

CASE 2858: Application of STANDARD
OIL CO. OF TEXAS for special rules
for LA PLATA-GALLUP OIL POOL.

Case No.

2858

Application, Transcript,
Small Exhibits, Etc.

JASON W. KELLAHIN
ROBERT E. FOX

KELLAHIN AND FOX

ATTORNEYS AT LAW

544 EAST SAN FRANCISCO STREET
POST OFFICE BOX 1713

SANTA FE, NEW MEXICO

TELEPHONES
983-9396
982-2991

July 1, 1963

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

Gentlemen:

Enclosed are two copies each of the following plats
for filing in the respective cases presently set for
hearing before the Oil Conservation Commission on July
10:

Plats of Boulder Mancos Pool, for filing in
Case No. 2857

Plats of La Plata-Gallup Pool, for filing in
case No. 2858.

Very truly yours,

Jason W. Kellahin

JASON W. KELLAHIN

jwk:mas
enclosures

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF STANDARD OIL COMPANY OF
TEXAS, A DIVISION OF CALIFORNIA OIL COMPANY,
FOR AN ORDER ESTABLISHING 80-ACRE PRORATION
UNITS FOR THE LA PLATA-GALLUP POOL,
SAN JUAN COUNTY, NEW MEXICO

Case No. 2858

APPLICATION

Comes now Standard Oil Company of Texas, a Division of California Oil Company, and applies to the Oil Conservation Commission of the State of New Mexico for an order to provide for the establishment of 80-acre proration units to consist of adjacent quarter-quarter sections of a single governmental quarter section, with wells to be located within 200 feet of the center of either quarter-quarter section of the unit, and for such other and further orders as the Commission may deem proper.

In support of this application, the applicant would show the Commission:

1. That applicant has oil and gas leases in Sections 5, 7, and 8 in Township 31 North, Range 13 West, Rio Arriba County, within the designated boundaries of the La Plata Pool.

2. That applicant has completed its Federal 12-5 Well No. 1 in the Tocito-Gallup formation, located in the SW/4 of SW/4 of Section 5, Township 31 North, Range 13 West, San Juan County. The subject well is the only producing well and there have been four unsuccessful tests of the Tocito-Gallup formation in nearby dry holes.

3. That on the basis of information presently available it is believed that an 80-acre proration unit can be efficiently and economically drained and developed by one well and the establishment of 80-acre proration units is in the interest of conservation, would prevent economic loss caused by the drilling of unnecessary wells, would prevent waste, would avoid risks arising from the drilling of an excessive number of wells, and would protect correlative rights.

WHEREFORE, applicant requests that this application be set for hearing and that, after notice and hearing as provided by law, the Commission enter its order establishing 80-acre proration units for the La Plata Gallup Pool and such other and further orders as may be proper.

Respectfully submitted.

STANDARD OIL COMPANY OF TEXAS
A DIVISION OF CALIFORNIA OIL COMPANY

By R. L. McGannon
R. L. McGannon, Attorney

EXHIBIT NO. 1

PROPOSED RULES
LA PLATA-GALLUP POOL
SAN JUAN COUNTY, NEW MEXICO

RULE 1. Each well completed in the La Plata-Gallup Pool or in the Gallup formation within one mile of the La Plata-Gallup Pool and not nearer to nor within the limits of another designated Gallup pool shall be spaced, drilled, operated, and prorated in accordance with the rules hereinafter set forth.

RULE 2. Each well completed or recompleted in the La Plata-Gallup Pool shall be located on a unit containing 80 acres, more or less, which consists of any two contiguous quarter-quarter sections of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. All wells projected to or completed in the La Plata-Gallup Pool shall be located within 200 feet of the center of either quarter-quarter section in the unit.

RULE 4. For good cause shown, the Secretary-Director may grant an exception to Rule 2 without notice and hearing where an application has been filed in due form and where:

1. The non-standard unit consists of a single quarter-quarter section or lot.
2. The non-standard unit may be reasonably presumed productive.
3. The applicant presents waivers from all offset operators, or proof of notification of offset operators (in which case 20 days delay required).

RULE 5. For topographic reasons, the Secretary-Director may grant an exception to Rule 3 without notice and hearing upon presentation of waivers or proof of notification (after 20 days delay).

RULE 6. The allowable assigned to any non-standard proration unit shall bear the same ratio to a standard allowable in the La Plata-Gallup Pool as the acreage in the non-standard unit bears to 80 acres.

RULE 7. An 80-acre proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.33 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from said wells in any proportion.

RULE 8. All wells completed in or drilling to the La Plata-Gallup Pool at the time this order becomes effective are hereby granted exception to Rule 3.

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. 2184
Order No. R-1882

APPLICATION OF TENNESSEE GAS
TRANSMISSION COMPANY FOR THE
PROMULGATION OF SPECIAL RULES
AND REGULATIONS GOVERNING THE
TOTAH-GALLUP OIL POOL, SAN
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on ~~February 15, 1961~~, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 23rd day of ~~February~~, 196~~1~~², the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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.

LaPlata.
(2) That the applicant, ~~Tennessee Gas Transmission Company~~, proposes that special rules and regulations be promulgated governing the ~~Totah-Gallup Oil Pool~~, Township ~~29~~ North, Range ~~13~~ West, NMPM, San Juan County, New Mexico, including a provision for 80-acre oil proration units.

(3) That the evidence available at this time indicates that the ~~Gallup~~ reservoir underlying the ~~Totah-Gallup Oil Pool~~ may be efficiently and economically drained and developed on 80-acre proration units and that it may be uneconomical to drill wells in said pool on 40-acre proration units.

(4) That the evidence presently available does not justify permanent 80-acre rules and regulations in the ~~Totah-Gallup Oil Pool~~, and, accordingly, a temporary one-year order should be entered.

(5) That during the one-year period in which this order will be in effect, the applicant should gather all available

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CASE No. 2184
Order No. R-1882

information relative to drainage and recoverable reserves in the subject pool.

Am (6) That this case should be heard again during the month of ~~March~~, 1961, at which time the applicant should be prepared to prove by a preponderance of the evidence why the subject pool should not be developed on 40-acre proration units.

IT IS THEREFORE ORDERED:

That temporary special rules and regulations for the ~~Totah~~ Gallup Oil Pool, Township ~~2~~ North, Range 13 West, NMPM, San Juan County, New Mexico, are hereby promulgated as follows, effective April 1, 1961.

Aug 11, 1963

SPECIAL RULES AND REGULATIONS
FOR THE ~~TOTAH~~-GALLUP OIL POOL

La Platan

RULE 1. Each well completed or recompleted in the ~~Totah~~-Gallup Oil Pool or in the Gallup formation within one mile of the ~~Totah~~-Gallup Oil Pool, and not nearer to ~~nor~~ within the limits of another designated Gallup oil pool, shall be spaced, drilled, operated, and ~~prorated~~ in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the ~~Totah~~-Gallup Oil Pool shall be located on a unit containing approximately 80 acres, which consists of any two contiguous quarter-quarter sections of a single governmental quarter section. For purposes of these Rules, a unit consisting of between 79 and 81 surface contiguous acres shall be considered a standard unit.

RULE 3. Each well projected to or completed in the ~~Totah~~-Gallup Oil Pool shall be located within 150 feet of the center of either quarter-quarter section in the 80-acre unit; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the 80-acre unit.

RULE 4. For good cause shown, the Secretary-Director may grant an exception to Rule 2 without notice and hearing where an application has been filed in due form, and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Lands Survey, or where the following facts exist and the following provisions are complied with:

(1) The non-standard unit is to consist of a single quarter-quarter section or lot.

(2) The non-standard unit consists of not more than 81 acres.

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CASE No. 2184
Order No. R-1882

(3) The entire non-standard unit may reasonably be presumed to be productive of oil from said pool.

(4) The applicant presents written consent in the form of waivers from all offset operators.

(5) In lieu of Paragraph 4 of this Rule, the applicant may furnish proof of the fact that all of the offset operators were notified of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no such operator has entered an objection to the formation of the non-standard unit.

RULE 5. The District Supervisor shall have authority to approve non-standard oil proration units without notice and hearing and without administrative approval by the Secretary-Director if such unit consists of two lots or tracts comprising less than 79 surface contiguous acres and the non-standard unit is necessitated by a variation in the United States Public Lands Survey.

RULE 6. The allowable assigned to any non-standard proration unit shall bear the same ratio to a standard allowable in the Totah-Gallup Oil Pool as the acreage in the non-standard unit bears to 80 acres.

RULE 7. An 80-acre proration unit (79 through 81 acres) in the Totah-Gallup Oil Pool shall be assigned an 80-acre proportional factor of 2.33 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from said wells in any proportion.

IT IS FURTHER ORDERED:

That operators who propose to dedicate 80 acres to a well in the Totah-Gallup Oil Pool must file an amended Commission Form C-128 with the Aztec District Office of the Commission by *July 22, 1963* ~~March 15, 1961~~, in order that the well may be assigned an 80-acre allowable on the April proration schedule.

IT IS FURTHER ORDERED:

Aug 1962 That this case shall be heard again during the month of ~~March, 1962~~, at which time the applicant shall appear and show cause why the Totah-Gallup Oil Pool should not be developed on 40-acre proration units.

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CASE No. 2184
Order No. R-1882

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

A. L. PORTER, Jr. Member & Secretary

S E A L

✓
Case 2858.

Heard 7-10-63.

Rec. 7-12-63.

1. Grant ~~Std~~ of Tex. a one year temporary,
order with rules as written in
R. 1882 for the La Plata Saltpetre
at P. Pool.

Thurs. 7-12-63

58815, 1923/W
1320
603

660
150
510



STANDARD OIL COMPANY OF TEXAS

Drawer "S"
Monahans, Texas
August 27, 1963

File

CASE NO. 2858, ORDER NO. R-2549
SPECIAL POOL RULES, SAN JUAN CO., N.M.
LA PLATA-GALLUP OIL POOL

New Mexico Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico

Gentlemen:

In accordance with Order No. R-2549 to notify the NMOCC of name and location of completed wells in the La Plata-Gallup Oil Pool that will not comply with well location requirements of Rule 3, Order No. R-2549, Case No. 2858, The Standard Oil Company of Texas, A Division of California Oil Company respectfully submits the following information:

Well Name: Federal 12-5 No. 1

Well Location: (A) Surface Location: 566' FSL, 1604' FWL; Unit Letter "N"; Section 5; T-31N, R-13W; San Juan County, N.M.
(B) Bottom Hole Location: 836' FSL, 555' FWL; Unit Letter "M"; Section 5; T-31N, R-13W; San Juan County, N.M.

The 40 acres in Unit "M" is presently dedicated to the subject well.

Yours very truly,

S. J. Mathews, Jr.
S. J. Mathews, Jr.
District Superintendent

GBV:ja



NUMBER OF COPIES RECEIVED	
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STATE	
U.S.D.	
LAND OFFICE	
TRANSPORTER	OIL GAS
PRODUCTION OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT
 SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

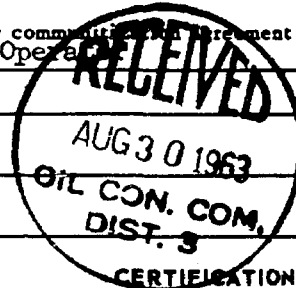
FORM C-128
Revised 5/1/57

SECTION A

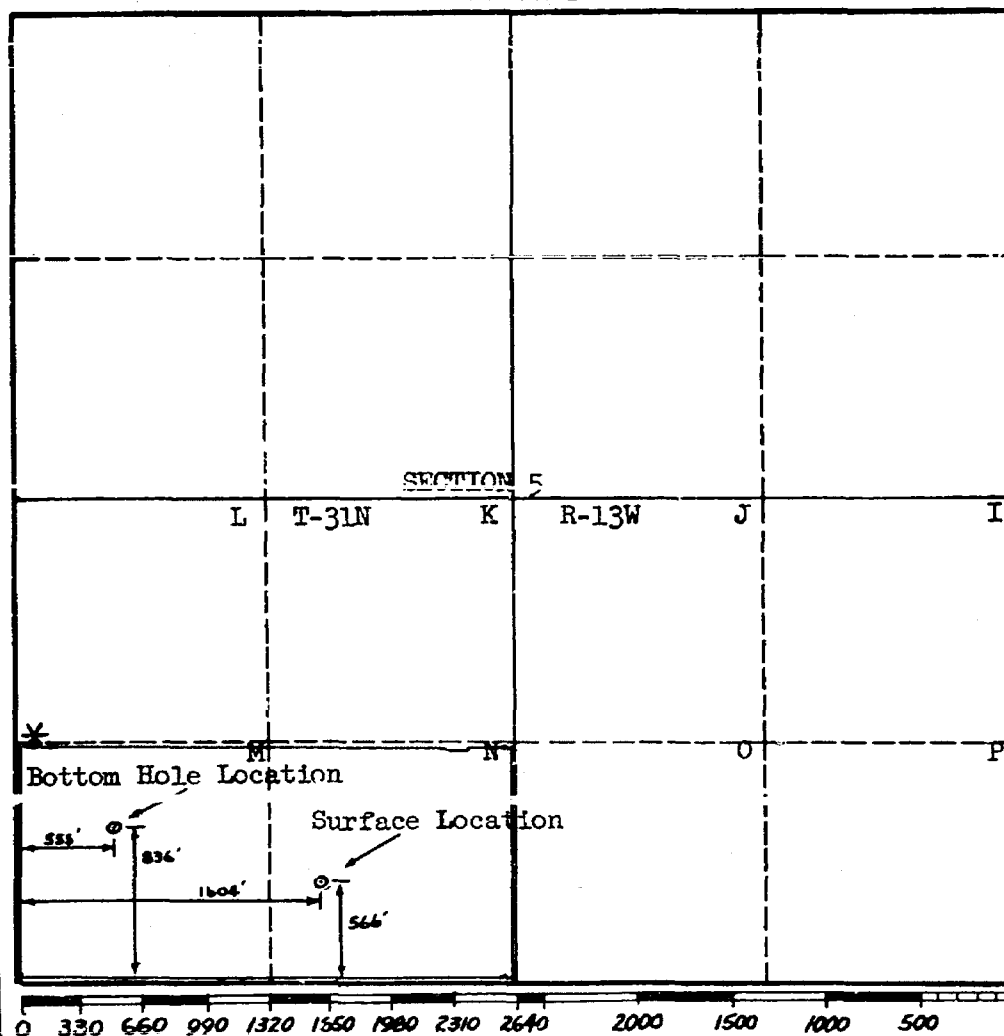
Operator <u>Standard Oil Company of Texas, A</u>			Lease <u>Federal 12-5 (0271-A)</u>		Well No. <u>1</u>
Division of <u>California Oil Company</u>					
Unit Letter <u>N *</u>	Section <u>5</u>	Township <u>31 North</u>	Range <u>13 West</u>	County <u>San Juan County</u>	
Actual Footage Location of Well: <u>566</u> feet from the <u>South</u> line and <u>1604</u> feet from the <u>West</u> line					
Ground Level Elev. <u>5932</u>	Producing Formation <u>Tocito-Gallup</u>	Pool <u>La Plata-Gallup Pool</u>	Dedicated Acreage: <u>80</u> Acres		

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES _____ NO X . ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by community agreement or otherwise? YES X NO _____. If answer is "yes," Type of Consolidation Designated Operator
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description



SECTION B



I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief.

Name <u>J. L. Rowland</u>
Position <u>District Engineer</u>
Company <u>Standard Oil Co. of Texas</u>
<u>Div. of California Oil Co.</u>
Date <u>August 27, 1963</u>

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
Registered Professional Engineer and/or Land Surveyor

Certificate No.

INSTRUCTIONS FOR COMPLETION OF FORM C-122

1. Operator shall furnish and certify to the information called for in Section A.
2. Operator shall outline the dedicated acreage for both oil and gas wells on the plat in Section B.
3. A registered professional engineer or land surveyor registered in the State of New Mexico or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
4. All distances shown on the plat must be from the outer boundaries of the Section.
5. If additional space is needed for listing owners and their respective interests as required in question 3 of Section A, please use space below.

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



P. O. BOX 871
SANTA FE

LAND COMMISSIONER
E. B. JOHNNY WALKER
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

August 14, 1963

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1713
Santa Fe, New Mexico

Re: Case No. 2858 DOCKET MAILED
Order No. 2-2549 Date 7-24-64
Applicant: Standard Oil Company of Texas

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, JR.
Secretary-Director

ix/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Antec OCC x

OTHER

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 5, 1964

9 A. M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, alternate examiner:

CASE 2355 (Reopened):

In the matter of Case No. 2355 being reopened pursuant to the provisions of Order No. R-2051-B, which order continued for one year the temporary rules set out in Order No. R-2051 establishing 320-acre gas spacing units for the Bluit-Wolfcamp Gas Pool, Roosevelt County, New Mexico. All interested parties may appear and show cause why said pool should not be developed on 160-acre units.

CASE 2575 (Reopened):

In the matter of Case No. 2575 being reopened pursuant to the provisions of Order No. R-2267-A, which order continued for another year the temporary rules set out in Order No. R-2267 establishing 80-acre oil proration units and 320-acre gas proration units for the Lybrook-Gallup Oil Pool, Rio Arriba County, New Mexico. All interested parties may appear and show cause why said pool should not be developed on 160-acre gas proration units and 40-acre oil proration units.

CASE 2858 (Reopened):

In the matter of Case No. 2858 being reopened pursuant to the provisions of Order No. R-2549, which order established temporary 80-acre spacing units for the La Plata-Gallup Oil Pool, San Juan County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 2887 (Reopened):

In the matter of Case No. 2887 being reopened pursuant to the provisions of Order No. R-2559, which order established temporary 80-acre spacing units for the West Kemnitz-Lower Wolfcamp Oil Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

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. 2858
Order No. R-2549

APPLICATION OF STANDARD OIL COMPANY
OF TEXAS FOR SPECIAL POOL RULES, SAN
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 10, 1963, 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 14th day of August, 1963, 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 the applicant, Standard Oil Company of Texas, seeks the promulgation of temporary special rules and regulations for the La Plata-Gallup Oil Pool, including a provision for 80-acre spacing units.
- (3) That temporary special rules and regulations establishing 80-acre spacing should be promulgated for the subject pool in order to prevent the possibility of economic loss resulting from the drilling of unnecessary wells and in order to allow the operators in the subject pool to gather information concerning the reservoir characteristics of the pool.
- (4) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.
- (5) That the temporary special rules and regulations should be established for a one-year period and that during

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CASE No. 2858
Order No. R-2549

this one-year period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.

(6) That this cause should be reopened at an examiner hearing in August, 1964, at which time the operators in the subject pool should appear and show cause why the La Plata-Gallup Oil Pool should not be developed on 40-acre spacing units.

IT IS THEREFORE ORDERED:

That special rules and regulations for the La Plata-Gallup Oil Pool are hereby promulgated as follows, effective September 1, 1963.

SPECIAL RULES AND REGULATIONS
FOR THE
LA PLATA-GALLUP OIL POOL

RULE 1. Each well completed or recompleted in the La Plata-Gallup Oil Pool or in the Gallup formation within one mile of the La Plata-Gallup Oil Pool, and not nearer to or within the limits of another designated Gallup oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the La Plata-Gallup Oil Pool shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a single quarter-quarter section or lot. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well projected to or completed in the La Plata-Gallup Oil Pool shall be located within 150 feet of the center of a single governmental quarter-quarter section; provided, however, that nothing contained herein shall be construed as prohibiting

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CASE No. 2853
Order No. R-2549

the drilling of a well on each quarter-quarter section in a standard unit.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) in the La Plata-Gallup Oil Pool shall be assigned an 80-acre proportional factor of 2.33 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable in the La Plata-Gallup Oil Pool as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

(1) That any well presently drilling to or completed in the Gallup formation within the La Plata-Gallup Oil Pool or within one mile of the La Plata-Gallup Oil Pool that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4. The operator shall notify the Aztec District Office in writing of the name and location of the well on or before September 1, 1963.

(2) That any operator desiring to dedicate 80 acres to a well presently drilling to or completed in the La Plata-Gallup Oil Pool shall file a new Form C-128 with the Commission on or before September 1, 1963.

(3) That this case shall be reopened at an examiner hearing in August, 1964, at which time the operators in the subject pool may appear and show cause why the La Plata-Gallup Oil Pool should not be developed on 40-acre spacing units.

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CASE No. 2858
Order No. R-2549

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M Campbell

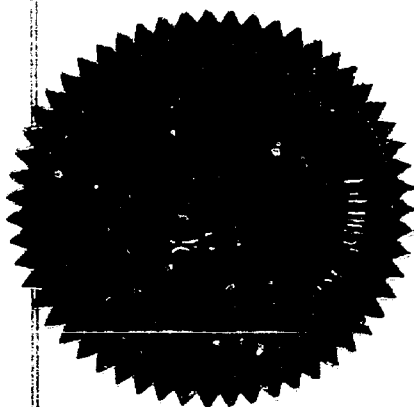
JACK M. CAMPBELL, Chairman

E. S. Walker

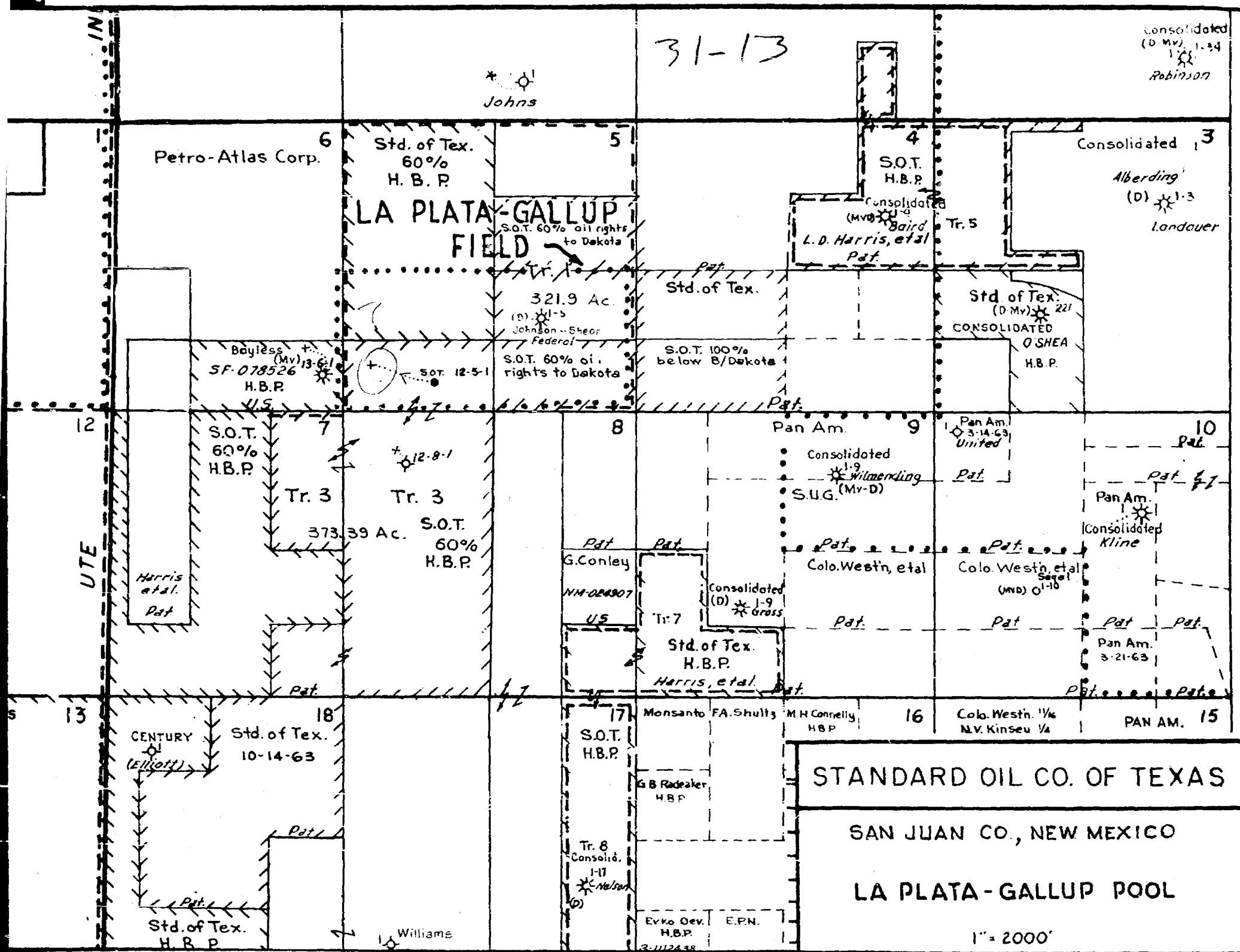
E. S. WALKER, Member

A. L. Porter, Jr.

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



ear/



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF STANDARD OIL COMPANY OF
TEXAS, A DIVISION OF CALIFORNIA OIL COMPANY,
FOR AN ORDER ESTABLISHING 80-ACRE PRORATION
UNITS FOR THE LA PLATA-GALLUP POOL,
SAN JUAN COUNTY, NEW MEXICO

Case No. 2858

APPLICATION

Comes now Standard Oil Company of Texas, a Division of California Oil Company, and applies to the Oil Conservation Commission of the State of New Mexico for an order to provide for the establishment of 80-acre proration units to consist of adjacent quarter-quarter sections of a single governmental quarter section, with wells to be located within 200 feet of the center of either quarter-quarter section of the unit, and for such other and further orders as the Commission may deem proper.

In support of this application, the applicant would show the Commission:

1. That applicant has oil and gas leases in Sections 5, 7, and 8 in Township 31 North, Range 13 West, Rio Arriba County, within the designated boundaries of the La Plata Pool.

2. That applicant has completed its Federal 12-5 Well No. 1 in the Tocito-Gallup formation, located in the SW/4 of SW/4 of Section 5, Township 31 North, Range 13 West, San Juan County. The subject well is the only producing well and there have been four unsuccessful tests of the Tocito-Gallup formation in nearby dry holes.

3. That on the basis of information presently available it is believed that an 80-acre proration unit can be efficiently and economically drained and developed by one well and the establishment of 80-acre proration units is in the interest of conservation, would prevent economic loss caused by the drilling of unnecessary wells, would prevent waste, would avoid risks arising from the drilling of an excessive number of wells, and would protect correlative rights.

WHEREFORE, applicant requests that this application be set for hearing and that, after notice and hearing as provided by law, the Commission enter its order establishing 80-acre proration units for the La Plata-Gallup Pool and such other and further orders as may be proper.

Respectfully submitted.

STANDARD OIL COMPANY OF TEXAS
A DIVISION OF CALIFORNIA OIL COMPANY

By R. L. McGannon
R. L. McGannon, Attorney

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 5, 1964

EXAMINER HEARING

IN THE MATTER OF: (Reopened)

Case No. 2858 being reopened pursuant to the provisions of Order No. R-2549, which order established temporary 80-acre spacing units for the La Plata-Gallup Oil Pool, San Juan County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

Case No. 2858

BEFORE: ELVIS A. UTZ, Examiner.

TRANSCRIPT OF HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691



MR. UTZ: We will call Case 2858.

MR. DURRETT: In the matter of Case No. 2858 being reopened pursuant to the provisions of Order No. R-2549.

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, Santa Fe, representing the Applicant. We have one witness I would like to have sworn, please.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1-b through 5-b were marked for identification.)

M. E. McCUTCHEN

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A M. E. McCutchen.

Q Spell that, please.

A M-c C-u-t-c-h-e-n.

Q By whom are you employed and in what position, Mr. McCutchen?

A I'm employed by Standard Oil Company of Texas in the Proration Department.

Q Have you ever testified before the Oil Conservation

Commission of New Mexico?

A I have not.

Q For the benefit of the Examiner, would you outline your education and experience?

A I was graduated from Colorado School of Mines with a Bachelor of Science in 1961. Subsequent to that time I went to work for Standard Oil Company of Texas in Snyder, Texas, where I was production engineer for the two years, and for the last year and a half I have been employed in the Proration Department in Houston.

Q In connection with your work in the Reserves and Proration Department does the La Plata Oil Pool come under your jurisdiction?

A It does.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. UTZ: Yes, sir.

Q Are you familiar with the Case No. 2858 that is being reopened at this time?

A I am.

Q In connection with that there was an order entered setting up temporary 80-acre spacing unit for the La Plata-Gallup Oil Pool, San Juan County, New Mexico. What is the

present position of Standard Oil Company of Texas in connection with this order?

A Since the previous hearing there have been no changes in the area of the La Plata-Gallup Oil Pool. There have been no additional wells drilled and the production has not varied substantially from that time.

As shown on the Exhibit 1-b for this hearing, which was presented at the previous hearing, there are three wells in the vicinity of the producing well, the Standard of Texas 12-5 No. 1. Each of these wells was primarily drilled to test the Gallup reservoir. As you can see, not a one of the wells was completed in the Gallup. There's a dry hole to the south, a Dakota well to the northeast, and a Mesaverde well to the west. In none of these wells was the Gallup developed to justify, sufficiently developed to justify completion.

Q Would you say, then, on the basis of this information that the boundaries of the La Plata-Gallup Oil Pool have been substantially defined?

A I would, I would say no further development is anticipated.

Q Have you prepared a production curve showing the performance of the single well in the pool?

A I have.

Q Referring to what has been marked as Exhibit 2-b, will you discuss the information shown on that exhibit?

A As shown on the exhibit, there has been very little variation on the average of the production from the Federal 12-5 No. 1, the only well in the pool. In September of '63 the well was acidized in order to stimulate production, and it did have a small response. In January of '64 another and larger acid treatment was tried, which indicates that we have increased our production, oh, approximately 400 barrels a month as a result of that treatment.

Q Have you prepared a tabulation of the production from this well?

A I have, and this reflects the same information as shown on the production curve.

Q That is the basis on which the production curve was prepared?

A That is correct.

Q That is marked as Exhibit 3-b?

A Yes.

Q Referring to what has been marked as Exhibit 4-b, would you identify that exhibit and discuss it?

A Exhibit 4-b is a tabulation of the general reservoir characteristics of the La Plata-Gallup Pool. Substantially

these are the same as were presented in the previous hearing, with the exception of the cumulative oil production and the produced GOR which is now 352 cubic feet per barrel and a cumulative production is 166,672 barrels of oil through April of '64; gas production is 68,100 MCF. The remainder of the information is substantially the same as presented in the previous hearing.

Q Now, referring to what has been marked as Exhibit No. 5-b, would you identify that exhibit and discuss that?

A That is the pressure build-up analysis taken August 29, 1962, also presented at our previous hearing, which reflects the pressure build up in the Federal 12-5 No. 1 and was used in the calculation of reserves and drainage for the previous hearing, which there have been no changes in that either since we have no further pressure data on the well.

Q For what reason do you not have any further pressure data?

A The well has been put on the pump.

Q The pressure data at this point would be meaningless?

A Right.

Q In the prior hearing in this case, Mr. McCutchen, there was testimony and evidence presented as to the economics of the operation in the La Plata-Gallup Oil Pool. Have you

examined that information?

A I have.

Q Is there any change in the information offered in that case?

A No, sir. Inasmuch as no further wells have been drilled and we're still faced with a one and four risk factor, the economics are still the same.

Q At the same hearing information as to drainage of the well and calculations were offered to the Examiner. Is there any difference in the calculations today and as of that time?

A Our calculations with respect to drainage, based on the initial pressure data, and our subsequent build up test, we have made no further reservoir calculations either with respect to reservoir performance or to reserves.

Q In your opinion, were the calculations presented at that time a valid analysis of the performance of this well and its drainage pattern?

A On the basis of the information we had available I believe they were the best we could get.

Q Would it be possible for you to get any further information?

A No, I don't think we can obtain any more relevant information inasmuch as our pressure information would be at

best secondary to the information we had when the well was flowing.

Q Is there any other area in the northwestern part of the State of New Mexico which is comparable to the La Plata-Gallup Oil Pool in your opinion?

A This Gallup reservoir is similar to the Puerto Chiquito reservoir inasmuch as they are both fractured shale and silt zones and have similar characteristics. It's our understanding that pool has been recommended to be, or the Oil Commission order has been entered to allow that pool to develop on 160 acres for three years and to be reconsidered at that time.

Q In your opinion the two pools are comparable, is that correct?

A Right, the reservoir characteristics are similar.

Q Will the well on this pool make the allowable assigned to it on the basis of an 80-acre proration unit?

A No, sir, it will not at this time. We hope with the substantial response we've had from these previous treatments to improve the productivity of the well. However, it will make from three to four hundred barrels over a 40-acre allowable.

Q Unless the 80-acre spacing is continued, the allowable would be curtailed on this particular well, is that correct?

A Yes, sir.

Q And do you anticipate there will be any further development in this pool?

A We have no plans for any further development.

Q For what reason, basically, would you say Standard Oil Company wants to continue the 80-acre spacing in the pool?

A Well, basically, of course, we can not justify further drilling inasmuch as these wells cost around \$260,000 to drill, and on the basis of the risk factor involved which would be one in four, you can't justify further development, and so in order to get full benefit from one well and eliminate the possibility of unnecessary wells, we recommend the 80-acre spacing.

Q In your opinion will one well adequately drain the 80-acre unit assigned to it?

A Yes, sir, in excess of 80 acres.

Q Were Exhibits 1-b through 5-b prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibits 1-b through 5-b.

MR. UTZ: The exhibits mentioned will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1-b through 5-b were offered and admitted in evidence.)

MR. KELLAHIN: That's all the questions I have, Mr.

Utz.

CROSS EXAMINATION

BY MR. UTZ:

Q Would 40-acre spacing cause you to have to drill another well in this pool?

A No, sir. I don't think we'd drill another well even if 40-acre spacing were ordered in this pool. However, it would affect our economics to the extent that it would approximately double the payout period and halve the rate of return.

Q What is the non-marginal allowable for this well now?

A I believe it's 174.

Q 174 barrels a day. What's the depth factor, do you recall?

A No, sir, I may have that here, though. 133 I believe for 40's, isn't it? 233 for 80.

Q Well, the well is producing a little more than a 40-acre allowable since 40-acre would be 279, and it looks like the maximum production is around 3,000 a month?

A Yes, sir. We estimated it was two to four hundred barrels a month over the 40-acre allowable, and as a result of our January, '64 treatment, there's some plans to go back in and treat this thing regularly in order to maintain this rate.

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Q Did you submit evidence at the last hearing to the effect that this was definitely a fractured reservoir?

A Yes, sir. We -- I don't believe we had core data, yes, we did, we had core data on this well. I don't know whether we presented it or not. I don't believe we did. I believe it was testified to that effect by the geologist, Mr. Murphy.

Q You say you did have core data on this well?

A Yes, sir, I believe so. We have core data I believe on this well and on the 13-6 No. 1, which is the well to the west. The Gallup section in that well showed very little fracturing and very slight show.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Any other statements in this case?

MR. KELLAHIN: That's all we have, Mr. Utz.

MR. UTZ: The case will be taken under advisement.

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXHIBIT TESTIMONY, DAILY COPY, CONVENTIONS

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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) SS

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 before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 13th day of August, 1964.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner Hearing of Case No. 2858.
Heard by me on Aug 5, 1964.
Shirley D. [Signature] Examiner
New Mexico Oil Conservation Commission

Case 2858

Heard 8-5-64

Rec. 8-5-64

1. The La Plata Pool Gallup oil pool was a 1 well pool 1 yr. ago and still is a one well pool. The witnesses in this case agreed that there would be no further development in the pool. West & South offsets have proven dry. Std of Sec. shows the acreage North & East. It follows then that the only purpose of ~~an~~ 80 spacing in this pool will be to increase allowable by some 3 or 400 barrels per acre and thereby decrease payout time. It seems that when 80 ~~the~~ spacing of wells serves only this purpose that it should be denied. I therefore recommend denial of requested extension of 80 ac spacing in La Plata - Gallup Oil Pool.

Thos. H. W.

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
E. B. JOHNNY WALKER
MEMBER

P. O. BOX 2088
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

September 9, 1964

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: CASE NO. 2575
2858
ORDER NO. R-2267-B and R-2549-A
APPLICANT Val R. Reese and
Standard Oil Company of Texas

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC X

Artesia OCC

Aztec OCC X

OTHER

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. 2858
Order No. R-2549-A

APPLICATION OF STANDARD OIL COMPANY
OF TEXAS FOR SPECIAL POOL RULES, SAN
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on August 5, 1964, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 8th day of September, 1964, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, 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 by Order No. R-2549 dated August 14, 1963, temporary Special Rules and Regulations were promulgated for the La Plata-Gallup Oil Pool.

(3) That pursuant to the provisions of Order No. R-2549, this case was reopened to allow the operators in the subject pool to appear and show cause why the La Plata-Gallup Oil Pool should not be developed on 40-acre spacing units.

(4) That no additional wells have been drilled in the subject pool since the issuance of Order No. R-2549 and the drilling of additional wells in the future is not anticipated.

-2-

CASE No. 2858
Order No. R-2549-A

(5) That no necessity exists for the continuation of the Special Rules and Regulations promulgated by Order No. R-2549 and that said rules should therefore be abolished.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the La Plata-Gallup Oil Pool promulgated by Order No. R-2549 are hereby abolished.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JACK M. CAMPBELL, Chairman


E. S. WALKER, Member


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

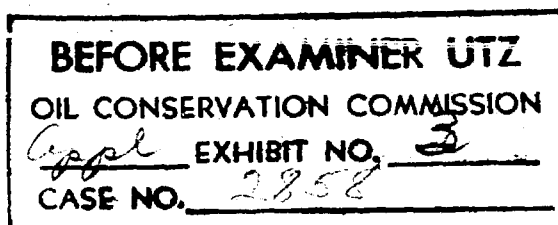


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EXHIBIT NO. 4

GENERAL RESERVOIR CHARACTERISTICS
LA PLATA POOL
SAN JUAN COUNTY, NEW MEXICO

Reservoir:	Tocito-Gallup
Type of Pay:	Fracture shale and siltstone
Type of Structure:	Monocline
Type of Drive:	Liquid expansion, solution gas, and gravity
Number of Wells:	One
Depth:	5,900' to 6,200' (through slotted liner)
Original FVF:	1.27
First BHP:	1462 psig (8-6-59) @ sea level
Original Estimated BHP:	1475 psig
Lates BHP:	1312 psig (8-29-62) @ sea level
Saturation Pressure:	1169 psig
Reservoir Temperature:	164° F. @ sea level
Gravity of Oil:	40° API
Specific Gravity of Gas:	0.893 @ Trap
Oil Viscosity in Reservoir:	1.3 cp above BP, 0.63 cp at BP
Original Solution GOR:	361 cfpb
Produced GOR:	390 cfpb (April 1963)
Cumulative Production:	129,831 Barrels Oil, 54,000 MCF Gas (April 30, 1963)
Calculated Transmissibility:	713 md-ft.
Calculated Permeability to Oil:	13 md. (minimum)



STANDARD OIL COMPANY OF TEXAS
 PRODUCTION HISTORY
 LA PLATA-GALLUP POOL
 SAN JUAN COUNTY, NEW MEXICO

	Oil Barrels	Gas MCF
<u>1962</u>		
January	2,980	1,275
February	2,700	1,156
March	2,992	1,281
April	2,813	1,204
May	2,955	1,265
June	2,833	1,213
July	2,886	1,235
August	2,944	1,260
September	2,912	1,246
October	2,982	1,163
November	2,957	1,153
December	3,015	874
	<u>34,969</u>	<u>14,325</u>
Cumulative to 12/31/62	<u>119,769</u>	<u>50,964</u>
<u>1963</u>		
January	2,993	1,167
February	1,838	717
March	2,807	1,095
April	2,873	1,120
May	2,872	1,120
June	2,859	1,115
July	2,922	1,029
August	3,012	1,060
September	3,123	1,099
October	2,817	992
November	2,841	1,000
December	3,006	1,058
	<u>33,963</u>	<u>12,572</u>
Cumulative to 1/1/64	<u>153,732</u>	<u>63,536</u>
<u>1964</u>		
January	3,479	1,225
February	3,209	1,130
March	3,372	1,187
April	2,835	998

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 3-B
 CASE NO. 2855

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 III

SEMI-LOGARITHMIC 359-71
KEUFFEL & ESSER CO.
1 CYCLE X 70 DIVIS

BUILDUP ANALYSIS
FEDERAL 12-5 No. 1
BUILDUP AUGUST 29, 1962

CALCULATIONS:

$T = 107,903 \text{ BBLs} \div 109 \text{ BPD} = 23,750 \text{ HRS.}$

$\text{TRANSMISSIBILITY} = KH = 162.6 \cdot Q \cdot \mu \cdot B / \Delta P$
 $= 162.6 \times 109 \times 1.3 \times 1.27 / 41$
 $= 713 \text{ MD-FT}$

$\text{PERMEABILITY} = (713 \text{ MD-FT}) / 55 \text{ FT} = 13 \text{ MD}$

BOTTOM HOLE PRESSURE (PSIG)

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 2858

SLOPE = 41 PSI / CYCLE

1260

1300

1320

1340

1360

1380

10

$\frac{T + \Delta T}{\Delta T}$

100

1000

GENERAL RESERVOIR CHARACTERISTICS
LA PLATA - GALLUP POOL
SAN JUAN COUNTY, NEW MEXICO

Reservoir:	Tocito-Gallup
Type of Pay:	Fractured shale and siltstone
Type of Structure:	Monocline
Type of Drive:	Liquid expansion, solution gas, gravity
Number of Wells:	One
Depth:	5900' to 6200'
Original FVF:	1.27
Original BHP (Est.):	1475 psig (8-6-59) @ sea level
Saturation Pressure:	1169 psig
Reservoir Temperature:	164° F. @ sea level
Gravity of Oil:	40° API
Specific Gravity of Gas:	0.893 @ Trap
Oil Viscosity in Reservoir:	1.3 cp above BP, 0.63 @ BP
Original Solution GOR:	361 cfpb
Produced GOR (April 1964)	352 cfpb
Cumulative Production (Through April 1964):	166,627 BO; 68,100 MCF Gas
Calculated Transmissibility:	713 md-ft.
Calculated Permeability to Oil:	13 MD (min.)

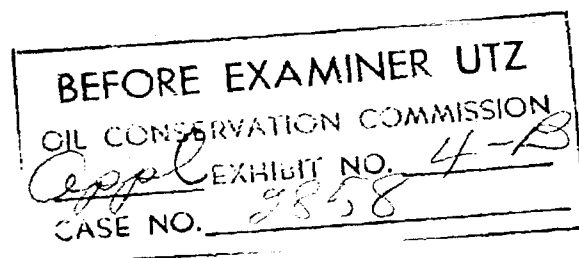


EXHIBIT NO. 6

RESERVES CALCULATION
LA PLATA-GALLUP POOL
SAN JUAN COUNTY, NEW MEXICO

<u>Date</u>	<u>BHP At Sea Level</u>	<u>Cumulative Production</u>
8-6-59	1462 psig	8,589 Barrels
8-29-62	1312 psig	107,903 Barrels

$$\text{Productivity} = \frac{107,903 - 8,589 \text{ Bbls.}}{1462 - 1312 \text{ psi}} = 662 \text{ Barrels/psi}$$

$$\begin{aligned} \text{Estimated Recovery to 100 psi} &= 107,903 + (1312 - 100 \text{ psi})(662 \text{ Bbls./psi}) \\ &= 909,903 \text{ Barrels} \end{aligned}$$

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
<u>Appl</u>	EXHIBIT NO. <u>5</u>
CASE NO.	<u>2858</u>

BUILDUP ANALYSIS
 FEDERAL 12-5 No. 1
 BUILDUP AUGUST 29, 1962

CALCULATIONS:

$T = \frac{107,903 \text{ BBLs}}{109 \text{ BPD}} = 23,750 \text{ HRS.}$

TRANSMISSIBILITY $= KH = \frac{Q \mu B}{\Delta P}$
 $= \frac{162.6 \times 109 \times 1.3 \times 1.27}{41}$
 $= 713 \text{ MD-FT}$

PERMEABILITY $= \frac{(713 \text{ MD-FT})}{55 \text{ FT}} = 13 \text{ MD}$

BEFORE EXAMINER: UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 579
 CASE NO. 2858

SLOPE = 41 PSI/CYCLE

Exhibit 4

$\frac{T + \Delta T}{\Delta T}$

EXHIBIT NO. 7

ESTIMATION OF DRAINAGE AREA
FEDERAL 12-5 NO. 1
LA PLATA-GALLUP POOL

1. Estimated Recovery Per Acre-Foot =

$$\frac{(7758 \text{ Bbls./Acre-Ft.})(\text{Fracture Porosity})(\text{Recovery Factor})}{\text{Formation Volume Factor}}$$

Where: Fracture Porosity = 2%. This figure is an estimation based on cores and neutron logs in nearby Verde-Gallup Pool. Cores showed an average matrix porosity of 5.6% (and matrix permeability of 0.05 md), while neutron logs showed a gross porosity of 7.7%. It is, therefore, assumed that fracture porosity is on the order of 2%.
Recovery Factor = 25%. This figure is assumed to be about the maximum per cent of oil-in-place that can be recovered from fractured shales.
Formation Volume Factor = 1.27 Bbls./Bbl., from fluid analysis.

So: Estimated Recovery Per Acre-Foot =

$$\frac{(7758 \text{ Bbls./Acre-Ft.})(.02)(.25)}{1.27} = 30.5 \text{ Bbls./Acre-Foot}$$

This estimate is believed reasonable, and, if in error at all, the figure should be optimistic. Verde-Gallup Pool is expected to produce about 17 barrels/acre-foot.

2. Estimated Net Pay = 230 Feet.

Federal 12-5 No. 1 was drilled below 5350' with gas. The well quit dusting and began producing oil while drilling at 5970' and continued producing oil to total depth of 6200'. If it is assumed that the entire 5970' to 6200' interval is productive, then net pay is 230 feet. It can be seen that this estimate is the maximum that can be reasonably assumed productive.

3. Estimated Drainage Area = $\frac{\text{Estimated Ultimate Recovery}}{(\text{Recovery Per Acre-Foot})(\text{Net Pay})}$ =

$$\frac{909,903 \text{ Bbls.}}{(30.5 \text{ Bbls./Acre-Foot})(230 \text{ Ft.})} = 130 \text{ Acres}$$

It can be seen that, since recovery per acre-foot and net pay figures were estimated at their maximum values, the resulting estimation of drainage area is conservative. In other words, the high recovery predicted from pressure decline cannot be accounted for volumetrically with less than 130 acres being drained.

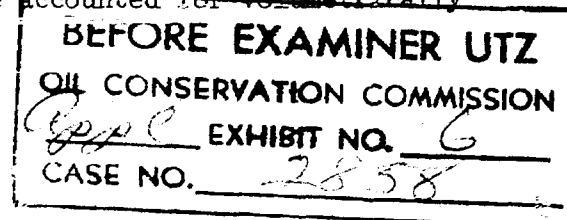


EXHIBIT NO. 8

ECONOMICS OF 40-ACRE V. 80-ACRE SPACING
LA PLATA-GALLUP POOL
SAN JUAN COUNTY, NEW MEXICO

80-Acre Spacing Assumptions

Development Costs: \$22,081 tangible, \$101,304 intangible, \$123,385 Total
Ultimate Recovery: 909,903 Barrels
Production Rate: Top Allowable 164 BOPD (59,860 Bbls./Year) for 11 Years,
20% decline thereafter
Crude Price: \$2.40/Barrel after trucking
Operating Cost: \$10/Well-Day
Dry Hole Risk Factor: 0.75

40-Acre Spacing Assumptions

Development Costs: \$22,081 tangible, \$101,304 intangible, \$123,385 Total
Ultimate Recovery: 454,951 Barrels
Production Rate: Top Allowable 94 BOPD (34,310 Bbls./Year) for 9 Years,
20% decline thereafter
Crude Price: \$2.40/Barrel
Operating Cost: \$10/Well-Day
Dry Hole Risk Factor: 0.75

Resulting Economics (Calculations Attached)

	<u>80-Acre Spacing</u>	<u>40-Acre Spacing</u>
Payout (Years)	3.76	6.49
Rate of Return	29.40	12.10
Net Profit or (Loss)	\$760,624	\$240,631
Net Investment	\$260,888	\$260,888
Profit-to-Investment Ratio	2.916	0.922

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
<i>Appl</i> EXHIBIT NO. <u>7</u>
CASE NO. <u>2858</u>

LA PLATA-GALLUP POOL
80-ACRE SPACING

WELL APPROPRIATION	PRODUCER	DRY HOLE	YEAR	PRODUCTION	PR TIMES F1 OR F2	NET CASH EARNINGS
TANGIBLES	22,081	22,081	1	52,378	73,593	62,443
INTANGIBLES	101,304	101,304	2	52,378	73,593	71,950
TOTAL WELL APPROPRIATION	123,385	123,385	3	52,378	73,593	71,950
PRORATE DTF MONIES	14,806	14,806	4	52,378	73,593	71,950
SUBTOTAL	138,191	138,191	5	52,378	73,593	71,950
DRY HOLE RISK INVESTMENT	414,573		6	52,378	73,593	71,950
LESS OTHER PRORATES			7	52,378	73,593	71,950
GROSS DEVELOPMENT WELL INV	552,764		8	52,378	73,593	71,950
LESS TAX CREDITS INTANGIBLES			9	52,378	73,593	71,950
DTF PRORATES AND DR RISK INV	291,876		10	52,378	73,593	71,950
NET DEVELOPMENT WELL INV	260,888		11	52,378	73,593	71,950
PRODUCTION COST PER YEAR	3,650		12	41,902	58,874	57,231
WORKING INTEREST	.875		13	33,436	46,979	45,336
DRY HOLE RISK FACTOR	.750		14	26,748	37,582	35,939
PD ALLOWABLE		164	15	21,399	30,066	28,423
			16	17,119	24,053	22,410
			17	13,695	19,242	17,599
PD PER YEAR		365	18	10,956	15,394	13,751
CRUDE PRICE PER BBL	2.400		19	8,765	12,315	10,672
GAS PRICE PER BBL	.000		20	7,011	9,851	8,208
TOTALS				757,189	1,063,879	1,021,512
PAYOUT PERIOD IN YEARS	3.760					
RATE OF RETURN IN PCT	29.400					

PAGE 1

BEFORE EXAMINER
OIL CONSERVATION CDM
CASE NO. 292
EXHIBIT NO. 1

LA PLATA-GALLUP POOL
40-ACRE SPACING

WELL		PRODUCER		W I		PR TIMES		NET CASH	
APPROPRIATION		DRY HOLE		YEAR		F1 OR F2		EARNINGS	
TANGIBLES		22,081		1		42,658		35,566	
INTANGIBLES		101,304		2		42,658		41,015	
TOTAL WELL APPROPRIATION		123,385		3		30,021		42,658	
PROGRATE DIF MONIES		14,806		4		30,021		42,658	
SUBTOTAL		138,191		5		30,021		42,658	
DRY HOLE RISK INVESTMENT		414,573		6		30,021		42,658	
LESS OTHER PROGRATES		552,764		7		30,021		42,658	
GROSS DEVELOPMENT WELL INV		291,876		8		30,021		42,658	
LESS TAX CREDITS INTANGIBLES		260,888		9		30,021		42,658	
DIF PROGRATES AND DR RISK INV		3,650		10		24,019		34,129	
NET DEVELOPMENT WELL INV		-875		11		19,206		27,290	
PRODUCTION COST PER YEAR		-750		12		15,365		21,833	
WORKING INTEREST		94		13		12,381		17,593	
DRY HOLE RISK FACTOR		365		14		9,905		14,074	
PD ALLOWABLE		2,400		15		7,928		11,265	
PD PER YEAR		-000		16		6,344		9,014	
CRUDE PRICE PER BBL		94		17		5,075		7,211	
GAS PRICE PER BBL		365		18		4,060		5,769	
TOTALS		6,490		19		3,251		5,426	
PAYOUT PERIOD IN YEARS		12.100		20		2,581		4,308	
RATE OF RETURN IN PCT		380,304				541,834		501,519	

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
CASE NO. 1034 EXHIBIT NO. 1

PRODUCTION TEST
LA PLATA-GALLUP POOL

<u>Well</u>	<u>Test Date</u>	<u>Production</u> <u>(24-Hr.)</u>
Federal 12-5 No. 1	6-18-63	165 BO, 0 BW

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Appl EXHIBIT NO. 10
CASE NO. 2858

EXHIBIT NO. 1

PROPOSED RULES
LA PLATA-GALLUP POOL
SAN JUAN COUNTY, NEW MEXICO

RULE 1. Each well completed in the La Plata-Gallup Pool or in the Gallup formation within one mile of the La Plata-Gallup Pool and not nearer to nor within the limits of another designated Gallup pool shall be spaced, drilled, operated, and prorated in accordance with the rules hereinafter set forth.

RULE 2. Each well completed or recompleted in the La Plata-Gallup Pool shall be located on a unit containing 80 acres, more or less, which consists of any two contiguous quarter-quarter sections of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. All wells projected to or completed in the La Plata-Gallup Pool shall be located within 200 feet of the center of either quarter-quarter section in the unit.

RULE 4. For good cause shown, the Secretary-Director may grant an exception to Rule 2 without notice and hearing where an application has been filed in due form and where:

1. The non-standard unit consists of a single quarter-quarter section or lot.
2. The non-standard unit may be reasonably presumed productive.
3. The applicant presents waivers from all offset operators, or proof of notification of offset operators (in which case 20 days delay required).

RULE 5. For topographic reasons, the Secretary-Director may grant an exception to Rule 3 without notice and hearing upon presentation of waivers or proof of notification (after 20 days delay).

RULE 6. The allowable assigned to any non-standard proration unit shall bear the same ratio to a standard allowable in the La Plata-Gallup Pool as the acreage in the non-standard unit bears to 80 acres.

RULE 7. An 80-acre proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.33 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from said wells in any proportion.

RULE 8. All wells completed in or drilling to the La Plata-Gallup Pool at the time this order becomes effective are hereby granted exception to Rule 3.

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	11
CASE NO.	2838

CALCULATIONS:

$Q = 107.903$ BBLS
109 BPD \bullet 23,750 HRS.

TRANSMISSIBILITY = $KH = 162.6 \frac{Q \mu B}{\Delta P}$
 $= 162.6 \times 0.9 \times 1.3 \times 1.27 / 41$
 $= 713$ MD-FT

PERMEABILITY = $(713 \text{ MD-FT}) / 55 \text{ FT} = 13 \text{ MD}$

BUILDUP ANALYSIS
FEDERAL 12-5 No. 1
BUILDUP AUGUST 29, 1962

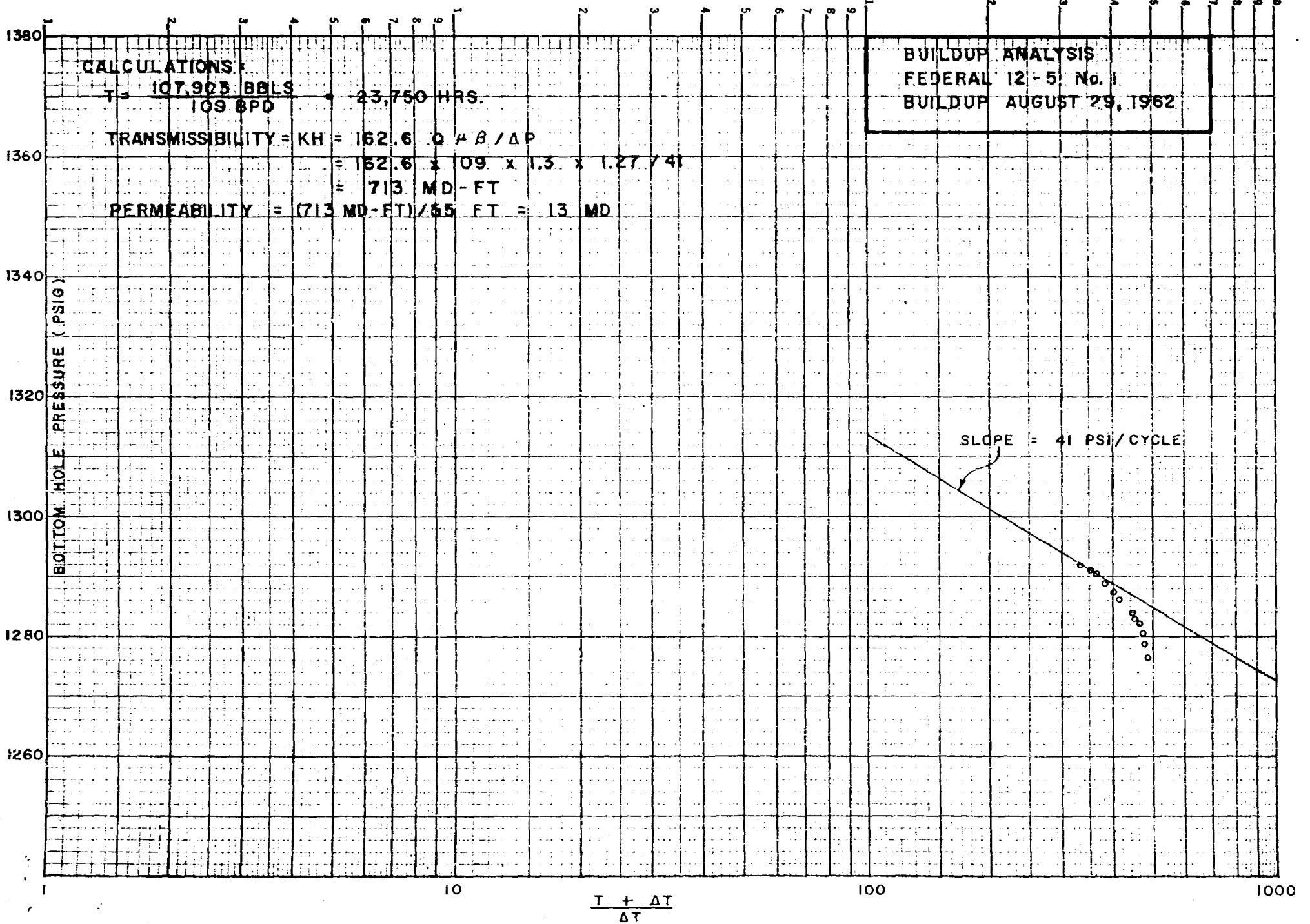


EXHIBIT NO. 6
RESERVES CALCULATION
LA PLATA-GALLUP POOL
SAN JUAN COUNTY, NEW MEXICO

<u>Date</u>	<u>MEF At Sea Level</u>	<u>Cumulative Production</u>
8-6-59	1462 psig	8,589 Barrels
8-29-62	1312 psig	107,903 Barrels

$$\text{Productivity} = \frac{107,903 - 8,589 \text{ Bbls.}}{1462 - 1312 \text{ psi}} = 662 \text{ Barrels/psi}$$

$$\begin{aligned} \text{Estimated Recovery to 100 psi} &= 107,903 + (1312 - 100 \text{ psi})(662 \text{ Bbls./psi}) \\ &= 909,903 \text{ Barrels} \end{aligned}$$

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 10, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of Standard Oil Company of Texas for
special pool rules, San Juan County, New Mexico.)
Applicant, in the above-styled cause, seeks the
establishment of special pool rules for the
La Plata-Gallup Oil Pool, San Juan County, New
Mexico, including provisions for 80-acre spacing
therein.)

CASE 2858

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: We will take up Case 2858.

MR. DURRETT: Application of Standard Oil Company of
Texas for special pool rules, San Juan County, New Mexico.

MR. KELLAHIN: May the record show the same appearances
as in the preceding case, and we will have the same witnesses,
Mr. Robert Murphy and Mr. John Cameron. May the record show that
they have been sworn?

MR. UTZ: The record will so show.

(Whereupon, Standard's Exhibits
Nos. 1 through 11 marked for
identification.)

ROBERT E. MURPHY

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

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DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Robert E. Murphy.

Q Are you the same Mr. Murphy who testified in Case 2857?

A Yes, sir.

Q Mr. Murphy, are you familiar with the application of Standard Oil Company of Texas in Case 2858?

A I am.

Q Would you state briefly what is proposed by Standard in this application?

A To establish 80-acre spacing in this pool.

Q Have you made a study of the La Plata Pool, --

A Yes, I have.

Q -- Gallup Oil Pool?

A I have.

Q On the basis of that study, have you prepared a structure map?

A Yes, sir.

Q Referring to what has been marked as Exhibit No. 1, will you identify that exhibit and discuss the information shown on it?

A Yes, sir. Exhibit No. 1 is a structure map; the mapping point in this case is what we call the top of the Lower Gallup. The scale of the map is one inch to 2,000 feet. The contour

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interval is 500 feet on all except the eastern portion of the map where we have shifted to 100-foot interval in the shallow dip area.

This pool is located on the northwest rim of the San Juan Basin in an area of relatively steep southeast dip. The Verde-Gallup Field is located four to five miles west of the La Plata-Gallup Pool. The production in the La Plata is from fractures in the Gallup shale section. Production in the Verde-Gallup is also from this type of reservoir; however, production in the two fields is separated by an absence of fracture in the area between the fields. There are several dry holes. They have been circled in red. One of them is in Section 14 of 31 North, 14 West. That's our Ute 1 No. 1. The other is in Section 13, same township and range; a third well is in Section 18 of 31 North, 13 West, the Century Elliott, a dry hole between the two fields.

We feel that this conclusively proves the absence of fracturing between the two producing areas. The blue outline on Exhibit 1 represents the pool limits at the present time. The yellow area is company, Standard of Texas acreage that is possibly productive and could be developed on 80-acre spacing.

The discovery and only well in the field is our Federal 12-5 No. 1 located in Section 5. This well was completed in April, 1959, with a flowing potential of 167 barrels of oil in 16 hours. If you'll note that it's been offset on the south and west by dry holes. These have been circled in red. The well to



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the south is our 12-8-1, Federal 12-8-1 in Section 8. The well to the west is Federal 13-6-1, Section 6. This well was later farmed out to Mr. Bayless and he made a completion in the Mesaverde, a very small gas well. This, we feel, limits the field to the south and east.

You will notice that another well has been circled in red. This well was dry in the Gallup and completed as a Dakota gas well. About a mile north of Federal 1 in 32 is the Texas Natural No. 1 Johns; this is also a dry hole in the Gallup.

Q You made reference to the Verde-Gallup Oil Pool. Is this reservoir a more prolific producer than the Verde-Gallup?

A Well, of course, it's a much larger field. However, this Federal 12-5-1 has a capacity far in excess of any well I know of in the Verde-Gallup Pool.

Q What is the producing interval and depth of this well?

A It's completed in open hole section from 5900 to 6200 feet.

Q Then it's completed below 5,000 feet, is that correct?

A Yes, sir.

Q What acreage would you consider possibly productive in the pool?

A The three 80-acre tracts immediately north of our Federal 12-5-1. I believe if I was asked to pick a location, the next one would be north of 12-5-1.

Q North of 12-5-1?



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A Yes.

Q Would you consider there's any risk factor in drilling this acreage?

A Yes, there's considerable risk involved. The number of dry holes that surround this are evidence of that fact. I think there's risk in not only establishing a commercial well, but in establishing any well at all.

Q Would you recommend the drilling of any additional wells?

A We have made recommendations that a well be drilled north of Federal 12-5-1. However, our management has turned it down because this proposal was uneconomical on 40-acre spacing.

Q What risk factor would you consider to be valid in this area in drilling additional wells?

A Between 70 and 80 percent, 75 percent dry hole risk.

Q Referring to what has been marked as Exhibit No. 2, would you identify that exhibit and discuss the information that has been shown on it?

A Exhibit No. 2 is a copy of the induction, electric, and gamma ray induction log run in our Federal 12-5-1. The top of the Mancos shale and the Gallup, Upper and Lower Gallup, have been marked on there, and our mapping point which we call the Lower Gallup has been indicated.

Q How was the well completed? Was it perforated or open hole?



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A It was completed in open hole with a liner set from the casing to total depth, a slotted liner.

Q Have you marked the producing interval on the log?

A I do not believe it's marked. It would be from 5900 to total depth. Total depth is 6200.

Q Were Exhibits 1 and 2 prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: I would like to offer in evidence Exhibits 1 and 2.

MR. UTZ: Without objection, Exhibits 1 and 2 will be entered into the record.

(Whereupon, Standard's Exhibits Nos. 1 and 2 received in evidence.)

MR. KELLAHIN: That completes the direct examination of the witness.

CROSS EXAMINATION

BY MR. UTZ:

Q You stated your management had turned down the proposed location north of your 12-5 on the basis of 40-acre economics?

A Yes, sir.

Q Do you anticipate what they would do on 80-acre economics?

A I can't give you those figures here. The engineering



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witness will discuss that later.

Q I would like to know on what basis you located this well in the middle of all of the dry holes.

A This was the first well.

Q This is where you pointed your finger?

A Our Exploration Department picked this out as being an area which had good potential in that it was on the Hogback monocline and it was offset, as you can see, on the south with a company dry hole and on the west with a dry hole which dampened our enthusiasm quite a bit.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

JOHN T. CAMERON

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A John T. Cameron.

Q Are you the same Mr. Cameron who testified in Case 2857?

A I am.

Q Mr. Cameron, have you made a study of the La Plata-Gallup Oil Pool in connection with the case before the Commission at this time?



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A I have.

Q In connection with that, have you compiled some data on the reserves in this pool?

A Yes, sir, I have.

Q Referring to what has been marked as Exhibit No. 3, would you identify that exhibit and discuss the information on it?

A Exhibit No. 3 is a sheet of general reservoir characteristics for the La Plata Pool which shows, among other things, first bottom hole pressure, 1462; latest bottom hole pressure, 1312; saturation pressure, 1169; gravity of oil, 40 degrees. It shows that this single well has produced 129,831 barrels of oil as of April 30, 1963.

Q During what period of time was that produced?

A That was from 1959 to 1963.

Q Referring to what has been marked as Exhibit No. 4, would you identify that exhibit and discuss the information shown on it?

A I suppose Exhibit No. 4 is the build-up--

Q Yes.

A -- of the 12-5 No. 1. This build-up test was run primarily to give some indication of permeability, and it shows a permeability of 13 millidarcies. I might point out that this is what we consider a lower limit of the permeability in this well, since a longer shut-in time would flatten the slope of this build-up curve out and result in a higher permeability. I think



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13 millidarcies is the lower limit of permeability.

Q How was this build-up test made?

A This build-up test was made by just shutting the well in for 72 hours and recording the pressure periodically during the 72 hours. Calculation was made by using Horner's method.

Q Had the well been produced regularly prior to the time of the build-up test?

A Oh, yes, it had produced 170,000 barrels before the test was made.

Q Have you made any reserve calculations of the La Plata-Gallup Oil Pool?

A Yes, I have.

Q Referring to Exhibit No. 5, will you discuss that exhibit, please?

A This exhibit shows our reserve calculation in this pool. From the pressure decline versus cumulative production we've calculated that the ultimate recovery will be 909,903 barrels.

Q That is the total recoverable reserves, on the basis of your calculation?

A That is correct.

Q Have you made any estimate of the drainage area involved?

A Yes, sir, I have, using this predicted ultimate recovery.

Q Are you referring to what has been marked now as Exhibit No. 6?



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A Yes, I suppose I am. I have mine numbered wrong. We calculated the drainage area of this well from the estimation of reserves and by using a figure for estimated recovery per acre foot. If we can calculate a recovery per acre foot and also calculate a number of feet, we know the barrels; so using those three figures we can come out with the number of acres which must contribute to 909,000 barrels of ultimate recovery. This Exhibit 6 shows that by using a fracture porosity of two percent, recovery factor of 25 percent, and the formation volume factor of 1.27, we come out with an estimated recovery of 30.5 barrels per acre foot. I might try to justify those figures. The two percent fracture porosity is a figure taken from cores and neutron logs in the nearby Verde-Gallup Field. In that field the cores showed the matrix porosity of 4.6 percent, while the neutron showed a gross porosity of 7.7 percent. The difference in those figures must be fracture porosity.

Since we feel that all the oil comes from the fractures in here, we consider that to be the sum and total of our effective porosity contributing to oil production, so we got a two percent from that figure.

We used a recovery factor of 25 percent which is assumed to be about the maximum that could be attributed to a fractured shale reservoir, so the result, 35.5 barrels per acre foot, is about the most we could give it on a per acre foot basis. I'll go in later to why we came up with an upper limit on the barrel per



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acre foot estimate.

Next I calculated an estimated net pay. In this well, as I say, it's an open hole section, 300 feet of open hole section was drilled with gas. It quit dusting at 5970 feet and began producing oil. It produced oil all the way to total depth, 6200 feet. If we assume that the entire feet from 5970 to 6200 is contributing to the production, that will leave us with a net pay of 230 feet. Since we've already calculated the estimated ultimate recovery, in order to calculate our drainage area we divide ultimate recovery of 909,903 barrels by a recovery per acre foot and net pay and we come out with 130 acres.

I feel that since we used 30.5 per acre foot as an upper limit of per acre foot recovery, and 230 feet as the maximum that we could assign for a net pay, then the 130 acres is the minimum figure that we can attribute to this well in order to come out with 909,000 barrels.

The whole sum of it is that we have such a large volume of reserves that cannot be accounted for on less than 80 acres, and it comes out to 130 acres would be about the minimum that would have to be productive in order to result in this large recovery of oil.

Q In making the calculation, you have, for example, taken 230 feet of net pay. Actually, do you feel that you have 230 feet of net pay in this well?

A No, sir, I really doubt if we do, but we don't have



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any other figure to go by and that's the maximum that I feel could be productive, so I wanted to end up with a conservative estimate of drainage area.

Q In each instance have you used the maximum figure in that fashion?

A Yes.

Q Do you feel that your calculation is the most conservative?

A That's right.

Q In that case, does this show that this well is draining more than 80 acres?

A It sure does.

Q Would you discuss the economics of developing this area on 80 acres versus 40 acres?

A On 80-acre spacing, we have used our actual well costs of our single well, used this ultimate recovery of 909,000 barrels and assuming a top allowable of 164 barrels per day, this would take 11 years before declining at 20 percent to produce this 909,000 barrels. I have used a dry hole risk factor of 75 percent which means that one producer out of four wells drilled. This, I think, was established by the geologist.

On 40-acre spacing I have used the same well cost and half the ultimate recovery, assuming the top allowable of 94 barrels per day for nine years, 25 percent decline until this reserve is produced. This assumption also bears a 75 percent



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dry hole risk factor.

The results of these economics show that on 80-acre spacing, the well will pay out in 3.76 years with a 29.4 percent rate of return, with a net profit of \$760,624.00 on an investment of \$260,888.00, for profit-to-investment ratio of 2.96. We consider those economics pretty good, even though the payout is not too outstanding.

The 40-acre spacing, 6.49 year pay-out, 12.10 rate of return, net profit of \$240,631.00 on investment of \$260,888.00, for profit-to-investment ratio of .922. While this shows a large profit and a good profit-to-investment ratio, the payout is slow and rate of return is low, and this is below the company standards for development of wells.

Q What is the company standards?

A Approximately four years and 20 percent.

Q Four years and 20 percent?

A Yes.

Q Have you also made calculations on the economics of the 80 acres and the 40 acres on which this exhibit is based?

A Yes, the next two exhibits are entered in support of Exhibit No. 7. This is simply the machine calculations of these economics which back up the Exhibit No. 7.

Q If the pool is to remain on 40-acre spacing, in your opinion will it be fully developed?

A No, sir, I don't believe there will be any more drilling



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in the thing. We have, as the geologist said, proposed one well and it has been turned down because of the marginal economics.

Q If the pool were placed on 80-acre spacing and pro-
ration units, in your opinion would there be further development?

A Well, sir, I'd certainly recommend further development. As you may know, management acts in strange and wondrous ways, but it's my opinion that it will be further developed on 80 acres, yes.

Q In the event this application is not approved and there is no further development, in your opinion would there be any oil left in the reservoir that would not be recovered?

A Yes, sir, I believe it would. The area to the north, maybe 320 acres or more productive to the north, that won't be developed on 40 and maybe on 80 it will.

Q In your opinion would that constitute waste?

A Yes, sir, I believe it would.

Q Have you made any production tests of this well?

A Yes, sir. In June, with the concurrence of the Commission, we tested Federal 12-5 No. 1 for 165 barrels of oil per day. It shows that it will make the 80-acre allowable.

Q And the 80-acre allowable would be --

A 164.

Q -- 164?

A Right.

Q Has there been any decline in the productivity of this



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well?

A No, sir, there has not.

Q Have you prepared any proposed rules for the La Plata-Gallup Oil Pool?

A Yes, sir, I have.

Q Referring to Exhibit No. 11, would you discuss briefly those proposed rules?

A We have proposed 80-acre spacing with 80-acre unit to consist of any two contiguous quarter-quarter sections of a single governmental section, with the well to be located within 200 feet of the center of either quarter-quarter section in the unit.

Q In substance, are these rules similar or the same as those proposed in the other case --

A That's correct.

Q -- for the Boulder-Mancos Oil Pool?

A Yes, sir.

Q Mr. Cameron, Standard is asking for 80-acre spacing on the basis of the information obtained from one well. In your opinion, does this information justify an application for 80-acre spacing?

A Yes, sir, I believe it does.

Q Do you feel that one well will drain 80 acres?

A I do.

Q Would Standard be willing to accept a temporary order, say for a period of one year or until additional information can



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gathered on this pool, and then come back and present another case in connection with this spacing?

A Yes, sir, I believe they would.

Q Were Exhibits 3 through 11 prepared by you or under your supervision?

A Yes, sir, they were prepared by me.

MR. KELLAHIN: At this time I would like to offer in evidence 3 through 11, inclusive.

MR. UTZ: Without objection, Exhibits 3 through 11 will be entered into the record.

(Whereupon, Standard's Exhibits Nos. 3 through 11 received in evidence.)

MR. KELLAHIN: That's all the questions I have on direct examination.

MR. UTZ: Are there any questions of the witness? Mr. Arnold.

CROSS EXAMINATION

BY MR. ARNOLD:

Q I was wondering how you arrived at 6.49 years payout on a 40-acre well there. Can you run through that?

A Yes, sir. If you will refer to, I think, Exhibit No. 11, which is the machine payout calculation, --

MR. KELLAHIN: It's 7, 8, and 9.

A It would be 9.

MR. DURRETT: That's No. 9.



WASHINGTON, D. C.
PHONE 325-1182

DEARNLEY-MEIER REPORTING SERVICE, Inc.

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PHONE 983/9971

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A Over in the producer column you'll see the cost of \$123,000, approximately, to which is added the DIF monies, which means the money that actually we used, 12 percent of our well cost, assuming that we're going to have to spend that on the fishing and the like, for a total cost of \$138,000, but we have a dry hole risk investment of approximately three times that much because we plan on drilling three dry holes for every producing well, that's where the 75 percent dry hole risk factor comes, for a total investment of \$500,000. After you subtract tax credits you come out with a net development investment of \$260,000, more or less.

In the right column, net cash earnings, you can see it will take approximately six point some odd years of those accumulated net cash earnings in order to equal the \$260,000.

Q It's the dry hole factor there?

A Yes, it's the dry hole factor that's killing us, yes.

MR. ARNOLD: That's all.

MR. UTZ: Any other questions? The witness may be

excused.

(Witness excused.)

MR. KELLAHIN: That's all we have.

MR. UTZ: Any statements? The case will be taken under

advisement. The hearing is adjourned.

(Whereupon, the hearing was adjourned.)



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PHONE 325-1182SANTA FE, N. M.
PHONE 983-3871ALBUQUERQUE, N. M.
PHONE 243-6691

STATE OF NEW MEXICO)
) ss
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 before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 6th day of August, 1963.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2856, heard by me on July 10, 1963.

[Signature], Examiner
New Mexico Oil Conservation Commission



DRAFT

JMD/esr
July 17, 1963

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. 2858

Order No. R- 2549

APPLICATION OF STANDARD OIL COMPANY
OF TEXAS FOR SPECIAL POOL RULES, SAN
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 10, 1963, 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 Aug. day of July, 1963, 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 the applicant, Standard Oil Company of Texas, seeks the promulgation of temporary special rules and regulations for the La Plata-Gallup Oil Pool, including a provision for 80-acre spacing units.

(3) That temporary special rules and regulations establishing 80-acre spacing should be promulgated for the subject pool in order to prevent the possibility of economic loss resulting from the drilling of unnecessary wells and in order to allow the operators in the subject pool to gather information concerning

(5) That the temporary special rules and regulations should be established for a one-year period and that during this one-year period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.

(6) That this cause should be reopened at an examiner hearing in August, 1964, at which time the operators in the subject pool should appear and show cause why the La Plata-Gallup Oil Pool should not be developed on 40-acre ~~operation~~^{spacing} units.

IT IS THEREFORE ORDERED:

That special rules and regulations for the La Plata-Gallup Oil Pool are hereby promulgated as follows, effective ~~August 15~~^{September 1}, 1963.

SPECIAL RULES AND REGULATIONS
FOR THE
LA PLATA-GALLUP OIL POOL

RULE 1. Each well completed or recompleted in the La Plata-Gallup Oil pool or in the Gallup formation within one mile of the La Plata-Gallup Oil Pool, and not nearer to or within the limits of another designated Gallup pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the La Plata-Gallup Oil Pool shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a single quarter-quarter section or lot. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-

Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well projected to or completed in the La Plata-Gallup Oil Pool shall be located within 150 feet of the center of a single governmental quarter-quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each quarter-quarter section in a standard unit.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) in the La Plata-Gallup Oil Pool shall be assigned an 80-acre proportional factor of 2.33 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable in the La Plata-Gallup Oil Pool as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

Gallup formation within the La Plata-Gallup Oil Pool or within one mile of the La Plata-Gallup Oil Pool that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4. The operator shall notify the Aztec District Office in writing of the name and location of the well on or before ~~August 15~~, ^{September 1,} 1963.

(2) That any operator desiring to dedicate 80 acres to a well presently drilling to or completed in the La Plata-Gallup Oil Pool shall file a new Form C-128 with the Commission on or before ~~July 22, 1963~~, ^{September 1, 1963}, in order that the well may be assigned an ~~80-acre allowable on the August proration schedule.~~

(3) That this case shall be reopened at an examiner hearing in August, 1964, at which time the operators in the subject pool may appear and show cause why the La Plata-Gallup Oil Pool should not be developed on 40-acre ~~proration~~ ^{spacing} units.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

DRAFT

JMD/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CF Subj. _____

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

CASE No. 2858

Order No. R-2549-A

APPLICATION OF STANDARD OIL COMPANY
OF TEXAS FOR SPECIAL POOL RULES, SAN
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
August 5, 1964, at Santa Fe, New Mexico, before Examiner
Elvis A. Utz.

NOW, on this 5th day of August, 1964, the Commission,
a quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, 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 by Order No. R-2549 dated August 14, 1963, tem-
porary Special Rules and Regulations were promulgated for the
La Plata-Gallup Oil Pool.

(3) That pursuant to the provisions of Order No. R-2549,
this case was reopened to allow the operators in the subject pool
to appear and show cause why the La Plata-Gallup

Oil Pool should not be developed on 40-acre spacing units.

(4) That no additional wells have been drilled in the
subject pool since the issuance of Order No. R-2549 and the
drilling of additional wells in the future is not anticipated.

(5) That no necessity exists for the continuation of the Special Rules and Regulations promulgated by Order No. R-2549 and that said rules should therefore be abolished.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the La Plata-Gallup Oil Pool promulgated by Order No. R-2549 are hereby abolished.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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