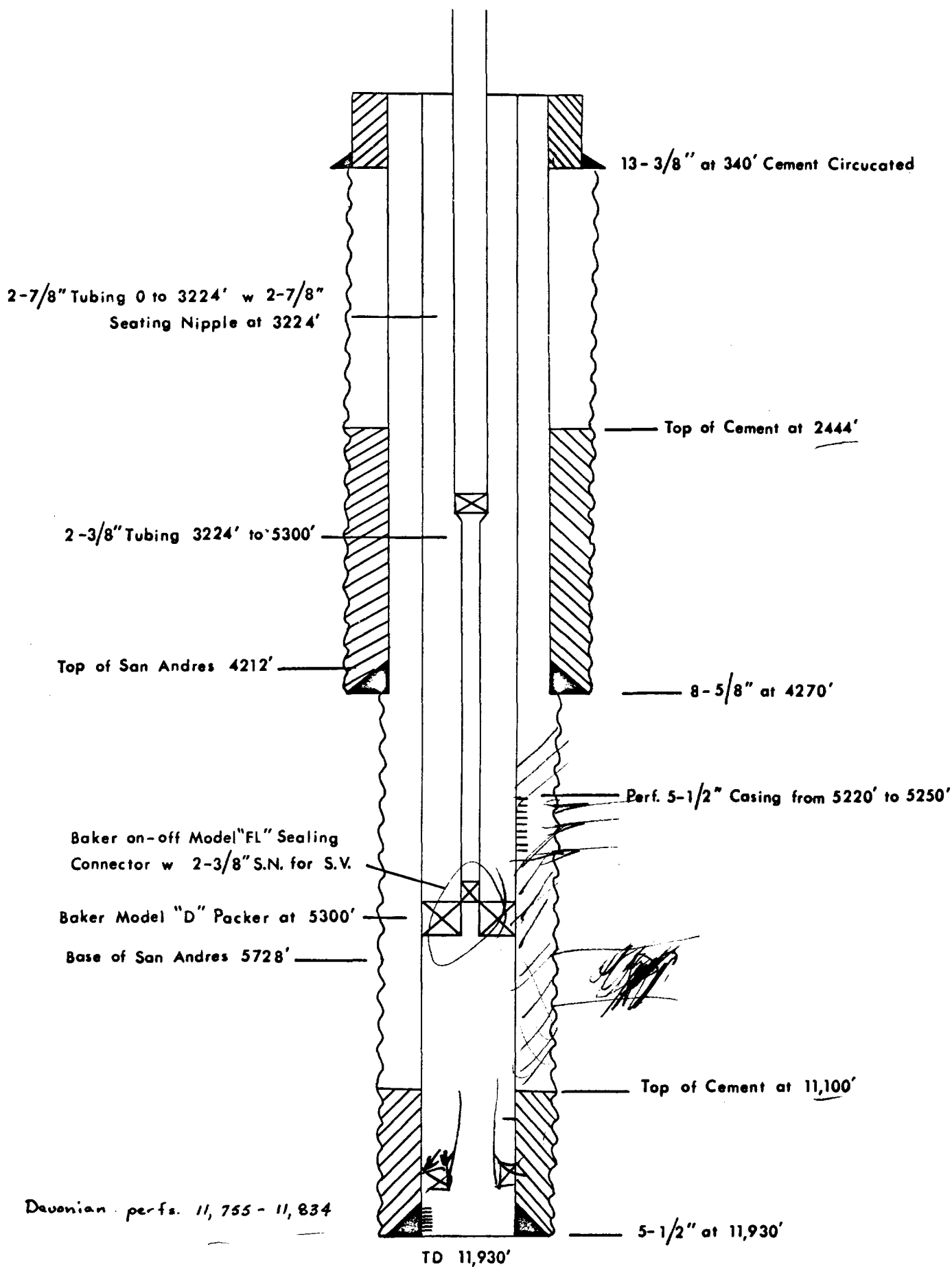


LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

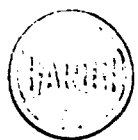
AMERADA PETROLEUM CORPORATION



STATE E "B" No. 1

North Echols Devonian Field

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	2
CASE NO.	3787



BAROID DIVISION
NATIONAL LEAD COMPANY
PETROLEUM INDUSTRY CHEMICALS

WATER ANALYSIS TEST REPORT

SHEET NUMBER

COMPANY

Amerada Petroleum Corp.

DATE

9-11-68

FIELD

Echols - Sec. 27-10S-37E

COUNTY OR PARISH

Lea

STATE

New Mexico

LEASE OR UNIT

State E "B"

WELL(S) NAME OR NO.

No. 1

WATER SOURCE (FORMATION)

Devonian

DEPTH, FT.

BHT, F

SAMPLE SOURCE

Well Head

TEMP, F

WATER, BBL/DAY

500

OIL, BBL/DAY

30

GAS, MMCF/DAY

TYPE OF OIL

API GRAVITY

0

TYPE OF WATER

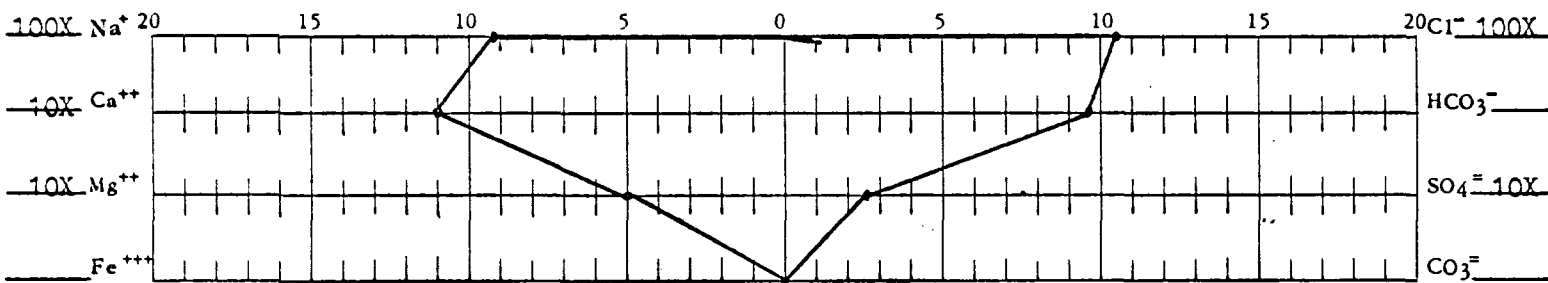
☒ PRODUCED WATER

☐ INJECTION WATER

OTHER

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)



DISSOLVED SOLIDS

CATIONS

Total Hardness

me/l *

160

mg/l *

21,134

Sodium, Na⁺ (calc.)

918

Calcium, Ca⁺⁺

110

2,200

Magnesium, Mg⁺⁺

50

600

Iron (Total), Fe⁺⁺⁺

0.32

0.6

ANIONS

Chloride, Cl⁻

1,042.2

37,000

Sulfate, SO₄⁼

25

1,200

Carbonate, CO₃⁼

NP

NP

Bicarbonate, HCO₃⁻

9.76

595

Hydroxyl, OH⁻

NP

NP

Sulfide, S⁼

1.

17.

Phosphate-Meta, PO₃⁼

NP

Phosphate-Ortho, PO₄⁼

NP

DISSOLVED GASES

Hydrogen Sulfide, H₂S

17.3

mg/l *

Carbon Dioxide, CO₂

NR

mg/l *

Oxygen, O₂

NR

mg/l *

PHYSICAL PROPERTIES

pH

6.35

Eh (Redox Potential)

NR

MV

Specific Gravity

1.40

Turbidity, JTU Units

25

Total Dissolved Solids (Calc.)

mg/l *

Stability Index @ 50 F

-0.67

@ 140 F

+0.43

CaSO₄ Solubility @ 86 F

4027

mg/l *

@ 140 F

3956

mg/l *

Max. CaSO₄ Possible (Calc.)

1702

mg/l *

Max. BaSO₄ Possible (Calc.)

mg/l *

Residual Hydrocarbons

ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐

Iron Oxide ☐

Calcium Carbonate ☐

Acid Insoluble ☐

* NOTE: me/l and mg/l are commonly used interchangeably for ppm and ppm respectively. Where ppm and ppm are used, corrections should be made for specific gravity.

REMARKS AND RECOMMENDATIONS:

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 3

PIC ENGINEER

H. E. Stewart

DIST. NO.

21

ADDRESS

Lovington, New Mexico

OFFICE PHONE

396-2013

HOME PHONE

396-4840

TESTED BY

DATE

9-11-68

DISTRIBUTION

☒ CUSTOMER

☒ PIC ENGINEER OR

☐ AREA OR

☐ PIC LAB

☐ DISTRICT OFFICE

☒ PIC SALES SUPERVISOR

AMERADA PETROLEUM CORPORATION

STATE "E B" NO. 1

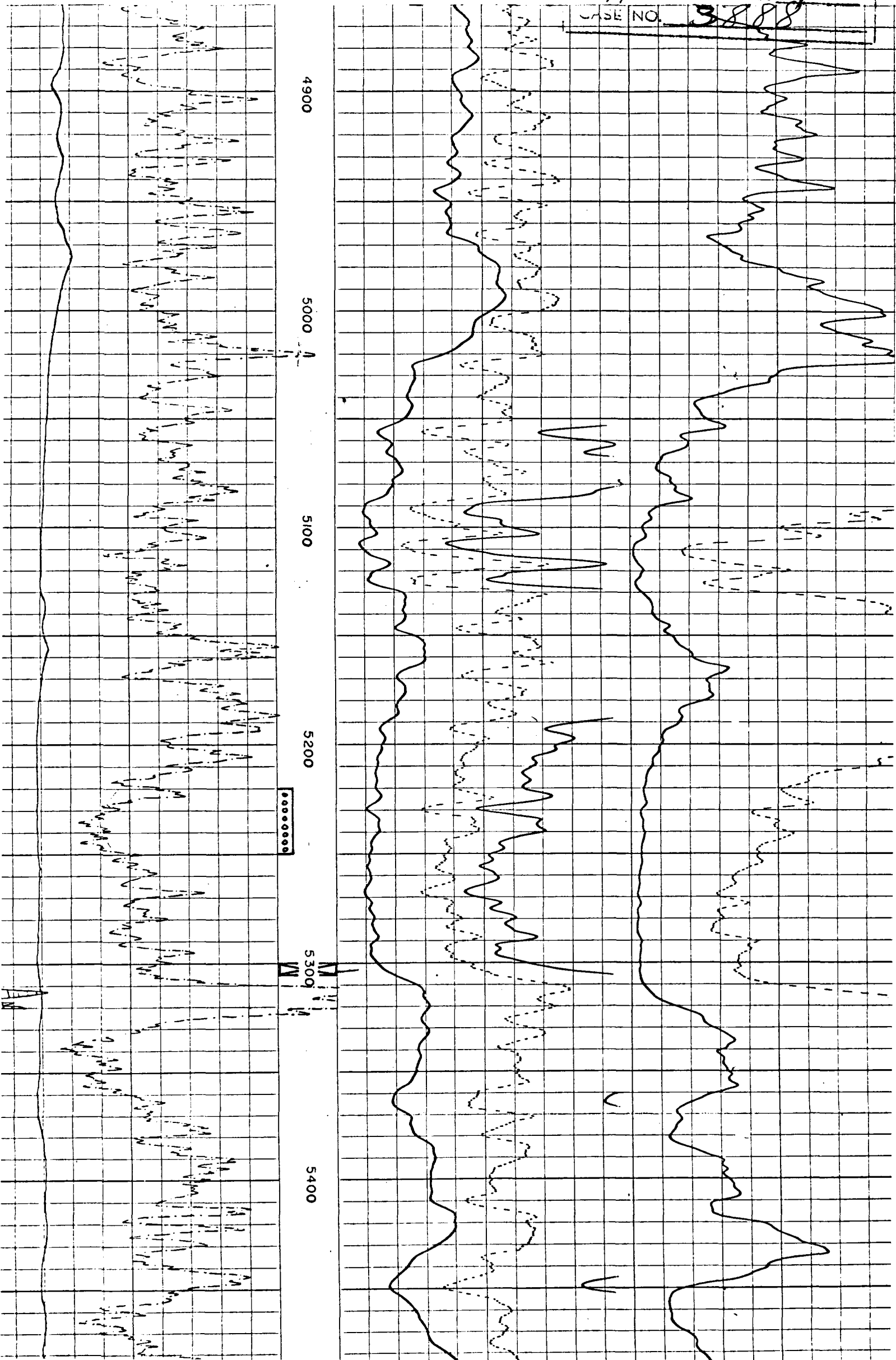
E-27-10-37

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 4

CASE NO. 3888



DRILL STEM TESTS
NORTH ECHOLS AREA

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	5
CASE NO.	3888

<u>Formation</u>	<u>Well Name</u>	<u>Location</u>	<u>Drill Stem Tests</u>
San Andres	Rowan & Nichols State No. 1	C-22-10-37	Production Tested - Plugged & Abandoned
	Texaco State "AY" No. 1	H-26-10-37	4978' - 5060' Rec. 330' Mud
Clearfork	No Test		
Tubb	Texaco State "AY" No. 1	H-26-10-37	7440' - 7586' Rec. 1035' SW
Abo	No Test		
Wolfcamp	Union State No. 1	J-22-10-37	8990' - 9071' Rec. 35' Mud
	Texaco State "AV" No. 1	D-35-10-37	9350' - 9550' Rec. 6800' SW
Pennsylvanian	Texaco State "AW" No. 1	J-21-10-37	11,165' - 11,550' Rec. 330' Mud
	Texaco State "AY" No. 1	H-26-10-37	9980' - 10,880' Rec. 210' Mud
	Amerada State "EB" No. 1	E-27-10-37	9320' - 9406' Rec. 110' Mud 9830' - 10,000' Rec. 270' Mud & 360' SW
	Texaco Gulf - State No. 1	A-28-10-37	10,046' - 10,144' Rec. 75' Mud 10,520' - 10,655' Rec. 30' Mud
	Texaco State "AV" No. 1	D-35-10-37	10,115' - 10,219' Rec. 8130' SW 10,460' - 10,540' Rec. 800' SW 11,405' - 11,486' Rec. 900' SW
Mississippian	Texaco Gulf - State No. 1	A-28-10-37	11,113' - 11,330' Rec. 30' Mud