ann b	5/17/00	ABOVE THIS LINE FOR DIVISION USE ONLY
		NEW MEXICO OIL CONSERVATION DIVISION - Engineering Bureau -
		ADMINISTRATIVE APPLICATION COVERSHEET
	THIS COVE	ERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS
Applio	(P	[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location] [DD-Directional Drilling] [SD-Simultaneous Dedication] Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling] C-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] Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]
[1]	TYPE OF AI [A]	PPLICATION - Check Those Which Apply for [A] Location - Spacing Unit - Directional Drilling NSL NSP DD SD MAY 1 7 2000
	Check [B]	Commingling - Storage - Measurement DHC CTB PLC PC OLS OLM
	[C]	Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
[2]	NOTIFICAT [A]	TION REQUIRED TO: - Check Those Which Apply, or Does Not Apply Working, Royalty or Overriding Royalty Interest Owners
	[B]	Offset Operators, Leaseholders or Surface Owner
	[C]	Application is One Which Requires Published Legal Notice
	[D]	U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
	[E]	G For all of the above, Proof of Notification or Publication is Attached, and/or,
	[F]	U Waivers are Attached
[3]	INFORMAT	ION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

JAMES		
P.O. BC		
SANTA FE,	NM	87504

completed by an

Print or Type Name

Auce	Alta	(ney to)	
	Title	Amlia	m

5/17/00

Signature

Date

JAMES BRUCE ATTORNEY AT LAW

**5 5 3** 

POST OFFICE BOX 1056 SANTA FE, NEW MEXICO 87504

3304 CAMINO LISA SANTA FE, NEW MEXICO 87501

(505) 982-2043 (505) 982-2151 (FAX)

May 17, 2000

#### Hand Delivered

Michael E. Stogner Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505

#### Re: Amended Application

C.E. Lamunyon Well No. 70 2475 feet FSL & 1100 feet FWL NW¼SW¼ §22, Township 23 South, Range 37 East, NMPM Lea County, New Mexico

Dear Mr. Stogner:

On May 12, 2000, Arch Petroleum Inc. ("Arch") applied for administrative approval of an unorthodox infill oil well location for the above well. The application was rejected by the Division. This application supplements and renews the prior filing.

The well will be drilled to test the Teague-Blinebry Pool, which is an oil pool developed on statewide spacing. A Form C-102 for the well is attached as Exhibit 1.

The proposed location is based upon engineering and geological reasons. The lease on which the proposed well is located has been the subject of prior Division proceedings. Attached as Exhibit 2 is Order No. R-10453, which granted Arch permission to drill several unorthodox infill oil wells in the area of the proposed Also enclosed, as Exhibit 3, is a subsequent application for well. administrative approval of the C.E. Lamunyon Well No. 60. (Administrative Order NSL-3648, regarding that well, is attached as Exhibit 4.) Exhibits 2 and 3 show that wells in this pool drain less than 20 acres, and that infill wells are needed to recover remaining reserves. Attached as Exhibit 5 is a production plat of wells in this area, showing that the proposed well is surrounded by six existing Teague-Blinebry wells, and thus is situated to recover reserves which will not be recovered by the surrounding wells.

Attached as Exhibit 6 is a structure map, which shows that the proposed location maintains a relatively high structural position, while remaining approximately equi-distant from the surrounding wells.

Based on the foregoing, the proposed location will recover reserves not recovered by the existing wells on the lease.

Attached as Exhibit 7 is a land plat of the area. The NE¼ and S½ of Section 22 are covered by a single federal lease, with common working, royalty, and overriding royalty interests. Therefore, the proposed well does not encroach on any offset owner, and notice of this application was not given to anyone.

Please call me if you need anything further regarding this matter.

Very truly yours,

James Bruce

Attorney for Arch Petroleum Inc.

Hilie -Is Ruis better?

DISTRICT I	State of New Mexico RELCIVED
Pt0. Box 1980, Hobbs, NM 88241-1980	Energy, Minerels and Natural Resources Department Energy, Minerels and Natural Resources Department CAR 2 6 2000 Revised February 10, 1994 CAR 2 6 2000 Revised February 10, 1994
DISTRICT II P.O. Drawer DD, Artesia, NM 88211-0719	State Lease - 4 Copies
DISTRICT III OILL 1000 Rio Brazos Rd., Aztec, NM 87410	CONSERVATION DIVISIOND P.0. Box 2088
	Santa Fe, New Mexico 87504-2088
DISTRICT IV P.O. Box 2088, Santa Fe, NM 875042088	

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code		Fool Name
Property Code	Prop	erty Name	Well Number
	LAMUNYO	N FEDERAL	70
OGRID No.	Oper	ator Name	Elevation
	ARCH PE	TROLEUM INC.	3288

### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	22	23 S	37 E	·	2475	SOUTH	1100	WEST	LEA

Bottom Hole Location If Different From Surface

۱	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	Dedicated Acres	Joint o	r Infill C	onsolidation (	Code Or	der No.	•		<b>.</b>	L

#### NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

		OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.
	+	Signature
		Printed Name
		Title
		Date
<u>3288.7'</u> <u>3287.5'</u>	·	SURVEYOR CERTIFICATION
1100'		I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my beliaf.
······································		JANUARY 20, 2000 Date Surveyedunium JLP Signature & Seal of Man Professional Surveyor
- 24		000001 0000000000000000000000000000000
	EXHIBIT	Certificate No. RONALD SEDSON. 3239 UNC PROFESSION 2201 UNC PROFESSION 3200 101 101 101 101 101 101 101
	Ê	

# SEP - 7 **1995**

### STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

( )

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

13

CASE NO. 11344 Order No. R-10453

# APPLICATION OF ARCH PETROLEUM INC. FOR SEVEN UNORTHODOX INFILL OIL WELL LOCATIONS, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE DIVISION

ſ	1 1				
		EX	HIBI	•	
	52121111	2			
	-				
	1			. 6 in 1	Sec. as

### **BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on August 24, 1995, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 1st day of September, 1995, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

### **FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Arch Petroleum Inc., seeks authority to drill its C. E. Lamunyon Well Nos. 51, 52, 53, 54, 55 and 56 and its Saltmount Well No. 3 at the following described unorthodox oil well locations within Sections 21, 22 and 28, Township 23 South, Range 37 East, NMPM, Teague-Blinebry Pool, Lea County, New Mexico:

### WELL NAME & NUMBER

#### WELL LOCATION

FNL & 560' FEL (Unit A) Section 21
FNL & 2210' FWL (Unit C) Section 21
FSL & 330' FWL (Unit M) Section 22
FNL & 660' FWL (Unit D) Section 22
FNL & 330' FWL (Unit E) Section 22
FNL & 1300' FEL (Unit A) Section 28

Saltmount Well No. 3

990' FSL & 1300' FEL (Unit P) Section 21

# CASE NO. 11344 ORDER NO. R-10453 PAGE -2-

(3) The applicant further proposes to simultaneously dedicate the above-described wells to existing 40-acre oil spacing and proration units in the Teague-Blinebry Pool as follows:

- a) the proposed C. E. Lamunyon Well No. 51 and the existing Well No. 42 are to be dedicated to the NE/4 NE/4 of Section 21;
- b) the proposed C. E. Lamunyon Well No. 52 and the existing Well No. 40 are to be dedicated to the NE/4 NW/4 of Section 21;

:

- c) the proposed C. E. Lamunyon Well No. 53 and the existing Well No. 20 are to be dedicated to the SW/4 SW/4 of Section 22;
- d) the proposed C. E. Lamunyon Well No. 54 and the existing Well No. 44 are to be dedicated to the NW/4 NW/4 of Section 22;
- e) the proposed C. E. Lamunyon Well No. 55 and the existing Well No. 30 are to be dedicated to the SW/4 NW/4 of Section 22;
- f) the proposed C. E. Lamunyon Well No. 56 and the existing Well Nos. 21 and 50 are to be dedicated to the NE/4 NE/4 of Section 28;
- g) the proposed Saltmount Well No. 3 and the existing Well No. 1 are to be dedicated to the SE/4 SE/4 of Section 21;

(4) The evidence and testimony indicates that the purpose of drilling the subject infill wells within the Teague-Blinebry Pool is to increase recovery of oil which may not otherwise be recovered by the existing wells.

(5) The applicant presented as evidence in this case the results of an engineering study designed to determine the feasibility and effectiveness of infill drilling within the Teague-Blinebry Pool. The data utilized in this study was obtained from the drilling of the C. E. Lamunyon Well No. 50, which was drilled by Chevron in 1989 as a pilot infill well. The results of the study indicate that:

a) the average estimated ultimate recovery from the four wells directly offsetting the C. E. Lamunyon Well No. 50 is approximately 85,000 stock tank barrels of oil; b) the C. E. Lamunyon Well No. 50 is projected to ultimately recover approximately 55,000 stock tank barrels of incremental oil, or approximately 65% of the recovery from the original 40-acre offset wells;

()

:

c) the drainage areas of the four wells offsetting the C.
E. Lamunyon Well No. 50 are all less than 20 acres.

(6) According to applicant's geologic and engineering evidence and testimony, the proposed wells are situated in areas not previously drained by offset wells, as determined from drainage calculations, and in areas that are structurally high in the reservoir.

(7) Applicant testified that the existing wells within the Teague-Blinebry Pool are nearing depletion.

(8) Applicant estimates that each of the subject wells, if drilled as proposed, may recover an additional 50,000-150,000 barrels of oil which would otherwise not be recovered by the existing wells.

(9) The applicant is the operator of all affected offset acreage.

(10) None of the proposed wells encroach upon offset acreage which is not operated by the applicant.

(11) No offset operator and/or interest owner appeared at the hearing in opposition to the application.

(12) Approval of the subject application will afford the applicant the opportunity to recover additional oil and gas reserves from the Teague-Blinebry Pool underlying each of the respective proration units which will not be recovered by existing wells, thereby preventing waste, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights.

#### **IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Arch Petroleum Inc., is hereby authorized to drill its C. E. Lamunyon Well Nos. 51, 52, 53, 54, 55 and 56 and its Saltmount Well No. 3 at the following described unorthodox oil well locations within Sections 21, 22 and 28, Township 23 South, Range 37 East, NMPM, Teague-Blinebry Pool, Lea County, New Mexico:

CASE NO. 11344 ORDER NO. R-10453 PAGE -4-

### WELL NAME & NUMBER

### WELL LOCATION

C. E. Lamunyon Well No. 51	1300' FNL & 560' FEL (Unit A) Section 21
C. E. Lamunyon Well No. 52	1300' FNL & 2210' FWL (Unit C) Section 21
C. E. Lamunyon Well No. 53	1300' FSL & 330' FWL (Unit M) Section 22
C. E. Lamunyon Well No. 54	1300' FNL & 660' FWL (Unit D) Section 22
C. E. Lamunyon Well No. 55	2620' FNL & 330' FWL (Unit E) Section 22
C. E. Lamunyon Well No. 56	1300' FNL & 1300' FEL (Unit A) Section 28
Saltmount Well No. 3	990' FSL & 1300' FEL (Unit P) Section 21

(2) The above-described wells shall be dedicated to existing 40-acre oil spacing and proration units in the Teague-Blinebry Pool as follows:

- a) the proposed C. E. Lamunyon Well No. 51 and the existing Well No. 42 shall be dedicated to the NE/4 NE/4 of Section 21;
- b) the proposed C. E. Lamunyon Well No. 52 and the existing Well No. 40 shall be dedicated to the NE/4 NW/4 of Section 21;
- c) the proposed C. E. Lamunyon Well No. 53 and the existing Well No. 20 shall be dedicated to the SW/4 SW/4 of Section 22;
- d) the proposed C. E. Lamunyon Well No. 54 and the existing Well No. 44 shall be dedicated to the NW/4 NW/4 of Section 22;
- e) the proposed C. E. Lamunyon Well No. 55 and the existing Well No. 30 shall be dedicated to the SW/4 NW/4 of Section 22;
- the proposed C. E. Lamunyon Well No. 56 and the existing Well Nos. 21 and 50 shall be dedicated to the NE/4 NE/4 of Section 28;
- g) the proposed Saltmount Well No. 3 and the existing Well No. 1 shall be dedicated to the SE/4 SE/4 of Section 21;

(3) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

CASE NO. 11344 ORDER NO. R-10453 PAGE -5-

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION WILLIAM J. LEMAY Director

SEAL



March 5, 1996

Application for Administrative Approval of Eight Unorthodox Well Locations Lea County, New Mexico

, LOITIUNIYUTILLUX TIK

William J. LeMay, Director Oil Conservation Division New Mexico Department of Energy, Minerals and Natural Resources 2040 South Pacheco Street Santa Fe, New Mexico 87505

C.E. Lamunyon # 60

Dear Mr. LeMay:

Arch Petroleum Inc. hereby seeks administrative approval pursuant to the provisions of Division Rule 104 F(2) adopted on January 18, 1996, of the unorthodox well locations listed on attached Exhibit A.

Exhibit B is lease Base Map showing the proposed locations. These locations do encroach on immediately adjacent existing spacing units in the same pool. These adjacent spacing units are in the same lease as the subject wells and are also operated by Arch in all cases. Therefore, there are no affected parties to whom notice is required pursuant to the NMOCD rules.

Exhibit B also shows the first seven infill wells drilled as Phase I wells pursuant to OCD Order #R-10453. The initial potential tests from the NMOCD Form C-105 are listed on Exhibit C. The results have been encouraging to date although it is too early to project an estimated ultimate recovery.

These unorthodox locations in the Blinebry formation are necessary for geological reasons. Exhibit D is a porosity isopach map of the Blinebry. It shows the areal extent of the porosity development in the field. This development is made up of thin porosity stringers that are very discontinuous between wellbores. This discontinuity, coupled with the low average porosity of five to eight percent and low average permeability of 0.5 millidarcies causes low ultimate recoveries and inadequate drainage of the field based on current 40 acre locations.

Exhibit E is a Drainage Map showing the areas estimated to be drained by the existing wells in the Blinebry. The drainage areas shown were calculated and are listed on Exhibit F. The parameters used to make these calculations are also-shown. On average, it is seen that the



existing wells are expected to drain a little over 13 acres per well. It is therefore necessary to drill the subject well to avoid waste and efficiently recover the available reserves.

Your attention to this request is appreciated.

Very truly yours,

Linis M. Begner

Chris N. Bezner, P. E.

:

Engineer

CNB/

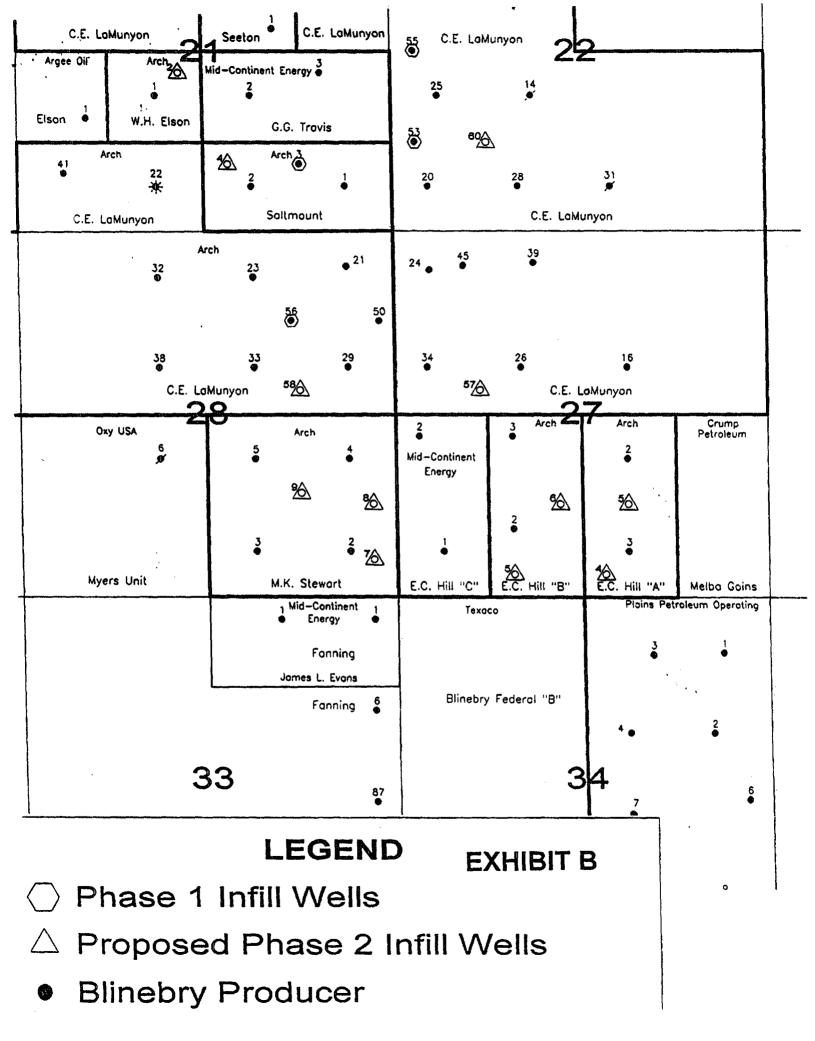
Attachments

cc: Mr. Jerry Sexton, District Supervisor Oil Conservation Division

Mr. William F. Carr Attorney for Arch Petroleum Inc.

Proposed Well #	Acreage	Footages	Unit	Section	Township	Range
C E Lamunyon 57	Federal	2310' FNL 1200' FWL	E	27	238	37E
C E Lamunyon 58	Federal	2310' FNL 1340' FEL	G	28	23S	37E
C E Lamunyon 59	Federal	330' FNL 1300' FWL	D	21	235	37E
C E Lamunyon 60	Federal	1300' FSL 1340' FWL	N	22	23S	37E
ECHIIIA5	Fee	1340' FSL 1980' FEL	J	27	23S	37E
E C Hill B 6	Fee	1340' FSL 2310' FWL	K	27	23S	37E
M K Stewart 8	Federal	1340' FSL 330' FEL		28	23S	37E
M K Stewart 9	Federal	1490' FSL 1340' FEL	J	28	23S	37E

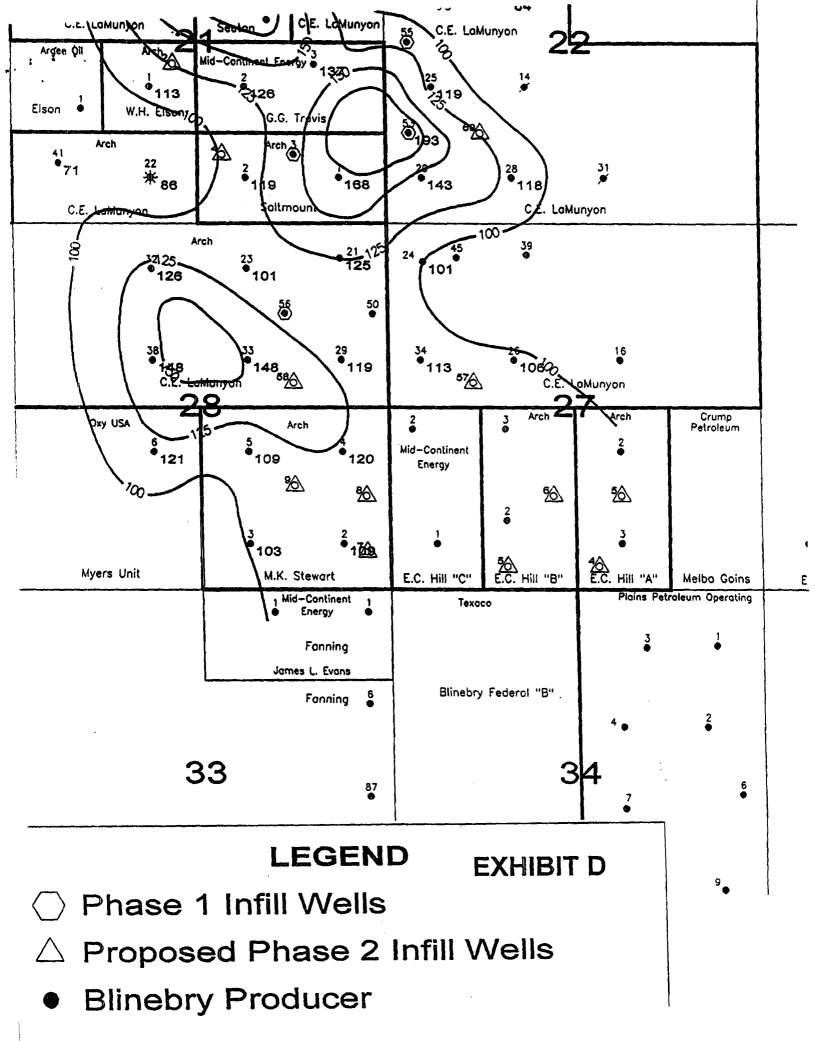
### PROPOSED INFILL WELLS - TEAGUE BLINEBRY - ARCH PETROLEUM INC. 8 UNORTHODOX LOCATIONS

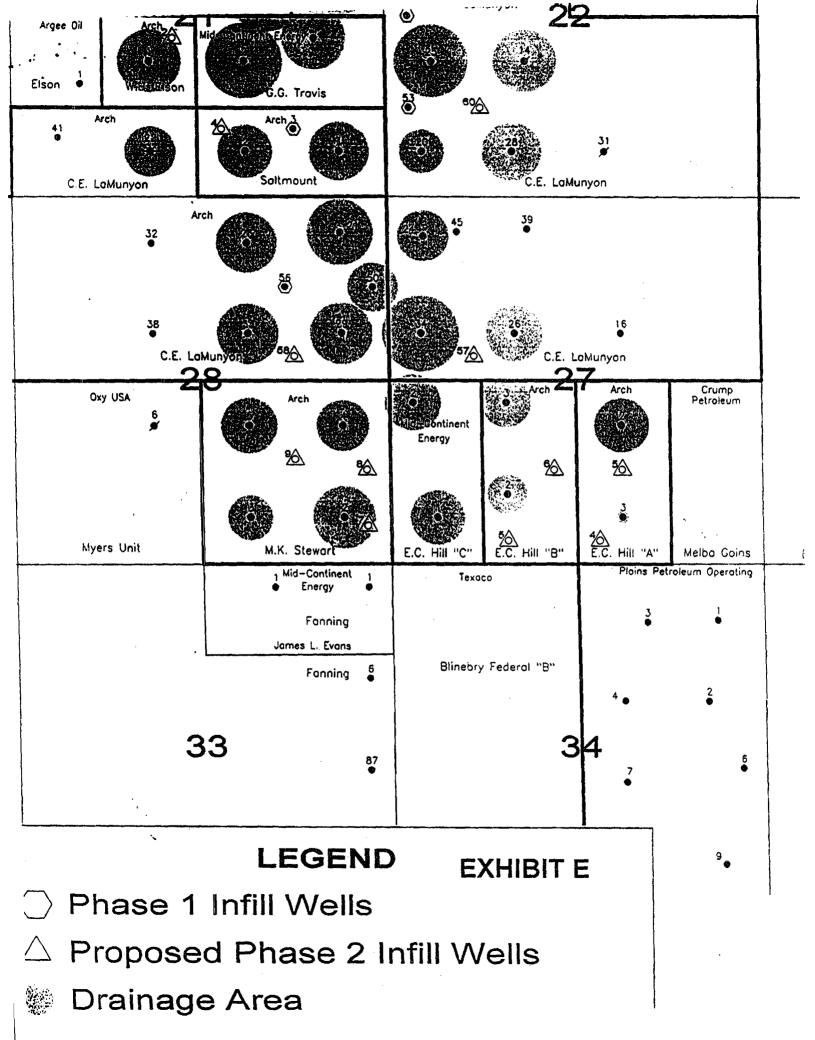


### **TEAGUE BLINEBRY - INFILL WELLS**

	INITIAL POTENTIAL TEST (C-105)				
WELL NAME	DATE	BOPD	BWPD	MCFPD	
C. E. LAMUNYON #51	10/22/95	115	102	706	
C. E. LAMUNYON #52	11/09/95	127	10	222	
C. E. LAMUNYON #53	11/19/95	180	142	802	
C. E. LAMUNYON #55	02/13/96	162	93	709	
SALTMOUNT #3	02/02/96	105	413	200	

٠.





TEAGUE BLINEBRY FIELD - INFILL WELLS									
Estimated Ultimate Recovery-Drainage Radius									
1		Net Pay,	Est. Ult. Prim.	Drainage	Drainage				
	Current Well	h net, ft.	Rec., MSTB	Acres	Radius, ft.				
	GG Travis 2	126	151.3	21.4	545				
2		137	112.7	14.7	451				
3		90	73.8	14.6	450				
.4		143	58.9	7.3	319				
5		125	111.7	15.9	470				
6		86	46.8	9.7	367				
7	Lamunyon 23	101	76.5	13.5	433				
8	Lamunyon 24	101	55.0	9.7	367				
9	Lamunyon 25	119	134.0	20.1	528				
10	Lamunyon 26	106	69.1	11.6	402				
11	Lamunyon 27	168	177.2	18.8	511				
12	Lamunyon 28	118	86.6	13.1	426				
13	Lamunyon 29	119	95.1	14.3	445				
14	Lamunyon 30	90	109.7	21.7	549				
15	Lamunyon 33	148	114.9	13.9	438				
16	Lamunyon 34	113	137.7	21.7	549				
	Lamunyon 35	84	37.7	8.0	333				
	Lamunyon 36	96	59.9	11.1	393				
	Lamunyon 37	113	184.6	29.1	636				
	Lamunyon 39	110	1.6	0.3	60				
	Lamunyon 40	179	158.9	15.8	469				
	Lamunyon 42	137	124.3	16.2	474				
	Lamunyon 43	104	24.8	4.3	243				
	Lamunyon 44	213	135.7	11.4	397				
	Lamunyon 50*	123	64.6	9.4	360				
	Elk State 2	119	138.4	20.8	536				
	W H Elson 1	113	94.8	15.0	456				
	E C Hill A 2	110	67.7	11.0	390				
	E C Hill A 3	115	3.4	0.5	86				
	ECHIIIB2	120	39.0	5.8	284				
	ECHIIB3	115	59.0	9.2	356				
	ECHIIIC1	120	73.1	10.9	388				
	ECHIIC2	120	78.1	11.6	401				
	M K Stewart 2	109	87.2	14.3	445				
	M K Stewart 3	103	42.9	7.4	321				
	M K Stewart 4	103	66.7	9.9	371				
	M K Stewart 5	109	70.7	11.6	401				
	Saltmount 1	168	124.7	13.2	429				
	Saltmount 2	119	73.2	11.0	390				
	Secton 1	187	221.9	21.2	542				
70		4,896	3,643.9	13.3	429				
	Total/Average				423				
Assumes: Swi=18%, Avg. Porosity=7.4%, Boi=1.26 RB/STB Recovery Factor=15%									
		•	•						
* First 20-Acre Infill Drilled									

# **EXHIBIT F**



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION 2040 S. PACHECO SANTA FE, NEW MEXICO 87505 (505) 827-7131

April 9, 1996

Arch Petroleum Inc. 10 Desta Drive - Suite 420 East Midland, Texas 79705 Attention: Chris N. Bezner, P.E.

### Administrative Order NSL-3648

APR 1 2 1996

Dear Mr. Bezner:

Reference is made to your application dated March 5, 1996 for an unorthodox "infill" oil well location on an existing standard 40-acre oil spacing and proration unit for the Teaque-Blinebry Pool, comprising the SE/4 SW/4 (Unit N) of Section 22, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico. Said 40-acre tract is currently dedicated to the C.E. Lamunyon Well No. 28 (API No. 30-025-22446) located at a standard oil well location 660 feet from the South line and 1780 feet from the West line of said Section 22.

The application has been duly filed under the provisions of Rule 104.F of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10533, issued by the Oil Conservation Commission in Case 11,351 on January 18, 1996.

By the authority granted me under the provisions of Division General Rule 104.F(2), the following described well to be drilled at an unorthodox "infill" oil well location in said Section 22 is hereby approved:

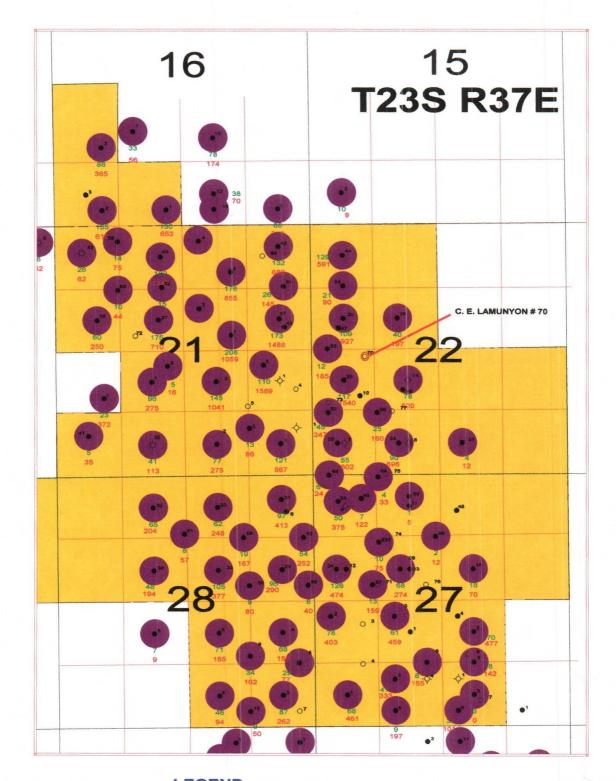
C.E. Lamunyon Well No. 60

1300' FSL - 1340' FWL. Sincerely, William J. I Director

WJL/MES/kv

cc: Oil Conservation Division - Hobbs U. S. Bureau of Land Management - Carlsbad

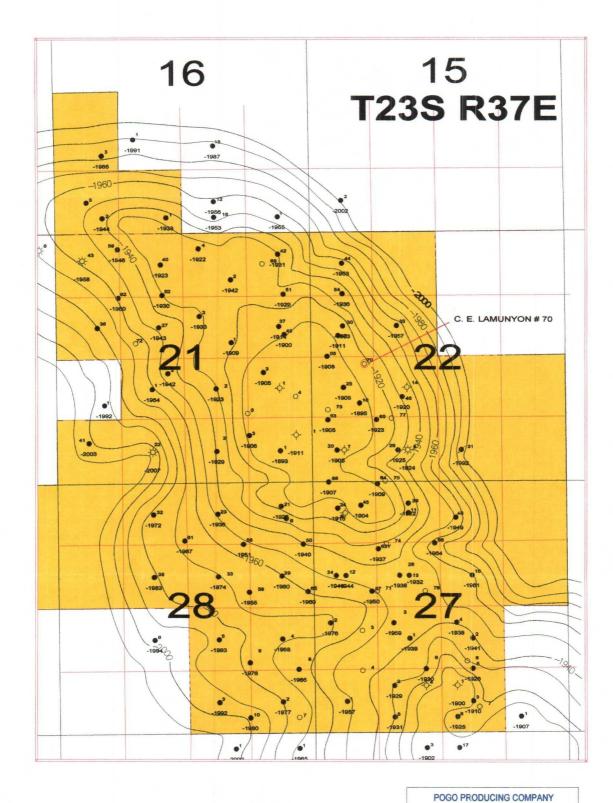




LEGEND BLINEBRY PRODUCER CUM PROD, MBO/MMCFG ARCH PETROLEUM ACREAGE

•

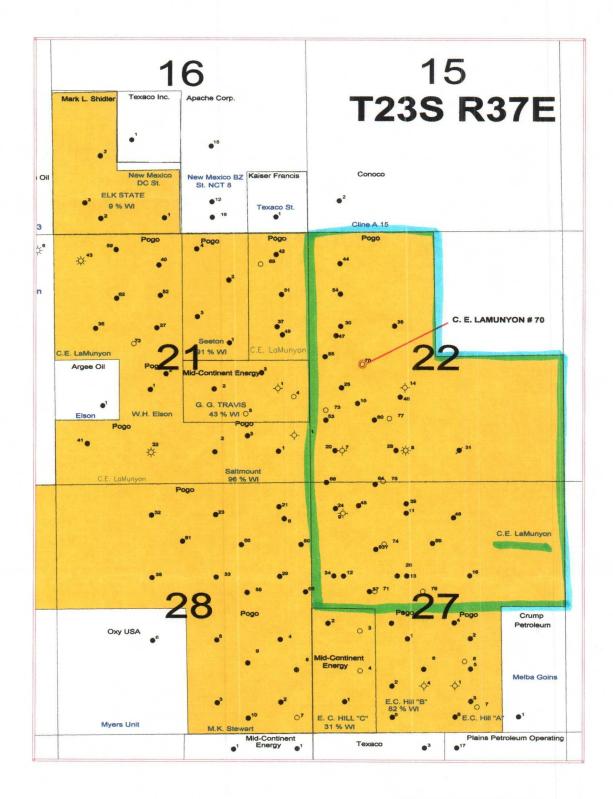




, , , , , , ,

. .

EXHIBIT		TEAGUE BLINEBRY FIELD STRUCTURE ON TOP OF BLINEBRY			
1.		G. CURRY	CI=10 FEET	3/23/00	
		WELLS > 4000'	1:12000	TGBLIN	
	6				



5

EXHIBIT