

OIL CONSERVATION DIVISION  
P. O. Box 2088  
SANTA FE, NEW MEXICO  
87501

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

ADMINISTRATIVE ORDER  
NFL 120

INFILL DRILLING FINDINGS AND WELL-SPACING WAIVER  
MADE PURSUANT TO SECTION 271.305(b) OF THE  
FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS,  
NATURAL GAS POLICY ACT OF 1978 AND OIL CONSERVATION DIVISION  
ORDER NO. ~~R-6013~~

I.

Operator Chaveroo Operating Company Inc. Well Name and No. LSA Well No. 2

Location: Unit G Sec. 30 Twp. 17 S Rng. 36 East Cty. Lea

II.

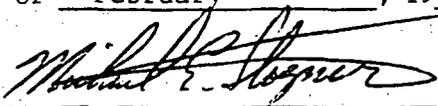
THE DIVISION FINDS:

- (1) That Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.
- (2) That by Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.
- (3) That the well for which a finding is sought is to be completed in the South Double "A" Abo Pool, and the standard spacing unit in said pool is 40 acres.
- (4) That a 40 acre proration unit comprising the SW/4 NE/4 of Sec. 30, Twp. 17 S, Rng. 36 East, is currently dedicated to the applicant's State LSA Well No. 1 located in Unit G of said section.
- (5) That this proration unit is (X) standard ( ) nonstandard; if nonstandard, said unit was previously approved by Order No. n/a.
- (6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.
- (7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 300,000 MCF of gas from the proration unit which would not otherwise be recovered.
- (8) That all the requirements of Order No. R-6013 have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.
- (9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well spacing requirements for the pool.

IT IS THEREFORE ORDERED:

- (1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.
- (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 this 4th day of February, 1986

  
DIVISION DIRECTOR EXAMINER

Received 12/21/95  
Release Immediately  
By H. Stogner

OIL CONSERVATION DIVISION  
P. O. Box 2088  
SANTA FE, NEW MEXICO  
87501

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

ADMINISTRATIVE ORDER  
NFL 120

INFILL DRILLING FINDINGS AND WELL-SPACING WAIVER  
MADE PURSUANT TO SECTION 271.305(b) OF THE  
FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS,  
NATURAL GAS POLICY ACT OF 1978 AND OIL CONSERVATION DIVISION  
ORDER NO. R-6013

I. Choveroo Operating Company, Inc.

Operator ~~Choveroo~~ Well Name and No. LSA Well No. 2

Location: Unit 6 Sec. 30 Twp. 17 South Rng. 36 East Cty. Lea

II.  
THE DIVISION FINDS:

(1) That Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.

(2) That by Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) That the well for which a finding is sought is to be completed in the South Double "A" Abc Pool, and the standard spacing unit in said pool is 40 acres.

(4) That a 40-acre proration unit comprising the S<sup>1</sup>/<sub>4</sub> NE<sup>1</sup>/<sub>4</sub> of Sec. 30, Twp. 17 South, Rng. 36 East, is currently dedicated to the applicant's State LSA Well No. 1 located in Unit 6 of said section.

(5) That this proration unit is (  ) standard ( ) nonstandard; if nonstandard, said unit was previously approved by Order No. NA.

(6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.

(7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 300,000 MCF of gas from the proration unit which would not otherwise be recovered.

(8) That all the requirements of Order No. R-6013 have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

(9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well spacing requirements for the pool.

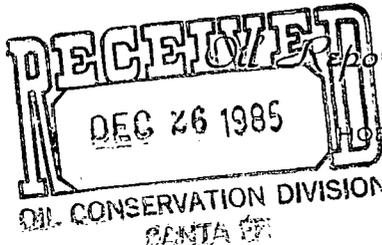
IT IS THEREFORE ORDERED:

(1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(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 this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_.

DIVISION DIRECTOR \_\_\_\_\_ EXAMINER \_\_\_\_\_



Reports and Gas Services, Inc.

P. O. BOX ~~XXX~~ 755

DOBBS, NEW MEXICO 88240

PHONE NUMBERS  
393-2727 - 393-2017

Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Gentlemen:

Application is hereby made on behalf of Chaveroo Operating Company, Inc. for an infill well under the provisions of Order R-6013-A as follows:

Well Name: LSA No. 2  
Location: 1980' FNL & 2310' FEL of Section 30, T17S, R36E  
Pool: South Double A Abo  
Spud Date: 5/28/85  
Completion Date: September 14, 1985  
Perforations: Lower Abo 9168 to 9230  
Mechanical Problems: None  
Proration Unit: SW/4 NE/4 Section 30, being 40 acres  
Current Rate of Production: 289 barrels oil, 185 MCF gas, 960 barrels water, per day

Existing Well on Proration Unit:

Well Name: LSA No. 1  
Location: 1980' FNL & 1980' FEL of Section 30, T17S, R36E  
Spud Date: 12/8/63  
Completion Date: 2/14/64  
Perforations: Upper Abo 8824 to 8942  
Mechanical Problems: None  
Current Rate of Production: 18 barrels oil, 23 MCF gas, no water, per day

Reason Well is Necessary to Drain Proration Unit:

The LSA No. 1 was originally drilled to a total depth of 9327 feet and completed in the lower Abo from perforations 9148 to 9211 feet. The results of DST #2 (see Exhibit A) would indicate that good production should have been obtained from this depth. Although the well was potentialed 2/14/64 for 190 barrels of oil per day, the decline was rapid with a total of 3995 barrels of oil and 16,424 barrels of water reported through July 1964. Perforations 9148 to 9211 were squeezed in August 1964 (see Exhibit B) and the well was recompleted through perforations 9157 to 9161. A total of 1192 barrels of oil was produced from these perforations before the well was recompleted to the upper Abo in June 1965 through perforations 8824 to 8942. The production is shown as a decline curve included as Exhibit C.

When BTA Oil Producers completed their Abo-D 7903 JV-P No. 1 on 11/26/83 from perforations 9116 to 9207 with a potential of 360 barrels of oil per day, it became evident that the DST in the LSA No. 1 was indeed a reliable test. This well is a direct west offset, being 990' due west from the LSA No. 1. There is no logical explanation as to why the LSA No. 1 was not able to obtain commercial production from the lower Abo in 1964.

There is nothing filed of record to indicate how or what material was used to plug back the LSA No. 1 from 9172 to 9124 in June 1965, although pencil notes found in the operator's well file would indicate that a retainer was set. To attempt a recompletion back to the lower Abo would thus require drilling out two retainers in the 22-year old well bore. Swab test and production records from 1964 would indicate that the 4 to 6 feet of lower Abo pay had been watered out.

Exhibit D, a decline curve of LSA No. 1 from January 1977 to November 1985, reveals that there has been very little decline in production during this period, with production stabilized at an average of 18 barrels of oil per day for the last 22 months. It was not mechanically feasible to risk 18 barrels water-free production per day in an attempt to return the LSA No. 1 back to the lower Abo. However, some action was necessary to protect the lease from drainage. The only alternative was to drill a new well between the LSA No. 1 and the BTA well. The need for action became more evident when Pioneer Production Corporation completed the State "30" No. 1 for 55 barrels of oil per day from perforations 8592 to 9213 on May 22, 1984. This well is a southwest diagonal offset, being 1400' southwest of the LSA No. 1.

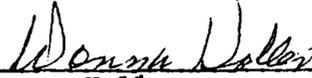
Estimated Increased Recovery:

The BTA Oil Producers Abo-D 7903 JV-P No. 1 has produced a total of 177,057 barrels of oil and 106,867 MCF gas from November 26, 1983 through August 1985. The Abo-D 7903 JV-P No. 2 was completed December 30, 1984 through perforations 9126 through 9206 and has produced 63,927 barrels oil and 43,400 MCF gas through August 1985. The Chaveroo LSA No. 2 has produced 22,118 barrels oil and 13,265 MCF gas from September 14, 1985. The Pioneer State "30" No. 1 has produced 48,280 barrels oil and 45,667 MCF gas from May 22, 1984 through August 1985. As shown on the structure map (Exhibit E), these are the only four wells producing from the lower Abo formation from which a decline pattern could be ascertained and none have produced for a sufficient period to establish such a pattern. If we assume a flat decline rate as experienced by the LSA No. 1 in the upper Abo and use the current productivity of the LSA No. 2 then the ultimate recovery could be estimated as high as 1,500,000 barrels oil and 905,000 MCF gas. If we assume a rapid decline after the initial flush production we can estimate a conservative recovery of 500,000 barrels oil and 300,000 MCF gas.

All operators shown on Exhibit H have been notified by certified mail that this application has been filed.

Yours very truly,

OIL REPORTS & GAS SERVICES, INC.

  
\_\_\_\_\_  
Donna Holler

## INDEX OF EXHIBITS

Application for Infill Well  
Chaveroo Operating Company, Inc.  
LSA No. 2

- Exhibit A DST No. 2, LSA No. 1, run in 1964, lower Abo 9145 to 9222
- Exhibit B Detail of recompletion from San Andres - lower Abo dual to lower Abo perfs 9157 to 9161
- Exhibit C Decline curve, LSA No. 1, February 1964 thru December 1973
- Exhibit D Decline Curve, LSA No. 1, January 1977 thru November 1985
- Exhibit E Structure map and isopach map
- Exhibit F Copy of Form C-101, LSA No. 2, approved May 10, 1985
- Exhibit G Copy of surveyor's plat (Form C-102) as filed with Form C-101
- Exhibit H Location plat showing wells of interest and offset operators
- Exhibit I Copy of Certified Mail Receipt



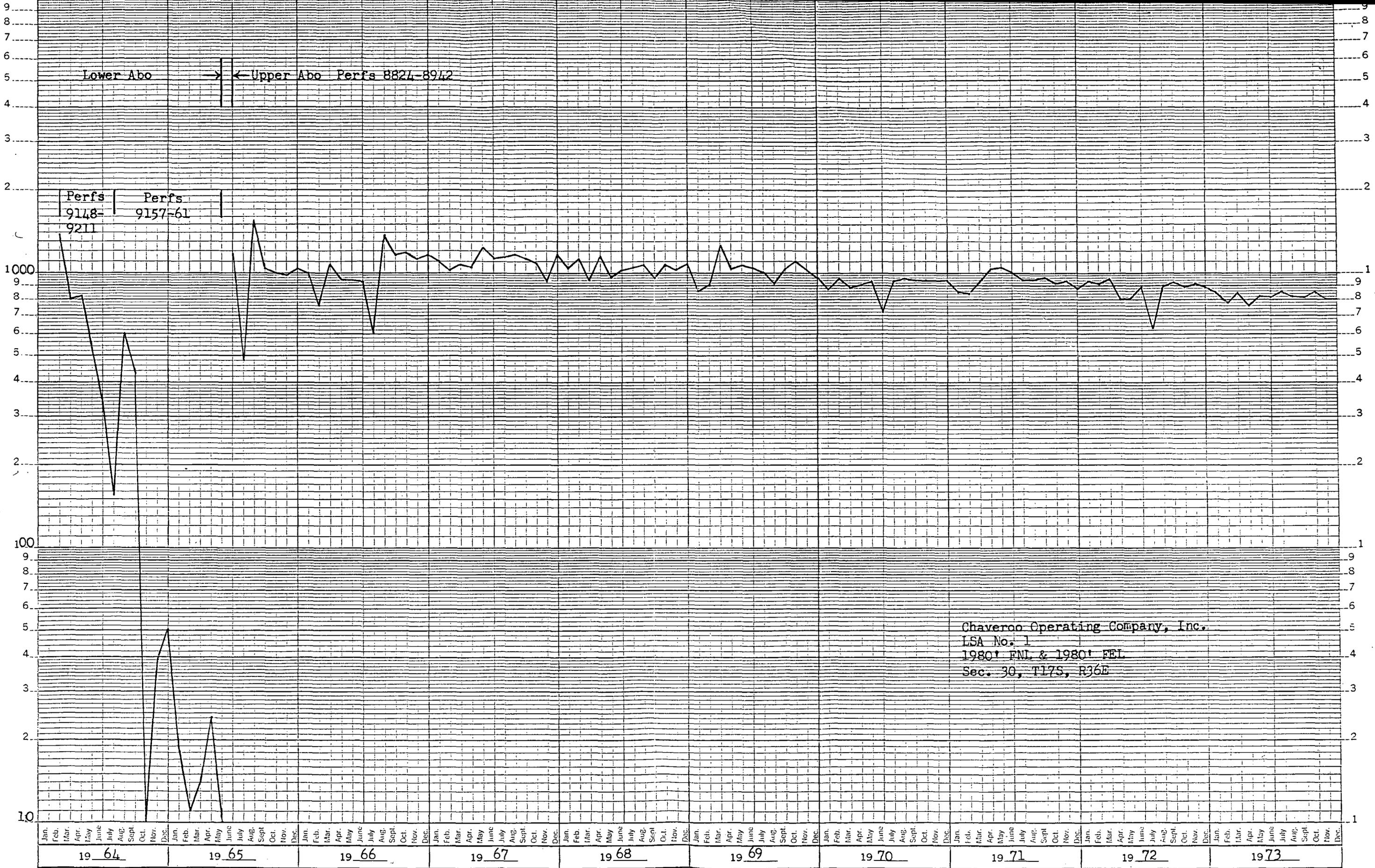
Lone Star Producing Company - Atlantic State No. 1 Well, Unit 26, Section 30, T-17-S,  
R-36-E, Lea County, New Mexico, South Double A-Abo Field:

HOBBS OFFICE O. C. C.  
AUG 26 10 51 AM '64

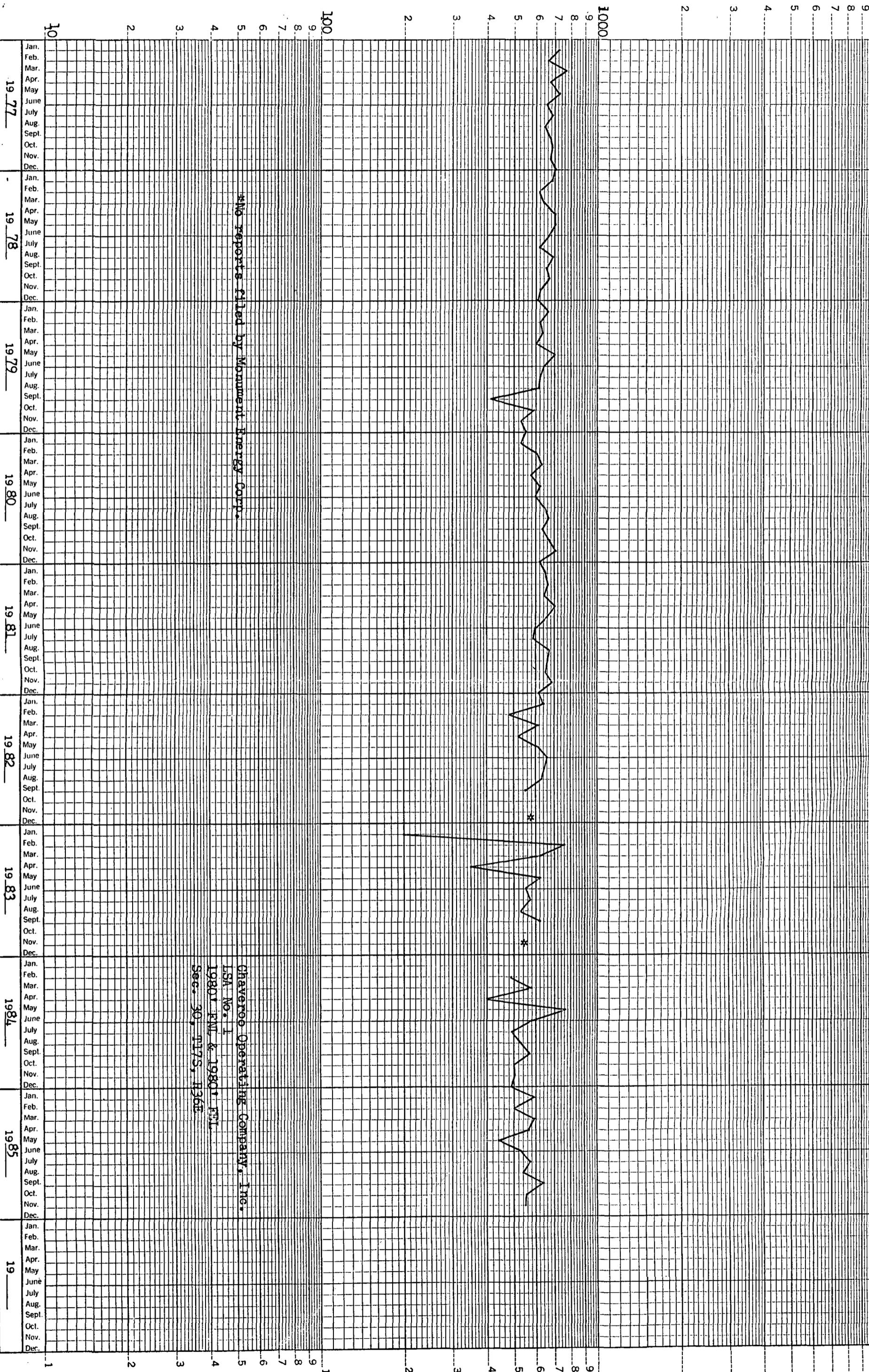
- 7-28-64 Squeezed perforations 5,060' to 5,098' with 142 sacks Lone Star Incer with 8/10 of 1 $\frac{1}{2}$  HA-9 plus 5# salt per sack added to 4000#.
- 7-29-64 Drilled out to 5,100' and tested squeeze job on perforations 5,060' to 5,098' with 2000# pressure for 30 minutes. No pressure loss.
- 8-1-64 Squeezed perforations 9,148' to 9,211' with 128 sacks Lone Star Incer with 8/10 of 1 $\frac{1}{2}$  HA-9 added to 2200#.
- 8-2-64 Drilled cement from 9,050' to 9,198'. Perforated from 9,190' to 9,197' (7 holes). Checked drilled out T.D. at 9,200' by Ram Guns, 2' deep to driller.
- 8-3-64 Ran 2-3/8" O.D. 4.70# J-55 tubing and Guiberson packer. Set tubing at 9,194.83'. Swabbed salt water with trace of gas, no oil.
- 8-4-64 Swabbed 12 barrels salt water per hour, no oil, slight trace of gas.
- 8-5 & 6-64 Squeezed perforations 9,190' to 9,197' with 230 sacks cement (3 jobs).
- 8-6-64 Tested squeeze on perforations 9,190' to 9,197' with 4000#. No pressure loss.
- 8-7-64 Drilled cement from 9,120' to 9,172'. Perforated from 9,157' to 9,161' (4 holes). Checked drilled out T.D. to 9,174' by Ram Guns, 2' deep to driller.
- 8-8-64 Ran 2-3/8" O.D. 4.70# J-55 tubing and Guiberson packer. Set tubing at 9,161.41', Guiberson packer at 8,963.72'. Treated perforations 9,157' to 9,161' with 500 gallons mud acid. Swabbed estimate of 50 barrels acid and load water in 3 hours.
- 8-9-64 Swabbed 12 hours getting estimate of 121 barrels salt water and 27.05 barrels oil.
- 8-10-64 Swabbed 7 hours getting 54.38 barrels oil and 40 barrels water.
- 8-11-64 Pulled tubing and packer.
- 8-12-64 Ran 2-3/8" O.D. 4.70# E.U.E. J-55 tubing, McGaffey Taylor anchor and Page tubing drain for completion. Bottom of tubing 9,166.11'.
- 8-13-64 Ran rods and pump to 9,157'.
- 8-14 & 15-64 Pumped load water with show of oil.
- 8-16-64 Pumped 105 barrels load water, 32.40 barrels oil.
- 8-17-64 Pumped 91.80 barrels oil and 35 barrels load water.
- 8-18-64 Pumped 91.80 barrels oil and 40 barrels water.
- 8-19-64 Pumped 97.20 barrels oil and estimated 21 barrels water.
- 8-20-64 Pumped 64.80 barrels oil and estimated 24 barrels water.
- 8-21-64 Pumped 48.60 barrels oil and 34 barrels water, water estimated.
- 8-22-64 Pumped 37.80 barrels oil and estimated 34 barrels water.
- 8-23-64 Pumped 21.60 barrels oil and estimated 34 barrels water.
- 8-24-64 Pumped 21.60 barrels oil and estimated 34 barrels water.

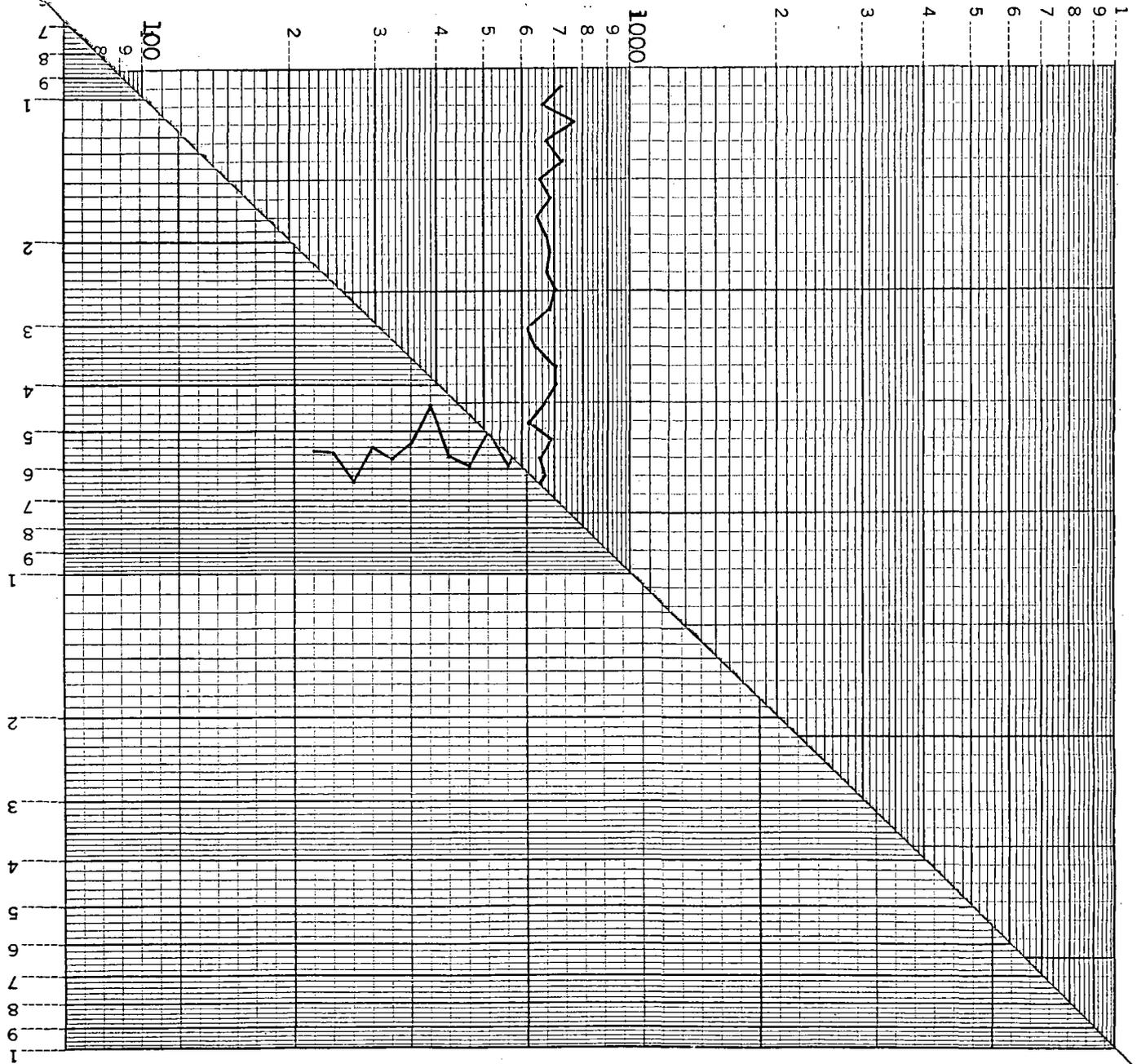
47 6743

REPRODUCED BY INTERNATIONAL LOG STUDIES  
BY KEUFFEL & ESSER CO. MADE IN U.S.A.

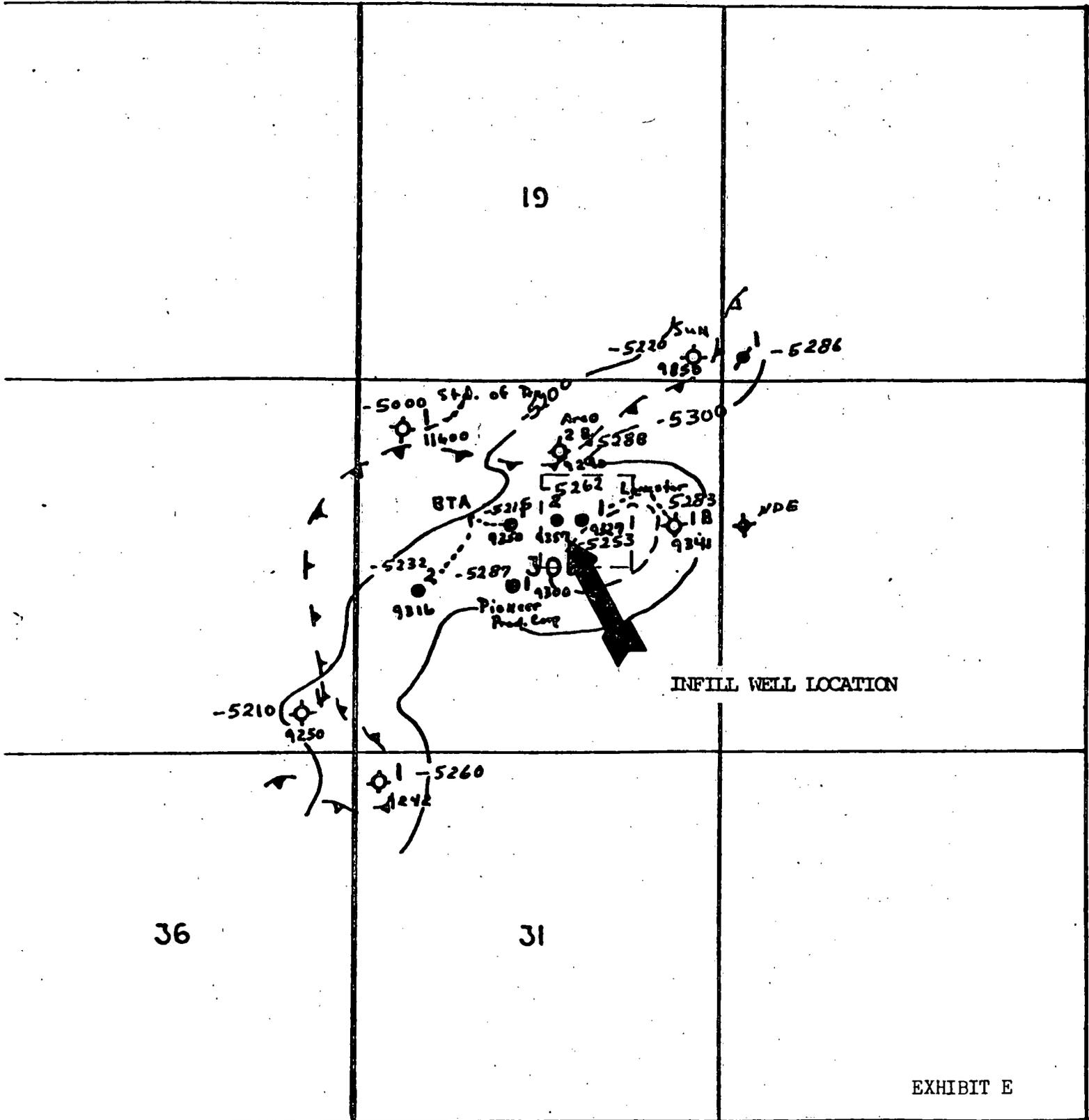


Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.																								
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WILLI D



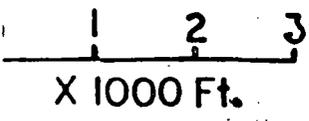
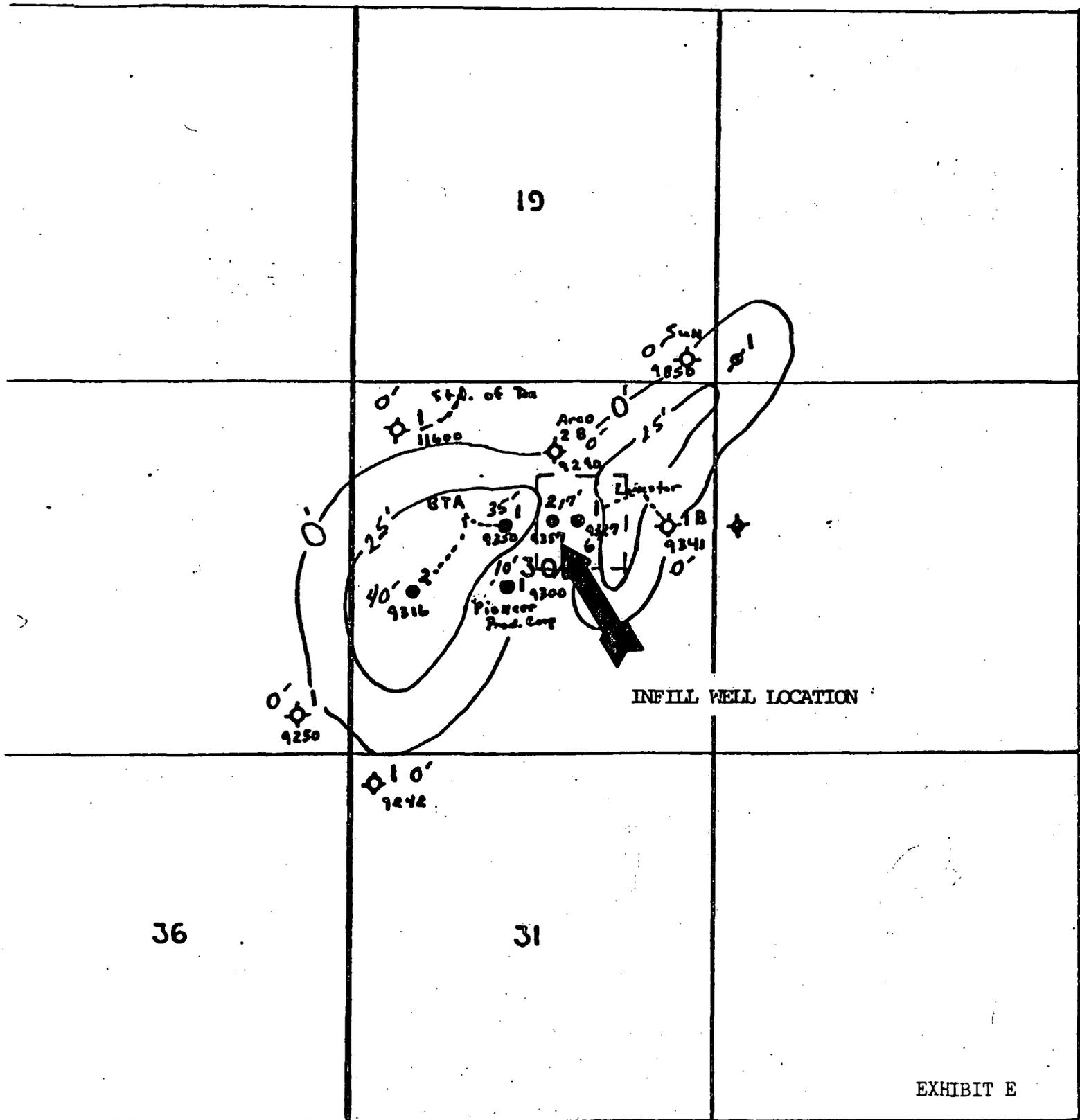
0 1 2 3  
X 1000 Ft.

▽▽ LIMIT OF EFF. POROSITY

DOUBLE-A-ABO, SOUTH FIELD  
STRUCTURE MAP  
TOP LOWER ABO  
CI= 100 Feet

CHAVEROO OPER. CO.  
LSA LEASE  
T 17 S R 36 E  
LEA CO., NEW MEX.

EXHIBIT E



DOUBLE-A-ABO, SOUTH FIELD

ISOPACH MAP

LOWER ABO NET PAY

CI= 25'

CHAVEROO OPER. CO

LSA LEASE

T 17 S R 36 E

LEA CO., NEW MEX.

EXHIBIT E

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101  
Revised 1-1-65

COPIES RECEIVED		
DISTRIBUTION		
DATE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

Second Amendment

5A. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
5. State Oil & Gas Lease No. B-8428	
7. Unit Agreement Name	
8. Farm or Lease Name LSA	
9. Well No. 2	
10. Field and Pool, or Wildcat South Double A Abo	
12. County Lea	
19. Proposed Depth 9320	19A. Formation Abo
20. Rotary or C.T. Rotary	
21A. Kind & Status Plug. Bond Blanket	21B. Drilling Contractor Contract Not Let
22. Approx. Date Work will start. Upon Approval	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>	
1b. Type of Well OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>	
2. Name of Operator Chaveroo Operating Company, Inc.	
3. Address of Operator c/o Oil Reports & Gas Services, Inc., P. O. Box 755, Hobbs, NM 88241	
4. Location of Well UNIT LETTER <u>G</u> LOCATED <u>1980</u> FEET FROM THE <u>North</u> LINE <u>2310</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>30</u> TWP. <u>17S</u> RGE. <u>36E</u> NMPM	
5. Elevations (Show whether DF, RT, etc.) 3381.2 GR	

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
16	13 3/8	54.5#	400	400	Circulated
11	8 5/8	24# & 32#	3500	1500	Circulated
7 7/8	5 1/2	17#	9320	1400	1370

Completion to be conventional perforation & treatment

Type blowout preventer sketch attached

Filed to move location back to original point

Permit Expires 6 Months From Approval  
Date Unless Drilling Underway.

ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed W. S. Walker Title Agent Date 5/9/85

(This space for State Use)

ORIGINAL SIGNED BY JERRY SEXTON

MAY 10 1985

APPROVED BY DISTRICT I SUPERVISOR TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

EXHIBIT F

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

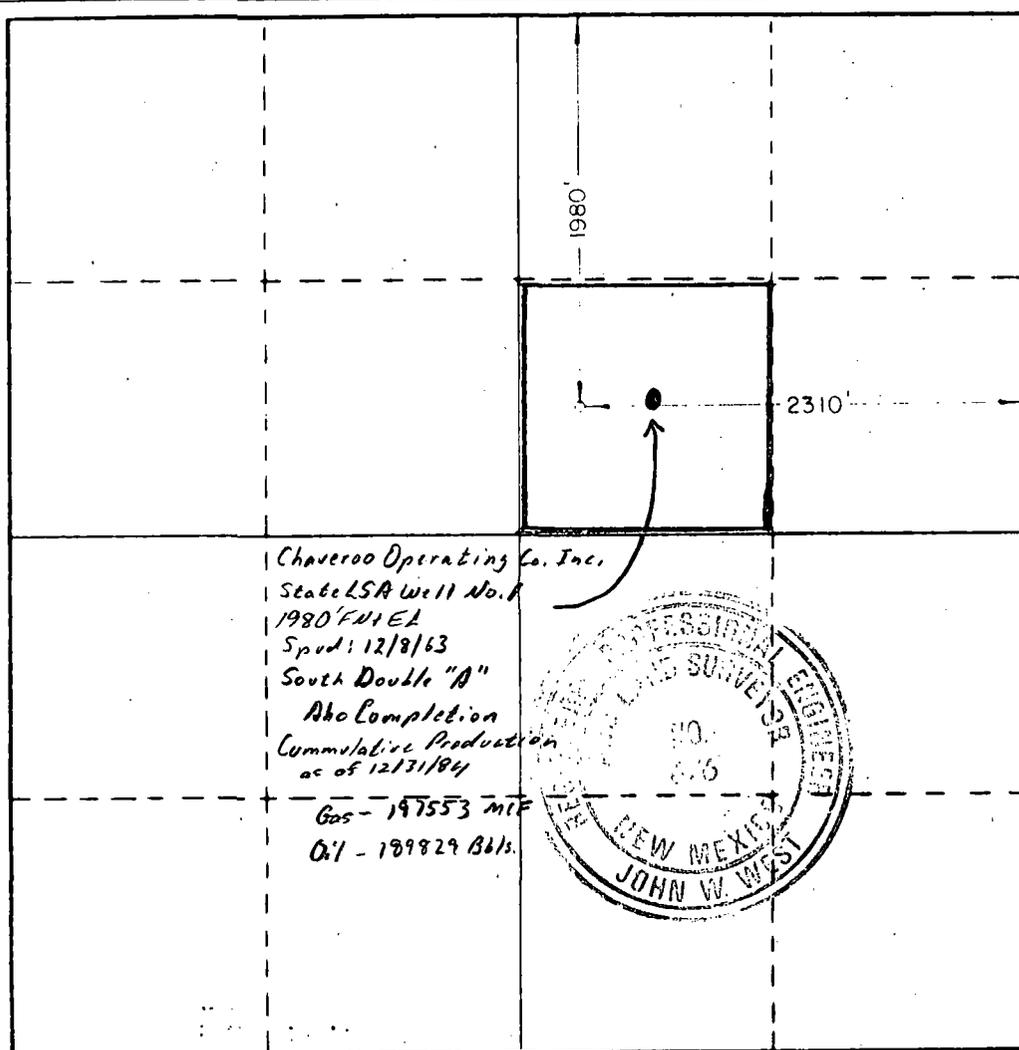
Operator CHAVEROO OPERATING CO., INC.		Lease STATE LSA			Well No. 2
Section Letter G	Section 30	Township 17S	Range 36E	County LEA	
Actual Footage Location of Well: 1980 feet from the NORTH line and 2310 feet from the EAST line					
Ground Level Elev. 3381.2	Producing Formation Abo		Pool South Double A		Dedicated Acreage: 40 Acres

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes  No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name  
*Norman Hollos*

Position  
Agent

Company  
Chaveroo Operating Co. Inc.

Date  
3/27/85

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 supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
3/26/85

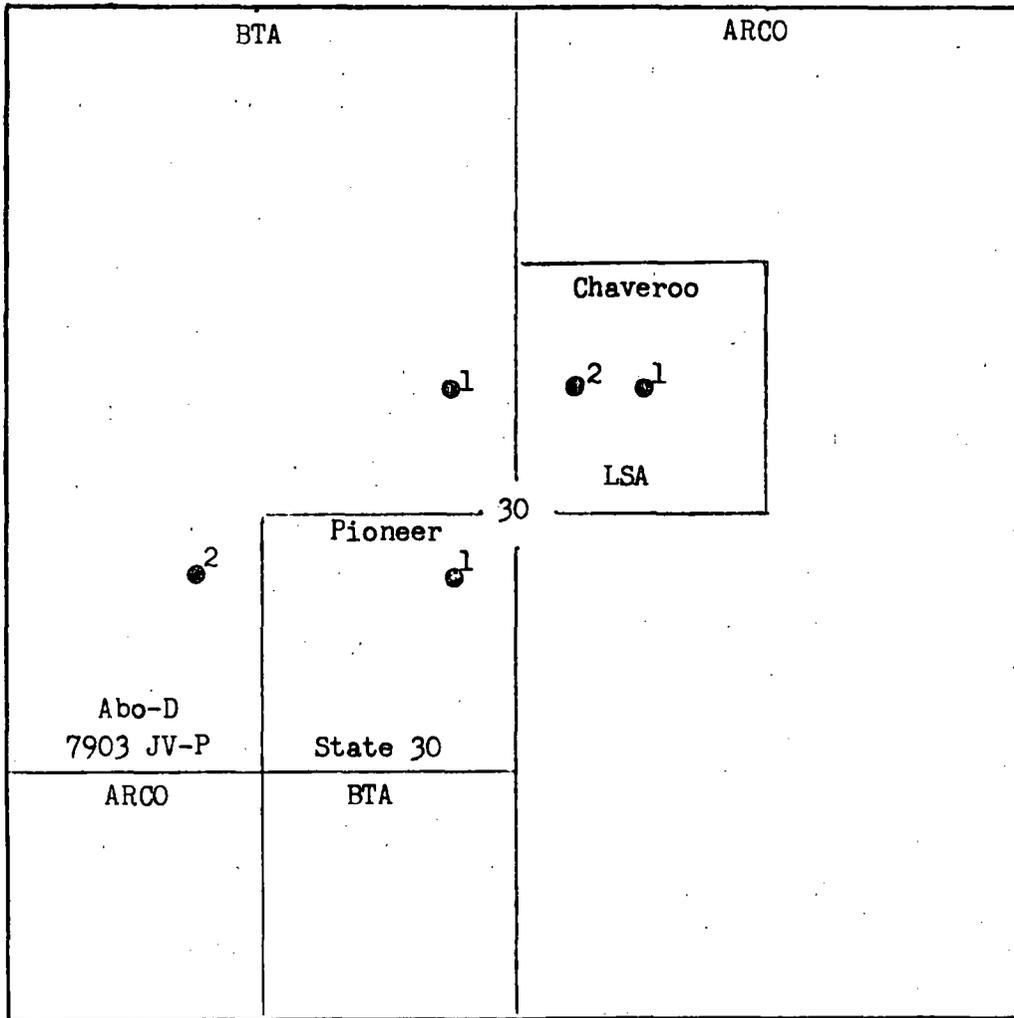
Registered Professional Engineer and/or Land Surveyor  
*John W. West*

Certificate No. JOHN W. WEST, 676  
RONALD J. EIDSON, 3239





R 36 E



T  
17  
S

**Offset Operators**

ARCO Oil & Gas Company  
P. O. Box 1610  
Midland, Texas 79702

BTA Oil Producers  
104 South Pecos  
Midland, Texas 79701

Pioneer Production Corporation  
P. O. Box 2542  
Amarillo, Texas 79189

EXHIBIT H

**P 243 010 610**  
**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED—  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

SENT TO		ARCO Oil & Gas Company	
STREET AND NO.		P. O. Box 1610	
P.O. STATE AND ZIP CODE		Midland, Texas 79702	
POSTAGE		\$27	
CONSULT POSTMASTER FOR FEES	OPTIONAL SERVICES	CERTIFIED FEE	75¢
		SPECIAL DELIVERY	¢
		RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	70¢
		SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	¢
		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		1.67	
POSTMARK OR DATE		MIDLAND TEXAS APR 11 1976	

PS Form 3800, Apr. 1976

**P 243 010 611**  
**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED—  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

SENT TO		BTA Oil Producers	
STREET AND NO.		104 South Pecos	
P.O. STATE AND ZIP CODE		Midland, Texas 79701	
POSTAGE		\$22	
CONSULT POSTMASTER FOR FEES	OPTIONAL SERVICES	CERTIFIED FEE	75¢
		SPECIAL DELIVERY	¢
		RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	70¢
		SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	¢
		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		1.67	
POSTMARK OR DATE		MIDLAND TEXAS APR 11 1976	

PS Form 3800, Apr. 1976

**P 243 010 613**  
**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED—  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

SENT TO		Pioneer Production Corp.	
STREET AND NO.		P. O. Box 2542	
P.O. STATE AND ZIP CODE		Amarillo, Texas 79189	
POSTAGE		\$22	
CONSULT POSTMASTER FOR FEES	OPTIONAL SERVICES	CERTIFIED FEE	75¢
		SPECIAL DELIVERY	¢
		RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	70¢
		SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	¢
		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		1.67	
POSTMARK OR DATE		AMARILLO TEXAS APR 11 1976	

PS Form 3800, Apr. 1976

EXHIBIT I

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

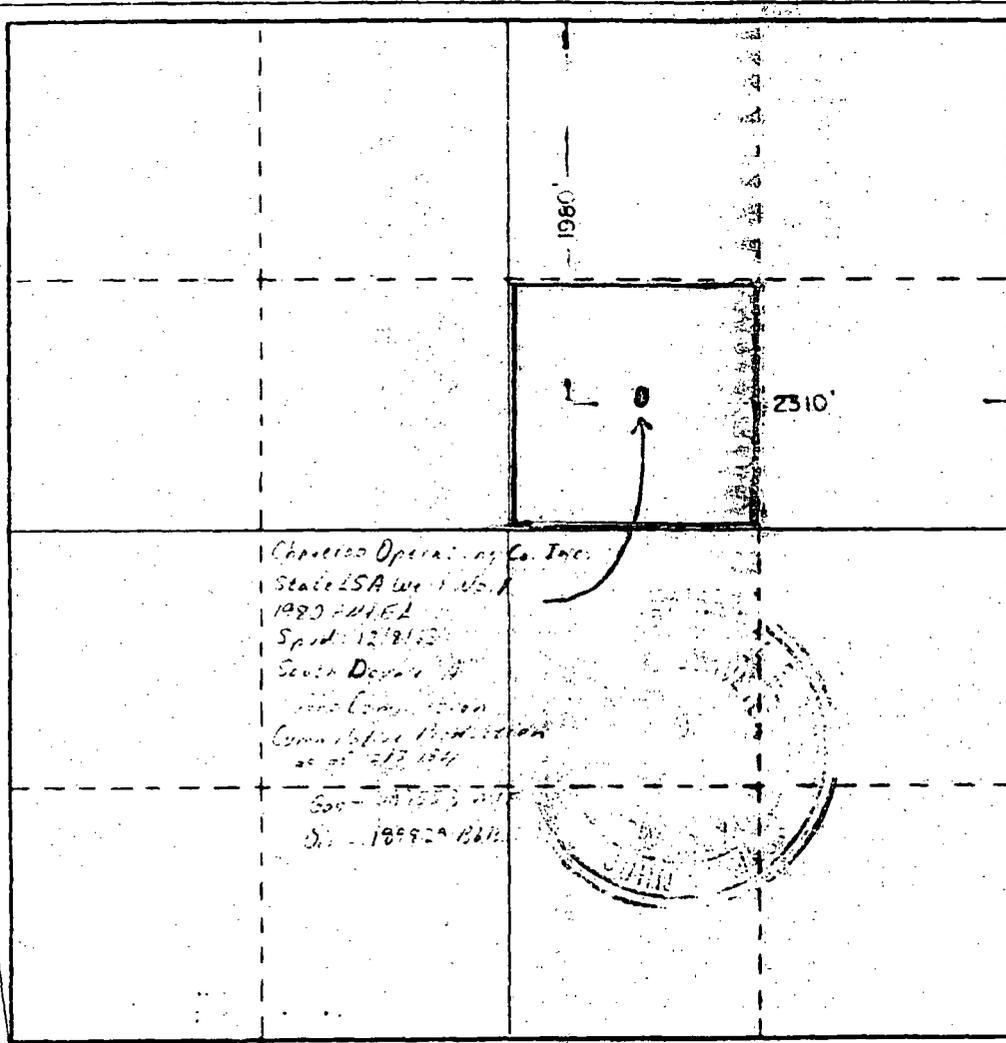
Operator <b>CHAVEROO OPERATING CO., INC.</b>			Lease <b>STATE USA</b>		Well No. <b>2</b>
Section <b>30</b>	Township <b>17S</b>	Range <b>36E</b>	County <b>LEA</b>		
1. True North Location of Well: 2310 feet from the <b>NORTH</b> line and 2310 feet from the <b>EAST</b> line					
Land & Post Elev.	Producing Formation <b>Abo</b>	Pool <b>South Double A</b>	Dedicated Acreage: <b>40</b> Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

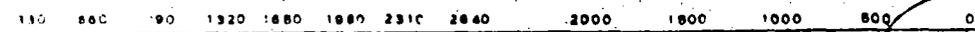
Yes     No    If answer is "yes," type of consolidation \_\_\_\_\_

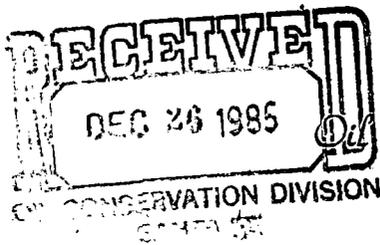
If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



<b>CERTIFICATION</b>
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
Name <i>Donna Walker</i>
Position <b>Agent</b>
Company <b>Chaveroo Operating Co. Inc.</b>
Date <b>3/27/85</b>
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 supervision, and that the same is true and correct to the best of my knowledge and belief.
Date Surveyed <b>3/26/85</b>
Registered Professional Engineer and/or Land Surveyor <i>John W. West</i>
Certificate No. <b>JOHN W. WEST, 676</b> <b>RONALD J. EIDSON, 3239</b>





*Oil Reports and Gas Services, Inc.*

P. O. BOX ~~XXXX~~ 755

HOBBS, NEW MEXICO 88240

PHONE NUMBERS  
393-2727 - 393-2017

Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Gentlemen:

Application is hereby made on behalf of Chaveroo Operating Company, Inc. for an infill well under the provisions of Order R-6013-A as follows:

Well Name: LSA No. 2  
Location: 1980' FNL & 2310' FEL of Section 30, T17S, R36E  
Pool: South Double A Abo  
Spud Date: 5/28/85  
Completion Date: September 14, 1985  
Perforations: Lower Abo 9168 to 9230  
Mechanical Problems: None  
Proration Unit: SW/4 NE/4 Section 30, being 40 acres  
Current Rate of Production: 289 barrels oil, 185 MCF gas, 960 barrels water, per day

Existing Well on Proration Unit:

Well Name: LSA No. 1  
Location: 1980' FNL & 1980' FEL of Section 30, T17S, R36E  
Spud Date: 12/8/63  
Completion Date: 2/14/64  
Perforations: Upper Abo 8824 to 8942  
Mechanical Problems: None  
Current Rate of Production: 18 barrels oil, 23 MCF gas, no water, per day

Reason Well is Necessary to Drain Proration Unit:

The LSA No. 1 was originally drilled to a total depth of 9327 feet and completed in the lower Abo from perforations 9148 to 9211 feet. The results of DST #2 (see Exhibit A) would indicate that good production should have been obtained from this depth. Although the well was potentialized 2/14/64 for 190 barrels of oil per day, the decline was rapid with a total of 3995 barrels of oil and 16,424 barrels of water reported through July 1964. Perforations 9148 to 9211 were squeezed in August 1964 (see Exhibit B) and the well was recompleted through perforations 9157 to 9161. A total of 1192 barrels of oil was produced from these perforations before the well was recompleted to the upper Abo in June 1965 through perforations 8824 to 8942. The production is shown as a decline curve included as Exhibit C.

When BTA Oil Producers completed their Abo-D 7903 JV-P No. 1 on 11/26/83 from perforations 9116 to 9207 with a potential of 360 barrels of oil per day, it became evident that the DST in the LSA No. 1 was indeed a reliable test. This well is a direct west offset, being 990' due west from the LSA No. 1. There is no logical explanation as to why the LSA No. 1 was not able to obtain commercial production from the lower Abo in 1964.

Oil Conservation Division

December 23, 1985

Page 2

There is nothing filed of record to indicate how or what material was used to plug back the LSA No. 1 from 9172 to 9124 in June 1965, although pencil notes found in the operator's well file would indicate that a retainer was set. To attempt a recompletion back to the lower Abo would thus require drilling out two retainers in the 22-year old well bore. Swab test and production records from 1964 would indicate that the 4 to 6 feet of lower Abo pay had been watered out.

Exhibit D, a decline curve of LSA No. 1 from January 1977 to November 1985, reveals that there has been very little decline in production during this period, with production stabilized at an average of 18 barrels of oil per day for the last 22 months. It was not mechanically feasible to risk 18 barrels water-free production per day in an attempt to return the LSA No. 1 back to the lower Abo. However, some action was necessary to protect the lease from drainage. The only alternative was to drill a new well between the LSA No. 1 and the BTA well. The need for action became more evident when Pioneer Production Corporation completed the State "30" No. 1 for 55 barrels of oil per day from perforations 8592 to 9213 on May 22, 1984. This well is a southwest diagonal offset, being 1400' southwest of the LSA No. 1.

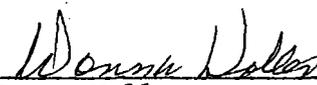
Estimated Increased Recovery:

The BTA Oil Producers Abo-D 7903 JV-P No. 1 has produced a total of 177,057 barrels of oil and 106,867 MCF gas from November 26, 1983 through August 1985. The Abo-D 7903 JV-P No. 2 was completed December 30, 1984 through perforations 9126 through 9206 and has produced 63,927 barrels oil and 43,400 MCF gas through August 1985. The Chaveroo LSA No. 2 has produced 22,118 barrels oil and 13,265 MCF gas from September 14, 1985. The Pioneer State "30" No. 1 has produced 48,280 barrels oil and 45,667 MCF gas from May 22, 1984 through August 1985. As shown on the structure map (Exhibit E), these are the only four wells producing from the lower Abo formation from which a decline pattern could be ascertained and none have produced for a sufficient period to establish such a pattern. If we assume a flat decline rate as experienced by the LSA No. 1 in the upper Abo and use the current productivity of the LSA No. 2 then the ultimate recovery could be estimated as high as 1,500,000 barrels oil and 905,000 MCF gas. If we assume a rapid decline after the initial flush production we can estimate a conservative recovery of 500,000 barrels oil and 300,000 MCF gas.

All operators shown on Exhibit H have been notified by certified mail that this application has been filed.

Yours very truly,

OIL REPORTS & GAS SERVICES, INC.

  
\_\_\_\_\_  
Donna Holler

DH/sn

INDEX OF EXHIBITS

Application for Infill Well  
Chaveroo Operating Company, Inc.  
LSA No. 2

- Exhibit A DST No. 2, LSA No. 1, run in 1964, lower Abo 9145 to 9222
- Exhibit B Detail of recompletion from San Andres - lower Abo dual to lower Abo perfs 9157 to 9161
- Exhibit C Decline curve, LSA No. 1, February 1964 thru December 1973
- Exhibit D Decline Curve, LSA No. 1, January 1977 thru November 1985
- Exhibit E Structure map and isopach map
- Exhibit F Copy of Form C-101, LSA No. 2, approved May 10, 1985
- Exhibit G Copy of surveyor's plat (Form C-102) as filed with Form C-101
- Exhibit H Location plat showing wells of interest and offset operators
- Exhibit I Copy of Certified Mail Receipt

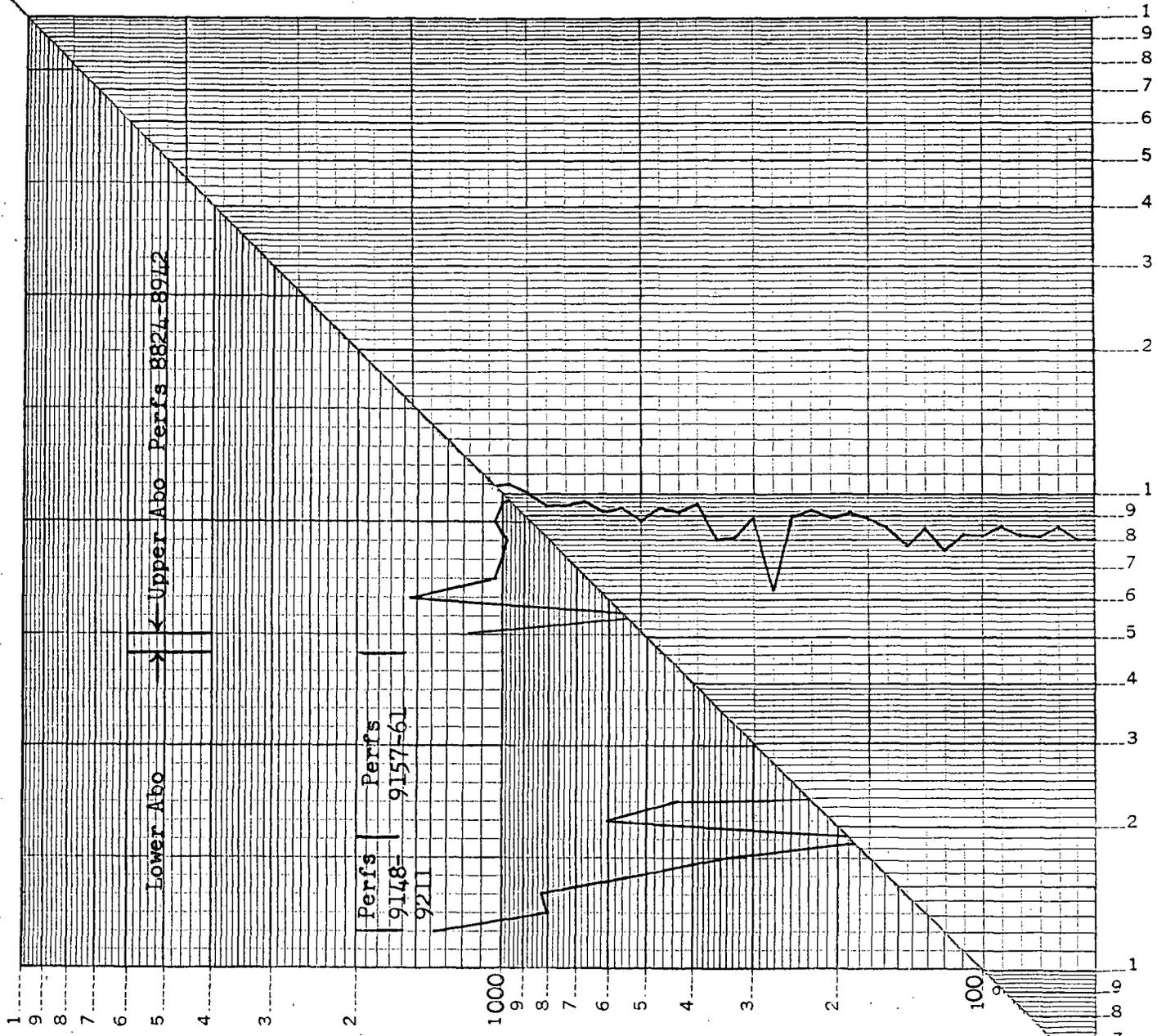


Lone Star Producing Company - Atlantic State No. 1 Well, Unit C, Section 30, T-17-S,  
R-36-E, Lea County, New Mexico, South Double A-Abe Field;

HOBBS OFFICE O. C. C.

AUG 26 10 51 AM '64

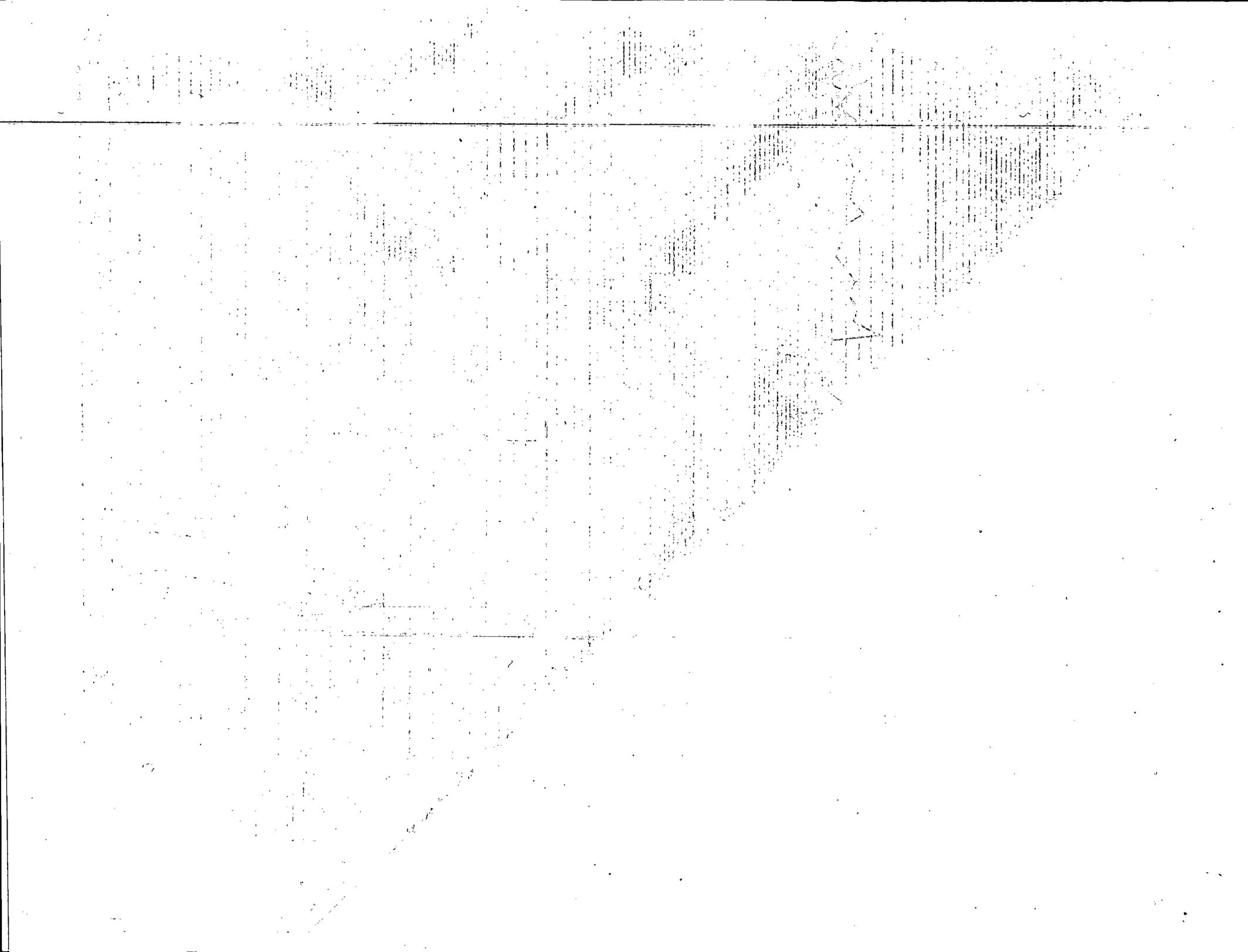
- 7-28-64 Squeezed perforations 5,060' to 5,098' with 142 sacks Lone Star Incoor with 8/10 of 1 $\frac{1}{2}$  HA-9 plus 5# salt per sack added to 4000#.
- 7-29-64 Drilled out to 5,100' and tested squeeze job on perforations 5,060' to 5,098' with 2000# pressure for 30 minutes. No pressure loss.
- 8-1-64 Squeezed perforations 9,148' to 9,211' with 128 sacks Lone Star Incoor with 8/10 of 1 $\frac{1}{2}$  HA-9 added to 2200#.
- 8-2-64 Drilled cement from 9,050' to 9,198'. Perforated from 9,190' to 9,197' (7 holes). Checked drilled out T.D. at 9,200' by Ram Guns, 2' deep to driller.
- 8-3-64 Ran 2-3/8" O.D. 4.70# J-55 tubing and Guiberson packer. Set tubing at 9,194.83'. Swabbed salt water with trace of gas, no oil.
- 8-4-64 Swabbed 12 barrels salt water per hour, no oil, slight trace of gas.
- 8-5 & 6-64 Squeezed perforations 9,190' to 9,197' with 230 sacks cement (3 jobs).
- 8-6-64 Tested squeeze on perforations 9,190' to 9,197' with 4000#. No pressure loss.
- 8-7-64 Drilled cement from 9,120' to 9,172'. Perforated from 9,157' to 9,161' (4 holes). Checked drilled out T.D. to 9,174' by Ram Guns, 2' deep to driller.
- 8-8-64 Ran 2-3/8" O.D. 4.70# J-55 tubing and Guiberson packer. Set tubing at 9,161.41', Guiberson packer at 8,963.72'. Treated perforations 9,157' to 9,161' with 500 gallons mud acid. Swabbed estimate of 50 barrels acid and load water in 3 hours.
- 8-9-64 Swabbed 12 hours getting estimate of 121 barrels salt water and 27.05 barrels oil.
- 8-10-64 Swabbed 7 hours getting 54.38 barrels oil and 40 barrels water.
- 8-11-64 Pulled tubing and packer.
- 8-12-64 Ran 2-3/8" O.D. 4.70# E.U.E. J-55 tubing, McGaffey Taylor anchor and Page tubing drain for completion. Bottom of tubing 9,166.11'.
- 8-13-64 Ran rods and pump to 9,157'.
- 8-14 & 15-64 Pumped load water with show of oil.
- 8-16-64 Pumped 105 barrels load water, 32.40 barrels oil.
- 8-17-64 Pumped 91.80 barrels oil and 35 barrels load water.
- 8-18-64 Pumped 91.80 barrels oil and 40 barrels water.
- 8-19-64 Pumped 97.20 barrels oil and estimated 21 barrels water.
- 8-20-64 Pumped 64.80 barrels oil and estimated 24 barrels water.
- 8-21-64 Pumped 48.60 barrels oil and 34 barrels water, water estimated.
- 8-22-64 Pumped 37.80 barrels oil and estimated 34 barrels water.
- 8-23-64 Pumped 21.60 barrels oil and estimated 34 barrels water.
- 8-24-64 Pumped 21.60 barrels oil and estimated 34 barrels water.



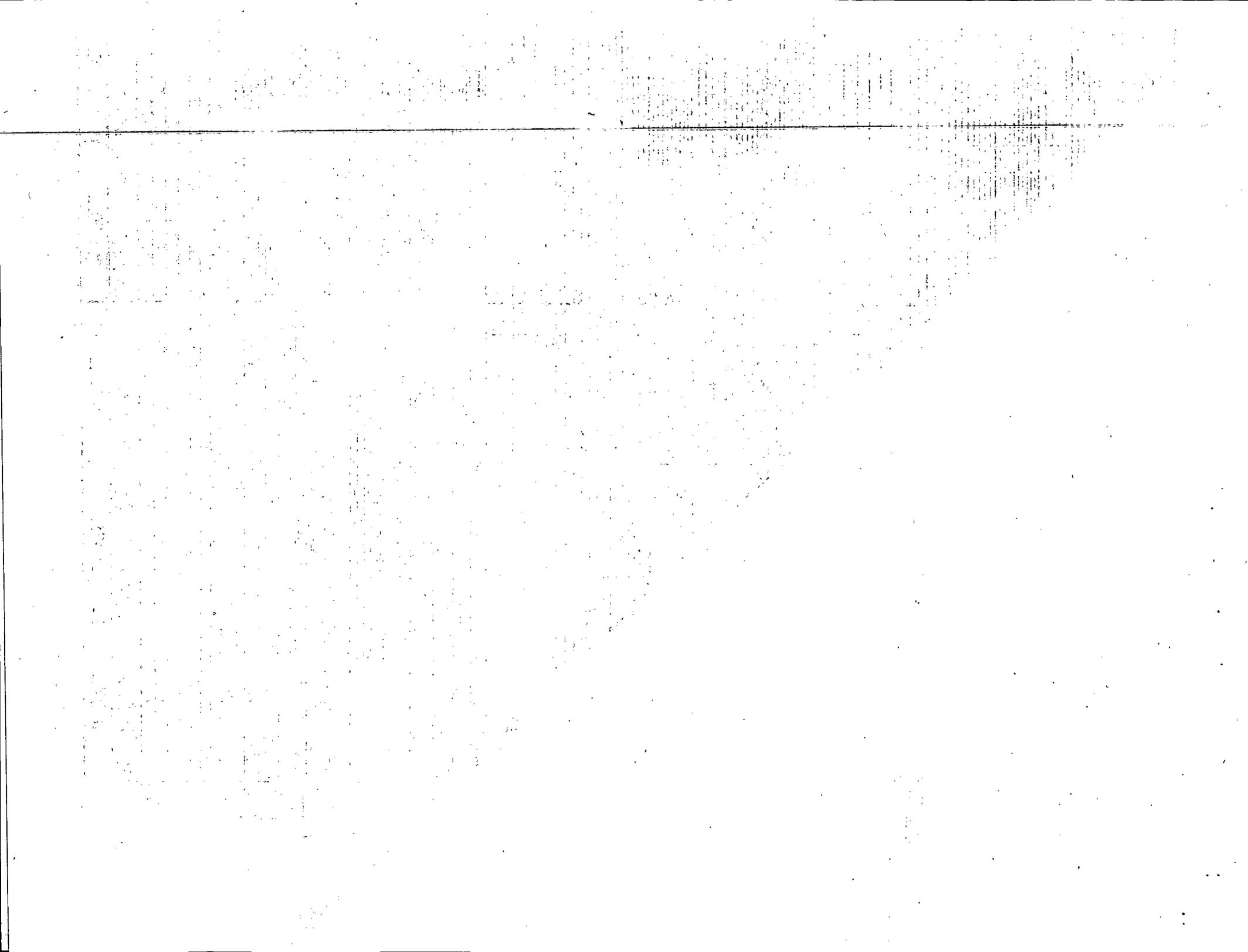
47 6743

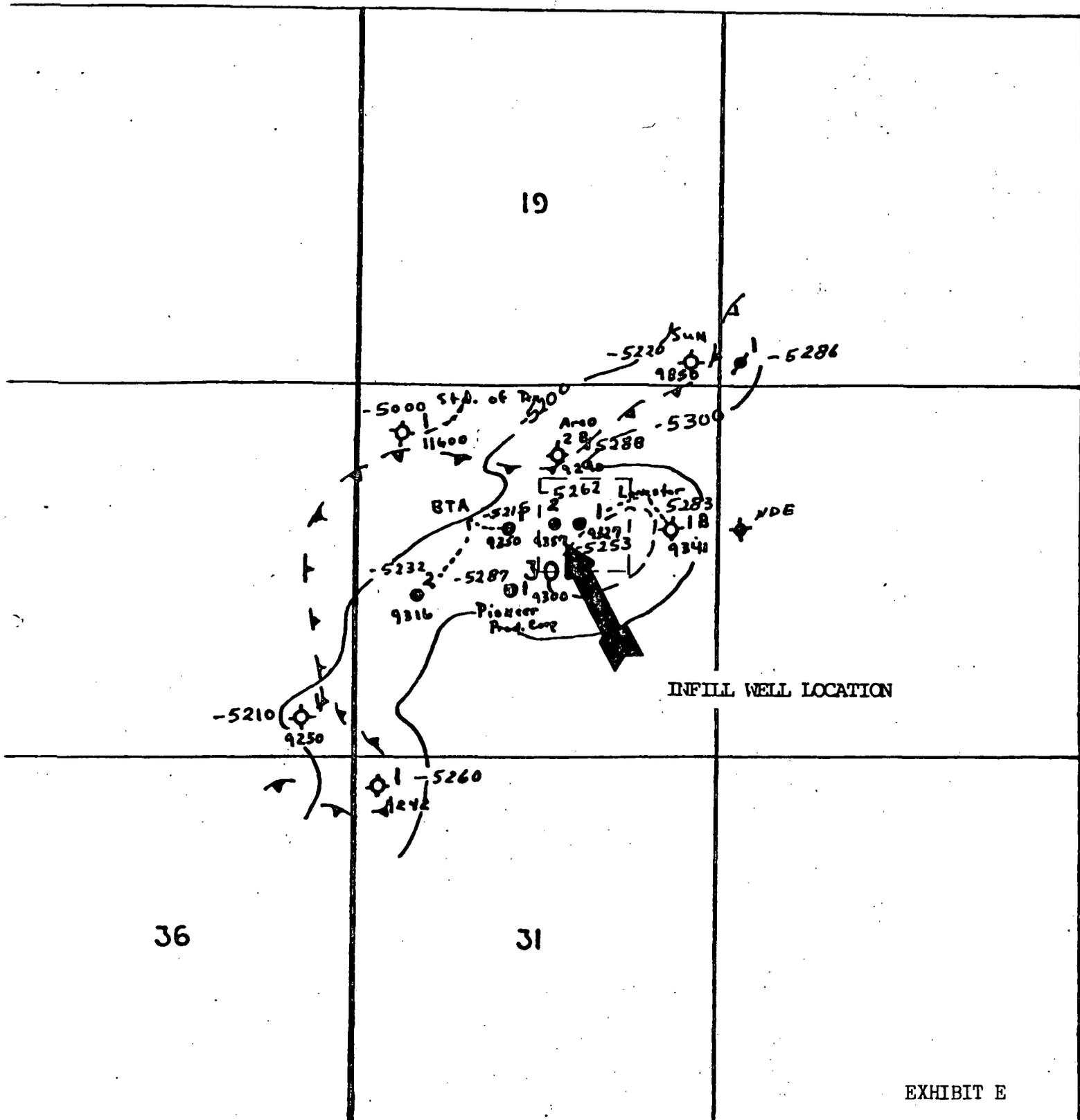
1 YEARS BY MONTHS X 100 CYCLES  
 PERL & ESSER CO. MADE IN USA

0 01-155X









36

31

19

EXHIBIT E



X 1000 Ft.

DOUBLE-A-ABO, SOUTH FIELD

CHAVEROO OPER. CO.

STRUCTURE MAP

LSA LEASE

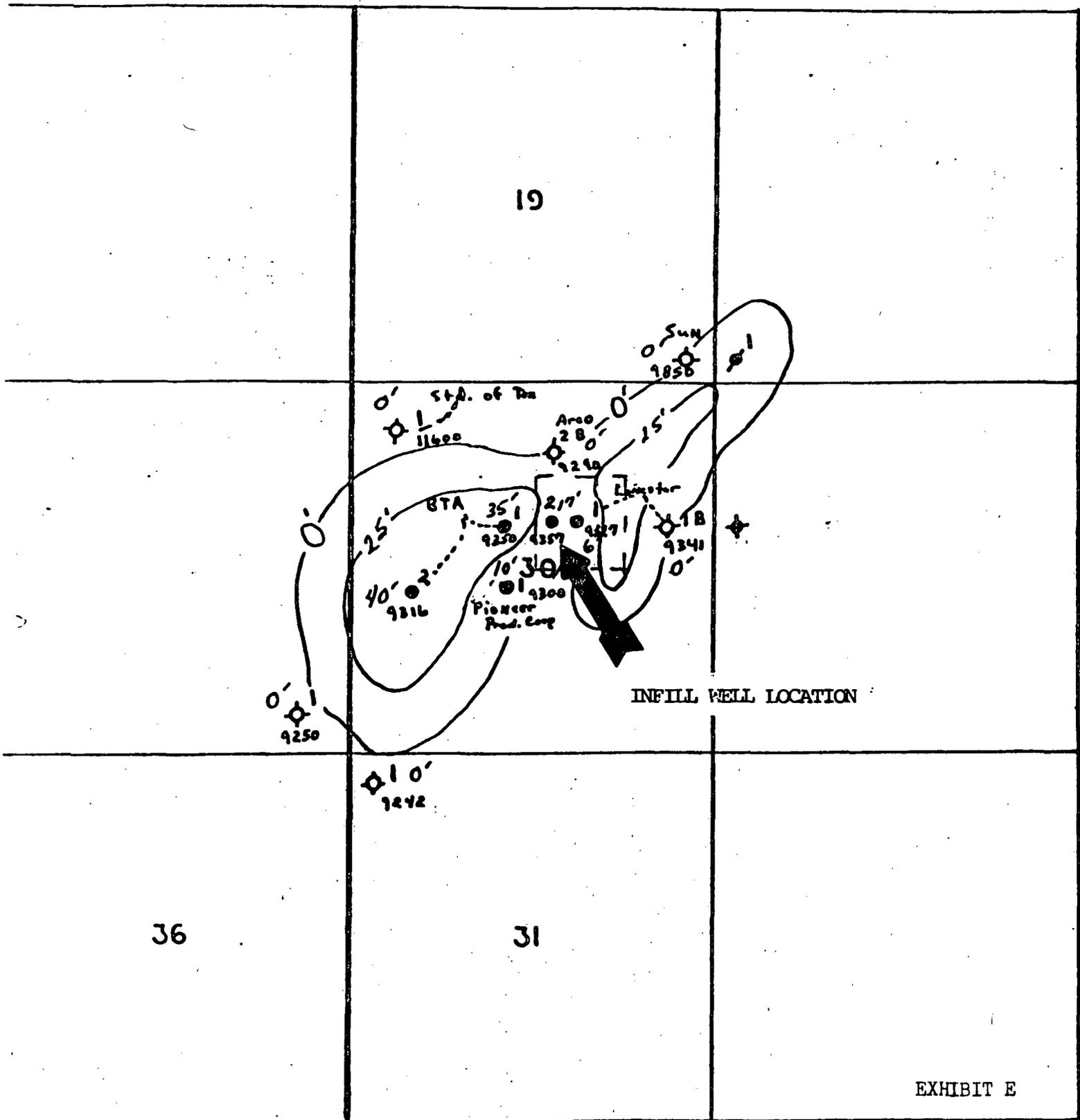
--- LIMIT OF EFF. POROSITY

TOP LOWER ABO

T 17 S R 36 E

CI= 100 Feet

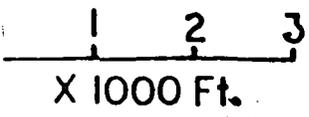
LEA CO., NEW MEX.



36

31

EXHIBIT E



DOUBLE-A-ABO, SOUTH FIELD

CHAVEROO OPER. CO

ISOPACH MAP

LSA LEASE

LOWER ABO NET PAY

T 17 S R 36 E

CI= 25'

LEA CO., NEW MEX.

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101  
Revised 1-1-65

COPIES RECEIVED		
DISTRIBUTION		
STATE FEE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

Second Amendment

5A. Indicate Type of Lease  
STATE  FEE

5. State Oil & Gas Lease No.  
B-8428

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			7. Unit Agreement Name		
b. Type of Well OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>			8. Farm or Lease Name LSA		
c. Name of Operator Chaveroo Operating Company, Inc.			9. Well No. 2		
d. Address of Operator c/o Oil Reports & Gas Services, Inc., P. O. Box 755, Hobbs, NM 88241			10. Field and Pool, or Wildcat South Double A Abo		
e. Location of Well UNIT LETTER G LOCATED 1980 FEET FROM THE North LINE 2310 FEET FROM THE East LINE OF SEC. 30 TWP. 17S RGE. 36E NMPM			12. County Lea		
19. Proposed Depth 9320		19A. Formation Abo		20. Rotary or C.T. Rotary	
21A. Kind & Status Plug. Bond Blanket		21B. Drilling Contractor Contract Not Let		22. Approx. Date Work will start Upon Approval	
2. Elevation (Show whether DF, RT, etc.) 3381.2 GR					

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
16	13 3/8	54.5#	400	400	Circulated
11	8 5/8	24# & 32#	3500	1500	Circulated
7 7/8	5 1/2	17#	9320	1400	1370

Completion to be conventional perforation & treatment

Type blowout preventer sketch attached

Filed to move location back to original point

Permit Expires 6 Months From Approval  
Date Unless Drilling Underway.

ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTION ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed W. S. Walker Title Agent Date 5/9/85

(This space for State Use)

ORIGINAL SIGNED BY JERRY SEXTON

MAY 10 1985

APPROVED BY DISTRICT I SUPERVISOR TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

EXHIBIT F

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

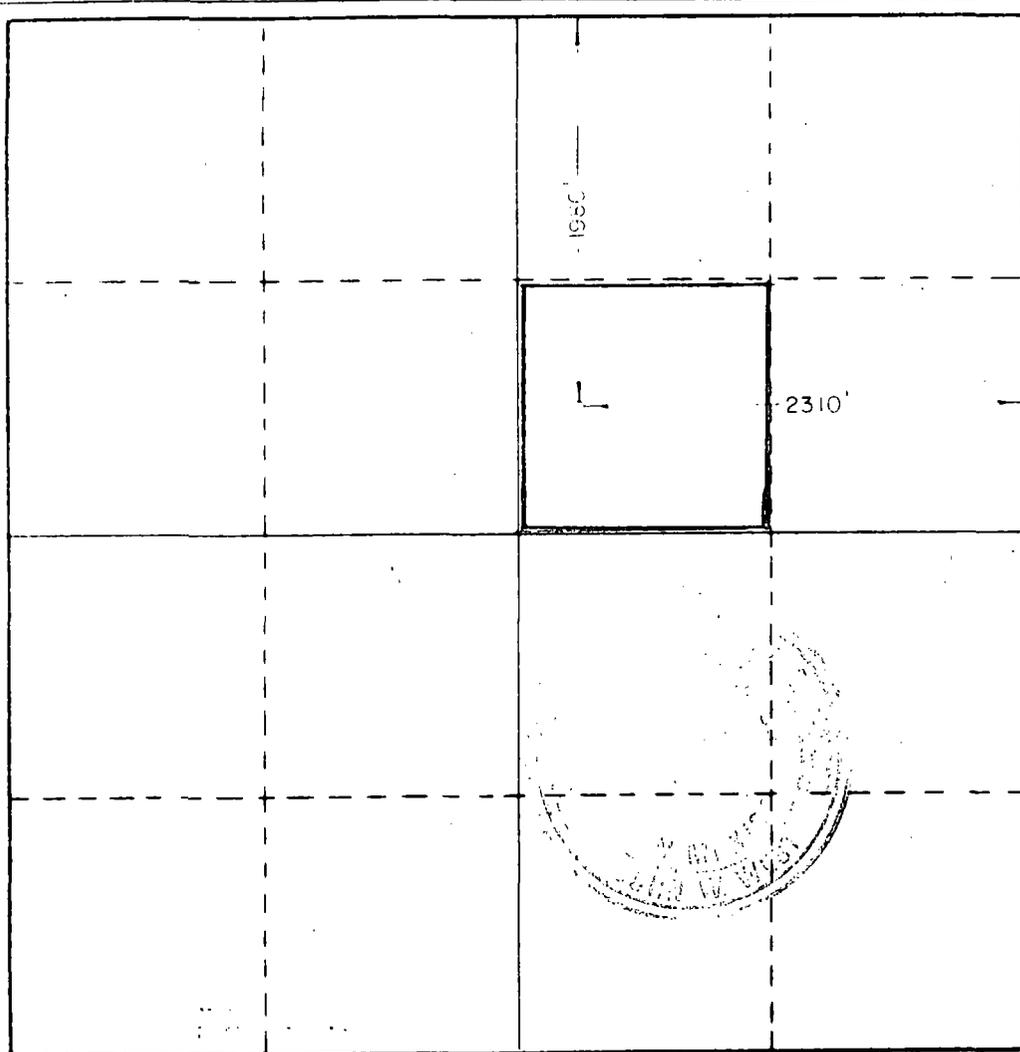
Operator <b>CHAVEROO OPERATING CO., INC.</b>		Lease <b>STATE LSA</b>			Well No. <b>2</b>
Section Letter <b>G</b>	Section <b>30</b>	Township <b>17S</b>	Range <b>36E</b>	County <b>LEA</b>	
Actual Footage Location of Well: <b>1980</b> feet from the <b>NORTH</b> line and <b>2310</b> feet from the <b>EAST</b> line					
Ground Level Elev. <b>3381.2</b>	Producing Formation <b>Abo</b>		Pool <b>South Double A</b>		Dedicated Acreage: <b>40</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes     No    If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



**CERTIFICATION**

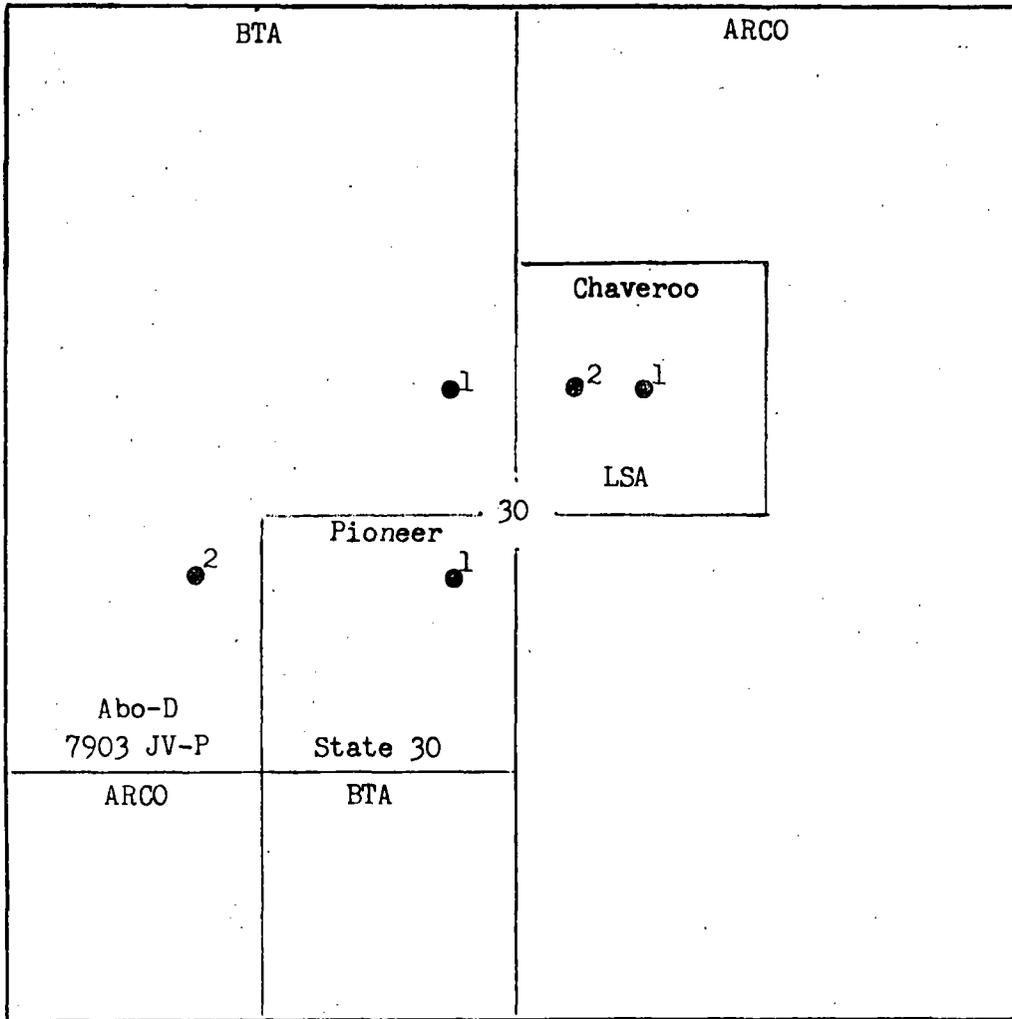
*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.*

Name <i>Norman Hollos</i>
Position <b>Agent</b>
Company <b>Chaveroo Operating Co. Inc.</b>
Date <b>3/27/85</b>

*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 supervision, and that the same is true and correct to the best of my knowledge and belief.*

Date Surveyed <b>3/26/85</b>
Registered Professional Engineer and/or Land Surveyor <i>John W. West</i>
Certificate No. <b>JOHN W. WEST, 676</b> <b>RONALD J. EIDSON, 3239</b>

R 36 E



T  
17  
S

**Offset Operators**

ARCO Oil & Gas Company  
P. O. Box 1610  
Midland, Texas 79702

BTA Oil Producers  
104 South Pecos  
Midland, Texas 79701

Pioneer Production Corporation  
P. O. Box 2542  
Amarillo, Texas 79189

**P 243 010 610**  
**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED—  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

SENT TO		ARCO Oil & Gas Company		
STREET AND NO.		P. O. Box 1610		
P.O., STATE AND ZIP CODE		Midland, Texas 79702		
POSTAGE		\$	22	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE		75	
	SPECIAL DELIVERY		c	
	RESTRICTED DELIVERY		c	
	OPTIONAL SERVICES			
	RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED		70
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		c
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		c	
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		c	
TOTAL POSTAGE AND FEES			1.67	
POSTMARK OR DATE		APR 11 1976		

PS Form 3800, Apr. 1976

**P 243 010 611**  
**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED—  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

SENT TO		BTA Oil Producers		
STREET AND NO.		104 South Pecos		
P.O., STATE AND ZIP CODE		Midland, Texas 79701		
POSTAGE		\$	22	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE		75	
	SPECIAL DELIVERY		c	
	RESTRICTED DELIVERY		c	
	OPTIONAL SERVICES			
	RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED		70
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		c
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		c	
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		c	
TOTAL POSTAGE AND FEES			1.67	
POSTMARK OR DATE		APR 11 1976		

PS Form 3800, Apr. 1976

**P 243 010 613**  
**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED—  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

SENT TO		Pioneer Production Corp.		
STREET AND NO.		P. O. Box 2542		
P.O., STATE AND ZIP CODE		Amarillo, Texas 79189		
POSTAGE		\$	22	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE		75	
	SPECIAL DELIVERY		c	
	RESTRICTED DELIVERY		c	
	OPTIONAL SERVICES			
	RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED		70
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		c
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		c	
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		c	
TOTAL POSTAGE AND FEES			1.67	
POSTMARK OR DATE		APR 11 1976		

PS Form 3800, Apr. 1976