CASE 3724: Application of EL PASO NATURAL GAS CO. FOR A DUAL COMPLETION, RIO ARRIBA COUNTY.

#\*

۹. ۲



GOVERNOR DAVID F. CARGO CHAIRMAN

# State of New Mexico



LAND COMMISSIONER GUYTON B. HAYS MEMBER

O. BOX 2088

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

March 25, 1968

SANTA FE

Mr. Sumner Buell

Montgomery, Federici, Andrews, Hannahs Order No. and Morris Attorneys at Law Post Office Box 2307 Santa Fe, New Maxico

3724 Re: Case No. R-3390

Applicant:

El Paso Natural Gas Company

Dear Sir:

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

Very truly yours,

Parter

A. L. PORTER, Jr. Secretary-Director

ALP/ir

Carbon copy of drder also sent to:

Hobbs OCC х

Artesia OCC\_\_\_\_

Aztec OCC x

Other\_\_\_

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

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

> CASE No. 3724 Order No. R-3390

APPLICATION OF EL PASO NATURAL GAS COMPANY FOR A DUAL COMPLETION, RIO ARRIBA COUNTY, NEW MEXICO.

#### URDER OF THE COMMISSION

### BY THE COMMISSION :

This cause came on for hearing at 9 a.m. on March 20, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of March, 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,

### 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, 81 Faso Natural Gas Company, socks authority to complete its San Juan 27-4 Unit Well No. 30 (GD) located 800 feet from the South line and 1450 feet from the West line of Section 32, Township 27 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, as a dual completion (conventional) to produce gas from an undesignated Gallup gas pool through 2 3/8-inch tubing and the Basin-Dakota Gas Pool through the casing-tubing annulus by means of a cross-over assembly, with separation of zones by packers set at approximately 8100 feet and 7461 feet.

(3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

-2-CASE No. 3724 Order No. R-3390

(4) That approval of the subject application will prevent waste and protect correlative rights.

### IT IS THEREFORE ORDERED:

(1) That the applicant, El Paso Natural Gas Company, is hereby authorized to complete its San Juan 27-4 Unit Well No. 30 (GD), located 800 feet from the South line and 1450 feet from the West line of Section 32, Township 27 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, as a dual completion (conventional) to produce gas from an undesignated Gallup gas pool through 2 3/8inch tubing and the Basin-Dakota Gas Pool through the casing-tubing annulus by means of a cross-over assembly, with separation of zones by packers set at approximately 8100 feet and 7461 feet;

**PROVIDED ROWEVER**, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

**PROVIDED FURTHER**, that the applicant shall take packerleakage tests upon completion and annually thereafter during the Annual Deliverability Test Feriod for the Basin-Dakota Gas Pool.

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

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



STATE OF NEW MEXICO OIL CORDERVATION COMMISSION

DAVID F. CARCO, Chairman

GUYTON B. HAYS Marin Ma

L. CORTER, Jr., Homber & Secretary Â.

#### NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO APPLICATION FCR MULTIPLE COMPLETION

......

A second of the second second

.

Form C-107 5-1-61

:

		APPLICATION F	FCR MULTIPLE COMPLETI	ON	
				in	23124
Operator			County	Date	
EL F Address	aso Natural Gas Com	<b>Ban</b> y	Rio Arriba	Well N	January 18, 1968
Box	990, Farmington, New	Mexico	San Juan 27-4 Unit		30 (GD)
Location			Township	Hange	
of Well	N I	32	27N		4W
	he New Mexico Oil Conservati within one mile of the subjec		Can mama d	18-58, Ord	in these same pools or in the same ler #R-1214
			; Operator Le		
3. The f	ollowing faces are submitted:	Upper Zone	Intermed Zone		Lower Zone
a. Na	me of Pool and Formation [],	. Gallup		Buston	Dakota
	p and Bottom of			-	$\alpha \in \mathcal{C}$
	Pay Section (Perforations)	7486-7706		ļ	8158-8348
	pe of production (Oil or Gas)	Cas			Gas
	thod of Production				
	(Flowing or Artificial Lift) ollowing are attached. (Please	Flowing			Flowing
Nor	<ul> <li>izers and/or turboli diameters and settin diameters and settin</li> <li>b. Plat showing the lo of operators of all lo of operators of all lo x</li> <li>c. Waivers consenting tors have been furn</li> <li>X d. Electrical log of the dicated thereon. (If all offset operators to the least thwest Production Construction Const</li></ul>	zers and location thereof, ng depth, location and typ cation of all wells on app eases offsetting applicant to such multiple complet ished copies of the appli e well or other acceptabl such log is not available the on which this well is lo mpany, Box 1796,	, quantities used and top of cen- e of packers and side door choke plicant's lease, all offset well 's lease. tion from each offset operator, ication." e log with tops and bottoms o at the time application is filed ocated together with their corre	ment, perforated es, and such oth s on offset lea or in lieu thereo f producing zon it shall be sub ct mailing addro	meters and setting depths, central- intervals, tubing strings, including er information as may be pertinent. uses, and the names and addresses of, evidence that said offset opera- ness and intervals of perforation in- bmitted as provided by Kule 112A.) ess.
date o CER under my *Should sion wi day per	of such notification TIFICATE: I, the undersigned supervision and direction and waivers from all offset operatu- ll hold the application for a p iod, no protest nor request for	18-68 I, state that I am the <u>Pe</u> (company), and that I am I that the facts stated the DOMAGE <u>J</u> Date <u>J</u> trs not accompany an app eriod of twenty (20) days hearing is received by the	troleum Engineer authorized by said company to rein are true, correct and compl 	of the El make this repor lete to the best Signat roval, the New mmission's San tion will then be	Mexico Oil Conservation Commis- ta Fe office. If, after said twenty- e processed.
NOTE:	If the proposed multiple comp the producing zones, then sep	etion will result in an un parate application for app	orthodox well location and/or roval of the same should be fi	a non-standard led simultaneou	protation unit in <u>One or, more of</u> usly with this application.

Case 3124

PLAT SHOWING LOCATION OF BUALLY COM LEFED EL Paso Latural Gas Co. San Juan 27-4 Unit 230 (CD) and Offset Acreage

.

.



Car 3724

SCHEMAPIC DIAGRAM OF DUALLY COMMENSED El Paso Natural Gas Co. San Juan 27-4 Unit #30 (GD) SW/4 Sec. 32, T-27-N, B-4-M

Single String Zero Reference Point 10.0' Above Top Flange of  $T_{22}$ Tubing Hanger -10 3/4", 32.75%, H-40 surface caring set at 297' w/220 sacks  $\checkmark$ cement. The such a summer will be duce growing the desine which is the start the start of the start above the pactor site the skiller formation thence through the saring - Julio promision the control of the saring - Julio promision und the production of the covering - Julio and the production of the starting 2 3/8", 4.7#, J-55 tubing set at 7461' Eaker Model "FA production packer set at 7461." Callup perforations 74%-7500', 7677-39' w/2 SFF, 7700-66' w/4 SFF Fractured w/sand and water. 2 1/16" tubing set from 7461' to 8100'. Eaker Model "D" production packer set at &100'. Dakota perforations 2158-70, 8182-88', 2296-8302', 8306-12', 8342-48' fractured with sand and water. -Retainer set a. 8400' (P.B.T.D. 8400'). Perfs 8432-62' squeezed w/15 sacks cement. T. D. 2494

Caa 3124

Adopted 1-1-65

# NEW MEXICO OIL CONSERVATION COMMISSION PACKER SETTING REPORT

Roy L. Webb \_\_\_\_, being of lawful age and having full I. Name of party making report knowledge of the facts hereinbelow set out do state: That I am employed by El Paso Natural Gas Company in the capacity of Regional Drilling Supervisor \_\_\_\_, that on \_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_\_\_\_\_, 1967\_\_\_\_\_\_\_\_\_\_\_\_\_\_, 1967\_ I personally supervised the setting of a \_\_\_\_\_ Beker Model "D" Make & type of packer in El Paso Natural Gas Company San Juan 27-4 Unit Operator of well Lease name Gallup Well no. 30 (GD) located in the **Basin Dakota & Undesignated** \_ field, Rio Arriba county, state of <u>New Mexico</u>, at a subsurface depth of 8100 \_\_\_\_\_ feet, said depth measurement having been furnished me by

#### P.G.A.C. Wireline

That the purpose of setting this packer was to effect a seal in the annular space between two strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer; that this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

Shell

Regional Drilling Supervisor

January 18, 1968 (Date)

Case 3724

Adopted 1-1-65

# NEW MEXICO OIL CONSERVATION COMMISSION PACKER SETTING REPORT

I, Roy L. Webb \_\_\_\_, being of lawful age and having full Name of party making report knowledge of the facts hereinbelow set out do state: That I am employed by \_\_\_\_\_ El Paso Natural Gas Company in the capacity of , that on December 5 Regional Drilling Supervisor \_: 19**\_67** I personally supervised the setting of a \_\_\_\_\_\_ Baker Model "FA" Make & type of packer in El Paso Natural Gas Company , San Juan 27-4 Unit. Operator of well Lease name Cellup Well no. 30 (GD) located in the Basin Dakota & Undesignated field, Rio Arriba \_\_\_\_\_ county, state of <u>New Mexico</u>, at a subsurface depth of 7461' \_\_\_\_\_ feet, said depth measurement having been furnished me by P. G. A. C. Wireline \_;

That the purpose of setting this packer was to effect a seal in the annular space between two strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer; that this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

(Signature)

Regional Drilling Supervisor

January 18, 1968 (Vate)

Care 3724

OIL CONSERVATION COMMISSION

DATE 1-24-68 OIL CONSERVATION COMMISSION Re: Proposed NSP\_\_\_\_\_ BOX 871 SANTA FE, NEW MEXICO Proposed NWU Proposed NSL Proposed NFO\_\_\_\_\_ Proposed DC\_\_\_\_ Gentlemen: I have examined the application dated 1 - 18 - 68tor the <u>FI Paso Matural Cas Co San Juan 27-4 limit # 30 N-32-27-4</u> Operator Lease and Well No. S-T-R and my recommendations are as follows: MAIN-OFFICS (0.1) arypro 1 \*68 JAN 25 AM 8 34

Yours very truly,

Eury Clurd

# NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO APPLICATION FOR MULTIPLE COMPLETION

• .

-

Form C-107 5-1-61

erator			Cace 3724
•		County	Date
<u>El Paso Natural Gas Com</u> diess	pany	Rio Arriba Lease	January 16, 1968 Well No.
Box 990, Farmington, New cation Unit	Mexico	San Juan 27-4 Unit	30 (GD)
f Well N	32	273	44
Has the New Mexico Oil Conservati	on Commission heretofore	authorized the multiple completio	on of a well in these same pools or in the sam
zones within one mile of the subject	t well? YES	NOSee memo #18	-58, Order #8-1214
			-, aud Well No.:
The following facts are submitted:			
The following facts are submitted.	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Gallup		Dakota
b. Top and Bottom of			
Pay Section	7486-7706	ļ	6158-8348
(Perforations)			
c. Type of production (Oil or Gas)	Gas	· · ·	Gas
d. Method of Production (Flowing or Artificial Lift)			102
The following are attached. (Please	Flowing	1	Flowing
Yes   No	chells 125 of hoy	1	
X d. Electrical log of the	ished copies of the applic e well or other acceptable	cation.* log with tops and bottoms of pro	n lieu thereof, evidence that said offset opera educing zones and intervals of perforation in shall be submitted as provided by Rule 112-A.
X d. Electrical log of the	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc	cation.* c log with tops and bottoms of practice of the second se	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address.
List all offset operators to the leas	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc npany, Box 1796, E	cation.* log with tops and bottoms of pro- ar the time application is filed it cated together with their correct m Paso, Texas	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address.
Image: Second state of the dicated thereon. (If dicated thereon. (If dicated thereon. (If the leas Northwest Production Consolidated Oil & Gas Consolidated Oil & Gas Consolidated Oil & Consol	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc apany, Box 1796, E Company, 1700 Broa	cation.* log with tops and bottoms of pro- act the time application is filed it cated together with their correct m 21 Paso, Texas adway, Denver, Colorado	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address. 768 JA 768 JA
List all offset operators to the leas Northwest Production Con	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc apany, Box 1796, E Company, 1700 Broa above notified and furnishe	cation.* log with tops and bottoms of pro- act the time application is filed it cated together with their correct m 21 Paso, Texas adway, Denver, Colorado	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address. 768 JA 768 JA
Image: Second state of the dicated thereon. (If dicated thereon. (If dicated thereon. (If dicated thereon. (If the second state of the	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc npany, BOX 1796, E Company, 1700 Broa above notified and furnishe L8-68 , state that I am the Pet company, and that I am a	cation.* constraints to be and bottoms of pro- are the time application is filed it cated together with their correct m cated together with their correct m	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address.
Image: Second state of the dicated thereon. (If dicated thereon. (If dicated thereon. (If dicated thereon. (If the second state of the	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc npany, BOX 1796, E Company, 1700 Broa above notified and furnishe L8-68 , state that I am the Pet company, and that I am a	cation.* constraints to be and bottoms of pro- are the time application is filed it cated together with their correct m cated together with their correct m	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address.
Image: Second state of the dicated thereon. (If dicated thereon. (If dicated thereon. (If dicated thereon. (If the second state of the	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc npany, BOX 1796, E Company, 1700 Broa above notified and furnishe L8-68 , state that I am the Pet company, and that I am a	cation.* constraints to be and bottoms of pro- are the time application is filed it cated together with their correct m cated together with their correct m	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address.
Image: Second state of the dicated thereon. (If dicated thereon. (If dicated thereon. (If dicated thereon. (If the second state of the	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc npany, BOX 1796, E Company, 1700 Broa above notified and furnishe L8-68 , state that I am the Pet company, and that I am a	cation.* constraints to be and bottoms of pro- are the time application is filed it cated together with their correct m cated together with their correct m	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address.
Image: Second state of the dicated thereon. (If dicated thereon. (If dicated thereon. (If dicated thereon. (If the second state of the	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc npany, BOX 1796, E Company, 1700 Broa above notified and furnishe L8-68 , state that I am the Pet company, and that I am a	cation.* constraints to be and bottoms of pro- are the time application is filed it cated together with their correct m cated together with their correct m	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address.
Image: Second state of the dicated thereon. (If dicated thereon. (If dicated thereon. (If dicated thereon. (If the second state of the second state of the second state of the second dicated the second dicated the second state of the second state of the second direction is the second direction and direction and direction and the second state of the second direction and direction and the second direction direction and the second direction dire	ished copies of the applic e well or other acceptable such log is not available a e on which this well is loc apany, Box 1796, E Company, 1700 Broa above notified and furnishe L8-68 , state that I am the Pet company), and that I am a that the facts stated there	cation.* e log with tops and bottoms of pro- act the time application is filed it cated together with their correct m el Paso, Texas adway, Denver, Colorado dway, Denver, Colorado red a copy of this application? Y croleum Engineer authorized by said company to mak cin are true, correct and complete ication for administrative approva rom date of receipt by the Commi	oducing zones and intervals of perforation in shall be submitted as provided by Rule 112-A. mailing address.

-

Ducket No. 5-58

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 28, 1958

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 3714: (Continued from the January 24, 1968, Examiner Hearing)

Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "O" Well No. 1 located in Unit F of Section 16, Township 17 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the perforated interval 3140 to 3160 feet, Maljamar-Queen Gas Pool, and the injection of water for secondary recovery purposes into the Grayburg-San Andres formations in the interval from 3700 to 4050 feet through parallel strings of 2-inch tubing.

- CASE 3724: Application of El Paso Natural Gas Company for a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its San Juan 27-4 Unit Well No. 30 (GD) located in Unit N of Section 32, Township 27 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the Gallup formation and the Basin-Dakota Pool through tubing and the casingtubing annulus, respectively, by means of a cross-over.
- CASE 3725: Application of Continental Oil Company for two non-standard gas proration units and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the following two non-standard gas proration units in the Jalmat Gas Pool:

A 160-acre unit comprising the E/2 E/2 of Section 1, Township 25 South, Range 36 East, Lea County, New Mexico, to be dedicated to its Wells B-1 Well No. 1 located 660 feet from the North and East lines of said Section 1; and a 200-acre unit comprising the W/2 E/2and NE/4 NW/4 of said Section 1 to be dedicated to its Wells B-1 Well No. 3 located at an unorthodox location 660 feet from the North line and 1650 feet from the West line of said Section 1.

Docket No. 5-68

February 28, 1950, Examiner Hearing

CASE 3725: Application of John Yuronka and Robert Chandler for compulsory pooling, Lea County, New Mexico. Applicants, in the abovestyled cause, seek an order force-pooling all mineral interests from the surface down to a depth of 7400 feet underlying the E/2 SW/4 of Section 7, Township 22 South, Range 38 East, Lea County, New Mexico, to form two 40-acre proration units for Drinkard, Paddock, Blinebry, Tubb or other oil production to be dedicated to two wells to be drilled in Units K and N of said Section 7, or to form an 80-acre non-standard gas proration unit in the event gas production is encountered in the Tubb Gas Pool. Also to be considered will be the costs of drilling said wells and a charge for the risk involved, and a provision for the allocation of actual operating costs and the establishment of charges for supervision of said wells.

- CASE 3727: Application of Monsanto Company for an unorthodox gas well location, a non-standard proration unit, a dual completion, and temporary special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its Rock Tank Unit Well No. 1 located 560 feet from the North line and 920 feet from the West line of Section 7, Township 23 South, Range 25 East, Eddy County, New Mexico, said well to be dedicated to the proposed non-standard proration unit comprising the W/2 of said Section 7 and the E/2 of Section 12, Township 23 South, Range 24 East. Applicant also seeks approval of the dual completion (conventional) of said well to produce gas from the Upper Morrow and Lower Morrow formations through the casing-tubing annulus and the tubing, respectively. Applicant further seeks the creation of Upper Morrow and Lower Morrow gas pools for said well and the promulgation of temporary special rules therefor, including a provision for 640-acre spacing.
- CASE 3728: Application of Tenneco Oil Company for an amendment to Order No. R-3127, Eddy County, New Mexico. Applicant, in the abovestyled cause, seeks the amendment of Order No. R-3127 for the expansion of the Grayburg-Jackson West Cooperative Unit Area by some 400 additional acres of State land in Section 16, Township 17 South, Range 29 East, Eddy County, New Mexico.
- <u>CASE 3729</u>: Application of Pan American Petroleum Corporation for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to

-2-

Docket 6-6S

# -3-February 28, 1968, Examiner Hearing

<u>CASE 3729</u>: (Continued from Page 2)

drill a well at an unorthodox location 510 feet from the South line and 1830 feet from the East line of Section 15, Township 24 South, Range 37 East, Fowler-Ellenburger Pool, Lea County, New Mexico, in exception to the pool rules that require that wells be drilled in the NW/4 or the SE/4 of the quarter section.

- <u>CASE 3730</u>: Application of Tamarack Petroleum Company, Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks approval for the South Pearl Queen Unit Area comprising 1523 acres, more or less, of Fee and Federal lands in Township 20 South, Range 35 East, Lea County, New Mexico.
- CASE 3731: Application of Tamarack Petroleum Company, 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 Queen formation through 14 wells in its South Pearl Queen Unit, Township 20 South, Range 35 East, Pearl-Queen Pool, Lea County, New Mexico.
- CASE 3732: Application of Weier Drilling Company for a waterflood project, Eddy County, New Mexico. Applicant, in the abovestyled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through its V. L. Foster Well No. 6 located 2310 feet from the North line and 1650 feet from the East line of Section 17, Township 17 South, Range 31 East, Grayburg-Jackson Fool, Eddy County, New Mexico.
- CASE 3733: Application of Daryl Davis to re-enter a well, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter the State "A" Well No. 1 located 1980 feet from the South and West lines of Section 1, Township 4 South, Range 26 East, Chaves County, New Mexico, and attempt to complete said well as a producer from the San Andres formation.

SPECIALIZING IN. DEPOSITIONS, HEARINGS, STATE MENTS, EXPERT TESTIMONY, IN...LT COPY, CONVENTIONS BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico February 28, 1968 dearnley-meier reporting service, iac. NEW MEXICO EXAMINER HEARING 243-4491 + ALBUQUERQUE, In the Matter of: ) Application of El Paso Natural Gas Company for a dual completion,) Case No, 3724 1120 SIMMS BLDG. • P. O. BOX 1092 • P.HCHIE Rio Arriba County, New Mexico. ) ) BEFORE: Daniel A. Nutter, Examiner TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 3/24.

MR. HATCH: Application of El Paso Natural Gas Company for a dual completion, Rio Arriba County, New Mexico.

MR. MUTTER: El Paso is evidently not here, so we will jump down to Case 3729.

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  $\frac{f^{(A)}}{f^{(A)}}$  day of March, 1964.

RY PUBLIC

My Commission Expires: June 19, 1971.

I no awaeoy wartify that the formation is a lite established of the proceedings of the main the marking of 2000 ho. 3724 heard by pr. on 2,22

Var Marioo 011 Consorvation Constra-

SPECIALIZING IN: DEPOSITIONS, HEAKINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico February 28, 1968 dearnley-meier reporting service, inc. EXAMINER HEARING 1120 SIMMS BIDG. • P. O. BOX 1092 • MONE 243-6691 • AIBUQUERQUE, NEW MEXICO IN THE MATTER OF: The application of El Paso Natural ) Case No. 3724 Gas Company for a dual completion, ) Rio Arriba County, New Mexico. Ì ) - .... BEFORE: DANIEL S. NUTTER, EXAMINER TRANSCRIPT OF HEARING

MR. NUTTER: The Hearing will come to order, please. The first case this afternoon will be Case 3724.

8

MR. HATCH: Application of El Paso Natural Gas Company for a dual completion, Rio Arriba County, New Mexico. The Commission has received a request from the Applicant that the case be continued to March 20th, received by telephone.

MR. NUTTER: Case Number 3724 will be continued to the Examiner Hearing at 9:00 o'clock a.m., March 20th, same place.

\* \* \*

STATE OF NEW MEXICO ) ) ss. COUNTY CF 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  $11^{24}$  day of March, 1968.

NOTARY PUBLIC

My Commission Expires: June 19, 1971.

i de painter carrier sen an ampartar 15 2 de senter manter ha con fischerstande 15 De senter balistic de fischerstande 13724. De senter painter balistic de fischerstande 3724. A. A. A. A. A. Marine, Filler 100 Hop smarth \$11 Ovine tation Brownships

EXPERT TESTIMONY, DAILY COPY, CONVENTIONS BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico March 20, 1968 **EXAMINER HEARING** dearnley-meier reporting service, inc. MEXICO ) NEW IN THE MATTER OF: ì ALBUOUEROUE, ) Application of El Paso Natural Gas Case 3324 ) Company for a dual completion, Rio HEALLINGS, STATE MENTS. ) Arriba County, New Mexico. ) 1120 SIMMS BLDG. + F. O. BOX 1012 + PHONE 243-6491 ) ) ) ) DEPOSITIONS, ž BEFORE: Daniel S. Nutter, Examiner SFECIALIZING TRANSCRIPT OF HEARING

Page 1

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE , NEW MEXICO

Hearing Date\_\_\_\_

TIME: 9 A.M.

NAME REPRESENTING LOCATION Montromen. Federici, Andrews Namestal, of Maritis Santa De SUMNER G. BAEIL Atrod + Qualoue. Charles Tualone Resurell Pan diver Foit Woith David I Wight Pan am Rot Corp Openel P John & Aucult Size - haufre Christ Juils Winner VC am in the Alteration Dallas, Texas Ron Freels Texas Bacific Dilla. J. E Sperling mpfiell Seymon albuguyn Spring erd E.R. Manning El Paso, Texas El Paso Natural Gas. Co. NINA DUHAUNE SALA TO kw Syram do the to Jason Kellahi Kilder 24er Southland Keyeldy Co. midland Theye alter C. Goodrich Willoud ing production 11 Pr M. R. Ferry Crashi Stiles Son Red &. Willer Side, M Carrill Etton David Marks Geven H. J. sound Wedland Prove Coestal Allo - Co. Jack K. Reported Conpaschrist. TEN

Page 2

TIME: 9 A.M.

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE , NEW MEXICO

Hearing Date

MARCH 20, 1968

NAME LOCATION REPRESENTING MULIDRINE AMERICIAN TRAding J DICKERSON Prod. CORP W.J.L. May N.M. Sait Water Disposed JET Convell Pate Porter N.M. Sait Water Disposed Jerwell Co. E hedray & Stovens Santa Fe N.M. OCC. Senters

MR. NUTTER: Hearing will come to order. The first case will be Case 3724.

MR. HATCH: Case 3724, Continued from the February 28, 1968, Examiner Hearing. Application of El Paso Natural Gas Company for a dual completion, Rio Arriba County, New Mexico.

MR. BUELL: Mr. Examiner, Sumner Buell appearing on behalf of the Applicant, El Paso Natural Gas Company. We will have one witness, Mr. Manning, and ask that he be sworn.

(Witness sworn)

# E. R. MANNING

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

### DIRECT EXAMINATION

# BY MR. BUELL:

Q Would you state your name, please?

A E.R. Manning. Sr.

Q By whom are you employed, where, and in what

capacity?

A By El Paso Natural Gas in the capacity of Senior Proration Engineer.

Q Where are you employed?

A In El Paso, Texas.

Q Have you previously testified before an Examiner or the Commission?

A No, sir, I have not.

Q Would you give the Examiner a brief resume of your educational and professional background?

A I was graduated from Texas Technological College in 1949 with a B.S. in Petroleum Engineering. I subsequently went to work for Stanlon Oil and Gas Company and worked for them from 1949 to 1956. From 1956 until 1964 I was a consultant in all phases of the petroleum industry in Kermit, Texas and was concerned primarily with the Permian Basin. From 1964 to 1967 I was employed as a Senior Reservoir Engineer for El Paso Natural Gas Company in El Paso, during which time I was responsible for certain reserve studies in the San Juan Basin and in other areas of our operations. From April 1967 to the present I have been employed as Senior Proration Engineer in their Proration Department.

Q Your employment with Stanlon and as a consultant, this was as a Petroleum Engineer?

A That is correct.

MR. BUELL: Are the witness's gualifications

acceptable?

MR. NUTTER: They are.

Q Are you familiar with what the Applicant seeks in this Case Number 3724?

A Yes, sir, I am.

Q Would you briefly outline what is sought?

A El Paso is seeking approval of a dual completion of its San Juan 27-4 Unit, Well Number 30 in the Basin-Dakota and the Gallup in an undesignated Gallup Pool, to produce gas from the Gallup and Dakota Formations. This well is located 1,450 feet from the west line and 800 feet from the south line of Section 32, Township 27 North, Range 4 west in Rio Arriba County, New Mexico. Now, we propose to produce this well through a crossover type packer such that the Dakota will be producing through the tubing casing annulus and the Gallup will be producing through the two and three-eightns tubing.

### (Whereupon, Applicant's Exhibit 1 marked for identification)

Q Mr. Manning, refer to what has been marked for identification as Applicant's Exhibit Number 1, would you explain to the Examiner what this exhibit shows?

A This is a plat surrounding, or showing the location

of the dually completed San Juan Unit 27-4 Well No. 30 and the offsat acreage. It shows that the Well No. 30 is located 800 feet from the south line and 1,450 feet from the west line of Section 32. It also shows that Consolidated Oil and Gas owns the acreage immediately south of the section, Northwest Production owns the acreage on the southwest offset and that El Paso Natural Gas owns the acreage immediately to the west.

> (Whereupon. Applicant's Exhibit 2 marked for identification.)

Q Referring you to what has been marked Applicant's Exhibit 2, would you testify as to what this exhibit shows?

A Yes, sir. This is a schematic diagram of the dually completed well in San Juan Unit 27-4 Well No. 30. This diagram shows that the subject well was drilled to 8,494 feet. Two and three-quarter inch 32.75 H40 Surface Casing was set at 297 feet with 200 sacks of cement and the cement circulated. The four and a half inch 11.6 pounds per foot N89 and 10.5 pounds per foot J55 Casing was set at 8,482 feet with three stages of cement. The total cement used was 605 sacks. Now, the top of the cement by temperature survey was found to be at 3,225 feet. It also shows that the lower part of the Dakota was perforated from 8432 to 8462 feet and tested.

It was found to be non-commercial and cement retainer was set at 8,400 feet and squeezed with 15 sacks of cement. Then the Dakota Formation was perforated from 8,158 feet at various intervals to 8,348 feet and fractured with sand and water and at this time the tubing was run in the well and the Dakota gas producer was completed. Subsequently a Baker Model D Production Packer was set at 8,100 feet and a Baker Model FA Production Packer was set at 7,461 feet. The Gallup Formation was perforated at various intervals from 7,486 to 7,706 and fractured with sand and water and tested and it was found to be commercial.

Then two and one sixteenth inch tubing was set from 7,461 feet to 8,100 feet on the parallel flow tube which was set into the Baker Model FA Packer and allowed to cross over into the tubing casing annulus. Then two and three-eighths inch tubing was run to the surface and set at 7,46? feet. This arrangement permits the Dakota Formation or the lower perforations to produce into the casing annulus and it permits the Gallup Formation or the upper perforations to produce through the two and three-eighths inch tubing.

Q Mr. Manning, were any pressure tests run on the two formations involved in this completion?

A Yes sir. A packer leakage test was conducted and it was submitted to the New Mexico Oil and Gas Commission's

representative in Aztec, New Mexico on January 24, 1968.

Q What were the results of that packer leakage test?

A The packer leakage test showed there were no communications between the packers or between the formations.

Q Were any shut-in pressures taken on the Dakota and Gallup Formations?

A Yes, sir. On the Dakota a shut-in pressure of 1,126 pounds PSIG was obtained and a flowing pressure of 91 pounds PSIA was obtained and a volume of 106 MCF per day. On the Gallup shut-in tubing pressure was 1,302 pounds PSIG with a flowing pressure of 142 pounds PSIA and a volume of 759 MCF per day.

Q Mr. Manning, would you explain briefly the difference between this type of dual completion and the standard dual completion?

A The main difference in this type of completion and a standard dual completion is that in the case of the standard dual completion the lower perforations, and in this case which would be the Dakota are usually produced through the tubing while the upper perforations, and in this case would be the Gallup perforations, would be produced through the tubing annulus, and this is accomplished by the setting of a

packer between the two perforations.

Q Why did El Paso Natural Gas chose this type of completion rather than a standard dual completion?

A Well, we chose this type of completion because it was felt that subsequently there would be large volumes of liquid that would need to be produced from the Gallup perforations and it would be much easier to remove these liquids by artificial means should the two and three-eighths inch tubing, or should the Gallup perforations produce through the two and three-eighths inch tubing and not through the casing annulus.

Q Mr. Manning, is it your opinion that the granting of this application would tend to prevent waste and protect correlative rights?

A Yes, sir, it is.

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

A Yes, sir, they were.

MR. BUELL: At this time I offer Exhibits 1 and 2 in evidence.

MR. NUTTER: Applicant's Exhibits 1 and 2 will be admitted in evidence.

(Whereupon Applicant's Exhibits 1 and 2 were offered and admitted in evidence.)

MR. BUELL: I have nothing further.

# CROSS\_EXAMINATION

# BY MR. NUTTER:

Q Mr. Manning, at the present time is the Gallup making any liquids?

A Yes, sir, it is.

Q At what rate were the liquids produced?

A On our test we have been unable to -- the well is shut in now, as you know we are not producing the Dakota nor the Gallup and on the test the only note that we had was, "This well unloaded a heavy spray of water and distillate throughout test."

Q So you don't have the volume measurement?

A No, sir, we do not have a volume measurement.

Q Can you tell at this time whether this is going to be a gas well or an oil well in the Gallup?

A We cannot tell at this time; however, we feel that there is a possibility that it may subsequently turn to an oil well.

Q But this note there says distillate rather than oil?

A Yes, sir, it did.

Q No measure of the gravity?

A No, sir, this was to the atmosphere and they had no measure of gravity and this distillate had a greenish color to it.

Q How about the Dakota, does it make liquids?

A It makes a slight amount of -- or prior to the workover the well made just distillate.

Q What about that packer leakage test? There is a place on the packer leakage form for the reporting of the liquids that are produced on the test.

A No, sir, T do not have the packer leakage test. I have the open flow potential test and the information was taken from this to fill out the packer leakage test.

Q But the Commission has received your packer leakage test?

A Yes, sir, they received it on January 24, 1968.

Q We might have a copy somewhere in our files, we'll look for it. Was a blast joint installed in this tubing opposite those Gallup perforations?

A No, sir, to my understanding there was not a blast joint installed.

MR. NUTTER: Are there any other questions of Mr. Manning? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr.

Buell?

MR. BUELL: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3724? We will take the case under advisement. STATE OF NEW MEXICO ) ) ss COUNTY OF BERNALILLO )

I, KAY EMBREE 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 27th day of March, 1968.

Kay Embres NOTARY PUBLIC

My Commission Expires: November 19, 1971

> I do beroby warrify that the foregular is a second of the proposition in the open bearing of Caus 20 3724, here is no con 3/20, 1.68.

New Mexico 011 Conservation Commission

## PLAT SHOWING LOCATION OF DUALLY COMPLETED El Paso Natural Gas Co. San Juan 27-4 Unit #30 (GD) and Offset Acreage



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
<u> 100</u> EXHIBIT NO
CASE NO. 3124

El Faso Natural Cas Co. San Juan 27-4 Unit #30 (CD) SW/4 Sec. 32, T-27-X, R-4-W Single String Kmas Proc Zero Reference Point 10.0' Above Top Flange of Tubing Hanger 10 3/4", 32.75#, H-40 surface casing set at 297' w/220 sacks cement (Cinc)  $\frac{42}{\text{w}}$  11.6#/ft. N-80 & 10.5#/ft. J-55 csg. set at 8482: w/ three stages of cement. Total cement used 605 sxs. Top of cement by temperature survey 3225'. -2 3/8", 4.7#, J-55 tubing set at 7461' Eaker Model "FA production packer set at 7461' --Callup perforations 7486-7500', 7677-39' w/2 SPF, 7700-06' w/4 SPF. Fractured w/sand and water. SIP 1302-prij-; FP 142 Julia- @-759P 142 Jusia @-759 Mar \_2 1/16" tubing set from 7461! to 8100'. -----Baker Model "D" production packer set at 8100'. -Dakota perforations 8158-70, 8162-881, 8296-83021, 8306-121, 8342-451 Practured with sand and water. SIP 1126 ping FP 91 pine 2106 Mitter Ports 8432-62' scausad w/15 sacks cerent EXAMINER NUTTER BEFORE EXAMINESION -Retainer set at 8400" (P.B.T.D. 8400"). 2. 5. 5.04

SCHEMATIC DIAGRAM OF DUALLY COMPLETED