

CASE 3731: Appli. of TAMARACK
PETROLEUM CO. INC. FOR A WATER-
FLOOD PROJECT, LEA COUNTY.

5/16

NOTE: Not added
to the Flood Project

Case No.

3731

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3731
Order No. R-3396

APPLICATION OF TAMARACK PETROLEUM
COMPANY, INC., FOR A WATERFLOOD
PROJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 28, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of March, 1968, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Tamarack Petroleum Company, Inc., seeks permission to institute a waterflood project in the South Pearl Queen Unit Area, Pearl-Queen Pool, by the injection of water into the Queen formation through 14 injection wells in Sections 3, 4, 5, 8, 9, and 10, Township 20 South, Range 35 East, NMPM, Lea County, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

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(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tamarack Petroleum Company, Inc., is hereby authorized to institute a waterflood project in the South Pearl Queen Unit Area, Pearl-Queen Pool, by the injection of water into the Queen formation through the following-described wells in Township 20 South, Range 35 East, NMPM, Lea County, New Mexico:

COMPANY	LEASE	WELL NO.	UNIT	SECTION
Shell	Linam Estate	1	B	3
Tamarack	Lowe	1	E	3
Tamarack	Lowe	2	F	3
Tamarack	Western Federal "C"	1	N	3
Tamarack	Federal "PQ"	2	G	4
Tamarack	Federal "PQ"	1	H	4
Tamarack	Federal	6	K	4
Tamarack	Federal "A"	8	L	4
Southern Union	Saunders Federal	8	I	5
Southern Union	Saunders Federal	6	A	8
Southern Union	Saunders Federal	2	A	9
Southern Union	Saunders Federal	1	B	9
Tamarack	South Pearl Queen Unit well to be drilled		F	9
Southern Union	Saunders Federal	9	C	10

PROVIDED HOWEVER, that the applicant is hereby authorized to complete, in such a manner as to also produce, through tubing, oil from the lower Queen formation of the Pearl-Queen Pool from the Lowe Well No. 1, Federal "PQ" Well No. 2, Federal "A" Well No. 8, Saunders Federal Well No. 1, and the Saunders Federal Well No. 9

(2) That the subject waterflood project is hereby designated the Tamarack South Pearl Queen Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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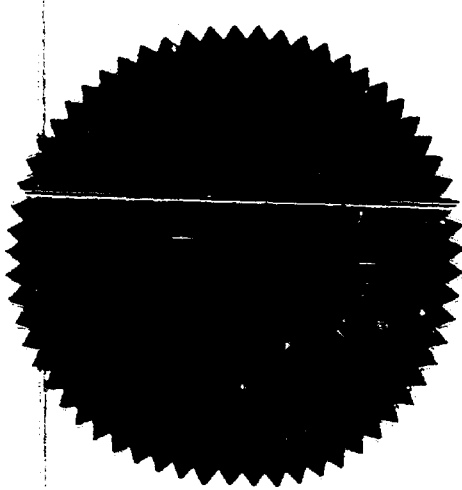
CASE No. 3731

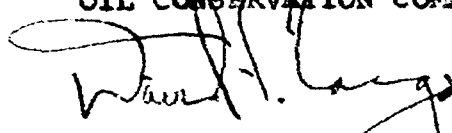
Order No. R-3396

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION




DAVID F. CARGO, Chairman


GUPTON B. HAYS, Member


A. L. PORTER, Jr., Member & Secretary

esr/

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 28, 1968

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

The following cases will be heard before Daniel S. Nutter, Examiner, or
Elvis A. Utz, Alternate Examiner:

CASE 3714: (Continued from the January 24, 1968, Examiner Hearing)

Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "O" Well No. 1 located in Unit F of Section 16, Township 17 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the perforated interval 3140 to 3160 feet, Maljamar-Queen Gas Pool, and the injection of water for secondary recovery purposes into the Grayburg-San Andres formations in the interval from 3700 to 4050 feet through parallel strings of 2-inch tubing.

CASE 3724: Application of El Paso Natural Gas Company for a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its San Juan 27-4 Unit Well No. 30 (GD) located in Unit N of Section 32, Township 27 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the Gallup formation and the Basin-Dakota Pool through tubing and the casing-tubing annulus, respectively, by means of a cross-over.

CASE 3725: Application of Continental Oil Company for two non-standard gas proration units and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the following two non-standard gas proration units in the Jalmat Gas Pool:

A 160-acre unit comprising the E/2 E/2 of Section 1, Township 25 South, Range 36 East, Lea County, New Mexico, to be dedicated to its Wells B-1 Well No. 1 located 660 feet from the North and East lines of said Section 1; and a 200-acre unit comprising the W/2 E/2 and NE/4 NW/4 of said Section 1 to be dedicated to its Wells B-1 Well No. 3 located at an unorthodox location 660 feet from the North line and 1650 feet from the West line of said Section 1.

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CASE 3726: Application of John Yuronka and Robert Chandler for compulsory pooling, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order force-pooling all mineral interests from the surface down to a depth of 7400 feet underlying the E/2 SW/4 of Section 7, Township 22 South, Range 38 East, Lea County, New Mexico, to form two 40-acre proration units for Drinkard, Paddock, Blinbry, Tubb or other oil production to be dedicated to two wells to be drilled in Units K and N of said Section 7, or to form an 80-acre non-standard gas proration unit in the event gas production is encountered in the Tubb Gas Pool. Also to be considered will be the costs of drilling said wells and a charge for the risk involved, and a provision for the allocation of actual operating costs and the establishment of charges for supervision of said wells.

CASE 3727: Application of Monsanto Company for an unorthodox gas well location, a non-standard proration unit, a dual completion, and temporary special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its Rock Tank Unit Well No. 1 located 550 feet from the North line and 320 feet from the West line of Section 7, Township 23 South, Range 25 East, Eddy County, New Mexico, said well to be dedicated to the proposed non-standard proration unit comprising the W/2 of said Section 7 and the E/2 of Section 12, Township 23 South, Range 24 East. Applicant also seeks approval of the dual completion (conventional) of said well to produce gas from the Upper Morrow and Lower Morrow formations through the casing-tubing annulus and the tubing, respectively. Applicant further seeks the creation of Upper Morrow and Lower Morrow gas pools for said well and the promulgation of temporary special rules therefor, including a provision for 640-acre spacing.

CASE 3728: Application of Tenneco Oil Company for an amendment to Order No. R-3127, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3127 for the expansion of the Grayburg-Jackson West Cooperative Unit Area by some 400 additional acres of State land in Section 16, Township 17 South, Range 29 East, Eddy County, New Mexico.

CASE 3729: Application of Pan American Petroleum Corporation for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to

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CASE 3729: (Continued from Page 2)

drill a well at an unorthodox location 510 feet from the South line and 1830 feet from the East line of Section 15, Township 24 South, Range 37 East, Fowler-Ellenburger Pool, Lea County, New Mexico, in exception to the pool rules that require that wells be drilled in the NW/4 or the SE/4 of the quarter section.

CASE 3730: Application of Tamarack Petroleum Company, Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the South Pearl Queen Unit Area comprising 1523 acres, more or less, of Fee and Federal lands in Township 20 South, Range 35 East, Lea County, New Mexico.

CASE 3731: Application of Tamarack Petroleum Company, Inc., for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation through 14 wells in its South Pearl Queen Unit, Township 20 South, Range 35 East, Pearl-Queen Pool, Lea County, New Mexico.

CASE 3732: Application of Weier Drilling Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through its V. L. Foster Well No. 6 located 2310 feet from the North line and 1650 feet from the East line of Section 17, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

CASE 3733: Application of Daryl Davis to re-enter a well, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter the State "A" Well No. 1 located 1980 feet from the South and West lines of Section 1, Township 4 South, Range 26 East, Chaves County, New Mexico, and attempt to complete said well as a producer from the San Andres formation.

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 2088
SANTA FE

March 25, 1968

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3731
Order No. R-3396
Applicant:
Tamarack Petroleum Co.

Dear Sir:

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x
Artesia OCC _____
Aztec OCC _____
State Engineer x

Other _____

Case 3731

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
SHELL LINAM ESTATE NO. 1 SINGLE INJECTOR
660' FNL & 1650' FWL (UNIT B)
S3 T20S R35E

NOTE: D&A. APPROX 3900' 5 1/2" OIL STRING SALVAGED.
OIL STRING TO BE REPAIRED.

TOP CEMENT @ SURFACE

8 5/8" CSG @ 107 W/ — SX.

TOP CEMENT @ —

INJECTION

PERF 4756

T&B: 2" @ APPROX 4700

PKR: RETRIEVABLE TENSION & COMPRESSION PKR,
MECHANICALLY SET, @ APPROX 4670

5 1/2" CSG @ 5018 W/ — SX.

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DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
TAMARACK LOWE No. 1. INJECTION (UPPER PERFS)
2332' FNL & 1650' FWL (UNITE) & PRODUCTION (LOWER PERFS)
S3 T20S R35E

TOP CEMENT @ SURFACE

8 5/8" CSG @ 91' W/ 85' SX.

Well is
single
injection
well

TOP CEMENT @ 3340

4650
4657 INJECTION PERFS

T.B.L.: 2" @ APPROX. 4710

PKR: RETRIEVABLE TENSION & COMPRESSION PKR,
MECHANICALLY SET, @ APPROX. 4680'

4743
4749

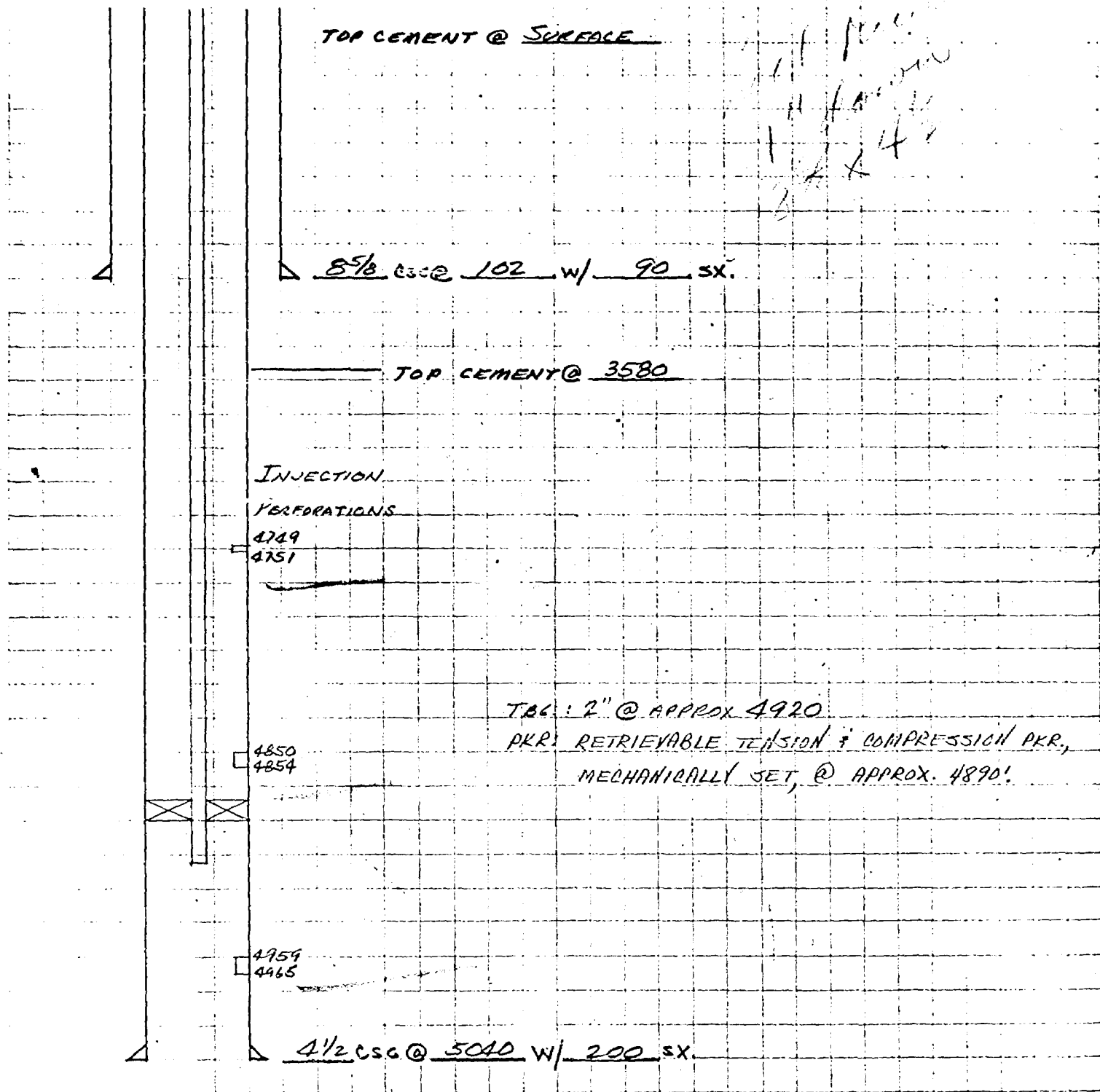
PRODUCTION PERFS

4847
4852

5 1/2" CSG @ 5040 W/ 400' SX.

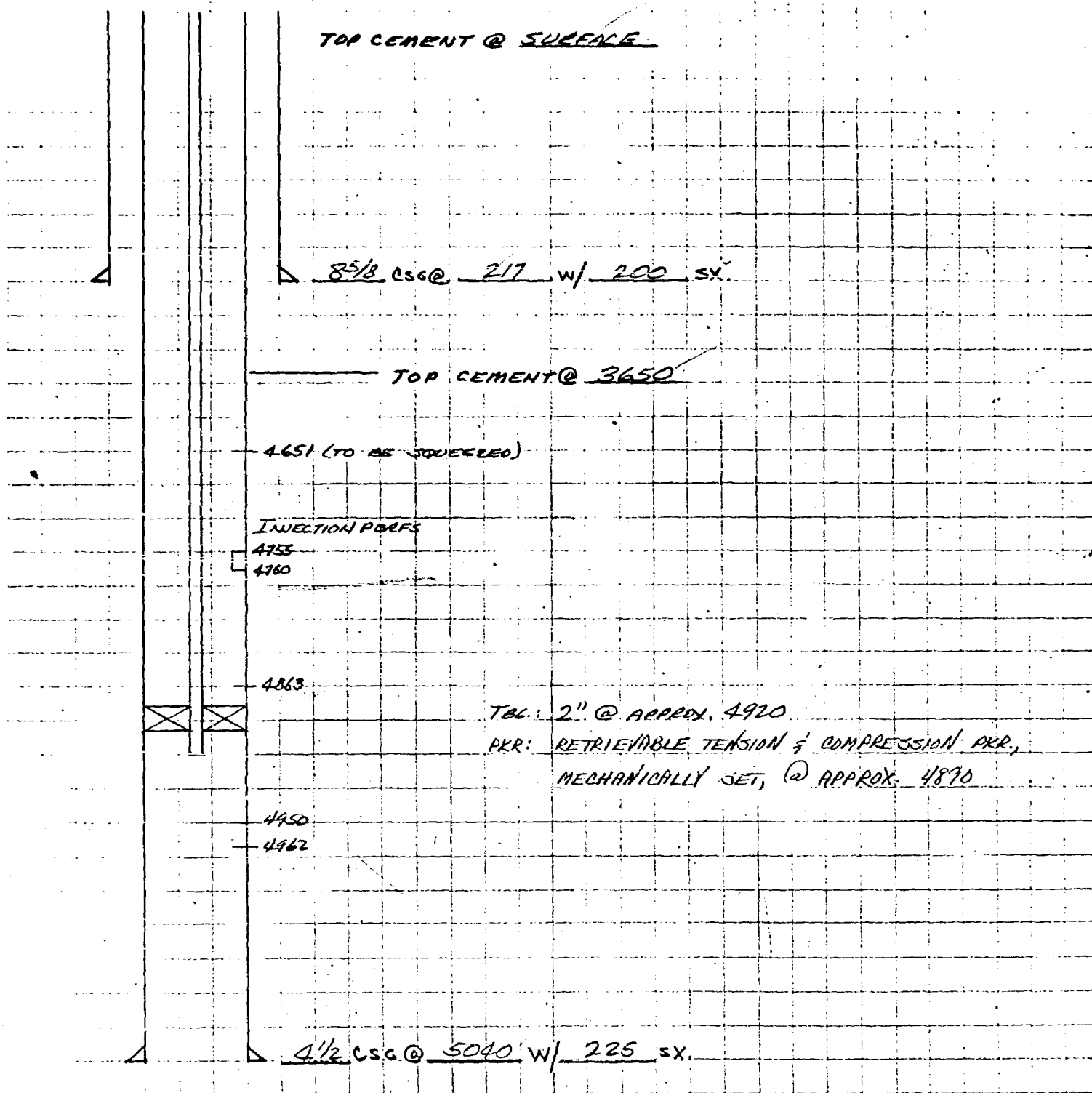
LOG 3731

DIAGNOSTIC SKETCH OF PROPOSED INJECTION WELL
TAMARACK LOWE No. 2 DUAL INJECTOR
2000' FNL & 660' FWL (UNIT F)
S3 T20S R35E



Case 3131

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
TAMARACK WESTERN FLD. C No. 1 DUAL INJECTOR
990' FSL & 1650' FWL (UNIT N)
S3 T20S R35E



Case 3131

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL

TAMARACK FEDERAL PQ No. 2

2018' FNL & 1980' FEL (UNIT G)

S4 T20S R35E

INJECTION (UPPER PERFS)

& PRODUCTION (LOWER PERFS)

TOP CEMENT @ SURFACE

8 5/8 CSC @ 200 W/ 125 SX

TOP CEMENT @ 3040 (CALCULATED)

4669 INJECTION PERFS
4676 (TO BE PERFORATED)

TB6: 2" @ APPROX. 4750

PER: RETRIEVABLE TENSION & COMPRESSION

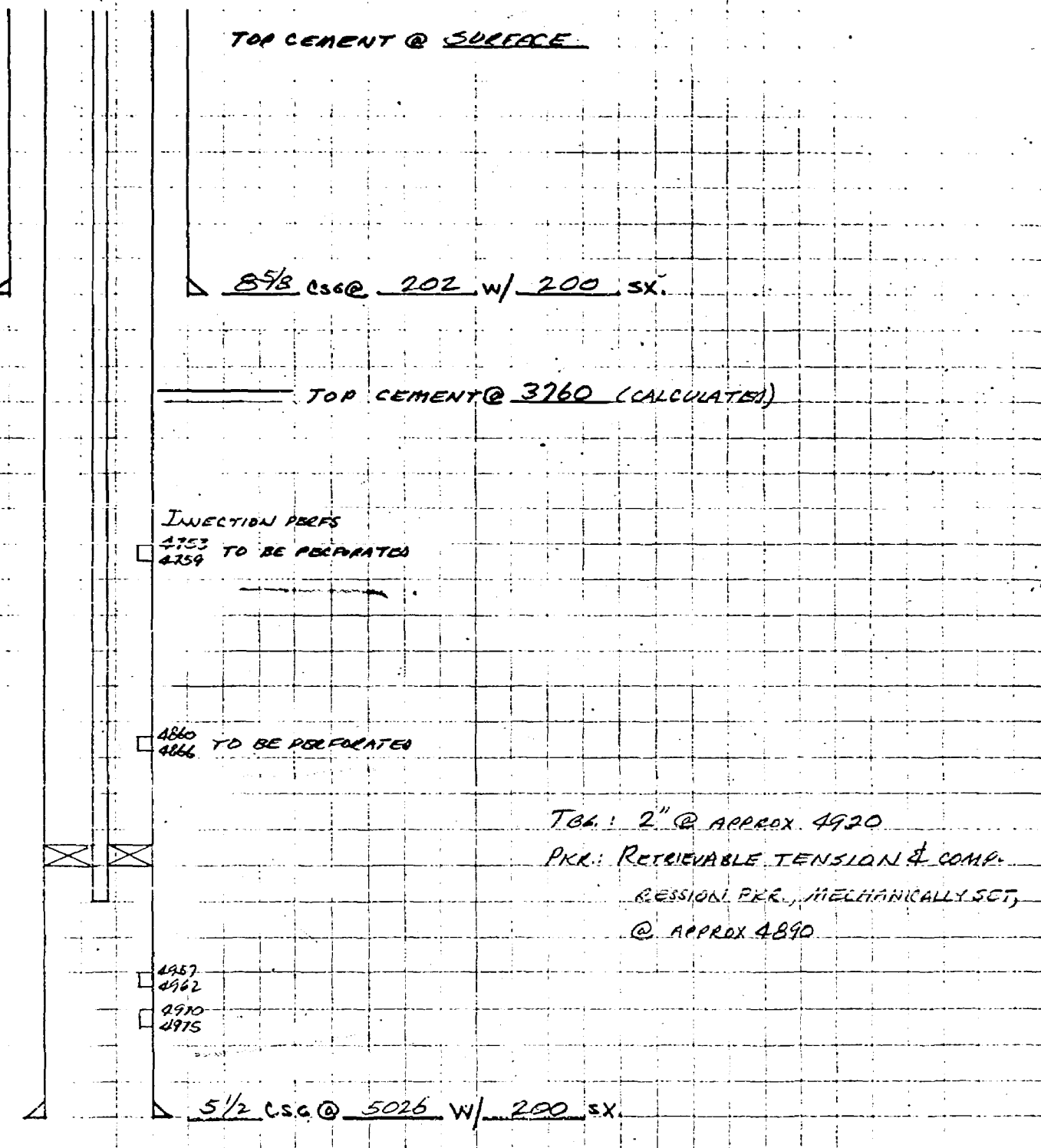
PER, MECHANICALLY SET, @ APPROX. 4720

4878 PRODUCTION PERFS
4883

4 1/2 CSC @ 5033 W/ 250 SX

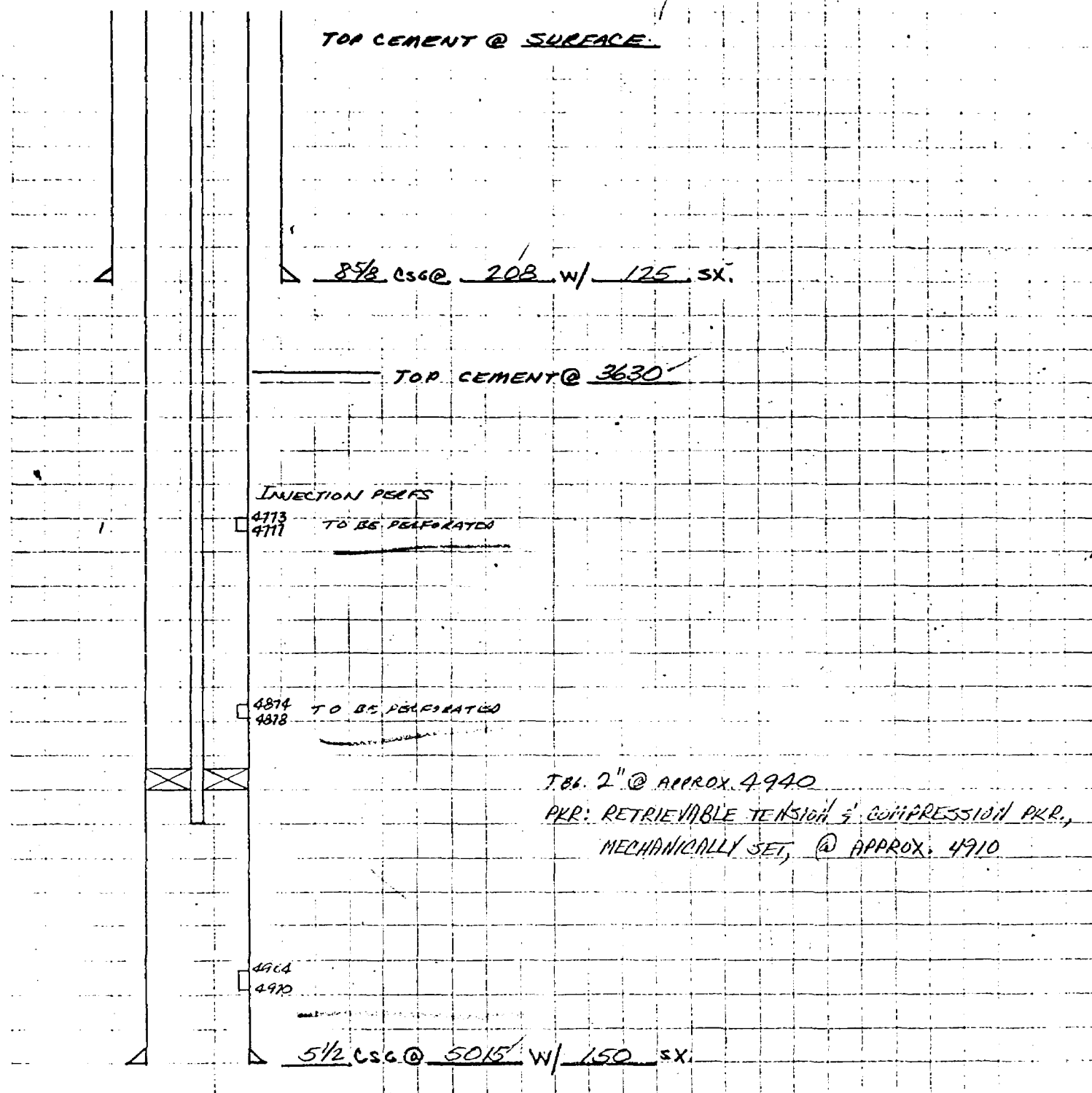
Case 3731

DISCONTINUED SKL 1711 OF PROPOSED INJECTION WELL
TAMARACK FEDERAL PQ No. 1 DUAL INJECTOR
2007' FNL & 660' FEL (UNIT H)
S4 T20S R35E



Case 3731

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
TAMARACK FEDERAL NO. 6 DUAL INJECTOR
1650' FSL & 1980' FWL (UNIT K)
S 4 T 20 S. R 35 E



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DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
TAMARACK FEDERAL A No. 8
1650' FSL & 990' F WL (UNIT #) L
S4 T20S R35E

INJECTION (UPPER PERFS)
& PRODUCTION (LOWER PERFS)

TOP CEMENT @ SURFACE

8 5/8 CS @ 210 W/ 100 SX.

TOP CEMENT @ 3206

4676 INJECTION PERFS
4684 (TO BE PERFORATED)

T&C: 2" @ APPROX. 4800.

PKR: RETRIEVABLE TENSION & COMPRESSION PKR,
MECHANICALLY SET, @ APPROX. 4770'.

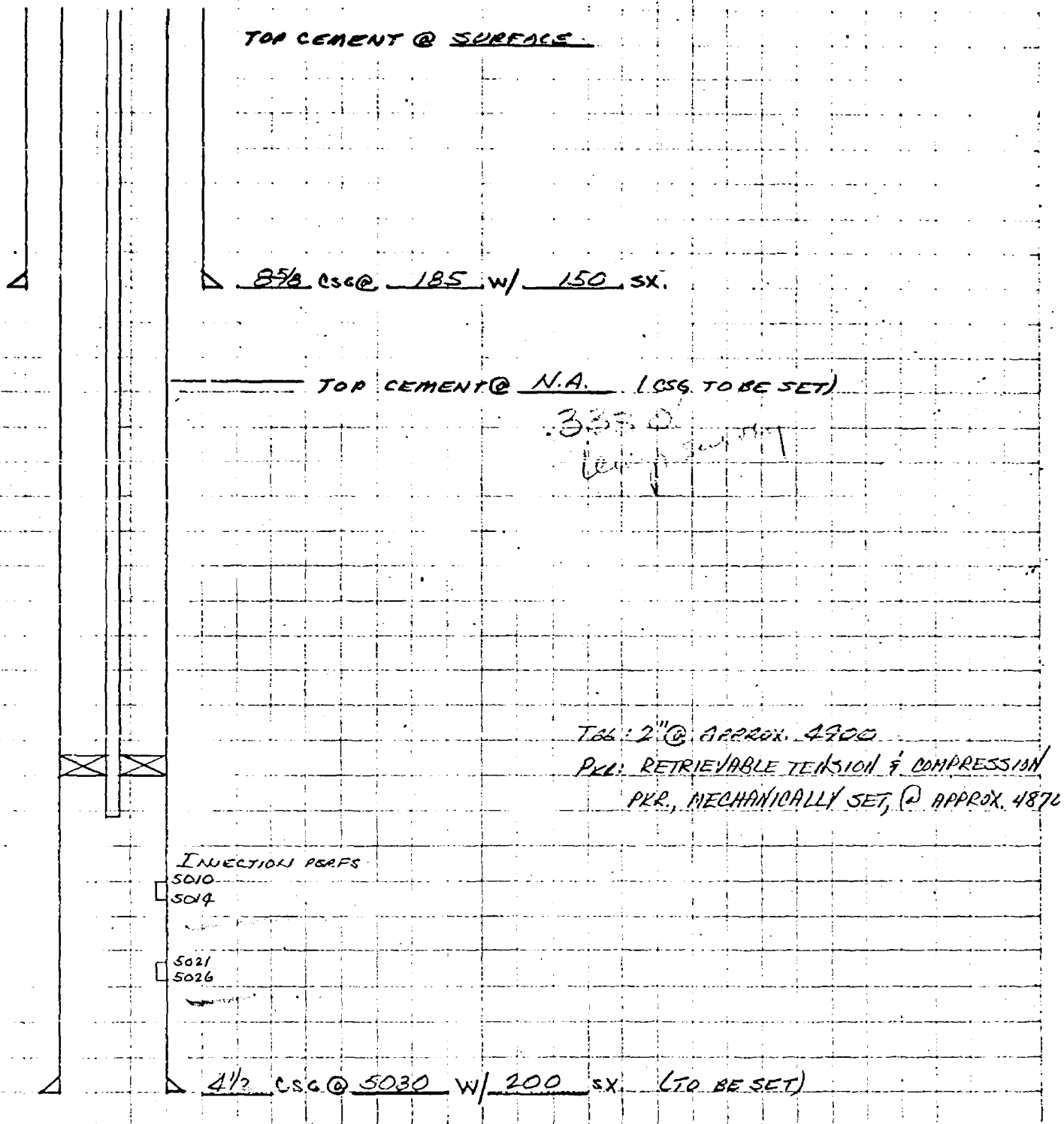
4990
4994 PRODUCTION PERFS
4999
5003

5 1/2 CS @ 5042 W/ 205 SX.

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DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
SOUTHERN UNION SAUNDERS FLD. NO. 8 SINGLE INJECTOR
1980' FSL & 330' FEL (UNIT I)
S5 T20S R35E

NOTE: D&A TO 5040. NO OIL STRING RUN



Case 3731

DISCRIMINATING SKETCH OF PROPOSED INJECTION WELL
SOUTHERN UNION SAUNDERS FEO. NO. 6 SINGLE INJECTOR
330' FNL & 660' FEL (UNIT A)
S8 T20S R35E

NOTE: D&A TO 5080. NO OIL STRING RUN

TOP CEMENT @ SURFACE

8 5/8 CSG @ 215 W/ 115 SX.

TOP CEMENT @ N.A. (CSG TO BE SET)

330' FNL
+ 115' SX

TBL: 2" @ APPROX. 4900

END: RETRIEVABLE TENSION & COMPRESSION PRR.,
MECHANICALLY SET, @ APPROX 4870'

INJECTION PERFS

5060 (APPROX. DEPTHS, EXACT DEPTHS TO BE DETERMINED
AFTER DRILLING OUT LOGGERS)
5070

4 1/2 CSG @ 5080 W/ — SX. (TO BE SET)

Case 3731

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

WYOMING

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
SOUTHERN UNION SAUNDERS FCO. NO. 2 DUAL INJECTOR
330' FNL & 660' FEL (UNIT A)
59 T205 R35E

TOP CEMENT @ SURFACE

8 5/8" CS @ 205' W/ 150' SX.

TOP CEMENT @ 3600' (CALCULATED)

INJECTION PERFS

4762 TO BE PERFORATED
4765

4863
4868

4908

T&C: 2" @ APPROX. 4945

PKR: RETRIEVABLE TENSION & COMPRESSION PKR.,
MECHANICALLY SET, @ APPROX 4915

4953
4957
4962
4970

4 1/2" CS @ 5047' W/ 300' SX.

Case 3731

LEONARD E. LARROCHE & SONS, INC. & SOUTHERN UNION COMPANIES

ENGINEERS & SURVEYORS

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DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
SOUTHERN UNION SAUNDERS FED. NO. 1 INJECTION (UPPER PERFS)
330' FNL & 1980' FEL (UNIT B) & PRODUCTION (LOWER PERFS)
S 9 T 20 S R 35 E

TOP CEMENT @ SURFACE

8 5/8" CSG @ 362' W/ 150' SX.

TOP CEMENT @ 3080' (CALCULATED)

4646 INJECTION PERFS (TO BE PERFORATED)
4652

T.B.G.: 2" @ APPROX. 4800'

P.K.R.: RETRIEVABLE TENSION & COMPRESSION P.K.R.,
MECHANICALLY SET, @ APPROX. 4770'.

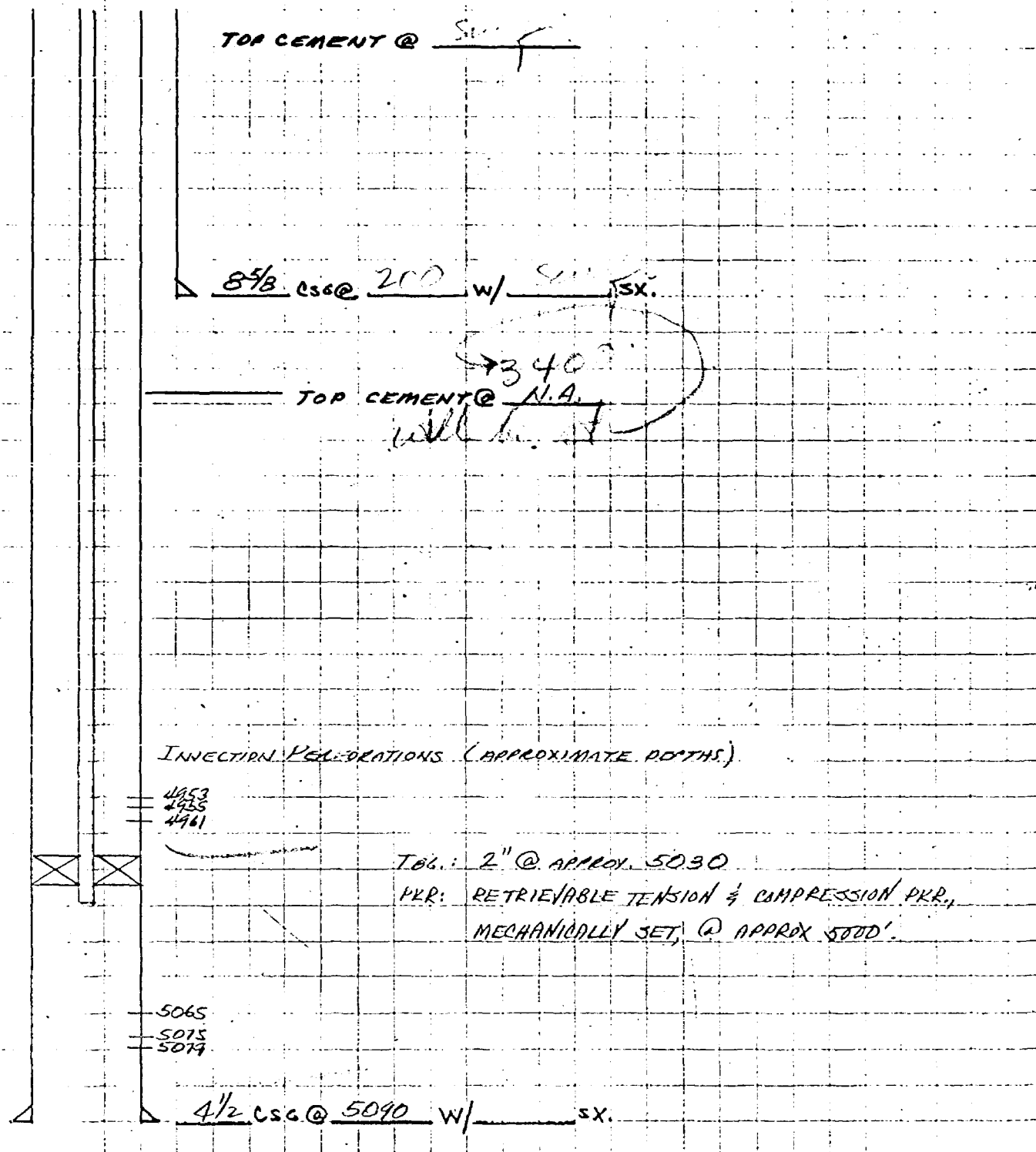
4666 PRODUCTION PERFS
4669
4673
4676

4 1/2" CSG @ 5010' W/ 400' SX.

Case 3731

GEORGE K. LAMBRECHT & SONS, INC. - OIL FIELD EQUIPMENT

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
TAMARACK SO. PEARL QUEEN LT. DUAL INJECTOR
INJECTION WELL TO BE DRILLED
1980' F WL & 1550' F NL (UNIT F)
S 9 T 20 S R 35 E



Case 3731

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL

SOUTHERN UNION SAUNDERS TEO No. 9
330' FNL & 1980' FNL (UNIT C)
S10 T20S R35E

INJECTION (UPPER PERFS)
& PRODUCTION (LOWER PERFS)

TOP CEMENT @ SURFACE

8 5/8" CSG @ 209 W/ 150 SX.

TOP CEMENT @ 3850 (CALCULATED)

4687
4692
4695 INJECTION PERFS
(TO BE PERFORATED)

TRG: 2" @ APPROX. 4800

PKR: RETRIEVABLE TENSION & COMPRESSION PKR.,
MECHANICALLY SET, @ APPROX. 4770

4984
4987
4996
5003 PRODUCTION PERFS

4 1/2" CSG @ 5041 W/ 250 SX.

COUNTY LEA
FIELD or LOCATION WILDCAT
WELL FEDERAL 2

COMPANY JAMES E. BROWN
AND ASSOCIATES

COMPANY JAMES E. BROWN
AND ASSOCIATES
WELL FEDERAL 2
FIELD WILDCAT
LOCATION SEC. 4-20S-35E
COUNTY LEA
STATE NEW MEXICO

Other Surveys

Location of Well

1980' FROM S/L
660' FROM E/L

Elevation: K.B.: 3692
D.F.: 3697
or G.L.: 3680.5

Log Depths Measured From KB 11.5ft. above GL

RUN No. ONE

Date 10-28-60

First Reading 5110

Last Reading 0

Feet Measured 5110

Csg. Schlum.

Csg. Driller 341

Depth Reached 5114

Bottom Driller 5110

Mud Net. SALT GEL

Dens. Visc. 10.3 39

Mud Resist. @ %F @ %F @ %F

Res. BHT @ %F @ %F @ %F

pH @ %F @ %F @ %F

Vit. Loss CC 30 min @ CC 30 min @

Prof @ %F @ %F @ %F

Sp. Gr. 7.18 10.48/10 6.13/15 10 T.O.

Sp. Gr. 7.18 10.48/10 6.13/15 10 T.O.

Temp. 60 To 3850 To To

Temp. 60 To 3850 To To

Temp. 60 To 3850 To To

Temp. 60 To 3850 To To

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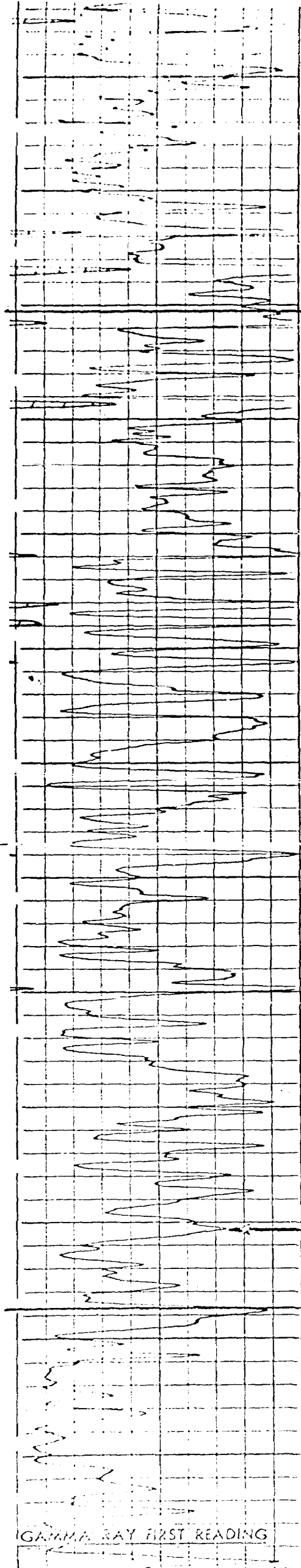
Survey Log

COUNTY LEA FIELD or LOCATION WILDCAT WELL FEDERAL # 2 COMPANY JAMES S. BROWN AND ASSOCIATES	COMPANY JAMES S. BROWN AND ASSOCIATES	Other Surveys
	WELL FEDERAL # 2	Location of Well 1980' FROM S/L 660' FROM E/L
	FIELD WILDCAT	
	LOCATION SEC. 4-20S-35E	
	COUNTY LEA STATE NEW MEXICO	Elevation: K.B.: <u>3697</u> D.F.: or G.L.: <u>3680.5</u>

Log Depths Measured From KB 11.5 Ft. above GL

RUN No.	ONE		
Date	10-28-60		
First Reading	5110		
Last Reading	0		
Feet Measured	5110		
Csg. Schlum.	-		
Csg. Driller	341		
Depth Peached	5114		
Bottom Driller	5110		
Mud Not.	SALT GEL		
Dens. Visc.	10.3	39	
Mud Resist.	@	°F	@ °F
" Res. BHT	@	°F	@ °F
" pH	@	°F	@ °F
" Wtr. Loss	CC 30 min	CC 30 min	CC 30 min
" Pmf	@	°F	@ °F
Bit Size	7 7/8" TO 4840	6 13/16" TO T.O.	
Spacing:			
T R R	To 3850	To	To
T R R	To 5110	To	To
Opr. Rig Time	3 HOURS		
Truck No.	2526-HOBBS		
Recorded By	POUSH		
Witness	DAY		

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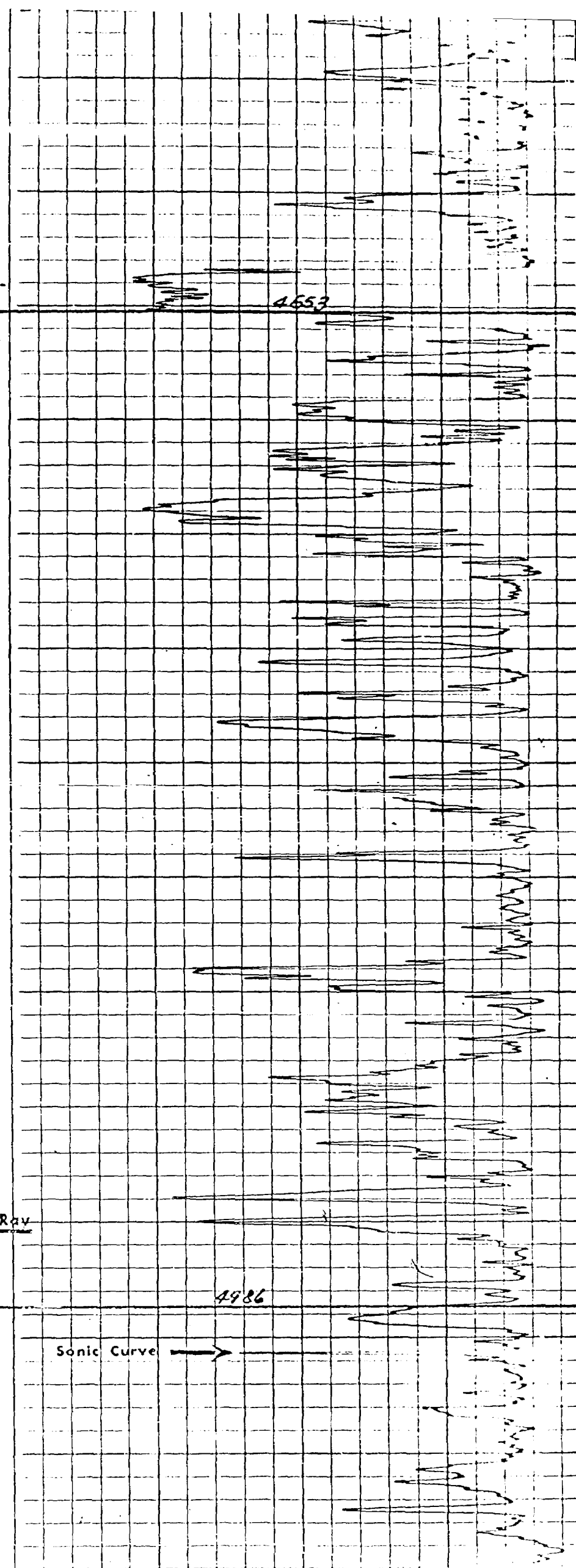


372/ 4500 4600 4700 4800 4900 5000

Gamma Ray

5000

511



Sonic Curve

4986

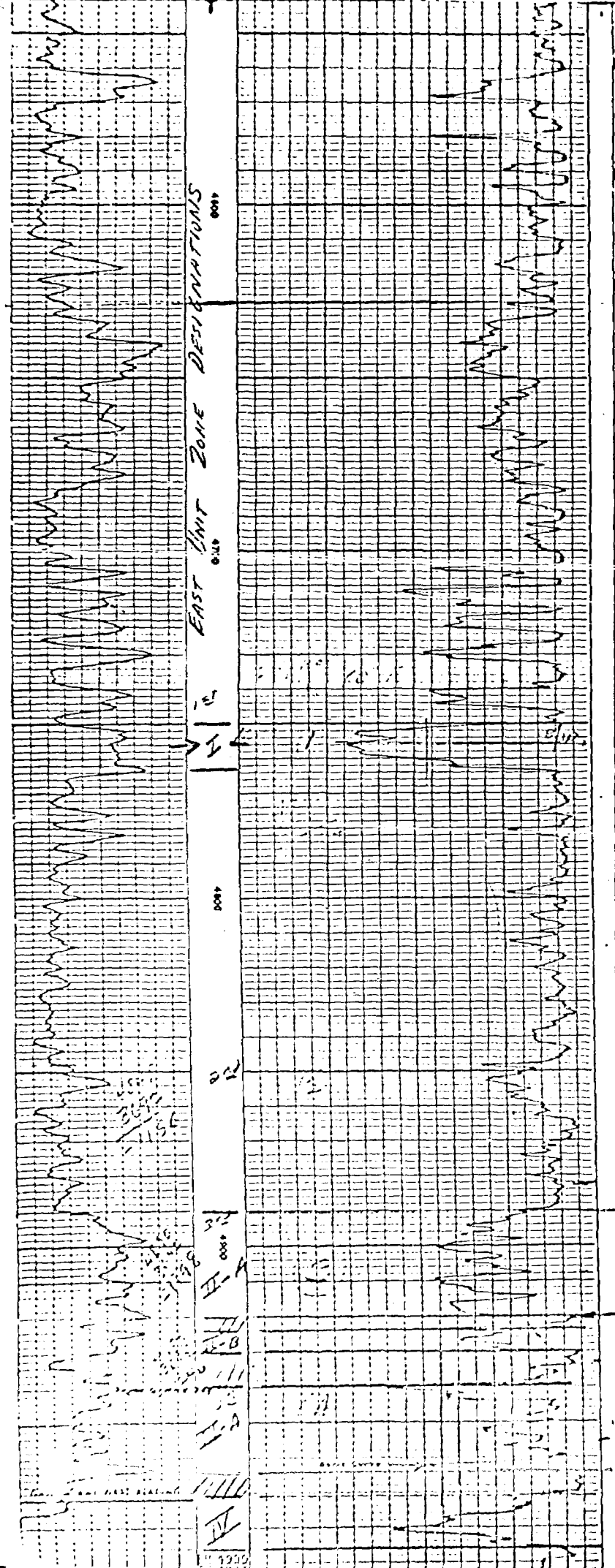
4653

WILSON & SONS WELL SURVEYING CORPORATION
 1911
 1912

COUNTY LEA FIELD W LOCATION REAR WELL LEA COMPANY	COMPANY <u>WILSON & SONS</u> COMPANY	Other Surveys LL-3
	WELL <u>LEA</u> STATE <u>1</u>	Location of Well 660' FROM N/L 1650' FROM E/L
	FIELD <u>PEARL QUEEN</u>	
	LOCATION <u>2111 1-205-356</u>	
	COUNTY <u>LEA</u> STATE <u>N.M.</u>	Elevation: E.B. 3600 D.T. 3600 or G.L. 3600

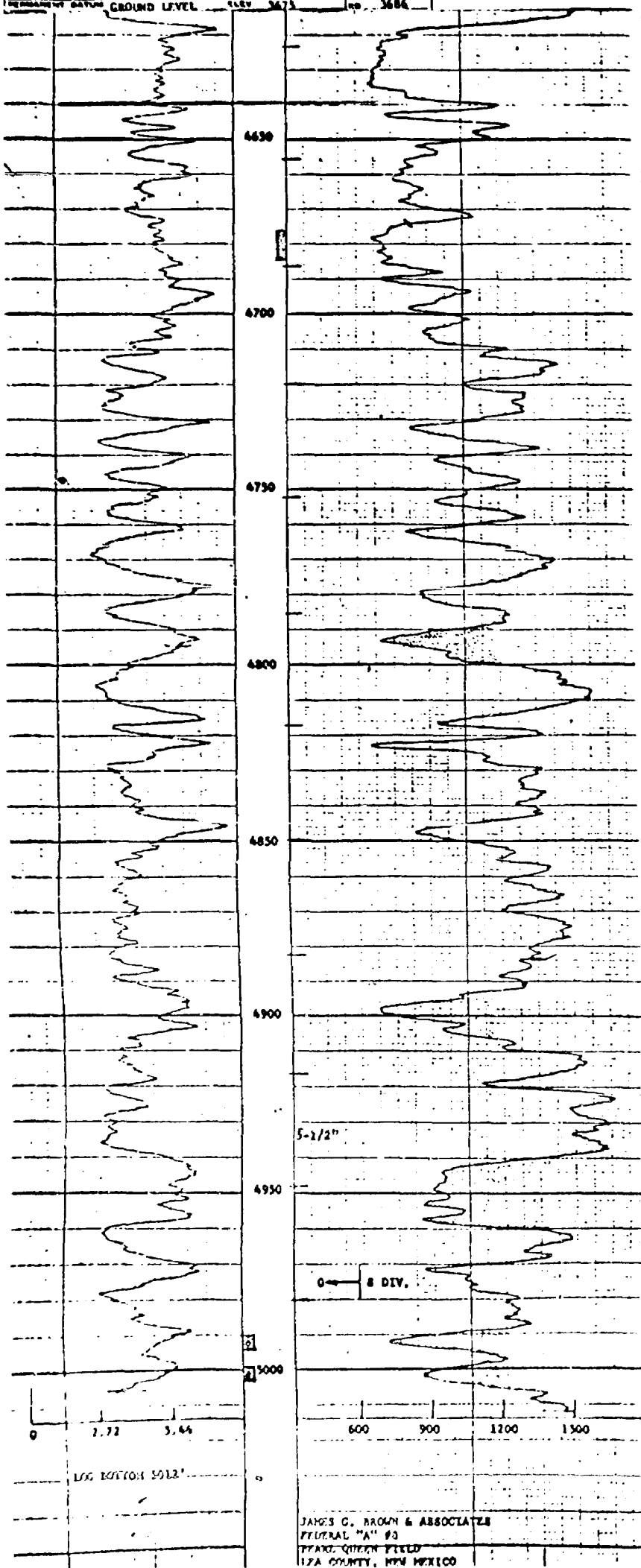
Log Depths Measured from: 1. H. 10. 0H. above G.L.

Core 3731



 McMillough GEOPHYSICAL SERVICES COMPANY, INC.	
CANYON - NEUTRON - EMISSION LOG	
COMPANY: JAMES G. BROWN & ASSOCIATES WELL: FEDERAL "A" #3 FIELD: PEARL QUEEN COUNTY: IZA NEW MEXICO LOCATION: 1450' FSL & 990' FUL DEC 4 1968 208 DEC 31E ELEVATION: 3686 PERMANENT DATUM: GROUND LEVEL	

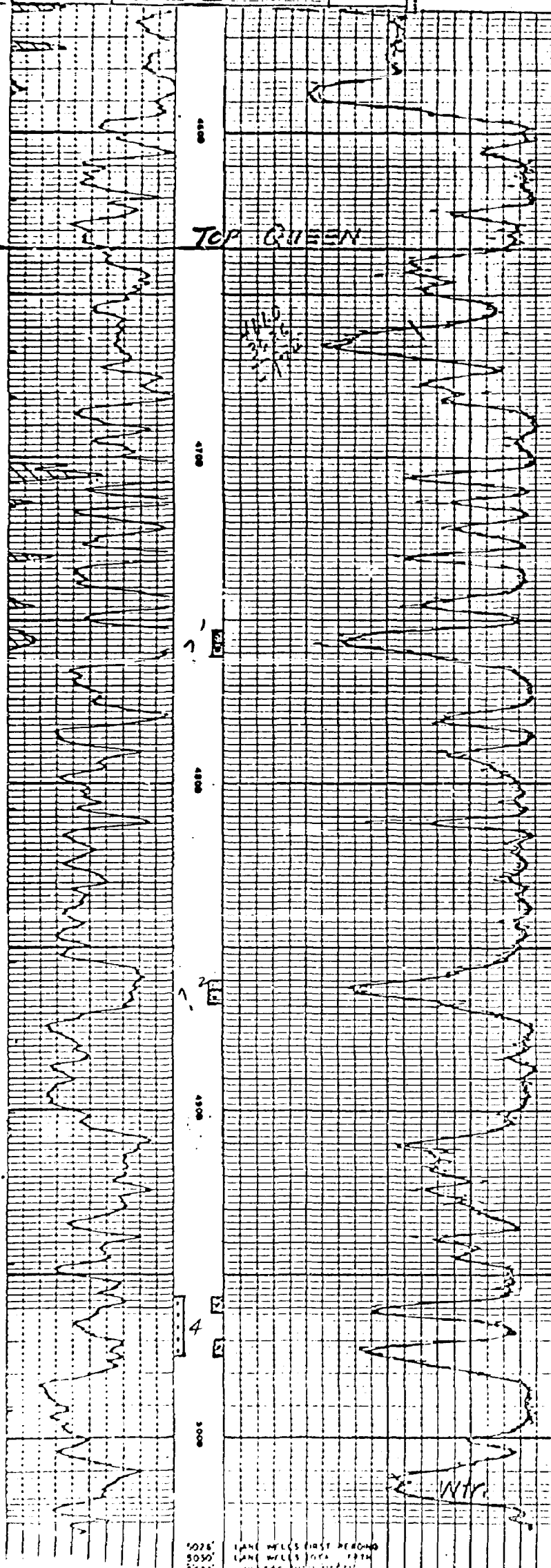
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JAMES G. BROWN & ASSOCIATES
 FEDERAL "A" #3
 PEARL QUEEN FIELD
 IZA COUNTY, NEW MEXICO

FILE NO.	COMPANY JOHN H. TRIGG	
	WELL FEDERAL PO. NO. 1-4	
	FIELD PEARL QUEEN	
	COUNTY LEA	STATE NEW MEXICO
	LOCATION 2007 FNL B 660 TEL	
	SEC 4	TWP 20 S RGE 32 E

Case 3731

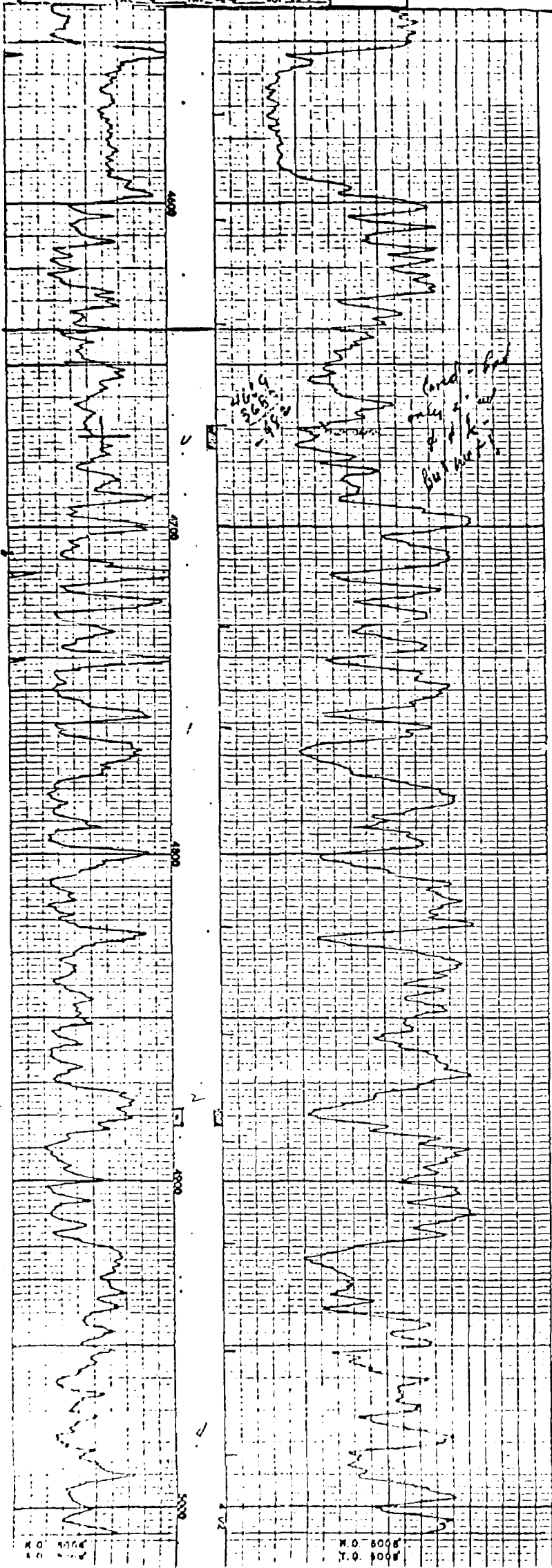


1026' 1st WELLS FIRST PERIOD
5050' 1st WELLS 1st PERIOD

FILE NO.	7. 1961	
COMPANY	JOHN H. TRIGG COMPANY	
WELL	FEDERAL "PO" 2-4	
FIELD	PEARL QUEEN	
COUNTY	LEA	STATE NEW MEXICO
LOCATION	2010' F.M. & 1900' F.E.L. M/A OF M/A	
DATE	7-20-61	LOG 35-6

E 3637KB

Case 3731



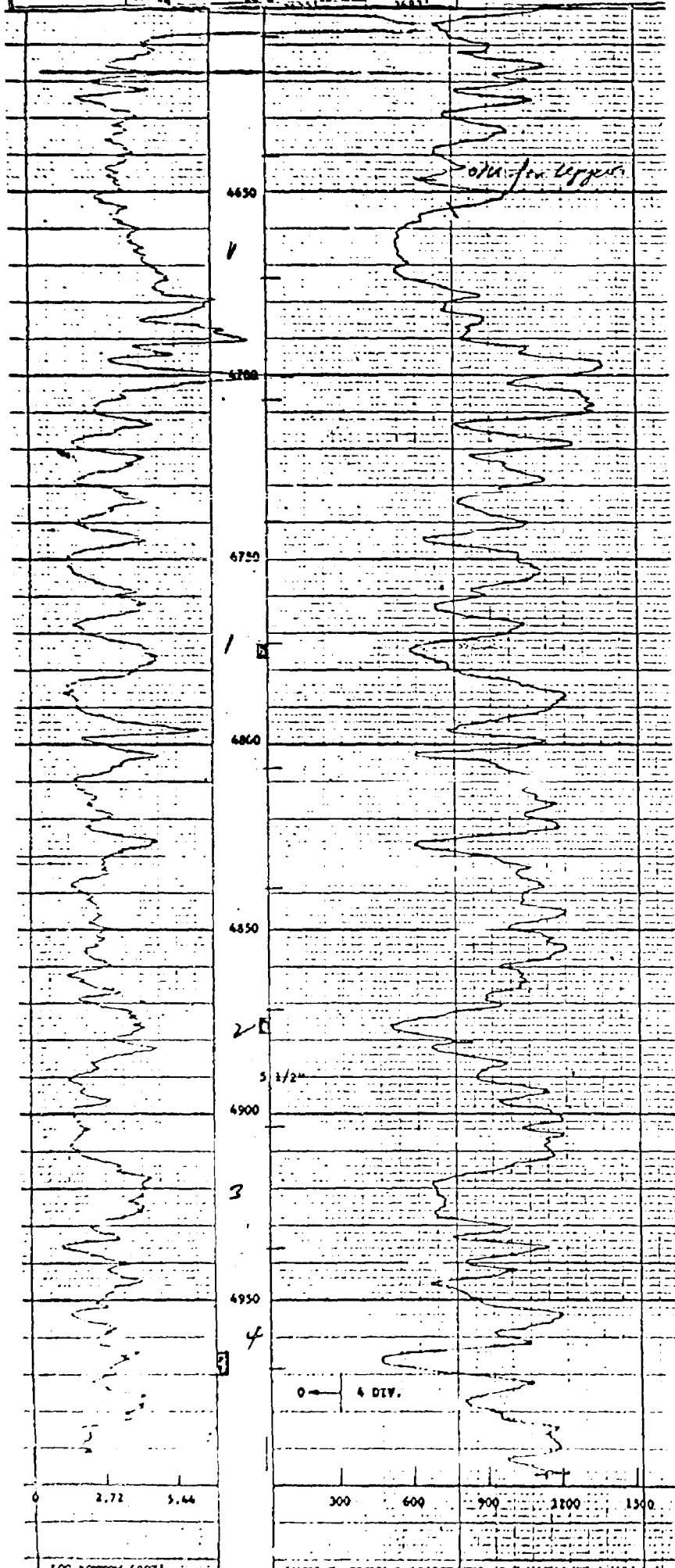
W.O. 5000
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W.O. 5000
T.O. 5000

TAP - FED. #6

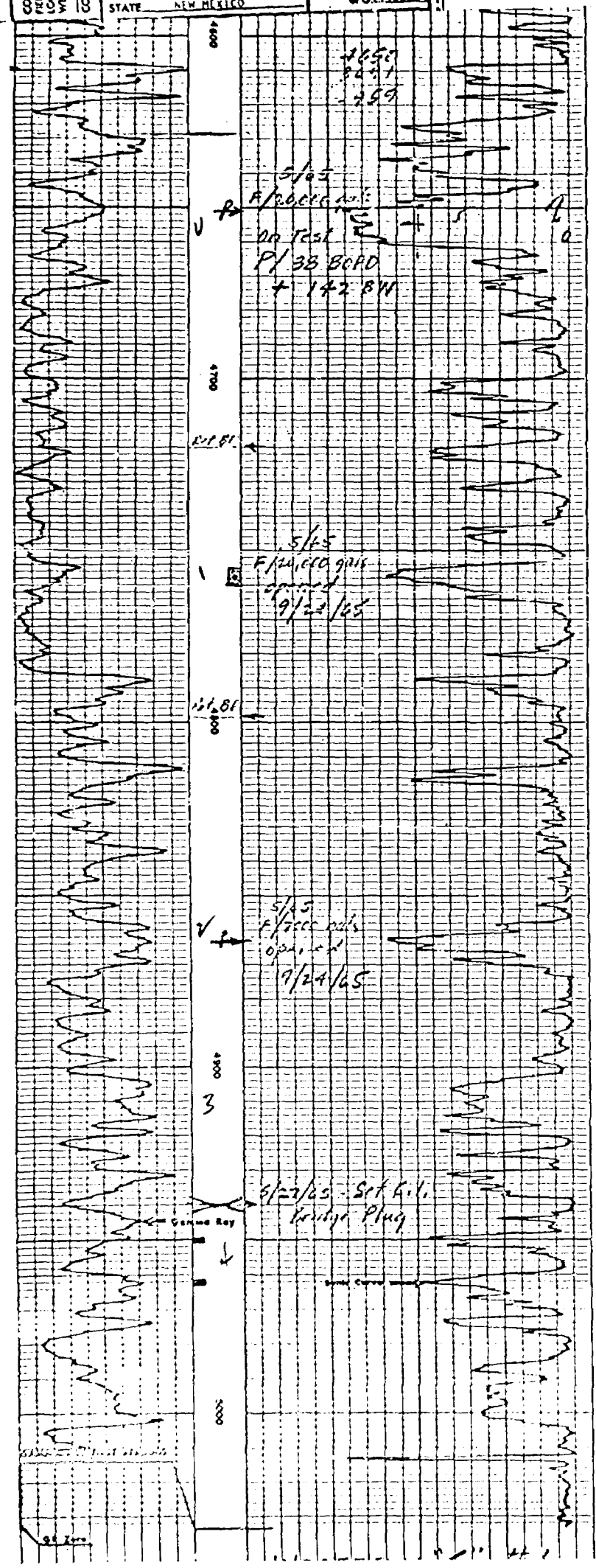
 McClough GEOPHYSICAL SURVEYING COMPANY	
CANYON KAY & NEUTRON LOG	
COMPANY: <i>McClough</i> SURVEY: <i>McClough</i> COMPANY: <i>McClough</i>	
WELL: FEDERAL #6	
FIELD: PEARL QUEEN	
COUNTY: LEA	STATE: NEW MEXICO
LOCATION: 1650' FSL & 1980' FUL	
SEC. 4	TWP. 20-S RGE. 35-E
ELEVATIONS: 3683'	

Case 3131



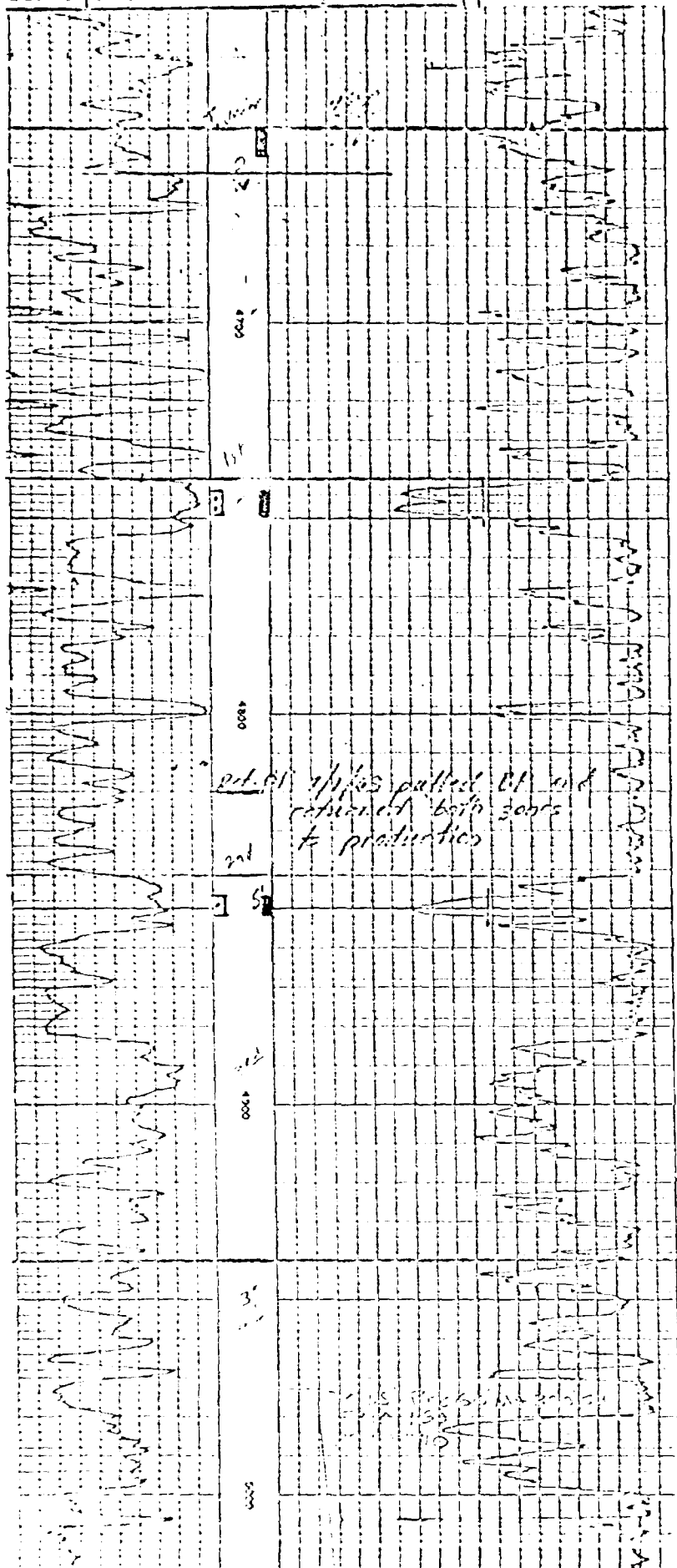
SCHLUMBERGER SURVEY FORM		
COUNTY <u>LEA</u> FIELD <u>DESP. GREEN</u> LOCATION <u>WELL</u> COMPANY <u>LEA</u>	COMPANY <u>W. H. HANSEN</u> <u>T. HANSEN</u>	Other Surveys Location of Well 990' FROM S/L 1650' FROM W/L
	WELL <u>WESTERN</u>	
	FIELD <u>PLAN. GREEN</u>	
	LOCATION SEC. <u>1-205-156</u>	
	COUNTY <u>LEA</u>	Elevation: K.B. <u>1691</u> D.F. <u>1691</u> or O.L. <u>1690</u>
	STATE <u>NEW MEXICO</u>	

Case 3731



1914

Case 3731

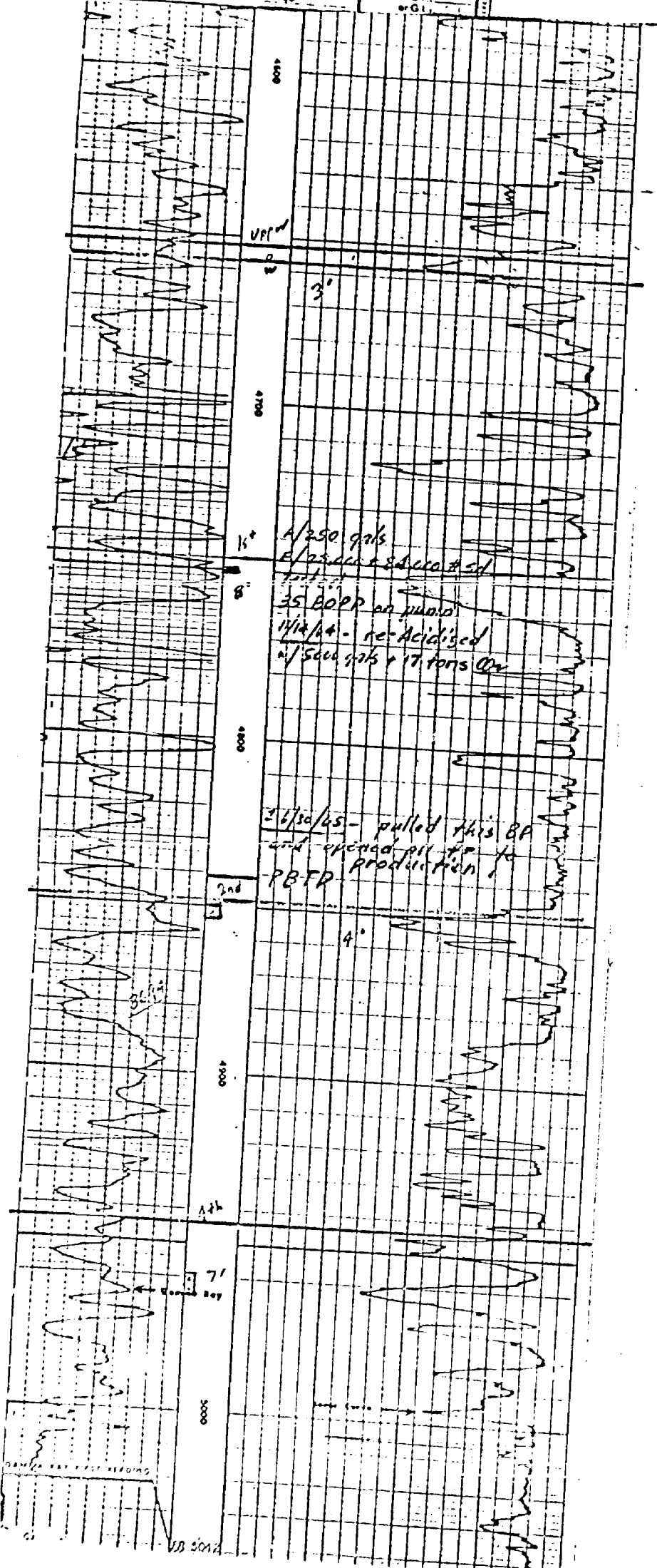


COMPANY - W. W. TRAINOR
 701 W. 10th St.
 WELL - LOVE # 2
 FIELD - PEARL QUEEN
 LOCATION SEC. 3-20S-35E
 COUNTY - LLA
 STATE - NEW MEXICO

Other Surveys
 Location of Well
 1650' FROM W/L
 2331.7' FROM N/L
 Elevation: E.B. 5-1-2
 D.F.
 or G.I.

W. W. 11.237

Case 3731



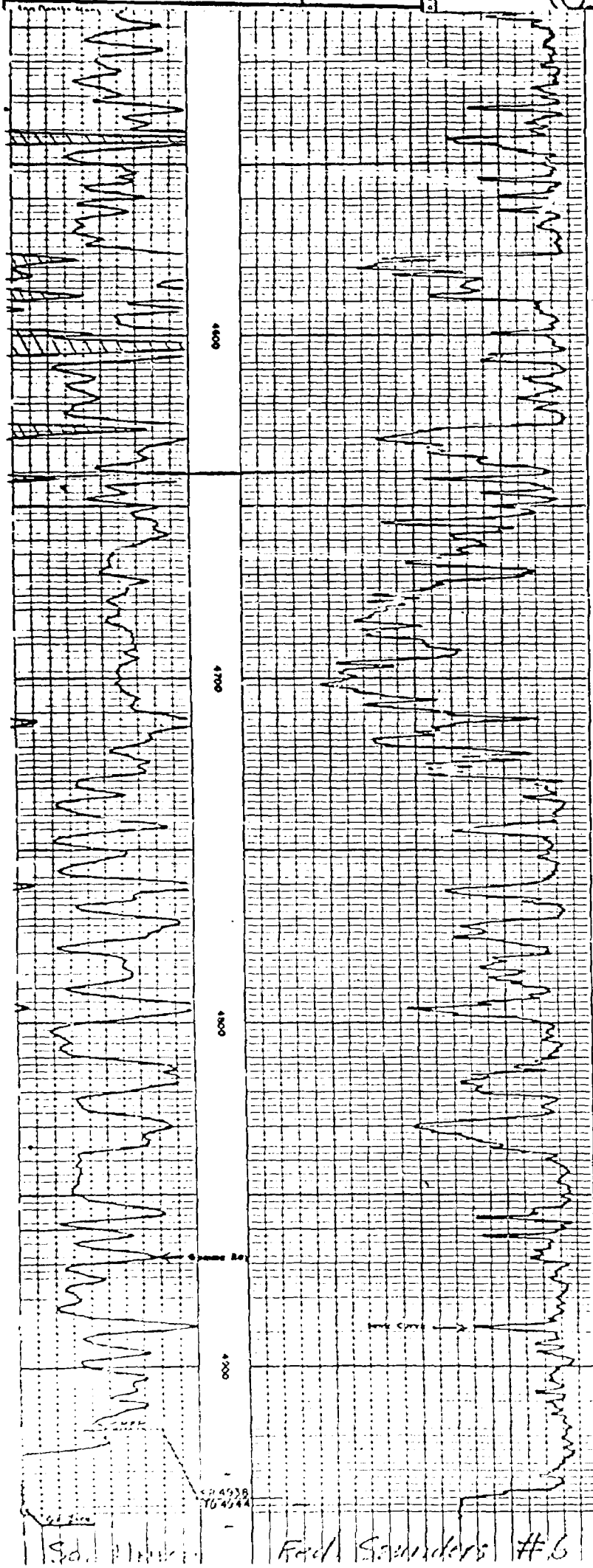
SCHLUMBERGER

1961 11

COUNTY LEA FIELD PEARL LOCATION FEDERAL SAUNDERS WELL COMPANY FIELD NO.	COMPANY SOUTHERN UNION	Other Surveys
	PRODUCTION COMPANY	LL
	WELL FEDERAL SAUNDERS	Location of Well
	6	330' FROM N/L
	FIELD PEARL	660' FROM E/L
	LOCATION SEC. 8-205-35E	
COUNTY LEA	Elevation: K.B. 3687.5	
STATE NEW MEXICO	D.F.	
	or G.L. 3677.5	

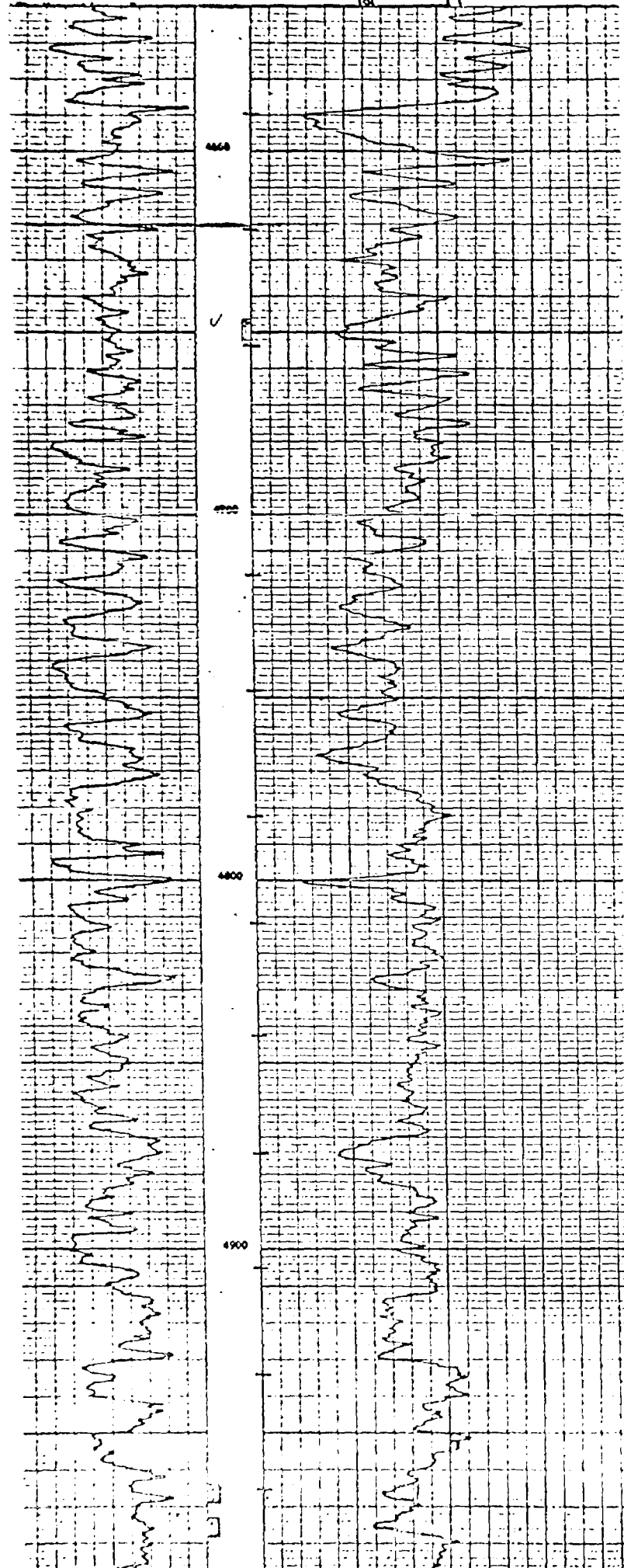
Case 3731

M



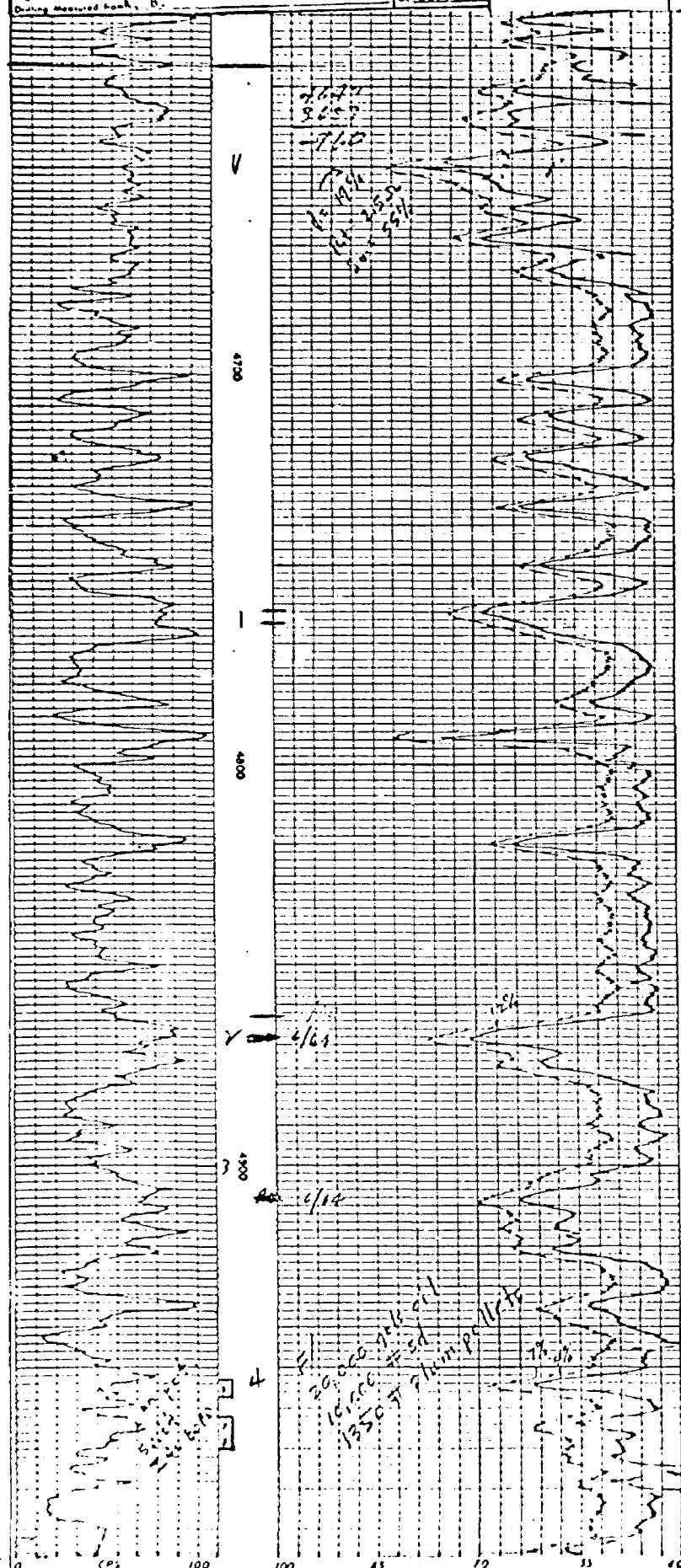
Page 3731

SOUTHERN UNION GAS COMPANY	
Gamma Ray Neutron Log	
LOG NO.	COMPANY SOUTHERN UNION GAS COMPANY
WELL	SALMER FAIRWAY A-1
FIELD	PEARL QUEEN
COUNTY	LEA STATE NEW MEXICO
DATE	1940 FEB 20
TIME	3:30 PM
LOG	9
WELL	20
LOG	30
Log Made by: [Signature]	
Checked by: [Signature]	
Log Made by: [Signature]	
Checked by: [Signature]	



PAN-GEO-ATLAS CORP.	
Acoustic-Gamma Log	
COMPANY SOUTHERN UNION PRODUCTION CO.	
WELL # 2 FEDERAL SAUNDERS	
FIELD SOUTH PEARL QUEEN	
COUNTY LEA	STATE NEW MEXICO
LOG TYPE 330° FNL, 660° FEL	Other Services CR/LL-3 SATA
SEC 9 Twp 20-S Rge 35-E	
Permanent Datum GROUND LEVEL Elev 3677	Log Measured from 0
Log Measured from 0	Log Measured from 0
Log Measured from 0	Log Measured from 0

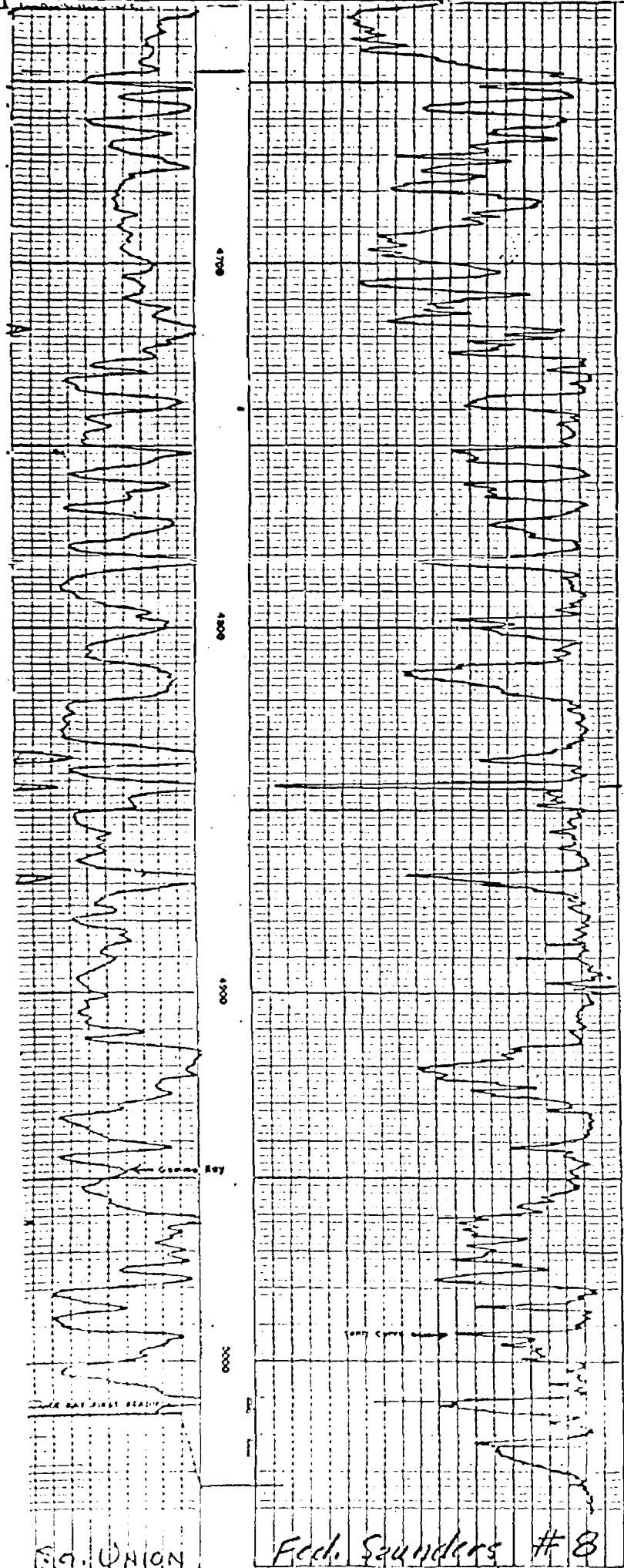
Core 3131



So. UNION REPEAT Fed. Saunders #2

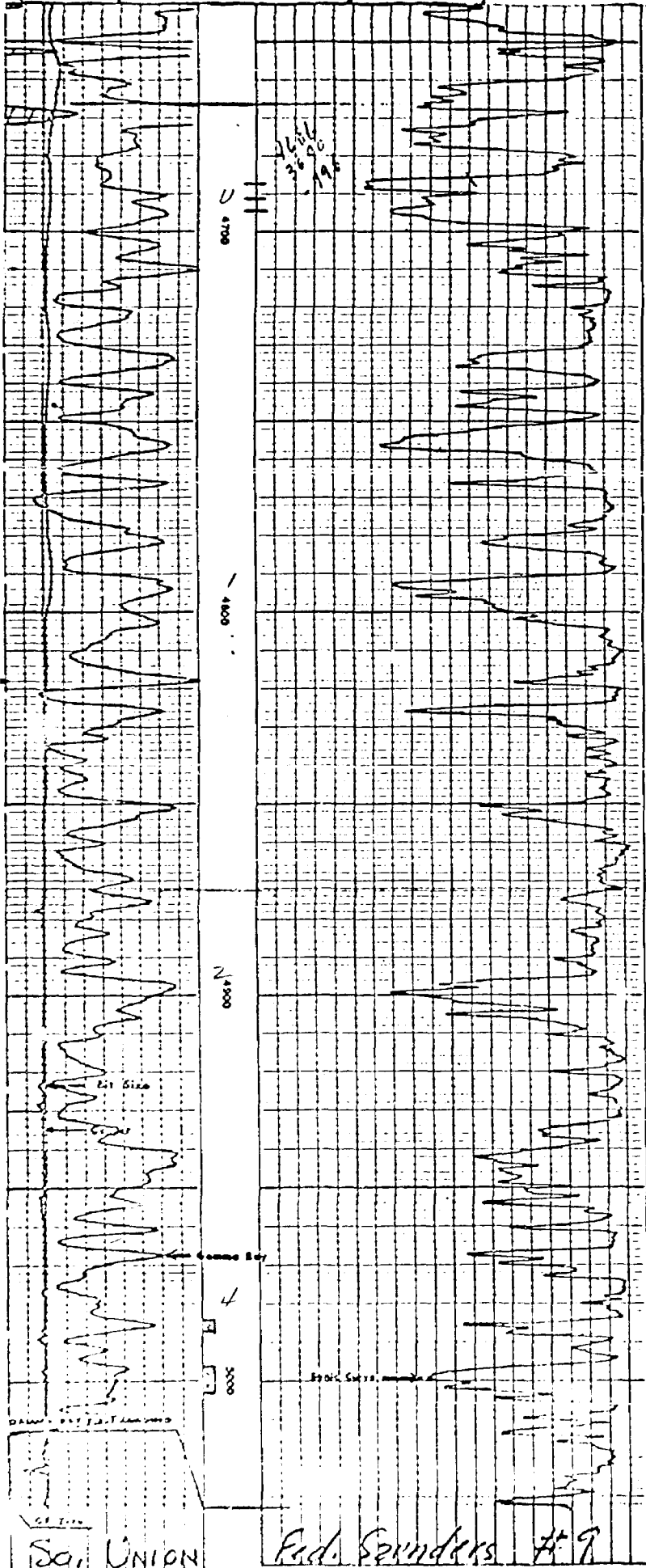
SCHUMBERGER		NORTH 1016	
COUNTY LIA FIELD NO. LOCATION WELL COMPANY	COMPANY SOUTHERN UNION	Other Surveys	
	PRODUCTION COMPANY	EL. M.L.	
	WELL 8. FOLKMAN	Location of Well	
	SA. NO. 1016	1980' FROM S/L	
	FIELD PLASH QUEEN	330' FROM E/L	
	LOCATION SEC. 5 20 35E		
	COUNTY LIA	Elevation K.B. 1478.3	
	STATE NEW MEXICO	D.I. 1677	
		or C. 1669	

Case 3731

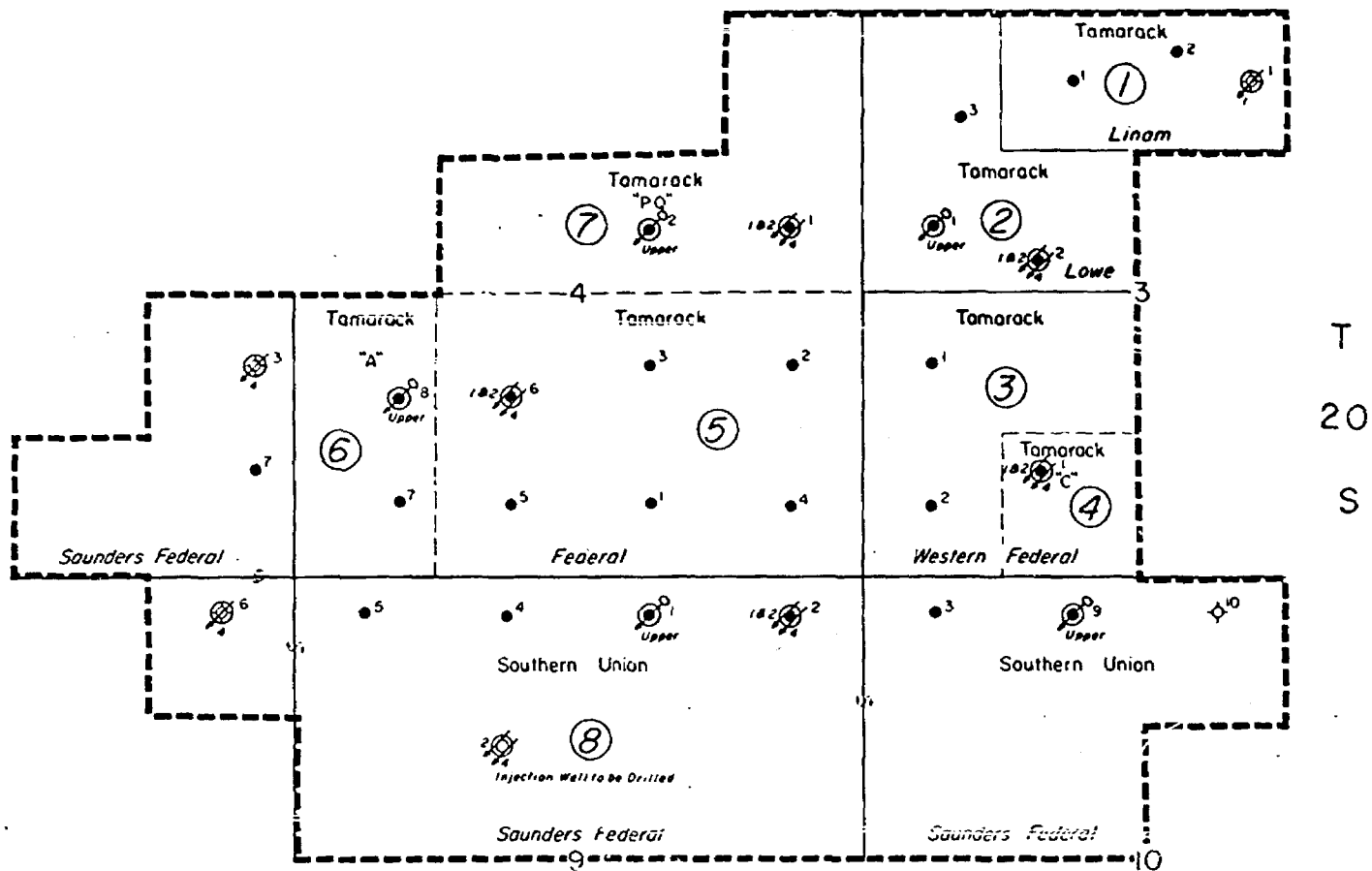


SCHLUMBERGER		WINTER 1936	
COUNTY LEA FIELD # 2 LOCATION OF WELL WELL # 2 COMPANY	COMPANY SOUTHERN UNION	Other Surveys	
	PRODUCTION COMPANY	11	
	WELL FEDERAL SAUNDERS	Location of Well	
	FIELD PEARL QUEEN	110' FROM W/L.	
	LOCATION SEC. 10-203 151	1280' FROM W/L	
COUNTY LEA	Elevation K.B.		
STATE NEW MEXICO	D.F. 1649		
	O.L. 1679		

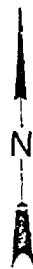
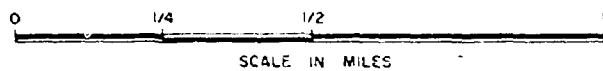
Case 3731



R 35 E



T
20
S



INJECTION WELL LEGEND

- ⊗ Dual Injection
- ⊙ Single Injection
- ⊕ Injection-Production Dual
- Injection Zone (Refer to attached log of Tamarack Federal No 2)

LEGEND

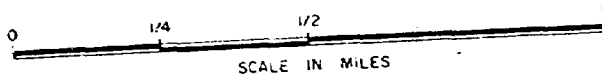
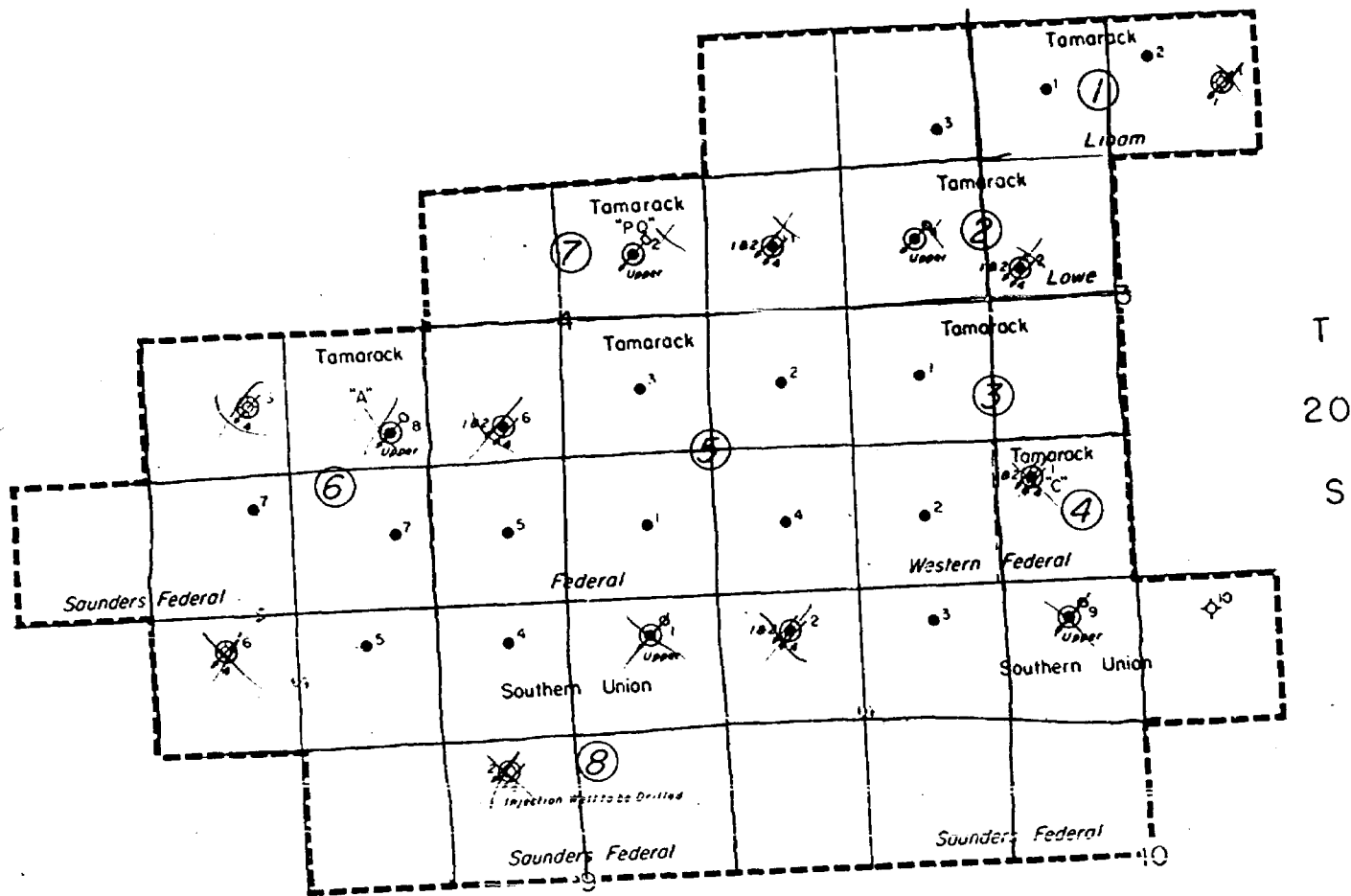
- ② Tract Number
- Unit Boundary

PROPOSED
SOUTH PEARL QUEEN UNIT
LEA COUNTY, NEW MEXICO

AEP

2-16-68

R 35 E



INJECTION WELL LEGEND

- Dual Injection
- Single Injection
- Injection-Production Dual
- Injection Zone (Refer to attached log of Tamarack Federal No 21)

LEGEND

- Tract Number
- Unit Boundary

PROPOSED
SOUTH PEARL QUEEN UNIT
LEA COUNTY, NEW MEXICO

AEP

2-16-68

14 inj 400
14 prod 400

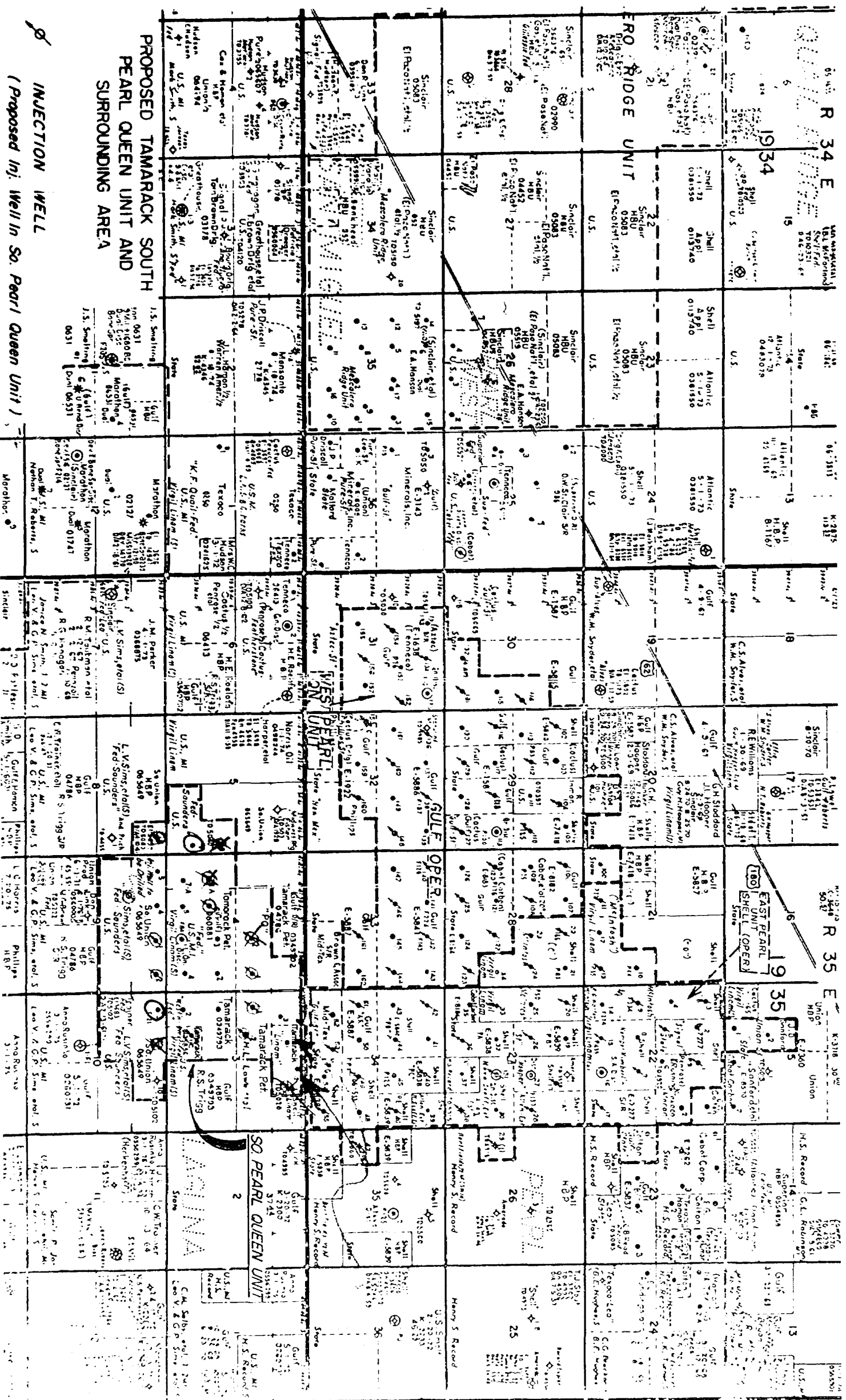
4/2
33
24

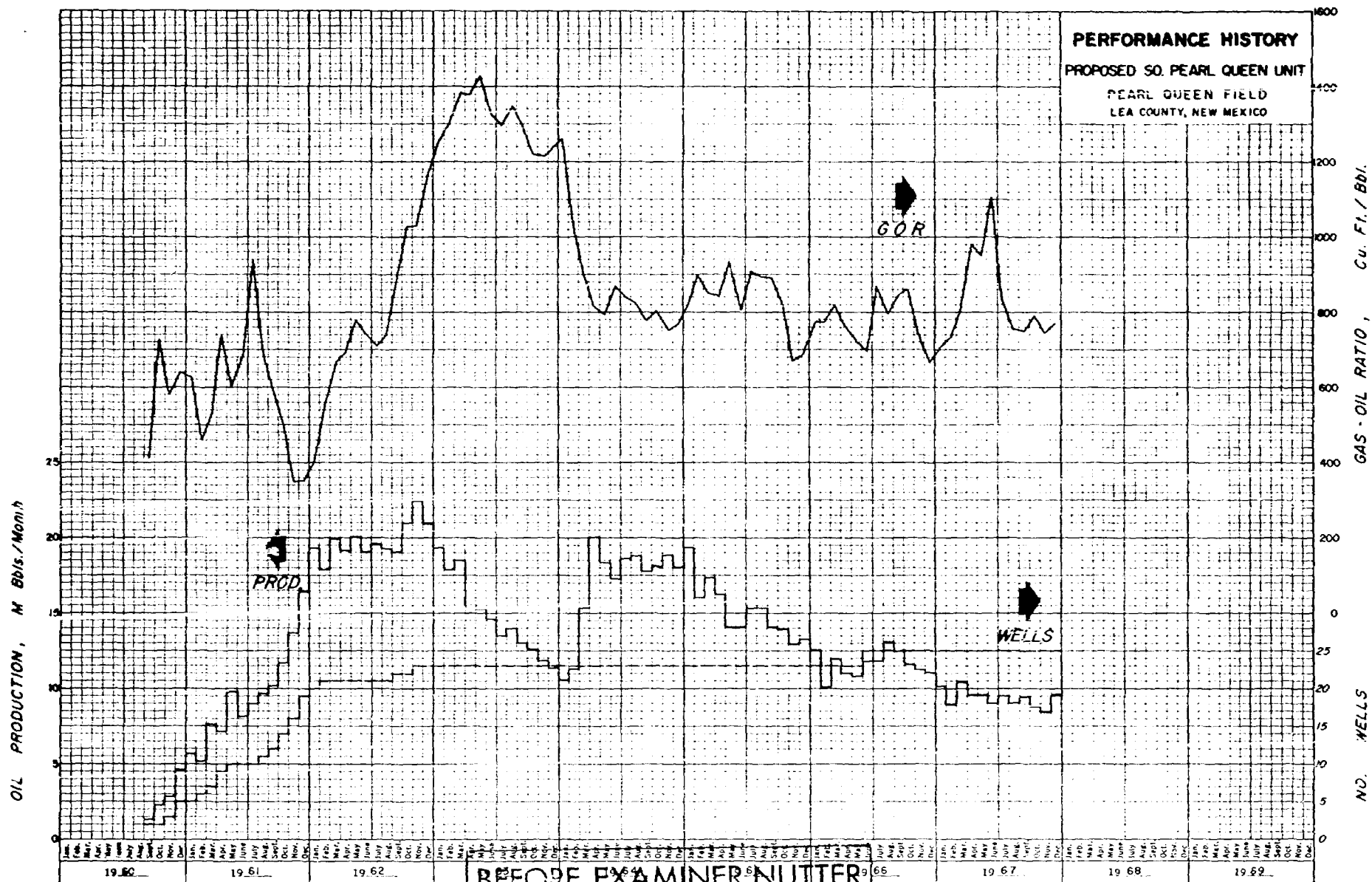
11 1/4
11 1/4
11 1/4

**PROPOSED TAMARACK SOUTH
PEARL QUEEN UNIT AND
SURROUNDING AREA**

INJECTION WELL

(Proposed Inj. Well in So. Pearl Queen Unit)





BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

EXHIBIT NO. _____

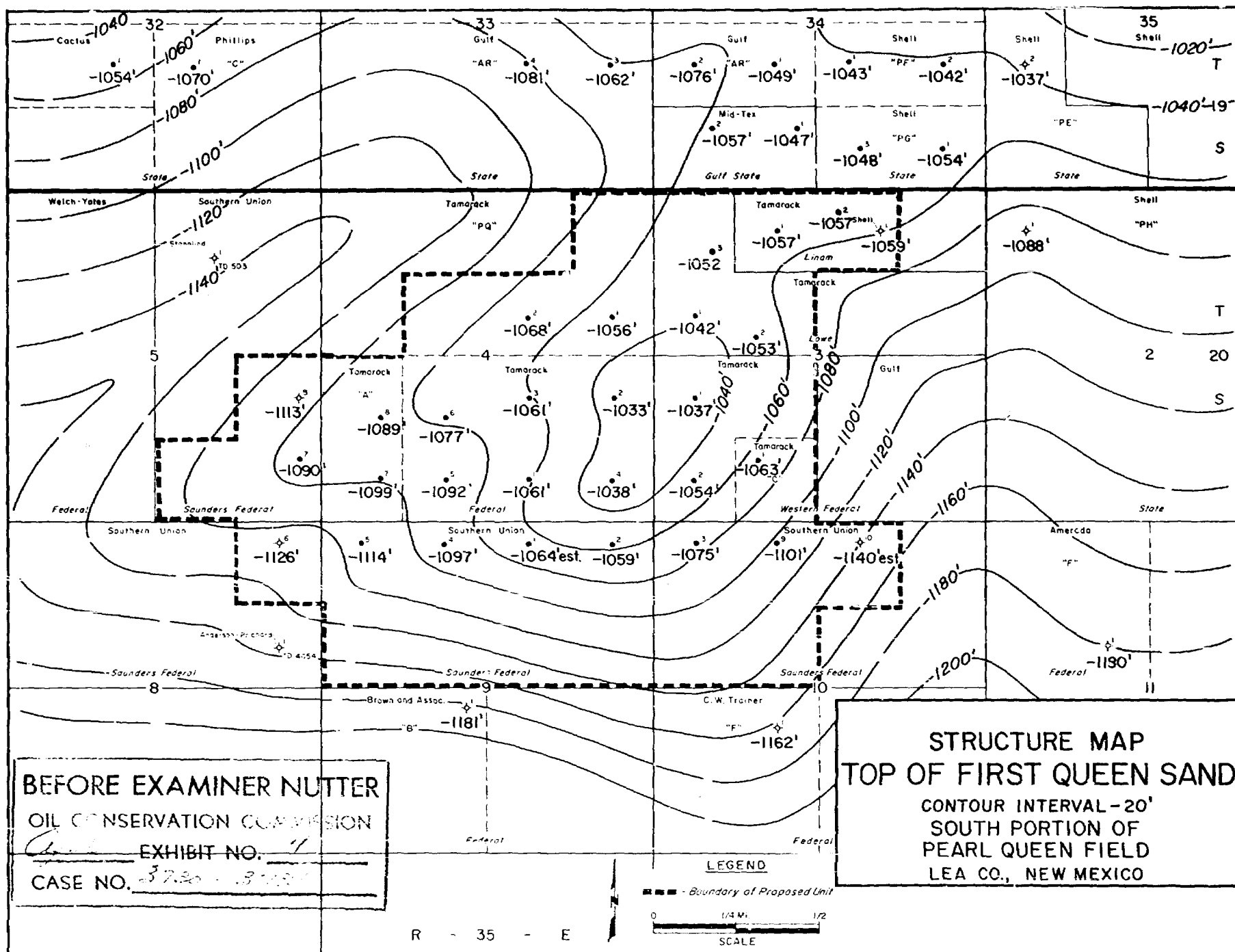
CASE NO. _____

PROPOSED TAMARACK SOUTH PEARL QUEEN UNIT

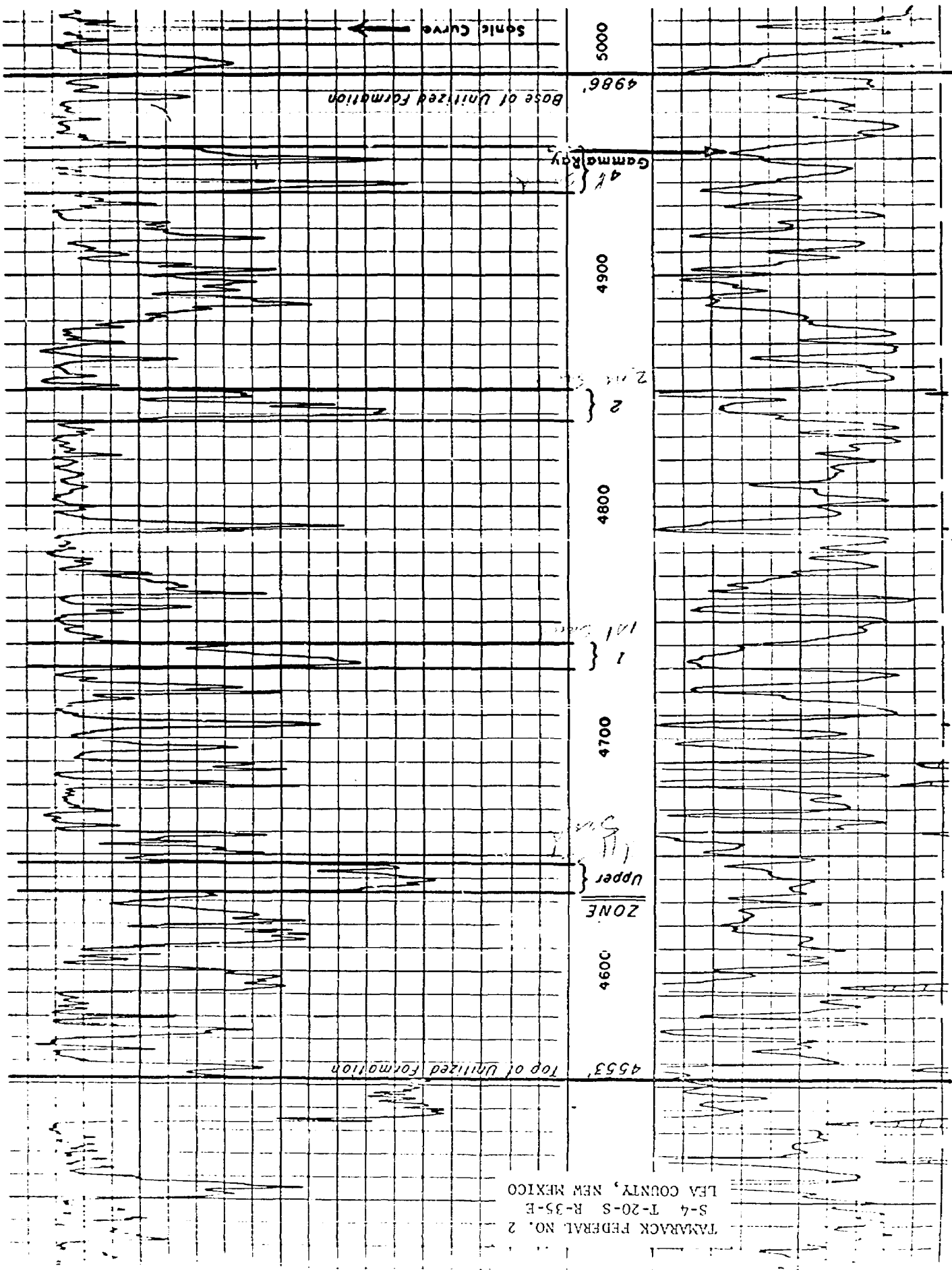
Producing Formation	Queen Sand
Approximate Depth, Ft.	4,650
Type Structure	Anticlinal
Producing Mechanism	Depletion
No. of Producing Wells	25
No. of Dry Holes	4
Spacing, Acres/Well	40
Developed Area, Acres	1,000
Proposed Unit Area, Acres	1,523
Productive Area, Acres	1,171
No. of Proposed Injection Wells (includes one well to be drilled)	14
No. of Proposed Producing Wells (includes five injection-production duals)	20
Current Daily Oil Production (December 1967) Bbls.	313
Bbls/Well	13
Current Gas-Oil Ratio (December 1967) Ft ³ /Bbl.	774
Total Productive Volume, Acre-Feet	12,200
Original Oil in Place, STB	8,264,000
Ultimate Primary Recovery, STB	1,386,000
Additional Recovery due to Waterflood, STB	1,627,000
Ultimate Primary and Waterflood Recovery, STB	3,013,000
Cumulative Production at 1/1/68, STB	1,183,500
Primary Reserves at 1/1/68, STB	202,500
Total Primary and Waterflood Reserves at 1/1/68, STB	1,829,500
Primary Recovery Efficiency, % of OOIP	16.7
Total Recovery Efficiency (Primary and Waterflood), % of OOIP	36.4
Incremental Waterflood Recovery Efficiency, % of OOIP	19.7
Ratio, Waterflood Recovery to Primary Recovery	1.17
Reservoir Characteristics:	
Average Porosity, %	17.3
Average Connate Water Saturation, %	40.6
Average Permeability, md	22.6
Reservoir Temperature, °F	100
Initial Pressure, psi @ - 1,275	1,737
Reservoir Fluid Properties: (based on recombined sample from Shell "PF" No. 1, now in the East Pearl Queen Unit)	
Nature of Oil	Sour, 36° API
Bubble Point Pressure, psi	1,400
Original Solution Gas-Oil Ratio, Ft ³ /Bbl.	400
Initial Oil Volume Factor	1.177
Bubble Point Oil Volume Factor	1.180

LLC&C ENGINEERING, INC. - PETROLEUM CONSULTANTS
 1100 V & J TOWER MIDLAND, TEXAS 79701
 ARTHUR E. PINSON, JR./sb FEBRUARY 27, 1968

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	6
CASE NO.	15,111



TAMARACK FEDERAL NO. 2
S-4 T-20-S R-35-E
LEA COUNTY, NEW MEXICO



TANARACK FEDERAL NO. 2
S-4 T-20-S R-35-E
LEA COUNTY, NEW MEXICO

4553' Top of Unitized Formation

4600

ZONE

Upper

4700

1

4800

2

4900

4# 3 2 1
Gamma Ray

4986'

Base of Unitized Formation

5000

Sonic Curve

