties hereto, including the Commission, agree that 10
11 all powers and authority vested in the Commission in and by any 11
12 provisions of this contract are vested in the Commission and shall 12
13 be exercised by it pursuant to the provisions of the laws of the 13
14 State of New Mexico and subject in any case to appeal or judicial 14
15 review as may now or hereafter be provided by the laws of the 15
16 State of New Mexico. 16

17 33. NO PARTNERSHIP. It is expressly agreed that the relation 17
18 of the parties hereto is that of independent contractors and 18
19 nothing in this agreement contained, expressed or implied, nor 19
20 any operations conducted hereunder, shall create or be deemed to 20
21 have created a partnership or association between the parties 21
22 hereto or any of them. 22

23 IN WITNESS WHEREOF, the parties hereto have caused this 23
24 agreement to be executed and have set opposite their respective 24
25 names the date of execution. 25

UNIT OPERATOR

ATTEST:

DATE:

MIDWEST OIL CORPORATION

Bert M. Munnallee July 30, 1971
Ass't Secretary

By: Robert M. Keene
Vice President

Address: 1500 Wilco Building, Midland, Texas, 79701

WORKING INTEREST OWNERS

ATTEST: _____ DATE: _____ HARVEY E. YATES COMPANY
Long D. Galt 7-28-71 By: Irvin C. Yates
Secretary President

Address: 1515 National Building, 505 Marquette Avenue, Albuquerque,
New Mexico, 87101

ATTEST: _____ DATE: _____

Secretary President

Address: _____

ATTEST: _____ DATE: _____

Secretary President

Address: _____

ATTEST: _____ DATE: _____

Secretary President

Address: _____

ATTEST: _____ DATE: _____

Secretary President

Address: _____

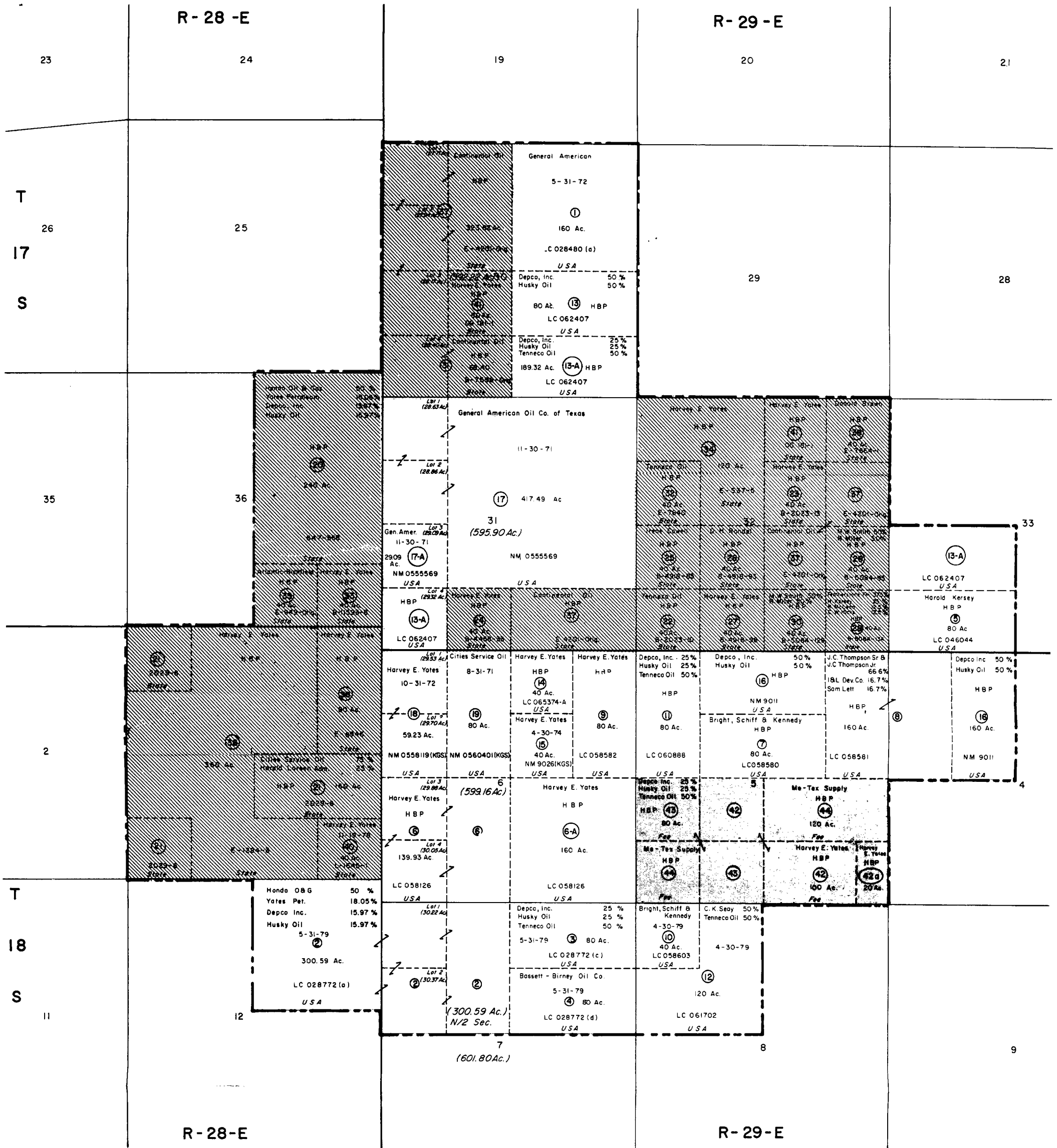
STATE OF TEXAS)
COUNTY OF ~~MIDLAND~~) ss.
TARRANT

The foregoing instrument was acknowledged before me this 30th
day of July, 1971, by ROBT. W. KLINE, Vice
President of MIDWEST OIL CORPORATION, a Nevada corporation,
on behalf of said corporation.

My commission expires:

WILLETIA GRAHAM Notary Public
In and for Tarrant County, Texas
My Commission expires June 1, 1973

Willetta Graham
Notary Public



LEGEND

	Unit Outline
	Tract Number
	Federal Lands 2655.65 Acres 53.4565 %
	State Lands 1922.22 Acres 40.1021 %
	Fee Lands 320 Acres 6.4414 %

EMPIRE SOUTH DEEP UNIT A FEDERAL UNIT

DEPTH RIGHTS BELOW APPROX. 4000'
4967.87 Acres

T's 17&18S, R's 28 & 29E
Eddy County, New Mexico

EXHIBIT "A"

Tract No.	Description of Land	No. of Acres	Basic		Date of Lease	Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership
			Serial No. & Royalty	& Per-				
2.	(continued)							
							Jerry Curtis	2.81250
							Howard W.	
							Jennings	1.36719
							B. R. Polk, Jr.	1.36719
							Olga M. Atwood	.93750
							Robert Grant Keyes,	
							Exec. Estate of F.	
							Grant Keyes A/K/A	
							F. G. Keyes	.93750
							Ben Lee Dunn, Jr.	.05625
							Yates Brothers	2.25695 (1)
							Tract Total	12.49133
3.	T18S, R29E	80.00	LC 028772 (c)	U.S.A. Depco, Inc.	50%		H. Dillard	
	Sec. 7: N/2 NE/4		5-31-79	Sch "C" Husky Oil Co.			Schench	2.10937
				25			First National	
				Max.			Bank of Dona Ana	
					50%		County, Trustee	
							for the W. E. and	
							Elaine V. Flint	
							Trust	3.04688
							Roy G. Barton	1.59668
							John D. Simon	.26367
							Lester F. Colby &	
							Laverne W. Colby	
							& Dorothy A.	
							Colby Feltz	.39551
							Eva I. Cernich	.08789
							Tract Total	7.50000

Depco, Inc. 25%
Husky Oil Co.
of Delaware 25%
Tenneco Oil Co. 50%

EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

				Basic				
Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date of Lease	Royalty & Percentage Lessee of Record	OVERRIDING ROYALTY & PERCENTAGE	WORKING INTEREST OWNERSHIP		
4.	T18S, R29E Sec. 7 : S/2 NE/4	80.00	LC 028772(d) 5-31-79	U.S.A. Sch "C" Bassett-Birney Oil Corporation Max.	H. Dillard Schench First National Bank of Dona Ana County, Trustee for the W. E. and Elaine V. Flint Trust 	Bassett-Birney Oil Corporation	2.10937	
5.	T17S, R29E Sec. 33 : S/2 SW/4	80.00	LC 046044 HBP	U.S.A. Harold Kersey Sch "B" 25 Max.	Tenneco Oil Co. Robert J. Leonard Patrick J. Leonard Timothy T. Leonard	6.25000 ⁽²⁾ Harold Kersey		
					Eva I. Cernich Tract Total	.08789 7.50000		
							1.66666	11.25000

Tract No.	Description of Land	No. of Acres	Basic		Date of Lease	Percentage	Lessee of Record	Overriding Royalty & Working Interest	
			Serial No. & Royalty	Expiration & Per-				Percentage	Ownership
6	T18S, R29E Sec. 6: Lots 3, 4 (W/2 SW/4), E/2 SW/4	139.93	LC 058126	HBP	U.S.A. Anadarko Produc-	Sch "B" tion Co.	50%	Featherstone Farms, Ltd.	Harvey E. Yates Co.
					12.5	Southland		James C. Hawley	.12500
					Limit	Royalty Co.	50%	Frank E. Hawley	.12500
								Eudora Hawley	
								Heilman	.25000
								Dolores Ponton	.08333
								Nellie Brooks	
								Travis	.25000
								Robert F.	
								Travis, Jr.	.41667
								Yates Brothers	.25000
								Harvey E. Yates	1.50000
								Louise D. Yates	<u>1.50000</u>
								Tract Total	5.00000
6-A	T18S, R29E Sec. 6: SE/4	160.00	LC 058126	HBP	U.S.A. Anadarko Produc-	Sch "B" tion Co.	50%	Featherstone Farms, Ltd.	Harvey E. Yates Co.
					32	Southland		James C. Hawley	.12500
					Max.	Royalty Co.	50%	Frank E. Hawley	.12500
								Eudora Hawley	
								Heilman	.25000
								Dolores Ponton	.08333
								Nellie Brooks	
								Travis	.25000
								Robert F.	
								Travis, Jr.	.41667
								Yates Brothers	.25000
								Harvey E. Yates	1.50000
								Louise D. Yates	<u>1.50000</u>
								Tract Total	5.00000

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration	Royalty & Per-centage Lessee of Record	Basic		Working Interest Ownership
					Overriding Royalty & Percentage		
7.	T18S, R29E Sec. 5: SE/4 NW/4, SW/4 NE/4	80.00	LC 058580	U.S.A. Texas American Oil Corp. Sch "B" 32 Max.	Mary Anne Berliner Me-Tex Supply Co. <u>3,12500</u> Tract Total 5.00000	1.87500	Bright, Schiff & Kennedy, a partnership
8.	T18S, R29E Sec. 4: W/2 NW/4 Sec. 5: E/2 NE/4	160.00	LC 058581	U.S.A. J. Cleo Thompson, Sr. Sch "B" 32 Max.	Betty Flint Webb First National Bank of Dona Ana County, Trustee for the W. E. and Elaine V. Flint Trust Sue Flint Floore Kitty Flint Livingston Leah B. Waltrip Sue Floore and Russell Floore Execs. of the Will & Estate of Anna M. Flint, Deceased Tract Total 12.81250	1.36546 1.39320 1.39321 1.39320	J. Cleo Thompson, Sr. & J. Cleo Thompson, Jr. I & L Development Co. Sam Lett 16.67% 16.67%

Pg. 6 EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration	Royalty & Per-centage Lessee of Record	Basic		Working Interest Ownership
					Serial No. & Date of Expiration	Percentage	
9.	T18S, R29E Sec. 6: E/2 NE/4	80.00	LC 058582 HBP	U.S.A. Harvey E. Yates Co. Sch "B" 32 Max.	Mary Anne Berliner W. L. Ivey & Ben E. Ivey, Est. Kennedy Oil Co. Tract Total	1.87500 9.06250 3.12500 (3) 14.06250	Harvey E. Yates Co.
10.	T18S, R29E Sec. 8: NW/4 NW/4	40.00	LC 058603 4-30-79	U.S.A. Texas American Oil Corp. Sch "D" 33-1/3 Max.	Me-Tex Supply Co. Tract Total	3.12500 3.12500	Bright, Schiff & Kennedy, a partnership
11.	T18S, R29E Sec. 5: W/2 NW/4	80.00	LC 060888 HBP	U.S.A. Depco, Inc. Sch "B" Husky Oil Co. 32 Max.	Mary Anne Berliner Tract Total	1.87500 1.87500	Depco, Inc. 25% Husky Oil Co. 25% of Delaware Tenneco Oil Co. 50%
12.	T18S, R29E Sec. 8: E/2 NW/4, SW/4 NW/4	120.00	LC 061702 4-30-79	U.S.A. Anadarko Production Co. Sch "D" 33-1/3 Max.	- -	-0-	Charlene K. Seay 50% Tenneco Oil Co. 50%

EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Per-centage Lessee of Record	Overriding Royalty & Percentage		Working Interest Ownership
13.	T17S, R29E Sec. 30: N/2 SE/4	80.00	LC 062407 HBP	U.S.A. Depco, Inc. Sch "B" Husky Oil Co. 12.5 of Delaware Limit	50%	Tenneco Oil Co. 25.00000 Robert J. Leonard 1.66667 Patrick J. Leonard Timothy T. Leonard Tract Total 30.00000	Depco, Inc. 50% Husky Oil Co. 50%
13-A	T17S, R29E Sec. 30: S/2 SE/4 Sec. 31: Lot 4 (SW/4 SW/4) Sec. 33: N/2 SW/4	189.32	LC 062407 HBP	U.S.A. Depco, Inc. Sch "B" Husky Oil Co. 12.5 of Delaware Limit	50%	Robert J. Leonard 1.66667 Patrick J. Leonard 1.66667 Timothy T. Leonard 1.66666 Tract Total 5.00000	Depco, Inc. 25% Husky Oil Co. 25% of Delaware 25% Tenneco Oil Co. 50%
14.	T18S, R29E Sec. 6: NW/4 NE/4	40.00	LC 065374-A HBP	U.S.A. Harvey E. Yates Co. Sch "B" 32 Max.	53286	Betty Flint Webb .53286 First National Bank of Dona Ana County Trustee for the W. E. and Elaine V. Flint Trust Sue Flint Floore .54369 Kitty Flint Livingston .54369 Leah B. Waltrip .54369	Harvey E. Yates Co.

Tract No.	Description of Land	No. of Acres	Basic		Overriding Royalty & Percentage	Working Interest Ownership
			Serial No. & Royalty	No. of Expiration & Per-		
			Date of Lease	centage	Lessee of Record	

14. (continued)

Sue Floore and
Russell Floore,
Exes. of the Will
& Estate of Anna M.
Flint, Deceased 2.44500
Kennedy Oil Co. 3.12500 (3)
Tract Total 8.12500

15. T18S, R29E 40.00 NM 9026 U.S.A. Anadarko Production Co. - - -0- Harvey E. Yates Co.
Sec. 6: SW/4 NE/4 (KGS) Sch "B" 25
4-30-74 Max.

16. T18S, R29E 160.00 NM 9011 U.S.A. Depco, Inc. 50% Betty Flint Webb .53286 Depco, Inc. 50%
Sec. 4: E/2 NW/4 HBP Sch "B" Husky Oil Co. of First National Bank of Dona Ana Husky Oil Co.
Sec. 5: NW/4 NE/4, 32 Delaware 50% County Trustee for the W. E. and Elaine V. Flint
NE/4 NW/4 Max.

Trust .39107
Sue Flint Floore .54369
Kitty Flint
Livingston .54369
Leah B. Waltrip .54369
Sue Floore and
Russell Floore,
Execs. of the Will
& Estate of Anna M. 2.44500
Flint, Deceased 2.44500
Tract Total 5.00000

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration	Royalty & Per-centage Lessee of Record	Basic		Working Interest Ownership
					Overriding Royalty & Percentage		
17.	T17S, R29E						
	Sec. 31: Lots 1, 2	417.49	NM 0555569	U.S.A. General American	Bank of America		General American
	(W/2 NW/4),		11-30-71	Sch "D" Oil Co. of Texas	National Trust & Savings Assoc.,		Oil Co. of Texas
	NE/4, NE/4 SW/4,			12.5	Exec. of Estate		
	N/2 SE/4, E/2 NW/4			Limit	of C.J. Dexter	2.50000	
					Willie Berry and		
					Wilma Connor, Co-		
					Execs. of the		
					Last Will and		
					Testament of J. W.		
					Berry, Deceased	<u>2.50000</u>	
					Tract Total	5.00000	
17-A	T17S, R29E	29.09	NM 0555569	U.S.A. General American	Bank of America		General American
	Sec. 31: Lot 3		11-30-71	Sch "D" Oil Co. of Texas	National Trust & Savings Assoc.,		Oil Co. of Texas
	(NW/4 of SW/4)			33-1/3 Max.	Exec. of Estate		
					of C. J. Dexter	2.50000	
					Willie Berry and		
					Wilma Connor, Co-		
					Execs. of the		
					Last Will and		
					Testament of J. W.		
					Berry, Deceased	<u>2.50000</u>	
					Tract Total	5.00000	

Pg.10 EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

Tract No.	Description of Land	No. of Acres	Basic		Serial No. & Royalty Expiration & Per- Date of Lease	Lessee of Record	Overriding Royalty & Percentage		Working Interest Ownership	
18.	T18S, R29E Sec. 6: Lots 1, 2 (W/2 NW/4)	59.23	NM 0558119 (KGS) 10-31-72	U.S.A. Harvey E. Yates Co. Sch "B" 25 Max.		Penrock Oil Corp. Tract Total	5.00000 5.00000	(4)	Harvey E. Yates Co.	
19.	T18S, R29E Sec. 6: E/2 NW/4	80.00	NM 0560401 8-31-71	U.S.A. Cities Service Oil Co. Sch "B" 25 Max.		- -	-0-		Cities Service Oil Co.	
22 FEDERAL TRACTS, 2655.65 ACRES OR 53.4565%										
State Lands										
20.	T17S, R28E Sec. 36: NE/4, N/2 SE/4	240.00	647-368 HBP	12.5 Depco, Inc. State Husky Oil Co. of N.M. of Delaware	50%	Yates Brothers Tract Total	2.25695 2.25695	(5)	Yates Petro- leum Corp. Depco, Inc. Husky Oil Co. of Delaware	18.05556% 15.97222% 15.97222%
21	T18S, R28E Sec. 1: NW/4 NW/4, SW/4 SW/4, N/2 SE/4	160.00	2029-6 HBP	12.5 Cities Service State Oil Co. of N.M. Myrtle McCann Larsen, Est.	75% 75% 25%	Russell Schneider Earl Schneider Bernard W. Schneider Ivan Charles Schneider Robert Lee Schneider Melvin R. Schneider William R. Schneider	.083333 .083333 .010417 .010417 .010417 .010417 .010417 .010417 .010417 .010417 .083333		Cities Service Oil Co. Harold D. Larsen, Ancil. Adm. of Est. McCann Larsen, Deceased 25%	

				Basic					
Tract			No. of	Serial No. &	Royalty				
No.	Description of Land	Acres	Expiration	& Per-	centage	Lessee of Record	Overriding Royalty & Percentage	Working Interest	Ownership
21. (continued)									
						Pearline Fox, Robert E. Harrison, Joseph L. Harrison, Alfice Agnes Meek Hester Terpening Dorothy Schneider Elizabeth J. Schneider Fullingim Francis D. Schneider W. R. Atkinson, Est.. National Bank of Commerce Trust & Savings Assoc., Trustee for the Estate of Blanch Widaman, Dec'd. Tracy P. Clark Robert E. Boling			
							.083333 .083333 .020833 .010417 .010417 .010417 .500000 .375000 .375000		
						Tract Total	2.250000 (6)		
22.	T17S, R29E Sec. 32: SW/4 SW/4	40.00	B-2023-10 HBP	12.5	Tenneco Oil Co. State of N.M.	Amoco Production Co. Tract Total	12.500000 (7) 12.500000	Tenneco Oil Co.	

EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration of Lease	Royalty & Per-centage	Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership
23.	T17S, R29E Sec. 32: SW/4 NE/4	40.00	B-2023-13 HBP	12.5 State of N.M.	Amoco Production Co.	Yates Invest- ment Co. Harvey E. Yates Tract Total	Harvey E. Yates Co. 3.12500 <u>3.12500</u> 6.25000
24.	T17S, R29E Sec. 31: SE/4 SW/4	40.00	B-4458-33 HBP	12.5 State of N.M.	Harvey E. Yates Co.	Julia M. Williams, formerly Paschall Jack Plemons Tract Total	Harvey E. Yates Co. 3.1250 <u>3.1250</u> 6.2500
25.	T17S, R29E Sec. 32: NW/4 SW/4	40.00	B-4918-85 HBP	12.5 State of N.M.	Mrs. Irene Cowell	- -	Irene Cowell
26.	T17S, R29E Sec. 32: NE/4 SW/4	40.00	B-4918-93 HBP	12.5 State of N.M.	M. W. Smith Kathleen Miller	P. J. Vidal Tract Total	O. H. Randel <u>5.0000</u> 5.0000
27.	T17S, R29E Sec. 32: SE/4 SW/4	40.00	B-4918-98 HBP	12.5 State of N.M.	Harold Kersey	Harold Kersey Trustee for Lorena Mae Tallmadge Irene Cowell W. L. Shaner P. J. Vidal Thelma Methvin Margaret Holcomb J. R. Butler	Harvey E. Yates Co. 4.357150 1.308575 2.022862 1.498575 1.132862 .947138 .947138 142850

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration	Basic Royalty & Percentage of Lease	Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership
27. (continued)							
28.	T17S, R29E Sec. 32: SE/4 SE/4	40.00	B-5084-134 HBP	12.5 State of N.M.	Featherstone Farms, Ltd.	E1 Paso National Bank, Trustee for Anna L. Butler Trust No. 523	(8) Featherstone Farms, Ltd. Harold Kersey Roland McLean Charles W. Hicks Olen F. Featherstone II Trust
						Irene Cowell	
						Tract Total	
						<u>6.25000</u>	37.5%
						6.25000	
29.	T17S, R29E Sec. 32: NE/4 SE/4	40.00	B-5084-95 HBP	12.5 State of N.M.	P. J. Vidal	P. J. Vidal	M. W. Smith Kathleen Miller
						Tract Total	
						<u>12.50000</u>	
						12.50000	50%
30.	T17S, R29E Sec. 32: SW/4 SE/4	40.00	B-5084-129 HBP	12.5 State of N.M.	M. W. Smith	Rudolph L. Dalager	M. W. Smith Kathleen Miller
						Tract Total	
						<u>6.25000</u>	
						6.25000	50%
31.	T17S, R29E Sec. 30: Lot 4 (SW/4 SW/4), SE/4 SW/4	68.40	B-7596-Orig. HBP	12.5 State of N.M.	Continental Oil Co.	-	Continental Oil Co.
						-0-	

Tract No.	Description of Land	No. of Acres	Basic		Lessee of Record	Overriding Royalty & Percentage		Working Interest Ownership
			Serial No. & Date of Expiration	Royalty & Per-centage				
32.	T17S, R29E Sec. 32: SW/4 NW/4	40.00	E-7640 HBP	12.5 State of N.M.	Tenneco Oil Co.	Robert J. Leonard Patrick J. Leonard Timothy T. Leonard	3.1250 3.1250 <u>3.1250</u> Tract Total 9.3750 (9)	Tenneco Oil Co.
33.	T17S, R28E Sec. 36: SE/4 SE/4	40.00	B-11593-8 HBP	12.5 State of N.M.	Sun Oil Company	Sun Oil Company Tract Total	<u>12.5000</u> 12.5000	Harvey E. Yates Co.
34.	T17S, R29E Sec. 32: N/2 NW/4, SE/4 NW/4	120.00	E-537-5 HBP	12.5 State of N.M.	Leland Wittkopp and Virginia L. Wittkopp	Kerr-McGee Corp. Tract Total	<u>12.5000</u> 12.5000	Harvey E. Yates Co.
35.	T17S, R28E Sec. 36: SW/4 SE/4	40.00	E-949-Orig. HBP	12.5 State of N.M.	Atlantic Richfield Co.	- -	-0-	Atlantic Richfield Co.
36.	T18S, R28E Sec. 1: W/2 NE/4 E/2 NW/4, SW/4 NW/4, N/2 SW/4, SE/4 SW/4, SW/4 SE/4	360.00	E-1284-3 HBP	12.5 State of N.M.	Harvey E. Yates Co.	C. O. Fulton Tract Total	<u>3.1250</u> 3.1250	Harvey E. Yates Co.

Tract No.	Description of Land	No. of Acres	Basic		Lessee of Record	Overriding Royalty & Percentage	Working Interest Ownership
			Serial No. & Date of Expiration	Royalty & Per-centage			
37.	T17S, R29E Sec. 30: Lots 1,2,3, E/2 NW/4 Sec. 31: S/2 SE/4 Sec. 32: SE/4 NE/4, NW/4 SE/4	323.82	E-4201-Orig. HBP	12.5 State of N.M.	Continental Oil Co.	- -	-0- Continental Oil Co.
38.	T18S, R28E Sec. 1: E/2 NE/4	80.00	E-6946 HBP	12.5 State of N.M.	Harvey E. Yates Co.	Jerry Curtis Ralph Nix Tract Total	3.7500 3.7500 7.5000 (10) Harvey E. Yates Co.
39.	T17S, R29E Sec. 32: NE/4 NE/4	40.00	E-7664-1 HBP	12.5 State of N.M.	M. W. Smith Kathleen Miller 50%	- -	-0- Donald Brown
40.	T18S, R28E Sec. 1: SE/4 SE/4	40.00	L-1645-1 11-19-78	12.5 State of N.M.	Anadarko Production Co.	- -	-0- Harvey E. Yates Co.
41.	T17S, R29E Sec. 30: NE/4 SW/4 (11) Sec. 32: NW/4 NE/4	80.00	OG 181-1 HBP	12.5 State of N.M.	Harvey E. Yates Co.	Humble Oil & Refining Co. Tract Total	5.46875 5.46875 5.46875 Harvey E. Yates Co.
22 STATE OF NEW MEXICO TRACTS 1992.22 ACRES OR 40.1021%							

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Percentage	Lessee of Record	Over-riding Royalty & Percentage	Working Interest Ownership
<u>Fee Lands</u>							
42	T18S, R29E Sec. 5: NE/4 SW/4, SW/4 SE/4, W/2 SE/4 SE/4	100.00	HBP				
			Anna Auriemma	.41667	Harvey E. Yates Co.	-0-	Harvey E. Yates Co.
			J. C. Burleson	.19791			
			J. R. Cone	.62500			
			George L. Dahl	.34636			
			Olen F. Featherstone	.41667			
			M. A. Genaro	.34635			
			Vera H. Herren, Ind. & as Exec. of Est. of				
			Harry H. Herren	1.14583			
			Don E. McInturf	.02084			
			Midland National Bank, Trust Acct.				
			0339-01-6	.02083			
			Julia M. Williams	.48828			
			Omaha National Bank, Trustee for Kathleen Drake	.41667			
			Mildred L. Otte	.04167			
			Donald M. Phillips	.08333			
			Ross M. Phillips	.08333			
			Laurence G. Phillips	.08333			
			Paul M. Phillips	.08334			
			John W. Phillips	.08334			
			Rabinowitz Agencies				
			Nos. 2085, 1-4 and 2086	.34635			

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration	Basic Royalty & Percentage	Lessee of Record	Over-riding Royalty & Percentage	Working Interest Ownership
42. (continued)							
	George L. Reese, Jr.		.57291				
	Holly C. Shuler, Jr.		1.56250				
	Leona L. Stagner		.57292				
	R. G. Storey & Sons		.34636				
	George Howell						
	Williams		.48828				
	Yates Brothers		<u>3.71093</u>				
	Tract Total		12.50000				
42-A	T18S, R29E	20.00	HBP				
Sec. 5:	E/2 SE/4 SE/4						Harvey E. Yates Co.
			Holly C. Shuler	6.25000	Harvey E. Yates Co.	-0-	
			Julia M. Williams	.48828			
			Yates Brothers	5.27344			
			George Howell				
			Williams	<u>.48828</u>			
			Tract Total	12.50000			
43.	T18S, R29E	80.00	HBP				
Sec. 5:	NW/4 SW/4, SE/4 SW/4						
			Anna Auriemma	.41667	Depco, Inc.	25%	Depco, Inc. 25%
			J. C. Burleson	.19791	Husky Oil Co.	25%	Husky Oil Co. 25%
			J. R. Cone	.62500	of Delaware		of Delaware
			George L. Dahl	.34636	Tenneco Oil	50%	Tenneco Oil 50%
			Olen F. Featherstone	.41667	Co.		
			M. A. Genaro	.34635			
			Vera H. Herren, Ind. & as Exec. of Est. of Harry H. Herren	1.14583			
			Don E. McInturff	.02084			

Tract	No. of Acres	Serial No. & Date of Lease	Expiration	Basic Royalty & Percentage	Lessee of Record	Over-riding Royalty & Percentage	Working Interest Ownership
43. (continued)							
		Midland National Bank, Trust Acct.		.02083			
		0339-01-6					
		Julia M. Williams		.48828			
		Omaha National Bank, Trustee for Kathleen Drake		.41667			
		Mildred L. Otte		.04167			
		Donald M. Phillips		.08333			
		Ross M. Phillips		.08333			
		Laurence G. Phillips		.08333			
		Paul M. Phillips		.08334			
		John W. Phillips		.08334			
		Rabinowitz Agencies					
		Nos. 2085, 1-4 and 2086		.34635			
		George L. Reese, Jr.		.57291			
		Holly C. Shuler, Jr.		1.56250			
		Leona L. Stagner		.57292			
		R. G. Storey & Sons		.34636			
		George Howell					
		Williams		.48828			
		Yates Brothers		<u>3.71093</u>			
		Tract Total		12.50000			

EXHIBIT "B" - EMPIRE SOUTH DEEP UNIT AREA, EDDY COUNTY, NEW MEXICO

Tract No.	Description of Land	No. of Acres	Serial No. & Date of Expiration Date of Lease	Basic Royalty & Percentage	Lessee of Record	Over-riding Royalty & Percentage	Working Interest Ownership
44.	T18S, R29E Sec. 5: N/2 SE/4, SW/4 SW/4	120.00	HBP				
			Anna Auriemma	.41667	Me-Tex Supply Co.	-0-	Me-Tex Supply Co.
			J. C. Burtleon	.19791			
			J. R. Cone	.62500			
			George L. Dahl	.34636			
			Olen F. Featherstone	.41667			
			M. A. Genaro	.34635			
			Vera H. Herren, Ind. & as Exec. of Est. of				
			Harry H. Herren	1.14583			
			Don E. McInturf	.02084			
			Midland National Bank, Trust Acct.				
			Julia M. Williams	.02083			
			Omaha National Bank, Trustee for Kathleen Drake	.48828			
			Mildred L. Otte	.41667			
			Donald M. Phillips	.04167			
			Ross M. Phillips	.08333			
			Laurence G. Phillips	.08333			
			Paul M. Phillips	.08334			
			John W. Phillips	.08334			
			Rabinowitz Agencies				
			Nos. 2085, 1-4 and 2086	.34635			

Tract No.	Description of Land	No. of Acres	Serial No. & No. of Expiration	Date of Lease	Basic Royalty & Percentage	Lessee of Record	Working Interest Ownership	Over-riding Royalty & Per-centage
44. (continued)								
	George L. Reese, Jr.				.57291			
	Holly C. Shuler, Jr.				1.56250			
	Leona L. Stagner				.57292			
	R. G. Storey & Sons				.34636			
	George Howell							
	Williams				.48828			
	Yates Brothers				3.71093			
	Tract Total				12.50000			
4 FEE TRACTS 320 ACRES OR 6.4414%								
TOTAL 48 TRACTS 4967.87 ACRES IN ENTIRE UNIT AREA								

(1) Tract No. 2: In addition to an overriding royalty in the amount of 10.23438%, which is charged to the working interest owners in accordance with their percentage ownership in the tract, the interest of Yates Petroleum Corporation is subject to an overriding royalty in the amount of 2.25695% owned by Yates Brothers.

(2) Tract No. 5: Tenneco Oil Company owns a production payment in the original amount of \$4,000.00 payable out of 6.25% of 8/8ths when daily average production per well averages 10 BOPD or more on a monthly basis. The unpaid balance as of 9-1-70 was \$2,773.22. In the event this production payment is retired the interest shall be credited to Harold Kersey.

(3) Tracts Nos. 9 and 14: Kennedy Oil Company's interest is a production payment in the amount of \$1,000,000.00 payable out of 3.125% of 8/8ths from depth rights below 3500 feet on Tract Nos. 9 and 14. In the event this production payment is retired this interest shall be credited to Harvey E. Yates Company 50% and Midwest Oil Corporation 50%.

- (4) Tract No. 18: The Penrock Oil Corporation interest is a production payment in the amount of \$44,422.50 payable out of 5% of 8/8ths. In the event this production payment is retired this interest shall be credited to Harvey E. Yates 50% and Midwest Oil Corporation 50%.
- (5) Tract No. 20: This 2.25695% of 8/8ths overriding royalty is payable only out of the interest owned by Yates Petroleum Corporation.
- (6) Tract No. 21: All payable out of the interest of Cities Service Oil Co.
- (7) Tract No. 22: When daily average production on a monthly basis is 20 BOPD or less the overriding royalty is 6.25% of 8/8ths and when it is over 20 BOPD the overriding royalty is 12.5% of 8/8ths. In the event of a pumping well the extra 6.25% revenue interest shall be credited to Tenneco Oil Company 50%; Harvey E. Yates Company 25% and Midwest Oil Corporation 25%.
- (8) Tract No. 28: The overriding royalty on this tract is 6.25% of 8/8ths when daily average production on a monthly basis is 10 BOPD or greater; 5% of 8/8ths between 5 and 10 BOPD and 3.125% of 8/8ths less than 5 BOPD. Any additional revenue interest resulting from these royalty rates shall be credited to Featherstone Farms, Ltd. 50%, Harvey E. Yates Company 25% and Midwest Oil Corporation 25%.
- (9) Tract No. 32: This interest is a production payment in the initial amount of \$3,000,000.00 payable out of 3/32 of 8/8ths (9.375%) covering this and other lands. In the event this production payment is retired the increase in revenue interest shall be credited to Tenneco Oil Company 50%; Harvey E. Yates Company 25% and Midwest Oil Corporation 25%.
- (10) Tract No. 38: This interest is a production payment in the amount of \$80,000.00 payable out of 7-1/2% of 8/8ths. In the event this production payment is retired the increase in revenue interest shall be credited to Harvey E. Yates Company 50% and Midwest Oil Corporation 50%.
- (11) Tract No. 41: As to the NE/4 SW/4 of Sec. 30, T17S, R29E, depth rights below 6463 feet subsurface.