CASE 2323: Appli. of SOUTHMEST PROD. CO. for 2 non-standard oil pro. units & for unorthodox oil well location in Cha Cha-Gallup.

CASE 2323: Appli. of SOUTHWEST PROD. CO. for 2 non-standard oil pro. units & for unorthodox oil well location in Cha Cha-Gallup.

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mall Exhibits, Etc.

GOVERNOR EDWIN L. MECHEM CHAIRMAN

## State of New Wexico Oil Conservation Commission

LAND COMMISSIONER E. S. JOHNNY WALKER MEMBER



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

P. O. BOX 871 SANTA FE

July 13, 1961

Re:	CASE NO	2323	
	ORDER NO.	R-2030	
	APPLICANT:		
	Southwest Production Company		
	Re:	APPLICANT:	

Dear Sir:

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

A. L. PORTER, Jr.
Secretary-Director

#### MEFORE THE OIL COMERVATION CONSISSION OF THE STATE OF MEN MEXICO

IN THE MATTER OF THE MEARING CALLED BY THE OIL COMSERVATION CONCESSION OF MEN MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE No. 2323 Order No. R-2030

APPLICATION OF SOUTHWEST PRODUCTION COMPANY FOR TWO NON-STANDARD OIL PRO-RATION UNITED AND FOR AN UNDERTRODOX OIL WELL LOCATION IN THE CHA CHA-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 June 28, 1961, 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 13th day of July, 1961, the Commission, a quorum being present, having considered the application, the evidence addresd, and the recommendations of the Examinar.

Elvis A. Uta, and being fully edvised 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 Commission Order No. R-1967, entered in Case No. 2271 on May 11, 1961, established a 46.75-acre non-standard oil proration unit in the Cha-Gallup Oil Pool, consisting of Lot 6 and the 5/2 of that portion of the San Juan River channel lying in the 5E/4, all in Section 16, Township 29 North, Range 14 West, MMPM, San Juan County, New Mexico.
- (3) That the applicant, Southwest Production Company, is the owner and operator of the remaining acreage in the SE/4 of said Section 16, comprising 113.25 acres.
- (4) That the applicant seeks the establishment of two nonstandard oil proration units in the Cha Cha-Gallup Oil Pool, one unit consisting of the West 56.625 acres and one unit consisting of the East 56.625 acres of that portion of the SE/4 of said Section 16 lying North of the mid-channel of the San Juan River.

-2-CASE No. 2323 Order No. R-2030

- (5) That the applicant further proposes to locate a well at an unorthodox location in the subject pool 1912 feet from the South line and 2310 feet from the East line of said Section 16, to which well the West proration unit is to be dedicated.
- (6) That approval of the subject application will meither cause waste nor impair correlative rights.

#### IT IS THEREFORE ORDERED:

- (1) That two non-standard oil proration units in the Cha-Gallup Oil Pool are bereby established, one unit consisting of the West \$6.625 acres and one unit consisting of the East \$6.625 acres of that portion of the SE/4 of Section 16, Township 29 North, Range 14 West, MMPH, San Juan County, New Mexico, lying Worth of the mid-channel of the San Juan River.
- (2) That the allowable which will be assigned to each proration unit shall hear the same ratio to a standard allowable in the Cha-Gallup Oil Pool as 56.625 bears to 80.
- (3) That in the event an official survey changes the amount of acreage in the subject tract now comprising 113.25 acres, the acreage to be allocated to each unit for allowable purposes shall be one-half of the acreage in the tract according to the change.
- (4) That the applicant, Southwest Production Company, is hereby authorised to locate a well at an unorthodox location in the Cha-Gallup Oil Pool 1912 feet from the South line and 2310 feet from the East line of said Section 16, to which well the above-described West provition unit is to be dedicated.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DOME at Samta Pe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL COMMISSION

EDWIN L. MECHEM, Chairman

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

(ase 2323. Leand 6-28-61 Rec. 7-5-61 1. Scant Southwest request for I man Standenits in cha Cha-Hallup. consection, o) (a) De lulzpo) the to the portion of the Suff, see. 16 - 29 04 14w lying North of the center line of the San from River consisting by the 56.625 and ( (b) The E/2 of the partion of the 5 W/4 sec. 16, 29 16-14W lexing with of the center line the Da from River consisting of 56.625 Ac. 2. Scent an NSL for a will to be dulled 1912/5+2319 E lines y said section 16. Such to Deart (a) whose in to be dedecated to said - well. The well well receive 56.025 allowall. Thursd It Section 16 to be a Del. 640 Ac. Setion. sherefore the civils described above should contain the amount of Cecre ye dedecated. To the los

#### DOCKET: EXAMINER HEARING - WEDNESDAY, JUNE 28, 1961

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, as alternate Examiner:

#### CONTINUED CASE

CASE 2298:

Application of Chambers & Kennedy for a gas-oil dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Monument State Well No. 1, located in Unit J, Section 34, Township 19 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Eumont Gas Pool and the production of oil from the Eunice-Monument Pool through the 5½-inch by 2½-inch casing-tubing annulus and through 2½-inch tubing respectively.

#### NEW CASES

CASE 2309:

Application of Texaco Inc. for an oil-oil-oil triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its C. P. Falby (a) Well No. 4, located in Unit E, Section 8, Township 22 South, Range 37 East, Lea County, New Mexico, as a triple completion (conventional) in the Eument Ges Pool, the Penrose-Skelly Pool, and the Drinkard Fool, the production of oil from each pool to be through parallel strings of 2 3/8-inch tubing.

CASE 2310:

Application of Standard Oil Company of Texas for permission to transfer allowables, Lea County, New Mexico. Applicant, in the above-styled cause, during vertical communication tests, seeks permission to transfer allowables in the Vacuum Abo Pool for a 120-day period from its Vac-Edge Unit Well No. 4, located in the NW/4 NE/4 of Section 4, Township 18 South, Range 35 East, Lea County, New Mexico, to its Vac-Edge Unit Wells Nos. 3 and 6, located in the NE/4 NW/4 of said Section 4 and in the NE/4 NE/4 of said Section 4, respectively.

CASE 2311:

Application of Continental Oil Company for an oil-oil dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Britt B-15 Well No. 10, located in Unit F, Section 15, Township 20 South, Range 37 East, Lea County, New Mexico, as a dual completion (conventional) in an undesignated Blinebry Pool and in the Monument-Tubb Pool, the production of oil from each pool to be through parallel strings of 2-inch tubing.

CASE 2312:

Application of Continental Oil Company for an exception to Rule 309 (a), Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 309 (a) to permit the commingling, after separate measurement, of the Maljamar-Paddock Pool production from the William Mitchell "A" lease, consisting of the N/2 of Sections 19 and 20, and from the William Mitchell "B" lease, consisting of the W/2 and the W/2 E/2 of Section 17, the E/2 and the E/2 W/2 of Section 18, and the S/2 of Sections 19 and 20, all in Township 17 South, Range 32 East, Lea County, New Mexico.

CASE 2313:

Application of W. W. Holmes for an order fixing the spacing of wells, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks an order fixing the spacing of wells producing from the Mesaverde formation in the N/2 of Section 11, Township 18 North, Range 3 West, Sandoval County, New Mexico. Applicant recommends the establishment of two and one-half acre well spacing with no increase in the allowable to be assigned a basic 40-acre oil proration, unit.

CASE 2314:

Application of Shell Oil Company for an exception to the gasoil ratio provisions of Rule 26 (A), Order No. R-1670, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the gas-oil ratio provisions of Rule 26 (A), Order No. R-1670, to permit its Shell State Well No. 1-A, located 380 feet from the North line and 380 feet from the West line of Section 36, Township 24 South, Range 36 East, Lea County, New Mexico, to remain classified as a gas well in the Jalmat Gas Pool, with a gas-oil ratio below 100,000: 1.

CASE 2315:

Application of Pan American Petroleum Corporation for a non-standard oil proration unit and for an unorthodox oil well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of an 86.62-, acre non-standard oil proration unit in the Totah-Gallup Oil Pool consisting of Lots 2, 3 and 4 of Section 12, Town-ship 28 North, Range 13 West, San Juan County, New Mexico, to be dedicated to the Gallegos Canyon Unit Well No. 100 at an unorthodox location 476 feet from the North line and 1980 feet from the West line of said Section 12.

CASE 2316:

Application of Pan American Petroleum Corporation for permission to dispose of salt water into the Wolfcamp formation, Lea County, New Mexico. Applicant, in the above-styled

CASE 2316: (Cont.)

cause, seeks permission to dispose of produced salt water into the Wolfcamp formation through its Lois Wingerd Well No. 8 located 660 feet from the South and East lines of Section 24, Township 12 South, Range 37 East, Gladiola-Wolfcamp Pool, Lea County, New Mexico.

CASE 2317:

Application of Pan American Petroleum Corporation for a pressure maintenance project in the Horseshoe-Gallup Oil Pool, San Juan County, New Mexico, and for special rules governing said project. Applicant, in the above-styled cause, seeks permission to institute a pressure maintenance project in the Horseshoe-Gallup Oil Pool by the injection of water into certain Northeast Hogback Unit wells in Sections 10, 11, 13, 14, 15 and 24, all in Township 30 North, Range 16 West, San Juan County, New Mexico. Applicant further seeks special rules governing the operation of said project.

CASE 2318:

Application of El Paso Natural Gas Products Company for an order force-pooling a non-standard oil proration unit in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Cha Cha-Gallup Oil Pool lying North of the mid-channel of the San Juan River in the SE/4 of Section 17, Township 29 North, Range 14 West, San Juan County, New Mexico. Interested parties include Humble Oil & Refining Company, Pan American Petroleum Corporation, and A. L. Duff.

CASE 2319:

Application of Tenneco Oil Company for a non-standard oil proration unit and for permission to commingle the production from separate leases, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 90.5-acre non-standard oil proration unit in the Cha-Gallup Oil Pool consisting of lots 3 and 4 and the E/2 SW/4 of Section 31, Township 29 North, Range 13 West, San Juan County, New Mexico. Applicant further seeks permission to commingle the Gallup oil production from the subject unit with other Gallup oil production from the E/2 W/2 and from the E/2 of said Section 31 after separately metering the production from each area.

CASE 2320:

Application of R. C. Banks for approval of the High Point Unit Agreement, Lea County, New Mexico. Applicant, in the above styled cause, seeks approval of the High Point Unit

CASE 2320: (Cont.)

Agreement, which nit embraces 1920 acres of State land in Township 11 South, Ranges 34 and 35 East, Lea County, New Mexico.

The following cases will not be heard before 1:30 P.M.

CASE 2321:

Application of Benson-Montin-Greer Drilling Corporation for an unorthodox oil well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox oil well location in the Cha Cha-Gallup Oil Pool for its Jones Well No. 7, located 1200 feet from the North line and 900 feet from the West line of Section 15, Township 28 North, Range 13 West, San Juan County, New Mexico.

CASE 2322:

Application of Southwest Production Company for an unorthodex oil well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodex oil well location in the Cha-Gallup Oil Pool for a well to be drilled 2260 feet from the North line and 330 feet from the West line of Section 16, Teumship 29 North, Range 14 West, San Juan County, New Mexico.

CASE 2323:

Application of Southwest Production Company for two non-standard oil proration units and for an unorthodox oil well location in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of two non-standard oil proration units in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico, one unit consisting of the West 56.625 acres and one unit consisting of the East 56.625 acres of that portion of the SE/4 of Section 16, Township 29 North, Range 14 West, lying North of the mid-channel of the San Juan River; the West proration unit is to be dedicated to a well to be drilled at an unorthodox location 1912 feet from the South line and 2310 feet from the East line of said Section 16.

CASE 2324:

Application of Aztec Oil & Gas Company for an order force-pooling a standard 320-acre gas proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a standard 320-acre gas proration unit in the Basin-Dakota Gas Pool, consisting of the N/2 of Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico.

CASE 2325:

Application of Aztec Oil & Gas Company for a non-standard oil proration unit in the Totak-Gallup Oil Pool, San Juan County, New Mexico. Applicant, in the above-styled cause,

## CASE 2325: (Cont.)

seeks the establishment of an 86.13-acre non-standard oil proration unit in the Totah-Gallup Oil Pool, consisting of Lot 1, the NE/4 NW/4 and the NW/4 NE/4 of Section 30, Town-ship 29 North, Range 13 West, San Juan County, New Mexico, to be dedicated to the Hagood Well No. 28-G located 765 feet from the North line and 3175 feet from the East line of said Section 30.

#### CASE 2326:

Application of David Fasken for permission to drill directionally, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks permission to sidetrack and recomplete the David Fasken-King-Davis Well No. 2, located 1980 feet from the North line and 1980 feet from the West line of Section 27, Township 8 South, Range 37 East, Roosevelt County, New Mexico, in such a manner as to locate the bottom of the hole in the Bough "C" formation of the Bluitt-Pennsylvanian Pool 300 feet West of said surface location.

#### CASE 2327:

Application of the Oil Conservation Commission on its own motion to consider the establishment of non-standard gas proration units for the Basin-Dakota Pool in Townships 29, 30, 31 and 32 North, Ranges 4, 5, 6, 7, 8, 9, 11,12, 13 West, San Juan and Rio Arriba Counties, New Mexico. Said non-standard units are necessitated by irregular sections resulting from survey corrections in the United States Public Lands Survey.

## OF THE STATE OF NEW MEXICO

#### IN THE MATTER OF -

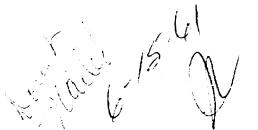
THE APPLICATION OF SOUTHWEST PRODUCTION COMPANY, a co-partnership, consisting of JOHN H. HILL and JOSEPH P. DRISCOLL, FOR AN ORDER CREATING TWO NON-STANDARD OIL PRORATION UNITS IN THE CHA CHAGALLUP OIL POOL, SAN JUAN COUNTY, NEW MEXICO, CONSISTING OF ALL OF THE LAND IN THE SOUTHEAST QUARTER (SE½) OF SECTION 16, T-29-N, R-14-W, N.M.P.M., LYING NORTH OF THE CENTER OF THE SAN JUAN RIVER, and FOR AN UNORTHODOX WELL LOCATION IN ONE OF SAID NON-STANDARD UNITS.

Case No. 2323

#### APPLICATION

Comes now the applicant, Southwest Production Company, a co-partnership consisting of John H. Hill and Joseph P. Driscoll, and alleges and states:

- l. That the applicant is the owner of the oil and gas lease covering that part of the SEt of Section 16, T-29-N, R-14-W, N.M.P.M., lying North of the center of the San Juan River; that said land is a part of the Cha Cha-Gallup Oil Pool in the above described county and state.
- No. R-1967 in case No. 2271 which granted a non-standard proration unit for the production of oil from the Gallup Sand in the above named pool, consisting of all of the land in the SE<sup>1</sup>/<sub>4</sub> of the above described Section 16 lying South of the center of the San Juan River; that such non-standard proration unit consisted of 46.75 acres and left 113.25 acres North of the center of said river, the lease on which land, North of the center of said river is owned by applicant.
  - 3. That applicant desires to create two non-standard



Page 1.

proration units for the production of oil from the land lying North of the center of the San Juan River in the SEL of the above described Section 16; one such unit to consist of the West 56.625 acres of said land and the other to consist of the East 56.625 acres of said land, and that applicant is entitled to an Order of this Commission creating said two non-standard proration units for the production of oil from the Gallup Sand in the above named pool.

- 4. That it will promote correlative rights and prevent waste to create the two non-standard proration units described in the preceding Paragraph. That each of the above described 56.625 acre non-standard proration units should be granted an allowable factor commensurate with the acreage of said unit.
- 5. That applicant desires to drill a well in the West 56.625 acres of the two above described non-standard proration units at a point 1912 feet from the South line and 2310 feet from the East line of said Section, which location is an unorthodox location. That it is necessary to drill the well in such unit at such unorthodox location rather than the standard location provided for in Order No. R 1800, which prescribes the field rules and drilling locations for the above named pool by reason of topographical conditions which make it impracticable to drill at the standard location, and that it is necessary that the applicant be granted permission to drill such well at such unorthodox location in order that its correlative rights may be protected and that waste may be prevented; that this Commission should, therefore, enter an Order granting such permission.
  - 6. That the names and addresses of all parties known

to the applicant who might be interested in this Application are set out in Exhibit "A" attached hereto and made a part hereof.

WHEREFORE, applicant prays that this Application be set down for hearing; that due notice thereof be given in accord with the Rules of this Commission and the laws of the State of New Mexico, and that upon hearing of such Application and from the evidence to be adduced, the Commission enter an Order granting applicant the right to drill two non-standard proration units. consisting of the West 56.625 acres of the land in the SE<sup>1</sup>/<sub>4</sub> of the above described Section 16 lying North of the center of the San Juan River, and that such Order further provide for an allowable for each of said units commensurate with the acreage thereof, and that such Order further provide that applicant be granted permission to drill a well on the West of said two units at an unorthodox location as above described.

SOUTHWEST PRODUCTION COMPANY, a co-partnership, consisting of John H. Hill and Joseph P. Driscoll,

Bv

Geo. L. Verity Its Attorney

152 Petroleum Center Building Farmington, New Mexico

### EXHIBIT "A"

Pan American Petroleum Corp.

501 Airport Drive, Farmington, New Mexico

Pubco Petroleum Corp.

P.O.Box 1419, Albuquerque, New Mexico

Hondo Oil and Gas Co.

410 E. College Boulevard Roswell, New Mexico

#### BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico

June 28, 1961

EXAMINER HEARING

Case 2323

TRANSCRIPT OF HEARING

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico June 28, 1961

#### EXAMINER HEARING

IN THE MATTER OF:

Application of Southwest Production Company for two non-standard oil proration units and for an unorthodox oil well location in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of two nonstandard oil proration units in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico, one unit consisting of the West 56.625 acres and one unit consisting of the East 56.625 acres of that portion of the SE/4 of Section 16, Township 29 North, Range 14 West, lying North of the mid-channel of the San Juan River; the West proration unit is to be dedicated to a well to be drilled at an unorthodox location 1912 feet from the South line and 2310 feet from the East line of said Section 16.

Case 2323

BEFORE:

Elvis A. Utz, Examiner

#### TRANSCRIPT OF HEARING

MR. UTZ: We will call Case Number 2323.

MR. MORRIS: Application of Southwest Production Company for two non-standard oil proration units and for an unorthodox oil well location in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico.



MR. UTZ: Are there any appearances in this case?

MR. VERITY: George L. Verity for the Applicant, Hervey, Dow and Hinkle on behalf of Humble Oil and Refining Company.

MR. SPANN: Charles Spann, Albuquerque, New Mexico, appearing for El Paso Natural Gas Production Company. I have John Mason of El Paso also appearing for El Paso Natural Gas.

MR. UTZ: Are there any other appearances?
You may proceed.

MR. VERITY: May it please the Commission, this is an application for two non-standard oil-gas proration units consisting of the east 56.625 acres lying in the southeast quarter of Section 16 Township 29 North, Range 14 West, lying north of the center of the San Juan River as it crosses the southeast quarter of said Section. This Commission has heretofore promulgated an order granting to Pan American Petroleum Corporation a non-standard unit consisting of all the lands south of the center of the San Juan River, the southeast quarter of said Section 16 which unit consisted of only forty-six plus acres.

MR. WHITAKER: That is 26.75 acres.

MR. VERITY: Did I give you that order?

MR. WHITAKER: No.

MR. VERITY: We will make reference to the order and would like to introduce it into the record. That was promulgated in May of this year. I have a copy of it but I mislaid it.

MR. UTZ: The Commission will take administrative



notice of it.

MR. VERITY: In this action, we are also requesting that we be granted an unorthodox location for the unit being the east half of 56.625 acres which location we have requested which is the west line of the Section which location is 1912 feet from the south line and 2310 feet from the east line. As Applicant's Exhibit, we would offer Order Number R-1967 which we would like to offer in evidence. With that we would like to call Mr. Leon Whitaker as our witness.

#### LEON WHITAKER

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

#### DIRECT EXAMINATION

#### BY MR. VERTTY:

- Q Will you state your name, please.
- A Leon Whitaker.
- Q Mr. Whitaker, what is your occupation?
- A I am presently employed as an engineer-geologist for Southwest Production Company from Dallas.
  - Q What are your educational qualifications?
  - A I have appeared before this Commission before, and --
- Q You are a graduate engineer and you have appeared here as an expert engineer, petroleum engineer?
- A I have a degree in physics. I have appeared before this Board before and my qualifications were accepted.



Q Are you familiar with the geology and engineering underlying the Cha Cha Oil Pool and particularly the Gallup formation underlying the southwest quarter of Section 16?

A Yes, I am.

Q Have you made a study of the logs and characteristics of this particular pool and area?

A I have studied the logs and worked an isopac of the area.

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

Q (By Mr. Verity) I hand you what the Reporter has marked Exhibit 2. Would you please tell us what it is?

A It is an isopac of certain sections in 29-14 around Section 16 which is the Section in question.

Q Does it reflect whether or not all of the southwest quarter and particularly that part of the southeast quarter of Section 16 lying north of the center of the San Juan River will be productive of oil from the Cha Cha-Gallup Pool?

A In my opinion, the entire southeast quarter will be productive.

Q Do you know how many acres there are in the southeast quarter lying north of the center of the San Juan River?

A In Pan Am's application, they claimed 46.75 south of the River. We would be in agreement with them and claim the remaining 113.25 acres in that southeast quarter of Section 16,



basing that on the center of the San Juan River as a lease line.

Q Mr. Whitaker, with forty-six acres located to the south of the River, do you have an opinion as to whether or not it is necessary that you drill two wells on the 113-1/4 acres north of the center of the River?

A We are of the opinion that one well alone in the 113 acres would not protect our rights, seeing that Pan Am has approval to drill on forty-six acres. We feel that one well would not protect us at some point when these wells, the productivity of these wells drops below allowable, Pan Am's well would produce as much oil from a forty-six-acre unit as a single well of ours would from 113 acres. Therefore, to protect our interests, we feel it necessary to drill two wells in the 113-acre tract.

Q What do you think would be the most economic from a conservation standpoint, the best way to divide the 113.25 acres needed to make two units out of the acreage?

A We would propose an east-west division of 113 acres, splitting it in half and designating 56.6 plus acres to the west unit and an equal amount to the east unit.

Q If the Commission grants this application, do you propose to drill a well on one of these units immediately thereafter?

A Shortly thereafter, we would propose to drill an unorthodox location that we asked for in this case.

Q At what point do you propose to drill this well?

The well would be drilled at 1912 feet from the south



line and 2310 feet from the east line of Sectio 16. It would be unorthodox with respect to the westerly division in which we are the leaseholder. It would be orthodox in the north-south direction.

- Q Then you would be crowding your own lease line?
- A That is correct.
- Q And who owns the acreage to the south and the southwest?
- A Pan Am owns acreage to the south and southwest.
- Q Why do you think that you should be permitted to drill an unorthodox location in the east unit -- pardon me, in the west unit as you have proposed?

A It is strictly a matter of terrain. This river bottom country is located in the southwest corner of an irrigated pasture. At this point, it would be much easier to drill a well. As a matter of fact, in the easterly direction, the land appears to have stood with water on it all Spring. It would be practically impossible to drill a location in an easterly direction because of the swampy conditions.

Q Tell us, if you will, please, whether or not this would also promote an orderly development and drainage pattern in the location of other wells in the area?

A We have drilled wells on the west side of a non-standard unit to the west of this well. If we drill this proposed well in the west side of this proposed non-standard unit, it would follow the pattern established by our previous well.



SERVICE,

DEARNLEY-MEIER

- Q As a matter of fact, isn't Pan Am's G-6 well also offpattern to the south and west?
- A That is correct. That was an approved non-standard unit to the west side of that non-standard unit.
- Q Incidentally, do you know the acreage that the Commission allocated in that non-standard unit?
- A That non-standard unit has been approved by the Commission which includes 51.86 acres.
- Q Do you have an opinion as to whether or not a denial of the application that Southwest Production has filed in this case would deny them of their correlative rights?
- A We are satisfied that we are at the edge of this Gallup pay zone. We feel that one well would not adequately drain this said 113 acres.
- Q Now, with the Pan Am G-10 well to the south on the 46-acre location, is it possible for Southwest Production Company to drain any appreciable amount of oil from anything other than its own land and its own drainage areas in these two units?
- A The Pan Am well is a quarter of a mile southeast. We feel like drainage from the well that we would propose would drain from our acreage and any damage done would be primarily to us.
- Q In other words, you'd be draining from acreage to the west that belongs to Southwest?
  - A Right.

MR. VERITY: I believe that's all



JQUERQUE, NEW MEXICO

MR. UTZ: Do you want to introduce your Exhibits?

MR. VERITY: I believe I offered Exhibit Number 2 in evidence.

MR. UTZ: Without objection, Exhibits 1 and 2 will be entered into the record in this case. Are there any questions of the witness?

#### EXAMINATION

#### BY MR. SPANN:

Q Mr. Whitaker, the location of the River as shown on your Exhibit 2, is that from actual survey originally made, or how did you locate it there?

MR. VERITY: I object to the question because we don't think it's material in this case, the location of the River is not in controversy here. The land south is owned by Pan American. They have already made an application and established a proration unit of 46 acres, and we are acting for the reciprocal of it. I don't think that this question is material or that it's proper.

MR. UTZ: Will you state your question again, sir.

MR. SPANN: I merely asked the basis for the location on Exhibit 2, whether it was on Pan Am's application or a recent survey or the 1882 survey, or just what it was.

MR. UTZ: The objection is overruled. You may continue to ask the question, Mr. Spann.

A The River as shown on this Section is not proposed to be exact.



(By Mr. Spann) How can you be sure that the area north of the River in the southeast quarter of this Section contains 113.25 acres which you listed as the area in your application unless you know where it is located?

MR. VERITY: The acreage between Pan Am and Southwest Production is not in controversy. There is actually an agreement implied in that they have asked for 46 acres, it has been granted, and they make no objection to the fact that we claim and are requesting an allowable for the remaining 113.25 acres. My point is, therefore, that it is actually immaterial whether the River actually divides this quarter section into a 46-acre tract and a 113.25-acre tract, because the only parties affected are in agreement in this regard so that it becomes immaterial as to whether or not the River separates it in this fashion.

MR. MORRIS: Might there be a question as to the ownership of the river bottom in this area?

MR. VERITY: Not for this tribunal to determine, I believe.

MR. MORRIS: Perhaps Mr. Spann's question is relevant in that Southwest Productions could, must ascertain and be able to substantiate their claim to the ownership of the acreage that they are asking to be established as a proration unit.

MR. VERITY: Suffice to say that they do contend that they own all of the working interest in this 113 acres, but this is not a tribunal that can determine whether they do and the only



other person that has asserted an interest in this acreage at all, or in this area, is Pan Am, and Pan Am has stated that so far as they are concerned the center of the River leaves them 46 and three-quarters acres and forty-six and three-quarters from a hundred and sixty leaves us with a hundred and thirteen point twenty-five, so that we think the question is entirely moot at this time as to whether or not the actual physical facts would establish this agreed condition or not, because the only two people who are claiming up to this River are Pan Am and Southwest.

MR. UTZ: Mr. Verity, the Commission will have to determine the amount of acreage you have allocated to these two wells and I wonder if Mr. Spann's question doesn't point to determining from where you got the acreage that you're claiming here, from what survey plat.

MR. SPANN: They have filed an application to create a unit consisting of all the land in this quarter section north of the River. How can you determine how much is involved unless you know where the River is? Does the application show the location of the River or does it show the location of the River as on Pan Amis application, or some other application? That's all I want to know.

MR. VERITY: I'm not certain in this case. It becomes immaterial where the River is, where we have designated it, because it was agreed to by the parties, on both sides of it.

MR. WHITAKER: Or that we had less than 113 acres under



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lease, we would agree to a lesser proration.

MR. SPANN: I don't want to prolong this discussion. Apparently Mr. Whitaker is not prepared to testify that the River on his Exhibit 2 is located.

MR. UTZ: From what survey did you locate the River? THE WITNESS: On this Exhibit, I drew the River in from looking at a larger scale survey.

MR. UTZ: What survey plat was that?

THE WITNESS: It was a survey made by Kenning Engineering of the River, but it did not indicate the acreage north of the center of the River.

MR. UTZ: Did you have the advantage of any official Bureau of Land Management survey plat in order to determine the acreage on this tract?

THE WITNESS: Yes, sir. My understanding is that B.L.M. Surveys do not include the center of the River.

MR. UTZ: Do you know how much acreage they did include? THE WITNESS: Yes, sir. I could sum it. One hundred eight point eighty-nine acres.

MR. UTZ: You may proceed.

MR. VERITY: As long as we are on it, I don't think that Southwest Production Company has got to own all this acreage in order to ask it to be a non-standard unit for that amount.

MR. UTZ: Well, I don't believe that point was in question. My questioning was just to find out how much acreage was



involved.

THE WITNESS: There's some eleven acres from the bank to the center of the River to make a total of one hundred thirteen plus acres.

MR. UTZ: Thank you. You may continue.

- (By Mr. Spann) Mr. Whitaker, are you familiar with the Q engineering committee's survey report that was dated May 11, 1961 which was a survey or a study of the Cha Cha-Gallup Pool made jointly by Pan Am and Humble and with Pan Am as chairman. Are you familiar with that survey or report?
  - No, sir, I am not. A
  - Do you know anything at all about the report? Q.
- No, sir. Evidently that report was made before we began drilling operations in this area.
- Well, in determining whether you should drill two wells on this unit, you of course would be concerned about whether the well would pay out the cost, would you not?
- Yes, sir. We think economics are such that we can profit by drilling two wells.
  - What sort of data do you have on that point?

MR. VERITY: We object to this question. We don't think that -- unless it can be shown that this is going to adversely affect the interested party, that is a proper question. In other words, we are trying to ascertain whether or not Southwest Production can economically drill a well. I don't think



that's proper inquiry. Unless it can be shown that this question affects the rights of other parties other than Southwest Production, we think it's improper. If Southwest is going to lose money drilling two wells, that's their problem, but no one else can complain about it unless it's going to create waste or interfere with their correlative rights.

MR. SPANN: Our position is No. 1: I would like to inform the Commission that certain information as to the economics of drilling on this size unit, if they want that information. No. 2: We feel that there might be some implication from your testimony here that one well will pay out on less than eighty acres which we dispute and we want to find out the basis for your testimony that these wells will pay out on fifty some acres, and also that the basis for your testimony that one well will not drain a hundred and thirteen acres which is the size of your unit because we are going to be confronted with that testimony when the Hearing is held on continuing the rules for the Cha Cha-Gallup Pool.

MR. VERITY: That is clear and both points, I think, are improperly taken at this Hearing because all we are talking about is a part of the southwest quarter that we have said is north of the center of the River. I think it might clarify things if I amended our application at this time. We ask for a non-standard unit for all of the southwest quarter that lies north of the 46.75 acres that was in a non-standard unit south of the stream.



This should dispose of that. We are not trying spacing units here for this entire Cha Cha-Gallup Pool. We are only talking about this particular one hundred thirteen acres, so I don't think it becomes material whether or not these two wells are going to return an adequate investment to the applicant, Southwest Production Company. It's obvious they think it is going to or the Company wouldn't drill.

MR. SPANN: Mr. Verity, we are not here in protest to Pan Am's application. We do not agree with any part of this insofar as economics are concerned, insofar as drainage is concerned.

MR. UTZ: Mr. Verity, I am going to sustain your motion on your objection.

MR. SPANN: What was his objection?

MR. UTZ: He was objecting to your interrogation as to the economics of drilling on 56.625 acres.

MR. SPANN: I am not permitted to go into that?

MR. UTZ: No. I believe that under the rules as they are now, they are permitted to drill on each forty if they so desire.

MR. VERITY: That is correct.

Q (By Mr. Spann) Mr. Whitaker, what is the basis for your statement that one well will not drain a hundred and thirteen acre unit in the Cha Cha-Gallup Pool? Do you have any data to support that statement?

We have evidence from cores that there is associated



with this pay zone a fractured shale sand which I feel would not be drained adequately. The center of this sand has developed a high porosity and permeability. Granted, the well may drain eighty or more acres as it thins out and becomes of poor quality, and it's my opinion it would not drain a larger area. It is accepted by the Commission that and eighty-acre unit is adequate to drain but not anything more than that. The Commission has not suggested that we drill on larger than eighty-acre lots.

Q Well, do you have any of this reservoir data or engineering data with you today?

A No, sir, I do not.

MR. VERITY: I wonder if I might suggest this: We are not taking any position in this case that you can't drain eighty acres in the Cha Cha-Gallup Oil Pool. We are saying that after the fact has been accomplished, which it has in this case, and there are wells to the south of us and our correlative rights are being disturbed, and we cannot get our fair share of the oil by only having one well on a hundred thirteen point twenty-five acres, and irrespective of whether one well would drain all of this hundred thirteen acres or would not, we are not going to get our fair share of this oil. I don't think that questions regarding this eighty acre spacing — I don't think questions with regard to that are proper. We are not taking the position that we shouldn't have eighty acre spacing.

MR. SPAHN: We are concerned about this order being



used to bolster some other order or some adverse ruling on a Hearing in the Cha Cha-Gallup area as you have attempted to do in this case by pointing to Pan Am.

MR. UTZ: I don't believe the testimony in this case euld be used in the case which will come up as a result of the temporary order in the Cha Cha area without the record in this case being incorporated.

MR. SPANN: I just wanted to make a record so that our position is clear.

MR. UTZ: I understand the economics. If an operator wants to lose money drilling two wells, that's his business, I guess.

MR. SPANN: Okay.

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

MR. MORRIS: Yes.

#### EXAMINATION

#### BY MR. MORRIS:

Mr. Whitaker, where will the well be in the east 56.625 acres?

A We have not proposed a location. We could propose a location for the east unit at a later date.

Do you definitely propose to drill a well in the east unit or is that contingent upon the result of the well in the east unit?

It would definitely be contingent upon this other well.



If this other well appeared non-commercial, we certainly would not drill a second well.

- Q I wasn't contemplating that it would not be commercial, but supposing that you got a good commercial well, a real good well in the west 56 acres; would you then go over and drill a well in the east 56?
  - A I think we would.
- Q Now, in the west 56 acres, it would be possible to drill a standard location, would it not? You wouldn't have to get over in the river to drill a standard location?
  - A No, sir.
  - Q But, it's due to the irrigation land?
- A The swampy condition of this land. It appears to have water standing on it since no telling when. It has moss on it, it has been hard to guess how far down a man would go to reach solid ground.
- Q Does that condition continue over into the east 56 acres also? Is it swampy over there, too?
- A It was proposed to drill the well in the east unit. I have not looked into the possibility of drilling into the east unit at this time.

MR. UTZ: You do not know whether you can drill a well in the east unit?

A I am satisfied somewhere in it would be a durable location.



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He just means he hasn't looked at the land MR. VERITY: to determine that.

MR. MORRIS: Thank you, sir.

MR. UTZ: Are there any other questions?

The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any other statements in this case?

MR. VERITY: I guess I have said too much already.

MR. SPANN: I would like to put on one witness to state our position before you make your statement.

MR. UTZ: I am sorry. I didn't ask for other testimony in this case.

> MR. MORRIS: Mr. Ayres was sworn in Case Number 2318.

#### LEE AYRES

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

#### DIRECT EXAMINATION

#### BY MR. SPANN:

- Would you state your name again for the record, please? Q
- A Lee Ayres.
- You are employed by El Paso Natural Gas Production Company?
  - Α Yes.
  - Q In what capacity?
  - Engineer in the reservoir section.



Q Have you had occasion to familiarize yourself with the application of Southwest Production Company which is Case Number 2323?

- A Yes.
- Q State briefly what El Paso's position is in opposing that application?
- A For one thing, we feel that two wells such as they are asking for will result in the drilling of unnecessary wells. It will end up with three wells in the quarter section, and we are of the firm opinion that an eight acre well is minimum from an economic standpoint.

There is no question in my mind but that it can adequately drain eighty acres. Pan Am has currently interference tests on a hundred and sixty acres and they have shown conclusive interference. Another objection that enters our mind is that we don't feel any of us are going to make very much money in the Gallup field due primarily to the thinness of sand. We do hope to successfully water plug and we feel that it will work and will be a profitable venture. We feel it will be fairly difficult to water plug the sections specifically north of the River where the tracts are so small. It has been our experience in most secondary units that there is normally an adjustment, which means that if some unnecessary wells have been drilled, the cost of the tangibles are going to be reallocated to all companies participating in that unit. El Paso does not went to be faced with such a problem. We



#### think it is improper.

- Q Is that all?
- A Yes, sir.
- Q Now, you have had occasion, I believe, to calculate the reserves under this particular proposed unit and have prepared an Exhibit which sets forth economics involved in drilling and operating two wells?

A Yes, sir.

MR. SPANN: In view of your ruling, Mr. Examiner, that economics are not material, I am merely tendering this evidence and if you want to receive it, all right; if you want to go along with your ruling, of course, I won't submit it.

MR. VERITY: We renew our objection.

MR. UTZ: Our previous ruling would prohibit the introduction of any testimony.

MR. SPANN: That's all.

MR. VERITY: We have no questions of this witness. We would like to point out that we made no objection to his testimony party because we think his testimony with regard to water plugging this area and with regard to spacing in the whole pool, not just in this hundred thirteen acres, is immaterial.

MR. HINKLE: Humble concurs in the testimony offered by El Paso. I would also like to point out that we feel this application is premature. They have a right by getting an unorthodox location approved to drill a well on the hundred thirteen



acres they have at the present time. Then they can still come in and ask for an unorthodox unit if they want to, particularly in view of the fact that we have pending a case which will be heard in October based upon evidence which is now being taken relative to interference tests and so forth, to determine what is the proper drainage area for this field and proper units to be set up. MR. UTZ: Are there other questions of the witness?

MR. SPANN: That's all we have.

MR. UTZ: The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any other statements in this case? The case will be taken under advisement.



#### CERTIFICATE

STATE OF NEW MEXICO  $\mathbf{x}\mathbf{x}$ COUNTY OF BERNALILLO

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

WITNESS my Hand and Seal, this, the day of , 1961, in the City of Albuquerque, County of Bernaliilo, State of New Mexico.

My commission expires:

May 4, 1965

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2323,

New Mexico Oil Conservation . Examiner Commission



## NEW MEXICO OIL CONSERVATION COMMISSION

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BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MERICO BEFORE EXAMINER UTZ

OIL SONSERVATION COMMISSION EXHIBIT NO.

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

IN THE MATTER OF THE HEARING

CASE No. 2271 Order No. R-1967

CASE NO.

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION FOR TWO NON-STANDARD OIL PRORATION UNITS AND FOR AN UNORTHODOX OIL WELL LOCATION, 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 May 4, 1961, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 11th day of May, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Pan American Petroleum Corporation, seeks the establishment of a 70.58-acre non-standard oil proration unit in the Cha Cha-Gallup Oil Pool, consisting of Lots 8 and 9 and the S/2 of that portion of the San Juan River channel lying in the S/2 NE/4, all in Section 18, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico.
- (3) That the applicant seeks approval of an unorthodox location for its Navajo Tribal "G" Well No. 7, at a point 2545 feet from the North line and 1670 feet from the East line of said Section 18, to which well the above-described 70.58-acre non-standard proration unit would be dedicated.
- (4) That the applicant further seeks approval of a 46.75acre non-standard oil proration unit in said pool, consisting of Lot 6 and the S/2 of that portion of the San Juan River channel

-2-CASE No. 2271 Order No. R-1967

lying in the SE/4, all in Section 16, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico, said unit to be dedicated to the Navajo Tribal "E" Well No. 10, located 660 feet from the South line and 1980 feet from the East line of said Section 16.

- (5) That inasmuch as the above-described non-standard oil proration units are sought for the purpose of continuing the orderly development along the Northern boundary of the Navajo Indian Reservation in this area, the subject application should be granted.
- (6) That the above-described non-standard oil proration units are presumed to be productive of oil from the Cha Cha-Gallup Oil Pool.
- (7) That the above-described unorthodox location for the applicant's Navajo Tribal "G" Well No. 7 should be approved, provided however, that the results of a deviational survey should be reported to the Santa Fe Office of the Commission, and in the event such survey indicates the possibility that the subject well is bottomed outside the proration unit which is dedicated to it, then a directional survey should be taken.

#### IT IS THEREFORE ORDERED:

- (1) That a 70.58-acre non-standard oil proration unit in the Cha Cha-Gallup Oil Pool, consisting of Lots 8 and 9 and the S/2 of that portion of the San Juan River channel lying in the S/2 NE/4, all in Section 18, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico, is hereby established.
- (2) That the applicant is hereby granted permission to locate its Navajo Tribal "G" Well No. 7 at an unorthodox location 2545 feet from the North line and 1670 feet from the East line of said Section 18, to which well the above-described 70.58-acre non-standard proration unit is to be dedicated.

PROVIDED HOWEVER, That the results of a deviational survey of said well shall be reported to the Santa Fe Office of the Commission, and in the event such survey indicates the possibility that the subject well is bottomed outside the proration unit which is dedicated to it, then a directional survey shall be taken.

- (3) That the allowable which will be assigned to said Navajo Tribal "G" Well No. 7 shall bear the same ratio to a standard allowable in the Cha Cha-Gallup Oil Pool as 70.58 bears to 80.
  - (4) That a 46.75-acre non-standard oil proration unit in

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the Cha-Gallup Oil Pool, consisting of Lot 6 and the S/2 of that portion of the San Juan River channel lying in the SE/4, all in Section 16, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico, is hereby established. Said unit is to be dedicated to the Navajo Tribal "E" Well No. 10, located 660 feet from the South line and 1980 feet from the East line of said Section 16.

- (5) That the allowable which will be assigned to said Mavajo Tribal "E" Well No. 10 shall bear the same ratio to a standard allowable in the Cha Cha-Gallup Oil Pool as 46.75 bears to 80.
- (6) 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 hereinabove designated.

> STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

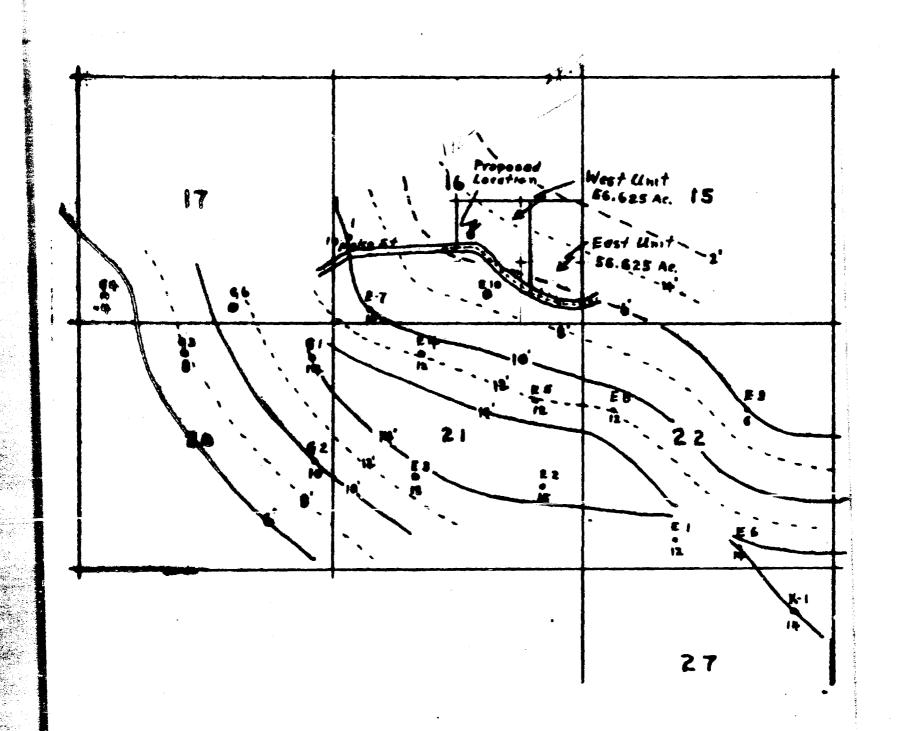
EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

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

SBAL

SOUTHWEST PRODUCTION COMPANY CHA CHA-GALLUP T29N, R14W SAN JUAN COUNTY, N. M.



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO.

SCALE I" = 2000' CONTOUR INTERVAL 2'