GASE 7023: SHELL OIL COMPANY FOR POOL CHARTEN AND TEMPORARY SPECIAL POOL MEES, ROOSEVELT COUNTY, NEW MEXICO.

CASE NO.

7023

APPlication, Transcripts, Small Exhibits,

ETC.

							**									
1	Guif	entine sur la la	 	Shell f et 02 Dort Miller Miller	J. Hickman, ele	No Not Go	Mary Smagerly	Kt Smithetol Shell at 45 N. Kirkpalrick Jack Stierson Kt. Smithetol		mir e	Wilderspin E. House 3 - 11 - 51 3 - 17 - 51	÷.		EXHIBIT	6	
	Gulf	J.O Rucktoshel	-, -	Maralhan	Maralhan	¢	Billy V.	Wilderspin CHeus E - 22 - 42	1	Isaz I E.N.Taylori M.L.Grimsles	30 : : m			LAND MAP	•	
	Eigili Wettefield W.E. Tinle; Core Sedfer Gulf	Maller	T.C.Rogers	Philisps Enserch		Hordi	pin a House on e Burris	L. Dixon etal W.M. Killgere	Alery E Ceburn, clot Widerspin E House 12 8 1-12-84 E.N. Feyler, etc.	13.11.11	I. Toylonelol	STINGRA	PLICATION FOR PROPOSED NEW POO INGRAY (PENN.) FIELD AND MPORARY SPECIAL POOL RULES			OL -
,	CHRogers MMI	H.T. Rorie	Philips 5 3 34 L. Dixon, etal William	LG 6809 56 25 51	1 10 10 10 10 10 10 10 10 10 10 10 10 10	Wilderspin & Shell iz-z-al WO Askew Shell iz-z-al	Shell Nording Burris Aere	u ·	iien 1 - aj 6736 041	ana a Burah Ebebakh	W.E. Gilber CW.Rodelff		LT COUNT			
-	Gulf S-31 et H.T. Rocie	Gulf 3 - 15 - 91 3 - 2 - 92 Mattie Young	Rilgere Phillips 5-3-64 E.V.Cryer Phillips 5-7-64		Marothon 3-24 85 2-4-81 Shell 12-1-82	Shell (Warspin, 1978) 11 18 18 18 18 18 18 18 18 18 18 18 18	Signal Mileson Signal Mileson Signal Ellouse Hording 3-30-82 Burris Edways J.W. Signal Good in Proport			17.17 3 En	Roddiff(S) 31————————————————————————————————————	SCALE:	1 INCH	= 4000 F	EET	
	Beuloh Omenbe Malicyaung Est	Beulah Owenb RL Anthony Sti	T.J. Simmons		B.P. Echols 1/2 W.O. Askew 1/2 Lois Craig (5)	J.W. Copelin 1/2 Lois Craig (5)	Field (5) Road Fris	, s	late	Care	y Kirkham	HHRichordson	Richardspacto	HHRichardson	1.0 *********	L.C. Wilson
	Gulf (123)3 Gulf (15)81 5-15-61 5-13-61 C.W.Williams,Jr.	+ +	CMC.inc Shell	C.W.Wil	114 15 2110.85 tiams dr. 0 - 61	C.W.Williams, de	10.43 (140.41) C.W.Williams Jr. 1-14-9: 1-8-81	Warsph C.W.Will E House liams In 3-30-8212-6-61	:	C.W.Williams, 1 - 7 - 94	18.13 2120.22 / dr C.W.Williams dr. 1 - 22 - 81	FOR T	HE CREAT	ION OF A	OIL COMPA	43
100	6 July Jeane	Mallie Young Ruth 21 Anthony St V.4 Crumi			3		[· 2	A.M.Richardso C.W.Rodciff (S)		Enserch C.W.V	MyrtleFinta 67.6 Evans Williams, Jr. Enserch 27 - 81	RULES	FOR AN 1	UNDESIGN	CIAL POOI ATED POOI SOUTH	
		10 - 82 - 63 - 63 - 63 - 63 - 63 - 63 - 63 - 6		B.J.O.zon(5)		M. D. Skew I's cosper Copelin I's Lois Craig (s) Pete Field(s)		(Widespin) (E House I J. P. Wilson 3-13-82)		8-7-61 31-79 7 / 6-55 R.L.Anthony		RANGE 33 EAST, N.M.P.M.,			и- 6. ж .	
1.	Gull' 9-15-81 1-10 & 1-10 &	Gulf 9-15-81 9-10-81 9-20-81 11-15-91	Shell la: 89-63	Ph 9 - 9 - 11 -	thps 15 - 80 3 - 80 4 - 80	Phillips Doro Jo	ps - 60 Tap) Angen, elal	Phillips C.W.Will 6-26-89 forms Un 12-22-80	C.W.Williams Jr. 1-20-81 1-5-81 Derayannsenstal Fonn extarbitts Citer	Helen D. Georgians McCo.	Mork Skinner C.W.Williams,Jr.	Shell 3 - 27 - 03 H.G.Kaalan KaMI. MR.Kageretolik MI. E.L. Millar		Shell II-va-ez	2:6:83 1:20:83 AbeRibble, etal Flaud Kennedy	Shell Shell 12-18 62 LE-19 62 LE-19 62 LE-19 62 LE-19 62 LE-19 62 LE-19 64
•	6		9. S. Scott Guif 9-15-81	Phillips 9 - 15 - 80 5 - 3 - 80 11 - 4 - 80 WP 0: en 92	Phillips 1 - 18 - 80 C.W.Williams Jr. 2:10-81 2:13-81 3-12-82 Surshine Roy. L.B. Hodses	Control of the contro	More C. W. Will- Workey Coms J. C. W. Workey Coms Ref (1 28 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	C.W.Wi	Craig Cliams dr.	J.A. Fleck _e // 19:80 3 C.W.Williams, 1+28+81 3+8+8 19:84 3 Movis	-7 Jr.	E.L.Miller O.L.Key Shell 3 · 27 · 83 H.G.Keaton M.M.I W.R.Goger, et al 7 º M.I O.L.Key	8		Relph Lewery 9 0 J Sorenson 3 · 18 · 86	O. J. Sorenson
Ŀ	Pauline Love's Ruth Vexuhnte Jas. Gibson			8.J. Disan,etal	Mayis Normusi	Philips	giord Hidres	X.D.Cr	Phillips	Worley (S) W/	2 G.E. Petersan 72	bmes E. Lolla	· · · · · · · · · · · · · · · · · · ·	G.W. Gushwo	LeanRadeliff	Leen Rodeliff
)-\$ 1	EPoloit 2-15-75 Lx 4758 Lx 4758 1-2-25 Polity Polity Polity Polity Polity	Polania Diagram (Gerly) Little Tolking	Philtips 9-18-80 10-Williams Jr. 2-12-88	Mark Valley	Maris Fennie Wartey Carbiff Clyde Jahnson	CW Williams & Tobes ON 8-28-76	M.H HcGrail	2 - 11 - 81 2 - 5 - 81 3 - 1 - 81 3 - 22 - 81 E.R.Lorge,elst	Is is to Colling to Soco	Amoce W.H. Seer-	Moinoco 3 · IS Oroves TO 9012 Delmo Gi M.R. Koger Yi. ean Rade	rovesMi eloi,Mi			Amoco 10 - 26 - 80 4 - 27 - 80 5 hell 11 - 15 - 02 M.H. Kowland M.E. Kilchen T.E. Musick
1	7	Geffigh 1	6	Phillips	C.W.Williams dr. 12 23 80 A. 4. Killion Masss Worley St	Philips Philips	Phillips Phillips 5. 2. 40 6.26.40 E. M. Fannig Wilson Carbill Phillips Phillips 8.26.40 5. 2. 80	C.W.W	iliams, ir. 26 - Bt Amaco Swedingen Tobsse	(Coll	Topo Sent Sent Sent Sent Sent Sent Sent Sent	(5h	in RSON		I 6 Amace State To aosa D/A5 15-75	Amoso 10 - 22 - 60 G.W.Gushwa
, 1	uc Cabe, atal		5	32	Mass Warley St	Steenson Wilson	Carbill Wilson	Addie Swea Mory L.F	ringen leed life est.	33.11 ASM			ladcliff, eta		1414 5	33
5ħ ո 7	ell sz	Shelf 11-1-62		Phillips 3-13-80	C.W. Phittips Wiftiams 3 - 5 - 60 Jr. Jr.	Philips 2-1-82 5-2-80 C.W.Williams, Jr. 2-4-81	Phillips 9.2.80 C.W.Williams Jr. Eliz. Eliz. Jp. Borker h.		Amoco 10 - 10 - 90 RAWNINEYM MI 10 FORTHER	Amoc 9 2+10-1	Amoco	Application of the state of the	Amocga (Collector)	1)	Amoco Amoco 10-13-80 10-23-90 10-13-81 10-49-80 10-13-81	Amaco 10 - 18 - 80 10 - 18 - 81
2	0	21			7.E. Ueors 2 (Phillips)	RLAnthany	Brand Hears	Elit. Borker VI R L Anthony CW.Will-12 Cold ioms Jr. 1: 25 41 W.N. + V.12 19	L.P. Stiles Ye Dewitt Perry 4C. Williams Jr. 1-7-73 (1-6)	333	SU G. E. Pelerson	Swearingen	Amoco	Amoco	Amoco	C.W. Rodeliff
•			Visig t Guy Giwer	Vista Gower	Phillips Phi	R.C. Green, etal Lavelle Rudoliff		शहातिम	America Restrict DASSELLA CAWITA Corrile (15)	1A white GV. Is 11 Twite Ity etals 19 MAX.	Collier stoll	Sweetingen Sweetingen See aringen	R.R. Eroham, M.I. C.H. Rodeliff (13)	A.R.Grehem, M	ار	Oerelby Sweetly
8	Shell 12 - 13 - 82	Pearl B.Diono MLMougle Pearl Dana	Pearl B. Diana	Phillips	Phillips 3: 14: 53 3: 10: 60	Phillips 9 - 14 - 80	C.W.Williams, Jr. 2 - 6 - 61	Phillips	(คักให้ครั้ง)	15.74 7 Phillips 14+1+15	Phillips	Phillips	Amoco 18 · 27 · 10	A.	maco -19 - 80 -19 - 81	Enserch 4:84:84
2		,	Viela Gewer Ya Pearl Diana "a	Viola Gamer 42 Guy Gamer 42 2	7	2	Lavelle Rokliti. 6	W.W. Cotes elos CANTELLES			Amoro 1877/1/20 CC lennehillela 17/500 O. Lembirth Fa	Amaca Calcogn	Nodine Gillum 9F.A.Wilsen	,	-2,8	JH Mosley, M Alice Mosley CIYROCK ([IS

						- 1	AP1# 30-0	J205	33		
40. 07 COPICS ACCES	10	Exhibi	t No7							m C · 105	
DISTRIBUTION		1									
SANTA FE		Ц и	EW MEXICO	OIL CO	NSERVATI	ON C	NOISSIMMO		ı	ie []	e of Leann Fee
FILE		WELL COM	PLETION (OR REC	OMPLETI	ON :	REPORT A	LOG			os Lease No.
U.S.G.S.		4							N/4 2		73 Ceose 110.
LAND OFFICE		-{							7777	77777	mmm
OPERATOR											
14. TYPE OF WELL									7. thui	igregani	7
	•	# (X)	AS [1					•	
b. TYPE OF COMPLE		المالية	بدرد لــــا	097	J 07 HER		· · · · · · · · · · · · · · · · · · ·		8. l'urm	or Leos	r Nose
#5# X #0	***		LUE .	IFF	}				Shel	1 Aske	≥W
2. Name of Cherator	<u> </u>		ACR L_1 A	£344. L) OTHER		·	 	9. Well	No.	
Shell Oil Co	กกลกง								1		
3. Address of Operator									10. Fiel	d and Pe	el, or Wildcat
P.O. Box 991	. 237 T&C	. Houston.	TX 77001	!					Wildcat		
4. Location of Well	<u>,</u>			·							
•			•								
UMIT LETTER	LOCATED	1980	ET FROM YHE _	sou	th LINE AN	c	660 ,	EET FROM			
					TITTI	111	TTTTTT	TITT	12. Cou	isty	MITTING
THE WEST LINE OF	sec. 2	Twe. 55	mer. 32	E WAR	الللله	III	IIXIIII		Roos	evelt	
15, Date Spudded	i	Reached 17. [cads. 10				KB, RT, G	R, etc.)	19. Elev.	Cashinghead
4-9-80	5-25-80	o i '	/25/80		4	493	.2' GR				
20. Total Depth	21. P	lug Bock T.D.		If Multip	le Compl., H	ow	23. Interval Drilled	By i		, Ce	hie Tools
8973'		8280' 🗸						→ Rot	ary		
24. Producing Intervai(s), of this comp	letion - Tcp, Bo	ttom, Name		•						is Directional Surv ide
77001 77001											
7733'-7763'									No		
26. Type Electric and C									27). Was We	
MLL/ML, GNL/	GK									Y	es
28.			CASING RECO	 		3 5 01					
20"	WEIGHT LI		PTH SET	KOI	LE SIZE	100		TING RECO	DRD		AMOUNT PULLED
13 3/8"	48#		12'	17	24" 1/2"		sx Redi			-0	
8 5/8"	32#		325'		1/4"		0 sx Cla		Ocy Is		<u>0</u> 0
5 1/2"	17,20,15		330'	<u> </u>	1/4 7/8"		0 sx Cla 70 sx Cl		USX L	ice	. 0
29.	117,20,10	LINER RECORD		L	70	11/	30.		UBING R	ECOPO	
SIZE	TOP	воттом	SACKS C	FUENT	SCREEN		317E		TH SET	1	PACKER SET
		+	- Janens C		JUNEER		2 7/8				7575
		 						 			
31. Perforction Record (Interval, size a	nd number)			T 32.	ACI	D, SHOT, FR	ACTURE (EMENT	SOUFFZ	F FIC.
••••			•		}		ERVAL				TERIAL USED
	•				7733	-776	63	2000 a	als 7% HCL		
7733'-7763' 15 holes			·						3000 gals 20% HCL		
1755 - 1765	12 110162							······································			
33.				PROD	UCTION						
Date First Production	Proc	luction Method (A	lowing, gas l	iji, pumpi	ing - Size or	d typ	e pump)		Well St	SIUS (Pro	d. or Shut-inj
6/30/80		swabbing							shu	ıt-in	
Date of Test	Hows Tested	Choke Size	Prod'n. Test Pe		OII - 861.		Gas - MCF	,	Bbl.	Gas.	-Oll Ratio
6/30/80	8			<u>> [</u>	25		TSTM		48	_1	
Flow Tubing Press.	Casing Fress	re Colculated		ы.	Cos 1		V/ote t	er 861.		3.40	ly - API (Cort.)
0	U		→ 75			MTE		144			800 F
34. Disposition of Gos / No gas r		uel, vented, etc.)	1					Test	Wilnesse	d By	
	ecoroeu										
Inclination S	urvev										
36. I hereby certify that		skuun nu tust -	idea of this to		l -n=-1-		1ha h-11 al -	v kamalada	000 1-1	ial	
30. I ACTEDY COMITY INC.		SHOUR OR DOIN S	inca al iusa lo	.m 15 [fb(: www.comple	·τW	me veri oj m	, manuseur	. und Dell	· < }-	
///	Jace	/ A. J. Fore		C ~ ~	ion F	. 7	Cechnicia			7-25-	on
The second of th		n. u. core		ጋይክ	ነበሮ ተበብነ	~ [CPCANICI?	un.		1-13-	75U

EXHIBIT No. _8_

DATA SHEET

SHELL ASKEW NO. 1-2

PHYSICAL PROPERTIES OF RESERVOIR ROCKS

Average Porosity (%) = 7 (log analysis)

Average Permeability (md) = 3 (core analysis)

Average oil and interstitial water saturations (%) = So 69

Sw 31

RESERVOIR FLUID CHARACTERISTICS

Average Gravity of Oil --- 44.4 API @ 60°

Average Gravity of Gas --- 1.0827 @ 60°

Formation Volume Factor --- 1.1

Viscosity of Oil (Centipoises) --- 0.758

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 1 October 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Shell Oil Company for) pool creation and temporary special) pool rules, Roosevelt County, New Mexico.

CASE 7023

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

For the Applicant:

Owen Lopez, Esq. MONTGOMERY, ANDREWS Paseo de Peralta Santa Fe, New Mexico 87501

17 18

10

11

12

13

14

15

16

19

20

22

21

23

24

	PageINDEX	2	
	WALT V. BOYLE Direct Examination by Mr. Lopez Cross Examination by Mr. Nutter Questions by Mr. Beneschek MIKE TAVAKOL	4 12 13	
SALLY W. BOYD, C.S.R. Rt. 1 Box 193-B Santa Fe. New Mexico 87501 Santa Fe. (805) 455-7409	Direct Examination by Mr. Nutter Cross Examination by Mr. Nutter	19 29	
SALLY W. F Rt. 18 Santa Fe, No	EXHIBITS		
07			5
	16 Applicant Exhibit One, Map		5
	16 Applicant Exhibit		6
	Applicant Exhibit Two, Map		8
	Applicant Exhibit Three, Log Applicant Exhibit Three, Log Ctructure Map		
	Applicant Exhibit Four, Structure Map Applicant Exhibit Four, Structure Map		10
	20 Exhibit Five, Close		3.1
	21 Report Exhibit Six, hame		7.6
	22 Exhibit Seven, C. I.		3.7
	23 ligant Exhibit Eight, Date		1.8
Salar P	Applicant Exhibit Nine, Data Applicant Exhibit Nine, Data		

MR. NUTTER: We'll call next Case Number

7023.

3

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

MR. PADILLA: Application of Shell Oil Company for pool creation and temporary pool rules, Roosevelt County, New Mexico.

MR. LOPEZ: Mr. Examiner, my name is Owen Lopez with the law firm of Montgomery and Andrews in Santa Fe, New Mexico, appearing on behalf of the applicant, and I have two witnesses to be sworn.

(Witnesses sworn.)

MR. NUTTER: Are there other appearances? Please proceed, Mr. Lopez.

WALT V. BOYLE

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

DIRECT EXAMINATION

BY MR. LOPEZ:

Would you please state your name, by whom you're employed, and in what capacity?

> A. Okay. My name is Walt Boyle.

> > MR. NUTTER: How do you spell that last

11

12

13

14

15

16

17

18

19

20

21

22

name?

B-O-Y-L-E. W. V., middle initial V. I am employed by Shell Oil Company in Houston, Texas. I have a degree from the University of Texas in geology, a B.S., and also a Masters degree.

I have worked in West Texas and New Mexico approximately fifteen years and I'm presently the supervisor for the New Mexico/West Texas area for Shell Oil Company.

Have you previously testified before the Commission and had your qualifications accepted as a matter of record?

No, sir, I have never testified before New Mexico Commission.

You have briefly described your employment background and educational background, as well. Are you familiar with the application of Shell in Case Number 7023?

> A. Yes, sir, I am.

And what is it that Shell proposes to seek in this case?

Shell seeks the creation of a new Pennsylvanian oil pool for its Shell Askew Well No. 1, located in Unit L of Section 2, Township 5 South, Range 33 East, Roosevelt County, New Mexico, and the promulgation of a special pool rules thereof -- therefor, including a provision for 80acre spacing.

MR. LOPEZ: Are the witness qualifications acceptable?

MR. NUTTER: Yes, they are.

Mr. Boyle, I would ask you to refer to what has been marked as Exhibit Number One and ask you to identify it.

A Yes, sir. Mr. Examiner, Exhibit One is an index map of the oil and gas production in southeastern

New Mexico and West Texas. The area, the Shell Askew No. 1-2, our discovery well, is shown in Roosevelt County. Just a little southeast of there is the Peterson Field, which produces from the Pennsylvanian-Wolfcamp-Alphabet formations.

The areas in green down in the southern part of Roosevelt County, Lea, and Lea County, are also Pennsylvanian-Wolfcamp-Alphabet producing fields.

Now I'd ask you to refer to Exhibit Number

Two and describe it.

Mr. Examiner, Exhibit Number Two is a map at the scale of 1" equal 1000'. You'll notice in Section 2 of 5 South, 32 East, is the location of the Shell 1-2 Askew. To the southeast about three miles is Peterson Field, which is -- has at the present time seven wells producing from the Penn-Alphabet formation.

Also, in Section 14 is the Williams-Tucker Well, which is a dry hole, and in Section 16 of 5, 32,

is the Phillips-Silas, which is also a dry hole. Both of those tested the Alphabet formation, Penn-Alphabet, and found it to be noncommercial.

So this is, in summary, just a large scale map showing all of the wells that have been drilled in this area.

Q Now referring to Exhibit Number Three, would you please describe that?

A. Mr. Examiner, Exhibit Three is a copy of the borehole compensated sonic gamma ray log run on our Shell Askew No. 1-2, Section 2, 5 South, 32 East. It has, as you can see, the appropriate tops marked on the log, the drill depths and the subsea depths. These are the tops that are used in the industry in this area, and if you will note, at a depth of 7610 is what we've designated the Wolfcamp-Penn-Alphabet section, and then our producing interval in the -- in the Penn-Alphabet perforated from 7733 to 7763.

MR. NUTTER: Mr. Boyle, I'm not familiar with this so-called Penn-Alphabet series. What are you referring to there?

A. This is a term that at least Shell uses and quite a few of the companies that operate in this area. Sometimes it's just -- you just -- it is referred to as the Penn formation. It originally goes back many years to the Bough formations, the Bough A, B, and C.

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (305) 455-7409

wondering. MR. NUTTER: Okay, that's what I was

A Yes, sir.

MR. NUTTER: Are you definitely out of the

Wolfcamp?

2

ĩũ

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

A. Well, sir, to be technically, to answer that technically, Shell, by fusilinid it's the Bough A and the B zones. We, by fusilinid would say that's Wolfcamp, but the top of the Bough C, that's Penn. The industry just usually says that's Penn.

MR. NUTTER: Okay, now what would your perforations be in here?

A. Our perforations would be in the Penn and we think, as close as we can correlate, that these would probably be what we designate Alphabet D and F, but I purposely left them off because the correlations are kind of --

MR. MUTTER: But it is definitely below

the C.

A. It is definitely below the C zone, yes.

MR. NUTTER: So there's no question here,
this is Pennsylvanian rather than --

A. Yes, sir.

MR. NUTTER: -- the Wolfcamp pay?

A. Yes, sir, that is correct, yes, sir.

MR. NUTTER: Just wanted to clear that

12 13

14

15 16

17

18

19 20

21

22 23

24

25

point.

Yes, sir, good point, yes, sir. I know all the companies have, you know, sometimes a little bit different twist on how they -- how they call some of these zones. MR. NUTTER: Sometimes if we can't solve

it any other way, we just call it Permo-Penn.

Permo-Penn, if you wish to do that, that's fine.

MR. NUTTER: No, you said you're definitely in the Penn.

Yes, that's correct, by fusilinids, yes, sir. By fusilinid examination these have been designated Pennsylvanian.

Now referring to Exhibit Four, would you please describe this exhibit?

Yes, sir. Exhibit Four is a structure map at a scale of 1" equal 4000', covering the area around the Shell Askew No. 1 discovery in Roosevelt County. If you will look over on the right side of the map, this is the, what we call the type log. It is a log, again, the gamma ray sonic log, of the Shell Askew, again, the top of our Alphabet series is at 7610. Our perforations, our Penn perforations at 7733 to 7763. This map is drawn on, again, Shell terminology, what we call Permian "OM" zone, designated on the log at 7268. The reason we use this is we feel that this is a

good correlative structural marker; it's a time marker. It's about 300 feet above the Alphabet, but that is the -- that is the structural marker that the map is prepared on.

again the Shell Askew, you will see the top of the "OM" there is at a -2762. The dry hole I had referred to earlier, the Williams-Tucker in Section 14 in 5, 32, is at 2943, and if we go to Peterson Field, which encompasses Sections 8, 17, 18, 19, and 20, in 5, 33, these are the -- this is the Peterson Field and it's so designated -- the structural elevations there are -- range from -2830 to -2841.

The point I want to make on this, Mr. Examiner, is that there is a structural low or separation between the Shell Askew in Section 2, 5, 32, and the Peterson Field, Penn field, located in Sections 17, 18, 19, and 20, 5, 33.

Structurally from the -- about the lowest point of 2950 to -- to the Shell Askew, there's about 100 -- you have to come up structurally about 188 feet, and then if you take from, again, the 2950 contour up to one of the lower wells in Peterson Field, for example, Well NO. 1, the Amoco Radcliffe, in the southwest of the southwest of 17, you come up some 110 feet. So again to reiterate, what this -- what we wanted to show on this map is that there is a structural separation between the Shell Askew and the Peterson Field,

and we feel that those are two separate reservoirs.

This exhibit also shows, does it not, that there are no other producing wells within the vicinity of the Shell Askew Well?

Yes, that is correct; that's true.

Okay. Now referring to Exhibit Number Five, would you please describe it?

A Exhibit Number Five is more or less a north/south structural cross section hung on a datum of -3000 fact. Again, if you will refer to the index map in the right side of the cross section, the map is on a scale of 1" equal 8000'. It goes from Well No. 1, located in Tanneyhill Field, through South Peterson Field, which is productive from the Penn-Alphabet, and from the Pre-Mississippian, or I think as it's designated, Fusselman, up into Peterson Field, northward into Peterson Fields, which is mainly productive from the --- from the Penn-Alphabet, to Well No. 11, which is the Shell Askew.

And what we want to demonstrate on this section is that if you will observe, say, Peterson Field, from Well 6 to Well 8, it is on a structural high, and then you can see the sag that I referred to in Exhibit Four, say, take for example, the top of the Penn-Alphabet, you can see the structural sag goes down and then comes back up to our Shell Askew No. 1-2, our proposed Stingray Fleld, and again, this

SALLY W. BOYD, C.S.R. Rt. 1 Box 193-B Santa Fc. New Mexico 87301

just is prepared to -- to show that there is in fact a structural sag between Peterson and the Shell Askew 1-2.

The Pennsylvanian production seems to be productive from, say, from the C zone clear on down into E and F zone, if you'll look at Well No. 7, it's productive; appears they have perforated that interval. In Well No. 6 it looks like it's productive in the E and F zones and -- yeah, okay, I'll just stop right there.

So the production does vary from zone to zone.

Q Now referring to Exhibit Number Six, would you please describe that?

A. Exhibit Number Six is simply a land plat in Roosevelt County, New Mexico, at a scale of 1" equal 4000. It simply shows the location of the Shell Askew No. 1-2 some 660 feet from the west line and 1980 from the south line in Section 2 of 5, 32, and also, if you drop about three miles to the southeast, in green is the Peterson Field.

Q. On what spacing has the Peterson Field been developed?

A. Presently the Peterson Field is -- appears to be developed on 80-acre locations.

Q And in your opinion the production is from the same zone as the Shell Askew No. 2? Or No. 1?

A Yes, sir, there are zones in Peterson

5

6

7

9.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Field which are also productive from the same zone in our Shell Askew 1-2.

All right. Were Exhibits One through Six prepared by you or under your supervision?

They were prepared under my supervision and by me, also, a combination.

MR. LOPEZ: Mr. Examiner, I'd offer Shell's Exhibits One through Six.

MR. NUTTER: Applicant's Exhibits One through Six will be admitted in evidence.

MR. LOPEZ: I have nothing further for this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Mr. Boyle, I think you made a good case for creation of a new pool, but I haven't seen anything yet to justify the 80-acre spacing.

MR. LOPEZ: That's the second witness, Mr.

Examiner.

A. We have a ---

MR. NUTTER: Okay. We'll let Mr. Boyle

go, then. He's got the evidence for the new pool.

MR. BENESCHEK: Mr. Examiner, is it time

now for me to ask a question of the witness?

24

25

MR. NUTTER: Yes, sir, if you want to ask 2 a question. MR. BENESCHEK: Yes, sir, I'd like to, if I could. QUESTIONS BY MR. BENESCHEK: I'm H. W. Beneschek, royalty and mineral Q owner in the area, formerly with Shell Oil Company, formerly a Chairman of the School of Petroleum Engineering, University 10 of Oklahoma. Would you mind telling me what the poro-11 sity, permeability, and initial production is on the Askew 12 13 Wel1? MR. LOPEZ: It will be answered. 14 MR. BENESCHEK: Oh, that's coming up? 15 16 Yes, sir, that's -λ. MR. LOPEZ: With the next witness. 17 MR. BENESCHEK: That will be with the 18 19 next witness? Yes, sir, it is. Mr. Tabakol is a reser-20 ۸. 21 22

voir engineer and the way we set this up is for me to present the --

Okay.

-- geology and then he'll talk about the reservoir.

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Q Okay, then I have another question, which you did allude to, or comment, Mr. Examiner, if it's all right. You made a statement that the, Mr. Boyle did, that the Peterson Field is on 80-acre locations. I am under a well, Penn well in the Peterson Field, that's on 160 acres. I concur with 80 acres, or preferably 40 acres, as called out in the rules of the Commission, but I am under 160 acres in the Peterson Field under a Penn well.

I just wanted to point that out --

A Okay.

Q -- but you said 80 acres.

A. Yes, I was under the impression that most of the fields down there are under 80 acres. Now, I could be wrong on that.

Q I think it's South Peterson.

A So Peterson is under 80?

0. 160.

A I mean 160, yes, 160?

Q I am under 160 myself.

A. Okay.

Q. I know, I'm losing half my income.

n. Okay. Okay.

MR. BENESCHEK: That's all I have, Mr.

Examiner, from this witness.

MR. NUTTER: Are there any questions for

Mr. Boyle? He may be excused.

Okay, thank you.

MIKE TAVAKOL

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

DIRECT EXAMINATION

BY MR. LOPEZ:

Would you please state your name? Q.

Mr. Examiner, my name is Mike Tavakol.

I'm working for Shell Oil Company.

MR. NUTTER: Would you spell your name,

please?

T-A-V-A-K-O-L. Mike Tavakol.

In what capacity are you employed by Q.

Shell?

Reservoir engineer. A.

Have you previously testified before the Q.

Commission and had your qualifications accepted?

No, sir. λ.

Would you therefor briefly describe your Ų

educational background and employment experience?

Yes. I have a BS in petroleum engineering ۸.

from Louisiana State University. I also have a BS in chemical

1

2

5

6

7

8

9

ĩũ

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

explain that.

engineering from Louisiana State University, and I've been working for Shell for 2-1/2 years and currently I'm pursuing a Masters degree in petroleum engineering. When did you graduate from Louisiana State University? May, '78. And you've been working with Shell since that time? That's correct. And is the area which is the subject of this application part of your responsibilities? That's right. A. MR. LOPEZ: Are the witness' qualifications acceptable? MR. NUTTER: Yes, they are. You're stationed in Houston, are you? Yes, MR. NUTTER: Okay, he's qualified. Mr. Tavakol, I'd ask you to refer to what has been marked Shell's Exhibit Number Seven and ask you to

A. Okay, that's New Mexico Oil Conservation Commission Form C-105, which shows a completion record, as you see. It shows the location of the well, being 980 feet from the south line and 660 feet from the west, Section 2,

5 South and 32 East.

2

3

7

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

It also shows that the well was completed in July 25, 1980. It shows the completion interval being from 7733 feet to 7763 feet. It shows the logs that we obtained. It also shows the casing record and cement, the tubing, which is 2-7/8ths inch. It also shows the stimulation that we -- the stimulation that we undertook for this well, being 5000 gallons of acid. On June 30th we had a swab test which showed a rate of 25 barrels of oil per day with 48 barrels of water per day, this being in eight hours. Taking it in 24 hours, it would be 75 barrels of oil per day and 144 barrels of water per day; however, we acquired current -- newer tests and right now it seems like the oil production would fluctuate anywhere from 20 to 30 barrels of oil per day and the water being around 25 barrels of water per day.

Any question?

Now if you'd refer to Exhibit Number Eight and I'd ask you to explain that.

Okay. This shows limited data that we have been able to obtain so far. It shows the physical properties of the reservoir rocks. By log analysis we were able to obtain 7 percent porosity and by core analysis we were able to obtain permeability of 3 millidarcies. By log analysis we were able to obtain recovery -- the well saturation of 31 percent. Reservoir fluid characteristics show that we have

SALLY W. BOYD, C.S.R.

gravity, oil gravity of 44.4 API at 60° F; the gas gravity at the same temperature is 1.0827. The formation volume factor is estimated at 1.1 reservoir barrel per standard tank barrel. The viscosity of oil is .758 centipoise, and that's all we have been able to get so far.

I should emphasize that this data are very similar to the surrounding area in the same reservoir, being south Peterson and Peterson Penn and they are reasonably close, so we're confident that they are correct properties for the rocks and the fluids.

Now I'd ask you to refer to Exhibit Number Nine and describe that.

A Okay. This shows that other pools in the area completed in the same -- in the Pennsylvanian formation that have been granted 90-acre spacing and more, which is 160 acres for Vada-Penn.

And for what reason have you requested the special pool rules? What is the basis for your request for the special pool rules?

based on volumetric calculation and production performance of other Pennsylvanian pools in the area, has revealed that the reservoir will be drained efficiently with 80-acre spacing.

Number two, economic analysis has shown that the effective use of a minimum number of wells is essen-

tial to the economic depletion of the reservoir and development cannot be justified on less than 80-acre spacing. Also, as I mentioned earlier, other pools in the area have been granted 80-acre spacing and more.

And these other pools have production from Q.

the same zone? 6

2

3

4

5

7

8

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

That's correct.

In your opinion, Mr. Tavakol, would the granting of this application be in the interest of prevention of waste and the protection of correlative rights?

That's right, sir.

Were Exhibits Seven through Nine prepared by you or under your direction?

They were prepared by me.

MR. LOPEZ: I have -- I would offer Shell'

Exhibits Seven through Nine.

MR. NUTTER: Applicant's Exhibits One through -- Seven through Nine will be admitted in evidence. MR. LGPEZ: I have no further questions

of this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Mr. Tavakol, you stated you believe that one well would drain 80 acres. Isn't this permeability, being

13

14

15

16

17

18

19

20

21

22

23

24

25

only 3 millidarcies rather low for --

No, sir, other reservoirs, I mean as I mentioned, it is very close to other pools in the area, and I have studied other wells as much as I could, and they have shown that 80 acres will be drained by -- by one well.

You don't have any evidence as to what the permeability is in any of these other reservoirs here.

No, I guess I haven't shown the permeability for the reservoirs.

MR. LOPEZ: If we could go off the record for a second.

We do have an exhibit that shows the porosity and net pay and the water saturation but not the permeability.

Of this reservoir?

On other pools, yeah.

(There followed a discussion off the record.)

MR. NUTTER: We'll go back on the record, Owen, and you can ask him about that.

The reserves

Okay, could you provide the Commission with additional evidence and testimony as to the basis on which

you base your belief that the temporary pool rules are necessary and that 80-acre spacing will efficiently and effectively
drain -- one well on an 80-acre proration unit will efficiently
and effectively drain that proration unit?

A Okay. Based on volumetric and investigation on recovery efficiency for this area, I have -- I was able to estimate recovery efficiency on the range of 12 to 20 percent of oil in place, and by studying the performance of other wells in the area, I established that the decline rate for the zone renders anywhere from 30 percent to 50 percent per year, average being 40 percent per year.

By simultaneous calculation of volumetric and decline rate amounts, I was able to obtain a drainage area of 85 acres, assuming 15 barrels of oil per day, which is current production that we have.

These calculations of other wells in the area, these wells that you studied were wells producing from the same formation in other pocls.

A. Yos.

And in these studies did you compare the relative permeabilities and porosities and water saturations of these other wells, and if so, what was your conclusion?

My conclusion was that the rocks and the fluids were very similar and they should have a similar performance, therefor.

11

(By Mr. Nutter) Have you made any rough estimate of the reserves in place --Yes. -- under 80 acres as opposed to 40 acres here? Yes. Well, for 80 acres the range would be 20,000 to 100,000 barrels -- from 20,000 to 100,000 barrels the range. That's on --The recovery. -- an 80-acre tract or --80-acre tract, uh-huh. 12 Now you calculated that a well would drain 13 14 85 acres. Well, that was -- I round it off to 80 15 acres because -- as uncertainty for the calculations, but 85 îô acres was the number that theoretically I got, and --17 Well, that's quite a range of -- of --18 now 20 to 100,000, is that recoverable reserves or oil in 19 20 place? Recoverable reserves. As I mentioned, the 21 recovery efficiency was -- I had to vary the recovery effi-22 ciency, and since we do not have any fluid, actual fluid data, 23

I should mention volumetric, for example, we do not have any

fluid sample at this time, so the formation volume factor is

25

24

2

3

4

5

6

7

8

9

ÍŨ

11

12

13

14

15

16

17

18

19

20

21

estimate and also is the viscosity fluid, and those have a very big factor in estimating recovery efficiency and the

Well, your -- your estimate of recovery volumetric. efficiency is from 12 to 20 percent, which is a variation of less than 2, but your estimate of reserves is from 20 to 100,000 barrels, which is a factor of 5.

Yes, sir, that was because we have had production rates of anywhere from 15 to 75 barrels of oil per day.

uh-huh.

So here again, at this time I did not know Q. what would be the production so I had to make a range of pro-

Well, didn't you state that the current duction from 15 to 75. production is running between 20 and 30 barrels per day.

That's correct, but this is not the stab-

ilized rate yet, so we -- we might have --How long has the well been on production?

To the best of my knowledge, it's been Q,

a month, but it's been fluctuating, as I mentioned, from 75 to 15, and we might do some stimulation on the well, which

could raise the production to again, 70 -- and again, other 22 23

wells in the area have shown sometimes 200,000 barrels of oil

per day. I'm sorry, 200 barrels of oil per day. 24 25

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Uh-huh.

So we might have by stimulation, it might increase the production rate, but this is too early to say. That's why I say, I could not give a specific number. It just depends on what would be the fluid properties and what would be the production rate that we might end up with.

Uh-huh.

And also there is another thing, we haven' been able to get any gas from the reservoir, which we suspect some kind of possible damage in the zone, and as you know yourself, it's probably lower -- the low permeability, which we might increase. So in that case, if we get gas production up, we might get a better production rate.

Well, you stimulated with 5000 gallons of acid but you've got 30 feet of perforations there.

And the perforations are 30 feet, but the net pay we estimated would be about 4 feet, that's --

MR. BOWYEL: 4 to 5.

4 to 5 feet, and that's another factor that I feel confident that we might get area drained because of the limited reservoir limits.

Well, it appears your water/oil ratio is going down, however, isn't it?

That's -- that's right. Phat's what we have seen.

Phone (505) 455-7409

Q But the gas production has not gone up at all.

Well, at one time — first it was too small to measure, but then it went to 10 Mcf per day and one time 20, but then it went down again, so we were trying to — I did — we did try to get a fluid sample and since we have water production we could not get a downhole sample, and then we tried to get the surface sample, but we did not have a GOR accurately measured, so we could not get a fluid sample, and that's the reason that our data is limited, and we try to wait until we get a good GOR and possibly get a fluid sample through a combination of the surface materials.

Q Well now, --

A. But I should mention again that economics also showed that we won't be able to really develop on this field on 40-acre spacing unless we have some higher production rates so we could payout our expenses.

O Do you know whether Shell has any plans for drilling a second well in here or not?

Me are thinking of this.

Q But you haven't made any definite commitment to a second well?

A. We're trying to wait to see exactly what happens to this well. Once we get good data and reasonably estimated reserve and payout, but the difference, and this I

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

noted, 40-acre is out of the picture because it won't pay for the expenses, but 80-acre, we feel confident that it would pay out, but we are waiting for more data and we are waiting for better production rate.

Q Is this well flowing or pumping?

A It's pumping.

Q What did the well cost to drill and to complete, including pumping unit?

A Close to \$1-million.

Now, on this Exhibit Number Six, I notice that the well is drilled on a lease that's called the C. W. Williams, Jr. lease. Does Shell own that lease now?

A. We farm that unit.

MR. LOPEZ: We might refer to Mr. Boyle to answer that question.

MR. NUTTER: Mr. Boyle?

MR. BOYLE: Yes, sir, this was the lease that — we had an anomaly in this area, and part of the anomaly was on Clayton Williams' acreage, and so we went to Mr. Williams and negotiated a contract with him to farm that acreage in, and in the farmout we got a — we gave him — he has an eighth until the well is paid out and then he has an option to come in for a 41 percent working interest, and we have a 59 percent working interest.

MR. NUTTER: Well, it would appear from

3

5

6 7

8

9 10

11

12

14

13

15 16

17

18

19 20

21

22 23

24

25

Exhibit Six that the Williams lease --

MR. BOYLE: That is part that we -- that is part of our acreage that we got a farmout from Williams. We farmed out Section 2 and Section 3.

MR. NUTTER: So you've got a farmout there

covering --

Yes. MR. BOYLE:

MR. NUTTER: -- two full sections.

MR. BOYLE: Two full sections, correct.

MR. NUTTER: And you also have some

acreage to the north there.

MR. BOYLE: And we have acreage in there, so that is -- that is the reason that -- and we do have, we have plans to drill either in Section 2 -- or in Section 3 or the west -- or the east half of 2. Both of those are separate leases.

I might also add that in -- with what Mr. Tavakol mentioned, that he is correct, at this time it is rather early to try to estimate volumes. I think from -- he has -- he has some data which we could offer as an exhibit, but if you go down to Lea County and Chaves County, there's just -- just by analogy, there are wells that produce out of the Bough that are anywhere from 4 feet to 8 feet of pay, and 7 to 8 percent is the average porosity, and water saturation is from 30 to 35. We do have data to back that up, and so

11

12

13

14

15

16

17

18

19

20

21

saturation, of porosity of 7 to 8, and pay ranging from anywhere, some of them 3 feet to 8 feet, 10 feet, we thought that at least initially we would ask for 80 acres.

MR. NUTTER: Okay, now you covered all of the reservoir factors with the exception of permeability. How does this permeability compare with those reservoirs?

MR. BOYLE: I -- I don't know.

A. It is -- I tried -- I tried to obtain this data. The data is very limited.

MR. BOYLE: It's pretty hard to do.

A. I really -- it was hard. I tried the Commission to get some public data and I could not get any permeability.

so -- but I just feel since everything else is similar, so permeability should be similar, too. We have the same porosity, same water saturation.

MR. NUTTER: Same thickness of pay.

MR. BOYLE: Those — those are figures that you can figure off of the sonic or gamma ray or density logs, even though that other data, most of the time, isn't available, so the permeability, at least, so that's what we're basing this on.

MR. LOPEZ: I might ask Mr. Boyle, your plans or intentions to drill a second well on this farmed out

3

4

5

6

7

8

9

10

11

12

13

15

16

17

18

19

20

21

22

23

24

25

acreage, as well as your own acreage, is dependent upon the success of this application in large part, is it not?

MR. BOYLE: That is, yes, that is somewhat correct, yes, sir. We have a -- if I may speak again -- we have an agreement with Mr. Williams that this is on a drill to earn basis, and with 120 days between wells, and this well was -- was filed with the Commission on June 25th, 1980, but subsequent to that we went up and tested the San Andres and spent about three to four weeks, almost a month, testing the San Andres. It proved to be water-bearing, so they dropped back down and started pumping again, the -- pumping the San Andres -- pumping the Penn, and we did have some pump problems MR. NUTTER: Thank you. Are there any

further questions of Mr. Tavakol? 14

Mr. Examiner, I have a MR. BENESCHEK:

question.

MR. MUTTER: All right, sir.

QUESTIONS BY MR. BENESCHEK:

I don't recall that you asked the price of oil; you can't very well know the economics unless you know the price of oil that you're going to get down there.

- What -- what is the price of oil?
- Yes, what are you going to get? Ç.
- Well, based on 30 percent of windfall ħ.

11.

12

13

14

15

16

17

18

19

20

21

22

23

24

profit tax --

Q I'm familiar with that.

A. Yeah, I assume somewhere around \$15.00, after the windfall profit tax.

Q This is new oil, it would be more than that, wouldn't it?

A. That's right. Well, after the windfall profit tax is out of it, and the --

Sounds low, but okay. You also allude, as Mr. Boyle did, to 90-acre spacing in the Peterson Field.

I think if you'll check the records you'll find that the Peterson Field is 160 acres for a Penn well, and the reservoir characteristics are very similar to what you speak of.

The South Peterson Field is 80 acres per well, and I think that the Commission is probably going to have to do some soul-searching the next time an operator asks for 160 acres in the Peterson Field.

I agree with your request, as an ex-employee, that 80 acres per well is much better than 160 acres per well, and your computations, also, and I understand your permeability problem, because I went through this in the Peterson Field.

Now I could ask just one other question.

Do you have any information on vertical and horizontal communication in those carbonates?

A. You mean within the Penn zone and other

12

13

14

15

16

17

18

19

zones in the --

You have perforated 7733 to 7763.

Correct.

I don't know if you got all that alphabet soup or not. I've never heard of that before. But you know, there are stringers in that type of reservoir, and you may have perforated all that, I don't know. Okay, you did not. He's shaking his head no. All right. Do you know as yet whether or not you have horizontal and/or vertical communication, which would make some difference in your -- in your interpreting, and which you might do something else to the well later? I think Mr. Boyle can respond to that.

Yes, I ---

MR. BOYLE: May I answer that? Again, what was your name?

MR. BENESCHEK: I'm Beneschek.

MR. BOYLE: Beneschek.

MR. BENESCHEK: I own property in the

area.

MR. BOYLE: Okay, Mr. Beneschek. As you know, having studied the Peterson Field, the Bough zones, you know, A, B, C, and so on, ace usually separated by shales of 20 to 30 feet. To my knowledge, I don't think those are usually communicated. I think they're probably separate reservoirs, reservoir pods, and have probably leached out a ways.

20 21

22

23

24

25

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

We perforated off our logs, mainly in this zone at 70 -- I'd have to go back and look at the log, it would be 5 feet on that log, and then we perforated a couple couple of feet below; it is a gross interval of 30 feet, and we put 15 holes, out in --

MR. NUTTER: You've got 15 holes scattered through 30 feet, then, it's not 1 hole every 2 feet? All the way through?

MR. TAVAKOL: Yes sir, that's right.

MR. BOYLE: I don't think I -- where are those well logs?

MR. TAVAKOL: Let me check on that to be sure.

MR. BOYLE: I might, if I might continue, to add that our petrophysical analysis, done by Mr. Phil Henning (sic), they picked what they thought was all the porosity we could get off the logs, and we perforated those.

Go ahead.

MR. TAVAKOL: Would you like me to read the perforation intervals?

MR. MUTTER: I think that wouldn't hurt

at all.

MR. TAVAKOL: Okay. 7733 to 7739; 7743 to 7745; 7754 to 7756; 7762 to 7763. And there's fifteen holes.

HR. BEHESCHEK: And you perforated some-

where within all of these sections that you think had pay? MR. BOYLE: Yes, anything that showed porosity on the sonic and the density logs, which we, you know, and as I mentioned in Exhibit Five, I believe it was, the cross section, there was that one well in the Peterson Field that produces from the C and what we call E and F, and then another well that just produced from the C, and then there's other wells produce E and F, and we think, without going into a lot of geology and digenesis and leaching, and so on, that some zones are leached in one area and, as you know, in carbonates, in one location over they won't be leached, and unfortunately, that's kind of the history of the Bough. You get a good well; you can offset it and get a poor well, and vice versa. It just depends. Once you start drilling up the whole albamound (sic) complex, you're going to get good wells and you're going to get some bad wells, and I think historically we can -- we can demonstrate that by looking at all the field studies from the Roswell Geological Society from Beta Field, on Indio, South Indio, and Prairie, and Cisco, Bar-U, and so on, Lane, Mid-Lane, and South Lane (sic). It is a variable reservoir, unfortunately; it's not like a nice sand. MR. BUHESCHEK: Thank you. Mr. Examiner, I don't have any other questions except to reiterate my con-

ments. I'm glad to see this is on 80 acres, but I think the

2

3

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

point again should be made that when an operator requests 160 acres in Peterson Field, serious consideration should be given to study the reserves and recovery, et cetera.

MR. NUTTER: Of course, the Peterson Field is not the subject of this hearing today at all.

MR. BENESCHEK: I understand that, sir, but the reservoir characteristics are identical, according to this witness.

MR. TAVAKOL: Well, I guess you know, we did not ask for 160 acres. That's -- we're going for the minimum that we think is sufficient.

MR. BENESCHEK: I agree, as an engineer I agree.

MR. TAVAKOL: Thank you.

MR. BENESCHEK: I have no -- no qualms

with that.

MR. TAVAKOL: Thank you.

MR. HUTTUR: Okay, are there any other questions of Mr. Tavakol? Ho may be excused.

Do you have anything further, Mr. Owen

Lopez?

MR. LOPEZ: No, Mr. Hutter, I surely don't

MR. HUTTER: Poes anyone have anything they

wish to offer in Case Number 7023? We'll take the case under advisement.

2

3

10

11

12

13

14

15

15

17

18

19

20

21

22

23

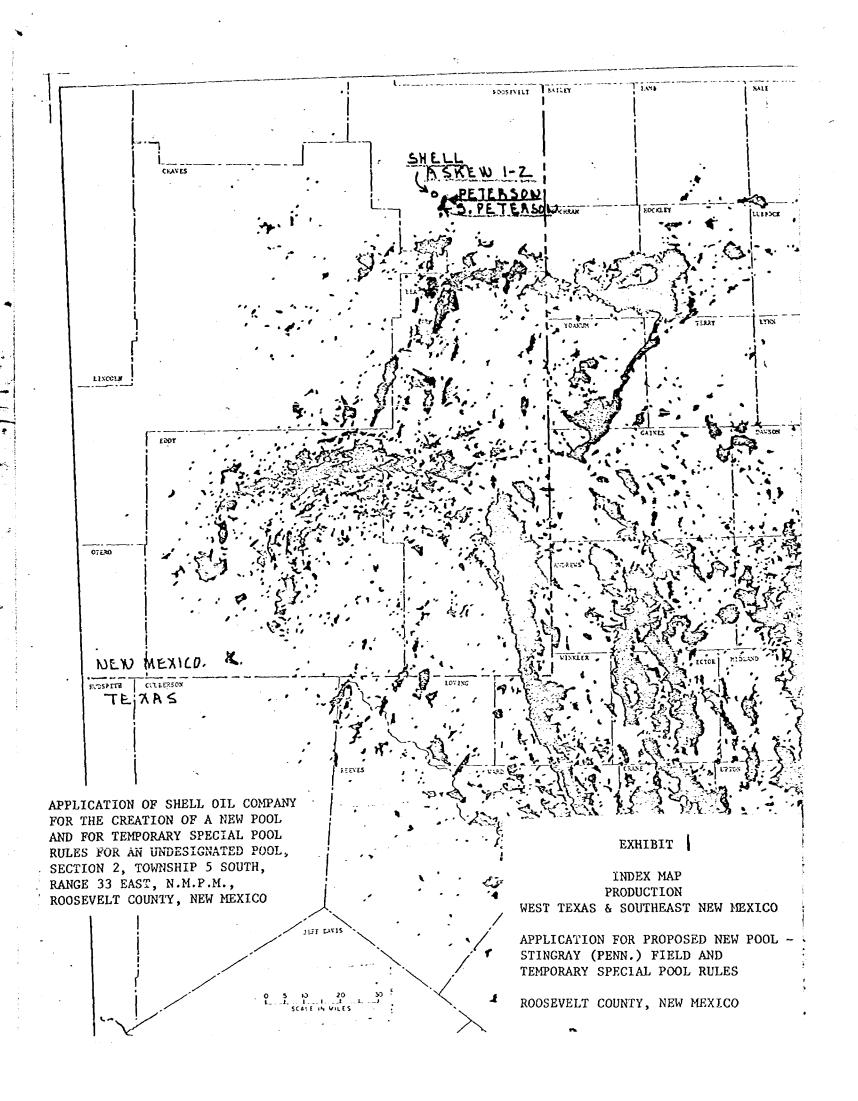
24

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREPY CERTIFY that the foregoing 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.

> I do hereby cartify that the foregoing is , Examinar On Conservation Division

SALLY W. BOYD, C.S.R. Rt. 1 Box 193-B Santa Fe. New Mexico 87501 Phone (303) 453-7409



AREA FIELDS HAVING 80 ACRE SPACING OR MORE

<u>Field Name</u>	<u>Location</u>	County	Spacing
Allison-Penn.	T-8 & 9-S, R-36 & 37-E	Lea & Roosevelt	80
Inbe - Penn.	T-10 & 11-S, R-33 & 34-E	Lea	80
Prairie Cisco	T-8-S, R-36-E	Roosevelt	80
Vada - Penn	T-8-S, R-34/36-E	Lea & Roosevelt	160
	T-9-S, R-33/36-E		·
	T-10-S, R-33/34-E		

1 STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 7 October 1981 EXAMINER HEARING IN THE MATTER OF: Case 7023 being reopened pursuant CASE to the provisions of Order No. R-6489. 7023 10 11 12 13 BEFORE: Daniel S. Nutter 14 15 TRANSCRIPT OF HEARING 16 17 APPEARANCES 18 W. Perry Pearce, Esq. For the Oil Conservation 19 Legal Counsel to the Division Division: State Land Office Bldg. 20 Santa Fe, New Mexico 87501 21 22 For the Applicant: 25

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing 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.

Soely W. Boyd CER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2023 heard by me on 10/9

Oil Conservation Division

10

11

12

13

14

15

16

17

18

19

20

21

22

23 24

1 STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 7 October 1981 EXAMINER HEARING 7 IN THE MATTER OF: Case 7023 being reopened pursuant CASE to the provisions of Order No. 7023 R-6489. 10 11 12 13 BEFORE: Daniel S. Nutter 14 15 TRANSCRIPT OF HEARING 16 17 APPEARANCES 18 W. Perry Pearce, Esq. For the Oil Conservation 19 Legal Counsel to the Division Division: State Land Office Bldg. 20 Santa Fe, New Mexico 87501 21 22 For the Applicant: 23 24 25

ÍÓ

MR. NUTTER: Call next Case 7023.

MR. PEARCE: In the matter of the Case 7023 being reopened pursuant to the provisions of Order R-6489, which order created the Stingray-Pennsylvanian Pool and promulgated special pool rules therefor, including the provision for 80 acre spacing.

MR. NUTTER: I've been advised by the parties, original parties in Case 7023 they will make no appearance today and that they wish the pool to revert to 40 acre spacing, which it will do.

(Hearing concluded.)

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing 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.

Sourge Boyd CSE

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case so. 2023

Oil Conservation Division Examiner ...

15 16

10

11

12

13

14

17

18

19

20 21

22

23

24



STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

October 16, 1981

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

Mr. Owen Lopez Montgomery and Andrews Attorneys at Law Post Office Box 2307 Santa Fe, New Mexico 87501	Re: CASE NO. 7023 ORDER NO. R-6489-B Applicant: OCD (Shell Gil Company)
Dear Sir: Enclosed herewith are two Division order recently en Yours very truly, JOE D. RAMEY Director	copies of the above-referenced stered in the subject case.
JDR/fd Copy of order also sent Hobbs OCDx Artesia OCDx Aztec OCD	to:

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 PURFOSE OF CONSIDERING:

> CASE NO. 7023 Order No. R-6489-B

IN THE MATTER OF CASE 7023 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-6489, WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE STINGRAY-PENNSYLVANIAN POOL, ROOSEVELT COUNTY, NEW MEXICO, INCLUDING A PROVISION FOR 80-ACRE PRORATION UNITS.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 7, 1981, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of October, 1981, 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 by Order No. R-6489 and R-6489-A, dated October 20, 1980, temporary Special Rules and Regulations were promulgated for the Stingray-Pennsylvanian Pool, Roosevelt County, New Mexico, establishing 80-acre spacing units for a period of one year.
- (3) That pursuant to the provisions of Order No. R-6489, this case was reopened to allow the operators in the subject pool to appear and show cause why the Stingray-Pennsylvanian Pool scould not be developed on 40-acre spacing units.

-2-Casé No. 7023 Order No. R-6489-B

- (4) That no operator in the subject pool appeared to show cause why the Stingray-Pennsylvanian Pool should not be developed on 40-acre spacing units.
- (5) That it is not known at this time whether additional wells will be completed in the subject pool.
- (6) That the operators in the subject pool have not established that one well can efficiently and economically drain and develop 80 acres.
- (7) That the Special Rules and Regulations promulgated by Orders No. R-6489 and R-6489-A should be abolished.

IT IS THEREFORE ORDERED:

- (1) That the Special Rules and Regulations governing the Stingray-Pennsylvanian Pool, Roosevelt County, New Mexico, promulgated by Order No. R-6489 and R-6489-A, are hereby abolished.
- (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 herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY

SEAL

Dockets Nos. 33-81 and 34-81 are tentatively set for October 21 and November 4, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - MONDAY - OCTOBER 5, 1981

OIL CONSERVATION COMMISSION - 9 A.M. ROOM 205, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 7372: Application of Navajo Refining Company for a determination of preference to purchase state royalty oil pursuant to Section 19-10-68, NMSA, 1978.

Docket No. 32-81

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 7, 1981

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:

CASE 7363: Application of Gulf Oil Corporation for a unit agreement, Chaves County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the East White Ranch Unit Area, comprising 1920 acres, more or less, of Federal lands in Township 13 South, Range 30 East.

<u>CASE 7364:</u>
Application of Gulf Oil Corporation for a unit agreement, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the East Chosa Draw Unit Area comprising

5120 acres, more or less, of Federal and State lands in Township 25 South, Range 25 East.

Application of Yates Petroleum Corporation for the amendment of Order R-6406, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks the amendment of Order No. R-6406, to permit recompletion of its State "JM" No. 2 Well, drilled at an unorthodox Morrow location 660 feet from the South line and 660 feet from the East line of said Section 25, Township 18 South, Range 24 East, in any and all Wolfcamp and Pennsylvanian pays in said well.

CASE 7354: (Continued from the September 23, 1981, Examiner Hearing)

Application of Corona Oil Company, for a pilot steam-enhanced oil recovery project, Guadalupe County, New Mexico.

Applicant, in the above-styled cause, seeks authority to institute a pilot steam-enhanced oil recovery project in the Santa Rosa formation by using two existing wells and three additional wells to be drilled to complete a five spot pattern located in the NE/4 NW/4 of Section 17, Township 11 North, Range 26 East.

CASE 7359: (Continued from the September 23, 1981 Examiner Hearing)

Application of Energy Reserves Group for creation of a newgas pool and an unorthodox location, koosevelt County, New Mexico.

Applicant, in the above-styled cause, seeks creation of a new Cisco gas pool for its Miller Com Well No. 1, located in Unit M of Section 12, Township 6 South, Range 33 East.

Applicant further seeks approval of an unorthodox location for its Miller "A" Well No. 1-Y, to be drilled 1300 feet from the South line and 1700 feet from the East line of Section 11 of the same township. The S/2 of said Section 11 to be dedicated to the well.

CASE 7366:

Application of Read & Stevens, Inc., for compulsory pooling, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Strawn,

Atoka and Morrow formations underlying the W/2 of Section 19, Township 23 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, designation of applicant as operator of the well,

and a charge for risk involved in drilling said well.

CASE 7367: Application of Anadarko Production Company for compulsory pooling, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the N/2 of Section 12, Township 19 South, Range 25 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, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

- CASE 7368: Application of Doyle Hartman for an unorthodox gas well location, Lea County, New Mexico.

 Anni (cant. in the showe-etuled cause, seeks approval for the unorthodox location of a well Application of Doyle Hartman for an unorthodox gas well location, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 1980 feet from the South line and 990 feet from the West line of Section 17, Township can pool the S/2 of earld Section 17 to be dedicated to the well be drilled 1980 feet from the South line and 990 feet from the West line of Section 17, Township 24 South, Range 37 East, Jalmat Gas Pool, the S/2 of said Section 17 to be dedicated to the well.
- CASE 7369: Application of Morris R. Antweil for compulsory pooling, Lea County, New Mexico.

 Applicant, in the above-styled Cause, seeks an order pooling all mineral interests in the Blinebry and Drinkard formations underlying the NW/4 SE/4 of Section 8, Township 20 South, Range 38 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered and Drinkard formations underlying the NW/4 SE/4 of Section 8, Township 20 South, Range 38 East to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will he the cost of drilling and completing gaid well and the allocation of the cost thereof as 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 enterprision designation of applicant as operated 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, designation of applicant as operator CASE 7370:
- Application of Southland Royalty Company 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 and Fruitland formations, East Blanco Field, underlying the NW/4 of Section 35, Township North, Range 4 West, to be dedicated to a well to be drilled at a standard location thereon. Cliffs and Fruitland formations, East Blanco Field, underlying the NW/4 of Section 35, Township 30 North, Range 4 West, 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 easid well and the allocation of the cost of drilling and completing easid well and the allocation of the cost of drilling and completing easid well and the allocation of the cost of drilling and completing easid well and the allocation of the cost of the cost of drilling and completing easid well and the allocation of the cost of the cost of drilling and completing easid well and the allocation of the cost of the c 30 North, Range 4 West, 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 of the cost of drilling and charges for supervision, designation of Also to be considered will be the cost of drilling and completing said well and the allocation the cost thereof as well as actual operating costs and charges for supervision, designation of an actual control of the well, and a charge for risk involved in drilling said well. the cost thereor as well as actual operating costs and charges for supervision, designat applicant as operator of the well, and a charge for risk involved in drilling said well. CASE 7023 (Reopened and Readvertised)

In the matter of case 7023 being reopened pursuant to the provisions of Order No. R-6489, which order created the Stingray-Pennsylvanian Pool and promulgated special rules therefor, including In the matter of case 7023 being reopened pursuant to the provisions of Order No. R-6489, which order created the Stingray-Pennsylvanian Pool and promulgated special rules therefor, including an appear and show cause why said pool order created the Stingray-Pennsylvanian Pool and promulgated special rules therefor, including Provision for 80-acre spacing. All interested parties may appear and show cause why said pool (Continued and Readvertised)

CASE 7347:

Application of Tenneco Oil Company for an unorthodox gas well location, Lea County, New Mexico.

Applicant. in the above-styled cause. seeks approval for the unorthodox Pennsylvanian location Application of Tenneco Oil Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Pennsylvanian location of a well to be drilled 660 feet from the South line and 860 feet from the West line of Section 20, Township 16 South. Range 34 East. Kemnitz Field. the W/2 of said Section 20 to be dedicated. of a well to be drilled 660 feet from the South line and 860 feet from the West line of Section 20, Township 16 South, Range 34 East, Kemnitz Field, the W/2 of said Section 20 to be dedicated

- CASE 7371: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, redesignating, extending vertical limits, and contracting and extending horizon. In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, redesignating, extending vertical limits, and contracting and extending horizontal limits of certain pools in Chaves. Eddv. Lea. and Roosevelt Counties. New Mexico.
 - (a) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production and designated as the Antelope Ridge-Wolfcamp Pool. The discovery well is Coquina Oil Corporation Said pool would comprise:

 Output

 Description

 Output

 Descript TOWNSHIP 24 SOUTH, RANGE 34 EAST, NMPM Section 10: NE/4

(b) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Bone Spring Production and designated as the Brinninstcol-Rome Spring Pool. The discovery well is Among (D) CREATE a new Pool in Lea County, New Mexico, classified as an oil pool for Bone Spring Production and designated as the Brinninstool-Bone Spring Pool. The discovery well is Amoco Production Company State IK Well No. 1 located in Unit C of Section 10. Township 23 South. Ra Production and designated as the Brinninstool-Bone Spring Pool. The discovery well is Amoco Production Company State IK Well No. 1 located in Unit C of Section 10, Township 23 South, Range

TOWNSHIP 23 SOUTH, RANGE 33 EAST, NMPM Section 10: NW/4

(c) CREATE a new rool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production and designated as the Brinninstool-Wolfcamp Pool. The discovery Well is Amoco Production Company Federal H Well No. 1 located in Unit L of Section 26, Township 23 South, Range 33 East, NMPM. Said and designated as the Brinninstool-Wolfcamp Pool. The discovery well is Amoco Production Company Federal H Well No. 1 located in Unit L of Section 26, Township 23 South, Range 33 East, NMPM. Said

TOWNSHIP 23 SOUTH, RANGE 33 EAST, NMPM Section 26: SW/4

(d) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Collins Ranch-Wolfcamp Gas Pool. The discovery well is the Yates Petroleum (d) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Collins Ranch-Wolfcamp Gas Pool. The discovery well is the Yates Petroleum Cornoration State Dr Well No. 1 located in Unit D of Section 35. Township 17 South. Range 24 East. and designated as the Collins Ranch-Wolfcamp Gas Pool. The discovery well is the Yates Petroleum Corporation State DF Well No. 1 located in Unit D of Section 35, Township 17 South, Range 24 East, TOWNSHIP 17 SOUTH, RANGE 24 EAST, NMPM Section 35: N/2



STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

POST OFFICE BOX 2086 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 8509, 827-3434

November 10, 1980

Mr. Owen Lopez Montgomery, Andrews & Hann	Re: CASE NO. 7023 ORDER NO. R-6489-A
Attorneys at Law Post Office Box 2307 Santa Fe, New Mexico	Applicant:
	Shell Oil Company
Dear Sir:	
	copies of the above-referenced ntered in the subject case.
JOE D. RAMEY Director	•
• •	
JDR/fd	
JDR/fd Copy of order also sent to	o:
•	o:

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT DIL CONSERVATION DIVISION

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

CASE NO. 7023 Order No. R-6489

APPLICATION OF SHELL OIL COMPANY FOR POOL CREATION AND SPECIAL POOL RULES, ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 1, 1980, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 20th day of October, 1980, 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 a new oil pool for Pennsylvanian production should be created and designated the Stingray-Pennsylvanian Pool. This pool was discovered by the Shell Oil Company Askew Well No. 1, located in Unit L, Section 2, Township 5 South, Range 32 East, NMPM, Roosevelt County, New Mexico. The top of the perforations is at 7733 feet.
- (3) That Shell Oil Company seeks the promulgation of temporary special rules and regulations for the Stingray-Pennsylvanian Pool to provide for 80-acre proration units and well location requirements.
- (4) That the evidence presented concerning the reservoir characteristics of the Stingray-Pennsylvanian Pool justifies the establishment of 80-acre proration units in said pool for a temporary one year period.

-2-Case No. 7023 Order No. R-6489

- (5) That the evidence presently available establishes that the Stingray-Pennsylvanian Pool may be efficiently and economically drained on 80-acre proration units.
- (6) That the evidence establishes that the subject pool should be developed with fixed well location requirements in order to protect correlative rights.
- (7) That during the one-year period in which this order will be in effect, the applicant should gather all available information relative to drainage and recoverable reserves in the subject pool.
- (8) That this case should be reopened at an examiner hearing in October, 1981, at which time the operators in the subject pool should appear and show by a preponderance of the evidence why the Stingray-Pennsylvanian Pool should not be developed on 40-acre proration units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Roosevelt County, New Mexico, classified as an oil pool for Pennsylvanian production is hereby created and designated as the Stingray-Pennsylvanian Pool consisting of the following-described area:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM Section 2: SN/4 Should be 32

(2) That special rules and regulations for the Stingray-Pennsylvanian Pool are hereby promulgated as follows, effective October 1, 1980.

SPECIAL RULES AND REGULATIONS FOR THE STINGRAY-PENNSYLVANIAN POOL

- RULE 1. Each well completed or recompleted in the Stingray-Pennsylvanian Pool or in the Pennsylvanian formation within one mile of the Stingray-Pennsylvanian Pool, and not nearer to or within the limits of another designated Pennsylvanian pool shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.
- RULE 2. Each well completed or recompleted in the Stingray-Pennsylvanian Pool shall be located on a unit containing 80 acres, more or less; which consists of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as

-3-Case No. 7023 Order No. R-6489

prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. For good cause shown, the Director may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising a single quarter-quarter section or lot. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application if, after a period of 30 days, no offset operator has entered an objection to the formation of such non-standard unit.

The allowable assigned to any such non-standard unit shall bear the same ratio to a standard allowable in the Stingray-Pennsylvanian Pool as the acreage in such non-standard unit bears to 80 acres.

- RULE 4. Each well drilled in the Stingray-Pennsylvanian Pool shall be located within 150 feet of the center of a governmental quarter-quarter section.
- RULE 5. An 80-acre proration unit (79 through 81 acres) in the Stingrey-Pennsylvanian Pool shall be assigned an 80-acre depth bracket allowable of 267 barrels per day and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.
- (3) That this case shall be reopened at an examiner hearing in October, 1981, at which time the operators in the subject pool may appear and show cause why the Stingray-Pennsylvanian Pool should not be developed on 40-acre proration units.
- (4) That any operator desiring to dedicate 80 acres to a well in the Stingray-Pennsylvanian Pool shall file a new Form C-102 with the Division on or before November 1, 1980.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

-4-Case No. 7023 Order No. R-6489

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JOE D. RAMEY, Director

SEAL

dr/

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

CASE NO. 7023 Order No. R-6489-A

APPLICATION OF SHELL OIL COMPANY FOR POOL CREATION AND SPECIAL POOL RULES, ROOSEVELT COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE DIVISION:

It appearing to the Division that Order No. R-6489 dated October 20, 1980, does not correctly state the intended order of the Division,

IT IS THEREFORE ORDERED:

- (1) That Order No. (1) on Page 2 of Order No. R-6489, Case No. 7023, be and the same is hereby corrected to read in its entirety as follows:
 - "(1) That a new pool in Roosevelt County, New Mexico, classified as an oil pool for Pennsylvanian production is hereby created and designated as the Stingray-Pennsylvanian Pon' consisting of the following-described area:

TOWNSHIP 5 SOUTH, RANGE 32 EAST, NMPM Section 2: 58/4*

(2) That the correction set forth in this order be effective nunc pro tune as of October 20, 1980.

DONE at Santa Fo, New Mexico, on this 6th day of

STATE OF NEW MEXICO DIL CONSERVATION DIVISION

JOE D. RAMEY

Director

AREA FIELDS HAVING 80 ACRE SPACING OR MORE

Field Name	loost t		
Allison-Penn.	<u>Location</u> T-8 & 9-S, R-36 & 37-E	County	Spacing
Inbe - Penn.	T-10 & 11-S, R-33 & 34-E	Lea & Roosevelt	80
Prairie Cisco	T-8-S, R-36-E	Lea	80
Vada - Penn	T-8-S, R-34/36-E	Roosevelt	80
	T-9-S, R-33/36-E	Lea & Roosevelt	160
	T-10-S, R-33/34-E		

EXHIBIT No. _8

DATA SHEET

SHELL ASKEW NO. 1-2

PHYSICAL PROPERTIES OF RESERVOIR ROCKS

Average Porosity (%) = 7 log analysis

Average Permeability (md) = 3 core analysis

Average oil and interstitial water saturations (%) = So 69
Sw 31

RESERVOIR FLUID CHARACTERISTICS

Average Gravity of Oil --- 44.4 API @ 60°

Average Gravity of Gas --- 1.0827 @ 60°

Formation Volume Factor --- 1.1

Viscosity of Oil (Centipoises) --- 0.758

Exhibit No			
		Sit. Indiente Type of Leas	··· [X]
I Cichi Dilli IV o		State State	··· X
EXIIIDIO	TION COMMISSION	OG Stole Lill h Gos Leas.	£ 110·
DISTRIBUTION NEW MEXICO OIL CONSERVA WELL COMPLETION OR RECOMPLE	TION REPORT A	20533	
DISTRIBUTION NEW MEXICO OIL	11011	NV 20533	117711
WELL COMPLETION ON			//////
			Mirre
		7. Unit Agreement liam	6
s.c.s.			
AND OFFICE		8. I'um of Lease Nas-	•
PERATOR		B. I utm of Lebow	
	01 HER	Shell Askew	
TYPE OF WELL ORY WELL ORY		9. Well No.	
	OTHER	.	
[] [] [] [] [] [] [] [] [10. Field and Pool, 6	W.1195.01
TYPE OF COMPTION DECPEN DECPEN		10.	
		Wildcat	111777
Name of Classical Annual Annua			
23 Ni I (Dilipang			
Shell Ulliand Sh			7774444
3. Acc 80x 991, 23/ 1ac;	660	CT TROM	
P.U. down			Militii:
4. Location of Well 1980 PEET FROM THE	HIKHIITT	ROUSE Fley.	Cashinghead
		KB, RT, GR. etc./ 19.	
UNIT LETTER LOCATED 55 REC NORTH 10 Pro	16. Elevations (Dr. A	ROOSEVELT	ble Tools
2 THP. 33 NEC. (Keady to Pro	4493.2' GR	Bolgty Tools	
West Line of sec. 2 TWP. 55 Rec. 32E NOTE OF THE West Line of sec. 16. Date T.D. Reached 7/25/80	How 23. Interva	By Dotary	- support Surve
	Compile Driller	- KULUITAS NO	as Directional Surve
Strip Back T.D.			
4-9-80 21. Plug Back 1.D. 8280' 8280'		No	
20. Total Depth 8280		110	iell Courd
8280 8973 Total Depth 8280 Top, Bottom, Name 24. Producing Interval(s), of this completion — Top, Bottom, Name		27. NOS -	Yes
24. Producing Interval			163
· · · · · · · · · · · · · · · · · · ·			AMOUNT PULLED
77331 - 77631	() (in well)	1	AMOUNT FOUL
	port all strings set in well) OLE SIZE DO DO DO DO DO DO DO DO DO D	ENTING RECORD	-0
MLL/ML, GNL/GR CASING RECORD IN-		di MIX	0
MI L/ML,	I AN CX NO	1255 C	0
28. WEIGHT LB./FT.	24" 40 SX KG 7 1/2" 550 SX G 7 1/2" 750 SX G	Class H,800sx Lite	. 0
20"		Class H TUBING RECO	PACKER SET
-33 3/8"	7/8" 11/10 3/		
13 01 367 34 933(1)	- 17		76.76
	SI	ZE DEPTH SET	7575
9 5/8"	SCREEN	7/8" 7575	
8 5/8" 17,20,15.5,17 LINER RECORD	SCREEN	7/8" 7575	FEZE EIC.
8 5/8" 17,20,15.3,17 5 1/2" LINER RECORD 709 BOTTOM SACKS CEMEN	SCREEN	7/8" 7575	FEZE EIC.
8 5/8" 17,20,15.5,17 5 1/2" LINER RECORD SACKS CEMEN	SCREEN 2	7575 T, FRACTURE, CEMENT SO	FEZE EIC.
8 5/8" 17,20,15.3,17 5 1/2" LINER RECORD 29. BOTTOM SACKS CEMEN	SCREEN 2	7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI	UEEZE, ETC.
8 5/8" 17,20,15.3,17 5 1/2" LINER RECORD 29. BOTTOM SACKS CEMEN	SCREEN 2	7575 T, FRACTURE, CEMENT SO AMOUNT AND KI	UEEZE, ETC. ND MATERIAL USED
8 5/8" 17,20,15.3,17 5 1/2" LINER RECORD 29. BOTTOM SACKS CEMEN	32. ACID, SHO	7575 T, FRACTURE, CEMENT SO AMOUNT AND KI	UEEZE, ETC. ND MATERIAL USED
8 5/8" 17,20,15.3,17 5 1/2" LINER RECORD 29. TOP BOTTOM SACKS CEMEN	32. ACID, SHO	7575 T, FRACTURE, CEMENT SO AMOUNT AND KI	UEEZE, ETC. ND MATERIAL USED
8 5/8" 17,20,15.3,17 LINER RECORD 29. BOTTOM SACKS CEMEN	SCREEN 2	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209	UEEZE, ETC. ND MATERIAL USED HCL 6 HCL
8 5/8" 17,20,15.3,17 LINER RECORD 29. BOTTOM SACKS CEMEN	32. ACID, SHO	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209	UEEZE, ETC. ND MATERIAL USED HCL 6 HCL
17,20,15.5,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number)	32. ACID, SHO DEPTH INTERVA 7733-7763	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209	HCL 6 HCL
17,20,15.5,17 LINER RECORD 29. S12E TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number)	32. ACID, SHO DEPTH INTERVA 7733-7763	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209	HCL (HCL HCL HCL HCL HCL HCL
17,20,15.5,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number)	32. ACID, SHO DEPTH INTERVA 7733-7763	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209	UEEZE, ETC. ND MATERIAL USED HCL 6 HCL
17,20,15.5,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 7733' -7763' 15 holes	32. ACID, SHO DEPTH INTERVA 7733-7763 PRODUCTION I, pumping - Size and type p	7/8" 7575 DT. FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well Sto Shi Wolet - Bbl.	HCL HCL HCL HCL GHCL HCL HCL HCL
17,20,15.3,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 7733'-7763' 15 holes Production Method (Flowing, gas lift) 13. Production Production Method (Flowing, gas lift)	32. ACID, SHO DEPTH INTERVA 7733-7763 PRODUCTION I, pumping - Size and type p	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 20% well Sto shi 38 - MCF Water - Bbl. 48	HCL HCL HCL GHCL GOS-OII Railo ADI/Cory.
17,20,15.3,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 7733' -7763' 15 holes Production Method (Flouring, gas life SWabbing Prod'n. F.	PRODUCTION T, pumping - Size and type pumping 25	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well significant water - Bbl. TSTM 48	HCL HCL HCL GHCL GOS-OII Railo ADI/Cory.
17,20,15.3,17 LINER RECORD 23. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 7733'-7763' 15 holes Production Method (Flowing, gas life SWabbing 6/30/80 Fest Performance Tested Choke Size Test Performance Test Performance Test Performance Choke Size Test Performance	32. ACID, SHO DEPTH INTERVA 7733-7763 PRODUCTION I, pumping — Size and Type p For OII — Bbi. Co. 11od 25	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so shu TSTM 48	HCL HCL HCL GHCL GOS-OII Railo CII Gravity - API (Corr., 43.40 0600F
17,20,15.3,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) Production Method (Flowing, gas lift SWabbing) SWabbing SWabbing Choke Size Prod'n. Frest Performance of Test Pe	32. ACID, SHO DEPTH INTERVA 7733-7763 PRODUCTION I, pumping — Size and Type p For OII — Bbi. Co. 11od 25	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well significant water - Bbl. TSTM 48	HCL HCL HCL GHCL GOS-OII Railo CII Gravity - API (Corr., 43.40 0600F
17,20,15.3,17 LINER RECORD 22. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) 32. Date First Production Production Method (Flowing, gas lift SWabbing) SWabbing Choke Size Fest Perforction Bottom Production Method (Flowing, gas lift SWabbing) SWabbing Choke Size Fest Perforction Bottom Choke Size Test Perforction Production Method (Flowing, gas lift SWabbing) SWabbing Choke Size Test Perforction Production Method (Flowing, gas lift SWabbing) SWabbing Output SWabbing Choke Size Test Perforction Fest Perforction SWabbing Choke Size Test Perforction Fest Perforction SWabbing Output SWabbing Fest Perforction Fest Perforction Fest Perforction SWabbing Fest Perforction SWabbing Fest Perforction Fest Perforc	32. ACID, SHO DEPTH INTERVA 7733-7763 PRODUCTION I, pumping — Size and Type p For OII — Bbi. Co. 11od 25	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so shu TSTM 48	HCL HCL HCL GHCL GOS-OII Railo CII Gravity - API (Corr., 43.40 0600F
17,20,15.3,17 LINER RECORD 22. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) Production Method (Flouring, gas lift SWabbing 6/30/80 Fresh Howa Tested Casing Flesswee Calculated 24- Oil - Bit How Rate 75	32. ACID, SHO DEPTH INTERVA 7733-7763 PRODUCTION I, pumping — Size and Type p For OII — Bbi. Co. 11od 25	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so shu TSTM 48	HCL HCL HCL GHCL GOS-OII Railo CII Gravity - API (Corr., 43.40 0600F
17,20,15.3,17 LINER RECORD 22. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) 33. Date First Production Production Method (Flowing, gas lift SWabbing) SWabbing Only of Test 6/30/80 Production Method (Flowing, gas lift SWabbing) SWabbing Choke Size Prod'in. Frest Performance Colling Prod'in. Frest Performance Colling Pressure Flow Tubing Press. O Cosing Pressure How itale 75	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F
17,20,15.3,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) 33. Date First Production Production Method (Flowing, gas lift SWabbing) SWabbing Only of Test 6/30/80 Production Method (Flowing, gas lift Swabbing) SWabbing Choke Size Prod'in. Frest Performance Colculated 24. Oil - Bit How Tubing Press. O Topic of Test 8 Casing Pressure How liate 75	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F
17,20,15.3,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) 33. Date First Production Production Method (Flowing, gas lift SWabbing) SWabbing Only of Test 6/30/80 Production Method (Flowing, gas lift Swabbing) SWabbing Choke Size Prod'in. Frest Performance Colculated 24. Oil - Bit How Tubing Press. O Topic of Test 8 Casing Pressure How liate 75	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F
17,20,15.3,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) Production Method (Flowing, gas lift) SWabbing 6/30/80 Production Method (Flowing, gas lift) SWabbing Onle of Test 6/30/80 Production Method (Flowing, gas lift) SWabbing Choke Size Flow Tubing Press. Casing Pressure How liate 75	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F
17,20,15.3,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) 33. Date First Production Production Method (Flowing, gas lift SWabbing) SWabbing Only of Test 6/30/80 Production Method (Flowing, gas lift Swabbing) SWabbing Choke Size Prod'in. Frest Performance Colculated 24. Oil - Bit How Tubing Press. O Topic of Test 8 Casing Pressure How liate 75	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F
17,20,15.3,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) Production Method (Flowing, gas lift) SWabbing 6/30/80 Production Method (Flowing, gas lift) SWabbing Only of Test 6/30/80 Flow Tubing Press. Casing Pressure How liate 75	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F
29. SIZE TOP BOTTOM SACKS CEMENT 31. Perforcision Record (Interval, size and number) 31. Perforcision Record (Interval, size and number) 33. Date First Production Production Method (Flowing, gas lift SWabbing) 6/30/80 Production Method (Flowing, gas lift SWabbing) Date of Test Production Record Choke Size Prod'n. Fast Perform Tubing Press. Casing Pressure How liste Production of Gas (Stild, used for fuel, nented, etc.) 14. Disposition of Gas (Stild, used for fuel, nented, etc.) No gas recorded 35. List of Attachmente Inclination Survey	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F
29. LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMENT 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) 32. Top BOTTOM SACKS CEMENT 33. Production Method (Flowing, gas lift) SWabbing 6/30/80 Production Method (Flowing, gas lift) SWabbing Choke Size Production 6/30/80 Casing Fresswe Colculated 24- Oil - Bh Flow Tubing Press. Casing Fresswe How liste 0 14. Disposition of Gas (Stild, used for fuel, nented, etc.) No gas recorded 35. List of Attachments Inclination Survey	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F
29. LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMENT 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) 33. Date First Production Production Method (Flowing, gas lift SWADD Ing) 6/30/80 Production Choke Size Prod'n. Frest Perform Tubing Press. Casing Pressure How Hate Polymore Total No gas recorded 35. List of Attachments Inclination Survey	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F
17,20,15.3,17 LINER RECORD 29. SIZE TOP BOTTOM SACKS CEMEN 31. Perforction Record (Interval, size and number) 31. Perforction Record (Interval, size and number) Production Method (Flowing, gas lift) SWabbing 6/30/80 Production Method (Flowing, gas lift) SWabbing Only of Test 6/30/80 Flow Tubing Press. Casing Pressure How liate 75	PRODUCTION To pumping — Size and type policy Today Cos — MCF TSTM	7/8" 7575 OT, FRACTURE, CEMENT SO AMOUNT AND KI 2000 gals 7% 3000 gals 209 well so sht TSTM 48 Valet - Bbl. 144 Test Wilness	HCL 6 HCL Gus (Prod. or Shellin) It-in Gus-Oll Rallo Cil Gravily - API (Corr., 43.40 @600F

S. Care			Principal of the months of	हेर ाक्ष रक्षकार जिल्हा के स्टब्स्ट के स्टब्स के स्टब्स के स्टब्स के स्टब्स के स्टब्स के स्टब्स के स	·阿尔···································	, distributes		erange, a financia	and the second of the second of	والمعاركة والانتاء	ng e ji k	150 F 2 2				•	
		9-10 82	1	3 80 85 5 8 81 1 12 Shell 3 21 83 A	2 · 7 · 62 ·	B.E. Herding Geogery Burris No Not Gas	Kary Swagerry	Shell 415 t W. Kirkpole	ick	17.5.W	Shampy erell	Bonk Outle : 24 Wilderspin (House; 3 - 11 - 94 1 - 17 - 94	E.Mode		EXHIBIT	6	
2	Gulf 7:24:03 1:34:81	J.O Aucktoshel etol, M.I. Hording Burris	6 - 1 - 01	Marathan 5 2	Morpinghan Shell	& Selma Andrews		Jack Stier K.L. Smith Wilderspin E E · EE · B	House	39.22 E.N.TN U.L.G	oyler (3) rimslad		APPI.TCAT		ND MAP	O NEW POO	nī.
	G.W.E.Tinley W.E.Tinley Core Sodier Gulf 8-25-81 7-1-81	Jarotho 10-10-0 Janua Addien		A.H.Clerk.etal J.F. Hickman P.Bulsterbaum Thu Phillips B. L. 188	Fosech		g Burris	L. Dixon, e W.M. Kıllg	to/ 122 82 3-11-8 ere E.N. laylere	39.52	, E.N.T	eylericial Enserch	STINGRAY	(PENN.) RY SPECIA	FIELD A	AND	,1
1	CH/Regers MALL	5-31-86 J.Y. Smith ^I I H.T. Rorie Selma Andrew:	L. Diron, etal William Kilgere	LG Gaoe SG 25 Sigla Maratha	ia n	W.D. Askew Shell 12 - 2 - 82	Shell Shell 12-13 02 Hording Burris Acte		H - I - BI L 6736 2015	39.47	t HH.870	W.E. Gilbel C.W.Rodeliff	ROOSEVEI	LT COUNTY	r, new m	EXICO	
ř	Gulf 5-H et	Gulf 3 - 25 - 82 3 - 2 - 81	Phillips 5 · 3 · 84 E.V.Cryer	3 - 21	Vorathon 1-85 2+4-81 Shell 2+1-82	Ido Field Shell Widrspin	Srield. Stell William Teres & House Hording 3-30-82 Burris & Emo was J.W. Spray Mu		36	33.61 33.61	Ense	k(iff)(5) 	SCALE:	1 INCH =	= 4000 F	EET	
_	Mailic Young Est.	Reulah Owenb R.L. Anthony Sei A 18:31 1120 23	3 : 7 : 94 7 T.J. Simmans 3 36 27 2 36.23 1	Thurol Simmons B.P. Almo Life W.C SimmonsEst Lo 10:11 11411 3141 C.W.Williams	39 3140.45	(0,4) (149,45)	10.11 2 10.11 1	48.35 4 40.3	State	1 33 78	CareyXi	irkhom 18, 15 - 2118, 12 - 1 C.W.Williams, Jr.	H .	Richer Associated CATION OF		DIL COMPA	-
	C.W.Williams.Jr.	Amoco 3 · ES · EL Beulgh Oansby Mellie Young RL Anthony, SEM	CMGloc Shell 2- 80-83 1-9-83 G.E.Pelerson Ruth Crume	3			C.W.Williams Jr. 1+14+91 1-8+91	E House lian 3.30 BELZ - 1 8 M. Richal C. W. Rodclif	\(\frac{1}{2}\)	39,73 R.R. Verry	Jenes Wilson	Hyrlle Finle	FOR THE	HE CREATI OR TEMPOR	ON OF A	NEW POOL CIAL POOL ATED POOL	es roy es
	(Guif Jenne 13-73-81 Boker 13-13-81 M.I. FSidv. M.I. H. I. Raberla J. E. Raberla Jas. Eikkan	SI II a R Rager	hell 20-03 13-13 5-03 5-03 13-14/46/U rell, of pl rrson ₁ (S)	B.J.Dizon(S)	izan etal	W.D. Aske cosper Cope Lois Croig (5)	lin //t		·	25.4	C.W.W[II]	iomain: Euseich	SECTION RANGE	ON 2, TOV 33 EAST, VELT COUR	MSHIP 5 N.M.P.1	SOUTH,	SH II-M
	Gulf 9-15-81 8-10 84 11-15-81	Gulf 9-15-8t 8-10-8t 8-20-8t 11-15-8t	Shell 3-29-83	Phillips 5-15-4 5-3-4 11-4-1 8.J. Oizon,	80 60 80	Phillips 6 - 26 iams Jr iams J	5. 60 (62) (nean, etal 3. 8erry	Phillips C.W	Will-1 - 28-81 1-5- 9- Ur. Darajenner Fangyarb E.L.	3c 33.80 Fla Helen O ff Higgin 1 33.80 J.A. F	George McCor macks		Shell 3 · 27 · 83 H.G.Xealon Va M.I. M.R.Regecelal th M.I. E.L. Miller O.L. Key		Shell II-10-82	2-6-83 1-20 83 AbeRibble etal Flayd Kennedy	Shell Shell 12-13 02 12-1-02 V.L. Flortin Milter Shell 12-1-02 Line M. Lemile Harlin Martin
8	Isuling Lave Ys Ryth Hekuhnh Jas. bibson	Pauline Layer Ruth He Kuhn Jas. Sissen	Gulf 9-15-81 J. Gibson. M.L. 80 Weslbrook	Phillips 9: 5 · 15 · 80 S · 5 · 3 · 80 C.W. 11 · 4 · 80 2 · 10	hillips - 18-80 - 18-80 - 18-13-81 3-17-82 nshine Ray. 8. Hodres Vis Horkers	More (see	Marr C.W.Will- Markey imager. Haskell 1868 Worley Corres Dnilling Workey January KO. Fannie KO. Tarbill Craig	1-2	Williams Jr. 18-81 1-5-81	1-28-8 75 54 Ma Worle	illams Jr. i 1-8-81 yl vis v(S) W/2	D. E. Priest ts G.E. Pelerson ts	Shell 3 · 27 · 03 H.O Keofen le M.I M.Coger, et al 7 s.M.i O.L. Key Jomes E. Loita	Geo Gushwa	G.W. Grshwa	DJ Sorenson 3 · 15 · 86 Lean Radeliff	D.J. Sorenson 3 - 15 - 86 Lean Radeliff
3uif -17-				Phillips 9-15-80 VE 1-8-80 (Lv) (C.Williams Ur) Mon	STATE OF THE PARTY	Phillips 8-75-80 Fannic Kartey Carbiff Clyde Jahnsan	CWWilliams in free to see to s	U.H UcGrail	Phillips 4 - 13 - 31 2 - 3 - 31 3 - 1 - 31 3 - 22 - 31	33.73 Collig	년 [출력원] #4	(Phillips)	Printipal Petersian 10400 O. J. Sail Viaince 3 - 15 - 6 Groves 108032 Oelma Gr J. M.R. Koger, V.Lean Rodel	- Amoco	2 ·	000 - A 5 65 EI	Amoco 10 - 26 - 60 4 - 21 - 10 Shell 11 - 15 - 02 HH. Rowland
17		Gellyh I	l de l'A	Phillips 15	C.W. Williams Jr. S 12 · 24 · 80	76.611 of 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Andrew Werley Phillips Phillips 9-2-40 4-25-49 E. W. Fannie Wilson Carbill Phillips Phillips	C.v	Y.Williams Jr. 1 + 26 + 81 Amaco	53.71	Amoc (Collies)	350	(Shi	eli) oco	1	6 Mamace Stole Tolessa	M E. Kitchen T. E. Musick Amoco 10-22-80
. 00	· Cobe, etal		5	32: " Ailing	on visWorleySiS	shasen 9-2-80 Criff Ierensen Wilson Phillips 2-1-82 3-2-80	Fennya E.M.		weoringen L.Peed tife est.	17.76	The state of the	1019363	R.L.R	adeliff, etal	SI.	5	G.W.Gushwa
5hel	1	Shell II-T-82		Phillips C.W 19-15-80 Phillips C.W 19-28-80 Phillips C.W 12-24		C.W.Williams, Jr. 2 · 4 · 8! 1 · 22 · 8!	9.2.80 C.W.Williams,Jr. Eliz. Borker's Eliz.	Eliz Barker	RA Whitley IA A LOBrown Va N	Amoc Literary G.L.M		Amore		(Cellist etal)	10-15- 60	Amoca Amoca 10-13-80 (0-22-80 10-13-81 (0-13-81 10-13-81	
20		21		22 9010 10 10	Mears Mears Mailings	Phillips 10 - 7 - 80	Brown Mears C.W.Williams, Jr.	R L Anthon C.W.Will- iams Jr. 1-21 W.N. 1-11 Case cloi	24 C Williams	Erwo.		Amoco	Tibl Amoco A	Amoco	Amoco 10 - 19 - 10 RR. Graham, H.J.	Amoco 30 - 29 - 60	C.W. Rodelist
8,0	Dione	Pearl B Diano	Vielp 3 Ovy Gewer	Visto Gower T.C.R	Rogers, alal	.C. Green, etal avelle Rodcliff	Lavelle RodchFf	Phillips 10. V. Cal	ma remt CAWiya Cover delity (S) Rade	ie je ob ir egilin ir egilin ii t	ROLLINS ROCKINS		*Smeringen H.A. SweetingenH G E.Peterson	C.w. Rockilf(15) Lucille Briggs,etal	CN.Rod Lucille	diffen Gerald Hartman etal	Oursing Swegging afai
	Shell 12 - 13 - 82		Pagri B. Diana	3:15:40	hillios • 14 - 50 • 10 - 50	Phillips 9-14-80 9-10-80	C.W.Wittloms,Jr. 2 · 6 · er	10 · 9 · 60	Contractive of the	Ph 10 - 733.78		Phillips	Phillips 8 - 18 - 80	Amoco 19 - 27 - 80 Nadine	10 -	19 CO 19 - 80 19 - 81	Enserch ,
	J	bek Moore	Viale Genery	Viela Gener 1/2	.	Ì,	nvalla Rindeller	WHE SUPPER	, Juditiliv	ovelle	Radelissis	C.C tennehillelel O D. Lembirl & Te	Amoro	Nodine Gillum F. L. Wilson	l .		J.H.Mosky, MI. Alice Mosley Trecountries

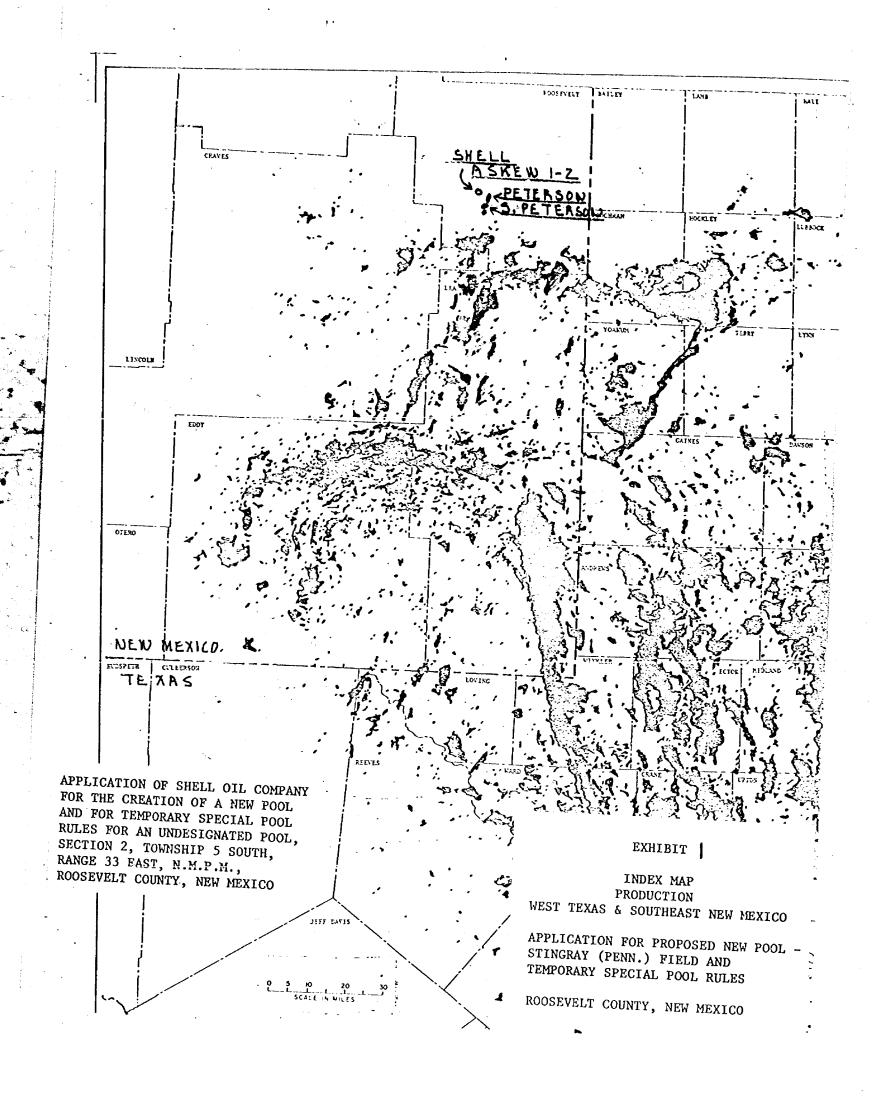


Exhibit No. 9

AREA FIELDS HAVING 80 ACRE SPACING OR MORE

	ACDE SPA	CING ON	
•	AREA FIELDS HAVING 80 ACRE SPA		Spacing
			80
	Location	Lea & Roosevelt	80
Field Name	T-8 & 9-S, R-36 & 37-E	Feg	80
Allison-Penn.	T-10 & 11-5, R-33 & 34	Roosevelt	160
Inbe - Penn.	T-8-S, R-36-E	Lea & Roosevelt	
prairie Cisco	T-8-S, R-34/36-E		
Vada - Penn	T-9-5: R-33/36-E		
	T-10-S, R-33/34-E		

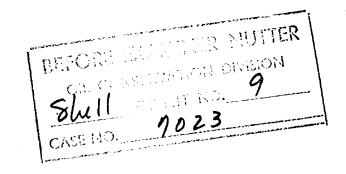


EXHIBIT No. _8_

DATA SHEET

SHELL ASKEW NO. 1-2

PHYSICAL PROPERTIES OF RESERVOIR ROCKS

Average Porosity (%) = $7^{2}\log$ analysis

Average Permeability (md) = 3^{2} core analysis

Average oil and interstitial water saturations (%) = 50^{2} 69 7^{2} 8w 31 7^{2}

RESERVOIR FLUID CHARACTERISTICS

Average Gravity of Oil --- 44.4 API @ 60°

Average Gravity of Gas --- 1.0827 @ 60°

Formation Volume Factor --- 1.1

Viscosity of Oil (Centipoises) --- 0.758

Velumetric necovery eff 12-20% of all in place

leaned on nearly fless on some prot from some form

30% - 50% per ye are = 40%

85 acres & 15 bols/day

Nother & Heids in this revisionship

20-100,000

BEFO!".		HUTTER
Shell	setaad	JANGON -
CASE NO.	702	

				AP1#	30-u.	. 20300	Poim C-10	\$ x	-
				111 -				1.1.2	30
		_ _				150	i. Inticate 1	י אוייר פו היי" ו	" r 🛛
. —	T Exhibit N	MEXICO OIL			ICSION	1			
er cooles acceives	WELL COMPL		CONSERVATIO	ON CONW	A TOA	LOG	Store Cill	i lios Leon	• • • • • • • • • • • • • • • • • • • •
TON	NEW	MEXICO OIL	COUPLET	ON KEL	י אט	1	NN 2053	3	mm
DISTRIBUTION		FTION OR R	FCOW! C-			L	MILERAL	TITTE	
TAFE	MELL COMP					F			
	-1							777777	ZZZZZ-
							7. 16.11 A.11	CCBMAIL LYON	•
.G.S.	├ ─┤								
ND OFFICE	السيا					l	B. I'vem Cr	Lease Nas.	ā ·
ERATOR							Shell	Ackew	
		[]	***				Sueii		
TYPE OF WELL	SIL K	** · · · · ·					9. Well No	<u>-</u>	
			<u>'''ف </u>	459			1 1		
TYPE OF COMPLETION		460					1 1016	and Pool,	M Willoca
wen X work	DECOCH					-	10. 1.45	-+	
wer X over							Wilde	30	1117777
Noise of Characos							m-		
- 11 N1 CUMP 4132		77007							<i> </i>
Address of Operator	Tec Houston	, 1X 17001							177777474
201 237	186, 11000				660	FEET FROM	4777	المتحددة	
P.O. BOX 3313			south u	ME AND -		(III)	Z		
Location of Well		FEET FROM THE -	Source	TITT	11111	//////	X Roos	evelt	Cashinghead ble Tools
_	1980	FEET FROM 1		//////	(1)(1)	777777	CR. ele.	19. Elev.	Cualimit
<u>L</u> "	CAPED	32	ZE	77777	varions (DF, RKB, RI	,	l	
MIT LETTER	Date T.D. Reached	S REE.	Foods to Prod.)	18. Ele	- Ol C	:D		1	ble Tools
	Z 1WP.	7. Date Compl. (Vcent	449	13.2	IN P	otary Tools		
West Line or see.	Date T.D. Reaches	7/25/80		enl. How	23. 10		Rotary		as Directional Surve
15. Date Spudded	5-25-80 Toler Hack T.		C. 11	·~	1 -	`	11000	25. W	ode
4-9-80	5-25-80 Tale Back T.	,D. {	Y;any			-		\ "	
4-9-00	8280 ¹	/		•				No	
20. Total Depth 8973* 24. Producing Interval(s), o	0200 To	p. Bottom, Name	-					110	Fell Cored
8973'	this completion -	•						27. Was '	V
24 Producing Intervalian								1	Yes
7733' -7763'						-11)			AMOUNT PULLED
7/33 = 7/00 and Other	er Logs Hun			all string	s set in w	CEMENTIN	G RECORD		-0
7733' -7763' 26. Type Electric and Other		CASING R	RECORD (Report		Γ _	CEMEN	: v		0 _
MLL/ML, GNL/GR					IANCY	(NCU	<u> 1수</u>		0
1100	WEIGHT LB./FT.	DEPTH SET		24"	1500	sx Class	<u> </u>	w lite	0
28.	WEIGHT COM	40'		1/2"				XLIU	0
CASING SIZE	conductor	412'		1/4"	750	sx Class sx Class sx Class	S H		
20"	48#	33251	1 16	1011	T1770	SX CIU	TUE	ING RECO	PACKER SET
13 3/8"	700		1 11	/8"	13	0	7 258	H SET	7575
8 5/8"		4 8330'				SIZE			7575
8 3/0	117,20,13.07	RECORD		SCRE	EN	7/8"	7575		
5 1/2"		BOTTOM SA	CKS CEMENT				1		UEEZE, ETC.
29.	тор	80110					CTUDE C	EMENT SO	UEEZE, ET USED
				<u> </u>	ACID	SHOT, FR	ACTORE,	T AND KI	ND MATERIAL USED
				32.		EDVAL	AMOU	·	
		witer :		DE	PTH INTE				UC)
	(19154 Dusis of appen						2000 a	als 7%	TUL
31. Perforction Record	1-30 BOPD			1	133-77	63	2000 0	als 20%	6 HUL
aurun 1	2-30 10			<i> </i>			3000 9	-	
× × ×	5 BWPD		-	L					
i i	25 110			1				T 111-11 SIG	itus (Prod. or Shut-in)
	is holes			ODUCTION	Ν			Well Sic	
'7763'- יצברר	15 holes	iion Method (Flor	PR	- S	ize and l	be bruby		SIL	t-in Gas-Oll Rallo
1133		11110	wing, gas lift, p	րահւտք			Win	ier - Bbl.	Cas
	Produc	tion Method (Fib.	- -			Gas - MC	-r 1	48	1
Date First Production	on \		- For				ሳ ነ		CII Gravily - API (Cor.
Date First		Choke Size	Test Period	_ \ 2!	٥		Wales - Bbl	·)	43.40 0600F
6/30/80	Hows Tested			-	Cos - MC	er i	1114	_]	73
, 7011	1 8	1	24- Oil - Bbl.	1	TST	IM 1	T	esi Wilnesi	ed By
1 6/30/00	Casing Pressur	e Calculated a	75	1			1,		
	Casing	700	→]_		
Llow Jonna	U	of wented, etc.)							
		ei, venie=/				-			
134 Disposition of	Gow (Soild, used for full as recorded							Jedce and	belief
\"" No 9	as records					in the bes	t of my kniii	*****	
	ments			a is true w	nd comple	15 m			7 25-80
35. List of Attot	ion Survey	- North	rides of this form					DAT	€ <u>7-25-80</u>
Inclinar	information	thoun on will			. 5-0	r Techr	ncian		
1	ily that the try			_ Seni	or thy	<u></u>		•	•
Loreby Com	" / 2	,							
36. I hereby cen	7 True	A J. For	e TITL	, E					
36. I kereby cen	Gow (Sold, used for Jugas recorded sments ion Survey ily that the information	A. J. For	e 1111	, Ε					
36. I hereby cent	Jac	A. J. For	e titl	Ε					

	が表で、記者では、神(中央を下で)ないと										4					
	⊕ 414.°°°	9-10-13		Dort Miller	A.H. Clack	Ne Nat Go H 12 94		Abb French K.L. Smith etal Shell a 16 85 W.K. trib palicic Jack Stierson K.L. Smith etalog		lugari San J.C.Mari H.H.	Bonk, Ouke - Wilserspin L. House 3 - 17 - 32	vi i tju	EEN 1 1500 ST	EXHIBIT	6	
	9	2 J.D. Ruckloshel, eloi, M.L	0-W 4-1-9E	Morelhen 2	Mornings Shall	ø	a i ii y v.	Wilderspine House 2 · Et · EE	Mary E.	3942 J ^l E.N.Yoyle	30 ; ; (ra)		1	LAND MAP		:
	girigi G.N. Lilla Fald W.C. Tintay Cara Sadiar Guif	Harding Burns Identifier 10-10-63 January Miller	TC:Regers L. Dixon, étal Harding Burrists	A.H.Clark,cfal J.F. Hickman P. Bulslerbaum Phillips	Thurs Simmens	Hordin	Kikër sin e House ng Burris	L.Dixon,etal W.M.Killgere	Caburn, etal Wildersoin L. House 12-21-02-0-11-02 E. N. Taylar, etal	U.L.Grimi	E.N. Toylar, etal	STINGRA	Y (PENN.	PROPOSE) FIELD AL POOL		OL -
	5: 35:8	Sulf '	Phillips 5 · 3 · 84	8 · 1 · 63 LG · 6809 S6 25 S1	Enserch 1 1 1 88 10 90\$4 28 55	Wilderspin & Shell 12-2-32 W.O. Askew	14 4-82 14 14-12 Shell	II -	ion - - - - -	Enser	Enserch 5 7 81 W.E. Gilber CW.Rodckiff					
	Burrough 1/2 W.C.Rogers	J.Y. Smith 1/2 H.T. Rorie Selmo Andrews	L. Düron etal William Kilgare	Mor	ofhon	Shell 12 - 2 - 82 Ido Field	Sproing Sproing Arre Field.			D D L	H. Richardson W. Roddiff (S)	ROOSEVE	LT COUNT	Y, NEW M	EXICO	
3	Gulf S-31-02	Gv14	Phillips 5 · 3 · 84 E.V.Cryer		Morathon 3-24-85 2-4-81 Shell 12-1-82	Shell Widrspin	The Control of the Co	3			Enserch	SCALE:	1 INCH	= 4000 F	EET	
. ,	H.T. Rorie Bruigh Owenby Mall-cYoung Est	Mallie Young Beulah Owenby R.L. Anthony.SEM		Almo Life SimmonsEst	B.P. Echols 1/2 W.O. Askew 1/2 Lois Croig (3)	J.W. Copelin 1/2 Leis Craig (5)	Pela Sen Ein Field (5) Roelings	, s	lofe	1	reyKirkhom	H.H.Richardson	Richardson etc.	H.H.Richardson	I P Witza alal	J.P.Wilson
<u>Г</u>	Suite Sign	46.31 7/24.23] Amace 3 - 25 - 52.	CMC,Inc Shell 1- 20-83 1-9-83	C.W.WRI		(e.) Ale.15 1	11.43 2111.41 1 C.W.Williama, Jr.	10]5 10 25 Widespn.C.W.Will-	1	33.78 4138 C.W.Willio 1 - 7 - 1	71 71.] کار 175.75 ms. ا				OIL COMP.	
	C.W.Williams.Jr.	Beulah Omnsby Mellie Young RI. Anthony St. W.	G.E.Peterson Ruth Crume				† † ·	E House Edmo Wildygh M. Richardsov C.W.Rodcliff (S)		Jaja 3 R.R.Jan Jerey Wil	son Hyrile Finle:	AND F	or ·tempo	RARY SPE	CIAL POO ATED POO	L iir
*	(Gulf Jennie 13 75 81 Baker 13 16 9 M.I. Siou, M.I.	Sh	ell 0 - 83 3 - 81 1 - 83		.	(a) <u>****</u>				FreemH C.	W.Williams Jr. Enger	SECTION SECTION	ON 2, TO	WNSHIP 5	SOUTH,	SI n-i
ler løy,	J.Sidu. M.I. H.1. Raberta J.E. Reberta Jan. Gibson	Ho R Rogers J. D. Terr G. E. Palai	i,elal,y4 MJ	8.J.O.zo	n(5) J. Dizon,elal	W.D. Ake	 w /2 elin /2 Pete Field(s)	1.8.3	(Widespin) (E House I Vilson 3-13-82)	D2.49 7	L.Anthony			NTY, NEW		∴ G.W.
_			Shell b-29-83	Ph:	illins	Phillip 26		Phillips C.W.Witt- 6-24-80 ioms, Jr. 12-22-80			Car. Mark Skinne	Shell 3 - 27 - 63		Shell K-10-82	Shell 2-6-85 1-20 83	Shell Shell 12-13 82 12-1-82 VL. C.W. Mortin Miller
٩	Gulf 9-15-81 9-10-81 8-20-81 11-15-81	Gulf 9-15-81 9-16-81 8-20 81 11-15 81	 	11.	ixan, etal	3-16-10: Fancie	B. Berey	Fannie Carbill Dora Jo.		J.A. Flee	2	H.G.Kealon, YaMI Ir, M.R. Kagerelot hall E.L. Miller O.L. Key	a a		AbeRibble, elal Flayd Kennedy U.C.Bargslay Ralph Lawery	G.E. Elman Armater ang Hartin
Ì			Gulf 9-15-81	Phillips 5 - 15 - 80 5 - 3 - 80 11 - 4 - 80	Phillips 9 - 18 - 80 C.W.Williams Jr. 2-10-81 2-13-81		Manif C WWIII Workey ams Jr. Haskell 128 11 Warley Warls Workey Dulles Workey	C.W.Wil 1-28-81	1.8.61	33,88 31 C.W.Willian 1-28-83 1 -1	مد ل. الله - ق	Shell 3 - 27 - 83 H.G. Keaten le M.I	Ĭ		DJ Sprenson 3 · IS · #6	DJ Sarenson J + 15 - 186
	Pouline Love Vo Rulh HcKuhny Jos. 4ibson	Pauline Lare & Rulh McKuhn & Jos. Bibsen	J Gibson,Mi. 8 D Weslbrook	W.P. Diran Ys 8.J. Diron, etcl	C.W.Williams Jr. 2-10-81 2-13-81 3-12-82 Sunshine Roy. L.B. Hodses Maris Works	Harkell Harkell Loggar Worley	Haskell 128 11 Warley Marky Online KO. 2019	K.D.Cra		Movis Worley (5)		H.G. Keaten NeMI K.R. Cogar, etal 72 M.I O.L. Key 71 James E. Lotta	i	G.W. Gushwa	LeanRadeliff	Lean Radeliff
iu†i	• •	Paleting ;	Poteils 11-13-14 Getlys	Phillips 9-15-60 9-15-60 (C.Williams Jr.) 2-12-66	A Williams dr. 5 12 - 24 - 6	Phillips 8-26-80 Movis Fennie Wartey Carbitl Clyde Jehnsen Colife	C.W.Williams.lr Tucker TD0650 0/44-28-76	U.H Mcúrailj	Phillips 4 - 11 - 81 2 - 5 - 81 3 - 1 - 61 3 - 22 - 81	39.78 P Calligget Pasodo	Amoco *	Princips Pri	Amoco renson 10-22-80 10-85 rores M/ e/o/, ki	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	1000 • A 5:69 11	Amoco 10 · 24 · 80 2 · 25 Shell II · IS · O2 WH. Rowland M.E. Kilchen
17	,	Gellyh 16	1 1'4 1	F (11) (11) P	5 Williams Jr.	Stevenses Phillips Phillips 5- 2- 80 8-25-80	Phillips Phillips 9-2-80 8-25-89	C.w.wi	E.R.Large,elol Illoma, dr.	ר וניינדיני	- 18 lei		7	}	ω _{ε·εν}	Amoco
	4 - 1-1	i	+ ⊗ Jeninips 5/07 1017 1017 1016	3.5.8. 32. ^{1.0}	(C.W.Williams Jr.) 12-23-80 A.A. Killion Mavis Worsey S.	Ciff E.M.	Fennie E.M.	Addie Swear	is - Bi Smooth sen Tobess Fingen eed life est.	55.77 de 1	streamgen Hin te Dual Chek Le Roscliff et al		1000 1780N 1888 III, Ela	,	State	6.W Gushwa
he	(Cobe, e la)	Shell 11-7-82			C.W. Phillips Williams 1-1-40	Phillips 2 - 1 - 52 5 - 2 - 80			Amoco 10 - 30 - 80	Amoca 2-10-8	10 23 2 1	_ L _ Z _	Amocg 15 131 81 (Colleg, etal)		Amoco Amoco 10-19-80 10-22-80 10-19-81 10-49-80	Amoro
7 1	·	11-1-92				F - 22 + 81	Eliz. Borker's Eliz. J.p. Borker's		RAWAITIEGIAML LOBrownY2ML L.P.Stiles F2	Juts I .	Pena Sire	Securingen Securingen Securingen	CW S CW	1 1		10 - 15 - 81
20		21		L2	2	ENL.BOTKET VA F.W.Hording, etcl RLAnthony Phillips 2	Zwwilliame Is	R L Anthony	Dewill Perry	CW Rodelin	Man G.E. Peterson	Amaca A	Amaca	Amoco	Amoro	C.W. Rodeliff
			Vielg & Goy Gower	William	Phillips 18-18-10 19-18-18-10 19-18-18-10 19-18-18-10	P.C. Const. 4101	E + E + 01	W. No 11 12 81; Cose, elst FEII193 10-3 : 80 Selmo WJMiller Andrews	Amoco Roschir 10 1970 04 8 18 17 CBWSetCovelle	9-30-80 10- 14.Whit- 15.13 Twi levelots 3 WKKARTE KI	(0.00	Sylvania	R.R. Erchom, M.I C.M. RodCliff(13)	Lucille	ecillysi Gerold	Derethy Swedeny efet
Ţ	Shell		Buy Gower	Phillips 3 - 15 - 88	TC Rogers elal		C.W.Williams, Jr. R · 6 · 84	10 . 3 . 90	(Phillips)	Phillip	Phillips	Phillips	Amaca 19 · 27 · 80	Ar	Hartman etal	Enserch .
1	12 - 13 - 92		Pearl B. Diana. Viola Gewer Vi		3 - 10 - 10	9 10 - 40	Emuella Rindollet		i i Jaki /	१८१४ हो	15 5 - 10 - 80 Amoco 18 7612 CC Tonnehill -::1715 O.Lambirlh		Nadine Gilium	8.	ii - ii	J.H.Mosleu, Mi
1	J	WER MOOFE II	tions namedia (7	• - 1	ı	I muslis Rödeliff	Sarcimeties		" avelb Rade	-XM15XIO O. Lambirli	Tel Amoco "	F. A. Wilson	I,		Alice Mostey

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

For the Oil Conservation

Division:

For the Applicant:

9

10

11

12

13

15

16

17

18

19

20

21

22

23

24

25

INDEX WALT V. BOYLE Direct Examination by Mr. Lopez Cross Examination by Mr. Nutter 12 Questions by Mr. Beneschek 13 MIKE TAVAKOL Direct Examination by Mr. Lopez 15 Cross Examination by Mr. Nutter 19 Questions by Mr. Beneschek 29 EXHIBITS Applicant Exhibit One, Map Applicant Exhibit Two, Map Applicant Exhibit Three, Log Applicant Exhibit Four, Structure Map Applicant Exhibit Five, Cross Section ΤŲ Applicant Exhibit Six, Land Plat 11 Applicant Exhibit Seven, C-105 16 Applicant Exhibit Eight, Data 17 Applicant Exhibit Nine, Data

12

13

14

15

16

17

18

19

20

21

22

23

24

25

MR. NUTTER: We'll call next Case Number

7023.

MR. PADILLA: Application of Shell Oil Company for pool creation and temporary pool rules, Roosevelt County, New Mexico.

MR, LOPEZ: Mr. Examiner, my name is Owen Lopez with the law firm of Montgomery and Andrews in Santa Fe, New Mexico, appearing on behalf of the applicant, and I have two witnesses to be sworn.

(Witnesses sworn,)

MR, NUTTER: Are there other appearances? Please proceed, Mr. Lopez.

WALT V. BOYLE

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

DIRECT EXAMINATION

BY MR. LOPEZ:

Would you please state your name, by whom Q. you're employed, and in what capacity?

Okay. My name is Walt Boyle.

MR. NUTTER: How do you spell that last

4

U

8

y.

10 11

12

13

14

15

16 17

18

19

20 21

22

23

24

25

name?

A. B-O-Y-L-E. W. V., middle initial V.

I am employed by Shell Oil Company in Houston, Texas. I have a degree from the University of Texas in geology, a B.S., and also a Masters degree.

I have worked in West Texas and New Mexico approximately fifteen years and I'm presently the supervisor for the New Mexico/West Texas area for Shell Oil Company.

Q. Have you previously testified before the Commission and had your qualifications accepted as a matter of record?

A. No, sir, I have never testified before New Mexico Commission.

Q. You have briefly described your employment background and educational background, as well. Are you familiar with the application of Shell in Case Number 7023?

A. Yes, sir, I am.

Q And what is it that Shell proposes to seek in this case?

A. Shell seeks the creation of a new Pennsylvanian oil pool for its Shell Askew Well No. 1, located in Unit L of Section 2, Township 5 South, Range 33 East, Roosevelt County, New Mexico, and the promulgation of a special pool rules thereof --- therefor, including a provision for 80-acre spacing.

ALLY W. BOYD, C.S.R. Rt. 1 Box 193-B Santa Fe, New Meedo 87501 acceptable?

7

9

10 11

12

13 14

15

16

17

18 19

20

21

22

24

25

MR. LOPEZ: Are the witness qualifications

MR. NUTTER: Yes, they are.

Mr. Boyle, I would ask you to refer to what has been marked as Exhibit Number One and ask you to identify it.

A Yes, sir. Mr. Examiner, Exhibit One is an index map of the oil and gas production in southeastern

New Mexico and West Texas. The area, the Shell Askew No. 1-2

our discovery well, is shown in Roosevelt County. Just a

little southeast of there is the Peterson Field, which produces from the Pennsylvanian-Wolfcamp-Alphabet formations.

The areas in green down in the southern part of Roosevelt

County, Lea, and Lea County, are also Pennsylvanian-Wolfcamp-Alphabet producing fields.

Q. Now I'd ask you to refer to Exhibit Number
Two and describe it.

A. Mr. Examiner, Exhibit Number Two is a map at the scale of 1" equal 1000'. You'll notice in Section 2 of 5 South, 32 East, is the location of the Shell 1-2 Askew. To the southeast about three miles is Peterson Field, which is -- has at the present time seven wells producing from the Penn-Alphabet formation.

Also, in Section 14 is the Williams-Tucker Well, which is a dry hole, and in Section 16 of 5, 32,

KLLY W. BOYD, C.S.I Rt. 1 Box 193-B Santa Fe, rew Mexico 87501 Phone (505) 455-7409

is the Phillips-Silas, which is also a dry hole. Both of those tested the Alphabet formation, Penn-Alphabet, and found it to be noncommercial.

So this is, in summary, just a large scale map showing all of the wells that have been drilled in this area.

Q. Now referring to Exhibit Number Three, would you please describe that?

A. Mr. Examiner, Exhibit Three is a copy of the borehole compensated sonic gamma ray log run on our Shell Askew No. 1-2, Section 2, 5 South, 32 East. It has, as you can see, the appropriate tops marked on the log, the drill depths and the subsea depths. These are the tops that are used in the industry in this area, and if you will note, at a depth of 7610 is what we've designated the Wolfcamp-Penn-Alphabet section. and then our producing interval in the -- in the Penn-Alphabet perforated from 7733 to 7763.

MR. NUTTER: Mr. Boyle, I'm not familiar with this so-called Penn-Alphabet series. What are you referring to there?

A. This is a term that at least Shell uses and quite a few of the companies that operate in this area. Sometimes it's just -- you just -- it is referred to as the Penn formation. It originally goes back many years to the Bough formations, the Bough A, B, and C.

-

10

11

12

13

14

15

16

17

18

19

20

21

22

23

2

5

Page _____

MR. NUTTER: Okay, that's what I was wondering.

A Yes, sir.

MR. NUTTER: Are you definitely out of the

Wolfcamp?

A. Well, sir, to be technically, to answer that technically, Shell, by fusilinid it's the Bough A and the B zones. We, by fusilinid would say that's Wolfcamp, but the top of the Bough C, that's Penn. The industry just usually says that's Penn.

MR. NUTTER: Okay, now what would your perforations be in here?

A. Our perforations would be in the Penn and we think, as close as we can correlate, that these would probably be what we designate Alphabet E and F, but I purposely left them off because the correlations are kind of --

MR. NUTTER: But it is definitely below

the C.

A. It is definitely below the C zone, yes,

MR. NUTTER: So there's no question here,
this is Pennsylvanian rather than --

Λ. Yes, sir.

MR. NUTTER: -- the Wolfcamp pay?

A. Yes, sir, that is correct, yes, sir.

MR. NUTTER: Just wanted to clear that

24 25

11

12

13

16 17

18

19

20

21

22 23

25

point.

Yes, sir, good point, yes, sir. I know all the companies have, you know, sometimes a little bit different twist on how they -- how they call some of these zones. MR. NUTTER: Sometimes if we can't solve it any other way, we just call it Permo-Penn.

Permo-Penn, if you wish to do that, that's fine.

MR. NUTTER: No, you said you're definitely in the Penn.

Yes, that's correct, by fusilinids, yes, sir. By fusilinid examination these have been designated Pennsylvanian.

Now referring to Exhibit Four, would you please describe this exhibit?

Yes, sir. Exhibit Four is a structure map at a scale of 1" equal 4000', covering the area around the Shell Askew No. 1 discovery in Roosevelt County. If you will look over on the right side of the map, this is the, what we call the type log. It is a log, again, the gamma ray sonic log, of the Shell Askew, again, the top of our Alphabet series is at 7610. Our perforations, our Penn perforations at 7733 to 7763. This map is drawn on, again, Shell terminology, what we call Permian "OM" zone, designated on the log at 7268. The reason we use this is we feel that this is a

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

good correlative structural marker; it's a time marker. It's about 300 feet above the Alphabet, but that is the -- that is the structural marker that the map is prepared on.

If you will look in Section 2 of 5, 32, again the Shell Askew, you will see the top of the "OM" there is at a -2762. The dry hole I had referred to earlier, the Williams-Tucker in Section 14 in 5, 32, is at 2943, and if we go to Peterson Field, which encompasses Sections 8, 17, 18, 19, and 20, in 5, 33, these are the -- this is the Peterson Field and it's so designated -- the structural elevations there are -- range from -2830 to -2841,

The point I want to make on this, Mr. Examiner, is that there is a structural low or separation between the Shell Askew in Section 2, 5, 32, and the Peterson Field, Penn field, located in Sections 17, 18, 19, and 20, 5, 33.

Structurally from the -- about the lowest point of 2950 to -- to the Shell Askew, there's about 100 -you have to come up structurally about 188 feet, and then if you take from, again, the 2950 contour up to one of the lower wells in Peterson Field, for example, Well NO. 1, the Amoco Radcliffe, in the southwest of the southwest of 17, you come up some 110 feet. So again to reiterate, what this -- what we wanted to show on this map is that there is a structural separation between the Shell Askew and the Peterson Field,

and we feel that those are two separate reservoirs.

This exhibit also shows, does it not, that there are no other producing wells within the vicinity of the Shell Askew Well?

A. Yes, that is correct; that's true.

Q. Okay. Now referring to Exhibit Number Five, would you please describe it?

north/south structural cross section hung on a datum of -3000 feet. Again, if you will refer to the index map in the right side of the cross section, the map is on a scale of 1" equal 8000'. It goes from Well No. 1, located in Tanneyhill Field, through South Peterson Field, which is productive from the Penn-Alphabet, and from the Pre-Mississippian, or I think as it's designated, Fusselman, up into Peterson Field, northward into Peterson Fields, which is mainly productive from the --- from the Penn-Alphabet, to Well No. 11, which is the Shell Askew.

And what we want to demonstrate on this section is that if you will observe, say, Peterson Field, from Well 6 to Well 8, it is on a structural high, and then you can see the sag that I referred to in Exhibit Four, say, take for example, the top of the Penn-Alphabet, you can see the structural sag goes down and then comes back up to our Shell Askew No. 1-2, our proposed Stingray Field, and again, this

just is prepared to -- to show that there is in fact a structural sag between Peterson and the Shell Askew 1-2.

The Pennsylvanian production seems to be productive from, say, from the C zone clear on down into E and F zone, if you'll look at Well No. 7, it's productive; appears they have perforated that interval. In Well No. 6 it looks like it's productive in the E and F zones and -- yeah, okay, I'll just stop right there.

So the production does vary from zone to zone.

Q Now referring to Exhibit Number Six, would you please describe that?

in Roosevelt County, New Mexico, at a scale of 1" equal 4000.

It simply shows the location of the Shell Askew No. 1-2 some
660 feet from the west line and 1980 from the south line in

Section 2 of 5, 32, and also, if you drop about three miles
to the southeast, in green is the Peterson Field.

On what spacing has the Peterson Field been developed?

A. Presently the Peterson Field is -- appears to be developed on 80-acre locations.

Q. And in your opinion the production is from the same zone as the Shell Askew No. 2? Or No. 1?

M. Yes, sir, there are zones in Peterson

12

22

23

24

25

- 11									
1	Field which are also productive from the same zone in our								
2	Shell Askew 1-2.								
3	Ω All right. Were Exhibits One through Six								
4	prepared by you or under your supervision?								
5	A. They were prepared under my supervision								
6	and by me, also, a combination.								
7	MR. LOPEZ: Mr. Examiner, I'd offer Shell'	1							
8	Exhibits One through Six.								
9	MR, NUTTER: Applicant's Exhibits One								
10	through Six will be admitted in evidence.								
11	MR. LOPEZ: I have nothing further for								
12	this witness.								
13	·								
14	CROSS EXAMINATION								
15	BY MR. NUTTER:								
16	Q. Mr. Boyle, I think you made a good case								
17	for creation of a new pool, but I haven't seen anything yet								
18	to justify the 80-acre spacing.								
19	MR. LOPEZ: That's the second witness, M	lr							
20	Examiner.								
21	Na horro 2 ==								

go, then. He's got the evidence for the new pool.

now for me to ask a question of the witness?

MR. NUTTER: Okay, We'll let Mr. Boyle

MR. BENESCHEK: Mr. Examiner, is it time

20

21

22

23

24

25

MR. NUTTER: Yes, sir, if you want to ask

MR. BENESCHEK: Yes, sir, I'd like to, if I could.

QUESTIONS BY MR. BENESCHEK:

a question.

Q I'm H. W. Beneschek, royalty and mineral owner in the area, formerly with Shell Oil Company, formerly a Chairman of the School of Petroleum Engineering, University of Oklahoma.

Would you mind telling me what the porosity, permeability, and initial production is on the Askew Well?

MR. LOPEZ: It will be answered.

MR. BENESCHEK: Oh, that's coming up?

A. Yes, sir, that's --

MR. LOPEZ: With the next witness.

MR. BENESCHEK: That will be with the

next witness?

A. Yes, sir, it is. Mr. Tabakol is a reservoir engineer and the way we set this up is for me to present the --

Q. Okay.

A. -- geology and then he'll talk about the reservoir.

Okay, then I have another question, which you did allude to, or comment, Mr. Examiner, if it's all right. You made a statement that the, Mr. Boyle did, that the Peterson Field is on 80-acre locations. I am under a well, Penn well in the Peterson Field, that's on 160 acres. I concur with 80 acres, or preferably 40 acres, as called out in the rules of the Commission, but I am under 160 acres in the Peterson Field under a Penn well. I just wanted to point that out --

Okay.

-- but you said 80 acres.

Yes, I was under the impression that most of the fields down there are under 80 acres. Now, I could be wrong on that.

I think it's South Peterson.

So Peterson is under 80?

160.

I mean 160, yes, 160?

I am under 160 myself,

Okay.

I know, I'm losing half my income.

Okay. Okay.

MR. BENESCHEK: That's all I have, Mr.

Examiner, from this witness.

MR. NUTTER: Are there any questions for

2

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

25

A.

Mr. Boyle? He may be excused. Okay, thank you. MIKE TAVAKOL being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit: DIRECT EXAMINATION BY MR. LOPEZ: Would you please state your name? 11 Mr. Examiner, my name is Mike Tavakol. 12 I'm working for Shell Oil Company. 13 MR. NUTTER: Would you spell your name, 14 please? 15 T-A-V-A-K-O-L, Mike Tavakol. 16 In what capacity are you employed by 17 Shell? 18 Reservoir engineer. 19 Have you previously testified before the 20 Commission and had your qualifications accepted? 21 No, sir. 22 Would you therefor briefly describe your 23 educational background and employment experience?

from Louisiana State University. I also have a BS in chemical

Yes. I have a BS in petroleum engineering

engineering from Louisiana State University, and I've been working for Shell for 2-1/2 years and currently I'm pursuing 1 2 a Masters degree in petroleum engineering. When did you graduate from Louisiana State 3 4 University? 5 May, '78. And you've been working with Shell since Q. 7 that time? 8 That's correct. And is the area which is the subject of 9 this application part of your responsibilities? 10 11 That's right. MR. LOPEZ: Are the witness qualifications A. 12 13 You're staacceptable? 14 MR. NUTTER; Yes, they are. 15 tioned in Houston, are you? 16 Yes. MR. NUTTER: Okay, he's qualified. 17 Mr. Tavakol, I'd ask you to refer to what 18 has been marked Shell's Exhibit Number Seven and ask you to 19 20 Okay, that's New Mexico Oil Conservation explain that. 21 Commission Form C-105, which shows a completion record, as 22 you see. It shows the location of the well, being 980 feet 23 from the south line and 660 feet from the west, Section 2, 24

5 South and 32 East.

It also shows that the well was completed in July 25, 1980. It shows the completion interval being from 7733 feet to 7763 feet. It shows the logs that we obtained. It also shows the casing record and cement, the tubing, which is 2-7/8ths inch. It also shows the stimulation that we — the stimulation that we undertook for this well, being 5000 gallons of acid. On June 30th we had a swab test which showed a rate of 25 barrels of oil per day with 48 barrels of water per day, this being in eight hours. Taking it in 24 hours, it would be 75 barrels of oil per day and 144 barrels of water per day; however, we acquired current — newer tests and right now it seems like the oil production would fluctuate anywhere from 20 to 30 barrels of oil per day and the water being around 25 barrels of water per day.

Any question?

Q Now if you'd refer to Exhibit Number Eight and I'd ask you to explain that.

A. Okay. This shows limited data that we have been able to obtain so far. It shows the physical properties of the reservoir rocks. By log analysis we were able to obtain 7 percent porosity and by core analysis we were able to obtain permeability of 3 millidarcies. By log analysis we were able to obtain recovery — the well saturation of 31 percent. Reservoir fluid characteristics show that we have

15 16

17

18

19

20

21

22

23

24

25

gravity, oil gravity of 44.4 API at 60° F; the gas gravity at the same temperature is 1.0827. The formation volume factor is estimated at 1.1 reservoir barrel per standard tank barrel. The viscosity of oil is .758 centipoise, and that's all we have been able to get so far.

I should emphasize that this data are very similar to the surrounding area in the same reservoir, being South Peterson and Peterson Penn and they are reasonably close, so we're confident that they are correct properties for the rocks and the fluids.

Now I'd ask you to refer to Exhibit Number Q. Nine and describe that.

Okay, This shows that other pools in the area completed in the same -- in the Pennsylvanian formation that have been granted 80-acre spacing and more, which is 160 acres for Vada-Penn.

And for what reason have you requested the special pool rules? What is the basis for your request for the special pool rules?

Okay. Number one, our reservoir study, based on volumetric calculation and production performance of other Pennsylvanian pools in the area, has revealed that the reservoir will be drained efficiently with 80-acre spacing.

Number two, economic analysis has shown that the effective use of a minimum number of wells is essen-

11

12

13

14

15

16

17

18

19

20

22

23

24

25

tial to the economic depletion of the reservoir and development cannot be justified on less than 80-acre spacing. Also, as I mentioned earlier, other pools in the area have been granted 80-acre spacing and more. And these other pools have production from Q. the same zone? That's correct. In your opinion, Mr. Tavakol, would the granting of this application be in the interest of prevention of waste and the protection of correlative rights? That's right, sir, Were Exhibits Seven through Nine prepared by you or under your direction? They were prepared by me. MR. LOPEZ: I have I would offer Shell's Exhibits Seven through Nine, MR. NUTTER: Applicant's Exhibits One through -- Seven through Nine will be admitted in evidence. MR. LOPEZ: I have no further questions of this witness,

CROSS EXAMINATION

BY MR. NUTTER:

0 Mr. Tavakol, you stated you believe that one well would drain 80 acres. Isn't this permeability, being

10

11

12

13

16

17

18

20

21

22

23

24

25

only 3 millidarcies rather low for --No, sir, other reservoirs, I mean as I lity for the reservoirs, for a second. permeability. Of this reservoir? Q. On other pools, yeah. off the record.) Owen, and you can ask him about that.

mentioned, it is very close to other pools in the area, and I have studied other wells as much as I could, and they have shown that 80 acres will be drained by -- by one well. You don't have any evidence as to what the permeability is in any of these other reservoirs here. No, I guess I haven't shown the permeabi-MR. LOPEZ: If we could go off the record We do have an exhibit that shows the

porosity and net pay and the water saturation but not the

(There followed a discussion

MR. NUTTER: we'll go back on the record,

The reserves ---

Okay, could you provide the Commission with additional evidence and testimony as to the basis on which

you base your belief that the temporary pool rules are necessary and that 80-acre spacing will efficiently and effectively
drain -- one well on an 80-acre proration unit will efficiently
and effectively drain that proration unit?

A. Okay. Based on volumetric and investigation on recovery efficiency for this area, I have -- I was able to estimate recovery efficiency on the range of 12 to 20 percent of oil in place, and by studying the performance of other wells in the area, I established that the decline rate for the zone renders anywhere from 30 percent to 50 percent per year, average being 40 percent per year.

By simultaneous calculation of volumetric and decline rate amounts, I was able to obtain a drainage area of 85 acres, assuming 15 barrels of oil per day, which is current production that we have.

Q. These calculations of other wells in the area, these wells that you studied were wells producing from the same formation in other pools.

A. Yes.

And in these studies did you compare the relative permeabilities and porosities and water saturations of these other wells, and if so, what was your conclusion?

A My conclusion was that the rocks and the fluids were very similar and they should have a similar performance, therefor.

1	Q	(By Mr. N	utter)	Have y	ou made	any r	ough
2	estimate of	the reser	rves in p	lace				
3	A.	Y	es.					
4	Ø.	-	- under	80 acres	s as op	posed to	40 a	acres
5	here?			. Programme in the second seco				
6	A.	Y	es. Wel	1, for 8	30 acre	s the ra	inge v	vould
7	be 20,000 to	0 100,000	barrels	from	20,000	to 100,	000 k	oarrels
ĝ.	the range.							
9	Q.	ı	hat's on	gan em				
10	A.	r	The recov	ery.				:
11	Õ	-	an 80-	acre tra	act or			
12	A.	8	30-acre t	ract, uh	n-huh.	-		
13	Q.	Ŋ	Now you c	alculate	ed that	a well	would	l drain
14	85 acres.							
15	A.	V	Well, tha	t was	- I rou	and it of	ff to	80
16	acres becau	se as ı	ıncertain	ty for	the cal	.culation	ns, bi	ut 85
17	acres was t	he number	that the	oretical	lly I o	jot, and		
18	Q	V	Well, tha	t's qui	te a ra	inge of .	of	
9	now 20 to 1	00,000, is	s that re	coverab:	le rese	erves or	oil :	in
20	place?							
21	Ã.		Recoverab	ole rese	rves.	As I me	ntion	ed, the
22	recovery ef	ficiency v	was I	had to	vary th	ne recov	ery e	ffi-
3	ciency, and	since we	do not h	ave any	fluid	actual	flui	d data,
4	I should me	ntion volu	umetric,	for exa	mple, v	ve do no	t hav	e any
5	fluid compl	a at this	timo co	the for	rmatio	າ ທຸດໄນຫລ	fact	or is

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

estimate and also is the viscosity fluid, and those have a very big factor in estimating recovery efficiency and the volumetric.

Well, your -- your estimate of recovery efficiency is from 12 to 20 percent, which is a variation of less than 2, but your estimate of reserves is from 20 to 100,000 barrels, which is a factor of 5.

Yes, sir, that was because we have had production rates of anywhere from 15 to 75 barrels of oil per

Uh-huh.

So here again, at this time I did not know what would be the production so I had to make a range of production from 15 to 75.

Q. Well, didn't you state that the current production is running between 20 and 30 barrels per day.

That's correct, but this is not the stabilized rate yet, so we -- we might have --

Q. How long has the well been on production? Ä. To the best of my knowledge, it's been a month, but it's been fluctuating, as I mentioned, from 75 to 15, and we might do some stimulation on the well, which could raise the production to again, 70 -- and again, other wells in the area have shown sometimes 200,000 barrels of oil I'm sorry, 200 barrels of oil per day.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

Uh-huh. So we might have by stimulation, it might Q. increase the production rate, but this is too early to say. That's why I say, I could not give a specific number. just depends on what would be the fluid properties and what would be the production rate that we might end up with.

Uh-huh.

And also there is another thing, we haven been able to get any gas from the reservoir, which we suspect some kind of possible damage in the zone, and as you know yourself, it's probably lower -- the low permeability, which we might increase. So in that case, if we get gas production up, we might get a better production rate.

Well, you stimulated with 5000 gallons of

acid but you've got 30 feet of perforations there.

And the perforations are 30 feet, but the net pay we estimated would be about 4 feet, that's --MR. BOYLE: 4 to 5.

4 to 5 feet, and that's another factor that I feel confident that we might get area drained because of the limited reservoir limits.

Well, it appears your water/oil ratio is Q. going down, however, isn't it?

That's -- that's right. That's what we A.

have seen. 25

But the gas production has not gone up

2

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

23

24

25

Well, at one time -- first it was too small at all. to measure, but then it went to 10 Mcf per day and one time 20, but then it went down again, so we were trying to -- I did -- we did try to get a fluid sample and since we have water production we could not get a downhole sample, and then we tried to get the surface sample, but we did not have a GOR accurately measured, so we could not get a fluid sample, and that's the reason that our data is limited, and we try to wait until we get a good GOR and possibly get a fluid sample through a combination of the surface materials.

Well now, --

But I should mention again that economics also showed that we won't be able to really develop on this field on 40-acre spacing unless we have some higher production rates so we could payout our expenses.

Do you know whether Shell has any plans Q. for drilling a second well in here or not?

We are thinking of this.

But you haven't made any definite commit-Q.

ment to a second well? 22

We're trying to wait to see exactly what happens to this well. Once we get good data and reasonably estimated reserve and payout, but the difference, and this I

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

noted, 40-acre is out of the picture because it won't pay for the expenses, but 80-acre, we feel confident that it would pay out, but we are waiting for more data and we are waiting for better production rate.

- Is this well flowing or pumping?
- It's pumping.
- What did the well cost to drill and to complete, including pumping unit?
 - Close to \$1-million.
- Now, on this Exhibit Number Six, I notice that the well is drilled on a lease that's called the C. W. Williams, Jr. lease. Does Shell own that lease now?
 - We farm that unit.

MR. LOPEZ: We might refer to Mr. Boyle to answer that question.

MR. NUTTER: Mr. Boyle?

MR, BOYLE: Yes, sir, this was the lease that -- we had an anomaly in this area, and part of the anomaly was on Clayton Williams' acreage, and so we went to Mr. Williams and negotiated a contract with him to farm that acreage in, and in the farmout we got a -- we gave him -- he has an eighth until the well is paid out and then he has an option to come in for a 41 percent working interest, and we have a 59 percent working interest.

MR. NUTTER: Well, it would appear from

11 12

14

15

16

17 18

20

22

21

23

24

Exhibit Six that the Williams lease --

MR. BOYLE: That is part that we -- that is part of our acreage that we got a farmout from Williams. We farmed out Section 2 and Section 3.

MR. NUTTER: So you've got a farmout there covering --

> MR. BOYLE: Yes.

MR. NUTTER: contwo full sections.

MR. BOYLE: Two full sections, correct.

MR. NUTTER: And you also have some

acreage to the north there.

MR. BOYLE: And we have acreage in there, so that is -- that is the reason that -- and we do have, we have plans to drill either in Section 2 -- or in Section 3 or the west -- or the east half of 2. Both of those are separate leases.

I might also add that in -- with what Mr. Tavakol mentioned, that he is correct, at this time it is rather early to try to estimate volumes. I think from -- he has -- he has some data which we could offer as an exhibit, but if you go down to Lea County and Chaves County, there's just -- just by analogy, there are wells that produce out of the Bough that are anywhere from 4 feet to 8 feet of pay, and 7 to 8 percent is the average porosity, and water saturation is from 30 to 35. We do have data to back that up, and so

based on that sort of empirical data of 30 to 35 percent water saturation, of porosity of 7 to 8, and pay ranging from anywhere, some of them 3 feet to 8 feet, 10 feet, we thought that at least initially we would ask for 80 acres.

MR. NUTTER: Okay, now you covered all of the reservoir factors with the exception of permeability. How does this permeability compare with those reservoirs?

MR. BOYLE: I don't know.

A. It is -- I tried -- I tried to obtain this data. The data is very limited.

MR. BOYLE: It's pretty hard to do.

A. I really -- it was hard. I tried the Commission to get some public data and I could not get any permeability.

So -- but I just feel since everything else is similar, so permeability should be similar, too. We have the same porosity, same water saturation.

MR. NUTTER: Same thickness of pay.

MR. BOYLE: Those -- those are figures that you can figure off of the sonic or gamma ray or density logs, even though that other data, most of the time, isn't available, so the permeability, at least, so that's what we're basing this on.

MR. LOPEZ: I might ask Mr. Boyle, your plans or intentions to drill a second well on this farmed out

acreage, as well as your own acreage, is dependent upon the success of this application in large part, is it not?

MR. BOYLE: That is, yes, that is somewhat correct, yes, sir. We have a -- if I may speak again -- we have an agreement with Mr. Williams that this is on a drill to earn basis, and with 120 days between wells, and this well was -- was filed with the Commission on June 25th, 1980, but subsequent to that we went up and tested the San Andres and spent about three to four weeks, almost a month, testing the San Andres. It proved to be water-bearing, so they dropped back down and started pumping again, the -- pumping the San Andres -- pumping the Penn, and we did have some pump problems.

MR. NUTTER: Thank you. Are there any further questions of Mr. Tavakol?

MR. BENESCHEK: Mr. Examiner, I have a question.

MR. NUTTER: All right, sir.

QUESTIONS BY MR. BENESCHEK:

O. I don't recall that you asked the price of oil; you can't very well know the economics unless you know the price of oil that you're going to get down there.

- A. What -- what is the price of oil?
- Q. Yes, what are you going to get?
- A. Well, based on 30 percent of windfall

3

10 11

12

13

15

14

16

17 18

19 20

21

22

23

24

25

profit tax --

I'm familiar with that.

Yeah, I assume somewhere around \$15.00, after the windfall profit tax.

This is new oil, it would be more than that, wouldn't it?

That's right. Well, after the windfall A. profit tax is out of it, and the --

Sounds low, but okay. You also allude, as Mr. Boyle did, to 80-acre spacing in the Peterson Field. I think if you'll check the records you'll find that the Peterson Field is 160 acres for a Penn well, and the reservoir characteristics are very similar to what you speak of.

The South Peterson Field is 80 acres per well, and I think that the Commission is probably going to have to do some soul-searching the next time an operator asks for 160 acres in the Peterson Field.

I agree with your request, as an ex-employee, that 80 acres per well is much better than 160 acres per well, and your computations, also, and I understand your permeability problem, because I went through this in the Peterson Field.

Now I could ask just one other question. Do you have any information on vertical and horizontal communication in those carbonates?

You mean within the Penn zone and other

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Q.

zones in the --

Q. You have perforated 7733 to 7763.

A. Correct.

Q I don't know if you got all that alphabet soup or not. I've never heard of that before. But you know, there are stringers in that type of reservoir, and you may have perforated all that, I don't know. Okay, you did not. He's shaking his head no. All right. Do you know as yet whether or not you have horizontal and/or vertical communication, which would make some difference in your -- in your interpreting, and which you might do something else to the well later? I think Mr. Boyle can respond to that.

A. Yes, I ---

MR. BOYLE: May I answer that? Again, what was your name?

MR. BENESCHEK: I'm Beneschek.

MR. BOYLE: Beneschek.

MR, BENESCHEK: I own property in the

area.

MR. BOYLE: Okay, Mr. Beneschek. As you know, having studied the Peterson Field, the Bough zones, you know, A, B, C, and so on, are usually separated by shales of 20 to 30 feet. To my knowledge, I don't think those are usually communicated. I think they're probably separate reservoirs, reservoir pods, and have probably leached out a ways.

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

at all.

We perforated off our logs, mainly in this zone at 70 -- I'd have to go back and look at the log, it would be 5 feet on that log, and then we perforated a couple couple of feet below; it is a gross interval of 30 feet, and we put 15 holes, out in --

MR. TAVAKOL: Yes sir, that's right.

MR. NUTTER: You've got 15 holes scattered through 30 feet, then, it's not 1 hole every 2 feet? All the way through?

MR. BOYLE: I don't think I -- where are those well logs?

MR. TAVAKOL: Let me check on that to be sure.

MR. BOYLE: I might, if I might continue, to add that our petrophysical analysis, done by Mr. Phil Henning (sic), they picked what they thought was all the porosity we could get off the logs, and we perforated those.

Go ahead.

MR. TAVAKOL: Would you like me to read the perforation intervals?

MR. NUTTER: I think that wouldn't hurt

MR. TAVAKOL: Okay. 7733 to 7739; 7743 to 7745; 7754 to 7756; 7762 to 7763. And there's fifteen holes.

MR. BENESCHEK: And you perforated some-

3

5

6

7

8

9

10

11

12

13

14

15

24

25

where within all of these sections that you think had pay? MR. BOYLE: Yes, anything that showed porosity on the sonic and the density logs, which we, you know, and as I mentioned in Exhibit Five, I believe it was, the cross section, there was that one well in the Peterson Field that produces from the C and what we call E and F, and then another well that just produced from the C, and then there's other wells produce E and F, and we think, without going into a lot of geology and digenesis and leaching, and so on, that some zones are leached in one area and, as you know, in carbonates, in one location over they won't be leached, and unfortunately, that's kind of the history of the Bough. You get a good well; you can offset it and get a poor well, and vice versa. It just depends. Once you start drilling up the whole albamound (sic) complex, you're going to get good wells and you're going to get some bad wells, and I think historically we can -- we can demonstrate that by 16 looking at all the field studies from the Roswell Geological 17 Society from Beta Field, on Indio, South Indio, and Prairie, 18 and Cisco, Bar-U, and so on, Lane, Mid-Lane, and South Lane 19 (sic). It is a variable reservoir, unfortunately; it's not 20 21 MR, BENESCHEK: Thank you. Mr. Examiner, like a nice sand. 22 I don't have any other questions except to reiterate my com-23 ments. I'm glad to see this is on 80 acres, but I think the

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

point again should be made that when an operator requests

160 acres in Peterson Field, serious consideration should be

given to study the reserves and recovery, et cetera.

MR. NUTTER: Of course, the Peterson Field

is not the subject of this hearing today at all.

MR. BENESCHEK: I understand that, sir,

MR. TAVAKOL: Well, I guess you know, we did not ask for 160 acres. That's -- we're going for the minimum that we think is sufficient.

but the reservoir characteristics are identical, according to

MR. BENESCHEK: I agree, as an engineer I agree.

MR. TAVAKOL: Thank you.

MR. BENESCHEK: I have no -- no qualms

with that.

this witness.

MR. TAVAKOL: Thank you.

MR. NUTTER: Okay, are there any other questions of Mr. Tavakol? He may be excused.

Do you have anything further, Mr. Owen

Lopez?

MR. LOPEZ: No, Mr. Nutter, I surely don't.

MR. NUTTER: Does anyone have anything they

wish to offer in Case Number 7023? We'll take the case under advisement.

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREPY CERTIFY that the foregoing 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.

Snowy W. Bayd C.S.R.

I do hereay carrify that the foregoing is a contribe to one of the prescribings in the Ore. Than a string of Cuta Mo. 7023, heard by 100 on 10-1 1080.

..... Examiner Oir Conservation Division

2

10

11

12

13

14

15

16

17

19

20

23

24

25

dr/

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.	7023	
Ordon No	R-6489-B	

IN THE MATTER OF CASE 7023 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-6489, WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE STINGRAY-PENNSYLVANIAN POOL, ROOSEVELT COUNTY, NEW MEXICO, INCLUDING A PROVISION FOR 80-ACRE PRORATION UNITS.

Agu M.S.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 7

19 81 , at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of October , 19 81 , 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 by Order No. R-6489 and R-6489-A, dated NAMME October 20, 1980, temporary Special Rules and Regulations were promulgated for the Stingray-Pennsylvanian Pool, Roosevelt County, New Mexico, establishing 80-acre spacing units for a period of one year.

Rel

- (3) That pursuant to the provisions of Order No. R-6489 and R-6489 A, this case was reopened to allow the operators in the subject pool to appear and show cause why the Stingray-Pennsylvanian Pool should not be developed on 40-acre spacing units.
- (4) That no operator in the subject pool appeared to show cause why the Stingray-Pennsylvanian Pool should not be developed on 40-acre spacing units.
- (5) That it is not known at this time whether additional wells will be completed in the subject pool.
- (6) That the operators in the subject pool have not established that one well can efficiently and economically drain and develop 80 acres.
- 0rders No. R-6489 and R-6489-A should be abolished.

IT IS THEREFORE ORDERED:

- (1) That the Special Rules and Regulations governing the Stingray-Pennsylvanian Pool, Roosevelt County, New Mexico, promulgated by Order No. R-6489 and R-6489-A, are hereby abolished.
- (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.

DRAFT

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

fd/

1980.

OIL CONSERVATION DIVISION
CASE NO. 7023
Order No. R- 6489-A
APPLICATION OF SHELL OIL COMPANY FOR POOL
CREATION AND SPECIAL POOL RULES,
ROOSEVELT COUNTY, NEW MEXICO. NUNC PRO TUNC ORDER
BY THE DIVISION:
It appearing to the Division that Order No. R- 6489
dated, 19, does not correctly state the
intended order of the Division,
IT IS THEREFORE ORDERED:
(1) That Order No. (1) on Page 2 of Order No. R-6489,
Case No. 7023, be and the same is hereby corrected to read in its
entirety as follows:
"(1) That a new pool in Roosevelt County, New Mexico,
classified as an oil pool for Pennsylvanian production is
hereby created and designated as the Stingray-Pennsylvanian
Pool consisting of the following-described area:
TOWNSHIP 5 SOUTH, RANGE 32 EAST, NMPM Section 2: SW/4"
(2) That the correction set forth in this order be effective
nunc pro tunc as of October 20, 1980.
DONE at Santa Fe New Mexico on this day of November

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. 7023 Order No. R-6489

APPLICATION OF SHELL OIL COMPANY FOR POOL CREATION AND SPECIAL POOL RULES, ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 1, 1980, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 20th day of October, 1980, 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 a new oil pool for Pennsylvanian production should be created and designated the Stingray-Pennsylvanian Pool. This pool was discovered by the Shell Oil Company Askew Well No. 1, located in Unit L, Section 2, Township 5 South, Range 32 East, NMPM, Roosevelt County, New Mexico. The top of the perforations is at 7733 feet.
- (3) That Shell Oil Company seeks the promulgation of temporary special rules and regulations for the Stingray-Pennsylvanian Pool to provide for 80-acre proration units and well location requirements.
- (4) That the evidence presented concerning the reservoir characteristics of the Stingray-Pennsylvanian Pool justifies the establishment of 80-acre proration units in said pool for a temporary one year period.

Case No. 7023 Order No. R-6489

prohibiting the drilling of a well on each of the quarter- quarter sections in the unit.

RULE 3. For good cause shown, the Director may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising a single quarter-quarter section or lot. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application if, after a period of 30 days, no offset operator has entered an objection to the formation of such non-standard unit.

The allowable assigned to any such non-standard unit shall bear the same ratio to a standard allowable in the Stingray-Pennsylvanian Pool as the acreage in such non-standard unit bears to 80 acres.

- RULE 4. Each well drilled in the Stingray-Pennsylvanian Pool shall be located within 150 feet of the center of a governmental quarter-quarter section.
- RULE 5. An 80-acre proration unit (79 through 81 acres) in the Stingray-Pennsylvanian Pool shall be assigned an 80-acre depth bracket allowable of 267 barrels per day and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.
- (3) That this case shall be reopened at an examiner hearing in October, 1981, at which time the operators in the subject pool may appear and show cause why the Stingray-Pennsylvanian Pool should not be developed on 40-acre proration units.
- (4) That any operator desiring to dedicate 80 acres to a well in the Stingray-Pennsylvanian Pool shall file a new Form C-102 with the Division on or before November 1, 1980.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

RECEIVED

AUG 27 1980

bli Conservation

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION OF SHELL OIL COMPANY)	
FOR THE CREATION OF A NEW POOL)	
AND FOR TEMPORARY SPECIAL POOL)	
RULES FOR AN UNDESIGNATED POOL,)	No. 7023
SECTION 2, TOWNSHIP 5 SOUTH,)	
RANGE 33 EAST, N.M.P.M.,)	
ROOSEVELT COUNTY NEW MEXICO)	

APPLICATION

COMES NOW Shell Oil Company, by and through its attorneys, Montgomery & Andrews, P.A., and in support of its application herein states as follows:

- 1. Applicant has completed the Askew #1 Well at a standard location, 1980 feet from the South line and 660 feet from the West line, Section 2, Township 5 South, Range 33 East, N.M.P.M., Roosevelt County, New Mexico.
- 2. Applicant completed the aforesaid Well in the Pennsylvanian formation, the completion interval being from 7733 feet to 7763 feet.
- 3. On July 25, 1980, based on a rated 24-hour test, the well potential for the aforesaid Well was 75 barrels of oil per day which is considerably less than the statewide allowable for a well completed at such a depth.
- 4. Applicant seeks temporary special pool rules applicable to the Pennsylvanian formation, the top of which would be 7610 feet and the bottom of which would be 8034 feet, which would be the depth interval correlated to the aforesaid Askew #1 Well. Further, applicant requests that the special pool rules include a provision providing for 80 acre spacing.
- 5. The applicant would suggest to the Division that the name of the pool be the Stingray (Penn.).
- 6. The granting of the application is in the interest of the prevention of waste and the protection of correlative rights.

WHEREFORE, applicant respectfully requests that the Division set a day for hearing on the application and that it enter an order granting applicant's request for temporary special pool rules for an undesignated pool to be named the Stingray (Penn.) which would apply to applicant's Askew #1 Well located in Section 2, Township 5 South, Range 33 East, Roosevelt County, New Mexico. DATED this 21th day of August, 1980.

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

Owen M. Lopez P. O. Box 2307 Santa Fe, New Mexico 87501

Attorneys for Applicant Shell Oil Company

RECLIVED

AUG C. 17 8.

PH Charles In.

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION OF SHELL OIL COMPANY)			
FOR THE CREATION OF A NEW POOL)			
AND FOR TEMPORARY SPECIAL POOL)		* *	
RULES FOR AN UNDESIGNATED POOL,)	No.	7023	
SECTION 2, TOWNSHIP 5 SOUTH,)	-		
RANGE 33 EAST, N.M.P.M.,)			
ROOSEVELT COUNTY, NEW MEXICO.	j e			

APPLICATION

COMES NOW Shell Oil Company, by and through its attorneys, Montgomery & Andrews, P.A., and in support of its application herein states as follows:

- 1. Applicant has completed the Askew #1 Well at a standard location, 1980 feet from the South line and 660 feet from the West line, Section 2, Township 5 South, Range 33 East, N.M.P.M., Roosevelt County, New Mexico.
- 2. Applicant completed the aforesaid Well in the Pennsylvanian formation, the completion interval being from 7733 feet to 7763 feet.
- 3. On July 25, 1980, based on a rated 24-hour test, the well potential for the aforesaid Well was 75 barrels of oil per day which is considerably less than the statewide allowable for a well completed at such a depth.
- 4. Applicant seeks temporary special pool rules applicable to the Pennsylvanian formation, the top of which would be 7610 feet and the bottom of which would be 8034 feet, which would be the depth interval correlated to the aforesaid Askew #1 Well. Further, applicant requests that the special pool rules include a provision providing for 80 acre spacing.
- 5. The applicant would suggest to the Division that the name of the pool be the Stingray (Penn.).
- 6. The granting of the application is in the interest of the prevention of waste and the protection of correlative rights.

WHEREFORE, applicant respectfully requests that the Division set a day for hearing on the application and that it enter an order granting applicant's request for temporary special pool rules for an undesignated pool to be named the Stingray (Penn.) which would apply to applicant's Askew #1 Well located in Section 2, Township 5 South, Range 33 East, Roosevelt County, New Mexico.

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

Owen M. Lopez P. O. Box 2307

Santa Fe, New Mexico 8

Attorneys for Applicant Shell Oil Company

ME O E 1 Y P D

Oil Conservetor

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION OF SHELL OIL COMPANY)			
FOR THE CREATION OF A NEW POOL)			
AND FOR TEMPORARY SPECIAL POOL)			,
RULES FOR AN UNDESIGNATED POOL,)	No.	7023	
SECTION 2, TOWNSHIP 5 SOUTH,	j			
RANGE 33 EAST, N.M.P.M.,	Ś			
ROOSEVELT COUNTY. NEW MEXICO.	í			

APPLICATION

COMES NOW Shell Oil Company, by and through its attorneys, Montgomery & Andrews, P.A., and in support of its application herein states as follows:

- 1. Applicant has completed the Askew #1 Well at a standard location, 1980 feet from the South line and 660 feet from the West line, Section 2, Township 5 South, Range 33 East, N.M.P.M., Roosevelt County, New Mexico.
- 2. Applicant completed the aforesaid Well in the Pennsylvanian formation, the completion interval being from 7733 feet to 7763 feet.
- 3. On July 25, 1980, based on a rated 24-hour test, the well potential for the aforesaid Well was 75 barrels of oil per day which is considerably less than the statewide allowable for a well completed at such a depth.
- 4. Applicant seeks temporary special pool rules applicable to the Pennsylvanian formation, the top of which would be 7610 feet and the bottom of which would be 8034 feet, which would be the depth interval correlated to the aforesaid Askew #1 Well. Further, applicant requests that the special pool rules include a provision providing for 80 acre spacing.
- 5. The applicant would suggest to the Division that the name of the pool be the Stingray (Penn.).
- 6. The granting of the application is in the interest of the prevention of waste and the protection of correlative rights.

WHEREFORE, applicant respectfully requests that the Division set a day for hearing on the application and that it enter an order granting applicant's request for temporary special pool rules for an undesignated pool to be named the Stingray (Penn.) which would apply to applicant's Askew #1 Well located in Section 2, Township 5 South, Range 33 East, Roosevelt County, New Mexico. DATED this 21th day of August, 1980.

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

Owen M. Lopez P. O. Box 2307 Santa Fe, New Mexico

87501

Attorneys for Applicant Shell Oil Company

ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

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

7023 CASE NO.

Order No. <u>R-6489</u>

APPLICATION OF SHELL OIL COMPANY FOR POOL CREATION AND SPECIAL POOL RULES, ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

let 1

This cause came on for hearing at 9 a.m. on September 19_80, at Santa Fe, New Mexico, before Examiner day of September 19 80 NOW, on this___ 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 a new oil pool for Pennsylvanian production should be created and designated the Stingray-KenneyhanianPool This pool was discovered by the Shell Oil Company Askew Well No. 1, located in Unit L, Section 2, Township 5 South, Range 32. East, NMPM, Roosevelt County, New Mexico. The top of the perforations is at 7733 feet.

- (3) That Shell Oil Company seeks the promulgation of temporary special rules and regulations for the Stingley
 and well location requirements.
- (4) That the evidence presented concerning the reservoir characteristics of the Strington Pool justifies the establishment of 80-acre proration units in said pool for a temporary one year period available.
- Pool can dispartly be efficiently and economically drained on 80-acre proration units.
- (6) That the evidence establishes that the subject pool should be developed with fixed well location requirements in order to protect correlative rights.
- (7) That during the one-year period in which this order will be in effect, the applicant should gather all available information relative to drainage and recoverable reserves in the subject pool.

IT IS THEREFORE ORDERED:

(1) That a new pool in Roosevelt County, New Mexico, classified as an oil pool for Pennsylvanian production is hereby created and designated as the **Thursay Romany Warrantee**Pool consisting of the following-described area:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM Section 2: 5 W 4

(2) That special rules and regulations for the <u>Strugtar</u>

Pool are hereby promulgated as follows,

effective October 1, 1980.

SPECIAL RULES AND REGULATIONS
FOR THE

Stinging - Penn & Vanion Prol

Pool or in the Pennsylvanian formation within one mile of the Angles of another designated Pennsylvanian pool shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

Pool shall be located on a unit containing 80 acres, more or less, which consists of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. For good cause shown, the Director may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising a single quarter-quarter section or lot. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application if, after a period of 30 days, no offset operator has entered an objection to the formation of such non-standard unit.

The allowable assigned to any such non-standard unit shall bear the same ratio to a standard allowable in the Singra-Pool as the acreage in such non-standard unit bears to 80 acres.

Pool shall be located in the NW/4 or tile JE/4 of a governmental

a governmental quarter-quarter section.

RULE 5. An 80-acre proration unit (79 through 81 acres) in the shift of the property of the same and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

- (3) That this case shall be reopened at an examiner hearing in Covered, 1981, at which time the operators in the subject pool may appear and show cause why the Stuggay.

 Pool should not be developed on 40-acre proration units.
- (4) That any operator desiring to dedicate 80 acres to a well in the Skings of Pool shall file a new Form C-102 with the Division on or before
- (5) 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. Dockets Nos. 30-80 and 31-80 are tentatively set for October 1 and 15, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 17, 1980

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

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

- ALLOWABLE: (1) Consideration of the allowable production of gas for October, 1980, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
 - (2) Consideration of the allowable production of gas for October, 1980, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
- Application of Gulf Oil Corporation for simultaneous dedication, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a previously approved 477-acre non-standard gas proration unit comprising the N/2 and SE/4 of Section 19, Township 19 South, Range 37 East, Eumont Gas Pool, to its B. V. Culp (NCT-A) Wells Nos. 3 and 9 located in Units F and J, respectively, of said Section 19.
- CASE 6961: (Continued from August 20, 1980, Examiner Hearing)

Application of Comoco Inc. for a dual completion and unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Meyer A-29 Well No. 11 to be drilled at an unorthodox location 990 feet from the North line and 660 feet from the East line of Section 29, Township 22 South, Range 36 East, to produce gas from the Langley-Devonian and -Ellenburger Pools thru parallel strings of tubing, the E/2 of said Section 29 to be dedicated to the well.

- CASE 7022: Application of Texas Pacific Oil Company, Inc. for a non-standard proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a 320-acre non-standard proration unit comprising the N/2 of Section 9, Township 22 South, Range 36 East, Jalmat Gas Pool, to its Wells Nos. 40 and 63 located in Units A and C, respectively, of said Section 9. Applicant further seeks approval to simultaneously dedicate its Wells Nos. 14, 36, 42, and 62 located in Units B, N, E, and K, respectively, of Section 11, Township 22 South, Range 36 East, to a standard proration unit to be comprised of all of said Section 11
- CASE 7008: (Continued from August 20, 1980, Examiner Hearing)

Application of Coronado Exploration Corp. for eight compulsory poolings, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying eight 40-acre proration units, being the NE/4 NE/4 of Section 4 and the NW/4 NE/4 of Section 5, both in Township 12 South, Range 28 East, and the NW/4 SE/4 of Section 6, the NE/4 NW/4 of Section 23, the NE/4 SE/4 of Section 28, the SE/4 SE/4 of Section 29, the NE/4 NW/4 of Section 32, and the SE/4 NW/4 of Section 33, all in Township 11 South, Range 28 East, each 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 wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a charge for risk involved in drilling said wells.

CASE 7004: (Continued from August 20, 1980, Examiner Hearing)

Application of Anadarko Production Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Morrow formations underlying the N/2 of Section 12, Township 19 South, Range 25 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, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7023: Application of Shell Oil Company for pool creation and temporary special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian oil pool for its Askew Well No. 1 located in Unit L of Section 2, Township 5 South, Range 33 East, and the promulgation of special pool rules therefor, including a provision for 80-acre spacing.

						P	API# 30-0	-205	33		
	***	Exhibit	No. 7							n C-105	
DISTRIBUTION	<u></u>										r of Leane
SANTA FE		_					DMMISSION		ريزي ا	- []	ree [
FILE		WELL COMPL	ETION C	OR REC	OMPLETI	ON I	REPORT A	LOG	1		25 Leose No.
U.S.G.S.									NH 2		•
OPERATOR						•			1777	mm.	7/1/////
									IIII		
IL TYPE OF WELL									7. 1lini	intermen	it liame
	016 W.E	(A		081]				1		
L TYPE OF COMPLE				V41 C	, 01868					or Lease	
### X	PR	EN DEN		274.	отиса				i	1 Aske	:W
2, Name of Cherator									9. Well	No.	
Shell Oil Co	mpany								1		
1. Address of Operator		•							1		ol, or Wildeat
P.O. Box 991	l, 237 T&C,	Houston, T	X 77001	· 					Wild	cat	
t. Location of Well											
		1000			4 L		660				
-	Lacates	1900	FROM THE	Sou	EU TING YE	77	660	ET FROM	12. Cow	77777	44444
wast	2	£0	22	· E	IIII).					evelt	Allilli
THE WEST LINE OF		TWP. 5S Reached 17, Date		E		777					VIIIII
4-9-80	5-25-80	7.0	5/80				.2' GR	ND, NT, U	A. e.e./	17, Liev.	Cusiningia
20, Total Depth	.1	ug Back T.D.		If Multip	le Compl., H		23, Intervals	. Rotar	v Tools	Co	ble Tools
8973'		8280'		Liany			Drilled B	> Rot			
24. Producing Interval	s), of this comple		r. Nome					, 100	ary	125. Wa	s Directional Sur
			•		• .					Мэ	
7733'-7763'	•									No	
26. Type Electric and	Other Logs Run								27	. Was We	II Cored
MLL/ML, GNL/									1	Y	es
28.		CA	SING RECO	ORD (Rep	ort all string	1 101	in well)				
CASING SIZE	WEIGHT LB.	/FT. DEPT	HSET	ног	E SIZE	1	CEMENT	ING RECO	RD	1	MOUNT PULLE
20"	conduct	tor 40'			24"	40	sx Redi	Mix	····		-0
13 3/8"	48#	412		17	1/2"		0 sx Clas				0
8 5/8"	32#	3329	5'	12	1/4"	750	O sx Clas	s H,80	Osx Li	te	0
5 1/2"	17,20,15.	5,14 8330)'	7 7	7/8"		70 sx Cla				. 0
29.	i.	INER RECORD					30.	Ţ	UBING R	ECORD	
SIZE	TOP	воттом	SACKS C	EMENT	SCREEN		SIZE	DE	TH SET		PACKER SET
							2 7/8"	757	5		7575
		<u> </u>	<u> </u>					<u> </u>			
31. Perforction Record	Interval, size and	d number)			32.	ACI	D, SHOT, FRA	CTURE,	CEMENT	SOUEEZI	E, ETC.
					DEPTH	INT	ERVAL	AMOU	NT AND	KIND MA	TERIAL USED
	_										
					7733-	-//6		2000 g			
7733'-7763'	15 holes							3000 g	als 20	1% HUL	
4.4	·			B000	L					 _	
Date First Production	Produ	ction Method (Flo	wine eas li		JCTION	divo	e (ump)		Well St	the Proc	l. or Shui-in)
	1			,,, ,,		۵.,,	, p.m.p.,				a the one; they
5/30/80 Date of Test	Hows Tested	SWabbing Choke Size	Prod'n.	For	OII Bbl.		Gos - MCF	Walet	- Bbl.	t-in Gos-	-Oll Railo
6/30/80	8		Test Per		25	- 1	TSTM	•	48	- 1	
Flow Tubing Press.	Casing Pressure	Calculated 24	- OII - BE	»I.	Gos - N	ACF	Water	- Bbl.	7	II Gravit	y - API (Cort.)
0	Ò	How Rate	75		TS	MT	}	144		3.4° (
34. Disposition of Gos (Sold, used for fue	il, vented, etc.)						Test	Wilnessee	i By	
No gas i	ecorded										
35. List of Attachments				·					 		
Inclination S	iurvey										
36. I hereby certify the	the information s	houn on both side	s of this for	m is true	and complet	e w	the best of my	knowledg	e and beli	ef	
/.l ·											
(1.)	Jack	. J Fore		. Sen	ior Foor	- 7	erhairia:	n		7-25-5	ลก

EXHIBIT No. _8_

DATA SHEET

SHELL ASKEW NO. 1-2

PHYSICAL PROPERTIES OF RESERVOIR ROCKS

Average Porosity $(%) = 7 \log \text{ analysis}$

Average Permeability (md) = 3 core analysis

Average oil and interstitial water saturations (%) = So 69

Sw 31

RESERVOIR FLUID CHARACTERISTICS

Average Gravity of Oil --- 44.4 API @ 60°

Average Gravity of Gas --- 1.0827 @ 60°

Formation Volume Factor --- 1.1

Viscosity of Oil (Centipoises) --- 0.758

AREA FIELDS HAVING 80 ACRE SPACING OR MORE

Field Name	Location	County	Spacing
Allison-Penn.	T-8 & 9-S, R-36 & 37-E	Lea & Roosevelt	80
Inbe - Penn.	T-10 & 11-S, R-33 & 34-E	Lea	80
Prairie Cisco	T-8-S, R-36-E	Roosevelt	80
Vada - Penn	T-8-S, R-34/36-E	Lea & Roosevelt	160
	T-9-S, R-33/36-E		
	T-10-S, R-33/34-E		

MR. STAMETS: We'll call next Case 7023.

MR. PADILLA: Application of Shell Oil

Company for pool creation and temporary special pool rules, Roosevelt County, New Mexico.

MR. STAMETS: At the request of the applicant this case will be continued to the October 1st Examiner Hearing.

(Hearing concluded.)

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREPY CERTIFY that the foregoing 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.

Steey W. Boyd C. S.E.

I do he any certify that the foregoing is a complete surerd of the proceedings in the Examiner hearing of Case No. 7023.

Oil Conservation Division

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

1

3

_

6

8

10

12

13 14

15

16

17 18

19

20

22

23

24

26

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
17 September 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Shell Oil Company for) pool creation and temporary special) pool rules, Roosevelt County, New) Mexico.

CASE 7023

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

For the Applicant:

W. BOYD, C.S.R.

Rt. 1 Box 193-B anta Fe, New Mexico 87501 phone (405) 455-7409 MR. STAMETS: We'll call next Case 7023.

MR. PADILLA: Application of Shell Oil

Company for pool creation and temporary special pool rules.

Roosevelt County, New Mexico.

MR. STAMETS: At the request of the applicant this case will be continued to the October 1st Examiner Hearing.

(Hearing concluded.)

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREPY CERTIFY that the foregoing 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.

I do hereby certify that the foregoing a complete report of the proceedings	is in
the Executive houring of Case No	
Oil Conservation Division	iner

SALLY W. BOYD, C.S.I Rt. 1 Box 193-B Santa Fe, New Mexico 87501 Phone (505) 435-7409

Santa Fe, New Me

ĩĩ

J. O. SETH (1883-1963)

A. K. MONTGOMERY
FRANK ANDREWS
SETH D. MONTGOMERY
FRANK ANDREWS III
OWEN M. LOPEZ
VICTOR R. ORTEGA
JEFFREY R. BRANNEN
JOHN B. POUND
GARY R. KILPATRIC
THOMAB W. OLSON
WALTER J. MELENDRES
BRUCE L. HERR
MICHAEL W. BRENNAN
ROBERT P. WORCESTER
JOHN B. DRAPER
NANCY M. ANDERSON
RUDOLPH B. SACKS, JR.
W. CLINT PARSLEY
JANET MCL. MGKAY

MONTGOMERY & ANDREWS

PROFESSIONAL ASSOCIATION ATTORNEYS AND COUNSELORS AT LAW 325 PASEO DE PERALTA POST OFFICE BOX 2307 SANTA FE, NEW MEXICO 87501

TELEPHONE 505-982-3873

TELECOPY 505-982-4289

September 10, 1980

New Mexico Oil Conservation Commission State Land Office Building Santa Fe, New Mexico 87503

Attention: Mr. Richard L. Stamets, Examiner

Application of Shell Oil Company for Pool Creation and Temporary Special Pool Rules, Roosevelt County, New Mexico N.M.O.C.C. Case No. 7023

Gentlemen:

We hereby request a continuance of the above-referenced case from Wednesday, September 17, 1980 to Wednesday, October 1, 1980.

Thank you for your consideration in this matter.

OML: to

cc: Mr. Ernie Padilla

J. O. SETH (1883-1963)

A. K. MONTGOMERY
PRANK ANDREWS
SETH D. MONTGOMERY
FRANK ANDREWS III
OWEN M. LOPEZ
VICTOR R. ORTEGA
JOHN B. POUND
JOHN B. POUND
JOHN B. POUND
GARY R. KILPATRIC
THOMAS W. OLSOI
WALTER J. MELEBERES EP I 2 1980
MICHAEL W. BRENNAN
ROBERT P. WORCESTER
JOHN B. ORAPERCONS
RUDOLPH B. SACKS, JR. SANTA FE
JANET MCL. MCKAY

MONTGOMERY & ANDREWS
PROFESSIONAL ASSOCIATION
ATTORNEYS AND COUNSELORS AT LAW
325 PASEO DE PERALTA
POST OFFICE BOX 2307

SANTA FE, NEW MEXICO 87501

September 10, 1980

TELEPHONE 505-982-3873

TELECOPY 505-982-4289

New Mexico Oil Conservation Commission State Land Office Building Santa Fe, New Mexico 87503

Attention: Mr. Richard L. Stamets, Examiner

Re: Application of Shell Oil Company for Pool Creation and Temporary Special Pool Rules, Roosevelt County, New Mexico N.M.O.C.C. Case No. 7023

Gontlemen:

We hereby request a continuance of the above-referenced case from Wednesday, September 17, 1980 to Wednesday, October 1, 1980.

Thank you for your consideration in this matter.

Charles Valores

Owen M. Lopez

OML: to

cc: Mr. Ernie Padilla

Dockets Nos. 31-80 and 32-80 are tentatively set for October 15 and 29, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 1, 1980

9 A.M. - QIL 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:

CASE 7029: In the matter of the hearing called by the Oil Conservation Division on its own motion to consider amendments to its special rules and procedures for the designation of "tight formation", promulgated by Division Order No. R-6388, to comply with FERC Order No. 99, issued August 15, 1980, promulgating final regulations with respect to Section 107 of the NGPA.

CASE 7030: In the matter of the hearing called by the Oil Conservation Division on its own motion to consider amendments to its SPECIAL RULES FOR APPLICATIONS FOR WELLHEAD PRICE CEILING CATEGORY DETERMINATIONS as promulgated by Division Order No. R-5878, as amended. The proposed amendments relate to individual well filings for price category determination as "tight formation" gas under Section 107 of the NGPA.

CASE 7031: Application of Coronado Exploration Corp. for a unit agreement, Guadalupe County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the Mesa Leon Unit Area, comprising 15,680 acres, more or less, of State, Federal, and fee lands in Township 6 North, Range 17 East.

CASE 7007: (Continued from September 3, 1980, Examiner Hearing)

Application of Harvey E. Yates Company for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Morrow and Atoka production in the wellbore of its North Travis 12 Deep Well No. 1 located in Unit 0 of Section 12, Township 18 South, Range 28 East.

CASE 7023: (Continued from September 17, 1980, Examiner Hearing)

Application of Shell Oil Company for pool creation and temporary special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian oil pool for its Askew Well No. 1 located in Unit L of Section 2, Township 5 South, Range 33 East, and the promulgation of special pool rules therefor, including a provision for 80-acre spacing.

CASE 7019: (Continued from September 17, 1980, Examiner Hearing)

Application of Amoco Production Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 30, Township 23 South, Range 25 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, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7032: Application of Dalport Oil Corporation for an exception to Order No. R-3221, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit disposal of produced brine into an unlined surface pit located between Units L and M of Section 9, Township 15 South, Range 30 East.

Application of Adams Exploration Inc. for three non-standard proration units, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks approval of three 80-acre non-standard proration units in the Vada-Pennsylvanian Pool, comprising the following acreage: SE/4 NE/4 and NE/4 SE/4 of Section 12, N/2 NE/4 of Section 12, and S/2 SE/4 of Section 2, all in Township 9 South, Range 34 East.

CASE 6940: (Continued from August 20, 1980, Examiner Hearing)

Application of Adobe Oil Company for compulsory pooling, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests down through the Wolfcamp formation underlying the NW/4 SE/4 for oil and the SE/4 for gas, Section 23, Township 20 South, Range 38 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, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

Page 3 of 3 Examiner Hearing - Wednesday - October 1, 1980

Docket No. 30-80

CASE 6618: (Reopened and Readvertised)

In the matter of Case 6618 being reopened pursuant to the provisions of Order No. R-6103 which order created the Travis-Yates Gas Pool in Eddy County, New Mexico, with temporary special rules and regulations including a provision for 80-acre spacing units. Operators in said pool may appear and show cause why the pool should not be developed on 160-acre spacing units.

CASE 6648: (Reopened and Readvertised)

In the matter of Case 6648 being reopened pursuant to the provisions of Order No. R-6124 which order promulgated temporary special rules and regulations for the North Caprock-Mississippian Pool in Lea County, New Mexico, including a provision for 160-acre spacing and a 4000 to one gas-oil ratio limitation. Operators in said pool may appear and show cause why the pool should not be developed on 40-acre spacing with a 2000 to one GOR.



STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION •

POST OFFICÉ BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 8750 (505) 827-2434

October 23, 1980

Mr. Owen Lopez Montgomery, Andrews & Hannahs	ORDER NO
Attorneys at Law Post Office Box 2307 Santa Fe, New Mexico 87501	Applicant:
Santa 10, non	Shell Oil Company
Dear Sir:	famongod
Enclosed herewith are two copi Division order recently entere	les of the above-referenced ed in the subject case.
Yours very truly.	
JOE D. RAMEY Director	
•	
JDR/fd	
Copy of order also sent to:	·
Hobbs OCD x Artesia OCD x Aztec OCD	
Other	