

For order amending Order M-1414, to
include additional acreage - San
Juan County, N.M.

Case No.

1706

Application, Transcript,

Small Exhibits, Etc.

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

July 2, 1959

Mr. Charlie White
Box 787
Santa Fe, New Mexico

Dear Mr. White:

On behalf of your client, Sunray Mid-Continent Oil Company, we enclose two copies of Order No. R-1414-A issued July 2, 1959 by the Oil Conservation Commission in Case No. 1706.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Enclosures

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 1706
Order No. R-1414-A

APPLICATION OF SUNRAY MID-
CONTINENT OIL COMPANY FOR AN
ORDER AMENDING ORDER NO. R-1414
TO INCLUDE 80 ADDITIONAL ACRES
IN ITS CENTRAL BISTI LPG-GAS-
WATER INJECTION PROJECT, BISTI-
LOWER GALLUP OIL POOL, SAN
JUAN COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8:00 o'clock a.m. on June 24, 1959, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 2nd day of July, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That Order No. R-1414 authorized the applicant to initiate a liquefied petroleum gas-gas-water injection project in the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico.
- (3) That the applicant seeks an amendment of Rule 1 of the Special Rules and Regulations for the Sunray Mid-Continent Oil Company Central Bisti LPG-Gas-Water Injection Project, as promulgated by Order No. R-1414, to include the following additional acreage in the said project area: NW/4 NW/4 of Section 6, Township 25 North, Range 12 West, and the SW/4 SW/4 of Section 31, Township 26 North, Range 12 West, NMPM, San Juan County, New Mexico.

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Case No. 1706

Order No. R-1414-A

(4) That inclusion of the above-described acreage in said Project will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

That Rule 1 of the Special Rules and Regulations for the Sunray Mid-Continent Oil Company Central Bisti LPG-Gas-Water Injection Project, as promulgated by Order No. R-1414 be and the same is hereby amended to include the following additional acreage within the defined project area, Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico:

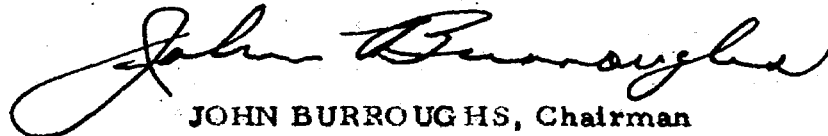
NW/4 NW/4 of Section 6, Township 25 North, Range 12 West,

SW/4 SW/4 of Section 31, Township 26 North, Range 12 West,

all in San Juan County, New Mexico.

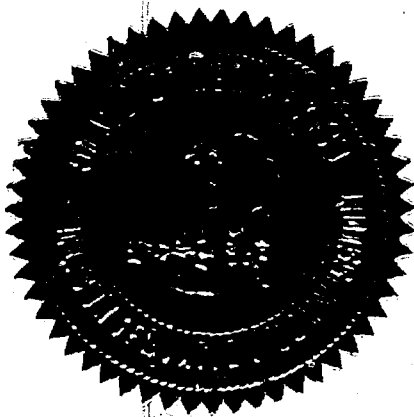
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JOHN BURROUGHS, Chairman


MURRAY E. MORGAN, Member


A. L. PORTER, Jr., Member & Secretary



vem/

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 6-26-59

CASE NO. 1706

HEARING DATE 6-24-59

My recommendations for an order in the above numbered case(s) are as follows:

1. approve Sunray's application to include the NW/4 NW/4 sec. 6-25 N-12W and SW/4 SW/4 sec. 31 26 N-12W in the ~~State~~ Central Dist. Lower Gallup LPB - Gas - Water injection project.
2. I believe that R-1414 should be superseded and this order should be R-1414-A.

Elmer H. H.

Staff Member

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 1665
Order No. R-1414

APPLICATION OF SUNRAY MID-CONTINENT
OIL COMPANY FOR AN ORDER AUTHORIZING
AN LPG-GAS-WATER INJECTION PROJECT
IN THE BISTI-LOWER GALLUP OIL POOL IN
SAN JUAN COUNTY, NEW MEXICO, AND FOR
THE PROMULGATION OF SPECIAL RULES
AND REGULATIONS GOVERNING SAID
PROJECT

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 12, 1959, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 5th day of June, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Sunray Mid-Continent Oil Company, is the operator, under an underwriting agreement pending unitization, of the following-described acreage in the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico:

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 3:	SW/4
Sections 4 and 5:	All
Section 6:	E/2, SW/4, S/2 NW/4, and NE/4 NW/4
Sections 7, 8, and 9:	All
Section 10:	NW/4
Section 16:	All
Section 17:	N/2, SE/4, N/2 SW/4, and SE/4 SW/4
Section 18:	NE/4, N/2 NW/4, and N/2 SE/4
Section 20:	NE/4 and NE/4 NW/4
Section 21:	N/2, N/2 SE/4, and NE/4 SW/4

Case No. 1665
Order No. R-1414

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM

Section 31: S/2 N/2, SE/4, N/2 SW/4, and SE/4 SW/4
Section 33: S/2 SW/4

(3) That the applicant is the operator of the Sunray Mid-Continent Oil Company Federal "C" Gas Injection Project, which project was authorized by Commission Order No. R-1315 and comprises the following-described acreage:

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 6: NE/4 NW/4, S/2 NW/4, NE/4 and the S/2
Section 7: N/2 and the SE/4

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM

Section 31: N/2 SW/4, SE/4 SW/4 and the SE/4

Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico.

(4) That said Order No. R-1315 authorized the injection of gas into one well, namely the Sunray Mid-Continent Federal "C" Well No. 18, located in the SW/4 NE/4 of Section 7, Township 25 North, Range 12 West, NMPM, and promulgated special rules and regulations governing the operation of said project.

(5) That the applicant, Sunray Mid-Continent Oil Company, seeks an order amending said Order No. R-1315, to enlarge the area governed by the special rules and regulations for the project to include all of that area described in Finding No. 2 of this order and further, to authorize, in addition to the above-described gas injection well and the two water injection wells authorized by Commission Order No. R-1413, the conversion for injection purposes of the following wells:

LIQUEFIED PETROLEUM GAS (LPG) INJECTION
FOLLOWED BY GAS INJECTION

Sunray Mid-Continent Oil Company
Federal "C" Well No. 4
SW/4 NE/4, Section 6, Township 25 North, Range 12 West

Sunray Mid-Continent Oil Company
Federal "C" Well No. 13
SW/4 NW/4, Section 5, Township 25 North, Range 12 West

Amerada Petroleum Corporation
Gle-Na-Nup-Pah Well No. 1
SW/4 SE/4, Section 5, Township 25 North, Range 12 West

Phillips Petroleum Company
Benally Well No. 1
SW/4 SW/4, Section 5, Township 25 North, Range 12 West

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Sunray Mid-Continent Oil Company
Federal "C" Well No. 10
SW/4 SE/4, Section 6, Township 25 North, Range 12 West

Sunray Mid-Continent Oil Company
Federal "C" Well No. 14
SW/4 NE/4, Section 8, Township 25 North, Range 12 West

GAS INJECTION ONLY

Sunray Mid-Continent Oil Company
Federal "C" Well No. 7
SW/4 SE/4, Section 31, Township 26 North, Range 12 West

Sunray Mid-Continent Oil Company
Federal "C" Well No. 16
SW/4 NW/4, Section 8, Township 25 North, Range 12 West

El Paso Natural Gas Products Company
Benally Well No. 1
SW/4 NE/4, Section 5, Township 25 North, Range 12 West

Amerada Petroleum Corporation
Salina White Well No. 1
SE/4 SW/4, Section 8, Township 25 North, Range 12 West

(6) That the applicant further proposes that special rules and regulations be promulgated to govern the operation of said project, which rules would provide for:

(a) The conversion of additional wells to injection wells without notice and hearing, subject to administrative approval by the Commission.

(b) The transfer for allowables from injection wells to producing wells within the project area.

(c) The transfer of allowables from wells which have been shut-in for observation, or to increase the efficiency of the project, to other wells within the project area.

(d) Operation of the wells in the project on a net gas-oil ratio basis giving allowance for gas injected.

(e) Such other rules and regulations as are deemed appropriate by the Commission.

(7) That the applicant has established by a preponderance of the evidence that approval of the subject application will prevent waste and result in greater ultimate recovery of oil from the Bisti-Lower Gallup Oil Pool.

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Order No. R-1414

(8) That the applicant's proposal to convert the several wells described in Finding No. 5 to LPG-Gas Injection and Gas Injection should be approved.

(9) That special rules and regulations governing the proposed LPG-Gas-Water injection project area in the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico, should be promulgated.

(10) That Order No. R-1315, establishing the Sunray Mid-Continent Oil Company Federal "C" Gas Injection Project and promulgating special rules and regulations therefor should be superseded.

IT IS THEREFORE ORDERED:

(1) That Commission Order No. R-1315, dated December 31, 1958, be and the same is hereby superseded.

(2) That the applicant, Sunray Mid-Continent Oil Company, be and the same is hereby authorized to operate a liquefied petroleum gas-gas-water injection project in the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico, subject to the special rules and regulations for said injection project as hereinafter set forth.

(3) That the applicant be and the same is hereby authorized to convert, for the purpose of injecting liquefied petroleum gas followed by gas, the following-described wells:

Sunray Mid-Continent Oil Company
Federal "C" Well No. 4
SW/4 NE/4, Section 6, Township 25 North, Range 12 West, NMPM

Sunray Mid-Continent Oil Company
Federal "C" Well No. 13
SW/4 NW/4, Section 5, Township 25 North, Range 12 West, NMPM

Amerada Petroleum Corporation
Gle-Na-Nup-Pah Well No. 1
SW/4 SE/4, Section 5, Township 25 North, Range 12 West, NMPM

Phillips Petroleum Company
Benally Well No. 1
SW/4 SW/4, Section 5, Township 25 North, Range 12 West, NMPM

Sunray Mid-Continent Oil Company
Federal "C" Well No. 10
SW/4 SE/4, Section 6, Township 25 North, Range 12 West, NMPM

Sunray Mid-Continent Oil Company
Federal "C" Well No. 14
SW/4 NE/4, Section 8, Township 25 North, Range 12 West, NMPM

Case No. 1665
Order No. R-1414

(4) That the applicant be and the same is hereby authorized to convert, for the purpose of injecting gas, the following-described wells:

Sunray Mid-Continent Oil Company
Federal "C" Well No. 7
SW/4 SE/4, Section 31, Township 26 North, Range 12 West, NMPM

Sunray Mid-Continent Oil Company
Federal "C" Well No. 16
SW/4 NW/4, Section 8, Township 25 North, Range 12 West, NMPM

El Paso Natural Gas Products Company
Benally Well No. 1
SW/4 NE/4, Section 5, Township 25 North, Range 12 West, NMPM

Amerada Petroleum Corporation
Salina White Well No. 1
SE/4 SW/4, Section 8, Township 25 North, Range 12 West, NMPM

Sunray Mid-Continent Oil Company
Federal "C" Well No. 18
SW/4 NE/4, Section 7, Township 25 North, Range 12 West, NMPM

(5) That the interval of injection for the above-described LPG-gas and gas injection wells shall include the three main sands of the Lower Gallup formation.

(6) That special rules and regulations governing the operation of the Central Bisti Injection Project, Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico, be and the same are hereby promulgated as follows, effective June 1, 1959.

**SPECIAL RULES AND REGULATIONS FOR THE
SUNRAY MID-CONTINENT OIL COMPANY CENTRAL
BISTI LPG-GAS-WATER INJECTION PROJECT**

RULE 1. The project area of the Sunray Mid-Continent Oil Company Central Bisti LPG-Gas-Water Injection Project shall comprise that area described as follows:

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 3:	SW/4
Sections 4 and 5:	All
Section 6:	E/2, SW/4, S/2 NW/4, and NE/4 NW/4
Sections 7, 8, and 9:	All
Section 10:	NW/4
Section 16:	All
Section 17:	N/2, SE/4, N/2 SW/4, and SE/4 SW/4
Section 18:	NE/4, N/2 NW/4, and N/2 SE/4
Section 20:	NE/4 and NE/4 NW/4
Section 21:	N/2, N/2 SE/4, and NE/4 SW/4

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Case No. 1665
Order No. R-1414

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM

Section 31: S/2 N/2, SE/4, N/2 SW/4, and SE/4 SW/4
Section 33: S/2 SW/4

RULE 2. The allowable for the Project shall be the sum of the allowables of the several wells within the project area, including those wells which are shut-in or are used as injection wells.

RULE 3. Allowables for injection wells may be transferred to producing wells within the project area, as may the allowables for producing wells which, in the interest of more efficient operation of the Project, are shut-in or curtailed because of high gas-oil ratio or shut-in for pressure regulation, control of pattern or sweep efficiencies, to observe changes in pressures or changes in characteristics of reservoir liquids, or progress of sweep.

RULE 4. The project allowable may be produced from any well or wells in the project area in any proportion, subject to the limitations set forth in Rule 8, provided that the rate of production is consistent with the efficient operation of the Project and provided further that no well shall produce in excess of two times the top unit allowable for the Bisti-Lower Gallup Oil Pool, or 200 barrels per day, whichever is greater.

RULE 5. The allowable assigned to any injection well, which allowable is to be transferred to any well or wells in the project area for production, shall in no event exceed the producing capacity of the well prior to conversion to injection, as determined by the testing procedure prescribed by Rule 7. Conversion of producing wells to injection, or the drilling of additional wells for injection, shall be done only after approval of same by the Secretary-Director of the Commission. To obtain such approval, the Project operator shall file proper application with the Commission, which application shall include the following:

- (1) A plat showing location of proposed injection well, all wells within the project area and offset operators, locating their off-setting wells to the project area.
- (2) A schematic drawing of the proposed injection well which fully describes the casing, tubing, perforated interval, and depths and showing that injection of gas will be confined into the Bisti-Lower Gallup formation.
- (3) A letter stating that all offset operators to the project area have been furnished a complete copy of the application and the date of the notification.

The Secretary-Director may approve the proposed injection well if, within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant immediate approval provided waivers of objection are received from all offset operators.

RULE 6. The allowable assigned to any well which is shut-in or is curtailed in accordance with the provisions of Rule 3, which allowable is to be transferred to any well or wells in the project area for production, shall in no event exceed the producing capacity of the well prior to such shut-in or curtailment as determined by the testing procedure prescribed by Rule 7.

RULE 7. The allowable assigned to any well which is used for the purpose of injection, or which is shut-in or curtailed in accordance with Rule 3, shall be determined by a 24-hour test at a stabilized rate of production, which shall be the final 24-hour period of a 72-hour test throughout which the well shall be produced in the same manner and at a constant rate. In no event shall a well receive an allowable greater than its ability to produce during such test, or greater than top unit allowable for the pool at the time of such test multiplied by the well's acreage factor, or greater than the current top unit allowable for the pool during the month of transfer, multiplied by the well's acreage factor, whichever of the three is less. The project operator shall notify all operators offsetting the Project, as well as the Commission, of the exact time such tests are to be conducted. Tests may be witnessed by representatives of the offsetting operators and the Commission, if they so desire.

RULE 8. No well in the project area shall be assigned any allowable transferred from any other well or wells in the project area unless and until said well has been approved by the Commission as a duly authorized "Transfer Well." To receive approval for any such Transfer Well, the Project operator shall file application with the Secretary-Director of the Commission for permission to transfer allowable to the well, setting forth therein the well's current allowable and the maximum allowable which will be assigned to the well. Copies of the application shall be provided to the operator of each well offsetting the proration unit on which the transfer well is located. The Secretary-Director may designate the well as a Transfer Well subject to the maximum expected allowable for the well if, within 20 days after receiving the application, no objection to the designation is received. The Secretary-Director may grant immediate designation as a Transfer Well provided waivers of objection are received from all such offset operators.

RULE 9. The allowable assigned to any well in the Project shall be based upon the ability of the well to produce and shall be subject to the limiting gas-oil ratio (2,000 to 1) for the Bisti-Lower Gallup Oil Pool, except that any well or wells within the project area producing with a gas-oil ratio in excess of 2,000 cubic feet of gas per barrel of oil may be produced on a "net" gas-oil ratio basis, which net gas-oil ratio shall be determined by applying credit for daily average gas injected into the Bisti-Lower Gallup Oil Pool within the project area to such high gas-oil ratio well. The daily adjusted oil allowable for any such well receiving gas injection credit shall be determined in accordance with the following formula:

$$A_{adj} = \frac{TUA \times F_a \times 2,000}{\frac{P_g - I_g}{P_o}}$$

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Case No. 1665
Order No. R-1414

where:

A_{adj} = the well's daily adjusted allowable
 TUA = top unit allowable for pool
 F_a = the well's acreage factor
 P_g = average daily volume of gas produced by the well during the preceding month, cubic feet
 I_g = the well's allocated share of the daily average gas injected during the preceding month, cubic feet
 P_o = average daily volume of oil produced by the well during the preceding month, barrels

In no event shall the amount of injected gas being credited to a well be such as to cause the net gas-oil ratio, $\frac{P_g - I_g}{P_o}$, to be less than 2,000 cubic feet of gas per barrel of oil produced.

RULE 10. Each month the project operator shall, within three days after the normal unit allowable for Northwest New Mexico has been established, submit to the Commission a Gas Injection Project Operator's Report, on a form prescribed by the Commission, outlining thereon the data required, and requesting allowables for each of the several wells in the Project.

RULE 11. The Commission shall, upon review of the report and after any adjustments deemed necessary, assign allowables to each well in the Project for the next succeeding month in accordance with these rules.

RULE 12. The Special Rules and Regulations for the operation of the subject Project shall prevail against the Statewide Rules and also against the Special Rules and Regulations for the Bisti-Lower Gallup Oil Pool, if in conflict therewith.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated,

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

S E A L

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

vem/

A. L. PORTER, Jr., Member & Secretary

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BEFORE THE
OIL CONSERVATION COMMISSION
EXAMINER HEARING
Santa Fe, New Mexico
June 24, 1959

IN THE MATTER OF: Case 1666 and Case 1706, Consolidated

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
3-6691 5-9546

NEW MEXICO OIL CONSERVATION COMMISSION

(Examiner hearing - Elvis A. Utz)

SANTA FE, NEW MEXICO

REGISTER

HEARING DATE June 24, 1959 Highway Auditorium TIME: 8 o'clock a.m.

NAME:	REPRESENTING:	LOCATION:
Victor T. Lyon	CONTINENTAL OIL CO	FUNICE, N.M.
Jason W. Kellahin	Kellahin & Son	Santa Fe
Robert E Fox	"	"
JOE R. HOWARD	TEXAS CRUDE OIL CO	MIDLAND, TEXAS
C. P. H. Laurent	Shell Oil Co.	Roswell N.M.
St. Lawrence	El Paso Natural Gas	El Paso, Tex.
Mr. K. Gray	Crittch. Co. Co	El Paso, Tex.
Mr. Campbell	Campbell & Russell	Roswell N.M.
Mr. E. H.	State Eng.	Santa Fe
B. H. Harrison	Lawrence & P.	Rocky Mountain
Mr. L. P.	"	"
W. H. C. Long	Summit Oil Co.	Trinidad, N.M.
R. H. Smith	W. H. C. Long	El Paso, Tex.
Calvin Ray	"	El Paso, Tex.
W. H. C. Long	"	El Paso, Tex.
Robert L. Crocker	Lawrence & P.	"
W. H. C. Long	"	"
Robert L. Crocker	T. H. C. Long	El Paso, Tex.
Robert L. Crocker	T. H. C. Long	El Paso, Tex.

NEW MEXICO OIL CONSERVATION COMMISSION

NEW MEXICO

REGISTER

HEARING DATE June 24, 1959

TIME: 8 A.M.

NAME:	REPRESENTING:	LOCATION:
Geo S. Kerby	Universal Oil Co.	Farminington
Hesh & Zell	Shell Refining	Farminington
J.H. Hoover	Gulf Oil Corp.	Farminington
EG Savage	Gulf	Roswell
Bill Foster	Gulf Oil Corp.	Roswell
H.P. Chatter	Universal Oil Co.	"
E. I. Motter	Cities Service	"
R.R. ROBISON	Shell Oil Co.	Farminington

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
EXAMINER HEARING
Santa Fe, New Mexico
June 24, 1959

IN THE MATTER OF:

Application of Sunray Mid-Continent Oil
Company for approval of a unit agreement.
Applicant, in the above-styled cause,
seeks an order approving its Central
Bisti-Lower Gallup Sand Unit embracing
approximately 7389 acres of federal,
state, and allotted Indian lands in the
Bisti-Lower Gallup Oil Pool, San Juan
County, New Mexico.

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: Case 1666
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IN THE MATTER OF:

Application of Sunray Mid-Continent Oil
Company for an order amending Order No.
R-1414. Applicant, in the above-styled
cause, seeks an order amending Order No.
R-1414 to include the following additional
acreage: NW/4 NW/4 of Section 6, Township
25 North, Range 12 West, and the SW/4 SW/4
of Section 31, Township 26 North, Range 12
West, San Juan County, New Mexico.

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: Case 1706
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BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. UTZ: The hearing will come to order, please.

The next case will be 1666.

MR. PAYNE: Case 1666. Application of Sunray Mid-
Continent Oil Company for approval of a unit agreement.

MR. WHITE: If the Examiner please, Charles White,



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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

Santa Fe, New Mexico, appearing on behalf of the Applicant; and I have associated with me Mr. Bill Loar, member of the Oklahoma Bar. At this time we would like to request that Case No. 1706 be consolidated with the instant case in order to conserve time.

MR. UTZ: Case 1706 and Case 1666 will be consolidated for purposes of testimony.

MR. LOAR: We will have two witnesses.

(Witnesses sworn.)

MR. UTZ: Are there other appearances to be made in this case?

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa Fe, New Mexico, representing Amerada Corporation.

MR. UTZ: Any other appearances? You may proceed, Mr. Loar.

MR. LOAR: This is the application of Sunray Mid-Continent Oil Company as unit operator to approve the Central Bisti-Lower Gallup Sand Unit. As a matter of background, on May 12, 1959, a hearing was held before the Commission upon our application to inject gas, L.P.G., and water in the unit area, for the Field rules necessary to accomplish this effect; June 1st, 1959, two orders were issued authorizing us to carry on the operations. As our testimony will show, one hundred percent of the overriding royalty ownership, on the basis of surface ownership, have executed the agreements. There is one 80-acre tract which has not executed any of the agreements. It is proposed to leave the 80



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ALBUQUERQUE, NEW MEXICO

acres out of the unit until the working interest owners execute the agreement. All of our exhibits include this tract, but we will, as we proceed with the testimony, attempt to eliminate the 80-acre tract from the presentation.

R. L. SOWLE

called as a witness, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

BY MR. LOAR:

Q Mr. Sowle, will you please state your name and occupation?

A R. L. Sowle, I'm staff assistant with the Legal Department, Sunray Mid-Continent Oil Company.

Q Mr. Sowle, what is the nature of your duties?

A The nature of my duties is to contact royalty owners, overriding royalty owners, production payment owners, and working interest owners.

Q That is, the owners of interest within the unit area as proposed?

A Right, to secure their signatures to the agreements.

Q Would you please refer to Exhibit No. 1, which is the area map --

(Applicant's Exhibit No. 1 marked for identification.)

A Yes, sir.



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ALBUQUERQUE, NEW MEXICO

Q -- and state briefly what this is?

A This is a map that shows the Northwest portion of the Bisti Field. It also shows in hatched lines the Central, the Bisti Central Lower Gallup Unit.

Q Now then, Mr. Sowle, for the record would you please describe the acreage which we seek to have included within the Central Bisti-Lower Gallup Sand Unit?

A In Section 31, the South Half, and the South Half of the North Half; Section 32, the South Half, the North Half, the Southeast Quarter, and the North Half of the Southwest Quarter; Section 33, the South Half, the Southwest Quarter; all in Township 26 North, Range 12 West. Also Section 3, the Southwest Quarter, Section 4, all of it; Section 5, all; Section 6, all; Section 7, all; Section 8, all; Section 9, all; Section 10, the northwest Quarter; Section 16, all; Section 17, North Half, and the Southeast Quarter, and the East Half of the Southwest Quarter, and the Northwest Quarter of the Southwest Quarter; Section 18, the Northeast Quarter, and the North Half of the Northwest Quarter, and the North Half of the Southeast Quarter; Section 20, the Northeast Quarter, and the Northeast Northwest Quarter; Section 21, the North Half, and the North Half of the Southeast Quarter, and the Northeast Southwest Quarter; all in Township 25 North, Range 12 West, San Juan County, New Mexico.

Q Now then, Mr. Sowle, have you supervised the taking of the signatures for the Central Bisti-Lower Gallup Sand Unit?



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A Yes, sir.

Q On a surface acreage basis, what percent of the normal one-eighth royalty has signed?

A 100 percent.

Q Does this include all the Indians, the Bureau of Indian Affairs at Gallup, the State of New Mexico Land Office?

A Yes, sir.

Q I believe you also have the recommendation of the Regional Office of the U. S. G. S. at Roswell?

A That is right.

Q They have forwarded the agreements to Washington for the Department of Interior to execute?

A Yes, sir.

Q Now then, on a surface acreage basis, what percentage of the working interest has signed?

A In excess of 98 percent.

Q Of the working interest ownership?

A Oh, 100 percent, I beg your pardon.

Q Do some of these tracts have overriding royalty interest on them?

A Yes, sir.

Q What percent of the overriding royalty interest owners have signed?

A In excess of 98 percent.

Q Mr. Kelly is a working interest owner under several



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of the El Paso interests, is he not?

A That's right.

Q He has signed as a working interest owner, hasn't he?

A That is correct.

Q Through oversight, I understand that he has not signed an override?

A He has not signed a ratification signifying that he owns an override.

Q If you include this interest of Mr. Kelly's, what percentage would you have of the override?

A In excess of 99 percent.

Q Now then, when you described the unit area, you deleted the South Half of the Southwest Quarter of Section 32, Township 26 North, Range 12 West?

A Yes, sir.

Q Why did you do that?

A Because that is the tract that Val Reese and Associates own, and they have not executed either of the agreements.

Q And you deleted any reference to them in referring to your 100 percent of the working interest ownership in the overrides, did you not?

A They are not counted in any other percentage figures we have quoted.

Q Will you please refer to what has been marked as Exhibit No. 2?



(Applicant's Exhibit No. 2
marked for identification.)

A Yes, sir.

Q State what that is.

A Exhibit No. 2 is the unit operating agreement for the development and operation of the Central Bisti-Lower Gallup Sand Unit Area, County of San Juan, State of New Mexico.

(Applicant's Exhibit No. 3
marked for identification.)

Q Now will you refer to Exhibit 3 and state what that is.

A Exhibit 3 is the unit agreement for the development and operation of the Central Bisti-Lower Gallup Sand Unit Area, County of San Juan, State of New Mexico.

Q Are you familiar with these agreements?

A Yes, sir.

Q Will these agreements provide for the method of conducting Unit business?

A Yes.

Q Do they designate Sunray Mid-Continent Oil Company as unit operator?

A They do.

Q Do the agreements provide that the royalty interests will not carry any portion of the operating costs of the Unit?

A They provide that.

Q Now then, as to the remaining unsigned interest, will

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the Committee that is obtaining signatures to these agreements continue to try to get all of this outstanding interest committed to the Unit?

A Yes, sir.

Q That is, I believe, approximately one percent of the Unit?

A Yes.

Q I believe you stated that these agreements are now in Washington, and the Department of the Interior is in the process of signing the agreements, is that correct?

A Yes, sir.

Q Is the Director being asked to approve these agreements effective June 30, 1959?

A They will be asked, yes, sir, to approve the agreements as of June the 30, 1959.

Q If at all possible, would you like to have this order effective June 30, 1959?

A If it please the Commission, we would like to have the effective date as of June 30, 1959.

MR. LOAR: I believe that's all we have of Mr. Sowle.

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

(Witness excused.)



R. E. BROOKS

called as a witness, having been first duly sworn on oath,
testified as follows:

DIRECT EXAMINATION

BY MR. LOAR:

Q Will you please state your name and occupation?

A My name is R. E. Brooks, Senior Reservoir Engineer
with Sunray Mid-Continent Oil Company, Tulsa, Oklahoma.

Q Have you testified before this Commission in that
capacity previously?

A Yes, sir.

Q Were your qualifications accepted at that time?

A Yes, sir.

MR. LOAR: If these witness's qualifications are
acceptable, we'll proceed.

MR. UTZ: They are.

Q (By Mr. Loar) Are you familiar with the Central
Bisti-Lower Gallup Sand Unit in San Juan County, New Mexico, in
the Bisti Field?

A Yes, sir.

Q Will you please refer to Exhibit No. 1, which is the
area map, and very briefly tell us the plan of operation proposed
for the Unit Area?

A Exhibit 1, which is the area map showing the outline
of the Central Bisti-Lower Gallup Sand Unit in blue hatched lines,

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shows the injection wells which we contemplate using in the beginning of this program. The plan of operation calls for injecting L.P.G. in the fairway portion of the reservoir. As you will note, the L.P.G. injection wells are shown with circles drawn around the location. Gas will be injected along the edges, north and south edges of the area, and these wells are shown with triangles. Water will be injected along the east and west boundaries, and on this map we have shown the water injection wells for the west boundary with squares. There are six L.P.G. injection wells, five gas injection wells, and two water injection wells. In addition, the Bisti G.I. No. 1 will be used for gas injection.

Q Mr. Brooks, the Bisti G.I. injection No. 1 is located in the common corner of Townships 25 and 26 North, Ranges 12 and 13 West, is that correct?

A Yes, sir.

Q All right. Mr. Brooks, did you testify in Cases 1664 and 1665, which were heard before an Examiner of the Commission on May 12, 1959?

A Yes, sir.

Q These cases involved a request for Field Rules covering the injection of water, gas, and L.P.G., did they not?

A Yes, sir.

MR. LOAR: If it's proper at this time, we would like to ask that testimony of Mr. Brooks in these two cases be incorporated in the record. That is, in Cases 1664, 1665.



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MR. UTZ: Is there objection to Mr. Brooks' testimony in these two cases mentioned as a part of this record? If not, it is so ordered.

Q (By Mr. Loar) Mr. Brooks, those two cases you explained in some detail the plan of operation, the method of injection that is proposed for the Central Bisti Unit, did you not?

A Yes, sir.

Q Referring to the portion of this hearing which relates to Case No. 1706, are the Southwest Quarter Southwest Quarter of Section 31, Township 36 North, Range 12 West, and the Northwest Quarter Northwest Quarter, Section 6, Township 25 North, Range 12 West both operated by Sunray Mid-Continent Oil Company?

A Yes, sir.

Q Does Sunray Mid-Continent have two wells completed in the Lower Gallup formation on these two tracts?

A Yes, sir.

Q Would you please identify the two wells?

A The well located in the Southwest Quarter of the Southwest Quarter of Section 31, 26 North, 12 West, is the Sunray Mid-Continent Federal C No. 2. The well located in the Northwest Quarter of the Northwest Quarter of Section 6, 25 North, 12 West, is the Sunray Mid-Continent Federal C No. 1.

Q Both of these wells on two 40-acre tracts described are a portion of the pilot L.P.G. injection project, are they not?



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A Yes.

Q That project was discontinued as of June 1st, is that correct?

A That is correct.

Q Are these wells completed in the same common source of supply as the other wells in the Central Bisti Unit?

A Yes, sir.

Q And is this acreage, these two 40-acre tracts, are they proposed to be included in the Unit?

A Yes, sir.

Q Mr. Brooks, have you participated in the discussion of the operators and the engineers leading to unitization?

A Yes, sir.

Q Would you rather briefly review the history of these discussions?

A On November the 20th, 1957, the operators in this area generally agreed to proceed with forming a unit for the purpose of expanding the L.P.G. recovery process, and charged the Engineering Committee with preparing participation parameters for unitization formula. On August 22, 1958, the Engineering Committee completed this assignment of calculating participation parameters. On October 21, 1958, the operators agreed to a unitization formula and since that time the operators have been completing the work that is necessary to form the Unit.

Q What is the formula which the operators have agreed



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to use for this Unit?

A The formula is based on three parameters, two consisting of oil in place calculated by two different methods. The formula is one-third of the oil in place as determined from the net pay thickness from micro-logs; one-third of the oil in place as determined from the area under S.P. curves; one-third of the current oil production.

(Applicant's Exhibit No. 4
marked for identification.)

Q Now then, will you refer to Exhibit No. 4 which is an isopac based on micro-log pay for the Lower Gallup zone 1 or bench 1, and state briefly how that isopac was prepared.

A This is the isopacous map based on the net pay determinations from micro-logs. The Central Bisti Unit is shown in hatched lines and is the same as that shown on Exhibit 1. The net pays were determined by a Committee composed of logging experts and the isopacous maps were constructed in the Engineering Committee as a part of their assignment from these net pay determinations.

(Applicant's Exhibit No. 5
marked for identification.)

Q Exhibit No. 5 is an isopac of micro-log pay for bench No. 2. Was that prepared in the same way and in the same manner?

A Yes, sir.

(Applicant's Exhibit No. 6
marked for identification.)



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Q Exhibit No. 6 is an isopac of the micro-log pay for bench No. 3 of the Lower Gallup zone. Was that prepared in the same method and the same manner?

A Yes, sir.

Q Mr. Brooks, was the same criteria in determining the micro-log pay, and you might say the same ground rules, preparing the isopacs used for all tracts?

A Yes, sir.

(Applicant's Exhibit No. 7
marked for identification.)

Q Will you now refer to Exhibit No. 7, which is an isopac based on S.P. for the Lower Gallup bench No. 1 and state how that was prepared?

A Exhibit No. 7 is an isopac map constructed on net pay thickness determinations from the S.P. curve of the electrolog. Again these net pays were determined by a logging sub-committee composed of people who are very familiar with this type of work. It was constructed by the Engineering Committee.

(Applicant's Exhibit No. 8
marked for identification.)

Q Exhibit 8 is an isopac of the S.P. pay for the Lower Gallup bench No. 2. Was this prepared in the same method and manner?

A Yes, sir.

(Applicant's Exhibit No. 9
marked for identification.)

Q Exhibit No. 9 is an isopac of the S.P. for the Lower



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Gallup bench No. 3. Was this prepared in the same method and manner?

A Yes, sir.

Q Again, Mr. Brooks, was the same yardstick applied to all tracts in preparing these isopacs?

A Yes, sir.

(Applicant's Exhibit No. 10 marked for identification.)

Q Now then, will you please refer to Exhibit No. 10, which is a tabulation of the participation parameters of the Unit Area, and discuss it?

A Exhibit No. 10 is a tabulation of the calculations of participation for the Central Bisti-Lower Gallup Sand Unit.

Q In order to make this easy to follow, Mr. Brooks, would you take Tract No. 1, which is the largest tract in the Unit presently operated by Sunray Mid-Continent, and take us through the calculations? That is about three-fourths of the way down this tabulation, is it not?

A Yes, sir. Exhibit No. 1 is known as the Sunray Mid-Continent Federal C Lease. The first column --

MR. UTZ: You mean Tract No. 1, don't you?

Q (By Mr. Loar) You mean Tract No. 1 rather than Exhibit No. 1?

A Excuse me, I'm sorry. It contains 17,977 --

Q Better back up there a decimal point.

A 17,977,000 barrels of oil as determined from the



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micro-log isopacous maps, using the acre feet from those maps and other parameters such as porosity and water saturation. The percentage as shown there under the next column is the micro-log oil in place, fraction of the total oil in place is .4726540.

Q This means that approximately 47 percent of the micro-log oil in place is attributed to this Federal C Tract, does it not?

A That is correct.

Q Would you proceed with the S.P.?

A The determination of oil in place from the S.P. data, using the isopacous maps, indicates that this lease had 23,588,000 barrels of oil in place, with a fraction of the total oil in place in the unit of .3790303, or 37.9 percent. The current oil production parameter is based on three months period of the production from the wells in the Central Bisti Unit.

Q What three --

A This period was July, August, and September.

Q For what year, Mr. Brooks?

A 1958. This Lease during that time produced 157,707 barrels of oil, which gave a percentage of 44.9 for the fraction of the current oil production. Using the formula which is shown in the lower left-hand corner, applying the parameters just read, the lease has a participation of 43.4 percent, approximately.

Q Now that is giving equal weight to the micro-log oil in place, the S.P. oil in place, and the current oil production



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for the current three months period, is that right?

A Yes, sir.

Q Was the same yardstick used throughout in determining each of these participation parameters?

A Yes, sir.

Q Do you believe that the participation is fair and equitable as to all tracts?

A Yes, sir.

Q I believe you are familiar with the Val R. Reese Tract, which is the South Half of the Southwest Quarter of Section 32, Township 26 North, Range 12 West, are you not?

A Yes, sir.

Q Since Val R. Reese and Associates have not signed the agreements, it is proposed to leave that 80-acre tract out of the Unit, is it not?

A Yes, sir.

Q This will in effect leave a window in the Unit?

A That's correct.

Q Will this window interfere with Unit operations?

A No, sir. We might add that we would prefer to see that particular tract in the Unit, but we can efficiently and effectively operate the Unit without it.

Q Will you be able to protect correlative rights and prevent drainage from the Unit to that Tract?

A We feel that we will.



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Q How will you prevent drainage?

A We will observe the well for increases in production or any effects whatsoever from Unit operations at this time, the wells which offset it, which will be producers, to see just how we are coming along at each stage of the project. In the event that we do notice that this well is receiving a so-called kick, we will first try to control any increases or migrations of fluid by controlling the injection in the immediate vicinity and the production in that vicinity. If this doesn't work and it's absolutely necessary, we will drill wells to protect ourselves.

Q Will the proposed plan of secondary recovery harm the Val R. Reese and Associates Tract?

A No, sir.

Q In your opinion is it necessary to have a Unit in order to conduct the secondary recovery operation proposed here?

A Absolutely.

Q Will this Unit and the method of secondary recovery recover additional oil which would otherwise not be recovered?

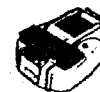
A Yes, sir.

Q Will the value of the additional oil recovered exceed the cost of the secondary recovery operation?

A Yes, sir.

Q Are you now recommending to the New Mexico Oil Conservation Commission the approval of the Unit?

A Yes, sir.



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MR. LOAR: At this time I would like to move the admission of Exhibits 1 through 10.

MR. UTZ: Without objection, Exhibits 1 through 10 will be accepted into the record.

MR. LOAR: That's all the questions we have of the witness.

MR. UTZ: Are there questions of Mr. Brooks? Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Does the unit agreement provide for expansion and contraction?

A Yes, sir.

Q So that in the event that Val R. Reese and Associates decide to come into this Unit at a later date, the unit agreement does provide for that?

A Yes, sir.

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

MR. UTZ: Other questions? Mr. Nutter.

BY MR. NUTTER:

Q Mr. Brooks, under micro-log separation we have 38,000,000 barrels of oil in place, and under self potential we have 62,000,000 barrels of oil in this area. How many barrels of oil are in place?

A Mr. Nutter, if we had known we probably would have



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used one number. We feel that it is probably in between. If I were using a number, I would add those two numbers up and divide it by two.

Q That would be as good a figure --

A Let me say this, that was the feeling of the Engineering Committee. I would rather leave it that way. It is exceptionally difficult to say which is the most accurate. They are both accepted methods in the industry, and we feel that if you are using the number that would probably be the best you could use for conservative number, I would use the micro-log; if you wanted to go the other way, use the S.P.

Q You feel that an average of the two would probably be as good a guess, estimate, as possible under the circumstances?

A Yes, sir. We are using micro-log in all of our calculations.

Q I note in this Exhibit No. 10 that you have not included the Val R. Reese property in this calculation --

MR. LOAR: Included or excluded?

Q (By Mr. Nutter) It has not been included?

A It is included.

Q Which tract is that?

A It's Tract 10.

Q I see. So if you go ahead and work out your participation without the Val R. Reese property, this is going to be recalculated, changing the figures very insignificantly probably



to the individual tracts?

A That is correct, yes, sir.

MR. NUTTER: I believe that's all. Thank you.

BY MR. UTZ:

Q Would you explain to me, Mr. Brooks--maybe you did, but I missed it if you did -- how you arrived at the 43 percent for the Tract No. 1 for your formula fraction?

A Actually the way that it would be or could be arrived at would be by adding the column under micro-log oil in place fraction plus the S.P. oil in place fraction plus the current oil production fraction, and dividing those numbers by three.

Q So actually this formula is divided by three?

A That's correct.

MR. UTZ: Any other questions of Mr. Brooks?

REDIRECT EXAMINATION

BY MR. LOAR:

Q In order to clarify that, I assume that the Examiner was referring to the formula at the bottom of Exhibit 10?

A That's what I understood.

Q You could either add the three factors and divide by three or you could take one-third of each of the factors and total them, could you not?

A Yes, sir. Its common denominator.

MR. UTZ: Other questions? If not, the witness will be excused.

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(Witness excused.)

MR. UTZ: Are there other statements to be made in these cases?

MR. KELLAHIN: If the Commission please, Jason Kellahin. Amerada Petroleum Corporation is the owner of approximately 18 percent of the proposed Unit and is in favor of and in support of the application.

MR. UTZ: Any other statements? If not, the case will be taken under advisement.

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C E R T I F I C A T E

STATE OF NEW MEXICO)
)
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing was reported by me in Stenotype and that the same was reduced to typewritten transcript by me and contains a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

DATED this 29th day of June, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

 NOTARY PUBLIC

My Commission Expires:

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1666-1706 heard by me on June 24, 1959.
Ada Dearnley, Examiner
 New Mexico Oil Conservation Commission

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ALBUQUERQUE, NEW MEXICO



STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

I, Ala Dearnley, Notary Public
in and for the County of Bernalillo, State of New Mexico, do
hereby certify that the foregoing and attached Transcript of
Proceedings before the New Mexico Oil Conservation Commission
was reported by me in Stenotype and reduced to typewritten
transcript by me, and that the same is a true and correct
record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 5th day
of July, 1959, in the City of Albuquerque, County
of Bernalillo, State of New Mexico.

Ala Dearnley
NOTARY PUBLIC

My Commission Expires:

June 19, 1963.

DOCKET: EXAMINER HEARING JUNE 24, 1959

OIL CONSERVATION COMMISSION - 1120 CERRILLOS ROAD, HIGHWAY DEPARTMENT
AUDITORIUM, 8 a.m., SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or A. L. Porter, Jr., Secretary-Director.

CONTINUED CASE

CASE 1666: Application of Sunray Mid-Continent Oil Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Central Bisti-Lower Gallup Sand Unit embracing approximately 7389 acres of federal, state, and allotted Indian lands in the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico.

NEW CASES

CASE 1692: Application of Continental Oil Company for the establishment of a non-standard gas proration unit in the Tubb Gas Pool. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas proration unit in the Tubb Gas Pool consisting of lot 15, the N/2 SE/4 and the SE/4 SE/4 of Section 3, Township 21 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to applicant's Hawk B-3 Well No. 2-T, located 1650 feet from the South and East lines of said Section 3.

CASE 1693: Application of Amerada Petroleum Corporation for three non-standard oil proration units. Applicant, in the above-styled cause, seeks an order establishing three 43.7 acre non-standard oil proration units for Mississippian production in the SE/4 of Section 11, Township 13 South, Range 38 East, Lea County, New Mexico. Applicant further seeks approval of one unorthodox oil well location.

CASE 1694: Application of Texas Crude Oil Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Big Eddy Unit 1-30 Well, located in the SE/4 SE/4 of Section 30, Township 20 South, Range 31 East, Eddy County, New Mexico, in such a manner as to produce oil from an undesignated Tansil pool and to produce oil from an undesignated Delaware pool through parallel strings of tubing.

CASE 1695: Application of Texaco, Inc. for a triple completion, for permission to commingle the production from three separate pools, and for the establishment of two non-standard gas proration units. Applicant, in the above-styled cause, seeks an order authorizing it to triple complete its A. H. Blinebry NCT-4 Well No. 1, located in the SE/4 SE/4 of Section 31, Township 22 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit production from the Blinebry formation, production of gas from the Tubb Gas Pool, and production of oil from the Drinkard Pool through tubing, the annulus via cross-over, and tubing respectively. Applicant further seeks the establishment of a 160-acre non-standard gas proration unit in both the Tubb Gas Pool and Blinebry Gas Pool each consisting of the S/2 S/2 of said Section 31. Applicant further seeks permission to commingle the liquid production from the Blinebry, Tubb, and Drinkard formations underlying said acreage.

- CASE 1696: Application of Caulkins Oil Company for a triple completion. Applicant, in the above-styled cause, seeks an order authorizing it to triple complete its Brsech "F" Well No. PMD-8, located in the NE/4 NE/4 of Section 34, Township 27 North, Range 5 West, Rio Arriba County, New Mexico, in such a manner as to produce gas from the South Blanco-Pictured Cliffs Pool, gas from the Mesaverde formation, and gas from the Dakota formation through parallel strings of tubing.
- CASE 1697: Application of Universal Oil Corporation for the creation of a new oil pool for Gallup production, and for an exception to Rules 104 and 107 for wells in said pool. Applicant, in the above-styled cause, seeks an order creating a new pool for Gallup production to be designated the Shiprock-Gallup Oil Pool and located in Sections 16 and 17, Township 29 North, Range 18 West, San Juan County, New Mexico. Applicant further seeks the promulgation of pool rules to permit wells in said pool to be located closer than 660 feet to the nearest producing well in exception to Rule 104, and to permit certain exceptions to the casing requirements of Rule 107 of the Commission Rules and Regulations.
- CASE 1698: Application of Shell Oil Company for an exception to Rule 502 I (a). Applicant, in the above-styled cause, seeks an order which would exempt all wells in the Carson Unit Area and all other Shell wells in Township 25 North, Ranges 11 and 12 West, Bisti-lower Gallup Oil Pool, San Juan County, New Mexico, from the daily tolerance provisions of Rule 502 I (a) of the Commission Rules and Regulations.
- CASE 1195: Application of Graridge Corporation for capacity allowables for certain wells in a water flood project. Applicant, in the above-styled cause, seeks an order authorizing capacity allowables for three wells in the project area of its water flood in the Caprock-Queen Pool in Lea and Chaves Counties, New Mexico.
- CASE 1196: Application of Graridge Corporation for an order amending Order No. R-966. Applicant, in the above-styled cause, seeks an order amending Order No. R-966 to establish administrative procedures for development of its Artesia Water Flood Projects No. 2 and 3, Artesia Pool, Eddy County, New Mexico, and for approval of unorthodox locations for 27 wells in said projects, for authority to convert six wells in said projects to water injection, and for capacity allowables for five wells in said projects.
- CASE 1185: Application of Graridge Corporation for an order amending Order No. R-952. Applicant, in the above-styled cause, seeks an order amending Order No. R-952 to establish administrative procedures for development of its Artesia Water Flood Project No. 1, Artesia Pool, Eddy County, New Mexico, and for approval of unorthodox locations for fifteen wells in said project, and for capacity allowables for five wells in said project.
- CASE 1699: Application of J. W. Brown for an order authorizing a pilot water flood project. Applicant, in the above-styled cause seeks an order authorizing it to institute a pilot water flood project in the Brown Pool, Chaves County, New Mexico, by the injection of water into the Queen formation through four wells located in the SE/4 NW/4 of Section 26, Township 10 South, Range 26 East, Chaves County, New Mexico.

- CASE 1337:** Application of Gulf Oil Corporation for an order amending Order No. R-1093-A. Applicant, in the above-styled cause, seeks an order amending Order No. R-1093-A to permit the commingling of Paddock production with the commingled Blinebry, Drinkard, and Langlie-Mattix production from its Learcy McBuffington lease consisting of the S/2 of Section 13, Township 25 South, Range 37 East, Justis Field, Lea County, New Mexico.
- CASE 1700:** Application of Gulf Oil Corporation for permission to commingle the production from two separate leases: Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the East Millman Queen-Grayburg Pool from two separate non-contiguous leases in Township 19 South, Range 28 East, Eddy County, New Mexico.
- CASE 1703:** Application of Tidewater Oil Company to commingle the production from several separate oil pools from two separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the intermediate grade crudes produced from its Coates "D" Lease comprising the SE/4 SW/4 of Section 24, Township 25 South, Range 37 East, Justis Field, Lea County, New Mexico, with the commingled production of all intermediate grade crudes produced from its Coates "C" Lease comprising the E/2, SE/4 NW/4, and the NE/4 SW/4 of said Section 24 and to pass such commingled production through its automatic custody transfer system.
- CASE 1704:** Application of Cities Service Oil Company for capacity allowables for nine wells in a water flood project and for establishment of administrative procedure for expansion of said project. Applicant, in the above-styled cause, seeks an order authorizing capacity allowable for nine wells in the project area of its water flood project in the Caprock-Queen Pool, Chaves County, New Mexico. Said capacity allowables would be in exception to Order R-1128-A. Applicant further seeks establishment of an administrative procedure to expand said water flood project.
- CASE 1705:** Application of Neville G. Penrose, Inc., for a capacity allowable for one well. Applicant, in the above-styled cause, seeks an order authorizing a capacity allowable for its Alston Well No. 2, located in the NW/4 NW/4 of Section 11, Township 14 South, Range 31 East, Caprock Queen Pool, Chaves County, New Mexico, due to a response from the adjoining Cities Service Oil Company water flood project. Said capacity allowable would be in exception to Order R-1128-A.

NEW MEXICO OIL CONSERVATION COMMISSION

Docket No. 23-59-a

In addition to the cases listed on Docket No. 23-59, the following cases will also be heard June 24, 1959, before Elvis A. Utz, Examiner, or A. L. Porter, Jr., Secretary-Director:

- CASE 1701: Application of Gulf Oil Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Learcy McBuffington Well No. 5, located in the NW/4 SE/4, Section 13, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from an undesignated Paddock Pool and oil from the Justis-Ellenburger Pool through parallel strings of tubing.
- CASE 1702: Application of Humble Oil & Refining Company for an oil-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its South Four Lakes Unit Well No. 6, located in the SW/4 SE/4, Section 2, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to produce oil from a Four Lakes-Pennsylvanian Pool extension and gas from a Four Lakes-Devonian Gas Pool extension through parallel strings of tubing.
- CASE 1706: Application of Sunray Mid-Continent Oil Company for an order amending Order No. R-1414. Applicant, in the above-styled cause, seeks an order amending Order No. R-1414 to include the following additional acreage: NW/4 NW/4 of Section 6, Township 25 North, Range 12 West, and the SW/4 SW/4 of Section 31, Township 26 North, Range 12 West, San Juan County, New Mexico.

Place of hearing will be Highway Department Auditorium, 1120 Cerrillos Road, Santa Fe, New Mexico.

Time of hearing will be 8:00 o'clock a.m.

MAIN OFFICE OCC

1959 JUN 12 AM 8:15

BEFORE THE OIL CONSERVATION COMMISSION OF THE
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
SUNRAY MID-CONTINENT OIL COMPANY FOR
AN ORDER AMENDING ORDER NO. R-1414
IN CASE NO. 1665 TO INCLUDE ADDITIONAL
ACREAGE IN THE BISTI-LOWER GALLUP OIL
POOL IN SAN JUAN COUNTY, NEW MEXICO.

Case No. 1706

APPLICATION

TO: THE HONORABLE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO.

Comes now the Applicant, Sunray Mid-Continent Oil Company, and respectfully alleges and states as follows:

1. That it is the owner and operator of the following described acreage within the limits of the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico;

2. That in the interest of conservation, the prevention of waste and to more effectively and efficiently operate the L.P.G.-Gas-Water Injection Project heretofore authorized by Order No. R-1414 in Case No. 1665, said Order should be amended to include additional acreage consisting of the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$, Section 31, Township 26 North, Range 12 West, San Juan County, New Mexico; and the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 6, Township 25 North, Range 12 West, San Juan County, New Mexico.

WHEREFORE, Applicant prays that this Application be set for hearing, that notice be given as required by law, and that upon the evidence adduced at such hearing the Commission issue an Order amending Order No. R-1414 as herein requested.

SUNRAY MID-CONTINENT OIL COMPANY

By: W. R. Loar
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Tulsa 2, Oklahoma

By L. C. White
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Santa Fe, New Mexico

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*Recd
Mailed
6-12-59
SK*