	3 SUSPENDER 03 ENGINEER MS LOGGED IN KN TYPE NSL OKANO309734607
	ABOVE THIS LINE FOR DIVISION USE ONLY
	NEW MEXICO OIL CONSERVATION DIVISION - Engineering Bureau - 1220 South St. Francis Drive, Santa Fe, NM 87505
	ADMINISTRATIVE APPLICATION CHECKLIST
	CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATION WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE
	ion Acronyms: NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication] [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling] [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement] [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion] [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase] [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]
[1] 7	FYPE OF APPLICATION - Check Those Which Apply for [A] [A] Location - Spacing Unit - Simultaneous Dedication [X] NSL [X] NSP [B] Commingling - Storage - Measurement [B] DHC [CTB PLC [A] OLM
	[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
	[D] Other: Specify
[2]	IOTIFICATION REQUIRED TO: - Check Those Which Apply, or □ Does Not Apply[A]XWorking, Royalty or Overriding Royalty Interest Owners
	[B] Offset Operators, Leaseholders or Surface Owner
	[C] Application is One Which Requires Published Legal Notice
	[D] Notification and/or Concurrent Approval by BLM or SLO U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
	[E] For all of the above, Proof of Notification or Publication is Attached, and/or,
	[F] Waivers are Attached
	SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

William R. Huck

<u>Signature</u>

VP - Engr. & Operations 3/20/03 Title

Print or Type Name

Date <u>billhe peux Production:</u> e-mail Address com



400 W. Illinois, Suite 1070, Midland, Texas 79701 | 915-620-8480 ofc | 915-682-2197 fax

April 03, 2003

Oil Conservation Division Kathy Valdez 1220 South St. Francis Drive Santa Fe, NM 87505

RE: Pecos Production Company – <u>Non-Standard</u> Location Application's Fort 21 No. 1 and Overland No. 1

Dear Kathy:

Enclosed please find the Administrative Application for Non-Standard location for the wells listed above. Please forward the Fort 21 No. 1 application to Mr. Michael Stogner for his review. If you need additional information or have any questions contact me at (915) 620-8480.

Thank you, Dora Bustamante \overrightarrow{V}^{U} Engineer Assistant

Pecos Production Company 400 W. Illinois Suite 1070 Midland, TX 79701

March 24, 2003

New Mexico Oil Conservation Division 1220 South St Francis Drive Santa Fe, New Mexico 87505

Attn: Mr. Michael E. Stogner

RE: Administrative Application of Pecos Production Company For Approval of an Non-Standard Well Location. Section 21, T-14S, R-34E, Lea Co., New Mexico

Mr. Stogner,

Pecos Production Company, in accordance with Rule 19 NMAC 15.C.104.F, applies to the New Mexico Oil Conservation Division for approval of an non-standard gas well location for any production from the Atoka, Morrow, and Mississippian Formations for its proposed FORT 21 NO. 1 well, to be drilled at a location 2310' FNL and 1978' FEL of Section 21, Township 14 South, Range 34 East, Lea County, New Mexico, to be dedicated to proposed 320 acre proration unit consisting of the E/2 of Section 21. In support of the application, Pecos Production Company respectfully submits the following:

- 1. That Pecos Production Company is the operator of the subject well, and the operator of the entire leasehold interest in the proposed Proration Unit. (C-102 attached as Exhibit 1).
- 2. The proposed well is a wildcat test, and its location was chosen from analysis of 3-D seismic data as the optimum location for a successful test of the target formations. The proposed location is the maximum distance from the inside quarter-section line that will still encounter the Atoka, Morrow and Mississippian Formations at what appears to be the optimum geologic location, (Geological analysis attached as Exhibit 2).
- 3. Working Interest and Mineral Ownership has been pooled as to the Atoka Formation and all depths below and therefore is common for the entire 320 acres. Pooling Agreement attached as exhibit 3.

4. Although the Pennsylvanian Formation is not considered prospective at this location, it has produced in the surrounding area in the High Plains; Permo Upper Penn Field, the Cerca; Upper Penn Field, and the Saunders; Permo Penn East Field. The proposed location would be unorthodox for a Pennsylvanian Completion, and approval is requested for this horizon also. The offsetting affected proration unit is designated on Exhibit 4. Working Interest Ownership is common with the lands under the subject location. The affected royalty ownership owns 93.75% of the minerals in the 160 acres under the subject location. These Owners have been notified of the proposed drillsite and waivers will be forwarded as soon as they are received.

Pecos Production Company therefore requests that this application be approved administratively, or in the timeliest manner possible.

Respectfully submitted,

Pecos Production Company

Will noted

William R. Huck, P.E. Vice President, Engr & Operations.

Enclosures

•

		FORT 21							1	
OGRID No.			Elevation							
215758			F	4124'						
Surface Location										
UL or lot No. Se	ction	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	Bast/West line	County	
G	21	14-S	34-E		2310'	NORTH	1978'	EAST	LEA	
L			Bottom	Hole Lo	cation If Diffe	erent From Sur	face		L	
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					Pecos	PROD	OPERATO	OR CERTIFICAT	TION	
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			ORDINATES	Ν	1		actual surveys	made by me ar	under my	
		SEODETIC CO NAD 27						d that the same is e best of my belie		
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				<u> </u>		<u> </u>	Signature &	Seal of O	A.W.B	
	1			۲. N	1		Professional	Surveyor		
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DISTRICT II P.O. Drawer DD, Artesis, NM 68211-0719

P.O. Box 1980, Hobbs, NM 88241-1980

.

DISTRICT I

DISTRICT IV

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 67410

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

Property Code

API Number

P.O. Box 2088 Santa Fe, New Mexico 87504–2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

Property Name

Pool Code

OIL CONSERVATION DIVISION

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised February 10, 1994 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

X AMENDED REPORT

Well Number

G. /

APR 0 1 2003

Pool Name

T

Wildcat

District J 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Form C-101 Revised March 17, 1999

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit to appropriate District Office State Lease - 6 Copies Fee Lease - 5 Copies

AMENDED REPORT

	APP	LICA'					RE-EN	TER, DEI	EPEN, F	LUGBACK,				
¹ Operator Name and Address Pecos Production Company							² OGRID Number 215758							
400 W. Illinois, Suite 1070									³ API Number					
10				Midland, T	<u>x 79701</u>					30 -	30 - ⁶ Well No.			
⁹ Prope	rty Code						operty Nan Fort 21	ne				^e weii 1	I NO.	
							face Lo	cation					- -	
UL or lot no.	Section	Town	ship	Range	Lot		Feet from th			East/West line		County		
J	21	14	s	34E			2310'		orth	1978'	Ea	st	Lea	
			8	³ Proposed	Bottom	n Hole I	ocation	n If Diffe	rent Fr	om Surface				
UL or lot no.	Section	Town		Range	1		Feet from th			Feet from the	East/We	est line	County	
		I	۶P	roposed Pool 1 Wildcat		J				¹⁰ Pro	posed Pool	2		
		p-				· · · · · · · · · · · · · · · · · · ·	13					15 -		
1	Type Code N			¹² Well Type Coo G	le		¹³ Cable/Ro R	tary		Lease Type Code P			nd Level Elevation 4124'	
¹⁶ M	ultiple			¹⁷ Proposed Dept	h	¹⁸ Formation Mississippian				¹⁹ Contractor Unknown		²⁰ Spud Date		
<u> </u>	<u>No</u>			<u>14,000'</u> 21	Propos				Progra		I	<u>AS 500</u>	n As Approved	
Hole S	ize		Casir	ng Size	21 Proposed Casing a casing weight/foot			Setting Depth			Sacks of Cement		Estimated TOC	
17-1/			13-3/8"		48#			400'		350 sxs		Circ		
12-1/			9-5/8"		36# & 40#		£	4,500'		650sxs		2,500'		
8-3/4			5-1/2"		17# & 20#			14,00	0'	1250	1250 sxs		6,500'	
²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productivezone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary. See Attached Program.														
²³ I hereby certify that the information given above is true and complete to the				the	OIL CONSERVATION DIVISION									
best of my knowledge and belief. Signature:					А	Approved by:								
Printed name: William R. Huck					т	Title:								
Title: VP -	Title: VP – Engr. & Operations				A	Approval Date: Expiration Date:								
Date: 4-03-03 Phone: (915) 620-8480					Conditions of Approval: Attached									

Pecos Production Company 400 W. Illinois, Suite 1070 Midland, Texas 79701 (915) 620-8480

March 24, 2003

New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505 Attn: Mr. Michael E. Stogner

Re: Request for Unorthodox Location Fort "21" #1 2310' FNL & 1978' FEL Section 21, T-24-S, R-34-E Lea County, New Mexico

Dear Mr. Stogner:

This letter is in response to your concern about the location of our upcoming Fort "21" #1. Our original permit application described a location 2636' FSL & 1978' FEL in section 21. Bill Huck our operations engineer shared with me your concerns about future down spacing within this unit. My concern is that we not compromise the initial location simply because we might ultimately drill a second well in the unit.

This location is the first test for Pecos of a number of "ditch" prospects identified on a 3D seismic survey. This "ditch" play concept is based on the infilling of narrow structural grabens with thicker clastics during Pennsylvanian time. Pecos has further refined the selection of drilling locations based on amplitude anomalies indicating sand deposits in both the Morrow and Atoka Formations. To increase our chance of success we have high graded our locations by selecting those in which we can test amplitude anomalies in both the Morrow and Atoka.

I have included two maps with this letter. The first shows the Atoka sandstone amplitude superimposed on a time structure map on the Austin Limestone. The second map shows Morrow sandstone amplitude superimposed on the same Austin Limestone time structure map. From this map we can get a feel for the outline of the ditch or graben. What is more problematic is locating the sand bodies within the "ditch". As mentioned above our strategy is based on targeting amplitude anomalies as sand indicators. A recent article on the New Mexico Bureau of Geology & Mineral Resources website entitled "Application of 3-D reflection seismic data to predicting Atoka Formation natural gas reservoirs, Vacuum Field, Lea County, New Mexico" supports this exploration strategy. However, there are other successful industry operators who place no credence at all in this strategy. Even though intuitively we believe that the sand bodies are larger than the extent of their

amplitude anomalies, due to the limits of seismic resolution, we still believe it is prudent to target these anomalies. So as you can see our strategy is to stay within the lowest part of the "ditch" or graben and intersect the heart of the Atoka and Morrow amplitude anomalies.

..

Based on the above line of reasoning we are reluctant to move our location such that it would not penetrate both the Morrow and Atoka anomalies. As you can see from the enclosed north - south seismic line pushing our location a full 660' north from our initial permitted location would be flirting with the edge of both of these anomalies and put us outside of the lowest part of the graben.

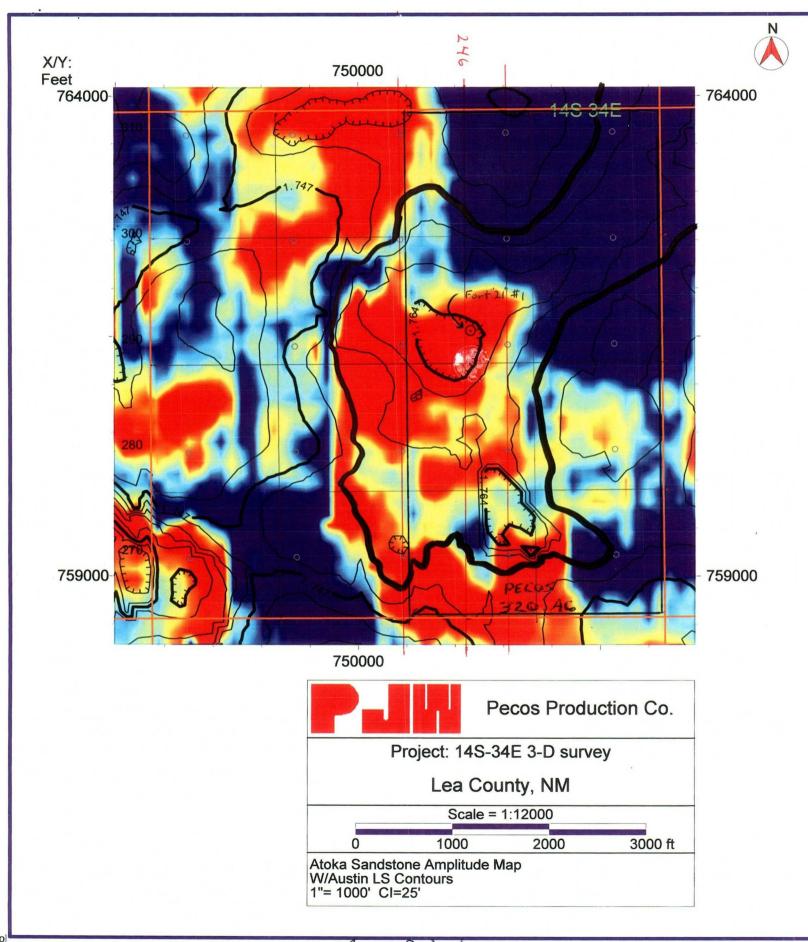
Your argument that we might be forced to complete the well in a Cisco zone should we fail to encounter productive sands in the Morrow and Atoka <u>and</u> encounter a pay zone in the Cisco is valid. To accommodate this possible outcome we have moved the location such that it is 330' north of the south line of a possible northeast quarter 160 acre proration unit.

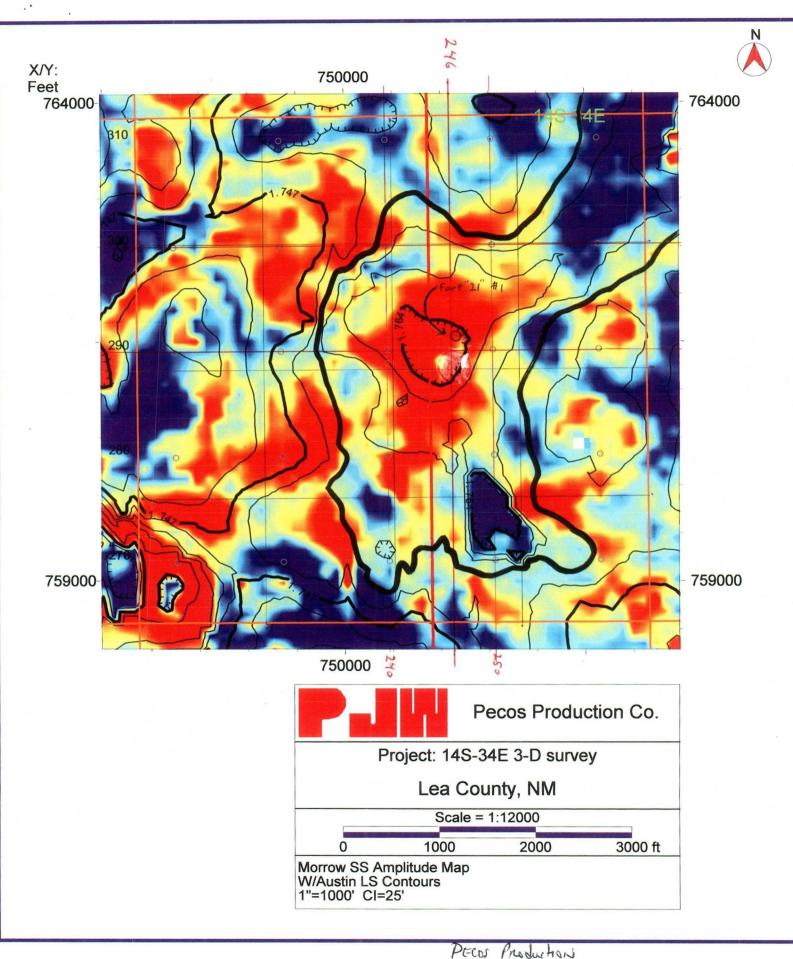
Please call if you have any further questions concerning this matter. I would be more than happy to meet with you in Santa Fe if you would like to discuss this matter in more detail.

Sincerely,

H J. Otank

Mark T. Hawkins Vice President Exploration





AA 0

ATTACHMENT TO EXHIBIT 2

DESIGNATION OF POOLED UNIT

Reference is made to the oil, gas and mineral leases described in Exhibit "A" attached hereto and made a part hereof for all purposes which, when taken together, cover and affect the East-half (E/2) of Section 21, T-14-S, R-34-E, NMPM, Lea County, New Mexico.

NOW, THEREFORE, in accordance with the terms and provisions of the leases described in said Exhibit "A", the operator, PECOS PRODUCTION COMPANY, the present owner of and lessee under said leases, does hereby pool, unitize and combine said leases into a single 320 acre pooled unit, consisting of all the East-half (E/2) of Section 21, T-14-S, R-34-E, NMPM, Lea County, New Mexico, INSOFAR AND ONLY INSOFAR, as it covers depths below the top of the Atoka formation for the production therefrom of oil, gas and condensate.

This Designation of Pooled Unit may be amended or terminated at any time, in whole or in part, by Operator of the Unit, or its successor, by filing a notice to that effect in the records of the county where the Unit is located.

This agreement may be signed in counterpart, and shall be binding upon the parties and upon their heirs, successors, representatives and assigns.

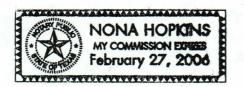
EXECUTED this 28th day of March, 2003.

PECOS PRODUCTION COMPANY

: <u>Struc Aran</u> Steve D. Gray, President By:

STATE OF TEXAS § § 8 COUNTY OF MIDLAND

This instrument was acknowledged before me on March 28, 2003 by Steve D. Gray, President of Pecos Production Company, a Texas corporation, on behalf of said corporation.



1) ona Hopkins Notary Public

EXHIBIT 3

EXHIBIT "A" TO DESIGNATION OF POOLED UNIT

E/2 less N/2NWNE

Lessor: Betty Rae Graham Lessee: Pecos Production Company Date: June 26, 2002 Recorded: 1205/777 Insofar as Lease Covers: All of the East-Half (E/2) of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, except the N/2NW/4NE/4 of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, containing 300 acres, more or less.

Lessor:Claudia Sue WalkerLessee:Pecos Production CompanyDate:June 26, 2002Recorded:1205/779Insofar as Lease Covers:All of the East-Half (E/2) of Section 21, T-14-S,

R-34-E, N.M.P.M. Survey, Lea Co., NM, except the N/2NW/4NE/4 of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, containing 300 acres, more or less.

Lessor:

Wilma C. Fort, Trustee of the Roy P. & Wilma C. Fort Revocable Living Trust dated 5-4-93.

Lessee: Pecos Production Company Date: June 26, 2002

Recorded: 1205/775

Insofar as Lease Covers: All of the East-Half (E/2) of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, except the N/2NW/4NE/4 of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, containing 300 acres, more or less.

Lessor: Fort Family Trust Lessee: Pecos Production Company Date: June 26, 2002 Recorded: 1205/781 Insofar as Lease Covers: All of the East-Half (E/2) of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, except the N/2NW/4NE/4 of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, containing 300 acres, more or less. Lessor: Providence Minerals, LLC Lessee: Pecos Production Company Date: March 7, 2003

Recorded:

Insofar as Lease Covers: All of the East-Half (E/2) of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, except the N/2NW/4NE/4 of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, containing 300 acres, more or less.

Lessor:	Wayne Ne	ewkumet 🗸
Lessee:	Pecos Pro	duction Company
Date:	June 26, 2	002
Recorded:	1205/61	
Insofar as Lo	ease Covers:	All of the East-Half (E
		R-34-F NMPM Sur

s: All of the East-Half (E/2) of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, except the N/2NW/4NE/4 of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, containing 300 acres, more or less.

Lessor:	Hayes Land & Production Company
Lessee:	Pecos Production Company
Date:	October 29, 2002
Recorded:	1205/63
Insofar as Le	ease Covers: All of the East-Half (E/2) of Section

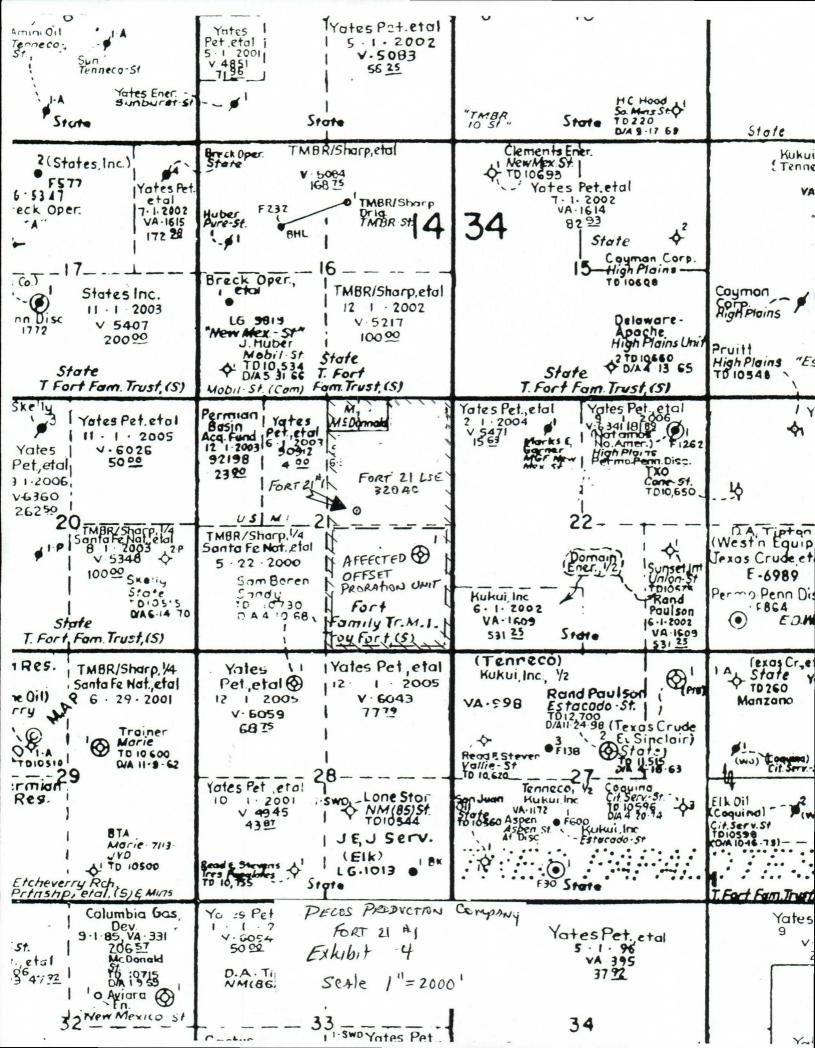
se Covers: All of the East-Half (E/2) of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, except the N/2NW/4NE/4 of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, containing 300 acres, more or less.

Lessor:	Hayes Land Corporation
Lessee:	Pecos Production Company
Date:	September 26, 2002
Recorded:	1205/69
Insofar as Lo	ease Covers: All of the East-Half (E/2) of Section 21, T-14-S,
	R-34-F NMPM Survey Les Co. NM except th

R-34-E, N.M.P.M. Survey, Lea Co., NM, except the N/2NW/4NE/4 of Section 21, T-14-S, R-34-E, N.M.P.M. Survey, Lea Co., NM, containing 300 acres, more or less.

N/2NWNE

Lessor:	M. McDonnold, et ux					
Lessee:	Pecos Proc	Pecos Production Company				
Date:	September	September 26, 2002				
Recorded:	1205/75					
Insofar as Lease Covers:		N/2NW/4NE/4 of Section 21, T-14-S, R-34-E,				
		N.M.P.M. Survey, Lea Co., NM, containing				
		20 acres, more or less.				



AFFIDAVIT OF FACT

State: Texas

County: Midland

Date: April 1, 2003

Affiant: Kirk Farquhar Pecos Production Company 400 W. Illinois, Suite 1070 Midland, Texas 79701

Affiant on oath swears that the following statements are true:

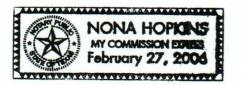
My name is Kirk Farquhar. I am over 21 years of age. I am Land Manager for Pecos Production Company located in Midland, Texas.

On April 1, 2003, Ratification and Consent to Pooling and/or Unitization Letters were mailed to all the royalty/mineral interest owners as same pertains to the drilling of the proposed Fort 21 No. 1 well, located 2,310' FNL & 1,978' FEL, Section 21, T-14-S, R-34-E, Lea County, New Mexico.

Affiant

THE STATE OF TEXAS *
COUNTY OF MIDLAND *

SUBSCRIBED, AND SWORN TO AND ACKNOWLEDGED before me by the said Kirk Farquhar, under my hand and seal of office this 1^{st} day of April, 2003.



Notary Public

State of Texas

AHACHMENT TO EXCIDIT 4