CASE 6716: ALPHA TWENTY-ONE PRODUCTION Co. COMPANY FOR TWO NON-STANDARD PRORATION UNITS AND APPROVAL OF INFILL DRILLING, LEA COUNTY, NEW MEXICO

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in in

Case Number (0716)Application Transcripts. Small Exhibits

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		ENERGY AND MINERALS DEPARTMENT						
	2	OIL CONSERVATION DIVISION						
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		SANTA FE, NEW MEXICO						
		14 November 1979						
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		IN THE MATTER OF:)					
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		Application of Alpha Twenty-One Pro-) CASE					
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AND		DEFORE: DAILTEL D. NULLEL						
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	15	APPEARANCES						
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	17	For the Oil Conservation Ernest L. Padilla,						
	18	Division: Legal Counsel for t						
		State Land Office B						
	19	Santa Fe, New Mexic	o 87503					
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•	}	For the Applicant: William F. Carr, Es						
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WILLIAM P. AYCOCK

Direct Examination by Mr. Carr

Cross Examination by Mr. Nutter

EXHIBITS

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Applicant Exhibit Five, Cross Section
Applicant Exhibit Six, Graphs
Applicant Exhibit Seven, Notifications

SALLY WALTON BOYD CERTIFIED SHORTHAND REPORTER 1938 Plaza Blanca (505) 411-445 Santa Fe, New Medico 87301 MR. NUTTER: Call Case Number 6716. MR. PADILLA: Application of Alpha Twentyone Production Company for two non-standard proration units and approval of infill drilling, Lea County, New Mexico. MR. CARR: May it please the Examiner, I'm William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of the applicant. I have one witness who needs to be sworn.

(Witness sworn.)

WILLIAM P. AYCOCK

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

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Q. Will you state your full name and place of residence?

A. William P. Aycock, Midland, Texas.
 Q. Mr. Aycock, by whom are you employed and
 in what capacity?

A. By Alpha Twenty-one Production Company in connection with this application under Case Number 6716.

Have you previously testified before this

Commission and had your credentials accepted and made a 1 matter of record? 2 Yes, sir, I have. A. Are you familiar with the application in 3 Q. 4 this case? 5 Yes, sir, I am. A. 6 MR. CARR: Are the witness' qualifications 7 acceptable? 8 MR. NUTTER: Yes, they are. 9 (Mr. Carr continuing.) Mr. Aycock, will Q. 10 you please refer to what has been marked for identification 11 as Applicant's Exhibit Number One and review the data con-12 tained thereon for the Examiner? 13 Exhibit Number One is a land map of Sec-Ά. 14 tion 8, Township 25 South, Range 37 East, and the immediately 15 surrounding sections that serves to illustrate the essence 16 of the applicant's position and request, and that is that 17 the northwest quarter of the southeast quarter of Section 8 18 be designated a gas proration unit and assigned to the ex-- 19 isting El Paso Well, and that the remainder of the southeast 20 quarter of Section 8, comprising the east half and southwest 21 quarter of said southeast quarter, be assigned to a new well, 22 the proposed location of which is indicated on Exhibit One, 23 being in the southwest quarter of the southeast quarter of 24 Section 8, comprising a 120-acre proration unit. 25

WALTON BOYD SHOATHAND REPORTER BLANCE, (606) 471-3463 6, New Mordon 87501 Q Now, Mr. Aycock, the applicant has obtained its interest in this non-standard proration unit through a farmout from El Paso Natural Gas, is that correct?

A. That's correct,

Q. Will you please refer to Exhibit Number Two and review this for the Examiner?

A Exhibit Number Two is a structure map on the top of the Yates formation, which is the uppermost zone that's included in the Jalmat Field. It has a Jalmat Pool designation that serves to illustrate the structural configuration in the immediate vicinity of the Section 8, the subject of this application. It shows that the structure is basically not featureless, but does not have decided features and we don't anticipate that the geological position of the area has any great affect upon what will be realized from drilling the proposed well.

Q And what does the yellow area on this exhibit reflect?

A. The yellow area reflects the proration unit that is requested to be divided from the existing proration unit, the 120 acres, and assigned to the proposed well.

The proposed well location is not shown on Exhibit Two as it is on Exhibit One, Mr. Examiner, and the reason for that, it was just cluttered.

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Q. Mr. Aycock, will you now refer to the letter which has been marked Exhibit Number Three and review the data contained therein?

Page

A. Exhibit Number Three is a letter directed to Alpha Twenty-one Production Corporation that describes the situation with regard to the recovery of the existing wells and the anticipated possible recovery for the proposed well, as compared by both a statistical analysis of the characteristics of the existing wells and a volumetric calculation based upon the statistical analysis of volumetric parameters in the immediate vicinity of the proposed location, in which I have attempted to provide Alpha Twenty-one with the limits, the upper and lower limits, of what I believe that the recovery could be.

It seems apparent from the work that I've done, that there is a substantial volume of unrecovered reserves underlying the tract that is proposed to be assigned to the well that's the subject of this application; depending upon which -- in which way the data is viewed, the amount of gas can range from near the lower limit; the statitical parameter compares pretty much in order of magnitude with the volumetric calculation, and of course, if the pressure should be considerably higher than is anticipated, it could range up towards the mean indicated -- estimated additional recovery for the proposed well.

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Basically, the letter goes into that as-

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pect and describes the pressure information that's available, initial pressures that were available, and the calculated effective drainage areas for the wells in the immediate vicinity, and I would particularly call the Examiner's attention to the fact that the El Paso Natural Gas Langlie Federal 3, which is the well that is in the existing proration unit, has an estimated effective drainage area of only 28 7 acres, which is considerably less than that acreage that's 8 9

presently assigned to it. Attached also to the letter is a summary of individual well information for nine wells that are in the immediate vicinity of the acreage that's the subject of this application, in which all of the pertinent data are listed for each of the wells.

It simply serves as a back-up for the dis-

cussion that's contained in the letter itself. Will you now refer to your cross section A-A', which has been marked Exhibit Four, and review this? Exhibit Four is cross section A-A', which runs basically in a north/south direction through the proration unit that is the subject of the application, and includes the wells that are pertinent to the application, particularly the El Paso No. 3 Langlie Federal, which is the second well from the righthand side of this exhibit.

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Once again we show where all the wells have been completed. I would call the Examiner's attention to the fact that basically of the zones that are included in the Jalmat Pool designation, the operators have chosen to concentrate on the Upper Yates formation in the north/south direction as the reservoir in which they've chosen to complete.

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Q Would you now review Exhibit Number Five?
A Exhibit Number Five is an east/west cross section that also includes the well that is -- El Paso Langlie Federal 3, that is the well to which the entire 160-acre proration unit in the Jalmat Pool is presently assigned, and once again it attempts to show what the practice has been and what the reservoir configurations are, and once again, I'll call the Examiner's attention to the fact that the Upper Yates formation has been the object of the vast majority of the effective completions that have been attempted in the area.

In our opinion, the fact that the lower zones have not been adequately tested could well indicate that in the Lower Yates, as well as in the Seven Rivers formation, there are substantial undrained reserves, and that is part of the reason for the ambiguity in the additional recovery estimates that were presented in the previous testimony with the Exhibit Number, what, Three, the letter? Q. Now, Mr. Aycock, Exhibit Number Six consists of a number of graphs. Would you explain the significance of these to the Examiner?

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ALTON BOYD ORTHAND REPORTED A. These graphs are a combination of gas production rate in Mcf per month as a function of time and shut-in wellhead pressure in psig as a function of cumulative gas production for selected wells that are in the immediate vicinity of the proposed location, and they are provided the Commission as a further attempt to document the data and the discussion as presented on Exhibit Number Three.

I would particularly call the Commission's attention to the fact that there is both a rate/time curve and pressure/cumulative curve for the El Paso Langlie No. 3, which is the well to which the existing 160-acre proration unit is assigned, and a combination of intermittent production during the past two years, relatively low flow rates, and apparently increasing pressures, would indicate that the difficulty associated with the performance of this well may be one of water production rather than of simple pressure depletion.

In an attempt to further define that situation we have tried to find the Commission's copy of the well file for this well, but it is not in the file and we were not able to refer to it to see if there were any filings that had been made with the Commission that would

illuminate this situation further. MR. NUTTER: What file were you looking 1 2 The well -- this El Paso No. 3 Langlie, for? 3 A. the file is not in your file room this morning. 4 5 MR. NUTTER: Okay. We spent a bunch of time looking for it 6 and got some help from the file custodian and were not able 7 8 to find it. MR. NUTTER: You don't know whether they 9 10 have a file in the Hobbs office? 11 No, sir, I don't. A. Mr. Aycock, will you refer to what has 12 marked for identification as Applicant's Exhibit Number Q. 13 14 Seven and identify this for the Examiner? Yes, sir, these are the notifications to 15 the offset operators that this hearing had been requested 16 and included on the lower part of the copies of the letters 17 are the return receipts, showing that they were received by 18 each of the offset operators, including Gulf Oil Corporation, 19 Amoco Production Company, Reserve Oil, Inc., ARCO Cil and 20 Gas Company, Union Texas Petroleum Corporation, and Doyle 21 22 MR. NUTTER: I guess that's the only copy 23 Hartman. 24 you've got of that. We don't have it over here. 26

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MR. CARR: Okay, I'll make a copy avail-

able. Q. Mr. Aycock, do you believe that the proposed well is necessary to effectively and efficiently drain the non-standard proration unit?

A. Yes, sir, I believe it is. Whether the difficulty with the performance of the well to which the proration unit is currently assigned is one resulting from production problems, pressure depletion, or water production, it would appear based upon the analysis of the data from surrounding wells, in addition to the one to which the proration unit is assigned, that there should be substantial additional reserves available for the proposed well. Whether those are as low as 100 to 200 million or as high as a billion to a billion and a half, remains to be seen, but there would appear to be a valid and reasonable reason for drilling the proposed well.

I believe, further, that the proposed well, if the indications that are available are correct, that there is substantial additional gas that could be recovered; that the proposed well would both prevent the waste of a substantial portion of that gas, as well as protect the correlative rights of the minimum working interest owners of the tract. It seems quite apparent that with a calculated effective drainage of 28 acres for the well to which 160

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1 acres is presently assigned, that there is little likelihood 2 that -- that an adequate amount of gas would be drained 3 under normal criteria for a gas well. Q. Do you believe that granting this applica-5 tion would be in the interest of conservation, the prevention 6 of waste, and the protection of correlative rights? 7 A. Yes, sir, I do. MR. CARR: At this time, Mr. Examiner, we 8 9 would offer into evidence Applicant's Exhibits One through 10 Seven. 11 MR. NUTTER: Applicant's Exhibits One 12 through Seven will be admitted in evidence. 13 MR. CARR: I have nothing further on 14 direct. 15 16 CROSS EXAMINATION 17 BY MR. NUTTER: 18 Mr. Aycock, looking at your Exhibit Number Q. 19 One, I see the red outlined area and then the remaining 40 20 acres that would be dedicated to the El Paso Well. 21 Now, in the northeast quarter of the south-22 east quarter there's a well that's shown to be a gas well, 23 No. 82. What formation was that well producing from? 24 Those are -- that's an erroneous indication Mr. Nutter. We pulled all the files and those are all in

13 1 the Langlie Mattix Pool. I have them here if you'd like for me to go over them well by well, but 81, 82, 85, and 86 are 2 3 all in the Langlie Mattix Pool. Okay. 82 is not a Jalmat. Q. 5 A. No, sir. None of those other four wells 6 that are on that 160 acres are Jalmat. They're all in the 7 Langlie Mattix. Well, I've only got two other wells. Okay, 8 9 the No. 85 is not a Jalmat. 10 No, sir. A. 11 Q. Now where are the other two wells you're 12 talking about? 13 Well, 81 is indicated as being plugged on A. 14 here. It was a Jalmat well. 15 Q. I don't see that one. **16** It's just the immediate -- in the 40 acres A. 17 immediately west of 82. It's in the northwest of the south-18 east of 8. 19 MR. CARR: These are shown on Exhibit 20 Number Two. Q. (1998) 21 Oh, okay. I was looking at Exhibit One. 22 But Exhibit One shows two gas wells on the red colored 23 acreage. 24 Yes, sir. And neither one of those is a Jalmat gas Q.

14 well. 2 No, sir, those are both Langlie Mattix A. wells, according to the Commission's files. 3 Q. Okay, so on the 160 acres, being the southeast quarter of Section 8, there's only one Jalmat gas 5 6 well --Yes, sir. 7 -- and that's the El Paso Langlie Federal 8 Q. 9 3. 10 Yes, sir. 11 And applicant proposes to drill the well Q. 12 in the southwest of the southeast of Section 8. 13 Yes, sir. Α. 14 Okay. Now, referring to your Exhibit Q. 15 Number Three, Mr. Aycock, when I write an order on this case 16 I've got to tell FERC that approval of this infill drilling 17 is necessary in order to recover a certain amount of gas 18 from the proration unit that cannot be drained by the 19 existing well on this proration unit. 20 How much gas can I tell FERC you're going 21 to produce from this new well? 22 Well, the safest number would be between 23 132 and 200 million, Mr. Nutter, in my opinion. 24 Now, what's that derived from? Q. 26 That's derived from the volumetric calculation that's summarized on page two as well as the minimum recovery from --- based upon a statistical analysis of the performance of surrounding wells.

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Q. And you said between 132 and what?A. And 200.

Where is that on here?

A. Page two, the 200 number is in the -- in the first discussion there, estimated increased recovery, I have mean, minimum, and maximum, and you notice 200 million is the second number. Immediately below that there's a paragraph that discusses using the mean volumetric parameters as extracted from my study of the surrounding wells, and it mentions the volume 132 million in that paragraph.

Q. Well, it's not included in a table, though.
A. No, sir. Included in the table is a summary of the -- of the parameters that were used to get there for your use or edification if you were interested in how
I got it.

Q. Now how do you derive the mean on these various things, Mr. Aycock?

A. It's a qualitative statistical approach,
 Mr. Nutter. I simply add up the number of estimated ultimates that I have and divide by that number, and the reason Q. Well, that's an average then, not a mean,

isn't it?

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Well, no. In statistical terms there is no such thing as an average. The mean is the -- what is called sometimes by a layman the arithmatic mean or the average is in proper statistical terms referred to as the mean value, which means that you can represent the entire statistical probability curve by one value that would summarize it all. Frequently, in natural systems with populations such as this, we find that the mean does not adequately represent it and that's why I've attempted to give a maximum, a minimum, and in some of the work that I've done that's been presented to you, I've gone further than that, and shown a median and a standard deviation as well, so that you would not get the idea that I'm trying to represent to you that I have assurances that I can adequately really give you a single value number for an approach such as this. I do not think in all conscience I could really do that. But a mean is divided as the mid-point. Q. Yes, sir. A.

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2 And this is not the mid-point. This is an arithmatic average, actually, isn't it?

A. Well, it is -- they are -- they are coincident values if you have a normal statistical probability variation.

Q. But in order to arrive, for instance, at the -- let's find one of our -- okay, in taking your statis-

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tical analysis on Exhibit Number -- well, it's the last page of Exhibit Number Three. Now, if we go to page two of Exhibit Number Three, we have the minimum of the surrounding seven wells for acreage drained, and that's 45, and that's the lowest value on the bottom line of the last page there, right?

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rounding wells.

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That's correct.

And that's for the ARCO Woolworth 1.

Then we have the maximum, which is given

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Yes, sir.

Yes, sir.

Then we have the mean of these seven sur-Have you taken all of these wells across

Yes, sir.

-- and added them up --

That's correct.

-- and divided by seven?

A Yes, sir, and I've attempted to show you the tremendous variation that you observe in trying to do work of this type, at least in this area. Once again, to indicate to you that I don't -- in all conscience I can't come before you having sworn to tell the truth and the whole truth, and indicate to you that I can give you a single value

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		Page 18
	1	other than a very qualitative number, recognizing the degrees
	2	of uncertainty that are inherently present in this type of
	3	approach.
	4	Q. Now, all of these wells that are shown on
	5	here, are they shown on Exhibit One?
	6	A. Yes, sir, I believe they are.
	7	Q. Okay, now the third one there on your
	8	statistical your summary sheet.
	9	A. Yes, sir.
YD Bee	10	Q. This thing.
N BO ID REPO	11	A. Oh, yes, sir, okay.
SALLY WALTON BOYD SERTIFIED SHORTHAND REPORTEI 020 Plaza Blanca (605) 471-246 8anta Pe, New Mexico 87501	12	Q. The third well there.
SALLY WA CERTFIED SHOF 1010 Plaza Blan Santa Fe, Ne	13	A. Yes, sir.
SALL CERTIFIE 1010 Plan Sente	14	$\underline{0}$. Now that's the El Paso Jal "G" 3.
	15	A. Uh-huh.
	16	Q. Now where do I find that well? It says
	17	8-R.
	18	A. Well, let me be sure that
	19	Q. Is that supposed to be a "B", maybe?
	20	A. I suspect it is. Let me check and see if
	21	it's not. I'm sure it is; sure that it was it's just
	22	a typographical error. I'm positive it should have been a
34	23	"B", Mr. Nutter. I can't find my well file right now, but
	24	you're correct. It's a typographical error. It should have
	25	been a "B".

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these wells --

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Q -- on the exhibit and point out where they

Yes, sir.

are on here.

A. That's correct, it should have been a -Q. I think I've spotted most of the others.
A. Of course the "R", there isn't any such
unit, anyway, because "P" is as high as you go, so that's
just a typo that we overlooked in proofing the thing.

Okay, I was just -- I'm trying to identify

Q. Okay, and now, over here to the far right, this well that's identified as the El Paso Langlie "A" No. 2 in "J" of 17, would be this No. 1-A, I presume, down here in "J" of 7.

Yes, sir.

A.

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Q. So all of the wells that are shown on here are on this exhibit, then?

Yes, sir.

Okay.

A. We've attempted to concentrate on an area that we felt was adequate to give you a feel for the data that was available and not go so far afield that anything we came up with couldn't reasonably be applied to the area for which the application was being made.

Now, do you know whether El Paso has done

any workover work on this Langlie No. 3? You know, you mentioned the increase in pressures with the last few hundred thousand Mcf.

Yes, sir.

Q. And then the production chart has some gaps in it. Have -- did they take the well off production to do work or did they just take the well off production and leave it fallow for awhile and then the pressures came up?

A. That I can't tell you, Mr. Nutter, and that's why I'd hoped to find a copy of their file.

I would have to adjudge with these last two years, the pressures being that much higher than they had been for the previous six, that in all likelihood they're feeling the effects of -- of some sort of water influx in at least that immediate area; that, plus the fact that as you'll notice, there have been three months in -one month in '77 and two months in '78 that the well was not on production at all, and --

Q. Well, that's the corresponding time that pressures went up, too, in '77 and '78.

Yes, that's correct.

Q So it sounds like maybe if it was off production, that was just a migration of gas into the area and a build-up of pressure, possibly.

I have a hard time envisioning of suffi-

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cient magnitude to essentially almost double the pressure; 1-1/2 to 2 times that much. That's entirely possible, however, without -- without knowing specifically what the situation was, of course, I can't -- I can't tell you, but during the time that the well has been on production, and basing it upon that trend, I have to estimate that the well has already produced 278 million and at the maximum it's going to produce -- 271 million, pardon me, and that the estimated ultimate is about 440 million, so -- and at 440 million it still would be only effectively draining 28 acres.

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Q. Well, the nearest well to it is a good half mile away, according to Exhibit Number One, and if it's only draining 80 acres, it certainly, if it were shut-in for awhile, it would have plenty of acreage to contribute gas to it.

A. Yes, sir, that's true, but the performance of it indicates that it's not effectively draining whatever it could be draining. It's not effectively draining anything as large as it should be. Now whether that's due to production problems, inefficient completion, or what, I'm not in a position to give you any more than a suppositional answer, unfortunately.

MR. NUTTER: Are there any further questions of Mr. Aycock?

MR. CARR: Nothing further.

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1			MR. NUT	TTER: He 1	may be ex	cused.	
2			`	have anytl			. Carr?
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				R: No, si			
		- 	MR. NUT	TER: Does	s anyone l	have an	ything
	they wis	h to of	fer in Cas	e Number 6	6716?		
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SALLY WALTON BOYD CERTIFIED SHORTHAND REPORTER 10.10 Plaza Blanca (501) 471-3463 Santa Fo, Now Mortico 57501

Page _____ 23

REPORTER CERTIFICATE

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SALLY WALTON BOYD CERTIFED SHORTHAND REPORTER 2020 Plaza Blanca (205) 471-2415 Santa Pe. New Mexico 87761 I, SALLY W. BOYD, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability from my notes taken at the time of the hearing.

Sully W. Boyd C.S.R. Sally N. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examinar hearing of Case No. 6716, heard by me on ______1977

, Examiner **II Conservation** Division

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	Application of Alpha Twenty-	
	8 duction Company for two non- proration units and approval	
	9 drilling, Lea County, New Me	
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	17 For the Odd Concentration Frances	
	For the OIL Conservation Effect	L. Padilla, Esq. Counsel for the Division
		and Office Bldg.
	Santa F	e, New Mexico 87503
an an san san san san san san san san sa	20 For the Applicant: William	F. Carr, Lsq.
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SALLY WALTON BOYD CERTIFIED SHORTHAND REPORTER 3020Plaza Blance (605) 471-3462 Sauta Fo, Now Mozico 57801

WILLIAM P. AYCOCK

Direct Examination by Mr. Carr Cross Examination by Mr. Nutter

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EXHIBITS

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MR. NUTTER: Call Case Number 6716. 2 MR. PADILLA: Application of Alpha Twenty-3 one Production Company for two non-standard proration units 4 and approval of infill drilling, Lea County, New Mexico. 5 MR. CARR: May it please the Examiner, I'm 6 William F. Carr, Campbell and Black, P. A., Santa Fe, ap-7 pearing on behalf of the applicant. I have one witness who 8 needs to be sworn. 9 10 SALLY WALTON BOYD JERTIFIED SHORYHAND REPORTEI (Witness sworn.) 11 12 WILLIAM P. AYCOCK 13 being called as a witness and having been duly sworn upon 14 his oath, testified as follows, to-wit: 15 16 DIRECT EXAMINATION 17 BY MR. CARR: 18 Will you state your full name and place Q. 19 of residence? 20 William P. Aycock, Midland, Texas. Ά. 21 Mr. Aycock, by whom are you employed and 22 in what capacity? 23 By Alpha Twenty-one Production Company in A. 24 connection with this application under Case Number 6716. 25 Have you previously testified before this Q

Commission and had your credentials accepted and made a matter of record?

A. Yes, sir, I have.

Q Are you familiar with the application in this case?

A Yes, sir, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (Mr. Carr continuing.) Mr. Aycock, will you please refer to what has been marked for identification as Applicant's Exhibit Number One and review the data contained thereon for the Examiner?

A. Exhibit Number One is a land map of Section 9, Township 25 South, Range 37 East, and the immediately surrounding sections that serves to illustrate the essence of the applicant's position and request, and that is that the northwest quarter of the southeast quarter of Section 8 be designated a gas provation unit and assigned to the existing El Paso Well, and that the remainder of the southeast quarter of Section 8, comprising the east half and southwest quarter of said southeast quarter, be assigned to a new well, the proposed location of which is indicated on Exhibit One, being in the southwest quarter of the southeast quarter of Section 8, comprising a 120-acre provation unit.

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Q. Now, Mr. Aycock, the applicant has obtained its interest in this non-standard proration unit through a farmout from El Paso Natural Gas, is that correct?

That's correct.

A.

Q. Will you please refer to Exhibit Number Two and review this for the Examiner?

A. Exhibit Number Two is a structure map on the top of the Yates formation, which is the uppermost zone that's included in the Jalmat Field. It has a Jalmat Pool designation that serves to illustrate the structural configuration in the immediate vicinity of the Section 8, the subject of this application. It shows that the structure is basically not featureless, but does not have decided features and we don't anticipate that the geological position of the area has any great affect upon what will be realized from drilling the proposed well.

And what does the yellow area on this exhibit reflect?

A. The yellow area reflects the proration unit that is requested to be divided from the existing proration unit, the 120 acres, and assigned to the proposed well.

The proposed well location is not shown on Exhibit Two as it is on Exhibit One, Mr. Examiner, and the reason for that, it was just cluttered.

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ः 24 Q Mr. Aycock, will you now refer to the letter which has been marked Exhibit Number Three and review the data contained therein?

A. Exhibit Number Three is a letter directed to Alpha Twenty-one Production Corporation that describes the situation with regard to the recovery of the existing wells and the anticipated possible recovery for the proposed well, as compared by both a statistical analysis of the characteristics of the existing wells and a volumetric calculation based upon the statistical analysis of volumetric parameters in the immediate vicinity of the proposed location, in which I have attempted to provide Alpha Twenty-one with the limits, the upper and lower limits, of what I believe that the recovery could be.

It seems apparent from the work that I've done, that there is a substantial volume of unrecovered reserves underlying the tract that is proposed to be assigned to the well that's the subject of this application; depending upon which -- in which way the data is viewed, the amount of gas can range from near the lower limit; the statitical parameter compares pretty much in order of magnitude with the volumetric calculation, and of course, if the pressure should be considerably higher than is anticipated, it could range up towards the mean indicated -- estimated additional recovery for the proposed well.

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Basically, the letter goes into that aspect and describes the pressure information that's available, initial pressures that were available, and the calculated effective drainage areas for the wells in the immediate vicinity, and I would particularly call the Examiner's attention to the fact that the El Paso Natural Gas Langlie Federal 3, which is the well that is in the existing proration unit, has an estimated effective drainage area of only 28 acres, which is considerably less than that acreage that's presently assigned to it.

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Attached also to the letter is a summary of individual well information for nine wells that are in the immediate vicinity of the acreage that's the subject of this application, in which all of the pertinent data are listed for each of the wells.

It simply serves as a back-up for the discussion that's contained in the letter itself.

Q Will you now refer to your cross section
A-A', which has been marked Exhibit Four, and review this?
A. Exhibit Four is cross section A-A', which
runs basically in a north/south direction through the proration unit that is the subject of the application, and includes the wells that are pertinent to the application,
particularly the El Faso No. 3 Langlie Federal, which is
the second well from the righthand side of this exhibit.

Once again we show where all the wells have been completed. I would call the Examiner's attention to the fact that basically of the zones that are included in the Jalmat Pool designation, the operators have chosen to concentrate on the Upper Yates formation in the north/south direction as the reservoir in which they've chosen to complete.

Q Would you now review Exhibit Number Five? A Exhibit Number Five is an east/west cross section that also includes the well that is -- El Paso Langlie Federal 3, that is the well to which the entire 160-acre proration unit in the Jalmat Pool is presently assigned, and once again it attempts to show what the practice has been and what the reservoir configurations are, and once again, I'll call the Examiner's attention to the fact that the Upper Yates formation has been the object of the vast majority of the effective completions that have been attempted in the area.

In our opinion, the fact that the lower zones have not been adequately tested could well indicate that in the Lower Yates, as well as in the Seven Rivers formation, there are substantial undrained reserves, and that is part of the reason for the ambiguity in the additional recovery estimates that were presented in the previous testimony with the Exhibit Number, what, Three, the letter?

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Now, Mr. Aycock, Exhibit Number Six consists of a number of graphs. Would you explain the significance of these to the Examiner?

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A. These graphs are a combination of gas production rate in Mcf per month as a function of time and shut-in wellhead pressure in psig as a function of cumulative gas production for selected wells that are in the immediate vicinity of the proposed location, and they are provided the Commission as a further attempt to document the data and the discussion as presented on Exhibit Number Three.

I would particularly call the Commission's attention to the fact that there is both a rate/time curve and pressure/cumulative curve for the El Paso Langlie No. 3, which is the well to which the existing 160-acre proration unit is assigned, and a combination of intermittent production during the past two years, relatively low flow rates, and apparently increasing pressures, would indicate that the difficulty associated with the performance of this well may be one of water production rather than of simple pressure depletion.

In an attempt to further define that situation we have tried to find the Commission's copy of the well file for this well, but it is not in the file and we ware not able to refer to it to see if there were any filings that had been made with the Commission that would

MR. NUTTER: You don't know whether they have a file in the Hobbs office?

No, sir, I don't.

Q Mr. Aycock, will you refer to what has marked for identification as Applicant's Exhibit Number Seven and identify this for the Examiner?

A. Yes, sir, these are the notifications to the offset operators that this hearing had been requested and included on the lower part of the copies of the letters are the return receipts, showing that they were received by each of the offset operators, including Gulf Oil Corporation, Amoco Production Company, Reserve Oil, Inc., ARCO Oil and Gas Company, Union Texas Petroleum Corporation, and Doyle Hartman.

MR. NUTTER: I guess that's the only copy you've got of that. We don't have it over here.

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MR. CARR: Okay, I'll make a copy avail-

0. Mr. Aycock, do you believe that the proposed well is necessary to effectively and efficiently drain the non-standard proration unit?

A Yes, sir, I believe it is. Whether the difficulty with the performance of the well to which the proration unit is currently assigned is one resulting from production problems, pressure depletion, or water production, it would appear based upon the analysis of the data from surrounding wells, in addition to the one to which the proration unit is assigned, that there should be substantial additional reserves available for the proposed well. Whether those are as low as 100 to 200 million or as high as a billion to a billion and a half, remains to be seen, but there would appear to be a valid and reasonable reason for drilling the proposed well.

I believe, further, that the proposed well, if the indications that are available are correct, that there is substantial additional gas that could be recovered; that the proposed well would both prevent the waste of a substantial portion of that gas, as well as protect the correlative rights of the minimum working interest owners of the tract. It seems quite apparent that with a calculated interest of 28 acres for the well to which 160
acres is presently assigned, that there is little likelihood 1 that -- that an adequate amount of gas would be drained 2 under normal criteria for a gas well. 3 Do you believe that granting this applica-Q. 4 tion would be in the interest of conservation, the prevention 5 of waste, and the protection of correlative rights? 6 Yes, sir, I do. 7 A. MR. CARR: At this time, Mr. Examiner, we 8 would offer into evidence Applicant's Exhibits One through 9 10 Seven. MR. NUTTER: Applicant's Exhibits One 11 through Seven will be admitted in svidence. 12 MR. CARR: I have nothing further on 13 14 direct. 15 CROSS EXAMINATION 16 17 BY MR. NUTTER: Mr. Aycock, looking at your Exhibit Number 18 a One, I see the red outlined area and then the remaining 40 19 acres that would be dedicated to the El Paso Well. 20 Now, in the northeast quarter of the south-21 east quarter there's a well that's shown to be a gas well, 22 No. 82. What formation was that well producing from? 23 Those are -- that's an erroneous indication A. Mr. Nutter. We pulled all the files and those are all in

the Langlie Mattix Pool. I have them here if you'd like for me to go over them well by well, but 81, 82, 85, and 86 are all in the Langlie Mattix Pool.

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Q. Okay. 82 is not a Jalmat.

A. No, sir. None of those other four wells that are on that 160 acres are Jalmat. They're all in the Langlie Mattix.

Q. Well, I've only got two other wells. Okay, the No. 85 is not a Jalmat.

A No, sir.

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0 Now where are the other two wells you're talking about?

A Well, 81 is indicated as being plugged on here. It was a Jalmat well.

Q I don't see that one.

A It's just the immediate -- in the 40 acres immediately west of 82. It's in the northwest of the southeast of 8.

MR. CARR: These are shown on Exhibit Number Two.

Q. Oh, okay. I was looking at Exhibit One. But Exhibit One shows two gas wells on the red colored acreage.

Yes, sir.

And neither one of those is a Jalmat gas

1 well. 2 λ. No, sir, those are both Langlie Mattix 3 wells, according to the Commission's files. Okay, so on the 160 acres, being the 4 Ω. 5 southeast guarter of Section 8, there's only one Jalmat gas 6 well ---7 Yes, sir. A. 8 -- and that's the El Paso Langlie Federal a 9 3. 10 Yes, sir. A. BOYI 11 And applicant proposes to drill the well Ω. TON 12 in the southwest of the southeast of Section 8. 13 Yes, sir. A. 14 Okay. Now, referring to your Exhibit Q. 15 Number Three, Mr. Aycock, when I write an order on this case 16 I've got to tell FERC that approval of this infill drilling 17 is necessary in order to recover a certain amount of gas 18 from the proration unit that cannot be drained by the 19 existing well on this proration unit. 20 How much gas can I tell FERC you're going 21 to produce from this new well? 22 Well, the safest number would be between 23 132 and 200 million, Mr. Nutter, in my opinion. 24 Now, what's that derived from? Q, That's derived from the volumetric calcu-A.

lation that's summarized on page two as well as the minimum recovery from -- based upon a statistical analysis of the performance of surrounding wells.

Q And you said between 132 and what?And 200.

15

Where is that on here?

A. Page two, the 200 number is in the -- in the first discussion there, estimated increased recovery, I have mean, minimum, and maximum, and you notice 200 million is the second number. Immediately below that there's a paragraph that discusses using the mean volumetric parameters as extracted from my study of the surrounding wells, and it mentions the volume 132 million in that paragraph.

Q Well, it's not included in a table, though.
 A. No, sir. Included in the table is a summary of the -- of the parameters that were used to get there for your use or edification if you were interested in how
 I got it.

Q. Now how do you derive the mean on these various things, Mr. Aycock?

A. It's a qualitative statistical approach,
 Mr. Nutter. I simply add up the number of estimated ultimates that I have and divide by that number, and the reason
 Q. Well, that's an average then, not a mean,

isn't it?

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Well, no. In statistical terms there is ħ. no such thing as an average. The mean is the -- what is called sometimes by a layman the arithmatic mean or the average is in proper statistical terms referred to as the mean value, which means that you can represent the entire statistical probability curve by one value that would summarize it all. Frequently, in natural systems with populations such as this, we find that the mean does not adequately represent it and that's why I've attempted to give a maximum, a minimum, and in some of the work that I've done that's been presented to you, I've gone further than that, and shown a median and a standard deviation as well, so that you would not get the idea that I'm trying to represent to you that I have assurances that I can adequately really give you a single value number for an approach such as this. I do not think in all conscience I could really do that.

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A Yes, sir.

And this is not the mid-point. This is an arithmatic average, actually, isn't it?

A. Well, it is -- they are -- they are coincident values if you have a normal statistical probability variation.

Q But in order to arrive, for instance, at the -- let's find one of our -- okay, in taking your statis-

Pade tical analysis on Exhibit Number --- well, it's the last page of Exhibit Number Three. Now, if we go to page two of 1 Exhibit Number Three, we have the minimum of the surrounding 2 seven wells for acreage drained, and that's 45, and that's 3 the lowest value on the bottom line of the last page there, 4 6 right? 6 yes, sir. Then we have the maximum, which is given Α. 7 Q. 8 as 700. 9 That's correct. And that's for the ARCO Woolworth 1. Α. 10 Ó. 11 yes, sir. Then we have the mean of these seven surλ. 12 Have you taken all of these wells across Q. 13 rounding wells. 14 here --15 Yes, sir. Α. -- and added them up --16 Q. 17 That's correct. À. -- and divided by seven? 18

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Yes, sir, and I've attempted to show you Q the tremendous variation that you observe in trying to do work of this type, at least in this area. Once again, to indicate to you that I don't -- in all conscience I can't come before you having sworn to tell the truth and the whole truth, and indicate to you that I can give you a single value

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18-Page other than a very qualitative number, recognizing the degrees 1 of uncertainty that are inherently present in this type of 2 approach. Now, all of these wells that are shown on 3 Q, 4 here, are they shown on Exhibit One? 5 Yes, sir, I believe they are. A. 6 Okay, now the third one there on your Q. 7 statistical -- your summary sheet. 8 Yes, sir. Α. 9 This thing. Q, 10 Oh, yes, sir, okay. A. 11 The third well there. Q 12 Yes, sir. A. 13 Now that's the El Paso Jal "G" 3. Q, 14 Uh-huh. A. 15 Now where do I find that well? It says Q. 16 8-R. 17 Well, let me be sure that --A 18 Is that supposed to be a"B", maybe? 19 I suspect it is. Let me check and see if 20 it's not. I'm sure it is; sure that it was -- it's just 21 a typographical error. I'm positive it should have been a 22 "B", Mr. Nutter. I can't find my well file right now, but 23 you're correct. It's a typographical error. It should have 24 been a "B". 26

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	×	Page	19
Q.	Okay, I waa	a just I'm tr	ying to identify
these wells -			
А.	Yes, sir.	•	
Q.	on the c	exhibit and poin	t out where they
are on here.			
Α.	That's cor	rect, it should	have been a
Q	I think I'	ve spotted most	of the others.
	Of course	the "R", there i	sn't any such
unit, anyway,	, because "P" is	as high as you	go, so that's
	that we overlook		
Q		now, over here t	
this well the	at's identified	as the El Pasc L	anglie "A" No.
	17, would be thi		
here in "J"			
λ.	Yes, sir.		
Q.	So all of	the wells that a	re shown on here
are on this	exhibit, then?		
A.	Yes, sir.		
Q	Okay.	0 1	
	We've atte	empted to concent	trate on an area
that we felt	was adequate to	o give you a fee:	l for the data
	ilable and not g	A	
	ith couldn't rea	2	
	e application wa		
 Q		ou know whether	El Paso has done
			· · · · ·

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SALLY WALTON BOYD CERTIFKED SHORTHAND REPORTER 2010 Plaza Banca (505) 071-3463 Santa Fo, Now Mostice 27501 any workover work on this Langlie No. 3? You know, you mentioned the increase in pressures with the last few hundred thousand Mcf.

Yes, sir.

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And then the production chart has some gaps in it. Have -- did they take the well off production to do work or did they just take the well off production and leave it fallow for awhile and then the pressures came up?
 A That I can't tell you, Mr. Nutter, and that's why I'd hoped to find a copy of their file.

I would have to adjudge with these last two years, the pressures being that much higher than they had been for the previous six, that in all likelihood they're feeling the effects of --- of some sort of water influx in at least that immediate area; that, plus the fact that as you'll notice, there have been three months in --one month in '77 and two months in '78 that the well was not

Q. Well, that's the corresponding time that pressures went up, too, in '77 and '78.

A Yes, that's correct.

Q So it sounds like maybe if it was off production, that was just a migration of gas into the area and a build-up of pressure, possibly.

I have a hard time envisioning of suffi-

cient magnitude to essentially almost double the pressure; 1-1/2 to 2 times that much. That's entirely possible, however, without -- without knowing specifically what the situation was, of course, I can't -- I can't tell you, but during the time that the well has been on production, and basing it upon that trend, I have to estimate that the well has already produced 278 million and at the maximum it's going to produce -- 271 million, pardon me, and that the estimated ultimate is about 440 million, so -- and at 440 million it still would be only effectively draining 28 acres.

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Q. Well, the nearest well to it is a good half mile away, according to Exhibit Number One, and if it's only draining 80 acres, it certainly, if it were shut-in for awhile, it would have plenty of acreage to contribute gas to it.

A Yes, sir, that's true, but the performance of it indicates that it's not effectively draining whatever it could be draining. It's not effectively draining anything as large as it should be. Now whether that's due to production problems, inefficient completion, or what, I'm not in a position to give you any more than a suppositional answer, unfortunately.

MR. NUTTER: Are there any further ques-

MR. CARR: Nothing further.

			Page	22	
	MR. NUTTE	R: Ile	may be excu	ised.	
	Do you ha	ve anyt	hing furthe	er, Mr. C	arr?
2 	MR. CARR:	No, s	ir, Mr. Nu	ter.	
· .	MR. NUTTE	R: Doe	s anyone ha	ive anyth	ing
they wish to offe	r in Case i	Number	6716?		
	We'll tak	e the c	ase under a	dvisemen	t.
	a. Alf				
	(Hearing	conclud	ed.)		
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SALLY WALTON BOYD CENTIFIED SHORTHAND REPORTER 30302 Mark Blanca (305) 471-3463 Santa Fe, New Markoo 37501

REPORTER CERTIFICATE

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I, SALLY W. BOYD, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 67/6 heard by me on 11/14 1977. Examiner

Oil Conservation Division

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

December 5, 1979

POST OFFICE BOX 2088 BTATE LAND OFFICE BUILDING GANTA FE, NEW MEXICO 87501 (505) 827-2434

BRUCE KING

LARAY KEHOE

Re:

CASE NO._

ORDER NO.

Mr. William F. Carr Campbell and Black Attorneys at Law Post Office Box 2208 Santa Fe, New Mexico

Applicant: Alpha Twenty-One Production Company

6716

R-6188

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case. Dear Sir:

Ppurs very truly. JOE D. RAMEY Director

JDR/fd Copy of order also sent to: x Hobbs OCD Artesia OCD Aztec OCD

Other_

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 6716 Order No. R-6188

APPLICATION OF ALPHA TWENTY-ONE PRODUCTION COMPANY FOR TWO NON-STANDARD PRORATION UNITS AND APPROVAL OF INFILL DRILLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 14, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 28th day of November, 1979, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Alpha Twenty-One Production Company, seeks approval of a 40-acre non-standard gas proration unit comprising the NW/4 SE/4 of Section 8, Township 25 South, Range 37 East, NMPM, Jalmat Gas Pool, to be dedicated to El Paso Natural Gas Company's Langlie Federal Well No. 3 located thereon, and also a 120-acre unit comprising the E/2 SE/4 and SW/4 SE/4 of said Section 8 to be dedicated to a well to be drilled by applicant at a standard location in the center of the SW/4 SE/4 of said Section 8.

(3) Applicant further seeks a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of an existing provation unit which cannot be so drained by the existing well. -2-Case No. 6716 Order No. R-6188

(4) That the evidence presented demonstrated that said El Paso Langlie Federal Well No. 3 cannot effectively and efficiently drain the 160-acre proration unit presently assigned to it.

(5) That the evidence presented further demonstrated that the drilling and completion of applicant's said new well should result in the production of between 132 and 200 million additional cubic feet of gas from the SE/4 of said Section 8 which would not otherwise be recovered.

(6) That such additional recovery will result in said unit being more efficiently and economically drained.

(7) That said new well is to be drilled as an "infill" well on the existing 160-acre non-standard proration unit, but said unit would be split into a 40-acre non-standard unit and a 120-acre non-standard unit.

(8) That in order to permit the drainage of a portion of the reservoir covered by said 160-acre non-standard proration unit which cannot be effectively and efficiently drained by the existing well thereon, the subject application for infill drilling should be approved.

(9) That approval of the subject application will afford the applicant the opportunity to produce his just and equitable share of the gas in the Jalmat Gas Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the 160-acre non-standard gas proration unit comprising the SE/4 of Section 8, Township 25 South, Range 37 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico, is hereby cancelled, and a new 40-acre non-standard gas proration unit in the Jalmat Gas Pool comprising the NW/4 SE/4 of said Section 8 is hereby established and dedicated to El Paso Natural Gas Company's Langlie Federal Well No. 3 located thereon, and also a new 120-acre unit comprising the E/2 SE/4 and SW/4 SE/4 of said Section 8 to be dedicated to a well to be drilled by applicant at a standard location thereon in the center of the SW/4 SE/4 of said Section 8. -3-Case No. 6716 Order No. R-6188

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

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

> STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JOE D. RAMEY Director

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RADTKE, AYCOCK, & A890CIATES, INC. Petroleum Engineering Consultants 310 WALL TOWERB WEBT MIDLAND, TEXAB 79701 TELEPHONE 915/684-8044

November 12, 1979

Alpha 21 Production Co. 2100 First National Bank Building Midland, Texas 79701

Attention Mr. Tom Phipps

Subject: Application for NGPA Infill Gas Development Well, Section 8, T-25-S, R-37-E, Jalmat Pool Lea County, New Mexico

Gentlemen:

Attached are the following that have been prepared in accordance with your instructions:

1. Structure Map of Area

spin,

- 2. Cross-Sections A-A' and B-B'
- 3. Letter of explanation, including reserve estimate for proposed well.
- 4. Rate-Time Production Graphs for active wells near the proposed location.
- 5. Graph of shut-in wellhead pressure as a function of cumulative gas recovery for selected nearby wells.

We trust that this material will suffice to complete this application; however, we should be pleased to render whatever additional service you may require in this connection. As always, we appreciate the continued opportunity of serving you professionally.

Very truly yours, Mm. Q. MMM Wm. P. Aycock, P. E.

WPA/bw

Attachments

	EXAMINER NUTTER
	NSERVATION DIVISION
Alpha21	EXHIBIT NO. 3
CASE NO.	6716

RADTKE, AYCOCK, & ASSUCIATES, INC. Petroleum Engineering Consultants 310 WALL TOWERS WEBT MIDLAND, TEXAB 79701 TELEPHONE 915/684-8044

November 12, 1979

Alpha 21 Production Co. 2100 First National Bank Building Midland, Texas 79701

Attention Mr. Tom Phipps

Subject: Application for Administrative Approval of Infill Gas Development Well, SE/4 & S/2, NE/4 Section 8, T-25-S, R-37-E, Jalmat Pool Lea County, New Mexico

Gentlemen:

This letter is being furnished to you as a part of the captioned application, as required by Section 10, "Special Rules and Regulations, Natural Gas Policy Act Infill Findings Administrative Procedure". These rules were promulgated by the Conservation Division, State of New Mexico, Energy and Mineral Department on June 7, 1979, Case No. 6526, Order No. R-6013.

As you are aware, the El Paso Natural Gas Co. Langlie Fed. 3 is situated in Unit J, 8-25S-37E. As of April 1, 1979, this well had produced 279 MMCF of gas, and the estimated ultimate recovery of this well is 562 MMCF. The seven of the eight Jalmat gas wells surrounding the El Paso Natural Gas Co. Langlie Fed. 3 have produced 18,664 MMCF of gas, for a mean recovery of 2,666 MCF of gas on April 1, 1979. The eighth of the surrounding wells (the Gulf Oil Co. Arnott Ramsey "E"-1) was completed 7-13-37 and never produced before being plugged and abandoned. The estimated ultimate recovery for the seven of the surrounding wells that have been pro-duced is 21,068 MMCF, for a mean estimated ultimate recovery of 3009 MMCF. The respective maximum gas recovery at April 1, 1979, and minimum estimated ultimate gas recovery for these seven wells are 9463 MMCF and 638 MMCF. The gas recovery information derived from the attached table can be summarized as follows:

		overies - MMCF e April 1, 1979
$\mathcal{F}_{\mathcal{F}}$ is the set of $\mathcal{F}_{\mathcal{F}}$. The set of $\mathcal{F}_{\mathcal{F}}$ is the set of $\mathcal{F}_{\mathcal{F}}$ is the set of $\mathcal{F}_{\mathcal{F}}$.	Cumulative	Estimated Ultimate
EPNG Langlie Fed. 3 Mean of Seven	279	438
Surrounding Jalmat Gas Wells Minimum of Seven	2,666	3,009
Surrounding Jalmat Gas Wells Maximum of Seven	85	638
Surrounding Jalmat Gas Wells	9,463	10,245

Alpha 21 Production Co. November 12, 1979 Page 2

The volume of increased gas recovery for an infill development well can then be reasonably estimated as follows:

Basis for Seven	Estimated Increased
Surrounding Jalmat Gas Wells	Recovery, MMCF
Mean	2,571
Minimum	200
Maximum	9,807

By using the mean values of the volumetric reservoir and pressure parameters for the three wells located nearest the proposed location for which complete data are available (El Paso NG Langlie Fed. 3; El Paso NG Jal "D" 3 and Doyle Hartman Langlie Jal Fed. 1), the estimated ultimate gas recovery for the proposed well is <u>132 MMCF</u>. The parameters incorporated into this estimate are as follows:

Porosity, % Bulk Volume	15.8
Connate Water Saturation, % NEPS	30.4
Net Effective Pay, feet	73.5
Effective Drainage Area, acres	78.
Initial BHP/Z, psia	262.8
Abandonment BHP/Z, psia	184.3

These estimates, utilizing analogous comparisons, are reasonably verified by the observation that in spite of well completion dates between 7-25-49 and 11-22-66, the observed initial tubing pressures were as follows:

<u>We11</u>	Location	Date	Tubing Pressure
EPNG Jal "D"-3	8B-25S-37E	7-25-49	900
EPNG Langlie "A" Fed. 1	17J-25S-37E	6-18-52	830
EPNG Wells Fed. 11	4N-25S-37E	12-15-57	300
EPNG Langlie Fed, 3	8J-25S-37E	11-22-66	425

It is also consequential that the calculated drainage area for the El Paso Natural Gas Co. Langlie Fed. 3 is abnormally low, as can be demonstrated by the following that have been extracted from the attached table:

<u>Well</u>	Es	timated Drainage Area, Acres
EPNG Langlie Fed. 3		28
Mean of Seven Surrounding Wells	·	204
Minimum of Seven Surrounding Wells		45
Maximum of Seven Surrounding Wells		700

Alpha 21 Production Co. November 12, 1979 Page 3

Because of all of the above, we believe that the drilling of the proposed well is justified by the Natural Gas Policy Act criteria, as promulgated by NMOCC Order No. R-6013. We should be pleased to render whatever supplemental information you might require in this connection.

Very truly yours, Wm. P. Aycock, P.E.

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WPA/bw

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Attachment

ALPHA 21 PRODUCTION CO.

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SUMMARY OF INDIVIDUAL WELL INFORMATION Vicinity of Proposed Location in N/2, SE/4, 8-25s-37E Jalmat (Tansill-Yates-Seven Rivers) Pool, Lea County, New Mexico

· · · · ·								
	El Paso NG Langlie Fed. 3	ARCO Woolworth 1	E1 Paso NG Ja1 "D" 3	Phillips Woolworth 4	D. Hartman Langlie Jal. Fed. 1	Gulf Oil ArnottRamsey "E" - 1	AMOCO Langlie "C" Fed. 1	El Wel
Andreas Notes	1							-
Location of Well	8J-25S-37E	17B-25S-37E	8R-25S-37E	8M-25S-37E	8A-25S-37E	160-25S-37E	9N-25S-37E	4N-
Completion Date Init. CAOFP,MCF/day Dist. & Direction from	11-22-66 447	5-13-39 8400	7-25-49 30,000	3-27-51 9,000	4-16-77 1,938	7-13-37 274	8-1-78 279	12
proposed location	332' W	1980' SSE	2833' NNW	3000' WSW	3350' NNE	3000' SE	3375' ESE	53
Cum. Gas Production,		×			а. 	•	·	
MCF @ 4-1-79	270,704	9,462,768	3,666,609	1,198,484	359,620	Never Prod.	85,253	3,1
Completion Interval	2900-2945 2955-3148	2962-2975 3075-3909	2930-3043	2906-2964	2875-3177	3400-3430	2986-3130	307
Volumetric Analysis Result	ts					· ·		
Mean Eff. Por,% Bulk Vol. Mean Con. Wtr. Stn.	. 17.1	-	7.04	-	19.1	-	19.0	:
% NEPS	25.	-	45.	_	28.		50.	5 A.
Net Eff. Pay, ft.	52.	× <u>−</u> *	81.	-	77.	-	ó4.	
Orig. Gas-in-place, MMCF/ac	19.8	0	9.33	-	4.26		18.2	ta ka sa
ist. Orig. GIP, MMCF	562	12,400	4,570*	1,490*	796*	3 - 24	1030*	4
Sst.⊃Ult. Gas Rec., MMCF	438	10,245	3,667	1,198	638	Never Prod.	823	3
st, Gas Rec. Fact, & OGIP	77.9	82.5		- .	ала 1. 1. – 1. р. – 1.	•* · · · · · · · · · · · · · · · · · · ·	an a	· • > >
Bst. Drainage Area, Ac	28	700**	260**	84**	45**	• • * * * *	50**	2
	en de la companya de Notas	13			• •	$\beta = -\frac{1}{2}$		an an fai An an Anna

ith OGIP = EUR/0.802 ith OGIP/Ac = 17.7 MMCF/ac: estimated from statistical analysis of available information.

ALPHA 21 PRODUCTION CO.

SUMMARY OF INDIVIDUAL WELL INFORMATION Vicinity of Proposed Location in N/2, SE/4, 8-25s-37E Jalmat (Tansill-Yates-Seven Rivers) Pool, Lea County, New Mexico

Paso NG nglie ed, 3	ARCO Woolworth 1	El Paso NG Jal "D" 3	Phillips Woolworth 4	D. Hartman Langlie Jal. Fed. 1	Gulf. Oil ArnottRamsey "E" - 1	AMOCO Langlie "C" Fed, l	El Paso NG Wells Fed. 11	El Paso NG Langlie "A' Fed.
7				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
25S-37E	17B-25S-37E	8R-25S-37E	8M-25S-37E	8A-25S-37E	160-25S-37E	9N-25S-37E	4N-25S-37E	17J-25S-37E
22-66 447	5-1'3-39 8400	7-25-49 30,000	3-27-51 9,000	4-16-77 1,938	7-13-37 274	8-1-78 279	12-15-57 10,000	6-18-52 13,750
52' W	1980' SSE	2833' NNW	3000' WSW	3350' NNE	3000' SE	3375' ESE	5370' NE	5150' SSW
,704	9,462,768	3,666,609	1,198,484	359,620	Never Prod.	85,253	3,153,118	737,714
)-2945 -3148	2962-2975 3075-3909	2930-3043	2906-2964	2875-3177	3400-3430	2986-3130	3070-3140	2480-2640 2921-2980
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8	10,245	3,667	1,198	638	Never Prod.	823	3,759	738
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	700**	260**	84**	4 5**	· •	50**	229**	52**

c. estimated from statistical analysis of available information.







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BEFORE	EXAMINER	MUTTER
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	_EXHIBIT NO	6
CASE NO.	6116	

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ALPHA TWENTY-ONE PRODUCTION COMPANY

2100 FIRST NATIONAL BANK BUILDING MIDLAND, TEXAS 79701

915/683-5384

November 6, 1979

Gulf 011 Corporation Box 670 Hobbs, New Mexico 88240

R4: El Paso - Ruby Federal No. 1
 1880' FEL, 660' FSL, Sec. 8,
 T-25-S, R-37-E, Lea County,
 New Maxico

Gentlemen:

This is notification to offset operators that Alpha Twenty-One Production Company has requested a hearing before the Oil Conservation Division seeking approval for two non-standard proration units. One proration unit of 40 acres comprising the NW/4 SE/4 Section 8, T-25-S, R-37-E, Jalmat Gas Pool to be dedicated to El Paso Natural Gas Company's existing Langlie Fedgral Well No. 3. The other proration unit of 120 acres comprising the E/2 SE/4 and SW/4 SE/4 of the same Section is to be dedicated to the captioned well to be drilled in the Jalmat Gas Pool.

The hearing will take place November 14, 1979.

Very truly yours,

demand !!

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Tommy Phipps Executive Vice President

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Certified Mail No. POO 7350218 Return Receipt

 SENDER: Complete items 1, 2, and 3, Add your address in the "RETURN TO" space on reverse. 			
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ALPHA TWENTY-ONE PRODUCTION COMPANY

2109 FIRST NATIONAL BANK BUILDING MIDLAND, TEXAS 79701

915/683-5384

November 6, 1979

Amoco Production Company P. Q. Drawer "A" Levelland, Texas 79336

> Re: El Paso - Ruby Federal No. 1 1880' FEL, 660' FSL, Sec. 8, T-25-S, R-37-E, Lea County, Her Mexico

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Gentlemen:

This is notification to offset operators that Alpha Twenty-One Production Company has requested a hearing before the Oil Conservation Division seeking approval for two non-standard proration units. One proration unit of 40 acres comprising the NW/4 SE/4 Section 8, T-25-S, R-37-E, Jalmat Gas Pool to be dedicated to El Paso Natural Gas Company's existing Langlie Federal Weil No. 3. The other proration unit of 120 acres comprising the E/2 SE/4 and SW/4 SE/4 of the same Section is to be dedicated to the captioned well to be drilled in the Jalmat Gas Pool.

The hearing will take place November 14, 1979.

Very truly yours,

Tonny Phipps Executive Vice President

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2100 FIRST NATIONAL BANK BUILDING MIDLAND, TEXAS 79701

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November 6, 1979

915/683-5384

HOVELDEL OF 1975

Reserve Oil Inc. 312 HBF Building Hidland, Texas 79701

Re: El Paso - Ruby Federal No. 1 1880' FEL, 660' FSL, Sec. 8, 7-25-S, R-37-E, Lea County, New Mexico

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This is notification to offset operators that Alpha Twenty-One Production Company has requested a hearing before the Oil Conservation Division seeking approval for two non-standard proration units. One proration unit of 40 acres comprising the SW/4 SE/4 Section 8, T-25-S, R-37-E, Jalmat Gas Pool to be dedicated to El Paso Natural Gas Company's existing Langlie Federal Well No. 3. The other proration unit of 120 acres comprising the E/2 SE/4 and SW/4 SE/4 of the same Section is to be dedicated to the captioned well to be drilled in the Jalmat Gas Pool.

The hearing will take place November 14, 1979.

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Wery truly yours,

Tormy Phipps Executive Vice President

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2100 FIRST NATIONAL BANK BUILDING MIOLAND, TEXAS 79701

915/683-5384

November 6, 1979

Arco 011 & Gas Company P. 0. Box 1710 Hobbs, New Mexico 88240

> Re: E1 Paso - Ruby Federal No. 1 1880' FEL, 660' FSL, Sec. 8, T-25-S, R-37-E, Lea County, New Mexico

Gentlemen:

This is notification to offset operators that Alpha Twenty-One Production Company has requested a hearing before the Oil Conservation Division seeking approval for two non-standard proration units. One proration unit of 40 acres comprising the NW/4 SE/4 Section 8, T-25-S, R-37-E, Jalmat Gas Pool to be dedicated to El Paso Natural Gas Company's existing Langlie Federal Nell No. 3. The other proration unit of 120 acres comprising the E/2 SE/4 and SW/4 SE/4 of the same Section is to be dedicated to the captioned well to be drilled in the Jalmat Gas Pool.

The bearing will take place November 14, 1979.

Very truly yours,

y Phipps

Executive Vice President

TP:rm

Certified Mail No. POO 7350215 Return Receipt

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	2 ARTICLE ADDRESSED TO: Arco Oil & Gas Company P. O. Box 1710 Hobbs, New Mexico 88240
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2100 FIRST NATIONAL BANK BUILDING MIDLAND, TEXAS 79701

915/683-5384

November 6, 1979

Union Texas Petroleum Corp. 1300 Wilco Building Midland, Texas 79701

1995 315

Be: El Paso - Ruby Federal No. 1 1880' FEL, 660' FSL, Sec. 8, T-25-S, R-37-E, Lea County, New Mexico

The Street

Gentlemen:

This is notification to offset operators that Alpha Twenty-One Production Company has requested a hearing before the Oil Conservation Division seeking approval for two non-standard proration units. One proration unit of 40 acres comprising the TW/4 SE/4 Section 8, T-25-S, R-37-E, Jalmat Gas Pool to be dedicated to El Paso Natural Gas Company's existing Langlie Federal Well No. 3. The other proration unit of 120 acres comprising the E/2 SE/4 and SW/4 S2/4 of the same Section is to be dedicated to the captioned well to be drilled in the Jalmat Gas Pool.

The hearing will take place November 14, 1979.

Wery truly yours,

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Tommy Phipps Executive Vice President

TP:rm

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2100 FIRST NATIONAL BANK BUILDING MIDLAND, TEXAS 79701

915/683-5384

November 6, 1979

Doyle Hartman Suite 508 C & K Petroleum Building Midland, Texas 79701

Re: El Paso - Ruby Federal No. 1 1880' FEL, 660' FSL, Sec. 8, T-25-S, R-37-E, Lea County, New Mexico

Gentlemen:

This is notification to offset operators that Alpha Twenty-One Production Company has requested a hearing before the Oil Conservation Division seeking approval for two non-standard proration units. One proration unit of 40 acres comprising the NW/4 SE/4 Section 8, T-25-S, R-37-E, Jalmat Gas Pool to be dedicated to El Paso Natural Gas Company's existing Langlie Federal Well No. 3. The other proration unit of 120 acres comprising the E/2 SE/4 and SW/4 SE/4 of the same Section is to be dedicated to the captioned well to be drilled in the Jalmat Gas Pool.

The hearing will take place November 14, 1979.

Very truly yours,

Phir Executive Vice President

TP:rm

Certified Mail No. POO 7350370 Return Receipt

73 Farm	 SENDER: Complete items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.
- 3611 Aut 1978	 The following service is requested (check one). Show to whom and date delivered. Show to whom, date, and address of delivery. RESTRICTED DELIVERY Show to whom and date delivered.
	RESTRICTED DELIVERY. Show to whom, date, and address of delivery. (CONSULT POSTMASTER FOR FEES)
0471 JBL	2. ARTICLE ADDRESSED TO: Doyle Hartman Suite 508 C&K Petroleum Building Midland, Texas 79701
	3. ARTICLE DESCRIPTION: REGISTERED NO. CERTIFIED NO. INSURED NO. POO. 7350370
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RADTKE, AYCOCK, & ASSOCIATES, INC. Petroleum Engineering Consultants 310 WALL TOWERS WEST MIDLAND, TEXAB 79701 TELEPHONE 915/634-8044

November 12, 1979

Alpha 21 Production Co. 2100 First National Bank Building Midland, Texas 79701

Attention Mr. Tom Phipps

Subject: Application for NGPA Infill Gas Development Well, Section 8, T-25-S, R-37-E, Jalmat Pool Lea County, New Mexico

Gentlemen:

Attached are the following that have been prepared in accordance with your instructions:

- 1. Structure Map of Area
- Cross-Sections A-A' and B-B' 2.
- Letter of explanation, including reserve estimate 3. for proposed well.
- Rate-Time Production Graphs for active wells near 4. the proposed location.
- Graph of shut-in wellhead pressure as a function of 5. cumulative gas recovery for selected nearby wells.

We trust that this material will suffice to complete this application; however, we should be pleased to render whatever additional service you may require in this connection. As always, we appre-ciate the continued opportunity of serving you professionally.

Section of the sectio

Very truly yours, Wm. P. Aycock, P. E.

EXHS

WPA/bw

Attachments

RADTKE, AYCOCK, & ASSOCIATES, INC. Petroleum Engineering Consultants 310 WALL TOWERB WEBT MIDLAND, TEXAB 79701 TELEPHONE 915/684-8044

November 12, 1979

Alpha 21 Production Co. 2100 First National Bank Building Midland, Texas 79701

Attention Mr. Tom Phipps

Subject:

Application for Administrative Approval of Infill Gas Development Well, SE/4 & S/2, NE/4 Section 8, T-25-S, R-37-E, Jalmat Pool Lea County, New Mexico

and the second second

Gentlemen:

This letter is being furnished to you as a part of the captioned application, as required by Section 10, "Special Rules and Regulations, Natural Gas Policy Act Infill Findings Administrative Procedure". These rules were promulgated by the Conservation Division, State of New Mexico, Energy and Mineral Department on June 7, 1979, Case No. 6526, Order No. R-6013.

As you are aware, the El Paso Natural Gas Co. Langlie Fed. 3 is situated in Unit J, 8-25S-37E. As of April 1, 1979, this well had produced 279 MMCF of gas, and the estimated ultimate recovery of this well is 562 MMCF. The seven of the eight Jalmat gas wells surrounding the El Paso Natural Gas Co. Langlie Fed. 3 have produced 18,664 MMCF of gas, for a mean recovery of 2,666 MCF of gas on April 1, 1979. The eighth of the surrounding wells (the Gulf Oil Co. Arnott Ramsey "E"-1) was completed 7-13-37 and never produced before being plugged and abandoned. The estimated ultimate recovery for the seven of the surrounding wells that have been produced is 21,068 MMCF, for a mean estimated ultimate recovery of 3009 MMCF. The respective maximum gas recovery at April 1, 1979, and minimum estimated ultimate gas recovery for these seven wells are 9463 MMCF and 638 MMCF. The gas recovery information derived from the attached table can be summarized as follows:

			•			s - MMCF 1 1, 1979	4 -
				Cumulative	Ëst	imated Ulti	mate
EPNG L	anglie Fed. 3 f Seven	<i>.</i>)		279		438	Nga sa san La
Surre	ounding Jalmat m of Seven	Gas	Wells	2,666	i i i i	3,009	
Surro	ounding Jalmat	Gas	Wells	85	17.92	638	
	n of Seven ounding Jalmat	Gas	Wells	9,463	• * •	10,245	

Alpha 21 Production Co. November 12, 1979 Page 2

The volume of increased gas recovery for an infill development well can then be reasonably estimated as follows:

Basis for Seven Surrounding Jalmat Gas Wells	Estimated Increased Recovery, MMCF
Surrounding Jaimae Ga	2,571
Mean	2,571 200
Minimum	9,807
Maximum	1

By using the mean values of the volumetric reservoir and pressure) parameters for the three wells located nearest the proposed location for which complete data are available (El Paso NG Langlie Fed. 3; El Paso NG Jal "D" 3 and Doyle Hartman Langlie Jal Fed. 1), the estimated ultimate gas recovery for the proposed well is 132 MMCF. The parameters incorporated into this estimate are as follows:

	and the second data and the se	12.0
Porosity, %	Bulk Volume NEPS	30.4
		73.5
Net Effectiv	re Pay, feet	78.
- cc. Ative III		262.8
		184.3
111 clai ber	BHP/Z, psia	

These estimates, utilizing analogous comparisons, are reasonably verified by the observation that in spite of well completion dates between 7-25-49 and 11-22-66, the observed initial tubing pressures were as follows:

WEIC UP	Traction	Date	Pressure
Well EPNG Jal "D"-3 EPNG Langlie "A" Fed. 1 EPNG Wells Fed. 11	Location 8B-25S-37E 17J-25S-37E 4N-25S-37E 8J-25S-37E	$7-25-496-18 \Rightarrow 5212-15-5711-22-66$	465
Brito Fed. 3		and the second	for th

It is also consequential that the calculated drainage area for the El Paso Natural Gas Co. Langlie Fed. 3 is abnormally low, as can be demonstrated by the following that have been extracted from the Estimated Drainage

attached table.		Area, Acres
Well		28 204
EPNG Langlie Fed. 3 Mean of Seven Surrounding Wells Minimum of Seven Surrounding Wells Maximum of Seven Surrounding Wells	4 1	45 700
Maximum of Seven		

Alpha 21 Production Co. November 12, 1979 Page 3 ·

Because of all of the above, we believe that the drilling of the proposed well is justified by the Natural Gas Policy Act criteria, as promulgated by NMOCC Order No. R-6013. We should be pleased to render whatever supplemental information you might require in this connection.

Very truly yours, thm. I Mr Mr D Wm. D. Aycock, NE.

WPA/bw

Attachment

ALPHA 21 PRODUCTION CO. SUMMARY OF INDIVIDUAL WELL INFORMATION Vicinity of Proposed Location in N/2, SE/4, 8-25s-37E Jalmat (Tansill-Yates-Seven Rivers) Pool, Lea County, New Mexico

	El Paso NG Langlie Fed. 3	ARCO Woolworth 1	El Paso NG Jal "D" 3	Phillips Woolworth 4	D. Hartman Langlie Jal. Fed. 1	Gulf Oil ArnottRamsey "E" - 1	AMOCO Langlie "C" Fed. 1	El We
Location of Well	8J-25S-37E	17B-25S-37E	8R-25S-37E	8M-25S-37E	8A-25S-37E	160-25S-37E	9N-25S-37E	4 N
Completion Date Init. CAOFP,MCF/day Dist. & Direction from	11-22-66 447	5-13-39 8400	7-25-49 30,000	3-27-51 9,000	4-16-77 1,938	7-13-37 274	8-1-78 279	1
proposed location	332' W	1980' SSE	2833' NNW	3000' WSW	3350' NNE	3000' SE	3375' ESE	5
Cum. Gas Production, MCF @ 4-1-79	270,704	9,462,768	3,666,609	1,198,484	359,620	Never Prod.	85,253	3,
Completion Interval	2900-2945 2955-3148	2962-2975 3075-3909	2930-3043	2906-2964	2875-3177	3400-3430	2986-3130	30
Volumetric Analysis Resul Mean Eff. Por,% Bulk Vol Mean Con. Wtr. Stn,		-	7.04	-	19.1		19.0	
<pre>% NEPS Net Eff. Pay, ft. Orig. Gas-in-place,</pre>	25. 52.	_ >	45. 81.	-	28. 77.		50. 64.	
MMCF/ac	19.8	0	9.33	-	4.26	-	18.2	
Est. Orig. GIP, MMCF	562	12,400	4,570*	1,490*	796*	, -	1030*	4
Est. Ult. Gas Rec., MMCF	438	10,245	3,667	1,198	638	Never Prod.	823	1
Est. Gas Rec. Fact, \$ OGIP	77.9	82.5	1	-5 	-			
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With OGIP = EUR/0.802 With OGIP/Ac = 17.7 MMCF/ac. estimated from statistical analysis of available information.

ALPHA 21 PRODUCTION CO.

SUMMARY OF INDIVIDUAL WELL INFORMATION Vicinity of Proposed Location in N/2, SE/4, 8-25s-37E Jalmat (Tansill-Yates-Seven Rivers) Pool, Lea County, New Mexico

Paso NG nglie ed. 3	ARCO Woolworth 1	El Paso NG Jal "D" 3	Phillips Woolworth 4	D. Hartman Langlie Jal. Fed. 1	Gulf Oil ArnottRamsey <u>"E" - 1</u>	AMOCO Langlie "C" Fed. 1	El Paso NG Wells Fed. 11	El Paso NG Langlie "A" Fed. 2
	-							
25S-37E	17B-25S-37E	8R-25S-37E	8M-25S-37E	8A-25S-37E	160-25S-37E	9N-25S-37E	4N-25S-37E	17J-25S-37E
22-66 447	5-13-39 8400	7-25-49 30,000	3-27-51 9,000	4-16-77 1,938	7-13-37 274	8-1-78 279	12-15-57 10,000	6-18-52 13,750
\$2' W	1980' SSE	2833' NNW	3000' WSW	3350' NNE	3000' SE	3375' ESE	5370' NE	5150' SSW
),704	9,462,768	3,666,609	1,198,484	359,620	Never Prod.	85,253	3,153,118	737,714
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RADTKE, AYCOCK, & ASSOCIATES, INC. Petroleum Engineering Consultants 310 WALL TOWERS WEST MIDLAND, TEXAS 79701 TELEPHONE 915/684-8044

November 12, 1979

Alpha 21 Production Co. 2100 First National Bank Building Midland, Texas 79701

Attention Mr. Tom Phipps

Subject: Application for NGPA Infill Gas Development Well, Section 8, T-25-S, R-37-E, Jalmat Pool Lea County, New Mexico

Gentlemen:

Attached are the following that have been prepared in accordance with your instructions:

- 1. Structure Map of Area
- 2. Cross-Sections A-A' and B-B'
- 3. Letter of explanation, including reserve estimate for proposed well.
- 4. Rate-Time Production Graphs for active wells near the proposed location.
- 5. Graph of shut-in wellhead pressure as a function of cumulative gas recovery for selected nearby wells.

We trust that this material will suffice to complete this application; however, we should be pleased to render whatever additional service you may require in this connection. As always, we appreciate the continued opportunity of serving you professionally.

Very truly yours,

Wm. P. Aycock, \P. E.

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WPA/bw

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November 12, 1979

Alpha 21 Production Co. 2100 First National Bank Building Midland, Texas 79701

Attention Mr. Tom Phipps

Subject: Application for Administrative Approval of Infill Gas Development Well, SE/4 & S/2, NE/4 Section 8, T-25-S, R-37-E, Jalmat Pool Lea County, New Mexico

Gentlemen:

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As you are aware, the El Paso Natural Gas Co. Langlie Fed. 3 is situated in Unit J, 8-25S-37E. As of April 1, 1979, this well had produced 279 MMCF of gas, and the estimated ultimate recovery of this well is 562 MMCF. The seven of the eight Jalmat gas wells surrounding the El Paso Natural Gas Co. Langlie Fed. 3 have produced 18,664 MMCF of gas, for a mean recovery of 2,666 MCF of gas on April 1, 1979. The eighth of the surrounding wells (the Gulf Oil Co. Arnott Ramsey "E"-1) was completed 7-13-37 and never produced before being plugged and abandoned. The estimated ultimate recovery for the seven of the surrounding wells that have been produced is 21,068 MMCF, for a mean estimated ultimate recovery of 3009 MMCF. The respective maximum gas recovery at April 1, 1979, and minimum estimated ultimate gas recovery for these seven wells are 9463 MMCF and 638 MMCF. The gas recovery information derived from the atteched table can be summarized as follows:

		overies - MMCF April 1, 1979
and a second second Second second	Cumulative	Estimated Ultimate
EPNG Langlie Fed. 3	279	438
Mean of Seven Surrounding Jalmat Gas Wells Minimum of Seven	2,666	3,009
Surrounding Jalmat Gas Wells	85	638
Maximum of Seven Surrounding Jalmat Gas Wells	9,463	10,245

Alpha 21 Production Co. November 12, 1979 Page 2

The volume of increased gas recovery for an infill development well can then be reasonably estimated as follows:

Basis for Seven Surrounding Jalmat Gas Wells	Estimated Increased Recovery, MMCF
Mean	2,571
Minimum	200
Maximum	9,807

By using the mean values of the volumetric reservoir and pressure parameters for the three wells located nearest the proposed location for which complete data are available (El Paso NG Langlie Fed. 3; El Paso NG Jal "D" 3 and Doyle Hartman Langlie Jal Fed. 1), the estimated ultimate gas recovery for the proposed well is 132 MMCF. The parameters incorporated into this estimate are as follows:

Porosity, % Bulk Volume	15.8
Connate Water Saturation, % NEPS	30.4
Net Effective Pay, feet	73.5
Effective Drainage Area, acres	78.
Initial BHP/Z, psia	262.8
Abandonment BHP/Z, psia	184.3

These estimates, utilizing analogous comparisons, are reasonably verified by the observation that in spite of well completion dates between 7-25-49 and 11-22-66, the observed initial tubing pressures were as follows:

m. titis .

<u>We11</u>	Location	Date	Pressure
EPNG Jal "D"-3	8B-25S-37E	7-25-49	900
EPNG Langlie "A" Fed. 1	17J-25S-37E	6-18-52	830
EPNG Wells Fed. 11	4N-25S-37E	12-15-57	300
EPNG Langlie Fed. 3	8J-25S-37E	11-22-66	425

It is also consequential that the calculated drainage area for the El Paso Natural Gas Co. Langlie Fed. 3 is abnormally low, as can be demonstrated by the following that have been extracted from the attached table:

<u>Well</u>	۰		Estimated Drainage Area, Acres
EPNG Langlie Fed. 3 Mean of Seven Surrounding Minimum of Seven Surround Maximum of Seven Surround	ling Wells	a di	28 204 45 700

Alpha 21 Production Co. November 12, 1979 Page 3

Because of all of the above, we believe that the drilling of the proposed well is justified by the Natural Gas Policy Act criteria, as promulgated by KMOCC Order No. R-6013. We should be pleased to render whatever supplemental information you might require in this connection.

Very truly yours, Wm. P. Aycock, P.E.

WPA/bw

Attachment

LPHA 21 PRODUCTION CO. F INDIVIDUAL WELL INFORMATION ied Location in N/2, SE/4, 8=25s-37E even Rivers) Pool, Lea County, New Mexico

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o NG D''	Phillips Woolworth 	D. Hartman Langlie Jal. Fed. 1	Gulf Oil ArnottRamsey 1	AMOCO Langlie "C" Fed. 1	El Paso NG Wells Fed. 11	El Paso NG Langlie "A" Fed. 2
5-37E	8M-25S-37E	8A-25S-37E	160-25S-37E	9N-25S-37E	4N-25S-37E	17J-25S-37E
5-49 ,000	3-27-51 9,000	4-16-77 1,938	7-13-37 274	8-1-78 279	12-15-57 10,000	6-18-52 13,750
NNW	3000' WSW	3350' NNE	3000' SE	3375' ESE	5370' NE	5150' SSW
6,609	1,198,484	359,620	Never Prod.	85,253	3,153,118	737,714
3043	2906-2964	2875-3177	3400-3430	2986-3130	3070-3140	2480-2640 2921-2980
04	-	19.1	-	19.0		13.3
. • -	-	28. 77.	- -	50. 64.	- -	25. 116.
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70*	1,490*	796*		1030*	4,060	920*
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ALPHA 21 PRODUCTION CO.

SUMMARY OF INDIVIDUAL WELL INFORMATION Vicinity of Proposed Location in N/2, SE/4, 8-25s-37E Jalmat (Tansill-Yates-Seven Rivers) Pool, Lea County, New Mexico

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Location of Well	8J-25S-37E	17B-25S-37E	8R-25S-37E	8M-25S-37E	8A-25S-37E	160-25S-37E	9N-25S-37E	4N-
Completion Date Init. CAOFP,MCF/day	11-22-66 447	5-13-39 8400	7-25-49 30,000	3-27-51 9,000	4-16-77 1,938	7-13-37 274	8-1-78 279	12
Dist. & Direction from proposed location	332' W	1980' SSE	2833' NNW	3000' WSW	3350' NNE	3000' SE	3375' ESE	53
Cum. Gas Production, MCF @ 4-1-79	270,704	9,462,768	3,666,609	1,198,484	359,620	Never Prod.	85,253	3,1
Completion Interval	2900-2945 2955-3148	2962-2975 3075-3909	2930-3043	2906-2964	2875-3177	3400-3430	2986-3130	307
Volumetric Analysis Result Mean Eff. Por,% Bulk Vol. Mean Con. Wtr. Stn,		_	7.04	-	19.1		19.0	
Net Eff. Pay, ft. Orig. Gas-in-place,	25. 52.		45. 81.		28. 77.	-	50. 64.	
MMCF/ac	19.8	0	9.33	• . •	4.26		18.2	
Est. Orig. GIP, MMCF	562	12,400	4,570*	1,490*	796*	-	1030*	
Est. Ult. Gas Rec., MMCF	438	10,245	3,667	1,198	638	Never Prod.	823	
Est. Gas Rec. Fact, 6 & OGIP	77.9	82.5	-		n an tha an t			
Est. Drainage Area, Ac	28	700**	260**	> 84**	45**	-	50**	

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ALPHA 21 PRODUCTION CO.

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J-25S-37E	17B-25S-37E	8R-25S-37E	8M-25S-37E	8A-25S-37E	160-25S-37E	9N-25S-37E	4N-25S-37E	17J-25S-37E
11-22-66 447	5-13-39 8400	7-25-49 30,000	3-27-51 9,000	4-16-77 1,938	7-13-37 274	8-1-78 279	12-15-57 10,000	6-18-52 13,750
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WARAND FOR SURVEY

Docket No. 42-79

Dockets Nos. 43-79 and 44-79 are tentatively set for November 28 and December 12, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 14, 1979

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for December, 1979, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

> (2) Consideration of the allowable production of gas for December, 1979, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6715: Application of Texaco Inc. for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Loomis Fed. Well No. 1 to be drilled 1600 feet from the North Line and 660 feet from the West line of Section 5, Township 21 South, Range 32 East, South Salt Lake-Morrow Gas Pool, the N/2 of said Section 5 to be dedicated to the well.

CASE 6707: (Continued from October 31, 1979, Examiner Hearing)

Application of Gulf Oil Corporation for a unit agreement, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Southeast Bisti Unit Area, comprising 7,048 acres, more or less, of State and Federal lands in Townships 24 and 25 North, Range 10 West.

CASE 6716: Application of Alpha Twenty-One Production Company for two non-standard proration units and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard proration unit comprising the NW/4 SE/4 of Section 8, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to El Paso Natural Gas Company's Langlie Federal Well No. 3, and also a 120-acre unit comprising the E/2 SE/4 and SW/4 SE/4 of said Section 8 to be dedicated to a well to be drilled by applicant at a standard location thereon; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing yell.

Application of 0. H. Berry for a non-standard proration unit and an unorthodox gas well location, CASE 6717: Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to his Isbell Well No. 6 at an unorthodox location 418 feet from the North line and 351 feet from the East line of said Section 15.

Application of Southland Royalty Company for an unorthodox gas well location, Eddy County, New CASE 6718: Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be drilled 1325 feet from the North line and 2303 feet from the East line of Section 14, Township 19 South, Range 29 East, Oil-Potash Area, the E/2 of said Section 14 to be dedicated to the well.

CASE 6719: Application of Sam H. Snoddy for an amendment to Order No. R-5521, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5521, which authorizes the directional drilling of the Federal Well No. 2 in Section 25, Township 20 South, Range 32 East, to permit the well to be bottomed at approximately 1014 feet from the South line and 1285 feet from the West line of said Section 25.

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CASE 6710: (Continued from October 31, 1979, Examiner Hearing)

Application of ARCO 011 and Gas Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry and Montoys production in the wellbores of the following wells on its State Y Lease: No. 3 located in Unit B, No. 6 located in Unit H, and No. 7 located in Unit A, all in Section 25, Township 25 South, Range 37 East.

CASE 6720:

Application of ARCO Oil and Gas Company to drill a horizontal drainhole, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval to drill and complete its Empire Abo Unit Well No. J-213, located in Unit E of Section 6, Township 18 South, Range 28 East, Empire-Abo Pool, with a single horizontal drainhole of about 200 feet in length in the Abo formation.

Page 2 of 3 Examiner Hearing - Wednesday - November 14, 1979

Docket No. 42-79

CASE 6721: Application of Aminoil USA, Inc. for compulsory pooling, Eddy County, New Mexico. Application of Aminoit USA, Inc. for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Pennsylvanian formations underlying the N/2 of Section 10, Township 24 South, Range 28 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6684: (Continued from October 31, 1979, Examiner Hearing)

Application of CO2-In-Action, Inc. for creation of a new carbon dioxide gas pool and special pool rules, Marding County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the North Bueyeros-Santa Rosa CO2 Gas Pool and the promulgation of special pool rules therefor, including a provision for 40-acre spacing and proration units. Said pool would comprise all or parts of Sections 1 thru 4, Township 20 North, Range 30 East, and Sections 8, 9, 10, 15, 16, 17, 20, 21, 22, 27, 28, 32, 33 and 34, Township 21 North, Range 30 East.

CASE 6722: Application of Lloyd Davidson for an unorthodox oil well location, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of his Santa Fe Pacific Well No. 1, a Gallup-Entrada-Dakota test 960 feet from the South line and 1230 feet from the East line of Section 29, Township 16 North, Range 6 West, the SE/4 SE/4 of said Section 29 to be dedicated to the well.

CASE 6723: Application of Merrion & Bayless for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pictured Cliffs formation underlying the SW/4 of Section 27, Township 24 North, Range 2 West, South Blanco-Pictured Cliffs Pool, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6713: (Continued from October 31, 1979, Examiner Hearing)

Application of Depco Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the White Ranch Unit Area, comprising 18,962 acres, more or less, of State, Federal, and fee lands in Townships 12 and 13 South, Ranges 29 and 30 East.

Application of Coquina Oil Corporation for a non-standard gas provation unit and an unorthodox loca-tion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the CASE 6724: unorthodox location of a well to be drilled 660 feet from the South line and 1650 feet from the East line of Section 7, Township 19 South, Range 32 East, Lusk-Morrow Cas Pool, the S/2 of said Section 7 to be dedicated to the well as a non-standard 320-acre proration unit.

CASE 6725: Application of Tenneco Oil Company for three non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 291.23-acre non-standard gas proration unit comprising the W/2 of Section 6 and the NW/4 of Section 7, a 347.58-acre unit comprising the W/2 of Section 19 and the NW/4 of Section 30, and a 375.17-acre unit comprising the SW/4 of Section 30 and the W/2 of Section 31, all in Township 29 North, Range 8 West, Basin-Dakota Pool, each unit to be dedicated to a well to be drilled at a standard location thereon.

CASE 6726: Application of Tesoro Petroleum Corporation for a waterflood project, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the South Hospah-Upper Sand Oil Pool by the injection of water into the Upper Hospah Sands through three wells located in Units E and M of Section 5 and Unit I of Section 8, Township 17 North, Range 8 West, Applicant further seeks 5- administrative procedure for expansion of said project.

CASE 6727: Application of Conoco Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to dispose of produced salt water in its Anderson Ranch Unit Well No. 8 located in Unit I of Section 11, Township 16 South, Range 32 East, Anderson Ranch Field. Applicant would dispose into the Wolfcamp, Mississippian, and Devonian formations in the overall interval from 9775 feet to 13,620 feet through selective perforations.

CASE 6728: Application of Conoco Inc. for pressure maintenance expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the expansion of its Scarborough Eaves PM Project by the conversion of its Eaves "A" Well No. 7 located in Unit J of Section 19, Township 26 South, Range 37 East, to water injection in the Yates-Seven Rivers formations.

Page 3 of 3 Examiner Hearing - Wednesday - November 14, 1979

Docket No. 42-79

CASE 6729: Application of Adams Exploration Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsyl-vanian formation underlying Section 16, Township 20 South, Range 36 East, North Osudo-Norrow Gas Pool, to be dedicated to a well to be crilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said wo11

CASE 6730:

Application of Petroleum Development Corporation to limit 640-acre spacing, Eddy and Lea Counties, New Mexico. Applicant, in the above-styled cause, seeks an order limiting the applicability of the 640-acre spacing and well location rules for the Lusk-Morrow Gas Pool to the present boundaries of said pool so that wells drilled nearby but outside the pool would be governed by Rule 104 of the Division's Rules.

CASE 6731:

Application of Petroleum Development Corporation for a non-standard gas provation unit and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of z well to be drilled 660 fect from the North and West lines of Section 13, Township 19 South, Range 31 East, Lusk-Morrow Cas Pool, the N/2 of said Section 13 to be dedicated to the well as a non-standard 320-acre proration unit.

CASE 6709: (Continued from October 31, 1979, Examiner Hearing)

Application of HNG Oil Company for compulsory pooling, Les County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 33, Township 16 South, Range 35 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CAMPBELL AND BLACK. P.A.

JACK M. CAMPBELL BRUCE D. BLACK MICHAEL B. CAMPBELL WILLIAM F. CARR PAUL R. CALDWELL

POST OFFICE BOX 2208 JEFFERSON PLACE SANTA FE. NEW MEXICO 87501 TELEPHONE (505) 588-4421

October 22, 1979

Mr. Joe D. Ramey Division Director Oil Conservation Division New Mexico Department of Energy & Minerals Post Office Box 2088 Santa Fe, New Mexico 87501

Cuse 67/6

Re: Application of Alpha Twenty-One Production Company for Unorthodox Location, Two Non-Standard Proration Units and Infill Findings, Lea County, New Mexico

Dear Mr. Ramey:

Enclosed in triplicate is the application of Alpha Twenty-One Production Company in the above-referenced matter.

The applicant requests that this matter be included on the docket for the examiner hearing scheduled to be held on November 14, 1979.

Very truly yours Jan

William F. Carr

WFC:1r

Enclosures

cc: Mr. Tommy Phipps





SANTA FE

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

aut-DSN APPLICATION OF ALPHA TWENTY-ONE PRODUCTION COMPANY FOR APPROVAL OF AN UNORTHODOX LOCATION, TWO NON-STANDARD PRORATION UNITS AND INFILL FINDINGS, LEA COUNTY,

NEW MEXICO.

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CASE 67/6

APPLICATION

Comes now ALPHA TWENTY-ONE PRODUCTION COMPANY, by their undersigned attorneys, and applies to the New Mexico Oil Conservation Division for approval of an unorthodox location, two nonstandard gas proration units and infill findings and in support of their application states:

1. El Paso Natural Gas Company is the operator of the SE/4 of Section 8, Township 25 South, Range 37 East, N.M.P.M., Lea County, New Mexico, which is dedicated to its Langlie-Federal No. 3 Well located 1650 feet from the South and East lines of said Section 8.

2. Applicant has received a farmout from El Paso Natural Gas Company of the E/2 SE/4 and the SW/4 SE/4 of said Section 8.

Applicant seeks the establishment of two non-standard 3. gas proration units in the Jalmat Gas Pool; one comprising the NW/4 SE/4 of said Section 8 as a new forty acre proration unit to be dedicated to the El Paso Natural Gas Company Langlie Federal No. 3 Well and the other comprising the E/2 SE/4 and the SW/4 SE/4 of Section 8 as a new one hundred twenty acre proration unit to be dedicated to

El Pasoa Langlie Fed # 3

applicants proposed 21 Paso Ruly Fed#1

applicants proposed El Paso Ruby Federal No. 1 Well to be drilled at an unorthodox location. 660 feet from the South line and 1880 feet from the East line of said Section 8. 4. Applicant seeks a determination pursuant to the F.E.R.C. Rules, Part 271.305 that the proposed El Paso Ruby Federal No. 3 Well is necessary to effectively and efficiently drain a portion of the Jalmat Gas Pool covered by the proposed proration units which cannot be effectively and efficiently drained by any existing well within the proration unit and will offer evidence in support of that determination.

WHEREFORE, applicant respectfully requests that this matter be set for hearing before the Commission or one of the Division's duly appointed examiners and that after notice and hearing as required by law, the Division enter its order approving the application.

Respectfully submitted, CAMPBELL AND BLACK, P.A.

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William F. 62208 Post Office Box 2208 Santa Fe, New Mexico 87501 Attorneys for Applicant

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

APPLICATION OF ALPHA TWENTY-ONE PRODUCTION COMPANY FOR APPROVAL OF AN UNORTHODOX LOCATION, TWO NON-STANDARD PRORATION UNITS AND INFILL FINDINGS, LEA COUNTY, NEW MEXICO.

CASE (c) > 16

SANTA FE

TION DIVISION

APPLICATION

Comes now ALPHA TWENTY-ONE PRODUCTION COMPANY, by their undersigned attorneys, and applies to the New Mexico Oil Conservation Division for approval of an unorthodox location, two nonstandard gas proration units and infill findings and in support of their application states:

> 1. El Paso Natural Gas Company is the operator of the SE/4 of Section 8, Township 25 South, Range 37 East, N.M.P.M., Lea County, New Mexico, which is dedicated to its Langlie-Federal No. 3 Well located 1650 feet from the South and East lines of said Section 8.

2. Applicant has received a farmout from El Paso Natural Gas Company of the E/2 SE/4 and the SW/4 SE/4 of said Section 8.

3. Applicant seeks the establishment of two non-standard gas proration units in the Jalmat Gas Pool; one comprising the NW/4 SE/4 of said Section 8 as a new forty acre proration unit to be dedicated to the El Paso Natural Gas Company Langlie Federal No. 3 Well and the other comprising the E/2 SE/4 and the SW/4 SE/4 of Section 8 as a new one hundred twenty acre proration unit to be dedicated to

- 1 -

applicants proposed El Paso Ruby Federal No. 1 Well to be drilled at an unorthodox location 660 feet from the South line and 1880 feet from the East line of said Section 8. 4. Applicant seeks a determination pursuant to the F.E.R.C. Rules, Part 271.305 that the proposed El Paso Ruby Federal No. 3 Well is necessary to effectively and efficiently drain a portion of the Jalmat Gas Pool covered by the proposed proration units which cannot be effectively and efficiently drained by any existing well within the proration unit and will offer evidence in support of that determination.

WHEREFORE, applicant respectfully requests that this matter be set for hearing before the Commission or one of the Division's duly appointed examiners and that after notice and hearing as required by law, the Division enter its order approving the application.

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Respectfully submitted, CAMPBELL AND BLACK, P.A.

Post Office Box 2208 Santa Fe, New Mexico 87501 Attorneys for Applicant

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

APPLICATION OF ALPHA TWENTY-ONE PRODUCTION COMPANY FOR APPROVAL OF AN UNORTHODOX LOCATION, TWO NON-STANDARD PRORATION UNITS AND INFILL FINDINGS, LEA COUNTY, NEW MEXICO.

6716 CASE

SANTA FE

TION DIVISION

APPLICATION

Comes now ALPHA TWENTY-ONE PRODUCTION COMPANY, by their undersigned attorneys, and applies to the New Mexico Oil Conservation Division for approval of an unorthodox location, two nonstandard gas proration units and infill findings and in support of their application states:

1. El Paso Natural Gas Company is the operator of the SE/4 of Section 8, Township 25 South, Range 37 East, N.M.P.M., Lea County, New Mexico, which is dedicated to its Langlie-Federal No. 3 Well located 1650 feet from the South and East lines of said Section 8.

2. Applicant has received a farmout from El Paso Natural Gas Company of the E/2 SE/4 and the SW/4 SE/4 of said Section 8.

3. Applicant seeks the establishment of two non-standard gas proration units in the Jalmat Gas Pool; one comprising the NW/4 SE/4 of said Section 8 as a new forty acre proration unit to be dedicated to the El Paso Natural Gas Company Langlie Federal No. 3 Well and the other comprising the E/2 SE/4 and the SW/4 SE/4 of Section 8 as a new one hundred twenty acre proration unit to be dedicated to applicants proposed El Paso Ruby Federal No. 1 Well to be drilled at an unorthodox location 660 feet from the South line and 1880 feet from the East line of said Section 8. 4. Applicant seeks a determination pursuant to the F.E.R.C. Rules, Part 271.305 that the proposed El Paso Ruby Federal No. 3 Well is necessary to effectively and efficiently drain a portion of the Jalmat Gas Pool covered by the proposed proration units which cannot be effectively and efficiently drained by any existing well within the proration unit and will offer evidence in support of that determination.

WHEREFORE, applicant respectfully requests that this matter be set for hearing before the Commission or one of the Division's duly appointed examiners and that after notice and hearing as required by law, the Division enter its order approving the application.

> Respectfully submitted, CAMPBELL AND BLACK, P.A.

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Post Office Box 2208 Santa Fe, New Mexico 87501 Actorneys for Applicant dr/

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6716

Order No. <u>*R*-6/88</u>

Xu

APPLICATION OF ALPHA TWENTY-ONE PRODUCTION COMPANY FOR TWO NON-STANDARD PRORATION UNITS AND APPROVAL OF INFILL DRILLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on <u>November 14</u> 19 79 , at Santa Fe, New Mexico, before Examiner <u>Daniel S. Nutter</u> NOW, on this <u>day of November</u>, 1979 , the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Alpha Twenty-One Production Company, seeks approval of a 40-acre non-standard gas proration unit comprising the NW/4 SE/4 of Section 8, Township 25 South, Range 37 East, NMPM, Jalmat Gas Pool, to be located thereon, dedicated to $\frac{1}{10}$ El Paso Natural Gas Company & Langlie Federal Well No. 3 and also a 120-acre unit comprising the E/2 SE/4 and SW/4 SE/4 of said Section 8 to be dedicated to a well to be drilled by applicant at a standard location thereon. In the center of the $\frac{100}{100}$ Section 8. (3) Applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.

(4) That the evidence presented demonstrated that said ElPaso Anglie Federal Well No.3 cannot effectively and efficiently drain the 160-acre proration unit presently assigned toit.

(5) That the evidence presented further demonstrated that the drilling and completion of applicant's said new well should result in production of between 132 and 200 million _____ additional cubic feet of gas from the SE44 of said Section 8 which would not otherwise be recovered. Exempting provation unit.

(*) That such additional recovery will result in said unit being more efficiently and economically drained.

(7) That said new well is to be drilled as an "infill" well on the existing 160 - acre "Standard proration unit, but said unit would be split into a 40- sere new standard unit and a 120-ocre new standard unit.

(**)** That in order to permit the drainage of a portion of the reservoir covered by said *life communication* standard proration unit which cannot be effectively and efficiently drained by the existing well thereon, the subject application for infill drilling <u>and simulaneous dedication</u> should be approved.

(**q**) That approval of the subject application will afford the applicant the opportunity to produce his just and equitable share of the gas in the Jalmat Gas Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

A CONTRACTOR

the Kospere non-standard gas provation wint comprising the SE/4 of Section 8,> hat = 40-acre non-standard and IT IS THEREFORE ORDERED: (1) That # 40-acre non-standard gas proration unit in the Jalmat Gas Pool comprising the NW/4 SE/4 of Section 8 - Jawnship 25 South - Range 37 East 25 South NMPM, Lea County, New Mexico, is hereby established and dedicated to is NMPM<u>s Lea Lounty; New Porto</u> is nereby established and dealed thereous *locatio* thereous El Paso Natural Gas Company's Langlie Federal Well No. 3 and also av120-acre unit comprising the E/2 SE/4 and SW/4 SE/4 of said Section 8 to be dedicated to a well to be drilled by applicant at a standard location thereon in the cente of the surfa self of said Section 8.

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That jurisdiction of this cause is retained for the entry of 2(日) such further orders as the Division may deem necessary. DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

Called in by Bill Carr 10/22/290 Alpha Twenty - One Production Company Unorthodox Location, Icoo Non-Standard Proration Units, and approval of Infill Wrilling Lea County Jalmat thes Pool 40-acre NSP NW14 SE14 8-255-37E to be dedicated to El Paso Natural Sas Langlie Fed. # 3 1650/5 + E of Sec. 8 120-acre NSP E12 SE14 and SW14 SE14 8-25-37 to be dedicated to El Pass Ruby Fed. #1 to be drilled 66015 + 1880/E of Sec. 8