Case No
5637

Large Exhibits

U.S.N.R.C.F. MICROGRAPHICS
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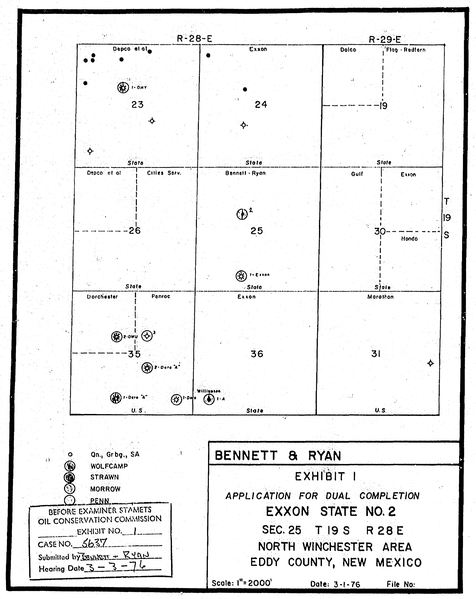


V.T.N.C.F. MICROGRAPHICS
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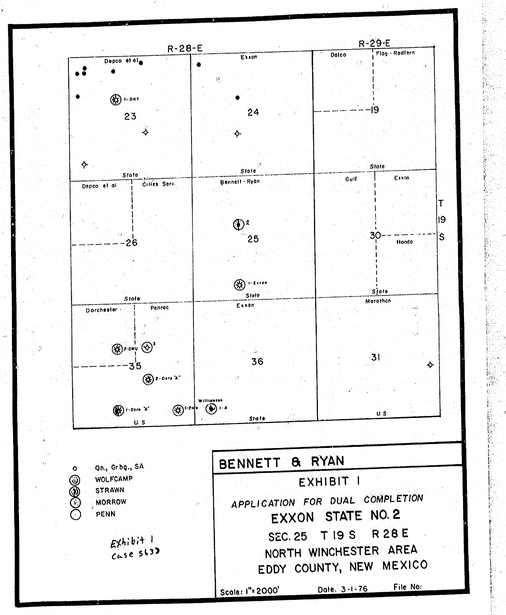


V.R.N.C.P. MICROGRAPHICS
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V.T.O.C.

DUAL (TUBING-ANNULAR) TUBING CONVEYED COMPLETION INSTALLATION

FLANG NO.

COMPANY R.C. BENNETT & J.C. RYAN

WELL EXXON STATE #2

FIELD WILDCAT

COUNTY EDDY STATE NEW MEXICO

LOCATION 1980' FNL & 1980' FWL OTHER SERVICES

SEC. 25 TWP. 19-S RGE. 28-E

PERMANENT DATUM G.L. ELEV. 3345 ELEV.: K.B. 3362.0

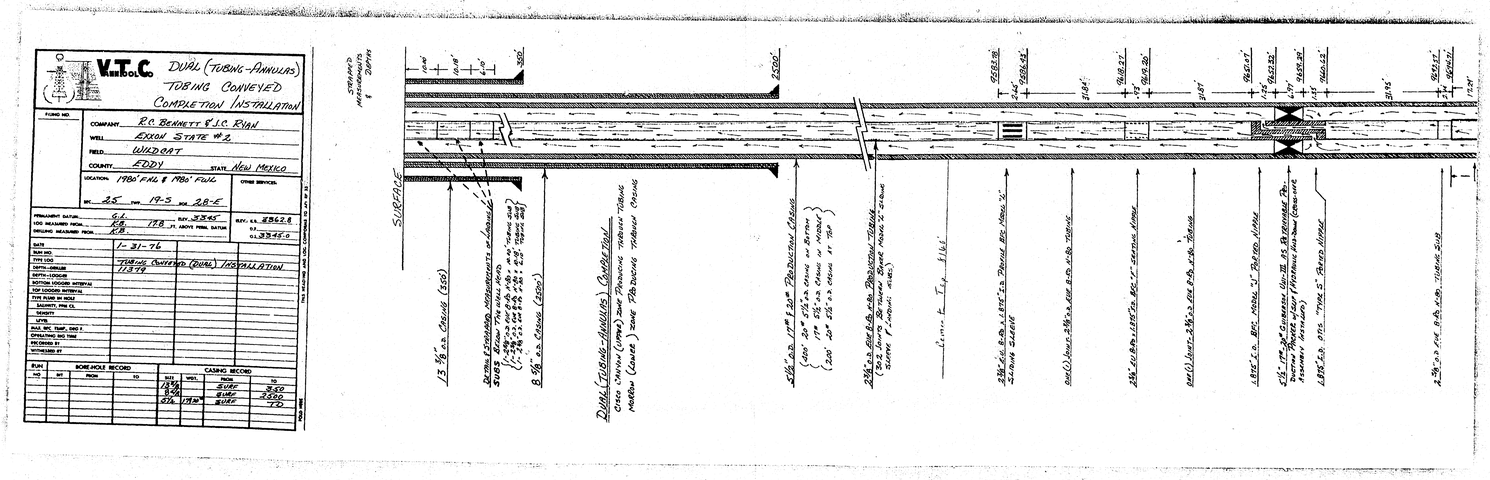
LOG MEASURED FROM K.B. 17 FT. ABOVE PERM. DATUM G.L. 3345.0

DRILLING MEASURED FROM K.B.

| | | | |
|---|---|---|---|
| DATE | 1-31-76 | | |
| RUN NO. | | | |
| TYPE LOG | TUBING CONVEYED (DUAL) INSTALLATION | | |
| DEPTH—DRILLER | 11379 | | |
| DEPTH—LOGGER | | | |
| BOTTOM LOGGED INTERVAL | | | |
| TOP LOGGED INTERVAL | | | |
| TYPE FLUID IN HOLE | | | |
| SALINITY, PPM CL | | | |
| DENSITY | | | |
| LEVEL | | | |
| MAX. REC. TEMP., DEG. F | | | |
| OPERATING RIG TIME | | | |
| RECORDED BY | | | |
| WITNESSED BY | | | |

THIS FORM MAY BE OBTAINED FROM A.P.I.

| RUN NO. | BIT | BOREHOLE RECORD FROM | TO | CASING RECORD SIZE | WGT. | FROM | TO |
|---|---|---|---|---|---|---|---|
| | | | | 13⅜ | | SURF | 350 |
| | | | | 9⅝ | | SURF | 3200 |
| | | | | 5½ | 17# | SURF | TD |




V.T.O.C.F. MICROGRAPHICS

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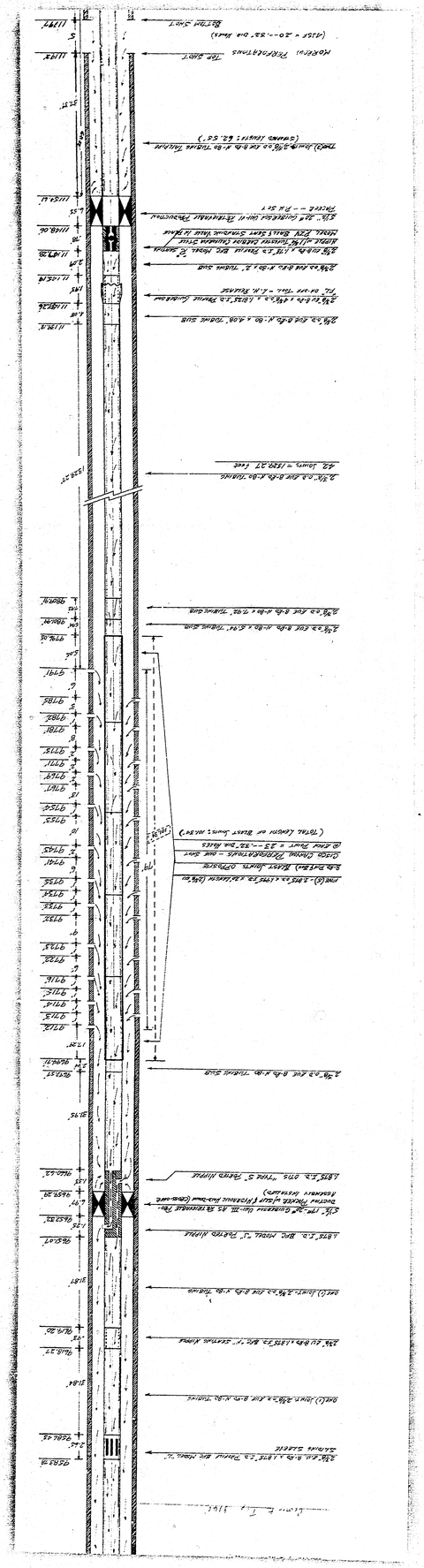
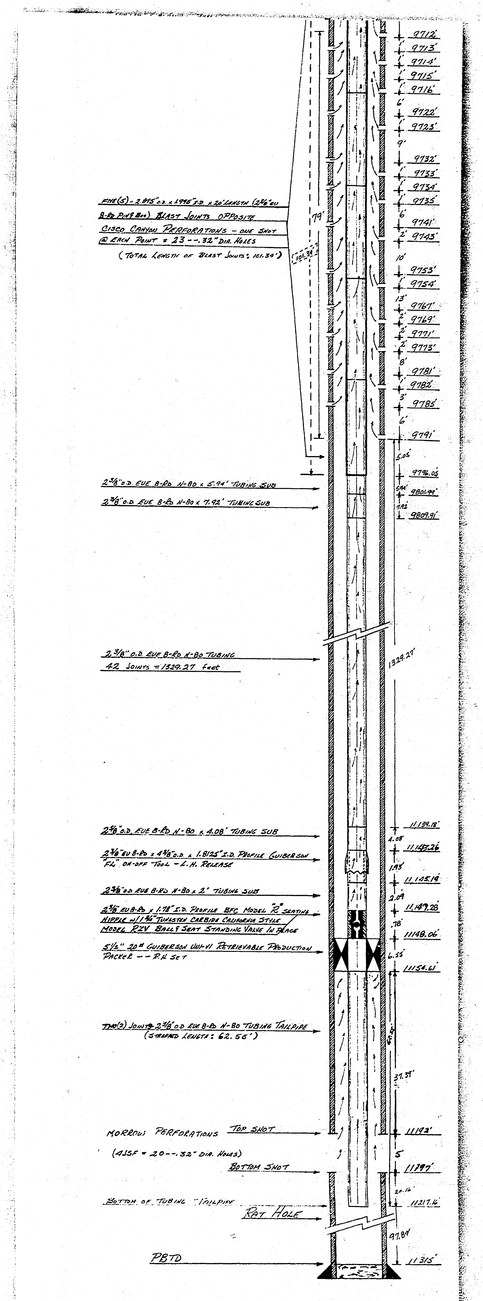

Bottom Joint
Top Joint
Tubing Hanger
Tubing Hanger
Tubing Hanger




BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 6837
Submitted by Yates Petroleum
Hearing Date 1-3-theta

# V.T.C. — DUAL (TUBING-ANNULAR) TUBING CONVEYED COMPLETION INSTALLATION

| | |
|---|---|
| COMPANY | P.C. BENNETT & J.C. RYAN |
| WELL | EXXON STATE #2 |
| FIELD | WILDCAT |
| COUNTY | EDDY STATE NEW MEXICO |
| LOCATION | 1980' F.N.L. & 1980' F.W.L. |
| SEC. 25 TWP. 19-S RGE. 28-E | |
| PERMANENT DATUM | G.L. ELEV. 3345 |
| LOG MEASURED FROM | K.B. 12.8 FT. ABOVE PERM. DATUM |
| DRILLING MEASURED FROM | K.B. |

OTHER SERVICES:

ELEV. K.B. 3358.8
D.F.
G.L. 3345.0

| | | | | |
|---|---|---|---|---|
| DATE | 1-31-76 | | | |
| RUN NO. | | | | |
| TYPE LOG | TUBING CONVEYED (DUAL) INSTALLATION | | | |
| DEPTH-DRILLER | 11379 | | | |
| DEPTH-LOGGER | | | | |
| BOTTOM LOGGED INTERVAL | | | | |
| TOP LOGGED INTERVAL | | | | |
| TYPE FLUID IN HOLE | | | | |
| SALINITY, PPM Cl. | | | | |
| DENSITY | | | | |
| LEVEL | | | | |
| MAX. REC. TEMP., DEG. F | | | | |
| OPERATING RIG TIME | | | | |
| RECORDED BY | | | | |
| WITNESSED BY | | | | |

| RUN NO. | BIT | BOREHOLE RECORD FROM | TO | CASING RECORD SIZE | WGT. | FROM | TO |
|---|---|---|---|---|---|---|---|
| | | | | 13 3/8 | | SURF | 350 |
| | | | | 9 5/8 | | SURF | 7450 |
| | | | | 5½ | 17#* | SURF | 11379 |

* 5½ 17# S-95 LTC 0-7450 & 9450-11379
  5½ 20# S-95 LTC 7450-9450

DUAL (TUBING-ANNULAR) COMPLETION
Otis Packer (Lower) and Packer Tubing
Model (Lower) Zone Producing Through Casing

STRAND MEASUREMENTS ARE FROM K.B.

SURFACE

13 3/8" o.d. Casing (350')

Depths Indicated Measurements to Landing Subs Below The Kelly Bush.
(-2.38 to 0.0 = 2 7/8" o.d. Tubing sub)
(0.0 to 24.38 = 2 7/8" o.d. Tubing)
(24.38 to 218.17 = 2 3/8" o.d. Tubing sub)

9 5/8" o.d. Casing (7450')

4½" o.d. 12.6# P-110 Production Casing
(400' 2" 21½ casing on Bottom)
( 17" 12½ casing in Middle)
(200' 2" 12½ casing on Top)

2 7/8" o.d. 6.4# J-55 EUE 8rd Tubing
(218.17' Long Tubing Sub Made Up Using 2 Strand Lengths of Tubing)

Crossover Tool

2 7/8" o.d. 6.4# J-55 EUE 8rd Tubing Sub

8441.06' 2 7/8" o.d. 6.4# J-55 EUE 8rd Tubing

2 7/8" o.d. BPC Model "G" Packer Assembly

8441.06' 2 7/8" o.d. 6.4# J-55 EUE 8rd Tubing

2 7/8" o.d. BPC Model "G" Packer Assembly

2 7/8" x 2 3/8" Crossover Valve with 2.25 ID Expendable Ball Seat (Otherwise Known as Crossover Assembly)

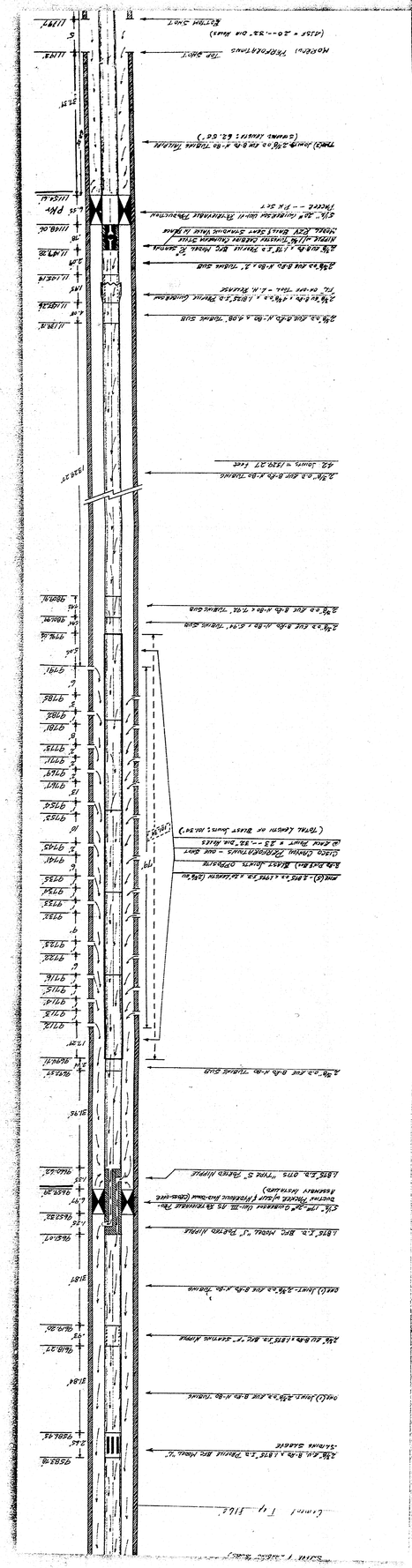
2 3/8" o.d. 4.7# J-55 EUE 8rd Tubing Sub

2.38" o.d. 4.7# J-55 EUE 8rd Tubing Sub

| | |
|---|---|
| 0.00' | |
| 1.00' | |
| 0.38' | |
| 0.50' | |
| 350' | |
| 2.45' | 9288.98' |
| 9286.98' | |
| 37.84' | |
| 9.18' | 9418.27' |
| 9409.26' | |
| 9.81' | |
| 9418.27' | |
| 1.28' | 9419.55' |
| 9419.55' | |
| 4.04' | 9423.59' |
| 9423.59' | |
| 1.12' | 9424.71' |
| 9424.71' | |
| 30.76' | |
| 9455.47' | |
| 2.54' | 9458.01' |
| 9458.01' | |
| 17.24' | |

V.S.R.C.F. MICROGRAPHICS

BEST AVAILABLE COPY


Casing Tally Sheet
Liner Tally Sheet
2⅜" 8.6lb J-55 EUE 8rd Tubing
2⅜" 8.6lb J-55 EUE 8rd x 4' Tubing Sub
2⅜" 8.6lb J-55 EUE 8rd x 6' Tubing Sub
2⅜" 8.6lb J-55 EUE 8rd x 8' Tubing Sub
2⅜" 8.6lb J-55 EUE 8rd x 10' Tubing Sub
2⅜" 8.6lb J-55 EUE 8rd x 12' Tubing Sub
2⅜" 8.6lb J-55 EUE 8rd x 20' Tubing Sub
2⅜" 8.6lb J-55 EUE 8rd x 4.80' Tubing Sub
2⅜" 8.6lb J-55 EUE 8rd Pup Joint w/ Slotted Collar
Pc. on btm. Tbg. - F.H. Release
2⅜" 8.6lb J-55 EUE 8rd Pup Joint w/ Slotted Collar
2⅜" 8.6lb J-55 EUE 8rd x 7" Tubing Sub
Middle Valley Tributary Injector Completion Stack
Middle Valley Bluffs Start Formation Water In Place
Packer - 7" Fluid Set Retrievable Tension Set
7" 26# (Weight) Joint 2⅜" 8.6lb J-55 EUE 8rd Tubing
(Ground Level: 62.66')
Model Perforator Top Shot
(4.25" = .20-.32" Dia Holes)
Bottom Shot
Model (E) - 4½" to 4.5" to 4.0" Liner (Slotted)
Lower Bullnose Blast Joints Perforated
Casing Shoe Perforators - Base Shot
@ 4spf Shot @ 23 - 32" Dia Holes
(Total Length of Blast Joints: 10.50')
2⅜" 8.6lb J-55 EUE 8rd x 8' Tubing Sub
7" 26# Guiberson Uni-VI Retrievable Tension Packer w/ Right Hydraulic Bypass Slips (Double-Grip Secondary Retrieving)
4½" 11.6lb J-55 LT&C Pup Joint w/ Slotted Collar
4½" 11.6lb J-55 LT&C Pup Joint

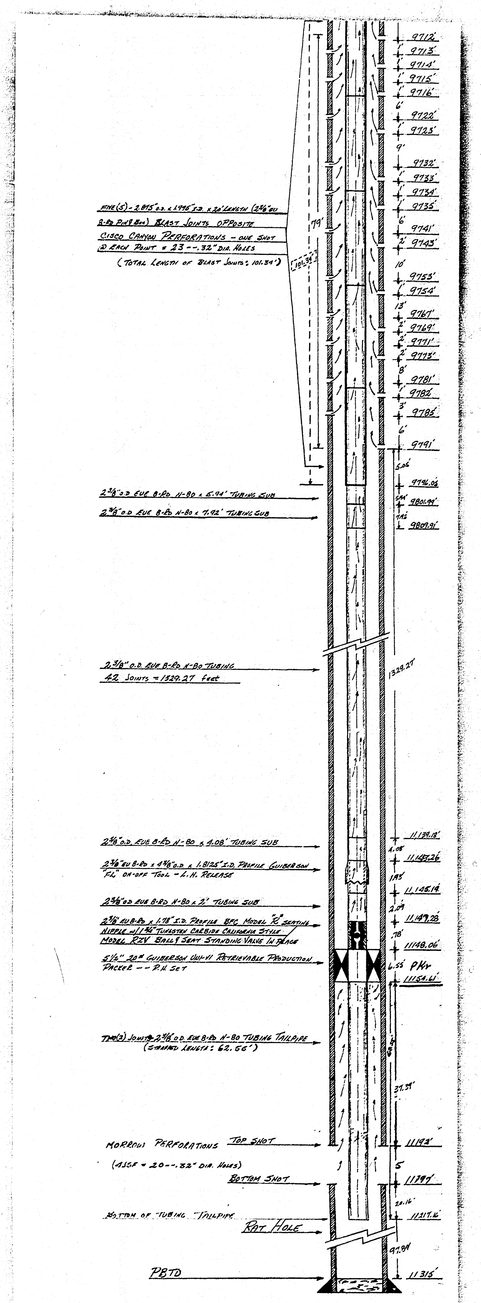



EXHIBIT 2

CASE # 6773

Case 5-637

**V.T.C.** VANN TOOL CO.

# DUAL (TUBING-ANNULAR) TUBING CONVEYED COMPLETION INSTALLATION

FILING NO.

COMPANY R.C. BENNETT & I.C. RYAN

WELL EXXON STATE #2

FIELD WILDCAT

COUNTY EDDY STATE NEW MEXICO

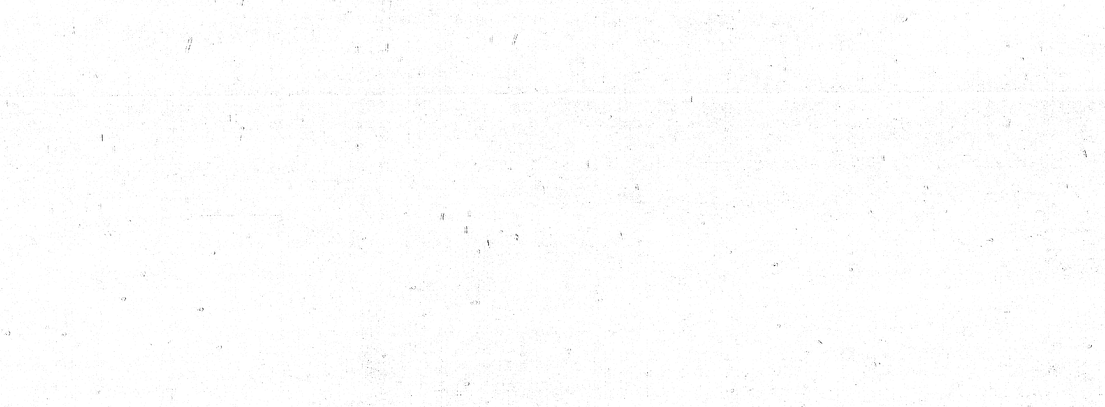
LOCATION 1980' FNL & 1980' FWL

CMBE SERVICES

SEC. 25 TWP. 19-S RGE. 28-E

| | | | |
|---|---|---|---|
| PERMANENT DATUM | G.L. | ELEV. 3345' | ELEV. K.B. 3362.8 |
| LOG MEASURED FROM | K.B. | 17.8 FT. ABOVE PERM. DATUM | D.F. |
| DRILLING MEASURED FROM | K.B. | | G.L. 3345.0 |
| DATE | | 1-31-76 | |
| RUN NO. | | | |
| TYPE LOG | | "TUBING CONVEYED (DUAL) INSTALLATION" | |
| DEPTH - DRILLER | | 11379 | |
| DEPTH - LOGGER | | | |
| BOTTOM LOGGED INTERVAL | | | |
| TOP LOGGED INTERVAL | | | |
| TYPE FLUID IN HOLE | | | |
| SALINITY, PPM CL | | | |
| DENSITY | | | |
| LEVEL | | | |
| MAX. REC. TEMP., DEG. F. | | | |
| OPERATING RIG TIME | | | |
| RECORDED BY | | | |
| WITNESSED BY | | | |

| RUN NO. | BIT | BORE HOLE RECORD FROM | TO | CASING RECORD SIZE | WGT. | FROM | TO |
|---|---|---|---|---|---|---|---|
| | | | | 13 3/8" | | SURF. | 340 |
| | | | | 8 5/8" | | SURF. | 2500 |
| | | | | 5½" | 17#/FT | SURF. | 10 |




V.R.M.C.F. MICROGRAPHICS

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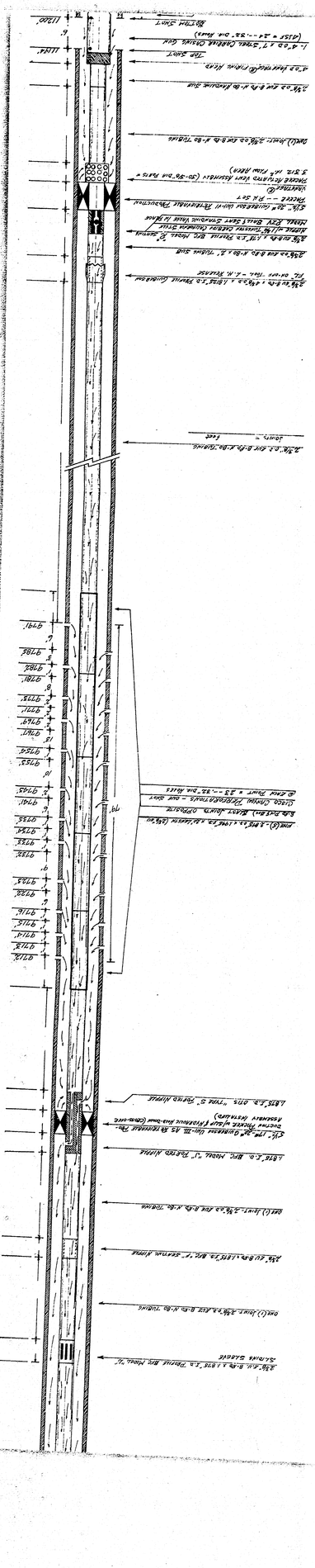
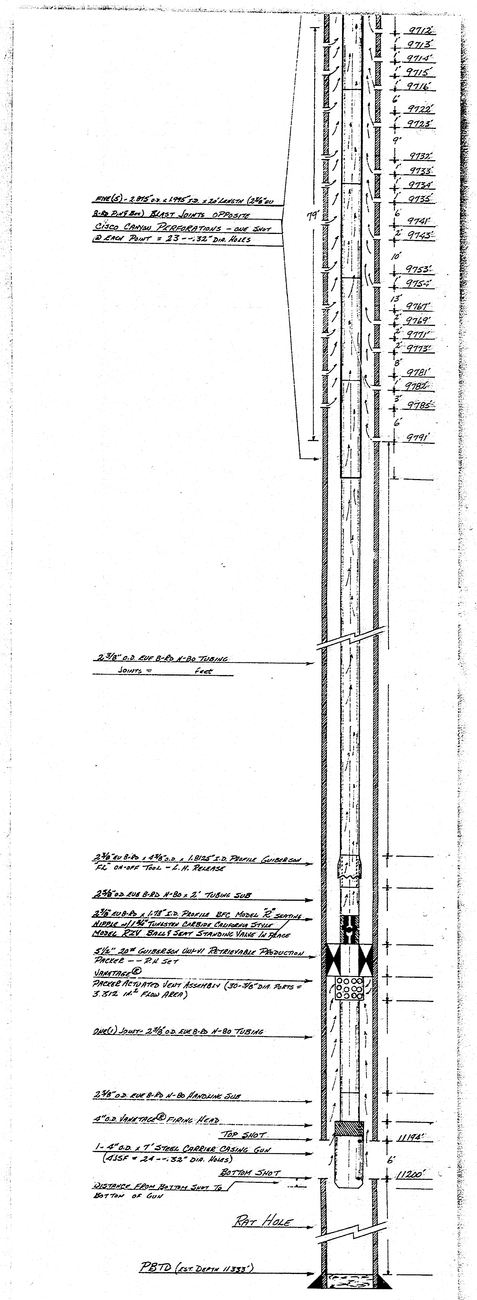
V.E.R.C.F. KIRKWORTH'S




RIH(6) - 2.875" OD x 1.995" ID x 20' LENGTH (6½ BU
B&B PUP BOX) BLAST JOINTS OPPOSITE
CISCO CANADA PERFORATIONS - ONE SHOT
@ EACH POINT = 23 - .32" DIA HOLES
2⅞" O.D. EUE 8-RD. N-80 TUBING
JOINTS = FEET
2⅞" EU 8-RD x 4⅝" O.D. x 1.810" I.D. PROFILE GUIBERSON
FIG. 04-SPE "TOOL" - L.H. RELEASE
2⅞" O.D. EUE 8-RD. N-80 x 2' TUBING SUB
2⅞" EUE 8-RD. x 1.78" I.D. PROFILE REF. MODEL 'R' CAMCO
NIPPLE w/ 1.56" TUNGSTEN CARBIDE COATED STELLITE
MODEL R2V BALL & SEAT STANDING VALVE IN PLACE
5½" 20# GUIBERSON UNI-VI RETRIEVABLE PRODUCTION
PACKER — P.U. SET
VANN TRAC®
PACKER ACTUATED VENT ASSEMBLY (30-3/8" DIA. PORTS =
3.312 in² FLOW AREA)
ONE(1) JOINT 2⅞" O.D. EUE 8-RD. N-80 TUBING
2⅞" O.D. EUE 8-RD. N-80 HANDLING SUB
4" O.D. VANN TRAC® FIRING HEAD
TOP SHOT
1 - 4" O.D. x 7' STEEL CARRIER ORIENT. GUN
(4 JSF = 24 - .32" DIA. HOLES)
BOTTOM SHOT
DISTANCE FROM BOTTOM SHOT TO
BOTTOM OF GUN
RAT HOLE
PBTD (EST DEPTH 11333')
78'
9712'
9713'
9714'
9715'
9716'
6'
9722'
9723'
9'
9732'
9733'
9734'
9735'
6'
9741'
4'
9745'
10'
9755'
9756'
13'
9769'
9771'
9772'
5'
9781'
9782'
5'
9786'
6'
9791'
1'
4'
11194'
11200'

Case 5637

**Welex** — **GUARD LOG**

COMPANY RC BENNETT + JC RYAN
WELL EXXON STATE # 2
FIELD WILDCAT
COUNTY EDDY STATE NEW MEXICO
Location 1980 FNL & 1980 FWL
Other Services: GR C DEN NEUTRON
Sec 25 Twp. 19S Rge. 28E

| | | | | |
|---|---|---|---|---|
| Permanent Datum | GL | Elev. 3345 | Elev.: K.B. 3362.8 | |
| Log Measured From | KB 17.8 Ft Above Perm Datum | | D.F. | |
| Drilling Measured From | KB | | G.L. 3345 | |
| Date | 1-22-74 | | | |
| Run No. | -1- | | | |
| Depth—Driller | 11,375 | | | |
| Depth—Wlmr. | 11,377 | | | |
| Btm. Log Inter. | 11,372 | | | |
| Top Log Inter. | | | | |
| Casing—Driller | 8 5/8 @ 2345 | @ | @ | @ |
| Casing—Wlmr. | | | | |
| Bit Size | 7 7/8 | | | |
| Type Fluid in Hole | Polo | | | |
| Dens. / Visc. | 10.1 / 33 | / | / | / |
| pH / Fluid Loss | 8 cc | cc | cc | cc |
| Source of Sample | CIRCULATING | | | |
| R_m @ Meas. Temp | .66 @ 78° | @ °F | @ °F | @ °F |
| R_mf @ Meas. Temp | .56 @ 60° | @ °F | @ °F | @ °F |
| R_mc @ Meas. Temp | | @ °F | @ °F | @ °F |
| Source R_w | SCALE | | | |
| R_w @ BHT | .049 @ 130° | @ °F | @ °F | @ °F |
| Time Since Circ. | | | | |
| Max. Rec. Temp. | 130° @ RN | °F | °F | °F |
| Equip. / Location | 4893 / ROSWELL | | | |
| Recorded By | D. STRAND | | | |
| Witnessed By | MR. RYAN | | | |

LAHON—AA 35845

SPACE CHANGES: Top Log | Side Door Hole | Depth—Driller | Depth—Wlmr.

Change in Mud Type or Additional Services | Time | Depth | Type Fluid in Hole

Dens. | Visc. | pH | Fluid Loss | R_m @ Meas. Temp | R_mf @ Meas. Temp | R_mc @ Meas. Temp | R_w @ Meas. Temp | R_w @ BHT | Time | Max. Rec. Temp. | Equipment No. | Location | Recorded By | Witnessed By

Remarks

Charges for Logging Operations and Services are based on the Welex Tariff in effect at the time the services are rendered. Welex will not be responsible for the use or interpretation of information furnished. Any claim against Welex shall be limited to the amount paid for the services rendered.

Customer Acceptance

CASING COLLARS | Other

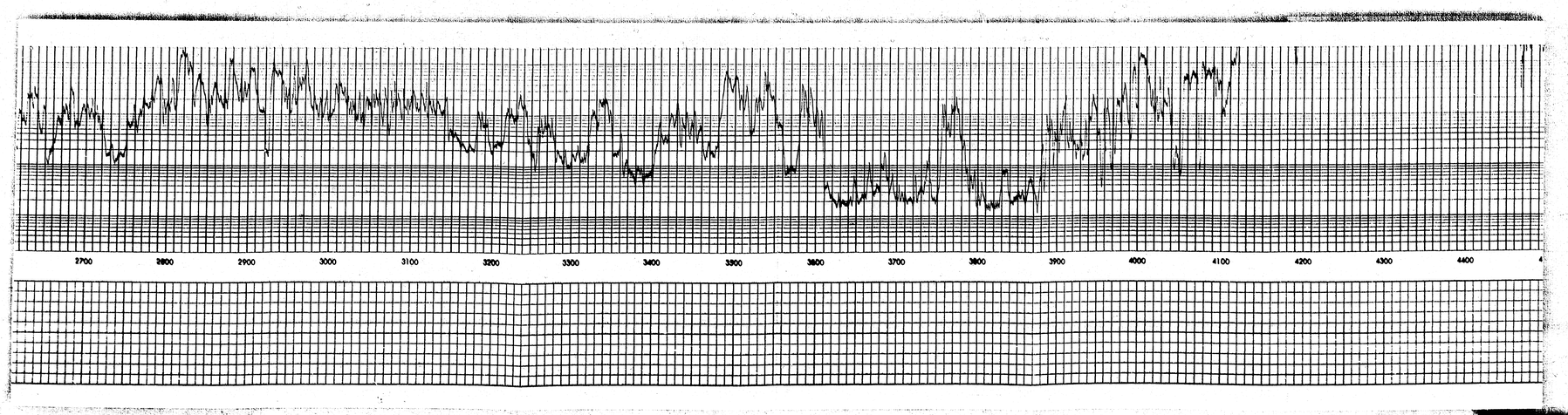
Run No. | Top Log Inter. | Btm. Log Inter. | Csg.-Driller | Csg.-Wlmr. | Bit Size | Type Fluid in Hole | Dens. / Visc. | pH / Fluid Loss | Source of Sample | R_m @ Meas. Temp | R_mf @ Meas. Temp | R_mc @ Meas. Temp | Source R_w | R_w @ BHT | Time Since Circ. | Max. Rec. Temp. | Equip. / Location | Recorded By | Witnessed By

1 | 11372 | 11377 | 8 5/8 @ 2345 | 7 7/8 | Polo | 10.1 / 33 | 8 cc | CIRCULATING | .66 @ 78° | .56 @ 60° | SCALE | .049 @ 130° | 4 HRS | 130° @ RN | 4893 / ROSWELL | D. STRAND | MR. RYAN

RESISTIVITY OHMS M²/M — 100' — 2000 1000 500 200 100 50 20 10 5 2 1

2800 2900 2700 2800 2900 3000 3100 3200

V.V.W.C.T. MICROGRAPHICS




V.K.M.C.F. MICROGRAPHICS
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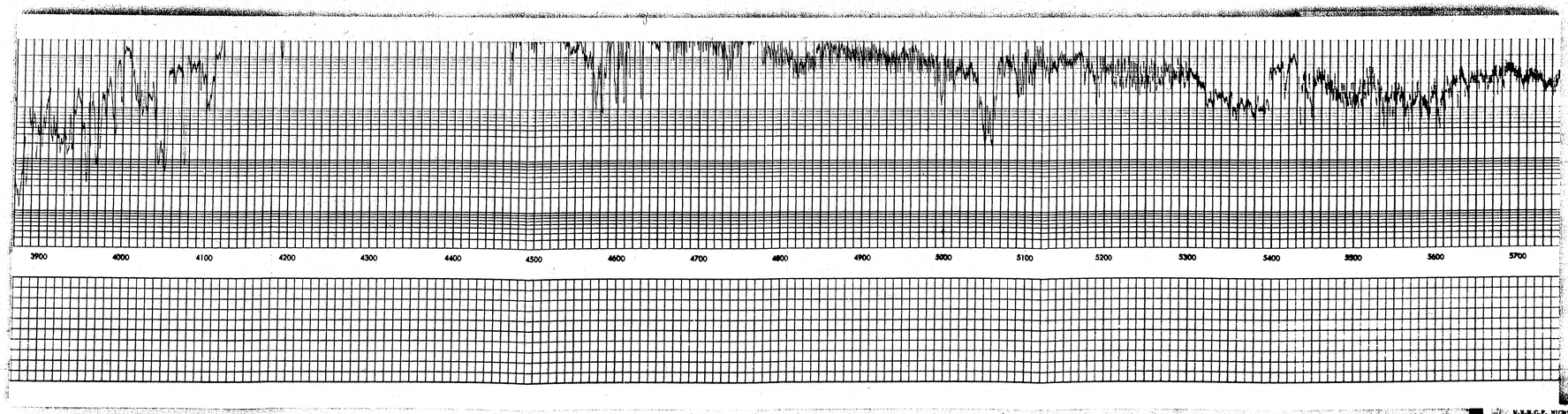


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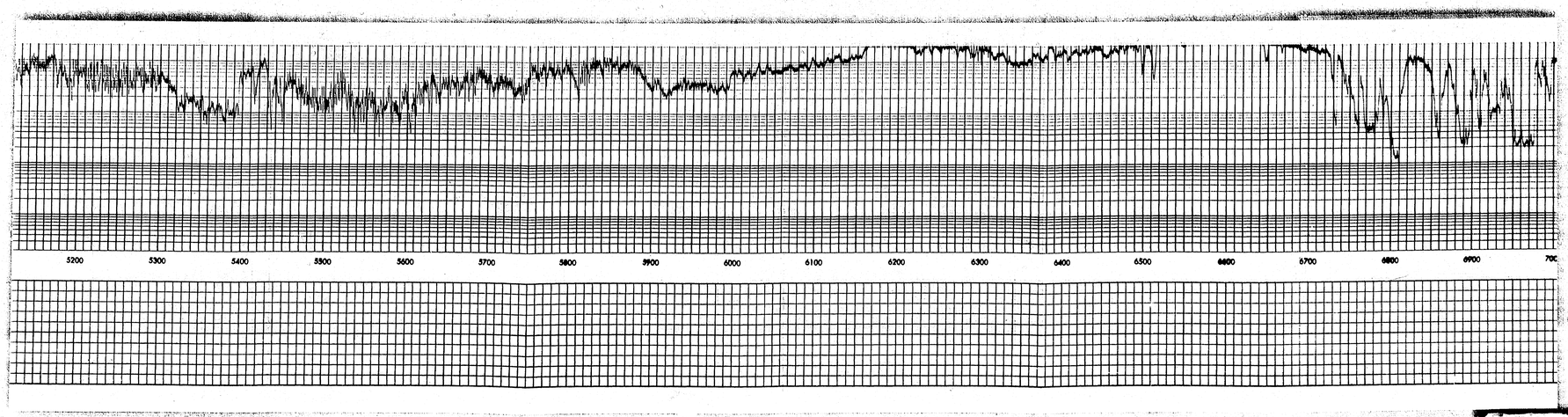


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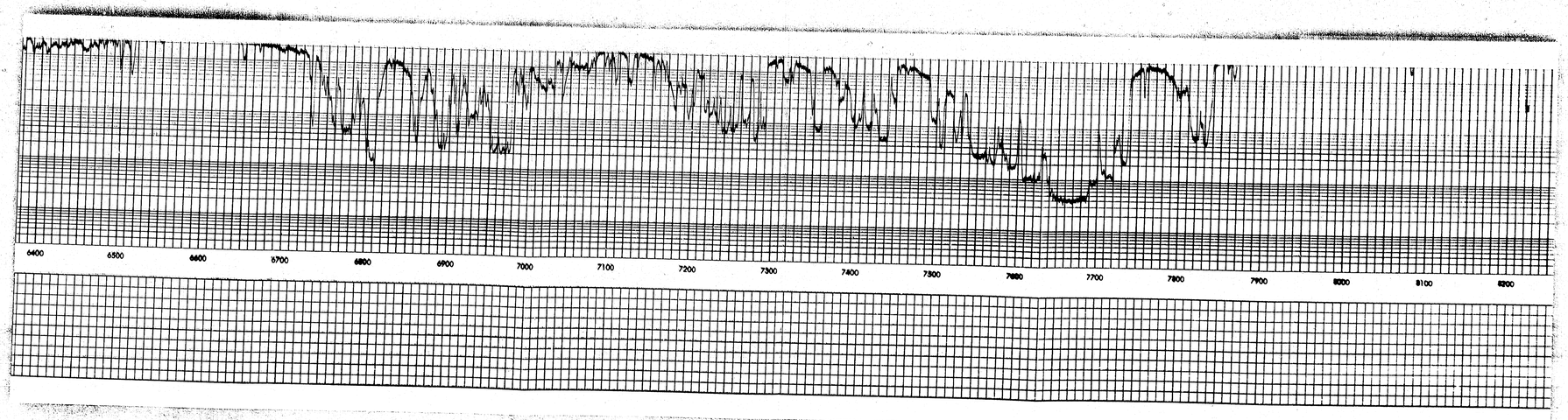


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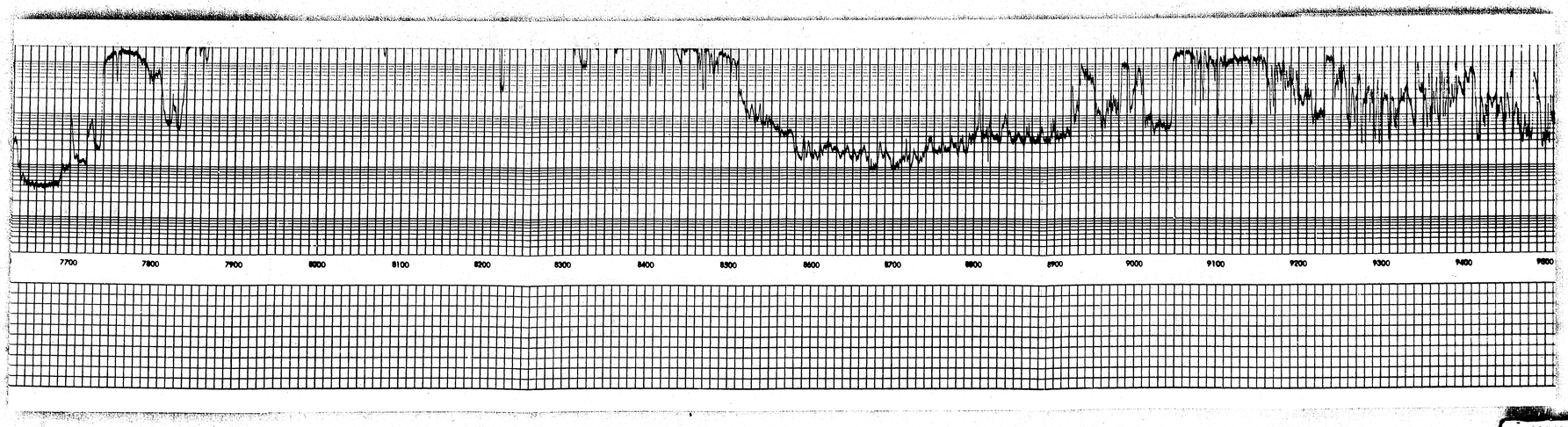


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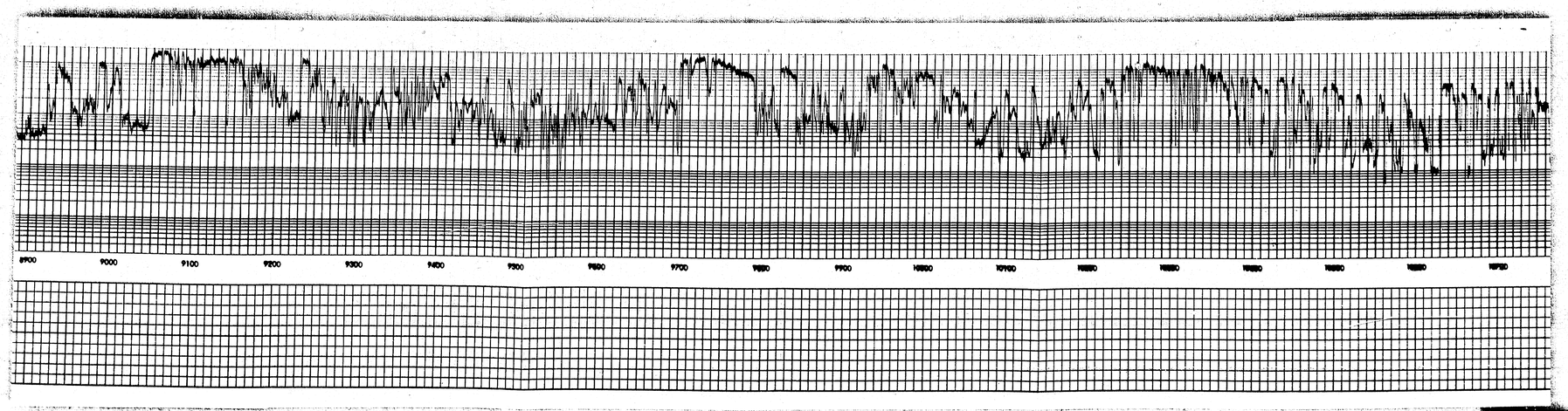


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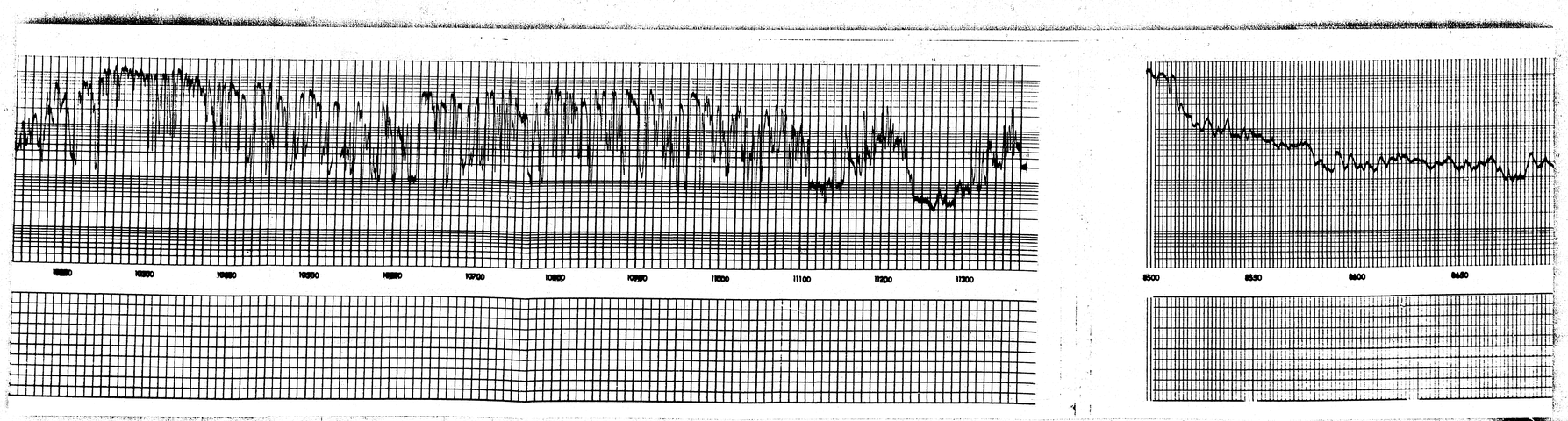


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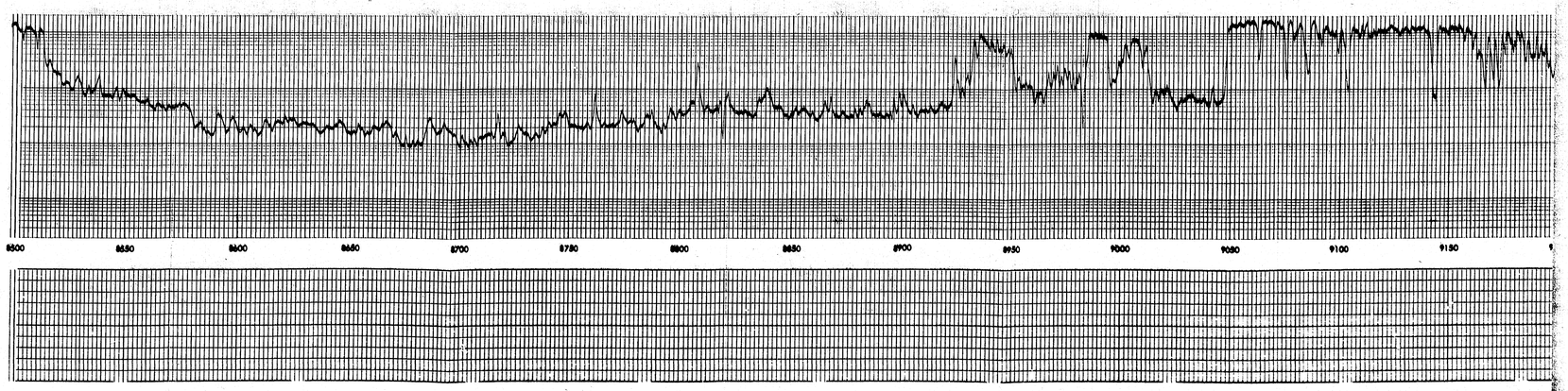


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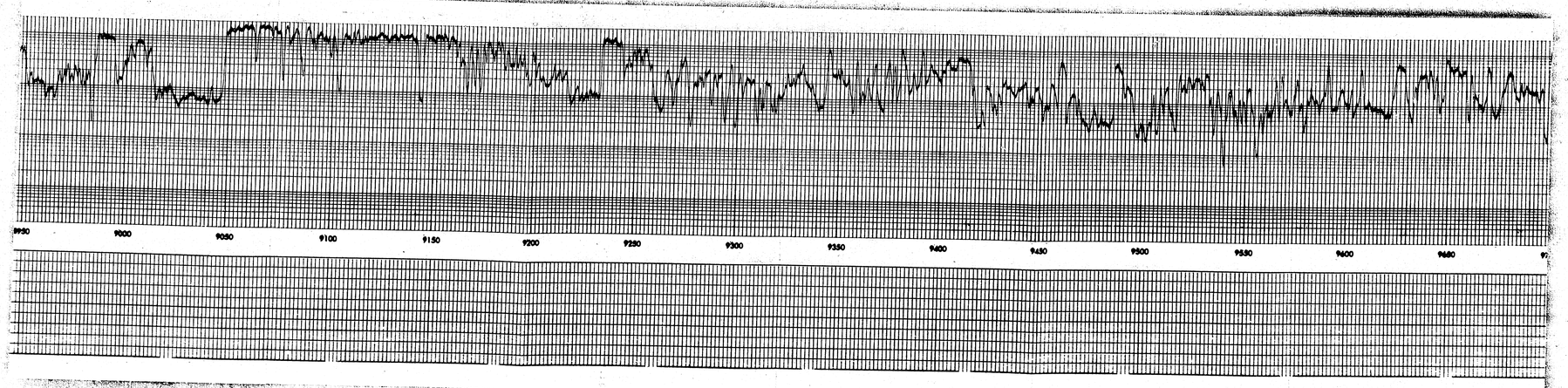


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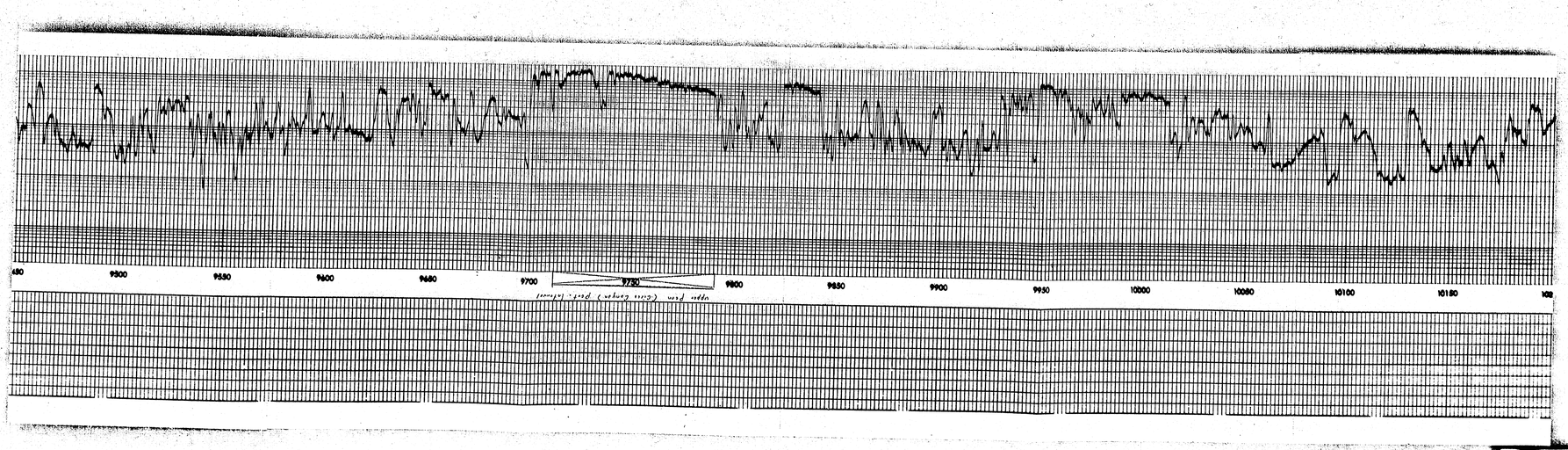
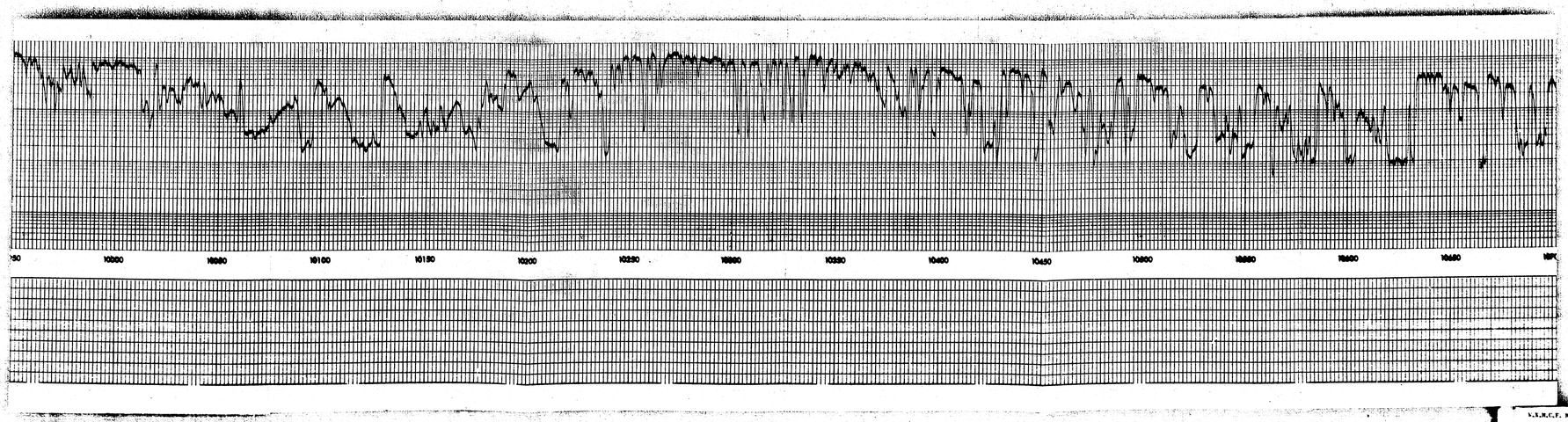



U.S.N.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

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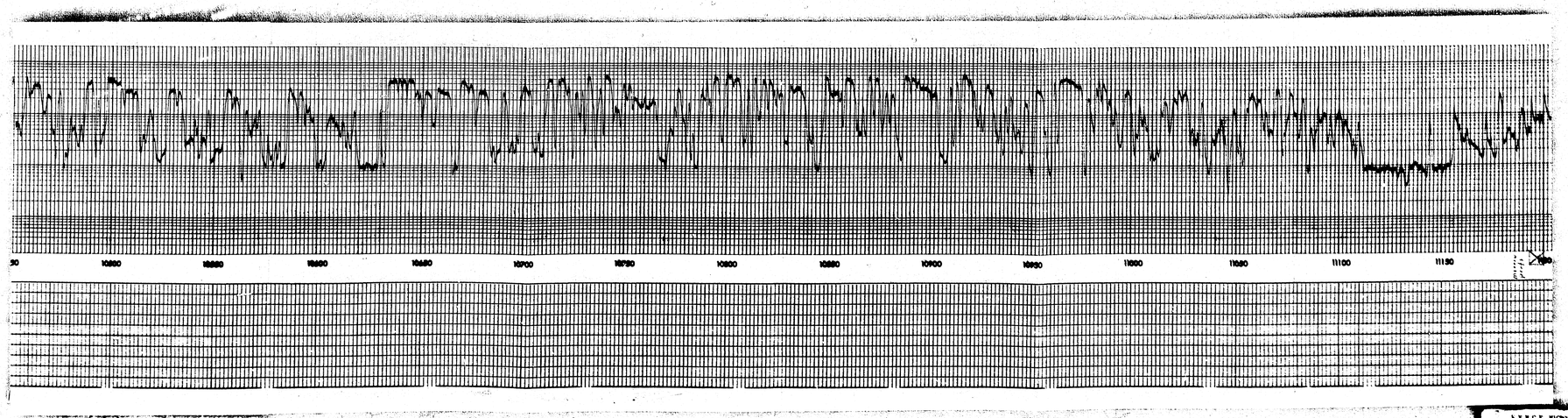


N.A.R.A.C.P. MICROGRAPHICS
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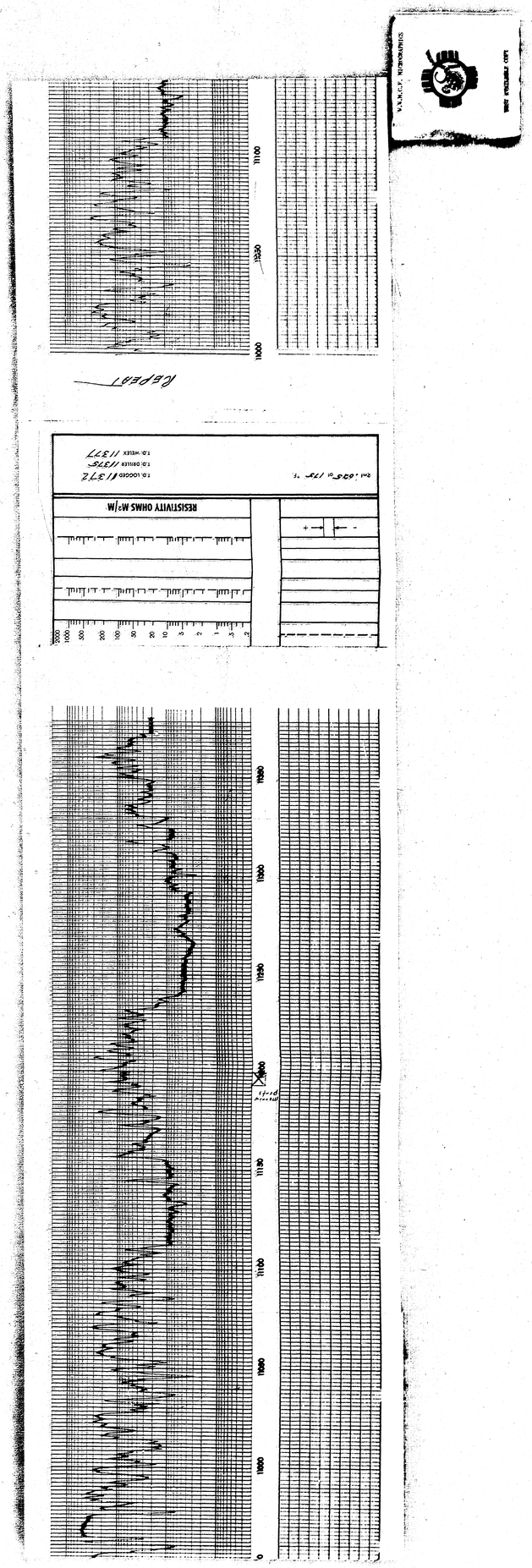
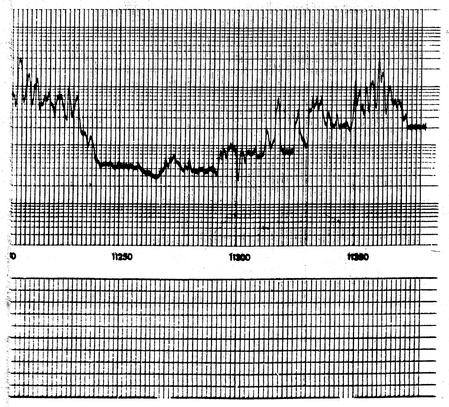
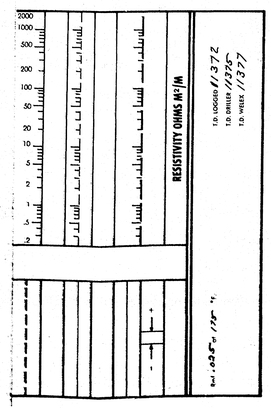
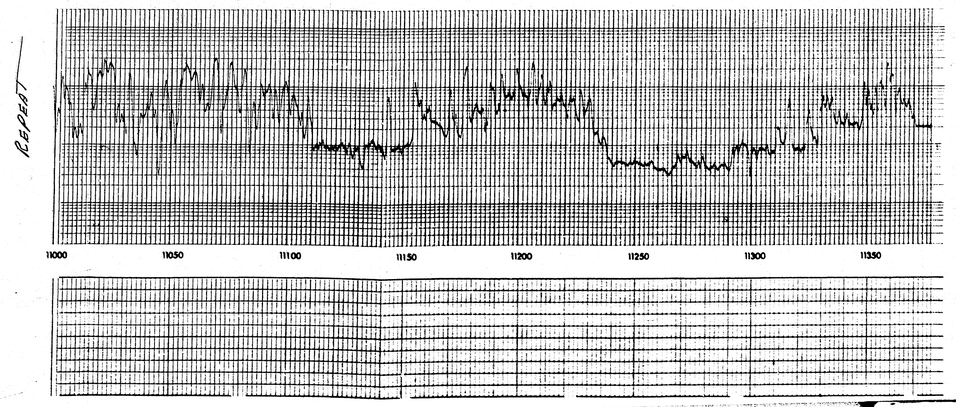

SCHLUMBERGER
WELL SURVEYING CORP.
RESISTIVITY OHMS M²/M
T.D. LOGGER 11372
T.D. DRILLER 11375
T.D. WLEX 11377
11000
11050
11100
0
11000
11050
11100
11150
11200
11250
11300




V.S.M.C.F. MICROGRAPHICS
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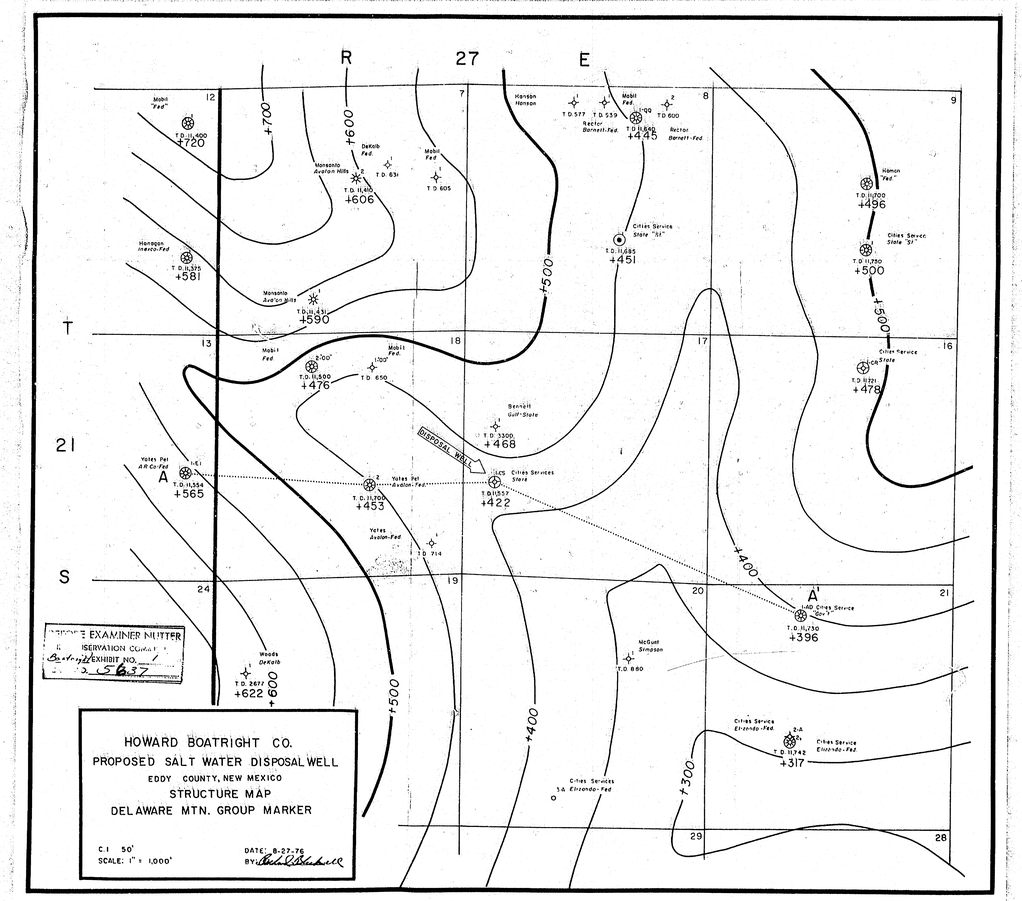


V.A.N.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

A

A'

+800

+800

GOATSEEP Ls.

DELAWARE MTN. GROUP

DELAWARE MTN. GROUP MARKER

OH 2988'-3120'
A/5000
F/60,000 Gal. Water Frac
+ 100,000# 20-40 Sand

PB 3120'

TD 11854

TD 11700

TD 11557
DISPOSAL WELL

TD 11730

BEFORE EXAMINER NN
OIL CONSERVATION COMM.
Rockcreek EXHIBIT NO. 3
CASE NO. 5833

HOWARD BOATWRIGHT CO.
EDDY COUNTY, NEW MEX.
PROPOSED SWD WELL

CROSS-SECTION A-A'

VERT. SCALE: 1"=100' BY: Gordon Hendricks
HORIZ. SCALE: RELATIVE DATE: 8-27-76