

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
January 27, 1960  
EXAMINER HEARING

-----  
IN THE MATTER OF: )

Application of British-American Oil )  
Producing Company for approval of a )  
unit agreement. )  
-----

Case 1866



(Witness sworn.)

E. L. TAYLOR

called as a witness, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. SARREBO:

Q Will you state your name, please?

A E. L. Taylor.

Q By whom are you employed and in what capacity and where are you located, Mr. Taylor?

A I am employed by the British-American Oil Producing Company in the capacity of joint operations, located in Dallas, Texas.

Q Mr. Taylor, you are familiar with the application in this matter?

A Yes.

Q You are also familiar with the work that's been done toward the formation of the proposed West Bisti-Lower Gallup Sand Unit?

A Yes, I am.

Q And the Unit Agreement which covers that Unit, is that correct?

A Yes.

Q ~~Has an operating committee been formed which has done~~

the preliminary work on this Unit and the Agreement?

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A Yes.

Q What has been your connection with the Operating Committee?

A I have been serving as Chairman of the Operating Committee, being the prospective operators representative on the Committee.

Q Has this Operating Committee agreed upon a form of Unit Agreement?

A Yes, they have.

Q Is that Unit Agreement in the form which was submitted as Exhibit A to the application in this matter?

A Yes, it is.

MR. ERREBO: Mr. Examiner, we would like to ask that Exhibit A to the application be designated Exhibit 1 in this hearing. We're a little short on copies of the Unit Agreement.

MR. UTZ: Exhibit A consists of what now, the Unit Agreement itself?

MR. ERREBO: That's correct.

(Marked British-American's  
Exhibit No. 1, for identification.)

Q Mr. Taylor, what steps have been taken to secure approval of this Unit Agreement by all interested parties, including the various Governmental agencies involved?

A     ~~The Unit Agreement has been submitted to all working~~  
interest owners, all basic royalty owners, and all overriding  
royalty owners within the unit area that's described therein.  
It has been presented to the working interest owners and the over-  
riding royalty interest owners on the basis that we believe it  
to be substantially an agreement that will be approved by the  
United States Geological Survey and which has been tentatively  
approved, I shall say, by the State Land Commissioner's Office  
as to form and content, and by letter from the Navajo Tribal  
Council, indicating that they accept the Unit Agreement as sub-  
mitted, subject to notification from the Regional Oil and Gas  
Supervisor for the United States Geological Survey that it meets  
with his approval.

      This Unit Agreement has been filed with the Regional Super-  
visor for the United States Geological Survey requesting prelim-  
inary approval of that agency and designation of the unit area that  
is outlined therein. We do not yet have that preliminary approval  
from the United States Geological Survey. It is in their Wash-  
ington Office and we understand does have the recommendation of  
the Regional Oil and Gas Supervisor.

      In presenting the agreement for acceptance by the working  
interest owners, the overriding royalty owners, it was done so  
on the understanding that if any substantial changes are pre-  
scribed by the Director of the United States Geological Survey,

we will come back and obtain the affirmation of those people who have executed it or ratified it prior to considering the ratification final.

Q Mr. Taylor, is this agreement in the form which is generally used by the United States Geological Survey and previously approved by them as well as the State and this Commission?

A It is in the form generally prescribed by the United States Geological Survey for Federal type units, and there being a high percentage of Federal lands included here, we used the Federal form. It departs only to the extent necessary to make it applicable to an easily developed field as compared to an exploratory type of unit.

This particular Unit Agreement has been accepted by the U.S.G.S. as easily identified to the one that is in effect for the Central Bisti Unit, with the exception of a few points where it had to be changed to fit the area under consideration in this instance.

Q This Unit Agreement, of course, contains a description of the entire unit area. Does it also contain a description of the initial participating area?

A It does contain a description of the initial participating area. However, I would say that that initial participating area is, as agreed upon by the Operating Committee of the working interest owners and the other interest owners, as the

~~initial participating area that will be submitted to the Director of the U.S.G.S.~~

At the time we requested certification and determination of the Unit Agreement, we were told that we should not request approval of the participating area at this time but merely confine our request to approval as to form and designation of the Unit area, and before it goes to the U.S.G.S. for final acceptance, we will present a schedule for their approval at that time.

Q For the record, Mr. Taylor, will you state the Township and Range designation of the lands which are included within the Unit area? Just give the Township and Ranges in which these lands lie, the entire Unit area.

A Portion of the land encompassed by the Unit area here lie within Township 25 North, 13 West; 26 North, 13 West; 26 North, 14 West.

Q Mr. Taylor, would you state what is the present status of your obtaining signatures of the various interests on an acreage basis?

A On an acreage basis of the Unit area we have obtained 76.8% commitment by the working interest owners, we have obtained 52.5% commitment by overriding royalty owners.

Q Who are the royalty interest owners in the Unit area?

A The royalty interest owners are the Federal Government, the State of New Mexico, and the Navajo Tribe of Indians.

Q Are there any other royalty interests?

A There are no other basic royalty interests.

Q In other words, these are the three lessors?

A That is right.

Q Now, you are familiar with the provisions of this Unit Agreement?

A Yes.

Q It being standard,, and in the interest of brevity, I'll not ask you to go through the provisions of the Agreement, but I will ask you if you will refer to the section of the Unit Agreement and the page upon which it is found, and briefly summarize the essentials of the participation formula.

A The participation formula is set out in Section 12, which is designated allocation of production.

Q What page is that found at?

A The formula itself will be found on page 16. Essentially, the participation in the participating area of this Unit is divided into three parts, one-third each. The first one-third is allocated to individual tracts on the basis of the original stock tank oil in place; in the bench, one of the Lower Gallup sands is determined by the acre feet of sand within that particular tract, using the acreage and the number of feet of thickness as determined from a microlog survey.

The second one-third portion of the formula is determined



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by the acre feet of sand underlying the respective tracts. In the first, second and third benches combined of the Lower Gallup sand is determined by the S. P. profile from what we could commonly term an E. S. log.

The third portion of the formula is established by the rate of production from the individual tracts during the base period, which for the initial participating area was the period January 1 through March 31, 1959.

Q Does the application, or will the application of this formula in your opinion treat the owners of all interests, by that I mean royalty interests, the working interests and the overriding royalty interests, fairly and equitably?

A Yes, it will.

Q Do you feel that this participation formula will result in a fair and equitable distribution of such allowable as this Commission may assign to this project?

A Yes, I do.

Q Does this Unit Agreement contain the standard provisions for enlargement?

A Yes.

Q Can you state what is the total amount of acreage in the Unit area?

A The total acreage in the Unit area is 14,330.97 acres.

Q Can you state the percentage of this acreage which is

~~under lease from the United States Government?~~

A Yes, 71.53549%.

Q And the amounts from the State and Navajo Tribe?

A Do you mean percentagewise?

Q Yes, sir.

A The State of New Mexico land is 6.69348%. The Navajo Tribal land, 21.77103%.

Q Mr. Taylor, are you acquainted with the provisions of the New Mexico statute defining waste?

A Yes, sir.

Q Is it your opinion that the approval of this Unit Agreement will result in the prevention of waste?

A Yes, sir.

Q Mr. Taylor, as I understand your testimony, British-American is asking for a qualified approval at this time of a Unit Agreement?

A That is correct.

Q And would it be your request then that the Commission give its tentative approval to the Unit Agreement as presented here today, with final approval to be contingent upon notification of the Oil Commission that the approval of the lessors has been obtained, is that correct?

A That is right.

Q Do you have anything further that you care to add

at this time?

A I believe that sums up our application at this moment.

MR. ERREBO: That's all we have.

MR. UTZ: Any questions of the witness?

MR. PAYNE: Yes, sir.

MR. UTZ: Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Is all the acreage of the Unit within the horizontal limits of the Bisti-Lower Gallup Oil Pool?

A Yes, sir.

Q Is it unitized at all depths?

A Unitized only to the Bisti-Lower Gallup sand.

MR. UTZ: That is what you have termed here as benches one, two and three?

A Yes, sir.

Q (By Mr. Payne) How do you define the vertical limits of the Lower Gallup sand?

A We identify the Lower Gallup sand in Section 3 of the Unit Agreement as being, and I'll read you the paragraph --

MR. UTZ: What page is that on, please?

A Page 7. "The Bisti-Lower Gallup sand can be construed to mean the sand and reservoir encountered in the drilling by the British-American Oil Producing Company of its Marye No. 1 Well

between the depths of 4,826 feet and 5,000 feet as shown by the Schlumberger electric log of said well, which well is located in the Northeast Quarter, Northeast Quarter, Section 1, Township 25 North, Range 13 West, San Juan County, New Mexico."

Q Do you know of any wells in the proposed Unit area, Mr. Taylor, that are perforated below this depth?

A No, sir, I do not personally know of any wells.

Q Now, is bench one of the Gallup the most productive of the producing formations there, the producing stringer?

A Bench one is the sand, the bench of the Lower Gallup sand which extends over the entire unit area and is the bench in which I believe all wells are open to production.

Q That's why your participation formula gives more emphasis to bench one than the other two?

A Yes, bench one has a greater porosity and permeability than the other two benches.

MR. PAYNE: Thank you. That's all.

MR. UTZ: Any other questions of the witness? Mr. Nutter.

BY MR. NUTTER:

Q Mr. Taylor, I notice that you have on this Exhibit No. 1 the outline of the Unit area and also the outline of the participating area. Is the acreage that is outside the participating area going to participate in any way in the proceeds from the unit?

A It will participate only to the extent that there are wells on it that are not in the participating area.

Q But the production from those wells will be production belonging only to the operator of those wells, is that correct?

A That's right, and also if that, it won't be considered as Unit production unless the land on which it is situated is committed to the Unit Agreement.

Q I also notice that in the participating area there's at least 120 acres that isn't dedicated to any wells. How does that acreage share?

A That acreage shares under the formula that's set forth as I gave it a few moments ago, except that it gets no participation for that one-third portion of the formula which is based upon rate during the base period.

Q So, it's percentage for the third portion of the total formula is zero then?

A That's right.

Q Does the Unit Agreement provide that the participating area can be expanded in the event there is discovery of additional oil on the outskirts of the present participating area?

A Yes, sir.

Q Will it ever be contracted?

A It will not be contracted by depletion of any acreage within.

~~MR. NUTTER: I believe that's all, thank you.~~

BY MR. UTZ:

Q Do I understand that you have 100% participation in this unit?

A No, sir, 100% participation in the unit?

Q Yes, that is within the boundary of the unit as shown on Exhibit A of Exhibit 1.

A No, sir.

Q Do you have a hundred percent signed up?

A No, sir, the percentage that I gave you a few moments ago here, on an acreage basis we have 76.8% of the working interest signed up, the overriding royalty interest we have 52.5%.

MR. PAYNE: Do you have a higher percentage than that in the participating area?

A In the participating area we have 93.2% of the participation that have committed to it and 31% of the overriding royalty interest participation have committed.

I would like to add to the record that which is committed here, we actually have signed instruments by all of those parties except Skelly Oil Company, a working interest owner, and I am authorized to say on behalf of Skelly that they do approve the Unit Agreement and their intention of executing the Unit Agreement essentially in this form that is presented.

BY MR. NUTTER:

~~Q You anticipate getting additional percentage committed~~  
to the unit?

A Yes, sir, we are working on it all the time. There has been some reluctance to sign on the conditional basis that we have had to present it. We feel that when we have the preliminary approval of the U.S.G.S. and can hand them an instrument which the U.S.G.S. says they will sign, then we will have additional commitments.

Q Are any leases included in this unit area which do not have portions of them included in the participating area?

A Yes, sir.

Q Will those leases be perpetuated merely by being in the unit or expire?

A They will be perpetuated for a period of time when specified in the Unit Agreement. It differs as to some of the land.

Q This unit does contain this elimination clause?

A Yes.

Q It would eliminate the acreage if it is not in a participating area?

A That's right.

MR. UTZ: Until such time as you get U.S.G.S. approval then, the royalty interest you don't have signed up, is that correct?

A That's right, we have no royalty interest signed up.

MR. UTZ: Any other questions of the witness?

MR. PAYNE: You didn't split any 80 acre tracts, 40 in the participating area and 40 out of 80 acres was dedicated to the well?

A I don't believe that we did that.

MR. PAYNE: Thank you.

MR. UTZ: Are there any other questions? If not, the witness may be excused.

A Thank you.

(Witness excused.)

MR. UTZ: Any other statements to be made in this case?

MR. PAYNE: Mr. Examiner, the Phillips Petroleum Company, Benson, Montin and Greer Drilling Corporation and El Paso Natural Gas Products Company concur in British-American's application.

MR. UTZ: Any other statements?

MR. ERREBO: Mr. Payne, do those refer to this case specifically?

MR. PAYNE: Yes, sir, some refer specifically to this one and others refer to this one and your next case.

MR. ERREBO: Off the record.

(Whereupon a discussion was held off the record.)

MR. UTZ: If nothing further in this case, the case will be taken under advisement.



STATE OF NEW MEXICO )  
                               : SS  
 COUNTY OF BERNALILLO )

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this <sup>4<sup>th</sup></sup> day of February, 1960.

*Ada Dearnley*  
 \_\_\_\_\_  
 Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a true and correct transcript of the proceedings in the matter of *State of New Mexico vs. [illegible]* heard at *Santa Fe, N.M.* on *Jan. 27, 1960*.  
*[Signature]*, Examiner  
 New Mexico Oil Conservation Commission

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING - ELVIS A. UTZ
SANTA FE, NEW MEXICO

REGISTER

HEARING DATE JANUARY 27, 1960 TIME: 9 a.m.

NAME:

REPRESENTING:

LOCATION:

H.P. Bratton	Union Oil of Calif	El Paso
David E. Dunn	Skelly	Roswell
Leary W. Lunn	British American	Galena
George B. Judd	British American	Nallas
Thomas M. Hogan	British American	Albuquerque
Wayne Rogers	" "	"
Wilson H. Williamson	" "	"
E.E. Courtney	" "	Dallas
Burnett Berber	" "	Albuquerque
W.P. Taulman	Atlantic	Roswell
Art Baumgardner	Skelly	Hobbs
Robert Clarke	Union Oil of Calif	Midland
Wm. Stanley	Union Oil of Calif	Roswell, N.M.
Levi Johnson	Val R. Reed & Assoc. Inc.	Albuquerque
Ken M. Campbell	Campbell & Russell	Roswell NM
Bill	El Paso National Gas	El Paso, Tex.

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING - ELVIS A. UTZSANTA FE, NEW MEXICOREGISTERHEARING DATE JANUARY 27, 1960 TIME: 9 a.m.

NAME:	REPRESENTING:	LOCATION:
Harmon J. Ledbetter	Newmont Oil Co.	Artesia
Roger Sutton	Franklin, Sutton & Fair	Roswell
Jason Kellahin	Kellahin & Fox	Santa Fe, N.M.
J. E. ROBINSON, Jr.	TEXACO INC.	MIDLAND
J. H. Haack	Hulf	Roswell
W. V. Kastle	Campbell Drilling Co.	Roswell
Guy A. Swartz	" " "	Roswell -
A. H. Sakberg	Continental Oil	"
J. A. Queen		

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING - ELVIS A. UTZSANTA FE, NEW MEXICOREGISTERHEARING DATE JANUARY 27, 1960 TIME: 9 A.M.

NAME:	REPRESENTING:	LOCATION:
HP Bratten	Henry Am - Hild	Phoenix
Dodd & Dunn	Union Oil Co of Calif	Roswell
Henry W. Lunn	Skelly	Enlow
George B. Judd	British American	Nader
Thomas M. Hogan	British American	Albuquerque
Wayne Rogers	" "	" "
Edward H. Williamson	" "	" "
Edw. J. Lantry	" "	Dallas
Burnett Herber	" "	Albuquerque
W. P. Tarkenton	Atlantic	Roswell
Art Baumgardner	Skelly	Albbs
Robert Clarke	Union Oil of Calif	Midland
Wm. Stanley	Union Oil Co of Calif	Roswell, N.M.
Lewis J. Jenson	Val R. Reed Assoc Inc.	Albuquerque
Jack M. Campbell	Campbell & Russell	Roswell NM
St. Hanner	El Paso Natural Gas	El Paso, Tex.

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NAME:	REPRESENTING:	LOCATION:
Therman J. Ledbetter	Newmont Oil Co.	Artesia
Reggie Sutton	Franklin, Sutton & Son	Roswell
Jason Kellahin	Kellahin & Fox	Santa Fe, N.M.
G. E. Robinson, Jr.	TEXACO Inc.	MIDLAND
J. H. Haaver	Hulf	Roswell
W. V. Kestler		
Guy A. Swartz	Campbell Dry Co.	Roswell
A. H. Salasberg	" " "	Roswell -
J. A. Queen	Continental Oil	"

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NAME:	REPRESENTING:	LOCATION:
H.P. Bratton	Shelley - Child	Phoenix
David A. Dunn	Union Oil Co. of Calif.	Phoenix
Henry W. Lunn	Shelley	Phoenix
George B. Judd	British American	Phoenix
Thomas M. Hogan	British American	Phoenix
Wayne Rogers	" "	" "
Wilson H. Williamson	" "	" "
E.E. Harkins	" "	Dallas
Burnett Herber	" "	Albuquerque
W.T. Taulman	Atlantic	Phoenix
Art Baumgardner	Shelley	Phoenix
Robert E. Case	Union Oil Co. of Calif.	Phoenix
W.H. Stanley	Union Oil Co. of Calif.	Phoenix
Lewis J. Jarrow	Val R. Kene & Assoc.	Phoenix
Jack M. Campbell	Campbell & Russell	Phoenix N.M.
St. H. Harris	El Paso National Gas	El Paso, Tex.

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J. H. Haarer	Gulf	Roswell
W. V. Kestler	Campbell Drilling Co.	Roswell
Guy A. Swartz	" " "	Roswell -
A. H. Salasberg	Continental Oil	"
J. A. Queen		

THE BRITISH-AMERICAN OIL PRODUCING COMPANY

P. O. BOX 749

DALLAS 21, TEXAS

PRODUCTION AND ENGINEERING DEPARTMENT  
VICE PRESIDENT - W. E. SCHOENECK

OPERATIONS - F. A. NORRIS  
ENGINEERING - G. M. STEARNS  
DRILLING ANALYSIS - W. W. MOORE  
GAS AND GASOLINE - D. W. CONAWAY  
JOINT INTERESTS - E. L. TAYLOR  
CLERICAL - J. C. PULLIAM

July 27, 1960

*Case #1866*

Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Secretary

Order No. R-1591  
West Bisti Lower Gallup Sand Unit Agreement  
San Juan County, New Mexico

Gentlemen:

Numbered paragraph 5 of subject order requires that Unit Operator shall file with the Commission within 30 days after the effective date of the Unit an executed original or executed counterpart of the West Bisti Lower Gallup Sand Unit Agreement.

This Unit became effective July 1, 1960 and in accordance with subject order we enclose one fully conformed copy of said Unit Agreement as it was submitted to and approved by the United States Department of the Interior. In addition we enclose one copy of Exhibit "C" of the Unit Agreement, which will be filed with the USGS office in Roswell, revised as of the effective date of the Unit due to non-commitment of Tracts No. 10, 11 and 12, portions of which are included within the participating area.

Yours very truly,

Original signed  
by E. L. TAYLOR

ELT:pr

cc: Modrall, Seymour, Sperling, Roehl & Harris  
Attn: Mr. Burns M. Errebo  
P. O. Box 466  
✓ Albuquerque, New Mexico  
With copy of Attachments

COPY



EXHIBIT C  
SCHEDULE OF TRACT PERCENTAGE PARTICIPATION  
WEST BISTI LOWER GALLUP SAND UNIT  
SAN JUAN COUNTY, NEW MEXICO

Revised as of Effective Date of Unit - July 1, 1960

<u>Tract Number</u>	<u>Description</u>	<u>No. of Acres</u>	<u>Serial No. and Date of Lease or Application</u>	<u>Percentage Participation</u>
<u>Navajo Tribal Land</u>				
1	T26N-R14W Sec. 13: S/2 NE/4 SE/4	240.00	14-20-603-735 11-10-54 H.B.P.	3.1888
Total Navajo Tribal Land		240.00		3.1888
<u>Federal Lands</u>				
5	T26N-R13W Sec. 27: S/2 N/2 S/2 Sec. 28: A11 Sec. 29: N/2 N/2	1280.00	SF-078091 4-1-51 H.B.P.	27.1808
6	T26N-R13W Sec. 35: N/2 SE/4 N/2 SW/4	1039.72	SF-078155 2-1-48 H.B.P.	23.1630
	T25N-R13W Sec. 1: Lots 1, 2, 3 & 4 S/2 NE/4 SE/4 Sec. 12: E/2 NE/4			
7	T26N-R13W Sec. 33: N/2 NE/4 Sec. 34: N/2 NW/4 NE/4	320.00	SF-078156 2-1-48 H.B.P.	7.2074
9	T26N-R13W Sec. 21: W/2 SW/4 SE/4 SW/4	120.00	SF-078932 2-1-48 H.B.P.	2.3805
9-A	T26N-R13W Sec. 21: NE/4 SW/4	40.00	SF-078932 2-1-48 H.B.P.	0.3746
10	T26N-R13W Sec. 19: Lots 3 & 4	31.45	SF-080236 7-1-48	0.0000*
11	T26N-R13W Sec. 18: Lots 9 & 10	30.79	SF-080236-A 7-1-48 H.B.P.	0.0000*
12	T26N-R13W Sec. 30: N/2 NE/4	80.00	SF-080402 4-1-51 H.B.P.	0.0000*

<u>Tract Number</u>	<u>Description</u>	<u>No. of Acres</u>	<u>Serial No. and Date of Lease or Application</u>	<u>Percentage Participation</u>
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Federal Lands (Cont'd)

13	T26N-R13W Sec. 26: S/2 SE/4 SW/4	240.00	SP-081028-A 3-1-51 H.B.P.	2.8218
15	T26N-R13W Sec. 18: S/2 SE/4 Lots 7, 8, 11 & 12 Sec. 19: NE/4 N/2 SE/4 SE/4 SE/4 Lots 1, 2, 5 & 6 Sec. 20: S/2 NE/4 S/2 NW/4	1240.00	NM-013492 4-1-54 H.B.P.	23.3140
Total Federal Land		4421.96		86.4421

State of New Mexico Land

17	T26N-R13W Sec. 36: NW/4 NW/4	40.00	E-4501-8 10-24-50 H.B.P.	0.3842
17-A	T26N-R13W Sec. 36: NE/4 NW/4	40.00	E-4501-8 10-24-50 H.B.P.	0.2439
18-A*	T26N-R13W Sec. 36: N/2 SE/4 SE/4 SE/4 SW/4 SW/4 NW/4	320.00	E-9707 1-17-56 H.B.P.	
18-B*	T26N-R13W Sec. 36: SE/4 NW/4	40.00	E-4500-3 10-24-50 H.B.P.	
18-C*	T26N-R13W Sec. 36: SW/4 SE/4	40.00	E-3148-6 12-10-49 H.B.P.	

\*Tracts 18-A, 18-B and 18-C represent the total Hospah  
Unit Participation

9.7410

Total State of New Mexico Land 480.00

10.3691  
100.0000

Summary

## Committed Tracts:

Navajo Tribal Land	240.00	3.1888
Federal Land	4,279.72	86.4421
State of New Mexico Land	480.00	10.3691
Total Committed Tracts	4,999.72	100.0000

## \*Uncommitted Tracts:

Federal Land	142.24	0.0000
Total Participating Area	5,141.96	100.0000

Case 1866

**UNIT AGREEMENT**  
**FOR THE DEVELOPMENT AND OPERATION**  
**OF THE**  
**WEST DIST LOWER GALLUP SAND UNIT AREA**  
**COUNTY OF SAN JUAN**  
**STATE OF NEW MEXICO**

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**Certification -- Determination**

**Certificate of Approval**

B. **BEFORE EXAMINER UTZ**  
**OIL CONSERVATION COMMISSION**  
**Arm. EXHIBIT NO. 1**  
**CASE NO. 1866**

UNIT AGREEMENT  
FOR THE DEVELOPMENT AND OPERATION  
OF THE  
WEST BISTI LOWER GALLUP SAND UNIT AREA  
COUNTY OF SAN JUAN  
STATE OF NEW MEXICO

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UNIT AGREEMENT  
FOR THE DEVELOPMENT AND OPERATION  
OF THE  
WEST BISTI LOWER GALLUP SAND UNIT AREA  
COUNTY OF SAN JUAN  
STATE OF NEW MEXICO  
NO. \_\_\_\_\_

THIS AGREEMENT entered into as of the 19th day of October, 1959, by and between the parties subscribing, ratifying, or consenting 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 subject 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 under a cooperative or unit plan of development 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. 3, Chap. 88, Laws 1943) as amended by Sec. 1 of Chapter 162, Laws of 1951, (Chap. 7, Art. 11, Sec. 39, N. M. Statutes 1953 Annot.), to consent to and approve the development or operation of State lands under agreements made by lessees of State land jointly or severally with other lessees where such agreements provide for the unit operation or development of part of or all of any oil or gas pool, field or area; 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, Chap. 7, Art. 11, Sec. 41, N. M. Statutes 1953 Annotated) to amend with the approval of lessee, evidenced by the lessee's execution of such agreement or otherwise, any oil and gas lease embracing State lands so that the length of the term of said lease may coincide with the term of such agreements for the unit operation and development of part or all of any oil or gas pool, field or area; and

WHEREAS, the rules and regulations governing the leasing of restricted allotted and tribal Indian lands for oil and gas except allotments made to the members of the Five Civilized Tribes and Osage Indians in Oklahoma, promulgated by the Secretary of the Interior (25 C.F.R. 172.24(c) ) under and pursuant to the Allotted Land Leasing Act of March 3, 1909, 35 Stat. 783, 25 U.S.C. Sec. 396 and the Tribal Land Mineral Leasing Act of May 11, 1938, 52 Stat. 347, 25 U.S.C. Sec. 396a et seq., and the oil and gas leases covering said allotted and tribal Indian lands provide for the commitment of such leases to a cooperative or unit plan of development or operation; and

WHEREAS, the Oil Conservation Commission of the State of New Mexico (hereinafter referred to as "the Commission") is authorized by an Act of the Legislature (Chap. 72, Laws 1935; Chap. 65, Art. 3, Sec. 14 N. M. Statutes 1953 Annotated) to approve this agreement and the conservation provisions hereof; and

WHEREAS, the parties hereto hold sufficient interests in the West Bisti Lower Gallup Sand Unit covering the land hereinafter described to give reasonably effective control of operations therein; and

WHEREAS, it is the purpose of the parties hereto to enable institution and consummation of secondary recovery operations, to conserve natural resources, prevent waste, and secure other benefits obtainable through development and operation of the Bisti Lower Gallup Sand subject to this agreement under the terms, conditions and limitations herein set forth.

NOW, THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this Agreement their respective interests in the below defined Unit Area, and agree severally among themselves as follows:

1. ENABLING ACT AND REGULATIONS: The Acts of March 3, 1909, May 11, 1938, and the Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid pertinent regulations, including operating and unit plan regulations, heretofore issued thereunder or valid, pertinent, and reasonable regulations hereafter issued thereunder are accepted and made a part of this Agreement as to Federal and Indian lands, provided such regulations are not inconsistent with the terms of this Agreement; and as to non-Federal and non-Indian lands, the oil and gas operating regulations in effect as of the effective date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the State in which the non-Federal and non-Indian land is located, are hereby accepted and made a part of this Agreement.

2. UNIT AREA: The area specified on the map attached hereto marked Exhibit "A" is hereby designated and is recognized as constituting the West Bisti Lower Gallup Sand Unit Area hereinafter referred to as "Unit Area", containing 14,330.97 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", or when requested by the Commissioner of Public Lands of the State of New Mexico, hereinafter referred to as "Commissioner", and not less than seven copies of the revised exhibits shall be filed with the Supervisor and copies thereof shall be filed with the Commissioner and the Oil Conservation Commission of the State of New Mexico. The Commissioner of Indian Affairs shall hereafter be referred to as the "Indian Commissioner".

The above described Unit Area shall, when practicable, be expanded to include therein any additional tract or tracts regarded as reasonably necessary or advisable for the purposes of this agreement, or shall be contracted to exclude lands not within any participating area, whenever such expansion or contraction is 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, with concurrence of at least 65% of the voting interest or on demand of the Director of the Geological Survey, hereinafter referred to as "Director", after preliminary concurrence by the Director, or on demand of the Commissioner and Commission, shall prepare a notice of proposed expansion or contraction describing the contemplated changes in the boundaries of the Unit Area, the reasons therefor, and the proposed effective date thereof, preferably the first day of a month subsequent to the date of notice.

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

(c) Upon expiration of the 30-day period provided in the preceding item (b) hereof, Unit Operator shall file with the Supervisor, Commissioner and the Commission evidence of mailing of the notice of expansion or contraction and a copy of any

objections thereto which have been filed with the Unit Operator, together with an application in sufficient number, for approval of such expansion or contraction and with appropriate joinders.

(d) After due consideration of all pertinent information, the expansion or contraction shall, upon approval by the Director, Commissioner and the Commission become effective as of the date prescribed in the notice thereof.

(e) All legal subdivisions of unitized lands (i.e. 40 acres by Government survey or its nearest lot or tract equivalent in instances of irregular surveys, however, unusually large lots or tracts shall be considered in multiples of 40 acres, or the nearest aliquot equivalent thereof, for the purpose of elimination under this subsection), no parts of which are entitled to be in a participating area within 5 years after the first day of the month following the effective date of this agreement, shall be eliminated automatically from this agreement, effective as of the first day thereafter, and such lands shall no longer be a part of the Unit Area and shall no longer be subject to this agreement, unless at the expiration of said 5-year period diligent drilling operations are in progress on unitized lands not entitled to participation, in which event all such lands shall remain subject hereto for so long as drilling operations are continued diligently, with not more than 90 days' time elapsing between the completion of one such well and the commencement of the next such well, except that the time allowed between such wells shall not expire earlier than 30 days after the expiration of any period of time during which drilling operations are prevented by a matter beyond the reasonable control of Unit Operator as set forth in the section hereof entitled "Unavoidable Delay"; provided that all legal subdivisions of lands not in a participating area and not entitled to become participating under the applicable provisions of this agreement within 7 years after said first day of the month following the effective date of this agreement shall be eliminated as above specified.

Determination of creditable "Unavoidable Delay" time shall be made by Unit Operator and subject to the approval of the Director and Commissioner. The Unit Operator shall, within 90 days after the effective date of any elimination hereunder, describe the area so eliminated to the satisfaction of the Director, Commissioner and the Commission and promptly notify all parties in interest.

If conditions warrant extension of the 7 year period specified in this subsection 2(e), a single extension of not to exceed 2 years may be accomplished by consent of the owners of 90% of the current unitized working interest and 60% of the current unitized basic royalty interests (exclusive of the basic royalty interests of the United States or of the State of New Mexico), on a total nonparticipating-acreage basis, respectively, with approval of the Director and Commissioner, provided such extension is submitted to the Director and Commissioner not later than 60 days prior to the expiration of the said 7 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.

(f) Notwithstanding the provisions of subsection 2(e) hereof, all legal subdivisions of unitized lands, as defined in 2(e) above, the title to the fee of which is in the Commissioner of Public Lands of the State of New Mexico, no part of which are entitled to be in a participating area within five (5) years after the first day of the month following the effective date of this agreement, shall be eliminated automatically from this agreement, effective as of the first day thereafter, and such lands shall no longer be a part of the Unit Area and shall no longer be subject to this agreement.

3. UNITIZED LAND AND UNITIZED SUBSTANCES. All oil and gas in the hereinabove described lands committed to this agreement,

as to the Bisti Lower Gallup Sand, are unitized under the terms of this agreement and are herein called "unitized substances", and said lands shall constitute said lands herein referred to as "unitized lands" or "lands subject to this agreement".

The Bisti Lower Gallup Sand shall be construed to mean the sand and reservoir encountered in the drilling by The British-American Oil Producing Company of its Marye #1 Well between the depths of 4,826 feet and 5,000 feet as shown by the Schlumberger electric log of said well, which well is located in the Northeast Quarter of the Northeast Quarter (NE/4 NE/4), Section 1, Township 25 North, Range 13 West, San Juan County, New Mexico.

4. UNIT OPERATOR. The British-American Oil Producing Company is hereby designated as Unit Operator and by signature hereto as Unit Operator agrees and consents to accept the duties of Unit Operator for the 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 interest is owned by it.

The term "working interest owner", as used herein shall mean the owner of such an interest committed hereto as may be obligated to bear or share a portion of all costs and expenses of drilling, developing, producing and operating the unitized land under this agreement and the Unit Operating Agreement.

5. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after notice of intention to resign has been served by Unit Operator on all working interest owners and the Director, Commissioner and the Commission, and until all wells then drilled hereunder are

placed in satisfactory condition for suspension or abandonment whichever is required by the Supervisor as to Federal lands and by the Commission as to State lands, unless a new Unit Operator shall have been selected and approved and shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

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

The Unit Operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by the same percentage vote of the owners of working interest determined in like manner as herein provided for the selection of a new Unit Operator. Such removal shall be effective upon notice thereof to the Director and Commissioner.

In all such instances of resignation or removal, until a successor Unit Operator is selected and approved, as hereinafter provided, the working interest owners shall be jointly responsible for the performance of the duties of Unit Operator and shall, not later than 30 days before such resignation or removal becomes effective, appoint a common agent to represent them in any action to be taken hereunder.

The resignation or removal of Unit Operator under this agreement shall not terminate its right, title or interest as the owner of a working interest or other interests in unitized substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all equipment, materials, and appurtenances used in conducting the unit operations as owned by the working interest owners to the new duly qualified successor Unit Operator or to the owners thereof if no such new Unit Operator is elected, to be used for the purpose of conducting unit operation hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment and appurtenances needed for the preservation of any wells.

6. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender his or its resignation as Unit Operator, or shall be removed as hereinabove provided, the working interest owners shall by affirmative vote of at least Sixty-Five (65%) per cent of their voting interests, based on the percentage participations assigned to tracts in the participating area, select a successor Unit Operator; provided, however, that should any working interest owner own a voting interest of more than Thirty-Five (35%) per cent, the vote of said party shall not serve to disapprove the selection of a new Unit Operator approved by Eighty (80%) per cent or more of the voting interests of the remaining working interest owners and provided, further, that the Unit Operator shall not vote to succeed itself and its voting interest shall not be counted in a vote concerning its removal as the Unit Operator. Such selection shall not become effective until (a) Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and (b) the selection shall have been approved by the Director and Commissioner.

7. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. All costs and expenses incurred by Unit Operator in conducting unit operations hereunder shall be paid and apportioned among and borne by the working interest owners, all in accordance with the agreement or agreements entered into by and between the Unit Operator and the working interest owners, whether one or more, separately or collectively. Any agreement or agreements entered into between the working interest owners and the Unit Operator, as provided in this section whether one or more, are herein referred to as the "Unit Operating Agreement". Such Unit Operating Agreement shall also provide the manner in which the working interest owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases, or other independent contracts and such other rights and obligations as between Unit Operator and the working interest owners as may be

agreed upon by the Unit Operator and the working interest owners. However, no such Unit Operating Agreement shall be deemed either to modify the terms and conditions of this Unit Agreement or to relieve the Unit Operator of any right or obligation established under this Unit Agreement, and in case of any inconsistency or conflict between the Unit Agreement and the Unit Operating Agreement, this Unit Agreement shall prevail. Three (3) true copies of any Unit Operating Agreement executed pursuant to this section shall be filed with the Supervisor and a copy filed with the Commissioner.

8. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege, and duty of exercising any and all rights of the parties hereto including surface rights, which are necessary or convenient for the prospecting for, producing, storing, allocating, and distributing the unitized substances, are hereby granted and delegated to and shall be exercised by the Unit Operator as herein provided. Acceptable evidence of title to said rights shall be deposited with said Unit Operator and, together with this agreement, shall constitute and define the rights, privileges, and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land, lease, royalty interest, working interest, operating agreement or communitization agreement, it being understood that under this agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

9. DISCOVERY. Inasmuch as wells capable of producing unitized substances in paying quantities (to-wit: quantities sufficient to repay the cost of drilling, and producing operations, with a reasonable profit) from the Bisti Lower Gallup Sand have already been drilled, tested and completed within the Unit Area and production in paying quantities is currently being taken therefrom, no initial test well is required under the terms of this Unit Agreement.

10. PLAN OF FURTHER DEVELOPMENT AND OPERATION. It is agreed that the unitized land will be operated under a plan of pressure maintenance or some form of secondary recovery in order to effect the greatest recovery of unitized substances, prevent waste and conserve natural resources. The Unit Operator is authorized to inject gas, oil, liquefied petroleum gas, brine, water or a combination of said substances and any one or more of said substances, irrespective of whether produced from the Bisti Lower Gallup Sand, into the Bisti Lower Gallup Sand through any well or wells now or hereafter completed therein; provided, however, that the above operations may be conducted by Unit Operator only in accordance with a plan of operation approved by the Supervisor, Commissioner and the Commission. The parties hereto hereby grant to the Unit Operator the use of brine or water or both from any formation within the Unit Area for injecting into the Bisti Lower Gallup Sand.

On or before the effective date of this agreement, Unit Operator shall submit for the approval of the Supervisor, Commissioner and the Commission an acceptable plan of development and operation for the unitized land which, when approved by the Supervisor, Commissioner and the Commission, shall constitute the further drilling and operating obligations of the Unit Operator under this agreement for the period specified therein. Thereafter, from time to time, before the expiration of any existing plan, the Unit Operator shall submit for the approval of the Supervisor, Commissioner and the Commission a plan or plans for an additional specified period for the development and operation of the unitized land. Said initial plan and all revisions thereof shall be as complete and adequate as the Supervisor and Commissioner may determine to be necessary for timely operations and development consistent herewith. Said plan or plans shall be modified or supplemented when necessary to meet changed conditions or to protect the interests of all parties to this agreement. Reasonable diligence shall be exercised in complying with the obligations



of the approved plan of development and operation. After the effective date hereof, no further wells, except such as may be necessary to afford protection against operations not under this agreement or such as may be specifically approved by the Supervisor, Commissioner and the Commission shall be drilled except in accordance with a plan of development approved as herein provided.

11. PARTICIPATION. The lands described in Exhibit "C" hereto are recognized as reasonably proved to be productive of unitized substances in paying quantities and are hereby designated and fixed as the "initial participating area".

In said Exhibit "C", attached hereto and made a part hereof, there is listed and numbered the various tracts within the initial participating area, and set opposite each tract is a figure which represents the percentage participation to which such tract shall be entitled if all of said tracts are committed hereto as of the effective date of this agreement. In the event less than all tracts within the initial participating area are committed hereto as of the effective date of this agreement, Unit Operator, as soon as practicable after the effective date of this agreement shall file with the Supervisor, Commissioner and the Commission a schedule of those tracts within the initial participating area committed hereto as of said effective date, which said schedule shall be designated "Revised Exhibit C" and considered for all purposes as a part of this agreement. Such Revised Exhibit "C" shall set forth opposite each such committed tract within the initial participating area a revised percentage participation therefor, which shall be calculated by using the same tract factors and formula which were used to arrive at the percentage participation of each tract as set out on Exhibit "C" attached hereto but applying the same only to the committed tracts. Such Revised Exhibit "C" unless disapproved by the Director, Commissioner or the Commission within 30 days after filing, shall supersede, effective as of the effective date hereof, the percentage

participations set forth in Exhibit "C" attached hereto until a further revision (or revisions) thereof is filed with and approved by the Director, Commissioner and Commission as hereinafter provided. The percentage participation for each tract as shown on Exhibit "C" attached hereto, or as may be shown on the Revised Exhibit "C" as above provided, is calculated and determined in accordance with the tract factors and formula set forth in Section 12 hereof and shall govern the allocation of production on and after the effective date of this Unit Agreement until the participating area is revised and the revised percentage participations are filed with and approved by the Director, Commissioner and the Commission as hereinafter provided.

The participating area established hereby as the initial participating area may be revised from time to time, subject to approval by the Director, Commissioner and the Commission, whenever such action appears proper as a result of further drilling operations or otherwise, to include additional land then regarded as reasonably proved to be productive in paying quantities or determined to be essential for unit operations and the participating percentage for each tract in the participating area so enlarged shall be revised, subject to the approval of the Director, Commissioner and Commission in accordance with the same formula and factors as were used to arrive at the percentage participation of each tract as set forth in Exhibit "C"; provided, however, that notwithstanding anything herein which may be construed to the contrary, in any revision of the participating area the revised percentage participations of the respective tracts which were participating prior to such revision shall remain in the same ratio one to another. Unit Operator shall, within eight (8) months from and after the official date of completion of a unit well occasioning a revision of the participating area, file with the Director, Commissioner and the Commission appropriate instruments outlining and establishing the revised participating area occasioned by such well. The effective date of any revision of

the participating area shall be the first of the month following the date on which the revision of the participating area is approved by the Director, Commissioner and the Commission, provided that a more appropriate effective date may be used if justified by the Unit Operator and approved by the Director, Commissioner and the Commission. No land shall be excluded from a participating area on account of depletion of the unitized substances. It is the intent of this section that a participating area shall be comprised of adjoining parcels of land individually containing not in excess of eighty (80) acres consisting of one or more Government survey quarter-quarter sections, or lot equivalents in instances of irregular surveys, on each of which parcels there is a well capable of producing in paying quantities or which, in the absence of such well thereon, are nevertheless determined to be essential for unit operations; but regardless of any revision of the participating area, nothing herein contained shall be construed as requiring any retroactive adjustment for production obtained prior to the effective date of the revision of the participating area.

In the absence of agreement at any time between the Unit Operator and the Director, Commissioner and the Commission as to the proper definition or redefinition of a participating area, the portion of all payment affected thereby may be impounded in a manner mutually acceptable to the owners of working interests, except royalties due (a) the United States and The Navajo Tribe of Indians, hereinafter referred to as "Indians", and (b) the State of New Mexico, which shall be determined by the Supervisor and the Commissioner, respectively, to be held as unearned money until a participating area as revised is finally approved and then applied as earned or returned in accordance with determination of the sum due as Federal, Indian, and State royalty on the basis of such approved participating area.

Whenever it is determined subject to the approval of the Supervisor as to wells on Federal and Indian land and the Commissioner as to wells on State land, that a well drilled under this

agreement is not capable of producing in paying quantities or determined not to be essential for unit operations and inclusion of the land on which it is situated in a participating area is unwarranted, production from such well shall, for the purposes of settlement among all parties other than working interest owners, be allocated to the lands on which the well is located so long as the well is not within a participating area. Settlement for working interest benefits for such a well shall be made as provided in the Unit Operating Agreement.

If, subsequent to the effective date of this agreement, any additional tract within the initial participating area becomes committed hereto under the provisions of Section 28 hereof, or any committed tract within the initial participating area is excluded herefrom under the provisions of Section 27, Unit Operator shall revise Exhibit "C" to show the new percentage participations of the committed tracts in the initial participating area, which revised exhibit shall, upon its filing and approval by the Director, Commissioner and the Commission, supersede as of its effective date, the last previously effective Exhibit "C". In any such revision of Exhibit "C" the revised percentage participations of the respective tracts which were committed hereto prior to such revision shall remain in the same ratio one to another.

12. ALLOCATION OF PRODUCTION. For the purpose of determining any and all benefits accruing under this agreement each tract committed hereto within the participating area shall have allocated to it a proportion, equal to its percentage participation of all unitized substances produced from the unitized land (except any part thereof used in conformity with good operating practices within the Unit Area for drilling, operating, camp and other production or development purposes, for pressure maintenance or secondary recovery operations in accordance with a plan of operation approved by the Supervisor, Commissioner and the Commission, or unavoidably lost). The amount of unitized substances allocated to each tract in the participating area shall be deemed to be produced

from such tract. It is hereby agreed that production of unitized substances from any part of the participating area shall be allocated as provided herein regardless of whether oil or gas is being produced from any particular tract committed hereto. If the working interests or the royalty interests in any tract are divided with respect to separate parcels or portions of such tract and owned severally by different persons, the percentage participation assigned to such tract shall, in the absence of a recordable instrument among all owners fixing the division of ownership be divided among such parcels or portions in proportion to the number of surface acres in each.

The Percentage Participation for each tract in the Participating Area as set forth in Section 11 hereof was determined, and any revisions thereof shall be determined, in accordance with the following formula, which is hereby adopted:

$$\frac{\text{Total Tract Original Stock Tank Oil in Place in Bench 1 by Microlog Survey}}{\text{Total Participating Area Original Stock Tank Oil in Place in Bench 1 by Microlog Survey}} \times \frac{100}{3}$$

Plus

$$\frac{\text{Total Tract Original Stock Tank Oil In Place in Benches 1, 2 and 3 by Adjusted Electric Log S. P. Profile}}{\text{Total Participating Area Original Stock Tank Oil in Place in Benches 1, 2 and 3 by Adjusted Electric Log S. P. Profile}} \times \frac{100}{3}$$

Plus

$$\frac{\text{Total Tract Oil Production during Base Period}}{\text{Total Participating Area Oil Production during Base Period}} \times \frac{100}{3}$$

= Tract Percentage Participation

In connection with the foregoing formula, it is recognized and agreed that the Bisti Lower Gallup Sand as hereinabove defined is a common reservoir, consisting of three productive intervals, each of which has a different value as to the number of barrels of stock tank oil per acre foot in place. Said productive intervals are referred to herein as Bench 1, Bench 2 and Bench 3, respectively, and are defined as follows:

Bench 1 - shall mean and refer to the same interval of the Bisti Lower Gallup Sand encountered in the British-American Marye No. 1 Well between depths of 4833 feet and 4863 feet as shown by the Schlumberger electric log of said well which well is located in the Northeast Quarter of the Northeast Quarter (NE/4 NE/4) of Section 1, Township 25 North, Range 13 West, San Juan County, New Mexico;

Bench 2 - shall mean and refer to the same interval of Bisti Lower Gallup Sand encountered in the said British-American Marye No. 1 Well between depths of 4863 feet and 4880 feet as shown by the Schlumberger electric log of said well;

Bench 3 - shall mean and refer to the same interval of the Bisti Lower Gallup Sand encountered in said British-American Marye No. 1 Well between depths of 4880 feet and 4948 feet as shown by the Schlumberger electric log of said well.

It is further agreed that the Percentage Participation of each tract in the Participating Area, as set forth in Section 11 hereof, was calculated and determined, and any revision thereof shall be calculated and determined, by application of the foregoing formula in connection with the following factors, definitions and procedure:

A. The original stock tank oil in place in each tract in the Participating Area and in the Participating Area as a whole, based on microlog survey, were determined as follows:

- (1) The acre feet of productive sand in Bench 1 of the Bisti Lower Gallup Sand in each tract in the Participating Area was determined from net isopach maps constructed for said bench, based on microlog survey made in accordance with acceptable geological and engineering practices and utilizing accurate survey data of the surface area of each tract in the Participating Area.
- (2) The acre feet of productive sand in Bench 1 of the Bisti Lower Gallup Sand in the whole of the Participating Area was then calculated by adding the acre feet of productive sand in all tracts in the Participating Area.
- (3) It was determined in accordance with the best engineering practices utilizing all of the geological and engineering information available that the original stock tank oil in place per acre foot in Bench 1 of the Bisti Lower Gallup Sand, based on microlog survey, is 712.4 barrels. Accordingly, the total stock tank oil in place (by microlog survey) in Bench 1 of the Participating Area was calculated by multiplying the number of acre feet

in Bench 1 of each tract by the number of barrels of stock tank oil per acre feet in place, as above indicated. Similarly, the total stock tank oil in place (by microlog survey) in Bench 1 of the whole of the Participating Area was calculated by multiplying the number of acre feet in Bench 1 of all tracts in the Participating Area by the appropriate number of barrels of stock tank oil per acre foot in place, as above indicated.

B. The original stock tank oil in place in each tract in the Participating Area and in the Participating Area as a whole based on electric log self-potential (S. P.) profile were determined as follows:

- (1) The acre feet of productive sand in each of the three benches of the Bisti Lower Gallup Sand in each tract in the Participating Area was determined from net isopach maps constructed for each of the said respective three benches based on electric log self-potential profiles in accordance with acceptable geological and engineering practices and utilizing accurate survey data of the surface area of each tract in the Participating Area. In this connection it is understood that the productive sand thicknesses of each of the three benches as depicted on the said respective net isopach maps represent the non-adjusted productive sand thicknesses (which were determined by planimetering the area under the electric log self-potential profile and dividing by the value of the static self-potential measured on the up the hole Point Lookout Formation) and that in determining the acre feet of productive sand in each bench in each tract the productive sand thicknesses as depicted by said isopachs were adjusted (based on available core analysis) by multiplying the non-adjusted productive sand thicknesses by correction factors for each of the respective benches as follows:

<u>Correction Factor</u>		
Bench 1	-	1.0887
Bench 2	-	0.4347
Bench 3	-	0.4228

- (2) The acre feet of productive sand in each of the three benches of the Bisti Lower Gallup Sand in the whole of the Participating Area was then calculated by adding the acre feet of productive sand in each of the three benches in all tracts in the Participating Area.
- (3) It was determined in accordance with the best engineering practices utilizing all available engineering and geological information available that the original stock

tank oil in place per acre foot for each of the said three productive benches comprising the Bisti Lower Gallup Sand based on electric log self-potential profiles is as follows:

Bench 1 - 659.8 barrels per acre foot  
Bench 2 - 391.0 barrels per acre foot  
Bench 3 - 379.3 barrels per acre foot

Accordingly, the total stock tank oil in place (by electric log self-potential) for each bench in each tract in the Participating Area was calculated by multiplying the number of acre feet of each bench in each tract by the appropriate number of barrels of stock tank oil per acre foot in place for each bench as above indicated. Similarly, the total stock tank oil in place (by electric log self-potential) for each bench in the whole of the Participating Area was calculated by multiplying the number of acre feet of each bench in all tracts in the Participating Area by the appropriate number of barrels of stock tank oil per acre foot in place for each bench as above indicated.

- (4) The total stock tank oil in place (by electric log self-potential) in each tract in the Participating Area was then calculated by totalling the stock tank oil in place in all benches in each tract in the Participating Area. Similarly, the total stock tank oil in place (by electric log self-potential) in the whole of the Participating Area was determined by totalling the stock tank oil in place in all benches in all tracts in the Participating Area.

C. The tract oil production during the base period and the Participating Area oil production during the base period were determined as follows:

- (1) For the purposes of this agreement the "base period" shall mean and refer to the production of oil during the first three months of 1959 (January, February and March, 1959); provided, however, that the "base period" for any well not having produced three months prior to January 1, 1959, shall be the last three months of the first six months in which said well has produced. However, whenever a well is to be converted to an injection well before producing it for a sufficient period to qualify as to the base production period under the formula set forth herein or as to any well within the Participating Area that has not been producing as of the effective date of this agreement for a sufficient period to qualify as to the base production period under the formula set forth herein, the production for the "base period" may be calculated at any rate up to the maximum allowable which may be agreed to by sixty-five per cent (65%) of the working interest owners and approved by the Director and Commissioner.



- (2) All oil production obtained from each tract during the base period, as above defined, constitutes "total tract oil production during base period" and the total of all oil production obtained during the base period from all tracts in the participating area constitutes "total participating area oil production during base period"; provided, however, that only oil production which is not in excess of the top allowable in effect for the Bisti Field during the first quarter of 1959 (i.e., 51 barrels per well for all wells having forty (40) acres allocated thereto and one-hundred two (102) barrels per well for all wells having eighty (80) acres allocated thereto) shall be taken into account in computing "total tract oil production during base period" and "total participating area oil production during base period".

D. The Percentage Participation for each tract in the Participating Area was then calculated by application of the formula hereinabove first set forth in this section.

E. Whenever a newly completed producing well is to be included in an enlarged Participating Area, before such well has been produced for a sufficient period to qualify as to the base production period under the formula set forth hereinabove, production for the base period may be calculated at any rate up to the maximum allowable by the following methods, if such is agreed to by sixty-five per cent (65%) of the working interest owners and approved by the Director and the Commissioner:

- (a) Prior to noticeable effect from pressure maintenance and after at least two calendar months' production of such well, the engineering subcommittee will extrapolate the production curve of said well for a consecutive 180 day period from date of first production. Then, such subcommittee shall determine the average daily rate of production of such well for the last 90 days of such 180 day period and shall then multiply such average daily rate of production by the number of days within the three calendar months used in subparagraph (c) of this paragraph E to establish the total Participating Area Production during base period in relation to such newly completed well. This shall be considered as the total oil production during base period for such newly completed producing well, or at the discretion of the operator of such newly completed producing well, such operator may withhold the inclusion of such well from the enlarged Participating Area until six calendar months of actual production has taken place.

- (b) After effects of pressure maintenance become noticeable, the production for the base period

for a newly completed producing well which is to be included within an enlarged Participating Area shall be calculated by the engineering subcommittee by setting a reasonable initial potential and decline rate based on all available data from surrounding wells and other wells located in a similar area of the reservoir for the period prior to noticeable effect of pressure maintenance and shall calculate the production by the decline curve method described in subparagraph (a) hereof.

- (c) As to a newly completed producing well which is to be included within Participating Area the total Participating Area Oil Production During Base Period shall be considered as the total actual unit production from the Participating Area prior to enlargement for the three calendar months immediately prior to the effective date of the enlargement of such Participating Area plus the Total Oil Production During Base Period established under subparagraphs (a) and (b) hereof for the newly completed well.

13. DEVELOPMENT OR OPERATION OF NON-PARTICIPATING LAND.

Any party or parties hereto owning or controlling the working interest or a majority of the working interests in any unitized land having thereon a regular well location may, with the approval of the Supervisor as to Federal and Indian land and the Commissioner as to State land, and subject to the provisions of the Unit Operating Agreement, at such party's sole risk, cost and expense, drill or work over a test well to test the Bisti Lower Gallup Sand Formation if such location is not within a participating area, or drill or work over any well not mutually agreed to by all interested parties, unless within ninety (90) days from receipt of notice from said party of his intention to drill or work over the well the Unit Operator elects and commences to drill or work over such well in like manner as other wells are drilled or worked over by the Unit Operator under this agreement.

If any well drilled or worked over, as aforesaid, by a working interest owner results in production such that the land upon which it is situated may properly be included in a participating area, such participating area shall be enlarged as provided in this agreement, and the party or parties paying the cost of drilling or working over such well shall be reimbursed as provided in

the Unit Operating Agreement for the cost of drilling or working over such well, and the well shall thereafter be operated by Unit Operator in accordance with the terms of this agreement and the Unit Operating Agreement.

If any well drilled or worked over, as aforesaid, by a working interest owner obtains production in quantities insufficient to justify the inclusion in a participating area of the land upon which such well is situated, such well may be operated and produced by the party drilling or working over the same subject to the conservation requirements of this agreement. The royalties in amount or value of production from any such well shall be paid as specified in the underlying lease and agreements affected.

14. ROYALTY SETTLEMENT. The United States, the Indians, and the State of New Mexico and all royalty owners who, under existing contracts, are entitled to take in kind a share of the unitized substances produced from any tract, shall hereafter be entitled to take in kind their share of the unitized substances allocated to such tract, and Unit Operator, or in case of the operation of a well by a working interest owner as herein in special cases provided for, such working interest owner shall make deliveries of such royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for royalty interests not taken in kind shall be made by working interest owners responsible therefor under existing contracts, laws and regulations on or before the last day of each month for unitized substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any royalties due under their leases except that said royalties shall be computed in accordance with the terms of this agreement.

(a) If any or all of the parties hereto have, prior to the effective date of this agreement, commenced the injection of gas into the Lower Bisti-Gallup Sand within the participating area,

they shall be entitled to recover such gas in proportion to the quantity of gas which each has injected therein as of the effective date hereof from fifty percent (50%) of any and all gas produced from the participating area until such time as they have individually recovered the total amount of gas injected by each of them up to the effective date of this agreement. At such time as the quantity of gas hereinabove specified has been recovered by each of the working interest owners entitled thereto, the remaining gas produced from the participating area shall be governed by the applicable terms and provisions of this agreement. Royalty and overriding royalty owners agree that a royalty and overriding royalty shall only be due and payable on the gas covered and dealt with in this paragraph to the royalty owners or overriding royalty owners from whose lease and lands such gas was originally produced and that no other or additional royalty shall be due on the quantity of gas above specified.

(b) If, subsequent to the effective date hereof, gas obtained from lands not subject to this agreement is introduced into the unitized land for use in pressure maintenance, stimulation of production, or increasing ultimate recovery, which shall be in conformity with a plan first approved by the Supervisor, Commissioner and the Commission, a like amount of gas, less appropriate deductions for loss from any cause, may be withdrawn from the formation into which the gas was introduced, royalty free as to dry gas, but not as to the products extracted therefrom; provided that such withdrawal shall be pursuant to such conditions and formulas as may be prescribed or approved by the Supervisor and the Commissioner; and, provided further, that such right of withdrawal shall terminate on the termination of this agreement. If liquefied petroleum gases obtained from lands or formations not subject to this agreement be injected into the unitized land for the purpose of increasing ultimate recovery, which shall be in conformance with a plan first approved by the Supervisor and Commissioner, part or all of such liquefied petroleum gases may

be withdrawn royalty free pursuant to such conditions and formulas as may be prescribed or approved by the Supervisor and Commissioner.

(c) Royalty due the United States and the Indians shall be computed as provided in the operating regulations and paid in value or delivered in kind as to all unitized substances on the basis of the amounts hereof allocated to unitized Federal and Indian lands as provided herein at the rate specified in the respective Federal and Indian leases, or at such lower rate or rates as may be authorized by law or regulation; provided that for leases on which the royalty rate depends on the daily average production per well such average production shall be determined in accordance with the operating regulations as though the participating area were a single consolidated lease.

(d) Royalty due on account of State lands shall be computed and paid on the basis of all unitized substances allocated to such lands.

15. RENTAL SETTLEMENT. Rental or minimum royalties due on leases committed hereto shall be paid by working interest owners responsible therefor under existing contracts, laws and regulations, provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty in lieu thereof due under their leases. Rental or minimum royalty for lands of the United States and the Indians subject to this agreement shall be paid at the rate specified in the respective leases from the United States and the Indians unless such rental or minimum royalty is waived, suspended, or reduced by law or by approval of the Secretary of the Interior (hereinafter called "Secretary") or his duly authorized representative.

Rentals on State of New Mexico lands subject to this agreement shall be paid at the rate specified in the respective leases, or may be reduced or suspended under the order of the Commissioner pursuant to applicable laws and regulations.

With respect to any lease on non-Federal and non-Indian land containing provisions which would terminate such lease unless drilling operations were within the time therein specified commenced upon the land covered thereby or rentals paid for the privilege of deferring such drilling operations, the rentals required thereby shall, notwithstanding any other provision of this agreement, be deemed to accrue and become payable during the term thereof as extended by this agreement and until the required drilling operations are commenced upon the land covered thereby or some portion of such land is included within the participating area.

16. CONSERVATION. Operations hereunder and production of unitized substances shall be conducted to provide for the most economical and efficient recovery of such substances as to prevent waste as defined by or pursuant to State or Federal law or regulation.

17. DRAINAGE. The Unit Operator shall take appropriate and adequate measures to prevent drainage of unitized substances from unitized land by wells on land not subject to this agreement, or, with consent of the Director and Commissioner, pursuant to applicable regulations pay a fair and reasonable compensatory royalty as determined by the Supervisor and Commissioner.

18. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions, and provisions of all leases, subleases, and other contracts relating to exploration, drilling, development, or operation for oil or gas of lands committed to this agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect; and the parties hereto hereby consent that the Secretary as to Federal and Indian leases and the Commissioner as to State leases shall and each by his approval hereof, or by the approval hereof by his duly authorized representative, does hereby establish, alter, change or revoke the drilling, producing, rental, minimum royalty and royalty requirements of Federal, Indian, and State leases committed hereto and the regulations in respect thereto to conform said requirements to the

provisions of this agreement, and without limiting the generality of the foregoing, all leases, subleases, and contracts are particularly modified in accordance with the following:

(a) The development and operation of lands subject to this agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every part or separately owned tract subject to this agreement, regardless of whether there is any development of any particular part or tract of the Unit Area, notwithstanding anything to the contrary in any lease, operating agreement, or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling and producing operations performed hereunder upon any tract of unitized land will be accepted and deemed to be performed upon and for the benefit of each and every tract of unitized land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.

(c) Suspension of drilling or producing operations on all unitized lands pursuant to direction or consent of the Secretary (or his duly authorized representative) and the Commissioner shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every tract of unitized land.

(d) Each lease, sublease, or contract relating to the exploration, drilling, development or operation for oil or gas of lands other than those of the United States and Indians, committed to this agreement, which, by its terms might expire prior to the termination of this agreement, is hereby extended beyond any such term so provided therein so that it shall be continued in full force and effect for and during the term of this agreement.

(e) Any Federal lease for a fixed term of twenty (20) years or any renewal thereof or any part of such lease which is made subject to this agreement shall continue in force beyond the term provided therein until the termination hereof. Any other Federal lease and any Indian lease committed hereto shall continue in force beyond the term so provided therein or by law as to the committed land so long as such land remains committed hereto.

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

(g) The segregation of any Federal lease committed to this agreement is governed by the provisions in the fourth paragraph of Section 17(b) of the Act, as amended by the Act of July 29, 1954 (68 Stat. 583, 585).

(h) Any Indian lease having only a portion of its lands committed hereto shall be segregated as to the portion committed and the portion not committed, and the provisions of such lease shall apply separately to such segregated portions commencing as of the effective date hereof.

(i) Any lease embracing lands of the State of New Mexico having only a portion of its lands committed hereto shall be segregated as to the portion committed and as to the portion not committed and the



terms of such leases shall apply separately as to such segregated portions commencing as of the effective date hereof. Notwithstanding any of the provisions of this agreement to the contrary, any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease, if Unitized Substances are discovered and are capable of being produced in paying quantities from some part of the lands embraced in such lease committed to this agreement or some part of the lands embraced in such State lease is included in the Participating Area at the expiration of the secondary term of such lease; or if, at the expiration of the secondary term, the lessee or the Unit Operator is then engaged in bona fide drilling or reworking operations on some part of the lands embraced therein shall remain in full force and effect so long as such operations are being diligently prosecuted, and if they result in the production of Unitized Substances, said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as Unitized Substances are produced in paying quantities from any portion of said lands, subject to the provisions and limitations of subsection 2(f) hereof.

19. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interests of the parties hereto and their successors in interest until this agreement terminates, and any grant, transfer, or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee, or other successor in interest. No assignment or transfer of any working interest subject hereto shall be binding upon the Unit Operator until the first day of the calendar month after Unit Operator is furnished with the

original, photostatic or certified copy of the instrument of transfer; and no assignment or transfer of any royalty interest shall be binding upon the working interest owner responsible therefor until the first day of the calendar month after said working interest owner is furnished with the original, photostatic or certified copy of the instrument of transfer.

20. EFFECTIVE DATE AND TERM. This agreement shall become effective upon approval by the Director, Commissioner and the Indian Commissioner, or their duly authorized representatives, as of the first day of January, 1960, and shall remain in effect so long as unitized substances can be produced from the unitized land in paying quantities, i.e. in this particular instance in quantities sufficient to pay for the cost of producing same, and, should production cease, so long thereafter as diligent operations are in progress for the restoration of production and so long thereafter as such unitized substances can be produced as aforesaid. This agreement shall remain in effect during any period of suspension approved by the Director and the Commissioner as provided for in Section 18(c) hereof.

This agreement may be terminated at any time by the working interest owners whose voting interests aggregate not less than ninety percent (90%), subject to the approval of the Director and the Commissioner; notice of any such approval shall be given by 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 established, 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 production 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. It is agreed, further, that 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 Commissioner and as to the quantity and rate of production in the absence of specific written approval thereof by the Commission.

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 fifteen (15) days from notice.

22. APPEARANCES. Unit Operator shall, after notice to other parties affected, have the right to appear for or on behalf of any and all interests affected hereby before the Department of the Interior and the Commission and to appeal from orders issued under the regulations of said department and/or Commission or to apply for relief from any of said regulations or in any proceedings relative to operations before the Department of the Interior, the Commission, or other legally constituted authority; provided, however, that any other interested party shall also have the right at his or its own expense to be heard in any such proceeding.

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

24. NO WAIVER OF CERTAIN RIGHTS. Nothing in this agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right to defense as to the validity or invalidity of any law of the state wherein said unitized land is located, or of the United States or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive.

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

26. FAIR EMPLOYMENT. In connection with the performance of work on Federal lands under this agreement, the Operator agrees not to discriminate against any employee or applicant for employment because of race, religion, color, or national origin. The aforesaid provision shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Operator agrees to post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the non-discrimination clause.

The Operator agrees to insert the foregoing provision in all subcontracts hereunder, except subcontracts for commercial supplies or raw materials.

The Operator shall also comply with the terms and conditions of the Indian leases while engaged in operations thereon with respect to the employment of available Indian labor.

27. LOSS OF TITLE. In the event title to any tract of unitized land shall fail and the true owner cannot be induced to join in this Unit Agreement, such tract shall be automatically regarded as not committed hereto and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to the title to any royalty, working interest or any other interest subject thereto, payment on delivery on account thereof may be withheld without liability for interest until the dispute is finally settled; provided that as to Federal land, Indian land, and State land or leases, no payments of funds due the United States, Indians, or the State of New Mexico should be withheld, but such funds to the United States and Indians shall be deposited as directed by the Supervisor, and such funds of the State shall be deposited as directed by the Commissioner, to be held as unearned money pending final settlement of the title dispute, and then applied as earned in accordance with the final settlement.

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

28. NON-JOINDER AND SUBSEQUENT JOINDER. If the owner of any substantial interest in a tract within the Unit Area fails or refuses to subscribe to this agreement, the owner of the working interest in that tract may withdraw said tract from this agreement by written notice to the Director, the Commissioner and the Unit Operator prior to the approval of this agreement by the Director. Any such tract effectively committed as to the working interest and not so withdrawn shall be considered unitized, and any necessary adjustments of royalty occasioned by failure of the royalty and record owner to join will be for the account of the corresponding working interest owner. Any oil or gas interest in lands within the Unit Area not committed hereto prior to submission of this

agreement for final approval may thereafter be committed hereto by the owner or owners thereof subscribing or consenting to this agreement and, if the interest is a working interest, by the owner of such interest also subscribing to the Unit Operating Agreement. After operations are commenced hereunder, the right of subsequent joinder, as provided in this section, by a working interest owner is subject to such requirements or approvals, if any, pertaining to such joinder, as may be provided for in the Unit Operating Agreement. After final approval hereof, joinder by a non-working interest owner must be consented to in writing by the working interest owner committed hereto and responsible for the payment of any benefits that may accrue hereunder in behalf of such non-working interest. Joinder by any owner of a non-working interest, at any time, must be accompanied by appropriate joinder by the owner of the corresponding working interest in order for the interest to be regarded as effectively committed hereto. Joinder to the Unit Agreement by a working interest owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement, in order for the interest to be regarded as effectively committed to this Unit Agreement. Except as may otherwise herein be provided, subsequent joinders to this agreement shall be effective as of the first day of the month following the filing with the Supervisor and the Commissioner of duly executed counterparts of all or any papers necessary to establish effective commitment of any tract to this agreement unless objection to such joinder is duly made within sixty (60) days by the Director or the Commissioner.

29. COUNTERPARTS. This agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument in writing specifically referring hereto and shall be binding upon all those parties who have executed such a counterpart, ratification, or consent hereto with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties

owning or claiming an interest in the lands within the above described Unit Area; provided, if this agreement has not been approved by the Director and the Commissioner prior to July 1, 1960, it shall thereupon terminate and be of no further force and effect.

30. TAXES. The working interest owners shall render and pay for their account and the account of the royalty owners all valid taxes on or measured by the unitized substances in and under or that may be produced, gathered and sold from the land subject to this contract after the effective date of this agreement, or upon the proceeds derived therefrom. The working interest owners on each tract shall and may charge the proper proportion of said taxes to the royalty owners having interests in said tract, and may currently retain and deduct sufficient of the unitized substances or derivative products, or net proceeds thereof from the allocated share of each royalty owner to secure reimbursement for the taxes so paid. No such taxes shall be charged to the United States, Indians, or the State of New Mexico or to any lessor who has a contract with his lessee which requires the lessee to pay such taxes.

31. CONFLICT OF SUPERVISION. Neither the Unit Operator nor the working interest owners or any of them shall be subject to any forfeiture, termination, or expiration of any rights hereunder or under any leases or contracts subject hereto, or to any penalty or liability on account of delay or failure in whole or in part to comply with any applicable provisions thereof to the extent that the said Unit Operator, working interest owners, or any of them are hindered, delayed or prevented from complying therewith by reason of the failure of the Unit Operator to obtain, in the exercise of due diligence, the concurrence of proper representatives of the United States and proper representatives of the State of New Mexico in and about any matters or things concerning which it is required herein that such concurrence be obtained. The parties hereto, including the Commission, agree that all powers and authority vested in the Commission in and by any provisions of this contract are vested in the Commission and shall be exercised by it pursuant

to the provisions of the laws of the State of New Mexico and subject in any case to appeal or judicial review as may now or hereafter be provided by the laws of the State of New Mexico.

32. NO PARTNERSHIP. It is expressly agreed that the relation of the parties hereto is that of independent contractors and nothing in this agreement contained, express or implied, or any operations conducted hereunder, shall create or be deemed to have created a partnership or association between the parties hereto or any of them.

33. BORDER AGREEMENTS. Subject to the approval of the Director and the Commissioner, the Unit Operator, with concurrence of sixty-five per cent (65%) of the Working Interest Owners may enter into a border-protection agreement or agreements with the Working Interest Owners of adjacent lands along the exterior boundary of the Unit Area with respect to the operations in the border area for the maximum ultimate recovery, conservation purposes and proper protection of the parties and interests.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed as of the date first above written and have set opposite their respective names the date of execution and the address of each of the respective executing parties.

UNIT OPERATOR AND WORKING INTEREST OWNER  
THE BRITISH-AMERICAN OIL PRODUCING COMPANY

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:  
\_\_\_\_\_



WORKING INTEREST OWNERS

BENSON-MONTIN-GREER DRILLING CORPORATION

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

EL PASO NATURAL GAS PRODUCTS COMPANY

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

HONOLULU OIL CORPORATION

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

PHILLIPS PETROLEUM COMPANY

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

WORKING INTEREST OWNERS

SKELLY OIL COMPANY

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

GULF OIL CORPORATION

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

THE ATLANTIC REFINING COMPANY

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

PAN AMERICAN PETROLEUM CORPORATION

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

WORKING INTEREST OWNERS

ELLIOTT, INC.

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

SUNRAY MID-CONTINENT OIL COMPANY

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

TIDEWATER OIL COMPANY

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

\_\_\_\_\_

By \_\_\_\_\_  
Vice-President

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Secretary

Date of Signature:

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WORKING INTEREST OWNERS

Date of Signature:

Address

Date of Signature:

Address

Date of Signature:

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Date of Signature:

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Date of Signature:

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Date of Signature:

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**ROYALTY INTEREST OWNERS**

**Date of Signature:**

\_\_\_\_\_

**The Navajo Tribe of Indians**

By \_\_\_\_\_  
Chairman, Navajo Tribal Council

\_\_\_\_\_

**Date of Signature:**

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STATE OF TEXAS       )  
                              )  
COUNTY OF DALLAS    )       ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 1959, before me, appeared \_\_\_\_\_, to me personally known, who, being by me duly sworn did say that he is the \_\_\_\_\_ President of THE BRITISH-AMERICAN OIL PRODUCING COMPANY, a corporation, and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its board of directors, and said \_\_\_\_\_ acknowledged said instrument to be the free act and deed of said corporation.

Given under my hand and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 1959.

My commission expires:

\_\_\_\_\_  
Notary Public in and for Dallas County, Texas

STATE OF \_\_\_\_\_ )  
                              )  
COUNTY OF \_\_\_\_\_ )       ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 1959, before me, appeared \_\_\_\_\_, to me personally known, who being by me duly sworn did say that he is the \_\_\_\_\_ President of \_\_\_\_\_, a corporation, and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its board of directors, and said \_\_\_\_\_ acknowledged said instrument to be the free act and deed of said corporation.

Given under my hand and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 1959.

My commission expires:

\_\_\_\_\_  
Notary Public

STATE OF \_\_\_\_\_ )  
                              )  
COUNTY OF \_\_\_\_\_ )       ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 1959, before me personally appeared \_\_\_\_\_, to me known to be the person described in and who executed the foregoing instrument and acknowledged to me that he executed the same as his free act and deed.

My commission expires:

\_\_\_\_\_  
Notary Public

STATE OF ARIZONA )  
 ) SS.  
COUNTY OF APACHE )

On this \_\_\_\_\_ day of \_\_\_\_\_, 1959, before me appeared \_\_\_\_\_, to me personally known, who being by me duly sworn, did say that he is the (Acting) Chairman of the Navajo Tribal Council, and that he did execute the within agreement in behalf of the Navajo Tribe of Indians by authority of its Council and that he acknowledged the instrument to be the free act and deed of said Navajo Tribe.

\_\_\_\_\_  
Notary Public in and for  
Apache County, Arizona

My Commission Expires:  
\_\_\_\_\_

**CERTIFICATION - DETERMINATION**

Pursuant to the authority vested in the Secretary of Interior under the allotted Mineral Leasing Act of March 3, 1909, 35 Stat. 783, 25 U. S. C. Sec. 396 and the Tribal Land Mineral Leasing Act of May 11, 1938, 52 Stat. 347, 25 U. S. C. Secs. 396a, et seq., as to certain restricted and allotted Indian lands and delegated to the Commissioner of Indian Affairs by Departmental Order No. 2508 of January 11, 1949, 14 F. R. 258-260, and

Pursuant to the authority vested in the Secretary of the Interior as to Federal lands, under the act approved February 25, 1920, 41 Stat. 437, as amended, 30 U. S. C. Secs. 181, et seq., and delegated to the Director of the Geological Survey pursuant to Departmental Order No. 2365 of October 8, 1947, 43. C. F. R. Sec. 4.611, 12 F. R. 6784, we do hereby:

A. Approve the attached agreement for the development and operation of the West Bisti Lower Gallup Sand Unit Area, San Juan County, State of New Mexico.

B. Certify and determine that the unit plan of development and operation contemplated in the attached agreement is necessary and advisable in the public interest for the purpose of more properly conserving the natural resources.

C. Certify and determine that the drilling, producing, rental, and royalty requirements of all Indian leases committed to said agreement are hereby established, altered, changed or revoked to conform with the terms and conditions of this agreement.

D. Certify and determine that the drilling, producing, rental, minimum royalty, and royalty requirements of all Federal leases committed to said agreement are hereby established, altered, changed, or revoked to conform with the terms and conditions of this agreement.

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Area Director, Gallup Area Office  
Bureau of Indian Affairs

Dated \_\_\_\_\_

---

Director, United States Geological Survey

Dated \_\_\_\_\_



**CERTIFICATE OF APPROVAL**  
**BY COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO,**  
**OF UNIT AGREEMENT FOR DEVELOPMENT AND OPERATION OF THE**  
**WEST BISTI LOWER GALLUP SAND UNIT AREA, COUNTY OF**  
**SAN JUAN, NEW MEXICO.**

There has been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, an agreement for the development and operation of the West Bisti Lower Gallup Sand Unit Area, San Juan County, New Mexico, dated \_\_\_\_\_, 1959, in which The British-American Oil Producing Company is designated as Operator, and which has been executed by various parties owning and holding oil and gas leases embracing lands within the Unit Area and upon examination of said agreement, the Commissioner finds:

- (a) That such agreement will tend to promote conservation of oil and gas and the better utilization of reservoir energy in said field;
- (b) That under the operations proposed, the state will receive its fair share of the recoverable oil or gas in place under its land in the area affected;
- (c) That the agreement is in other respects for the best interests of the state;
- (d) That the agreement provides for the unit operation of the field, for allocation of production and sharing of proceeds from the area covered by the agreement in accordance with a formula for participation as specified in the agreement regardless of the particular tract from which production is obtained or proceeds are derived and for repressuring or secondary recovery operations.

NOW, THEREFORE, by virtue of the authority conferred upon me by virtue of the Laws of the State of New Mexico, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the state, do hereby consent to and approve the above referred to West Bisti Lower Gallup Sand Unit Agreement as to the lands of the State of New Mexico committed hereto, and all oil and gas leases embracing lands of the State of New Mexico committed to said agreement shall be and the same are hereby amended so that the provisions thereof will conform to the provisions of said Unit Agreement and so that the length of the secondary term of each such lease as to the lands within the Unit Area will be extended, in so far as is necessary, to coincide with the term of said Unit Agreement and in the event the term of said Unit Agreement shall be extended as provided therein, such extension shall also be effective to extend the term of each oil and gas lease embracing lands of the State of New Mexico committed to said Unit Agreement which would otherwise expire, so as to coincide with the extended term of such Unit Agreement.

IN WITNESS WHEREOF, this Certificate of Approval is executed as of this \_\_\_\_\_ day of \_\_\_\_\_, 1959.

\_\_\_\_\_  
Commissioner of Public Lands of the  
State of New Mexico

# EXHIBIT "B"

## SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF ALL LANDS WITHIN THE WEST BIST LOWER GALLUP SAND UNIT TOWNSHIPS 25 AND 26 NORTH, RANGES 13 AND 14 WEST, SAN JUAN COUNTY, NEW MEXICO

11-23-59

Tract Number	Description	No. of Acres	Serial No. & Date of Lease or Application	Basic Royalty & Percentage	Lessee of Record	Overriding Royalty and Percentage	Working Interest and Percentage
<u>NAVAJO TRIBAL LAND</u>							
1	T26N-R14W Sec. 13: All Sec. 14: All Sec. 15: N/2, SE/4	1760.00	Tribal No. 14-20-603-735 11-10-54	The Navajo Tribe of Indians 12.5%	The British-American Oil Producing Company	None	The British-American Oil Producing Comp All
2	T26N-R14W Sec. 11: S/2 Sec. 12: S/2 SE SW	560.00	Tribal No. 14-20-603-2189 1-4-57	The Navajo Tribe of Indians 12.5%	Standard Oil Company of Texas	None	Standard Oil Compa of Texas - All
3	T26N-R14W Sec. 10: S/2	320.00	Tribal No. 14-20-603-2085 12-7-56	The Navajo Tribe of Indians 12.5%	Stanolind Oil & Gas Company	None	Pan American Petro Corporation - 75.0 Gulf Oil Corporati 25.00%
4	T26N-R14W Sec. 24: E/2 NW/4	480.00	Tribal No. 14-20-603-742 10-5-54	The Navajo Tribe of Indians 12.5%	The Atlantic Refining Company	None	The Atlantic Refin Company - All

Four Tracts of Navajo Tribal Land Containing 3120.00 Acres or 21.77103% of the Unit Area

EXHIBIT "B" (Continued)

FEDERAL LAND

5	<u>T26N-R13W</u> Sec. 18: Lots 3, 4, 9 & 10 Sec. 19: Lots 3, 4, 9 & 10	124.32	SF-080236-A SF-080236	USA 12.5%	John W. Sullivan H. K. Riddle	R. V. Katson 2.00% Albuquerque National Bank, Trustee for H. K. Riddle, II - 10.5%	H. K. Riddle 50.00% A. E. McClane, Paul Umbach and H. K. Riddle as Co-Tenant Trustees for H. K. Riddle, II - 50.00%
6	<u>T26N-R13W</u> Sec. 17: S/2 Sec. 18: S/2 NW/4 Lots 1, 2, 5, 6, 7, 8, 11 & 12 Sec. 19: E/2 Lots 1, 2, 5, 6, 7, 8, 11 & 12 Sec. 20: A11	2320.00	NM-013492 4-1-54	USA 12.5%	Skelly Oil Company	A. L. Duff 1.50% J. V. Fritts 1.50%	Skelly Oil Company - All
7	<u>T26N-R13W</u> Sec. 30: N/2 NE/4 Lots 4, 5, & 6	176.36	SF-080402 4-1-51	USA 12.5%	C. M. & W. Drilling Company	Elliott, Incorporated 5.00%	W. J. Taylor, Trustee for C. M. & W. Drilling Company 58.00% Howard Hall 10.00% Harry Doebla 10.00% Maury Bergman 5.00% John W. Sorensen 5.00% East Side Service 5.00% Leo Durocher 5.00% A. H. Thiele 2.00%
8	<u>T26N-R13W</u> Sec. 27: A11 Sec. 28: A11 Sec. 29: A11	1920.00	SF-078091 2-1-48	USA 12.5%	The British- American Oil Producing Company	Brookhaven Oil Company 0.50% J. V. Fritts 0.50%	The British-American Oil Producing Company - All



## EXHIBIT "B" (Continued)

12	<u>T26N-R13W</u> Sec. 26: S/2 SE/4 SW/4	240.00	SF-081028-A 3-1-51	USA 12.5%	El Paso Natural Gas Products Company John F. Sullivan Edward Arcaro Shiprock Industries, Incorporated	Olin F. Featherstone 1.35% Ernest A. Hanson 1.35% Dixie D. Flood & Roy L. Flood 0.30% Edward D. McCoy 0.50% Lucille O. Quigley 0.25% Anna L. John 0.25% Paul C. Nelson & Margaret Nelson 1.00%	El Paso Natural Gas Products Company - 50.00% Shiprock Industries, Incorporated 37.50% John F. Sullivan - 6.25% Edward Arcaro 6.25%
13	<u>T26N-R13W</u> Sec. 35: All	1599.72	SF-078155 2-1-48	USA 12.5%	The British- American Oil Producing Company	N. B. Marge 1.00%	The British-American Oil Producing Company - All
	<u>T25N-R13W</u> Sec. 1: All Sec. 12: NE/4 N/2 SE/4 N/2 NW/4						
14	<u>T26N-R13W</u> Sec. 34: SW/4	399.55	SF-078156-A 2-1-48	USA 12.5%	The British- American Oil Producing Company	H. J. Salge 1.00%	The British-American Oil Producing Company - All
	<u>T25N-R13W</u> Sec. 3: Lots 3 & 4, S/2 NW/4 N/2 SW/4						
15	<u>T26N-R13W</u> Sec. 32: NE/4	160.00	SF-078055 12-1-48	USA 12.5%	Sunray Mid-Continent Oil Company	Murrel C. Hennigan & Grace Statler Hennigan - 1.00% Troye Kennon 0.50%	Sunray Mid-Continent Oil Company - All

EXHIBIT "B" (Continued)

16	<u>T26N-R13W</u> Sec. 30: Lots 1, 2, 3, 7, 8, & 9 SE/4 S/2 NE/4	432.73	SF-080402 4-1-51	USA 12.5%	Elliott, Incorporated	Bob Bear 1.00%	Elliott, Incorporated - All
17	<u>T26N-R13W</u> Sec. 21: S/2 NE/4	80.00	SF-078932 2-1-48	USA 12.5%	T. Jack Foster	None	H. K. Riddle 50.00% T. Jack Foster 25.00 Benson-Montin-Greer Drilling Corporation
18	<u>T26N-R13W</u> Sec. 21: NW/4 SE/4 Sec. 22: S/2 SE/4	400.00	SF-078932 2-1-48	USA 12.5%	T. Jack Foster	None	T. Jack Foster 50.00 H. K. Riddle 50.00%
19	<u>T26N-R13W</u> Sec. 26: S/2 NE/4 NW/4	240.00	SF-081028-C 3-1-51	USA 12.5%	Dixie D. Flood	Olen F. Feather- stone 5.0%	Phillips Petroleum Company - All
20	<u>T26N-R13W</u> Sec. 25: S/2 SE/4 SW/4 Sec. 26: N/2 SE/4	320.00	SF-081028-A 3-1-51	USA 12.5%	El Paso Natural Gas Products Company John F. Sullivan Edward Arcaro Shiprock Industries, Incorporated	Olin F. Feather- stone 1.35% Ernest A. Hanson 1.35% Dixie D. Flood & Roy L. Flood 0.30% Edward D. McCoy 0.50% Lucille O. Gulgley 0.25% Anna L. John 0.25% Paul C. Nelson & Margaret Nelson 1.00%	John F. Sullivan 56.25% Shiprock Industries Incorporated 37.50% Edward Arcaro 6.25

Sixteen Tracts of Federal Land Containing 10,251.73 Acres or 71.53549% of the Unit Area.

EXHIBIT "B" (Continued)

STATE OF NEW MEXICO LAND

21	T26N-R13W Sec. 36: N/2 NW/4	80.00	E-4501-8 10-24-50	State of New Mexico 12.5%	Honolulu Oil Corporation	Charles B. Gonsales and wife Betty Gonsales 4.00%	Honolulu Oil Corporation - All
22-A	T26N-R13W Sec. 36: SW/4 NW/4 SW/4 NW/4 SE/4 E/2 SE/4 W/2 NE/4 (Hospah Unit)*	400.00	E-9707 1-17-56	State of New Mexico 12.5%	Phillips Petroleum Company	None	Phillips Petroleum Company - All
22-B	T26N-R13W Sec. 36: SE/4 NW/4 (Hospah Unit)*	40.00	E-4500-3 10-24-50	State of New Mexico 12.5%	El Paso Natural Gas Products Company Brookhaven Oil Company	None	El Paso Natural Gas Products Company 50.00 Brookhaven Oil Company 50.00%
22-C	T26N-R13W Sec. 36: SW/4 SE/4 (Hospah Unit)*	40.00	E-3148-6 12-10-49	State of New Mexico 12.5%	El Paso Natural Gas Products Company	John Burroughs 5.00%	El Paso Natural Gas Products Company - All

\*NOTE: Tracts 22-A, 22-B, and 22-C make up the Hospah Unit formed by Operating Agreement signed 8-21-57 Phillips Petroleum Company 83.33334%  
El Paso Natural Gas  
Products Company 12.49999%  
Brookhaven Oil Company 4.16667%

23	T26N-R13W Sec. 36: SE/4 NE/4	40.00	E-4498 10-24-50	State of New Mexico 12.5%	Will Weimar	Naomi Weimar 5.00%	Phillips Petroleum Company - All
24	T26N-R13W Sec. 36: NE/4 NE/4	40.00	B-11419-9 8-19-44	State of New Mexico 12.5%	E. Jaskorski	None	E. Jaskorski - All

EXHIBIT "F" (Continued)

25	<u>T25N-R13W</u> Sec. 2: Lots 1, 2 & 3 S/2 NE/4 SE/4 NW/4	239.47	E-6597-2 10-7-52	State of New Mexico 12.5%	E1 Paso Natural Gas Products Company L. C. Kelly, Trustee	L. C. Kelly, Trustee 4.75% J. D. Middleton 0.25%	E1 Paso Natural Gas Products Company L. C. Kelly, Trustee 50.00%
26	<u>T25N-R13W</u> Sec. 2: Lot 4	39.77	OG-192 9-18-56	State of New Mexico 12.5%	The Tidewater Oil Company	None	The Tidewater Oil Company - All
27	<u>T25N-R13W</u> Sec. 2: SW/4 NW/4	40.00	E-7698-3 1-12-54	State of New Mexico 12.5%	E1 Paso Natural Gas Products Company L. C. Kelly, Trustee	L. C. Kelly, Trustee 4.75% J. D. Middleton 0.25%	L. C. Kelly, Trus All

Nine Tracts of State of New Mexico Land Containing 959.24 Acres or 6.69348% of the Unit Area.

West Bisti Lower Gallup Sand Unit Area Totals:

4 Tracts Navajo Tribal Land	3,120.00 Acres	21.77103%
16 Tracts Federal Land	10,251.73 Acres	71.53549%
9 Tracts State of New Mexico Land	<u>959.24</u> Acres	<u>6.69348%</u>
	<u>14,330.97</u> Acres	<u>100.00000%</u>



EXHIBIT C  
SCHEDULE OF TRACT PERCENTAGE PARTICIPATION  
WEST BISTI LOWER GALLUP SAND UNIT  
SAN JUAN COUNTY, NEW MEXICO

11-23-59

<u>Tract Number</u>	<u>Description</u>	<u>Serial No. and Date of Lease or Application</u>	<u>Percentage Participation</u>
<u>Navajo Tribal Lands</u>			
1	T26N-R14W Sec. 13: S/2 NE/4 SE/4	14-20-603-735 11-10-54 H.B.P.	3.1391
<u>Federal Lands</u>			
5	T26N-R13W Sec. 18: Lots 9 & 10 Sec. 19: Lots 3 & 4	SF-080236 SF-080236-A 7-1-48 H.B.P.	0.7962
6	T26N-R13W Sec. 18: S/2 SE/4 Lots 7, 8, 11 & 12 Sec. 19: NE/4 N/2 SE/4 SE/4 SE/4 Lots 1, 2, 5 & 6 Sec. 20: S/2 NE/4 S/2 NW/4	NM-013492 4-1-54 H.B.P.	22.9471
7	T26N-R13W Sec. 30: N/2 NE/4	SF-080402 4-1-51 H.P.D.	0.8032
8	T26N-R13W Sec. 27: S/2 N/2 S/2 Sec. 28: All Sec. 29: N/2 N/2	SF-078091 2-1-48 H.B.P.	26.7442
9	T26N-R13W Sec. 21: S/2 SW/4 NW/4 SW/4	SF-078932 2-1-48 H.B.P.	2.3401
10	T26N-R13W Sec. 21: NE/4 SW/4	SF-078932 2-1-48 H.B.P.	0.3679
11	T26N-R13W Sec. 33: N/2 NE/4 Sec. 34: NE/4 N/2 NW/4	SF-078156 2-1-48 H.B.P.	7.0915
12	T26N-R13W Sec. 26: S/2 SE/4 SW/4	SF-081028-A 3-1-51	2.7734

<u>Tract Number</u>	<u>Description</u>	<u>Serial No. and Date of Lease or Application</u>	<u>Percentage Participation</u>
<u>Federal Lands (Cont'd)</u>			
13	T26N-R13W Sec. 35: N/2 SE/4 N/2 SW/4	SF-078155 2-1-48 H.B.P.	22.7959
	T25N-R13W Sec. 1: Lots 1, 2, 3, 4 S/2 NE/4 SE/4 Sec. 12: E/2 NE/4		
<u>State of New Mexico Land</u>			
21	T26N-R13W Sec. 36: N/2 NW/4	E-4501-8 10-24-50 H.B.P.	0.6168
22A*	T26N-R13W Sec. 36: N/2 SE/4 SE/4 SE/4 SW/4 SW/4 NW/4	E-9707 1-17-56 H.B.P.	
22B*	T26N-R13W Sec. 36: SE/4 NW/4	E-4500-3 10-24-50 H.B.P.	
22C*	T26N-R13W Sec. 36: SW/4 SE/4	E-3148-6 12-10-49 H.B.P.	
*Tracts 22A, 22B, and 22C represents the total Hospah Unit participation			<u>9.5846</u>
TOTAL			100.0000