CASE 3573: Application of AZTEC OIL & GAS CO. for pool rules for SOUTH CORBIN STRAWN OIL POOL.

15E NO.

APP/ication,
Transcripts,
SMAIL Exhibits
ETC.

GOVERNOR DAVID F. CARGO CHAIRMAN

# State of Meto Mexico

# Bil Conservation Commission

LAND COMMISSIONER GUYTON 5. HAYS MEMBER



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

July 3, 1968

Mr. Prentice Watts
Astec Oil & Gas Company
2000 First Natl. Bank Building
Dallas, Texas 75202

Re: Case No. 3573
Order No. R-3240-A
Applicant:

Aztec Gil & Gas Commpany

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. Secretary-Director

ALP/ir

Carbon copy of drder also sent to:

Hobbs OCC X
Artesia OCC
Aztec OCC
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 COMSIDERING:

> CASE No. 3573 Order No. R-3240-A

APPLICATION OF AZTEC OIL & GAS COMPANY FOR SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 26, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 3rd day of July, 1968, 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.

# PINDS:

- (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-3240, dated June 1, 1967, temporary Special Rules and Regulations were promulgated for the South Corbin-Strawn Oil Pool, Lea County, New Mexico, including a provision for 160-acre spacing units and a gas-oil ratio limitation of 4000 to one.
- (3) That pursuant to the provisions of Order No. R-3240, this case was reopened to allow the operators in the South Corbin-Strawn Oil Pool to appear and show cause why said temporary Special Rules and Regulations should remain in effect.
- (4) That no operator in the South Corbin-Strawn Oil Pool appeared to show cause why the subject pool should not be

-2-CASE No. 3573 Order No. R-3240-A

developed on 80-acre or 40-acre spacing units and why the limiting gas-oil ratio should not revert to the Statewide limit of 2000 to one.

- (5) That the operators in the subject pool have not established that one well can efficiently and economically drain and develop 160 acres.
- (6) That no necessity exists for the continuation of the Special Rules and Regulations promulgated by Order No. R-3240, that said rules should therefore be abolished, and that the South Corbin-Strawn Oil Pool should be developed on 40-acre spacing units and the limiting gas-oil ratio should revert to the Statewide limit of 2000 to one.

### IT IS THEREFORE ORDERED:

- (1) That the Special Rules and Regulations governing the South Corbin-Strawn Oil Pool, promulgated by Order No. R-3240, 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 COMPENSATION COMMISSION

DAVID F. CARGO, Chairman

SUYTON B. HAYS, Member

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

esr/

Case. 3573 Leard 6-26-68 Sheir) was no tealimon in The Care, Only a letter station no fulle evidence van arailable + requesting eous faither evidences be beguiret. accordingly Order R 32 +6 should be considered expired by default + pool relaced to 0-40 A. Tapading The D. D. AZTEC OIL & GAS COMPANY

PRENTICE WATTS
VICE PRESIDENT
PRODUCTION

2000 First National Bank Building Dallas, Texas 75202

June 21, 1968

file

New Mexico Oil Conservation Commission Box 2088 Santa Fe, New Mexico

Attention: Mr. A. L. Porter

RE: Case 3573 (Re-opened)
Order R-3240 South Corbin
Strawn Oil Pool
Lea County, New Mexico

### Gentlemen:

This has reference to Case 3573 which is being re-opened pursuant to the provisions of Order No. R-3240 pertaining to the temporary rules for the South Corbin Strawn Oil Pool, Lea County, New Mexico, and set for examiner hearing on June 26, 1968, in Santa Fe, New Mexico.

Aztec Oil & Gas Company, the original applicant in Case 3573 heard before an examiner hearing on May 24, 1967, has no additional reservoir information to present in support of the special rules and regulations for this pool. Production from the two existing Strawn wells has been most disappointing and further development cannot be economically justified. Accordingly, since we are unable to contribute significant new information supporting 160 acre spacing, we respectfully request additional testimony not be required in this case.

Very truly yours,

AZTEC OIL & GAS COMPANY

Prentice Water

Pw:bjr

268 Jun 24 Am 10 20

# DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 26, 1968

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 A. L. Porter, Jr., Alternate Examiner:

- CASE 3788: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formation through its New Mexico State "W" NCT-1 Well No. 1 located in Unit O of Section 13, Township 17 South, Range 34 East, Vacuum (Grayburg-San Andres) Oil Pool, Lea County, New Mexico.
- CASE 3789: Application of Tenneco Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Mesa Queen Unit Area comprising 1,040 acres, more or less, of state lands in Township 16 South, Range 32 East, Mesa-Queen Pool, Lea County, New Mexico.
- CASE 3790: Application of Tenneco Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Mesa Queen Unit Area by the injection of water into the Queen formation through 12 wells located in Sections 16, 17, and 20, Township 16 South, Range 32 East, Mesa-Queen Pool, Lea County, New Mexico.

# CASE 3573 (Reopened):

In the matter of Case 3573 being reopened pursuant to the provisions of Order No. R-3240 to permit all interested parties to appear and show cause why the temporary rules for the South Corbin-Strawn Oil Pool, Lea County, New Mexico, which include a provision for 160-acre spacing units and a 4000 to one gasoil ratio limit, should remain in effect.

- CASE 3791: Application of Kewanee Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Square Lake "12" Unit Area comprising 1,360 acres, more or less, of Federal lands in Township 17 South, Ranges 29 and 30 East, Square Lake Pool, Eddy County, New Mexico.
- CASE 3792: Application of Kewanee Cil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg formation underlying its Square Lake "12" Unit Area through seven wells located in Sections 1 and 12, Township 17 South, Range 29 East, and Sections 6 and 7, Township 17 South, Range 30 East, Square Lake Pool, Eddy County, New Mexico.

Page -2-Examiner Hearing - June 26, 1968

Docket No. 19-68

- CASE 3793: Application of Gulf Oil Corporation for walt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Grayburg formation in the interval from approximately 3812 feet to 3900 feet in its Keohane "C" Federal Well No. 3 located in Unit I of Section 21, Township 18 South, Range 31 East, Shugart Yates-Seven Rivers-Queen-Grayburg Pool, Eddy County, New Mexico.
- CASE 3794: Application of Gulf Oil Corporation for salt water disposal,
  Lea County, New Mexico. Applicant, in the above-styled cause,
  seeks authority to dispose of produced salt water into the San
  Andres formation adjacent to the Eunice-San Andres Pool in the
  interval from approximately 4100 feet to 4900 feet in the Warren
  Petroleum Corporation Eunice Plant SWD Well No. 1, located 2255
  feet from the North line and 908 feet from the East line of
  Section 3, Township 22 South, Range 37 East, Lea County, New
  Mexico.
- CASE 3795: Application of Pan American Petroleum Corporation for a pool creation and discovery allowable, Lea County, New Mexico.

  Applicant, in the above-styled cause, seeks the creation of the Bate-Yates Pool in Lea County, New Mexico, comprising the S/2 of Section 26 and the N/2 of Section 35, both in Township 19 South, Range 33 East, and for the assignment of approximately 16,750 barrels of oil discovery allowable to the discovery well, its Bate Federal Well No. 1 located in Unit N of said section 26.
- CASE 3796: Application of The Superior Oil Company for the creation of a new pool, assignment of discovery allowable, and the promulgation of pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new upper Pennsylvanian oil pool for its State D COM Well No. 1 located in Unit G of Section 4, Township 14 South, Range 34 East, Lea County, New Mexico, and for the assignment of an oil discovery allowable in the amount of approximately 52,010 barrels to said well. Applicant further seeks the promulgation of special pool rules for said pool, including a provision for 160-acre proration units.
- CASE 3797: Application of Ernest A. Hanson for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen formation in the overall interval from approximately 4604 to 5036 feet in his Mescalero Ridge Unit "35" Well No. 11 located in Unit N of Section 35, Township 19 South, Range 34 East, Pearl-Queen Pool, Lea County, New Mexico.

Page -3-Examiner Hearing - June 26, 1968

Docket No. 19-68

- CASE 3798: Application of Ernest A. Hanson for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in the interval from approximately 4177 feet to 4185 feet in his Hanson Federal Well No. 7 located in Unit J of Section 25, Township 26 South, Range 31 East, North Mason-Delaware Pool, Eddy County, New Mexico.
- CASE 3799: Application of Amerada Petroleum Corporation for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter and complete as a gas well the State WR "B" Well No. 1 located at an unorthodox location 554 feet from the North line and 2086 feet from the East line of Section 35, Township 12 South, Range 34 East, Ranger Lake-Devonian Gas Pool, Lea County, New Mexico, and to dedicate to said well the E/2 of said section 35.

# GOVERNOR DAVID F. CARGO CHAIRMAN

# State of New Mexico

# **Bil Conservation Commission**

LAND COMMISSIONER GUYTON B. HAYS MEMBER



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

Date 6/13/66

June 1, 1967

		Case No.		3573	
Mr. Kenneth Swanson, Manager	•	Order No.		R-3240	
Land Department Aztec Oil & Gas Company		Applican	t:		
2000 First National Bank Building Dallas, Texas 75202	of the statement of the	Aztec O	il s	Gas	Company
Dear Sir:	ili eriti o desendento contrato		a language and all appears		: : : : : :
Enclosed herewith are two copies of	the	above-re	fere	nced	Com-
mission order recently entered in t	1.	3			
Very tr			and the second s		
	D+	1,2	the protestives	4 4	± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±
α. A. L. P	ORTE	R. Jr.	nomination and	1 1	
A. L. P Secreta	ry-D	irector		4 4	
	The state of the s		1		
ALP/ir	the representation of the state				
Carbon copy of order also sent to:	of the state suggestions to the state of the		The production of the control of the		
Hobbs OCC	Appropriate to the second	7 7			
Artesia-OCC	man day ke		and him was		
Aztec OCC		,	ALL		
Other	1	<u> </u>			- :
				•	

J.O. SETH (1883-1963)

A.K. MONTGOMERY

RICHARD S. MORRIS

SUMNER G. BUELL SETH D. MONTGOMERY

WH, FEDERICI FRANK ANDREWS FRED C. HANNAHS

# MONTGOMERY, FEDERICI & ANDREWS

ATTORNEYS AND COUNSELORS AT LAW

350 EAST PALACE AVENUE SANTA FE, NEW MEXICO 87501

May 23, 1967

POST OFFICE BOX 2307 AREA CODE 505 TELEPHONE 982-3876

New Mexico Oil Conservation Commission State Land Office Building Santa Fe, New Mexico

Re: N.M.O.C.C. Case No. 3573, Application of Aztec Oil & Gas Company, South Corbin (Strawn) Pool, Lea County, New Mexico

#### Gentlemen:

Please consider this letter as our entry of appearance as resident counsel for Aztec Oil & Gas Company in the subject case. Associated with us in the case will be Mr. Kenneth A. Swanson, a member of the Bar of the State of Texas, who will present the case for Aztec Oil & Gas Company.

Killard S. Mann

RSM: LHS

cc: Mr. Kenneth A. Swanson Manager, Land Department Aztec Oil & Gas Company 2000 First National Bank Bldg. Dallas, Texas 75202

DOCKET MAJLED

Date 6/13/68

# BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> CASE No. 3573 Order No. R-3240

APPLICATION OF AZTEC OIL & GAS COMPANY FOR SPECIAL POOL RULES, LEA COUNTY. MEM MEXICO.

# ORDER OF THE COMMISSION

### BY THE COPPLESION:

This cause came on for hearing at 9 a.m. on May 24, 1967, at Santa Fe, New Mexico, before Examiner Elvis A. Uts.

NOW, on this 1st day of June, 1967, 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,

### PDOS:

- (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, Aztec Oil & Gas Company, seeks the promulgation of special rules and regulations for the South Corbin-Strawn Oil Pool, including a provision for 160-acre spacing units and the establishment of a 4000 to 1 gas-oil ratio limitation.
- (3) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temperary special rules and regulations providing for 160-acre spacing units should be promulgated for the South Corbin-Strawn Oil Pool.

-2-CASE No. 3573 Order No. R-3240

- (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 provide for a limiting gas-oil ratio of 4000 to 1 in order to allow each operator in the pool the opportunity to use his just and equitable share of the reservoir energy.
- (6) That in order to prevent undue dissipation of the reservoir energy and waste of oil and gas, the temporary special rules and regulations should prohibit the flaring or venting of gas within a reasonable time after the issuance of this order.
- (7) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.
- (8) That this case should be reopened at an examiner hearing in June, 1968, at which time the operators in the subject pool should be prepared to appear and show cause why the South Corbin-Strawn Oil Pool should not be developed on 40-acre or 80-acre spacing units and why the limiting gas-oil ratio should not revert to the Statewide limit of 2000 to one.

# IT IS THEREFORE ORDERED:

That temporary Special Rules and Regulations for the South Corbin-Strawn Oil Pool, Lea County, New Mexico, are hereby promulgated as follows:

# SPECIAL RULES AND REGULATIONS FOR THE SOUTH CORBIN-STRAWN OIL POOL

- RULE 1. Each well completed or recompleted in the South Corbin-Strawn Gil Pool or in the Strawn formation within one mile thereof, and not nearer to or within the limits of another designated Strawn oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- RULE 2. Each well shall be located on a standard unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Land Surveys.

-3-CASE No. 3573 Order No. R-3240

- RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 3 without notice and hearing when an application has been filed for a non-standard unit consisting of less than 160 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. 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 shall be located no nearer than 660 feet to the outer boundary of the proration unit boundary and no nearer than 330 feet to any governmental quarter-quarter section line.
- 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 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 operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.
- RULE 6. A standard proration unit (158 through 162 acres) shall be assigned a 160-acre proportional factor of 7.75 for allowable purposes, and in the event there is more than one well on a 160-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 as the acreage in such non-standard unit bears to 160 acres.

- RULE 7. The limiting gas-oil ratio shall be 4000 cubic feet of gas for each barrel of oil produced.
- RULE 8. No gas shall be flared or vented on or after the effective date of this order; provided however, that any well completed in the subject pool after the effective date of this

-4-CASE No. 3573 Order No. R-3240

order shall be given 30 days in which to make beneficial use of the produced casinghead gas.

RULE 9. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 8 without notice and hearing when an application has been filed setting forth the facts and circumstances justifying the exception and he determines such action is necessary to prevent waste or protect correlative rights.

# IT IS PURTHER ORDERED:

- (1) That the locations of all wells presently drilling to or completed in the South Corbin-Strawn Oil Pool or in the Strawn formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before June 15, 1967.
- (2) That each well presently drilling to or completed in the South Corbin-Strawn Oil Pool or in the Strawn formation within one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 160 acres to the well has been filed with the Commission.
- (3) That this case shall be reopened at an examiner hearing in June, 1958, at which time the operators in the subject pool may appear and show cause why the South Corbin-Strawn Oil Fool should not be developed on 40-acre or 80-acre spacing units and why the limiting gas-oil ratio should not revert to the Statewide limit of 2000 to one.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DOME at Santa Fe, New Mexico, on the day and year hexeinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

DAVID P. CARGO, CHETTHAI

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

osr/

# DOCKET: EXAMINER HEARING - TUESDAY - JUNE 6, 1967

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

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

CASE 3592:

Application of Anne Burnett Windfohr, dba Windfohr Oil Company, for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the San Andres formation through eight wells in Sections 13, 14 and 24, Township 17 South, Range 30 East, Grayburg-Jackson Pool, Eddy County, New Mexico. Applicant further seeks an administrative procedure for future expansion of said project.

# CASE 3584: (Continued and Readvertised)

Application of Gulf Oil Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Eddy "BD" State Well No. 1 at an unorthodox location 660 feet from the South line and 990 feet from the East line of Section 32, Township 20 South, Range 30 East, in an undesignated Strawn gas pool, Eddy County, New Mexico.

# CASE 3578: (Continued and Readvertised)

Application of Texas Pacific Oil Company for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

A 120-acre non-standard gas proration unit comprising the N/2 NE/4 and the SE/4 NE/4 of Section 7, to be dedicated to the State "A" A/c-2 Well No. 5, located in Unit A of said Section 7, and also to the State "A" A/c-2 Well No. 6 located in Unit B of said Section 7;

A 160-acre non-standard gas proration unit comprising the W/2 W/2 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 41, located in Unit M of said Section 5;

An 80-acre non-standard gas proration unit comprising the E/2 NW/4 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 44, located in Unit F of said Section 5;

A 160-acre non-standard gas proration unit comprising the N/2 SE/4 and the E/2 SW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 28, located in Unit I of said Section 5;

# Case 3578 continued

An 80-acre non-standard gas proration unit comprising the \$/2 SE/4 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 27, located in Unit P of said Section 5;

A 160-acre non-standard gas proration unit comprising the W/2 SW/4, SE/4 SW/4, and SW/4 SE/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 54, located in Unit O of said Section 8;

A 160-acre non-standard gas proration unit comprising the S/2 NW/4, NE/4 SW/4, and NW/4 SE/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 56, located in Unit J of said Section 8;

An 80-acre non-standard gas proration unit comprising the S/2 NE/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 43, located in Unit H of said Section 8;

An 80-acre non-standard gas proration unit comprising the N/2 NW/4 Section 8; to be dedicated to the State "A" A/c-2 Well No. 49 located in Unit C of said Section 8;

A 240-acre non-standard gas proration unit comprising the NE/4 and E/2 NW/4 Section 9, to be dedicated to the State "A" A/c-2 Well No. 40, located in Unit A of said Section 9;

A 240-acre non-standard gas proration unit comprising the E/2 SE/4 Section 8, and the SW/4 Section 9, to be dedicated to the State "A" A/c-2 Well No. 38, located in Unit K of said Section 9;

A 160-acre non-standard gas proration unit comprising the N/2 NE/4 Section 8, and the W/2 NW/4 Section 9, to be dedicated to the State "A" A/c-2 Well No. 29, located in Unit D of said Section 9.

# CASE 3579: (Continued from the May 24th Examiner Hearing)

Application of Texas Pacific Oil Company for three dual completions, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "A" A/c-2 Wells Nos. 28, 54, and 29, located in Unit I of Section 5, Unit O of Section 8, and Unit D of Section 9, respectively, Township 22 South, Range 36 East, Lea County, New Mexico, in such a manner as to produce gas from the Jalmat Gas Pool and oil from the South Eunice Oil Pool.

CASE 3593: Application of Amerada Petroleum Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Monument Paddock and Monument Blinebry Oil Pools in the wellbore of its L. M. Lambert Well No. 8 located in Unit G of Section 6, Township 20 South, Range 37 East, Lea County, New Mexico, with the assignment of a single allowable to said commingled production.

CASE 3594:

Application of Amerada Petroleum Corporation for an Ogallala oil proration unit, special rules for said unit and authority for fresh water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of the SE/4 NW/4 of Section 30, Township 18 South, Range 38 East, Lea County, New Mexico, as a 40-acre proration unit for production of oil from the Ogallala formation. Applicant also seeks the establishment of special rules governing said 40-acre tract including a maximum density of one well per 0.625-acre with a provision that wells should be drilled no nearer than 82.5 to the outer boundary of the unit and no nearer than 165 feet to another well producing from the same formation, provided that an exception should be made for existing wells on said 40-acre tract which are not located in conformance with said spacing rules. Applicant also seeks a temporary exception to Rule 307 for each well to permit utilization of a vacuum-type drilling unit during the drilling and completion operations. Applicant also seeks authority to produce the wells at capacity even though the aggregate production from said wells exceeds the 40-acre normal unit allowable. Applicant further seeks authority to dispose of fresh water produced with the oil back into the Ogallala formation through an injection well or wells located no nearer than 330 feet to the outer boundaries of the 40-acre tract.

CASE 3595:

Application of Ernest A. Hanson for acreage rededication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the rededication of the SE/4 NW/4 of Section 19, Township 22 South, Range 38 East for the production of oil from the Blinebry Oil Pool, said 40-acre unit to be dedicated to applicant's Gutman Well No. 4, formerly the Gulf Oil Corporation's Max Gutman Well No. 3. This acreage is presently dedicated as a part of a 160-acre standard gas proration unit in the Blinebry Gas Pool to Gulf Oil Corporation's Max Gutman Well No. 2 located in Unit C of said Section 19.

# CASE 3350: (Reopened)

In the matter of Case No. 3350 being reopened pursuant to the provisions of Orders Nos. R-3021 and R-3021-A, which orders established 80-acre spacing units for the Young-Wolfcamp Pool and the Young-Bone Spring Pool, Lea County, New Mexico, respectively, for a period of one year. All interested parties may appear and show cause why said pools should not be developed on 40-acre spacing units.

CASE 3596:

Application of Tenneco Oil Company for an unorthodox location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for its Jicarilla "B" Well No. 8 at a point 790 feet from the North line and 2510 feet from the East line of Section 15, Township 26 North, Range 5 West, Blanco-Mesaverde Gas Pool, Rio Arriba County, New Mexico.

# CASE 3574: (Continued from May 24th Examiner Hearing)

Application of Cima Capitan, Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through one well located in Unit C of Section 3, Township 17 South, Range 32 East, Maljamar Pool, Lea County, New Mexico.

Case 3 573 Rec. 30-3-25-67 Heund. 5-24-67 the So. Cortin- than Pool. The. Luch. Strown R-2175B as modelock. The only change should be rule Rule 5 factor of 7005 as requested.

# 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. 3400 Order No. R-3064 NOMENCLATURE

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION FOR CREATION OF A NEW POOL AND SPECIAL POOL RULES, EDDY COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

# BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 27, 1966, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 4th day of May, 1966, 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 the applicant. Pan American Petroleum Corporation, seeks the creation of a new oil pool for Strawn production in Eddy County, New Mexico, and the promulgation of special rules and regulations governing said pool, including a provision for 160-acre spacing units and a gas-oil ratio of 4000 to 1.
- (3) That the Pan American Petroleum Corporation Big Eddy Unit Well No. 7 located in Unit O of Section 19, Township 20 South, Range 31 East, NMPM, Eddy County, New Mexico, has discovered a separate common source of supply which should be designated the Big Eddy-Strawn Pool; that the vertical limits of said pool should be the Strawn formation; and that the horizontal limits of said pool should be the SE/4 of Section 19, Township 20 South, Range 31 East, NMPM, Eddy County, New Mexico.

-2-CASE No. 3400 Order No. R-3064

- (4) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 160-acre spacing units should be promulgated for the Big Eddy-Strawn Pool.
- (5) 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.
- (6) That the temporary special rules and regulations should provide for a limiting gas-oil ratio of 4000 to 1 in order to allow each operator in the pool the opportunity to use his just and equitable share of the reservoir energy.
- (7) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.
- (8) That this case should be reopened at an examiner hearing in April, 1967, at which time the operators in the subject pool should be prepared to appear and show cause why the Big Eddy-Strawn Pool should not be developed on 40-acre or 80-acre spacing units and why the limiting gas-oil ratio should not revert to the Statewide limit of 2000 to one.

#### IT IS THEREFORE ORDERED:

- (1) That a new pool in Eddy County, New Mexico, classified as an oil pool for Strawn production, is hereby created and designated the Big Eddy-Strawn Pool, with vertical limits comprising the Strawn formation, and horizontal limits comprising the SE/4 of Section 19, Township 20 South, Range 31 East, NMPM, Eddy County, New Mexico.
- (2) That temporary Special Rules and Regulations for the Big Eddy-Strawn Pool are hereby promulgated as follows:

-3-CASE No. 3400 Order No. R-3064

## SPECIAL RULES AND REGULATIONS FOR THE BIG EDDY-STRAWN POOL

- RULE 1. Each well completed or recompleted in the Big Eddy-Strawn Pool or in the Strawn formation within one mile thereof, and not nearer to or within the limits of another designated Strawn oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- RULE 2. Each well shall be located on a standard unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Land Surveys.
- RULE 3. The Secretary-Director of the Commission 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 consisting of less than 160 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. 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 shall be located no nearer than 660 feet to the outer boundary of the proration unit boundary and no nearer than 330 feet to any governmental quarter-quarter section line.
- 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 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 operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

CASE No. 3400 Order No. R-3064

RULE 6. A standard proration unit (158 through 162 acres) shall be assigned a 160-acre proportional factor of 8.67 for allowable purposes, and in the event there is more than one well on a 160-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 as the acreage in such non-standard unit nears to 160 acres.

RULE 7. The limiting gas-oil ratio shall be 4000 cubic feet of gas for each barrel of oil produced.

### IT IS FURTHER ORDERED:

- (1) That the locations of all wells presently drilling to or completed in the Big Eddy-Strawn Pool or in the Strawn formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Artesia District Office of the Commission in writing of the name and location of the well on or before May 15, 1966.
- (2) That each well presently drilling to or completed in the Big Eddy-Strawn Pool or in the Strawn formation within one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 160 acres to the well has been filed with the Commission.
- (3) That this case shall be reopened at an examiner hearing in April, 1967, at which time the operators in the subject pool may appear and show cause why the Bir Eddy-Strawn Pool should not be developed on 40-acre or 80-acre spacing units and why the limiting gas-oil ratio should not revert to the Statewide limit of 2000 to one.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

..5− CASE No. 3400 Order No. R-3064

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

STATE OF NEW MEXICO CIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

GUYTON B. HAYS, Member

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

esr/

SEAL

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

> CASE No. 3410 Order No. R-3084 NOMENCLATURE

APPLICATION OF PENNZOIL COMPANY FOR THE CREATION OF A NEW POOL AND FOR SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 8, 1966, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 30th day of June, 1966, 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 the applicant, Pennzoil Company, seeks the creation of a new oil pool for Morrow production in Lea County, New Mexico, including a provision for 80-acre spacing units and a limiting gas-oil ratio of 12,000 to 1.
- (3) That the Pennzcil Company Bridges-State Well No. 1, located in Unit A of Section 11, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, has discovered a separate common source of supply which should be designated the North Vacuum-Morrow Pool; that the vertical limits of said pool should be the Morrow zone of the Pennsylvanian formation in the interval from 11,745 feet to 12,152 feet on the log of said

-2-CASE No. 3410 Order No. R-3084

Pennzoil Company Bridges-State Well No. 1; and that the horizontal limits of said pool should be the N/2 NE/4 of Section 11, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico.

- (4) That the applicant has established that one well in the North Vacuum-Morrow Pool can efficiently and economically drain and develop 80 acres.
- (5) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, special rules and regulations providing for 80-acre spacing units should be promulgated for the North Vacuum-Morrow Pool.
- (6) That the special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.
- (7) That the special rules and regulations should provide for a limiting gas-oil ratio of 12,000 to 1 in order to allow each operator in the pool the opportunity to use his just and equitable share of the reservoir energy.
- (8) That the top of the perforations in the Morrow zone of the Pennsylvanian formation in the Pennzoil Company Bridges-State Well No. 1 is at 11,960 feet; that the special rules and regulations should therefore provide for an 80-acre proportional factor of 6.67 for allowable purposes.
- (9) That in order to prevent undue dissipation of the reservoir energy and waste of oil and gas, the special rules and regulations should prohibit the flaring or venting of gas within a reasonable time after the issuance of this order.

#### IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as an oil pool for Morrow production, is hereby created and designated the North Vacuum-Morrow Pool, with vertical limits comprising the Morrow zone of the Pennsylvanian formation in the interval from 11,745 feet to 12,152 feet on the log of the

Pennzoil Company Bridges-State Well No. 1, located in Unit A of Section 11, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, and horizontal limits comprising the N/2 NE/4 of Section 11, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico.

(2) That Special Rules and Regulations for the North Vacuum-Morrow Pool are hereby promulgated as follows:

# SPECIAL RULES AND REGULATIONS FOR THE NORTH VACUUM-MORROW POOL

- RULE 1. Each well completed or recompleted in the North Vacuum-Morrow Pool or in the Morrow zone of the Pennsylvanian formation within one mile thereof, and not nearer to or within the limits of another designated Morrow oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- RULE 2. Each well 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 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 of the Commission 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 governmental quarter-quarter section or lot or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. 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 shall be located within 150 feet of the center of either quarter-quarter section in the 80-acre unit.

-4-CASE No. 3410 Order No. R-3084

- 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 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 operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.
- RULE 6. A standard proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 6.67 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 as the acreage in such non-standard unit bears to 80 acres.

- RULE 7. The limiting gas-oil ratio shall be 12,000 cubic feet of gas for each barrel of oil produced.
- RULE 8. No gas shall be flared or vented on or after July 15, 1966; provided, however, that any well completed in the subject pool after July 15, 1966, shall be given 30 days in which to make beneficial use of the produced casinghead gas.
- RULE 9. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 8 without notice and hearing when an application has been filed setting forth the facts and circumstances justifying the exception and he determines such action is necessary to prevent waste or protect correlative rights.

# IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the North Vacuum-Morrow Pool or in the Morrow zone of the Pennsylvanian formation within one mile thereof

CASE No. 3410 Order No. R-3084

are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before July 15, 1966.

- (2) That each well presently drilling to or completed in the North Vacuum-Morrow Pool or in the Morrow zone of the Pennsylvanian formation within one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 80 acres to the well has been filed with the Commission.
- (3) 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

GUYTON B. HAYS, Member

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

SEAL

CLASS OF SERVICE This is a fast message unless its deferred char-

acter is indicated by the proper symbol.

# ESTERN UNIO

TELEGRAM

The filing time show

T LA013 NSC016

NS ODAGOS PD=KERMIT TEX 24 808A CDT=

NEW MEXICO OIL CONSERVATION COMMISSION= 1967 MAY 24 AM 7 55 LAND OFFICE BLDG SANTA FE NMEX=

RE CASE NUMBER 3573 AZTEC OIL AND GAS APPLACATION FOR ONE HUNDRED SIXTY WELL SPACING IN SOUTH CORBIN STRAWN FIELD I FULLY SUPPORT THIS REQUEST AND RECOMMENT AT 9BED GRANT ED=

F W ESTILL=

MAIN OFFICE OF

267 May 24 AH 9 of

# DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 24, 1967

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 3572: Application of Jones Exploration Company for a dual completion and for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State Well No. 1 located in Unit H of Section 35, Township 17 South, Range 35 East, Vacuum Field, Lea County, New Mexico, in such a manner as to permit the production of Abo Reef oil through the tubing and the disposal of produced salt water down the casing-tubing annulus into the Paddock formation in the perforated interval from 6955 to 6995 feet.

CASE 3573:

Application of Aztec Oil & Gas Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Corbin Strawn Oil Pool, including a provision for 160-acre proration units and the establishment of a 4000 to one gas-oil ratio limitation.

CASE 3574:

Application of Cima Capitan, Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through one well located in Unit C of Section 3, Township 17 South, Range 32 East, Maljamar Pool, Lea County, New Mexico.

CASE 3575:

Application of Harvey E. Yates for a triple completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the triple completion of his Stebbins Deep Federal Well No. 1 located in Unit H of Section 30, Township 20 South, Range 29 East, Eddy County, New Mexico, to produce oil from the Scanlon Delaware Oil Pool through one string of tubing and to selectively produce gas from an undesignated Strawn gas pool and from an undesignated Morrow gas pool through another string of tubing. Selective production of one of the two gas zones at a time would be accomplished by means of a sliding side door and tubing plug.

CASE 3576:

Application of Jomar Industries, Inc. for water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, has proposed to drill certain wells in the S/2 NW/4 SE/4 and the N/2 SW/4 SE/4 of Section 30, Township 18 South, Range 38 East, Lea County, New Mexico, for production of oil from the Ogallala forma-Applicant anticipates that fresh water will be produced from the Ogallala formation incidental to the production of said oil and now seeks authority to dispose of said water back into the Ogallala formation through an injection well or wells to be located no nearer than 330 feet to the outer boundaries of the abovedescribed acreage.

CASE 3577: Application of El Paso Natural Gas Company for four nonstandard units, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the following nonstandard gas proration units in Township 29 North, Range 7 West, Basin-Dakota Gas Pool, Rio Arriba County, New Mexico:

> A 327.78-acre non-standard unit comprising the W/2 of Section 6 and the NW/4 of Section 7, to be dedicated to the San Juan 29-7 Unit Well No 100 located 790 feet from the South line and 950 feet from the West line of said Section 6;

A 345-19-acre non-standard unit comprising the SW/4 of Section 7 and the W/2 of Section 18;

A 361.64-acre non-standard unit comprising the W/2 of Section 19 and the NW/4 of Section 30;

A 375.28-acre non-standard unit comprising the SW/4 of Section 30 and the W/2 of Section 31.

Each of the latter three non-standard units will be dedicated to a well to be drilled at an as yet undetermined standard location on the respective unit.

CASE 3578: Application of Texas Pacific Oil Company for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

> A 120-acre non-standard gas proration unit comprising the N/2 NE/4 and the SE/4 NE/4 of Section 7, to be dedicated to the State "A" A/c-2 Well No. 5, located in Unit A of said Section 7, and also to the State "A" A/c-2 Well No. 6 located in Unit B of said Section 7;

A 160-acre non-standard gas proration unit comprising the W/2 W/2 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 41, located in Unit M of said Section 5;

An 80-acre non-standard gas proration unit comprising the E/2 NW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 44, located in Unit F of said Section 5;

A 160-acre non-standard gas proration unit comprising the N/2 SE/4 and the E/2 SW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 28, located in Unit I of said Section 5;

# (Case 3578 continued)

An 80-acre non-standard gas proration unit comprising the S/2 SE/4 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 27, located in Unit P of said Section 5;

A 160-acre non-standard gas proration unit comprising the W/2 SW/4, SE/4 SW/4, and SW/4 SE/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 54, located in Unit O of said Section 8;

A 160-acre non-standard gas proration unit comprising the S/2 NW/4, NE/4 SW/4, and NW/4 SE/4 of Section 8, to be dedicated to the State  $^{n}A^{n}$  A/c-2 Well No. 56, located in Unit J of said Section 8;

An 80-acre non-standard gas proration unit comprising the S/2 NE/4 of Section 8, to be dedicated to the State "A" A/c-2 Well No. 43, located in Unit H of said Section 8;

An 80-acre non-standard gas proration unit comprising the N/2 NW/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 49, located in Unit C of said Section 8;

A 240-acre non-standard gas proration unit comprising the NE/4 and E/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No. 40, located in Unit A of said Section 9;

A 240-acre non-standard gas proration unit comprising the E/2 SE/4 Section 8, and the SW/4 Section 9, to be dedicated to the State "A" A/c-2 Well No. 38, located in Unit K of said Section 9;

A 160-acre non-standard gas proration unit comprising the N/2 NE/4 Section 8, and the W/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No.29, located in Unit D of said Section 9.

CASE 3579: Application of Texas Pacific Oil Company for three dual completions, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "A" A/c-2 Wells Nos. 28 54, and 29, located in Unit I of Section 5, Unit O of Section 8, and Unit D of Section 9, respectively, Township 22 South, Range 36 East, Lea County, New Mexico, in such a manner as to produce gas from the Jalmat Gas Pool and oil from the South Eunice Oil Pool.

CASE 3580: Application of Sunray DX Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg formation through one well located in Unit C of Section 17, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

- CASE 3581: Application of Sunray DX Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation from 4248 feet to 4286 feet in its Harris State Well No. 5 located in Unit I of Section 23, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico.
- CASE 3582: Application of Tenneco Oil Company for two unorthodox gas well locations, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Blanco-Mesaverde Gas Pool location of its Jicarilla C Well No. 6, located 1780 feet from the North line and 1455 feet from the West line of Section 14, and its Jicarilla C Well No. 4 located 1650 feet from the North and West lines of Section 24, all in Township 26 North, Range 5 West, Rio Arriba County, New Mexico.
- CASE 3583: Application of Stoltz & Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Bagley-Lower Pennsylvanian Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 3584: Application of Culf Oil Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Eddy "BD" State Well No. 1 at an unorthodox location 660 feet from the South line and 990 feet from the East line of Section 32, Township 20 South, Range 30 East, in an undesignated Strawn gas pool, Eddy County, New Mexico.
- CASE 3585: Application of Gulf Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the force-pooling of all mineral interests in the North Eagley-Pennsylvanian Oil Field, SW/4 SE/4 and SE/4 SE/4 of Section 9, Township 11 South, Range 33 East, Lea County, New Mexico, to be dedicated to the Lea State "OE" Well No. 1 to be drilled 660 feet from the South line and 1980 feet from the East line of said
- CASE 3586: Application of Morris R. Antweil for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Malaga Unit Area comprising 839 acres, more or less, of Federal and Fee lands in Sections 12 and 13, Township 24 South, Range 28 East, and Sections 7 and 18, Township 24 South, Range 29 East, Eddy County, New Mexico.
- CASE 3587: Application of Morris R. Antweil for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Delaware Sand through seven injection wells located in Sections 12 and 13, Township 24 South, Range 28 East, and Section 18, Township 24 South, Range 29 East, Malaga Pool, Eddy County, New Mexico.

- CASE 3588: Application of Pan American Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico.
  Applicant, in the above-styled cause, seeks approval of the unorthodox location in an undesignated Morrow and/or Devonian gas pool for its Poker Lake Unit Federal Well No. 26 at a location 660 feet from the South and East lines of Section 28, Township 24 South, Range 31 East, Eddy County, New Mexico, to be dedicated to a standard unit comprising the S/2 of said Section 28.
- CASE 3589:
- Application of Claude C. Kennedy for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the Slick Rock-Dakota Oil Pool comprising the S/2 SE/4 of Section 36, Township 30 North, Range 17 West, including a provision for development on 2 1/2 acre spacing with the provision that each 40-acre tract be subject to the Northwest New Mexico normal unit allowable.
- CASE 3590:
- Application of Texaco Inc. for a pilot waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Pennsylvanian formation in the interval from 9650 feet to 9800 feet in its State BV Well No. 1 located in Unit E of Section 26, Township 13 South, Range 33 East, Lazy-J Pennsylvanian Pool, Lea County, New Mexico.
- CASE 3591:
- Application of Anadarko Production Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to expand its Langlie-Mattix Pentose Sand Unit Waterflood Project by the injection of water into the Penrose Sand through eight additional injection wells located in Sections 20, 28, 29, 32, and 33, all in Township 22 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.

2000 FIRST NATIONAL BANK BUILDING DALLAS, TEXAS 75202

LAND DEPARTMENT KENNETH A. SWANSON, MANAGER

May 3, 1967

-3573

AIR MAIL CERTIFIED MAIL RETURN RECEIPT REQUESTED

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico

> Re: Aztec Oil & Gas Company's Application for Special Pool Rules, South Corbin-Strawn Pool, Lea County, New Mexico

### Gentlemen:

Enclosed in triplicate is Aztec Oil & Gas Company's "Application for an Order Establishing Special Pool Rules, South Corbin-Strawn Pool, Lea County, New Mexico.

A copy of the Application has been furnished to all interested parties known to Aztec Oil & Gas Company.

Yours very truly,

John E. Coe

GEC:sbb Enclosure

DOCKET MALED

Dole 5-12-67

AC

AZTEC OIL & GAS COMPANY FOR AN ORDER ESTABLISHING SPECIAL POOL RULES, SOUTH CORBIN-STRAWN POOL, LEA COUNTY, NEW MEXICO

case no. 3573

### APPLICATION

Aztec Oil & Gas Company (herein referred to as "Applicant") hereby makes application to the Commission for an order establishing special pool rules for the South Corbin-Strawn Pool, Lea County, New Mexico. In support of such application Applicant respectfully states and shows the following.

(1) By Order No. R-3043, effective March 1, 1966, the Commission established the South Corbin-Strawn Pool, Lea County, New Mexico, as an oil pool for Strawn production. The discovery well was the Aztec-Uncle No. 1, located in Unit C of Section 28, Township 18 South, Range 33 East, NMPM. The pool presently consists of the following described area:

### Township 18 South, Range 33 East, NMPM

Section 27: SW/4 Section 28: NW/4, S/2

As of the date of this application Applicant has completed two development wells in the Strawn formation, said wells being the Aztec-Federal "M" No. 1, located in Unit L of Section 27, Township 18 South, Range 33 East, NMPM, and the Aztec-Federal "MA" #1, located in Unit G of said Section 27.

- (2) In view of the geological and well data now available to it, Applicant is of the opinion that a well drilled and properly completed in the Strawn formation in the South Corbin-Strawn Pool may reasonably be expected to drain in an efficient and economical manner not less than 160 acres of land, and that in order to prevent economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, and to otherwise prevent waste and protect correlative rights it is appropriate for the Commission:
  - (a) to establish 160-acre drilling units for said pool, each such unit to consist of a single governmental quarter section
  - (b) to order that no well within said pool be drilled, in the absence of special topographical conditions justifying such

other locations, closer than 660 feet to the quarter section line or closer than 330 feet to any quarter-quarter section line upon which it is located, and

- (c) to establish a gas liquid ratio limitation of 4,000 cubic feet of gas per barrel of liquid hydrocarbons.
- (3) At the hearing regarding this matter Applicant will be prepared to present further evidence relating to (a) the propriety of the well-spacing provisions and (b) the propriety of the limiting gas-oil ratio proposed in paragraph (2) above.
- (4) A copy of this application has been mailed to each of the parties listed on Exhibit "A", attached hereto, who are all of the parties Applicant knows or has reason to believe are interested in this application.

Wherefore, Applicant prays that this matter be set down for hearing before an Examiner at the earliest practicable date, that notice thereof be given according to law and the rules and regulations of the Commission, and upon hearing of the application, an order be issued establishing drilling units, providing for the location of wells within said pool and assigning the limiting gas-oil ratio to said pool in the manner provided in paragraph (2), above.

Respectfully submitted this 3rd day of May, 1967.

AZTEC OIL & GAS COMPANY

Attorney

## EXHIBIT "A"

APPLICATION OF AZTEC OIL & GAS COMPANY FOR AN ORDER ESTABLISHING SPECIAL POOL RULES, SOUTH CORBIN-STRAWN POOL, LEA COUNTY, NEW MEXICO

Cities Service Oil Company Box 760 Roswell, New Mexico

Continental Oil Company Box 1621 Durango, Colorado

Mr. F. W. Estill Kermit, Texas

Hudson & Hudson, Inc. 1510 First National Building Fort Worth, Texas

Mobil Oil Corporation P. O. Box 633
Midland, Texas
Attn: Mr. Glenn W. Barb

Mobil Oil Corporation P. O. Box 820 Roswell, New Mexico Attn: Mr. Jim Posey

Pan American Petroleum Corporation Box 480 Farmington, New Mexico

Superior Oil Company Box 1900 Midland, Texas

Lla Adem par 5-24-67 leaung Locaton Coner, after il & so. Execut Port rules. 5a. Cochin-travon oil Port, 160 Accecuits 14 sections 660 14 reden line -530 /4/4 sec. Liner Eslatech HOR. 4000:1 185-33 E sec. 27028. Porte lesiquated 3-66-operation on Platerviole Rules. Discovery well. Ceptes-Junele #/ C-78-185-38 E.

dearnley-meier reporting service, inc.

NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico June 26, 1968 EXAMINER HEARING

BEFORE THE

IN THE MATTER OF:

Case 3573 being reopened pursuant to the provisions of Order No. R-3240 to permit all interested parties to appear and show cause why the temporary rules for the South Corbin-Strawn Oil Pool, Lea County, New Mexico, which include a provision for 160-acre spacing units and a 4000 to one gas-oil ratio limit, should remain in effect.

CASE NUMBER 3573 (Reopened)

BEFORE:

ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING



MR. UTZ: Case 3573.

MR. HATCH: Case 3573 reopened, in the matter of Case 3573 being reopened pursuant to the provisions of Order No. R-3240 to permit all interested parties to appear and show cause why the temporary rules for the South Corbin-Strawn Oil Pool, Lea County, New Mexico, which include a provision for 160-acre spacing units and a 4000 to one gas-oil ratio limit, should remain in effect.

If the Examiner please, we have a letter from Aztec Oil and Gas Company, dated June 21st, 1968, by Prentice Watts in which he states that:

"Aztec Oil and Gas Company, the original applicant in Case 3573 heard before an examiner hearing on May 24, 1967, has no additional reservoir information to present in support of the special rules and regulations for this pool. Production from the two existing Strawn wells has been most disappointing and further development cannot be economically justified.

Accordingly, since we are unable to contribute significant new information supporting 160-acre spacing, we respectfully request additional testimony not be required in this case."

MR. UTZ: Are there any other appearances in the case?

MR. HATCH: I move that in the absence of testimony in support of it, that it revert to forty-acre spacing.

MR. UTZ: In the absence of testimony in Case 3573, I don't believe we have any other choice except to -- well, the order expires, the order in this case will expire in the absence of testimony.

STATE OF NEW MEXICO ) 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 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 5th day of July, 1968.

Jda Dearnley NOTARY PUBLIC

My Commission Expires:

June 19, 1971

hido hereby couldn'y that the

June 26 68

Total Commenced

dearnley-meier reporting service, inc.

1120 SIMMS BLDG. . P. O. BOX 1092 . PHONE 243-4491 . ALBUQUERQUE, NEW MEXICO

DEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
May 24, 1967

EXAMINER HEARING

IN THE MATTER OF:

Application of Aztec Oil and Gas Company for special pool rules, Lea County, New Mexico.

Case No. 3573

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING



MR. UTZ: Case 3573.

MR. HATCH: Application of Aztec Oil and Gas Company for special pool rules, Lea County, New Mexico.

MR. SWANSON: If it please the Examiner, I am Kenneth A. Swanson, member of the Texas Bar, appearing as attorney for Aztec Oil and Gas Company. I believe the case file will show that appearance has been entered in our behalf by local counsel.

MR. UTZ: I have a communication here from Montgomery, Federici and Andrews.

> (Whereupon, Applicant's Exhibits 1 through 7 were marked for identification.)

MR. SWANSON: We have one witness in this case.

(Witness sworn.)

### PRENTICE R. WATTS

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

### DIRECT EXAMINATION

### BY MR. SWANSON:

Will you please state your name, by whom you are employed and in what capacity?

My name is Prentice Watts. I am employed by Aztec Oil and Gas Company in Dallas, Texas, Vice President for Production.

(1092 · PHONE 243-669] · ALBUQUERQUE, NEW MEXICO 87101 EAST · PHONE 256-1294 · ALBUQUERQUE, NEW MEXICO 87108 BLDG. • P.O. BOX 1 SIMMS

120 8

This is a hearing with respect to Aztec's application for 160-acre spacing of the Strawn oil pay in the South Corbin area. Would you generally describe this area, Mr. Watts?

The South Corbin Strawn Oil Pool is Located generally in Section 21, 22, 27 and 28 of Township 18 South, Range 33 East, Lea County, New Mexico. The pool produces from the Strawn formation at a depth of about 12,300 feet. This map which I wish to submit as Exhibit No. 1 shows land ownership, shows Strawn well locations and geological contours on top of the Strawn formation. Only three wells in the immediate area have penetrated the Strawn, they are the Uncle No. 1, located Northeast-Northwest, Section 28, the Federal "M" No. 1, located Northwest-Southwest, Section 27, the Federal "MA" No. 1, located Southwest-Northeast, Section 27, all in Township 18 South, Range 33 East.

The Federal "MA" No. 2, located Northeast-Southeast of Section 21 is currently drilling below 10,800 feet and is projected as a dual completion in the Morrow and Strawn formations. All of these wells are operated by Aztec. Two wells are currently producing from the Strawn, the Federal "M" No. 1 and the Federal "MA" No. 1. Both are dually completed in the Morrow gas zone and the Strawn oil zone.

The Morrow, found at a depth of 13,300 feet, is the

DEPOSITIONS, HEARINGS, STATEMENTS, E (PERT TESTIMONY, DAILY COPY, CONVENTION

more valuable of the two zones and was the primary objective for the two wells. Geologically the Strawn formation is a member of the Upper Pennsylvanian system and dips regionally to the Southeast. The Strawn is generally a carbonate rock interspersed with shale stringers and there are occasional sand buildups as well as reef-type deposits within the zone. The South Corbin area is such a sand deposit. It's a medium grained angular quartzitic sand with a dolomitic cementing material. The zone is presumed to be a beach-type deposit on the Northwest flank of a local structural high.

Now, this structure is indicated on our Exhibit 1 by contour on top of the Strawn. The lateral extent of the sand is not known though it's likely of limited extent. This cross section, which I shall call Exhibit No. 2, was prepared from gamma ray sonic logs of the three wells in the pool.

The cross section runs from the Uncle No. 1 eastward to the Federal "M", thence to the Federal "MA" No. 1. On the cross section I've indicated the top of the Strawn formation. It's shown in green, the producing zone, the porous sand interval is shown in red and perforations in the three wells are shown by red blocks. You can see this is a thin sand with a gross thickness of some six to ten feet, but it is apparently continuous between the wells.

Our Exhibit No. 3 is a summary of reservoir data.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTION

Reading from the exhibit, the average porosity is 15%, permeability up to 25 millidarcies, average water saturation, 25%, average net pay in the area, five and a half feet, and estimated formation volume factor, 1.70; initial reservoir pressure was 7128 pounds per square inch, the oil gravity on the surface is 46 degrees API, the initial gas-oil ratio was 1600 cubic feet per barrel.

Q Mr. Watts, have you made a study of the area that one of these Strawn wells could reasonably be expected to drain in an efficient and economical manner?

A I believe each well will reasonably be expected to drain 160 acres. The cross section, our Exhibit No. 2, indicates the probability of a continuous sand zone. Now, the initial bottomhole pressure of the Federal "M" No. 1 was 7,128 psi. This is an extrapolated pressure from a drill stem test taken on December 19th, 1966; the same type of bottomhole pressure on the Federal "MA" No. 1 was 6,862 psi on March 3rd, 1967. Now that's some 266 pounds lower than the Federal "M" No. 1.

MR. UTZ: What did you say the No. 1 was?

THE WITNESS: Federal "M" No. 1 was 7,128.

MR. UTZ: Thank you.

A During the elapsed time between these two pressures in the two wells, the Federal "M" No. 1 produced about 21,000

barrels of oil. It is likely that the difference in bottomhole pressure is because of production from the Federal "M" No. 1.

Now, if this is true it might be assumed that some 450 acres may have been affected by production from the Federal "M" No. 1. This assumption is based on the fact that the two wells are about 2500 feet apart, and if withdrawals from the Federal "M" caused a reduction in pressure at the Federal "MA" No. 1, then we can consider a possible circular area of drainage with a radius of 2500 feet. Such a circle would contain about 450 acres. This is an area much larger than the proposed 160-acre spacing requirement.

Another point that should be considered in establishing a drainage area is cumulative production from the Federal "M" No. 1. To establish that point I would like to refer you to Exhibit No. 4, which is a summary of estimated reserves of an average Strawn well in this area.

Now, these estimated reserves are based on volumetric calculations, using our basic reservoir data obtained from electric logs, drill stem tests, one core analysis and estimated data and an assumed recovery factor of 20%, and they're used as perameters.

- Q And they use these perameters as the information shown on Exhibit 3, is that correct?
  - A That's correct. Reading from the summary of

CONVENTIONS

estimated reserves we believe that the recoverable oil in this area would be about 565 barrels per acre, or for 160-acre tract, 90,400 barrels recoverable gas, that is casinghead gas, will be about 3,846 MCF per acre or 615,000 MCF per 160-acre tract.

Now, I will refer to Exhibit No. 5. This exhibit indicates that the Federal "M" No. 1 has produced about 44,000 barrels of oil since its completion in January of this year. Now, assuming this well has drained about 565 barrels of oil per acre as shown on Exhibit 4, plus the gas, then I think it may reasonably be assumed that the well has already drilled about 80 acres.

The well continues to produce top allowable of 324 barrels per day and is capable of producing at least 350 barrels a day. We haven't tested it at a higher rate recently. I presume it can drain at least another 180 acres.

Commission has previously granted 160-acre spacing for the
Lusk Strawn Pool. I think it should be pointed out that the
South Corbin Strawn Pool and the Lusk Pool possess some
similar characteristics, porosity and particularly
permeability are of the same magnitude. The Lusk Pool contains
a much thicker pay, better pool. The drainage characteristics
are somewhat comparable and I think this point should be
considered when assuming the drainage area in the South Corbin

CONVENTION

DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY,

SPECIALIZING IN:

area.

One other point aside from drainage should be considered. That is economics. Our Exhibit No. 6 briefly summarizes the economics of drilling a Strawn oil well.

Reading from the summary of economics, we estimate the cost of a single Strawn oil well to be \$201,000. Now, remember, this is a well of some 12,300 foot depth. We receive a net price for the oil after deducting royalty, taxes, trucking or pipeline charges, we receive \$2.25 a barrel, net. The net price for gas also after deducting royalty, taxes and handling is about seven and three-quarters cents per MCF.

We estimate the operating costs for a Strawn oil well over its life to be up at least \$9,600. Using those figures, we believe the total of all of products that could be obtained from 160-acre spaced Strawn oil well would be \$251,200. Subtracting your operating costs and the cost of a Strawn well we come up with an indicated net profit of \$40,600, and this is an undiscounted net profit. So, you see, in any event the drilling of a Strawn well is fairly marginal.

Q Do you have any recommendations to make with respect to the rules that should apply to this South Corbin Oil Pool?

A Yes. Our Exhibit No. 7 lists special rules and regulations that we recommend for the pool. I shall briefly

summarize these rules. First, we think the spacing should be 160 acres and the proration unit should comprise a governmental quarter section. Further, we recommend that the wells be spaced or located within the proration unit not closer than 660 feet to any quarter section line, nor closer than 330 feet to any quarter, quarter section line.

We recommend that the Secretary-Director of the Commission have authority to grant administrative approval for exceptions to the spacing, that is, insofar as a nonstandard unit is concerned and unorthodox location caused by topographical conditions. We further recommend the limiting gas-oil ratio in the pool of 4,000 cubic feet per barrel of oil. I did not testify supporting this ratio. I might point out that the Federal "M" No. 1 had an initial gas-oil ratio of 1600 cubic feet per day, in the five months it's produced the ratio has increased to about 1900 cubic feet. We feel that it will continue to increase so we recommend the 4,000 to 1 ratio.

The gas-oil ratio of that well is 1600 cubic feet of gas to one barrel of oil?

Yes. In any event, there will be no flaring of gas because we already have a gathering system and it's in operation for gathering casinghead gas.

One last recommendation, we recommend that the

243-6691 • ALBUQUERQUE, NEW MEXICO 87101-256-1294 • ALBUQUERQUE, NEW MEXICO 87108 X 1092 • PHONE 2 1120 SIMMS BLDG. . P.O. BOX

160-acre proration unit be assigned a proportional factor of 7.75 for allowable purposes.

Q Mr. Watts, were these exhibits prepared by you or under your supervision?

A Yes.

MR. SWANSON: We would like to offer Aztec's Exhibits 1 through 7 at this time.

MR. UTZ: Without objection, Exhibits 1 through 7 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1 through 7 were offered and admitted in evidence.)

Q (By Mr. Swanson) Have you any further statement to make, Mr. Watts?

A Just briefly to summarize. I believe it's evident that 160 acres can be drained by one well. This is based on available pressure data. It's based on a continuous sand development and substantiated to a degree by cumulative production to date. Really economics is a most important consideration. I doubt if this pool would have been developed on any spacing if duals with the Morrow were not possible. It's difficult to justify a 12,000-foot well for a single five-foot pay zone. We recommend the 160-acre spacing for this pool.

MR. SWANSON: This concludes our direct presentation.

LDC. . P.O. BOX 1092 . PHONE 243-6691 . ALBUQUERQUE, NEW MEXICO 8710)

# IMAS BLOG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87101

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONYENTIONS

### CROSS EXAMINATION

### BY MR. UTZ:

- Q The Strawn in this area, Mr. Watts, is about 12,350 or close to that, is it not?
  - A Yes.
  - Q What is the depth of the Morrow?
  - A About a thousand feet deeper, 13,300.
- Ω You say your Federal "MA" 2 drilling well you anticipate a dual Strawn and Morrow?
  - A Yes.
- Q And I believe you said that some of your other wells were also dualed, which were they?
- A Federal "M" No. 1 and Federal "MA" No. 1. Now, the Uncle No. 1, a dual was attempted on it; however, there were some mechanical problems, it was not produced. Incidentally, that well was not drilled by Aztec. We acquired interest in the Morrow at a later date and are now producing it only as a Morrow gas well.
- Q When was this Uncle No. 1 drilled in relation to the Federal "M" 1?
  - A Oh, in late 1965.
  - Q The "M" 1 was drilled when?
  - A It was completed in January of this year.
  - Q Do you have any information as to what the pressures

### were in the Uncle No. 1?

- A Yes. We had a drill stem test pressure in the Uncle 1. I presume you are referring to the Strawn, of course?
  - O Yes.
- A It was, as I recall, some 6700 pounds. Now we can't explain the difference other than possible mechanical problems in the drill stem test. In reviewing the drill stem test report we note that there is a note on it that the tool was plugging and also the surface choke was plugging, so we do have some question about that pressure.
- Q You say the GOR on your "M" No. 1 is now around 1900 to 1?
  - A Yes.
  - Q This, I gather, is all solution gas?
- A Well, we are assuming that the 1600 to 1 was a solution gas-oil ratio. We don't know. It would take a bottomhole sample, I presume, to really confirm that. It does seem high for a solution gas-oil ratio.
- Q Do you anticipate that you actually need a 4,000 to 1 producing ratio?
  - A Yes, I believe so.
  - Q Once the well is completed?
- A Comparing it to the Lusk Strawn Pool, oh, the
  Big Eddy Strawn, I believe the ratios in those pools climbed

PECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

considerably and in some instances reached as high, I think, as 8,000 to 1.

- The closest Strawn Pool to this area is the Lusk?
- To the best of my knowledge that is true.
- And do these rules that you proposed here, are they in conformance to the Lusk Strawn rules?
  - Yes, very similar.
- By "very similar", you mean the difference would be in the order of the proportional factor and what is the GOR on the Lusk Strawn?
- 4,000 to 1 limiting ratio. The spacing is the same and the well location is the same.
- MR. SWANSON: The allowable I believe is different, is it not?

Yes. A

MR. UTZ: I believe you are asking for temporary 160-acre --

MR. SWANSON: Yes.

- (By Mr. Utz) In relation to your Exhibit No. 6, is this \$201,000, is that for a Strawn portion of the dual completion --
  - No, that's a Strawn single completion.
- So that your economics would be somewhat better where you could dual?

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87101 1400 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO 87108

Yes, that's true, because of the 320-acre spacing by statewide rule, any further development in the area, or at least one-half of that 320 acres would have to be from a single Strawn well.

Now, the Morrow in this area is gas?

Α Gas.

MR. UTZ: Are there any other questions? witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in this case?

MR. HATCH: I have a telegram addressed to the Oil Conservation Commission dated May 24, 1967, "Re Case 3573, Aztec Oil and Gas application for 160-acre well spacing in South Corbin Strawn field. I fully support this request and recommend it be granted. F. W. Estle", who has been identified by the applicant as a lease owner in the area.

MR. UTZ: I presume you have no objection to this statement?

MR. SWANSON: No, sir, we are most happy to have it.

MR. UTZ: The case will be taken under advisement. We will take a ten-minute recess before we take up Case 3576.

1120 SIMMS BLDG, • P.O. BOX 1092 • PHONE 243-669] • ALBUQUERQUE, NEW MEXICO 87109 1400 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO 87108

	م ویشیک کاری کی مانیوں ہے ۔ ان کار	
<u>I 1</u>	1 D E X	PAGE
WITNESS		TAGE
PRENTICE R. WATTS		\$ 1.00 miles (1.00
Direct Examination by M	r. Swanson	2
Cross Examination by Mr	. Utz	11
		OFFERED AND
EXHIBIT M	ARKED	ADMITTED
Applicant's 1	2	10
through 7		

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 14th day of June, 1967.

Ada Dearling NOTARY PUBLIC

My Commission Expires: June 19, 1967.

> I do haredy sortify that the forestrap iso ได้ มูดวายต่อได้เหลือ วัด a coatis 28 dass 80 3.5.7.3.

Her Mexico Oll Conservation Commission

1120 SIMMS BLDG. • P.O. BOX 1092 G. PHONE 249-6691 • ALBUQUERQUE, NEW MEXICO 87109. 1400 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO 87108

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

### SUMMARY OF RESERVOIR DATA

South Corbin Strawn Oil Pool Township 18 South, Range 33 East Lea County, New Mexico

Average Porosity	15%
Permeability	Up to 25 md.
Average Water Saturation	25%
Average Net Pay	5.5 Ft.
Estimated FVF	1.70
Initial Reservoir Pressure	7128 psi
Oil Gravity	46° API
Initial Gas-Oil Ratio	1600 CF/Bb1

BEFORE EXAMINER UTZ

CIL CONSERVATION COMMISSION

EXHIBIT NO. 3

CASE NO. 3573

### SUMMARY OF ESTIMATED RESERVES

South Corbin Strawn Oil Pool Township 18 South, Range 33 East Lea County, New Mexico

The following estimated reserves are based upon volumetric calculations using basic reservoir data obtained from electric logs, drill stem tests, core analysis, estimated data and an assumed recovery factor of 20%.

### Recoverable Oil:

Per Acre	564.7 Bbls
Per 160 Acre Tract	90,400 Bbls
Per 80 Acre Tract	45,200 Bbls

### Recoverable Gas:

Per Acre
Per 160 Acre Tract
Per 80 Acre Tract

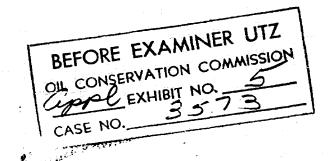
3,846 MCF 615,000 MCF 307,500 MCF

CASE NO. 3573

### DRAINAGE AREA - MAY 1967

South Corbin Strawn Oil Pool Township 18 South, Range 33 East Les County, New Mexico

Recoverable Oil Per Acre	564.7 Bbls
Recoverable Oil Per 160 Acres	90,400 Bbls
Cummulative Production from Federal M #1 (6-1-67)	44,000 Bbls
Current Rate of Production Federal M #1 (Top Allowable 324 B/D)	324 B/D
Area Drained to Date	77.5 Acres



### SUMMARY OF ECONOMICS

South Corbin Strawn Oil Pool Township 18 South, Range 33 East Lea County, New Mexico

### Basic Data Estimated Cost of Strawn Oil Well \$ 201,000 Net Price Received for Oil 2.25/Bbl (After deduction for royalty, taxes and handling) 7.75¢/MCF Net Price Received for Gas (After deduction for royalty, taxes and handling) 9,600 Estimated Operating Costs Economics - 160 Acre Spacing 203,200 Net Value, 160 Acre 011 Reserve Net Value, 160 Acre Gas Reserve 48,000 Total 251,200 Less Operating Expenses Undiscounted Net Proceeds 241,600 Less Cost of Strawn Well Indicated Net Profit (Undiscounted) 40,600 Economics - 80 Acre Spacing Net Value, 80 Acre Oil Reserve Net Value, 80 Acre Gas Reserve 101,600 24,000 Total 9,600 Less Operating Expenses 116,000 201,000 Undiscounted Net Proceeds Less Cost of Strawn Well Indicated Net Loss (85,000)

BEFORE EXAMINER UTZ
CIL CONSERVATION COMMISSION
CASE NO. 3573

### AZTEC OIL & GAS COMPANY

EXHIBIT 7

# SPECIAL RULES AND REGULATIONS FOR THE SOUTH CORBIN-STRAWN POOL

- Rule 1. Each well completed or recompleted in the South Corbin-Strawn Pool or in the Strawn formation within one mile of said Pool and not nearer to nor within the limits of another designated Strawn Pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- Rule 2. Each well in said pool shall be located on a standard unit containing 160 acres, more or less, comprising a governmental quarter section.
- Rule 3. The Secretary-Director of the Commission may grant an exception to the requirement of Rule 2 without notice and hearing when an application has been filed for a non-standard unit consisting of less than 160 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. 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.

The allowable assigned to any such non-standard unit shall bear the same ratio to a standard allowable in the South Corbin-Strawn Pool as the acreage in such non-standard unit bears to 160 acres.

- Rule 4. Each well completed or recompleted in the South-Corbin-Strawn Pool or in the Strawn formation within one mile of said Pool shall not be drilled closer than 660 feet to any quarter section line or closer than 330 feet to any quarter-quarter section line upon which it is located.
- Rule 5. The Secretary-Director may grant an exception to the footage 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, provided the well will be located no nearer than 330 feet to the outer boundary of the unit. 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. The limiting gas-oil ratio in the South Corbin-Strawn Pool shall be 4000:1.
- Rule 7. A 160-acre proration unit (158 through 162 acres) in the South Corbin Strawn Pool shall be assigned a 160-acre proportional factor of 7.75 for allowable purposes.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION  EXHIBIT NO
CASE NO. 3573