Case No
6554

Large Exhibits

N.M.O.C.D. MICROGRAPHICS
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Schlumberger

COMPENSATED NEUTRON-FORMATION DENSITY

COMPANY ATLANTIC RICHFIELD COMPANY

WELL LANGLEY GETTY COM. #1

FIELD LANGLEY ELLENBURGER GAS POOL

COUNTY LEA STATE NEW MEXICO

231' FNL & 790' FSL

Other Services: DIL, BHC

S1 22-S 36-E

Elev. K.B. 3531.6, D.F. 3530, G.L. 3525

Permanent Datum: G.L. Elev. 3525

Log Measured From: K.B. 26.6 ft. Above Perm. Datum

Drilling Measured From: K.B.

Date	5-24-78
Run No.	ONE
Depth-Driller	10124
Depth-Logger	10088
Bottom Logged Interval	10081
Top Logged Interval	6700
Casing-Driller	13 3/8 @ 6200
Casing-Logger	6155
Bit Size	8 3/4
Type Fluid in Hole	SEE OIL MUD
Dens. / Visc.	9.2 40
pH / Fluid Loss	11.2
Source of Sample	CIRC.
R_m @ Meas. Temp.	.120 @ 72 °F
R_mf @ Meas. Temp.	.120 @ 75 °F
R_mc @ Meas. Temp.	
Source of R_mf / R_mc	
R_m @ BHT	
Time Circulation Stopped	0300
Time Logger on Bottom	0745
Max. Rec. Temp.	176 °F
Equip. Location	8-60 HOBBS
Recorded By	KELSON
Witnessed By	MR. LOCKHART

L. WOLFCAMP 8940 (-5388)

PENN. STRAWN 9094 (-5542)

ATOKA 10124 (-6572)

MORROW 10545 (-6994)

9000 9100 9200 9300 9400 9500 9600 9700 9800 9900 10000 10100 10200 10300 10400 10500 10600 10700

U.S.N.M.G.F. MICROGRAPHICS

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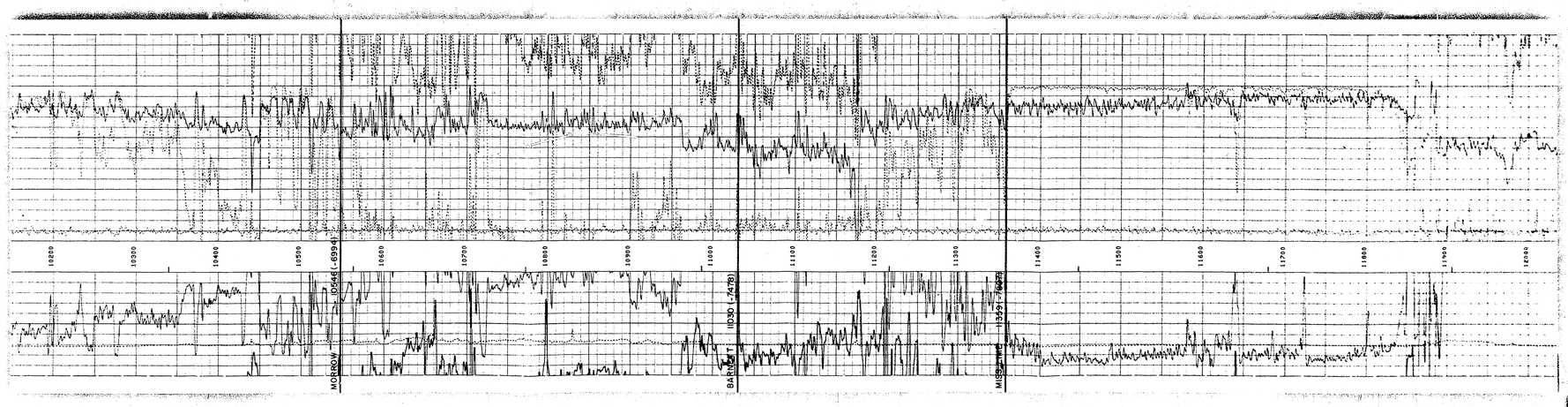

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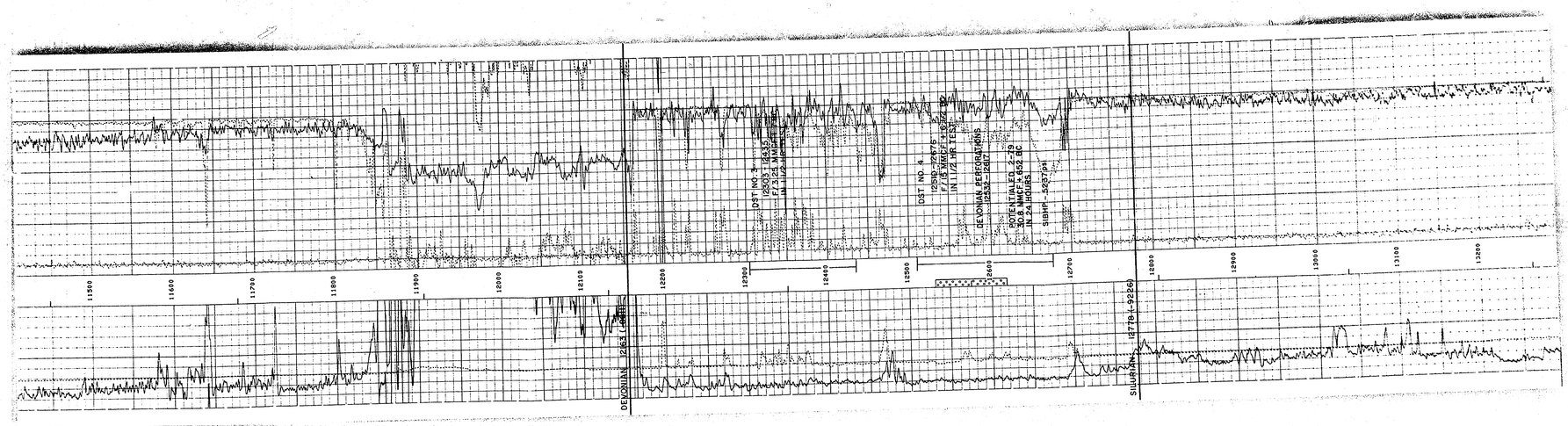

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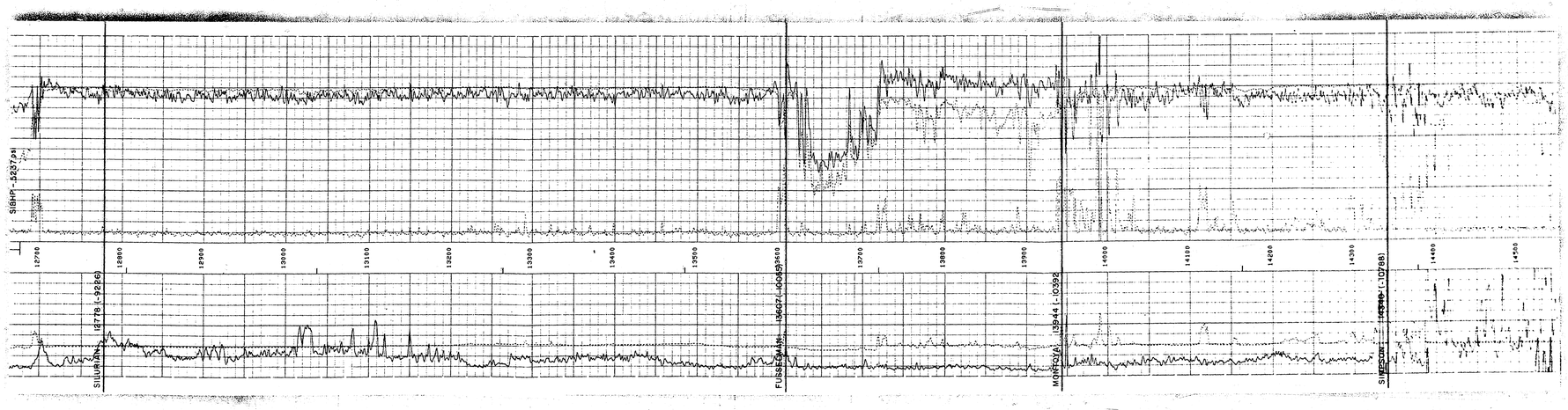

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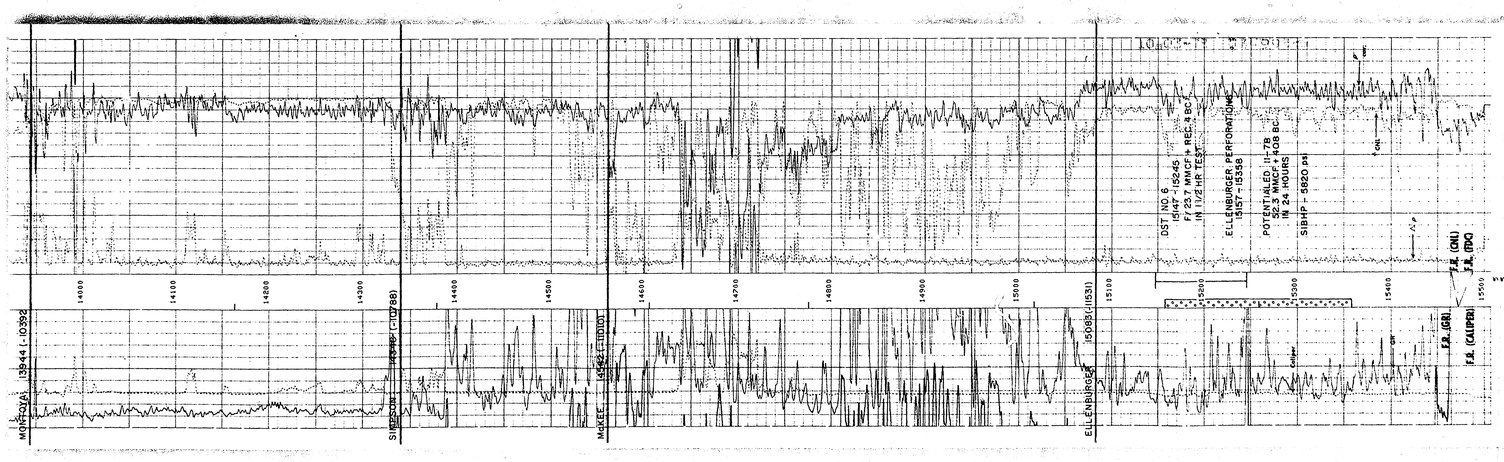

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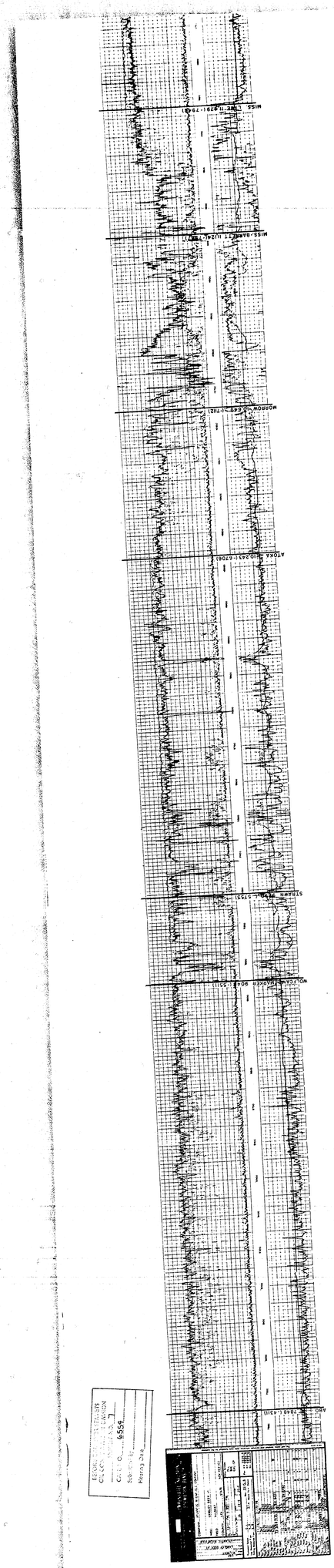

U.S.M.C.F. RECORDS
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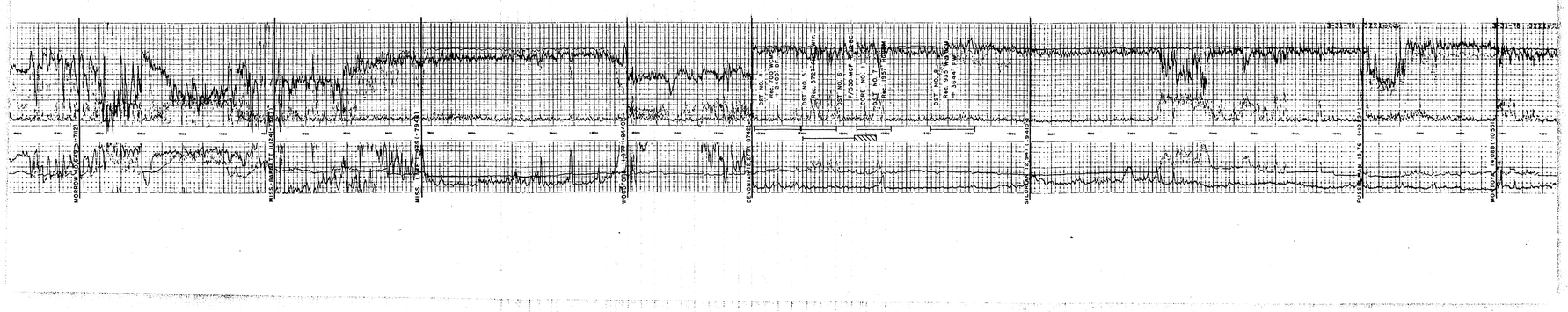

V.N.R.C.F. MICROGRAPHICS

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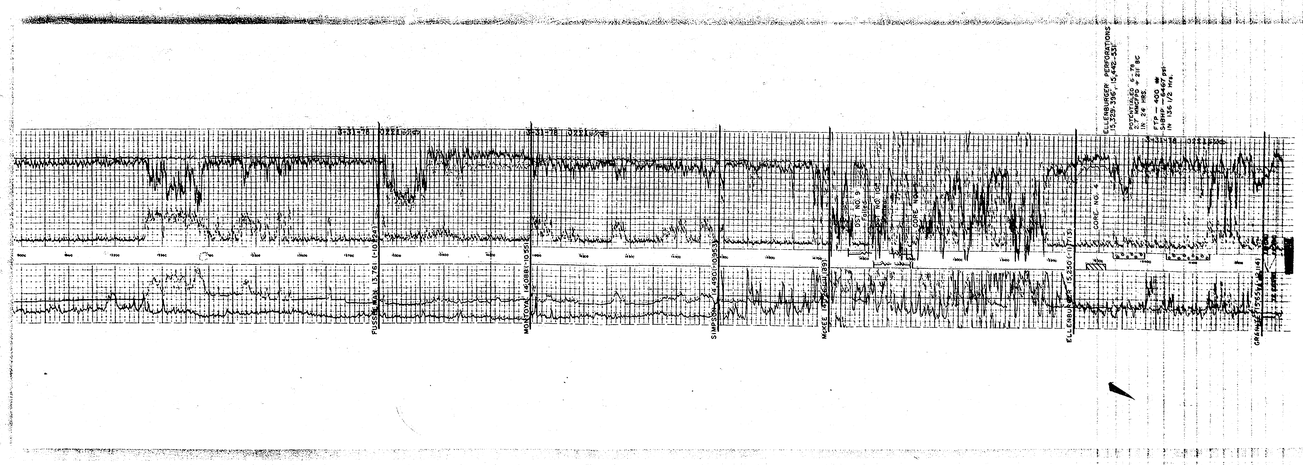

U.S.G.S. PHOTOGRAPH

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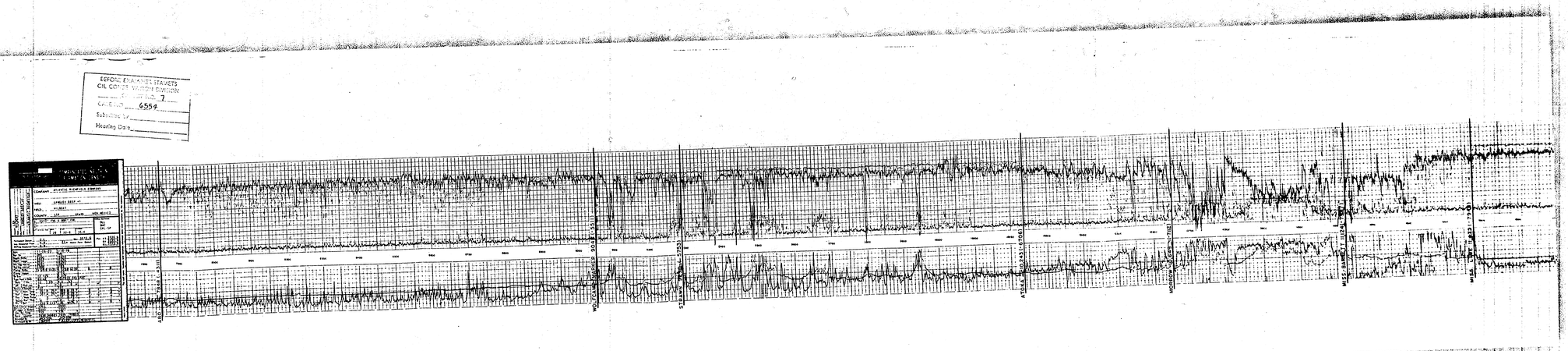
EXPOSURE EXAMINER STAKETS
OIL CONSERVATION DIVISION
Case No. 6554
Submitted by
Hearing Date



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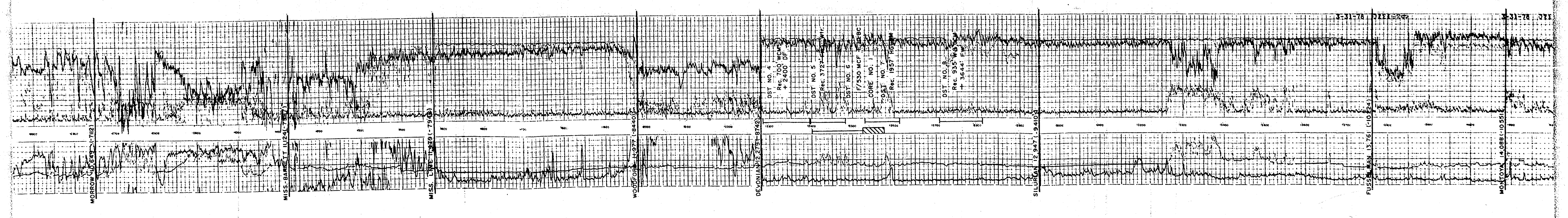

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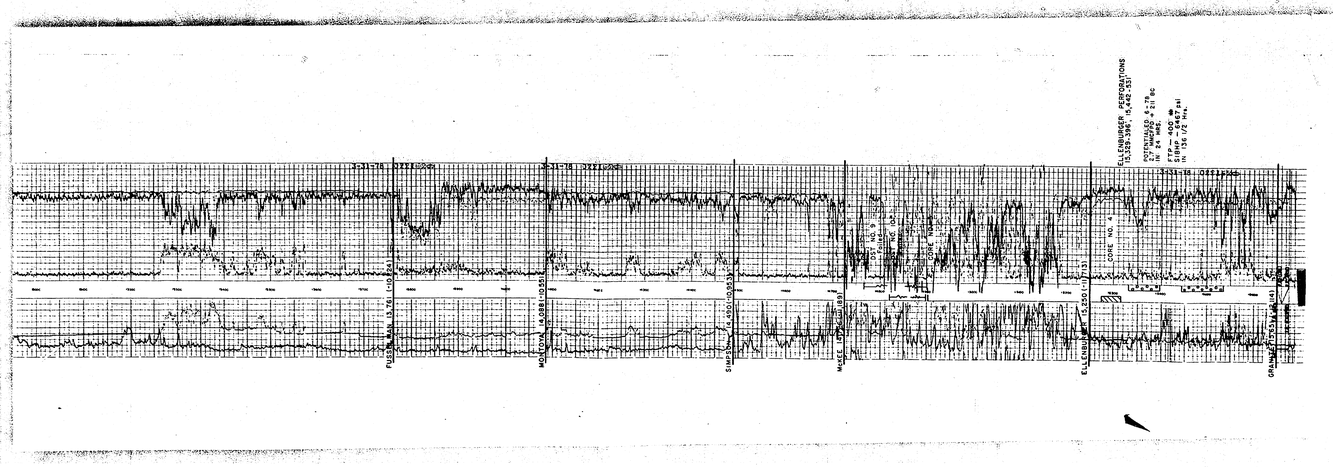

U.T.M.G.C.F. MICROGRAPHICS

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Schlumberger

Combination Logging Systems

Compensated **Densilog**

Compensated **Neutron**

FILE NO.

COMPANY ATLANTIC RICHFIELD COMPANY

WELL LANGLEY-GREER COMM. NO. 1

FIELD WILDCAT

COUNTY LEA STATE NEW MEXICO

LOCATION: 1980' FNL & 1650' FWL

SEC 23 TWP 22-S RGE 36-E

Other Services: BHC/GR DLL/GR DIPLOG

Permanent Datum: GROUND LEVEL — Elev. 3525.2 ft. Above Permanent Datum

Log Measured From: K.B. — 16.6 ft. Above Permanent Datum

Drilling Measured From: K.B. — Elev. 3525.2

Run No.	ONE	TWO	THREE	
Date	12-15-79			
Time	0915			
Max. Rec. Temp.	126°			
Equip. No. Location	1402 HOBBS			
Recorded By	R. BROWN			
Witnessed By	J. SIKES			
Run No.	ONE			
Depth-Driller	6224			
Depth-Logger	6220			
Bottom Logged Interval	6220			
Top Logged Interval	1600			
Casing-Driller	13⅜ @ 1402			
Casing-Logger	13⅜ @ 1398			
Bit Size	12¼			
Type Fluid in Hole	GEL CHEM			
Dens. Visc.	9.2 40			
pH and Fluid Loss	10.0 6.4 cc			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	1.50 @ 80°F	@ °F	@ °F	
Rmf @ Meas. Temp.	.80 @ 80°F	@ °F	@ °F	
Rmc @ Meas. Temp.	2.00 @ 80°F	@ °F	@ °F	
Source of Rmf and Rmc	M	M	M	
Rm @ BHT	.56 @ 126°F	@ °F	@ °F	
Time Since Circ.	6 HRS			
Max. Rec. Temp.	126°			
Equip. No. Location	1402 HOBBS			
Recorded By	R. BROWN			
Witnessed By	J. SIKES			

FOLD HERE

Remarks: CN DECENTRALIZED WITH BOWSPRING OFFENTRALIZER

GR VALID ONLY FOR CORRELATION - READING MUCH TOO HIGH - AMOUNT OF ERROR DOES NOT SEEM TO BE CONSTANT

NO DOWNHOLE TEMPERATURE DETERMINED. THERMOMETER LOST IN ATTEMPT

EQUIPMENT DATA

	RUN NO. 1			RUN NO. 2			RUN NO. 3		
	COL	CN-DD	GR	COL	CN-DD	GR	COL	CN-DD	GR
Series No	2207	2413	1306						
Serial No	24715	39019	31081						
Diameter	5¾	3 5/8	3 5/8						
Elec. No									
Detect. Model No	1G10X	DEN3	DEGB						
Type	GEIGER	SCINT	SCINT						
Dist. to Source			61						
Source Model No	13110	13134B							
Serial No	923	38054							
Computer No	4414	1355	1355						
Serial No.	29316	32927	32938						

Logging Data

General

Run No.	Depths From	Depths To	Speed Ft./Min.
1	6,308	6224	REC.
1	6,308	6000	REC.

Compensated Densilog

T.C. Sel.	Density Scale	Correction Scale	Porosity Scale Data
CCTC	2.0-3.0	.1/CD	D@=2.71 DF=1.1

Gamma Ray

T.C. Sel.	Sens. Settings	Zero Dn. Lin/R	API/G.R. Units/Div.
2	725	0	10
2	725	0	10

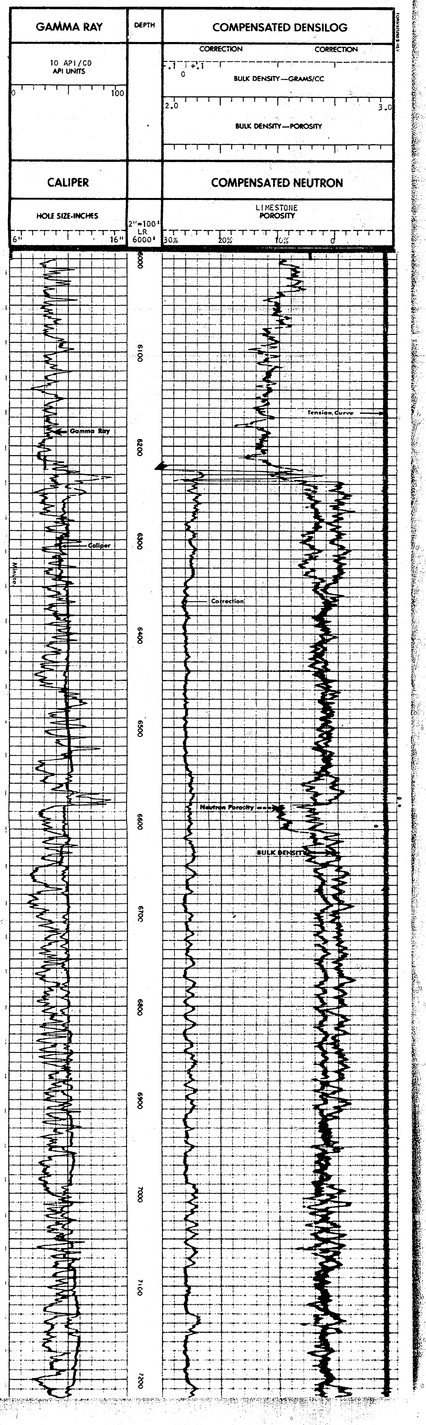
General

Run No.	Depths From	Depths To	Speed Ft./Min.
1	6,308	6000	REC.

Compensated Neutron

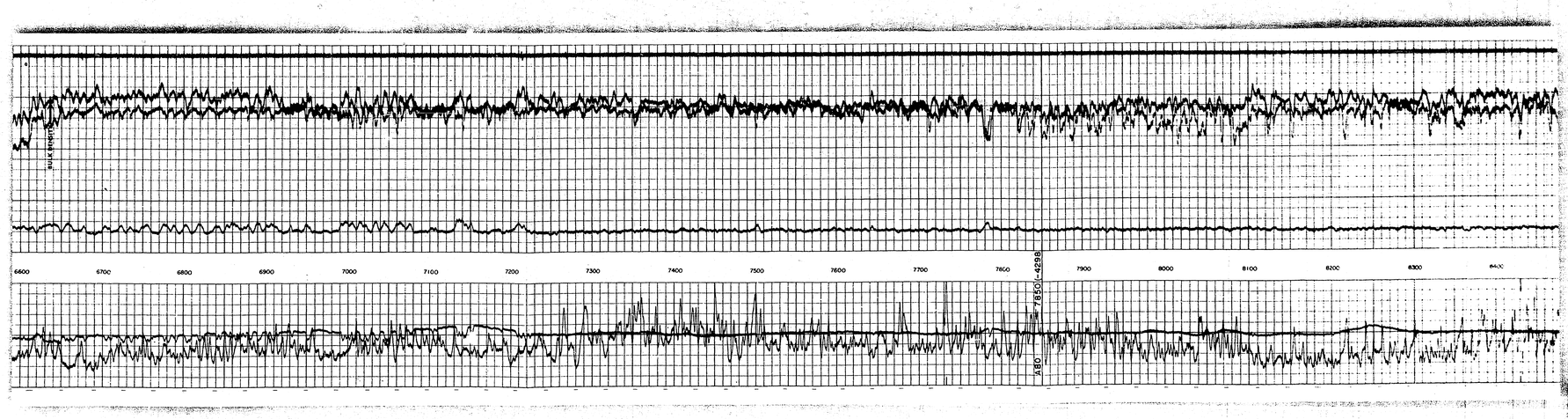
T.C. SS	T.C. LS	Sens. SS	Sens. LS	Porosity Zero	Porosity Units/Div.	Porosity Scale
2	2	150	150	P4.5	2	30-0

Caliper Scale: 6"-16"



LANGLEY MICROWAVES

NOT FOR FINAL USE



U.S.N.C.F. MICROGRAPHICS
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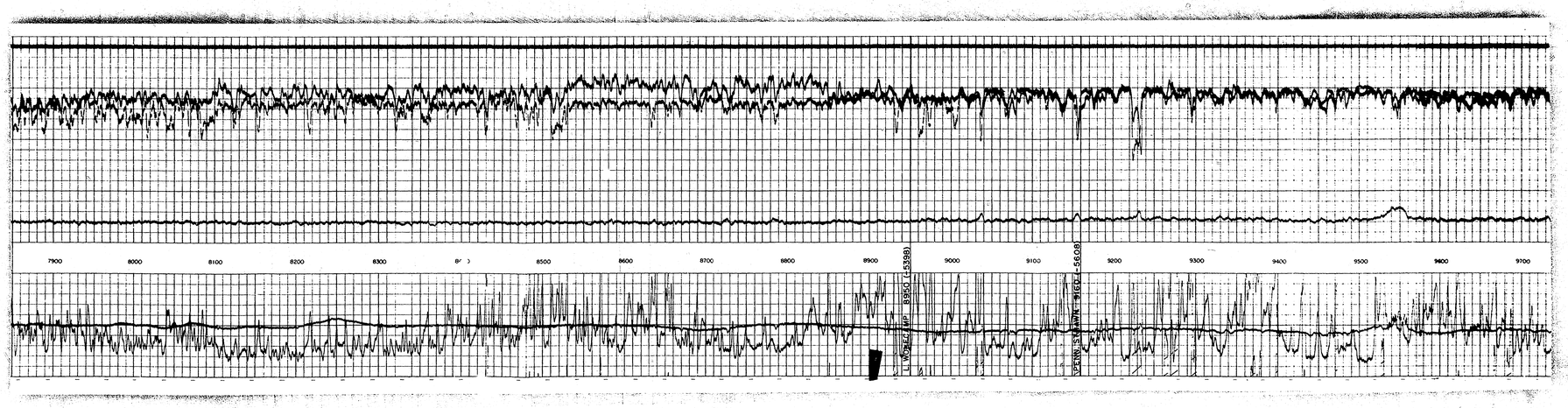

U.S.G.S. PHOTOGRAPHICS

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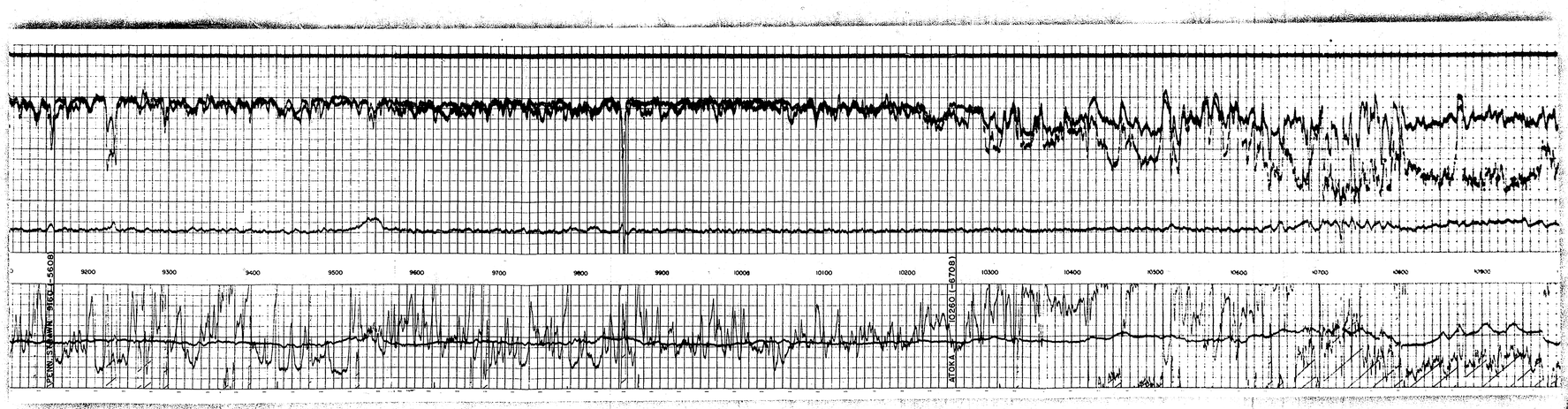

N.M.O.C.D. MICROGRAPHICS
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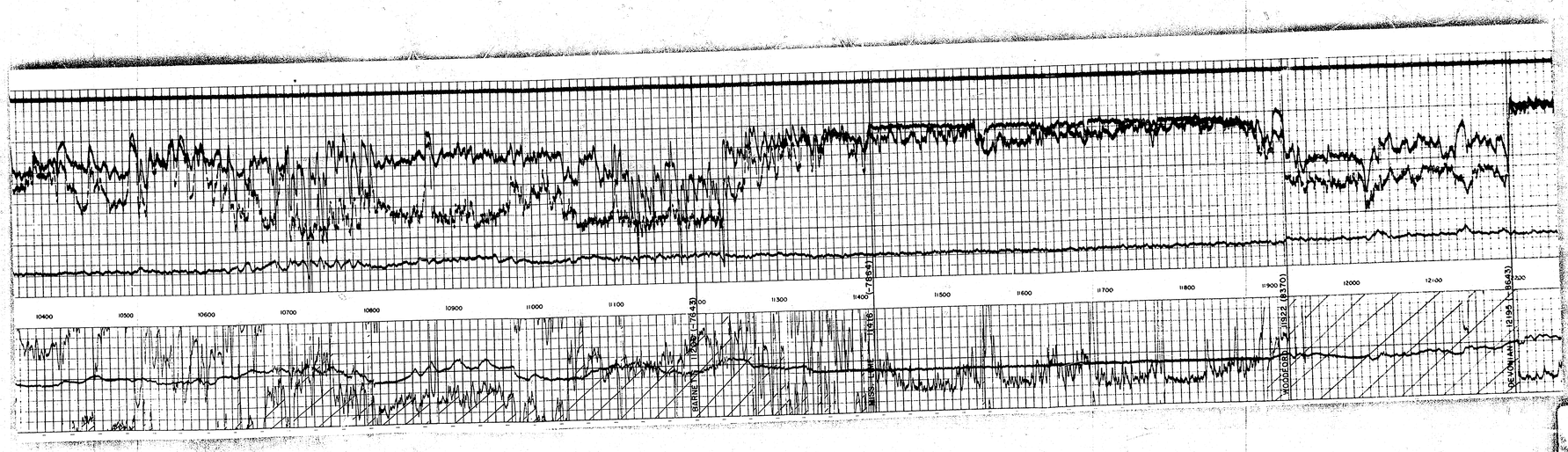

V.N.M.G.P. MICROGRAPHICS

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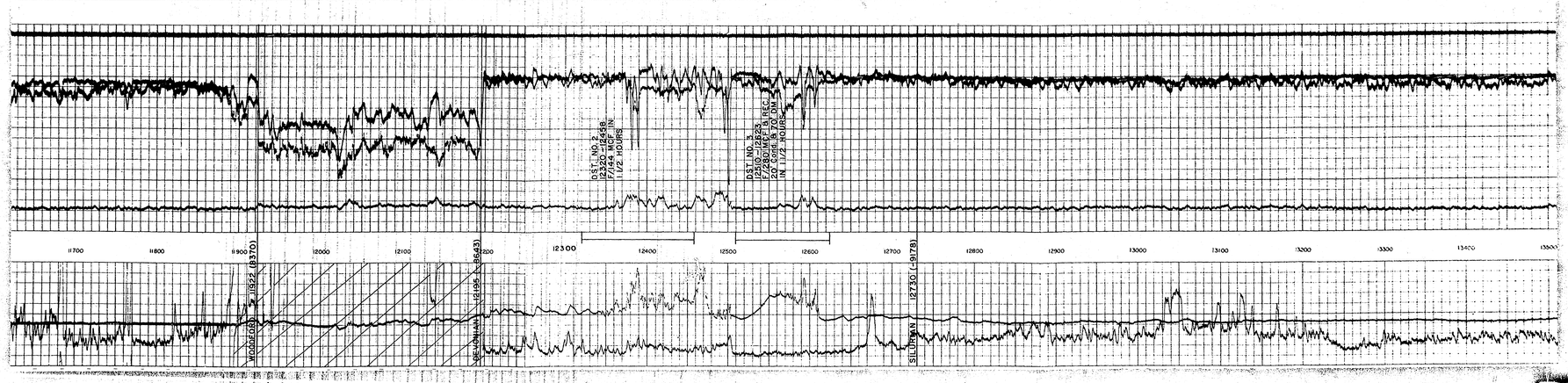

N.M.B.G.F. MICROFILMED

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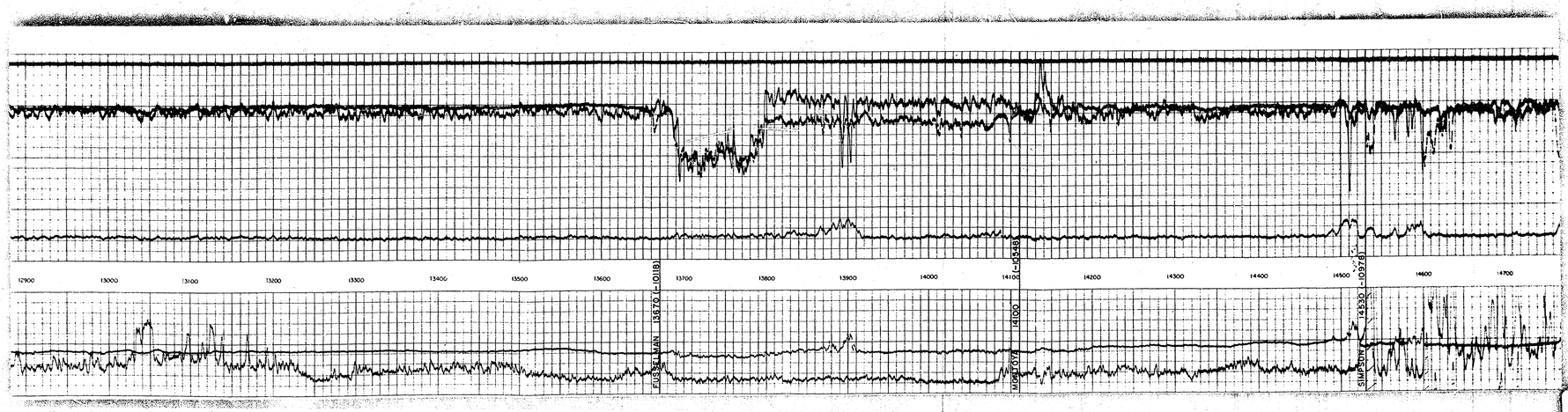

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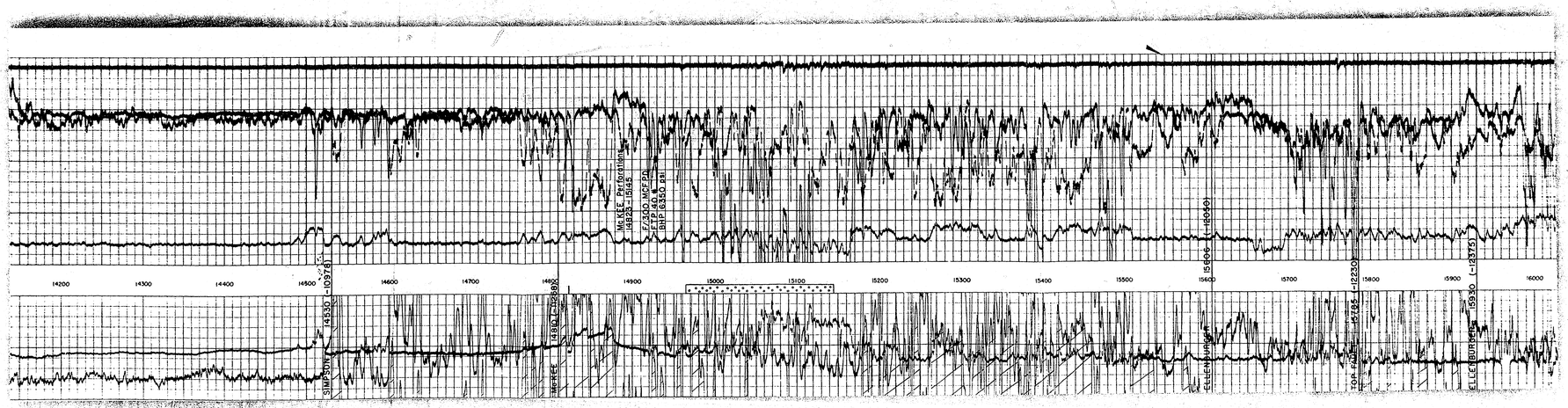

U.S.N.C.F. MICROGRAPHICS

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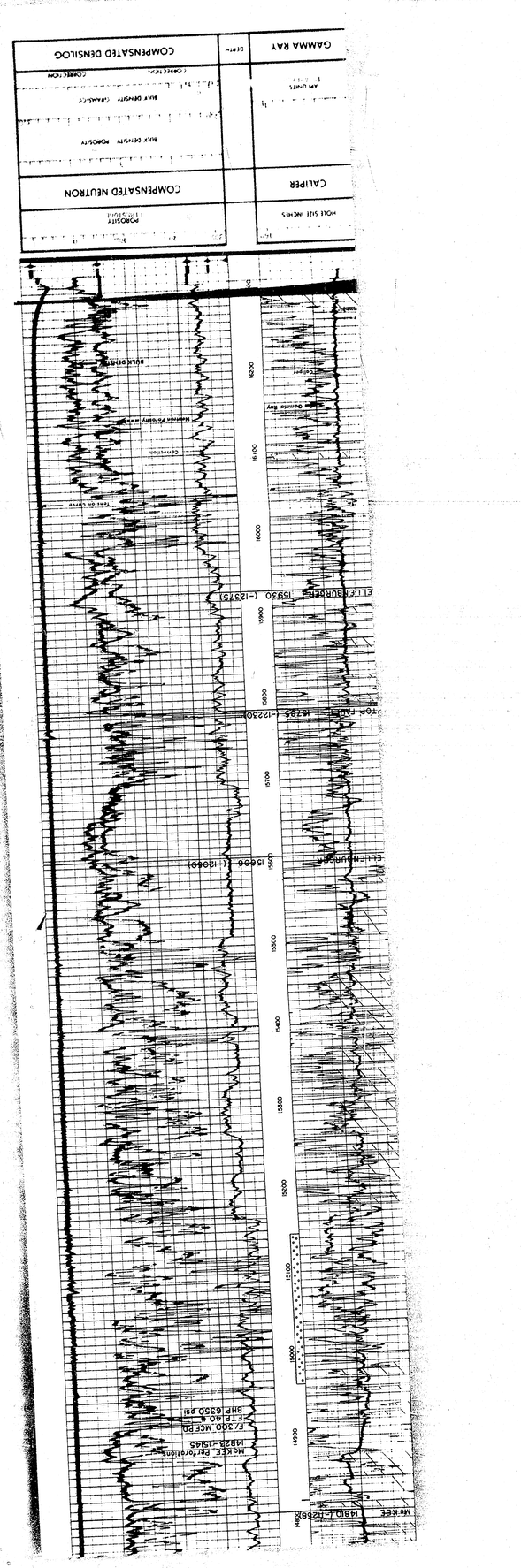
GAMMA RAY
CALIPER
COMPENSATED NEUTRON
COMPENSATED DENSILOG
ELLENBURGER 15930 (-12375)
TOP FUSS 15766 (-12230)
ELLENBURGER
15666 (-12090)
McKEE
14815 (-12268)
McKEE Petroleum
14825-15945
F/30O MCF PD
FTP 640 #
BHP 6350 psi

[redacted]

DRESSER

Combination Logging Systems

Compensated **Densilog**
Compensated **Neutron**

FILE NO.	
COMPANY	ATLANTIC RICHFIELD COMPANY
WELL	LANGLEY-GREER COMM. NO. 1
FIELD	WILDCAT
COUNTY	LEA
STATE	NEW MEXICO
LOCATION	1980' FNL & 1650' FWL
SEC	21
TWP	22-S
RGE	36-E
Other Services	DLL/GR, BHC AL/GR, DIPLOG

Permanent Datum	GROUND LEVEL	Elev. 3525.7	KB 3552.3
Log Measured from	K. B.	26.6 Ft. Above Permanent Datum	DF
Drilling Measured from	K. B.		GL 3525.7

Date	2-13-79		
Run No.	ONE		
Service Order	36403		
Depth - Driller	16,302		
Depth - Logger	16,310		
Bottom Logged Interval	16,308		
Top Logged Interval	6,000		
Casing - Driller	9 5/8 @ 6230	@	@
Casing - Logger	6229		
Bit Size	8 3/4		
Type Fluid in Hole	[illegible]		
Density and Viscosity	[illegible]		
pH and Fluid Loss	[illegible]		
Source of Sample			
Rm @ Meas. Temp.	[illegible]	@	@
Rmf @ Meas. Temp.		@	@
Rmc @ Meas. Temp.		@	@
Source of Rmf and Rmc			
Rm @ BHT		@	@
Time Since Circ.	[illegible]		
Max. Rec. Temp.			
Equip. No. and Location	[illegible]		
Recorded By	[illegible]		
Witnessed By	[illegible]		

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Remarks:
CN DECENTRALIZED WITH BOWSPRING DECENTRALIZER
GR VALID ONLY FOR CORRELATION - READING MUCH TOO HIGH - AMOUNT OF ERROR DOES NOT SEEM TO BE CONSTANT
NO DOWNHOLE TEMPERATURE DETERMINED. THERMOMETER LOST IN ATTEMPT

EQUIPMENT DATA

	RUN NO 1 CDL	RUN NO 1 CNLog	RUN NO 1 GR	RUN NO 2 CDL	RUN NO 2 CNLog	RUN NO 2 GR	RUN NO 3 CDL	RUN NO 3 CNLog	RUN NO 3 GR
Series No.	2207	2413	1306						
Serial No.	24715	30919	31081						
Diameter	5¾	3 5/8	3 5/8						
Elec. No.									
Detect. Model No.	1G10X	D6N3	D6G4						
Type	GEIGER	SCINT	SCINT						
Dist. to Source			6'						
Source Model No.	S3130	S1252O							
Serial No.	4231	2254							
Computer No.	2254	2254	3505						
Serial No.	29318	32927	32538						

Logging Data

Compensated Densilog / Gamma Ray

Run No.	Depths From	Depths To	Speed Ft./Min.	T.C. Sec.	Density Scale	Correction Scale	Porosity Scale Data	Gamma Ray T.C. Sec.	Sens. Settings	Zero Div. L or R	API G.R. Units/Div.
1	16,308	6224	REC.	CCTC	2.0-3.0	.7/CO	DG=2.71 DF=1.1	2	725	0	1
1	16,308	6000	REC.					2	725	0	10

Compensated Neutron / Caliper

Run No.	Depths From	Depths To	Speed Ft./Min.	T.C. SS	T.C. LS	Sens. SS	Sens. LS	Zero	Porosity Units/Div.	Porosity Scale	Caliper Scale
1	16,308	6000	REC.	2	2	150	150	PH.5	2	30-0	6"-16"

W.N.M.C.F. MICROGRAPHICS
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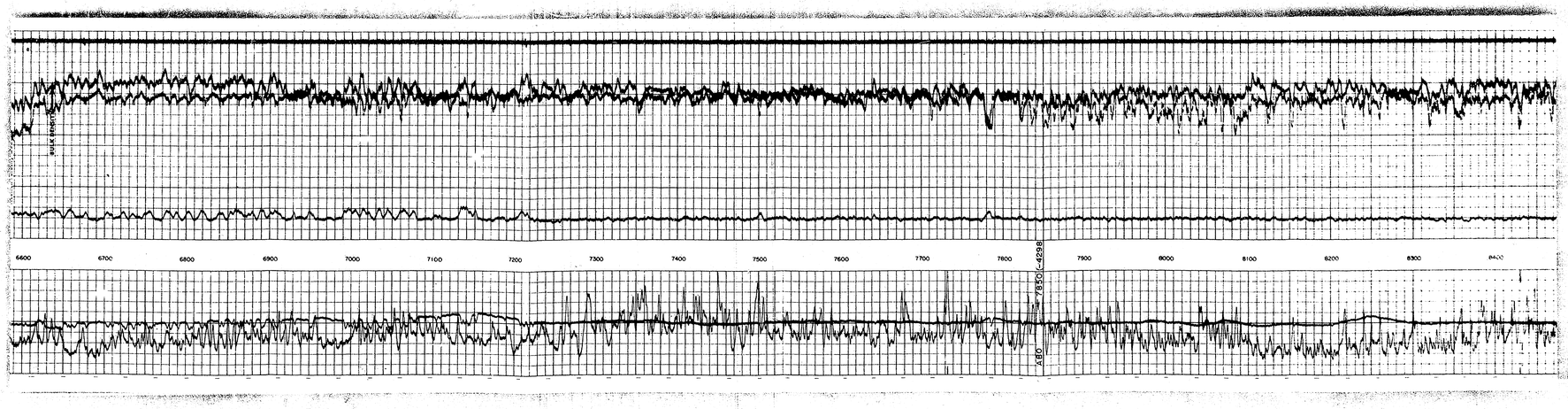

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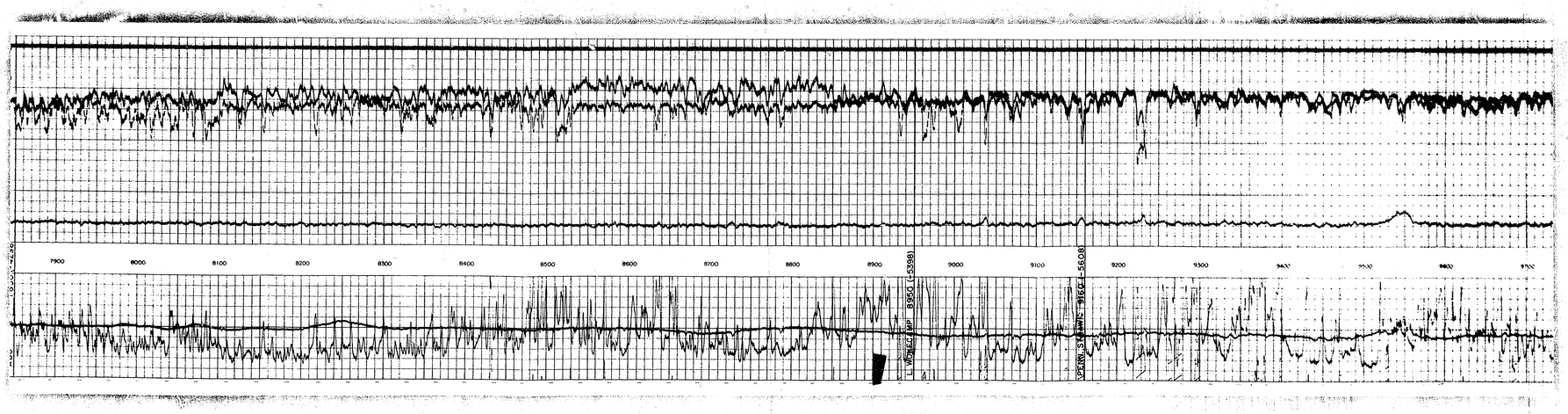

U.S. DEPARTMENT OF ENERGY
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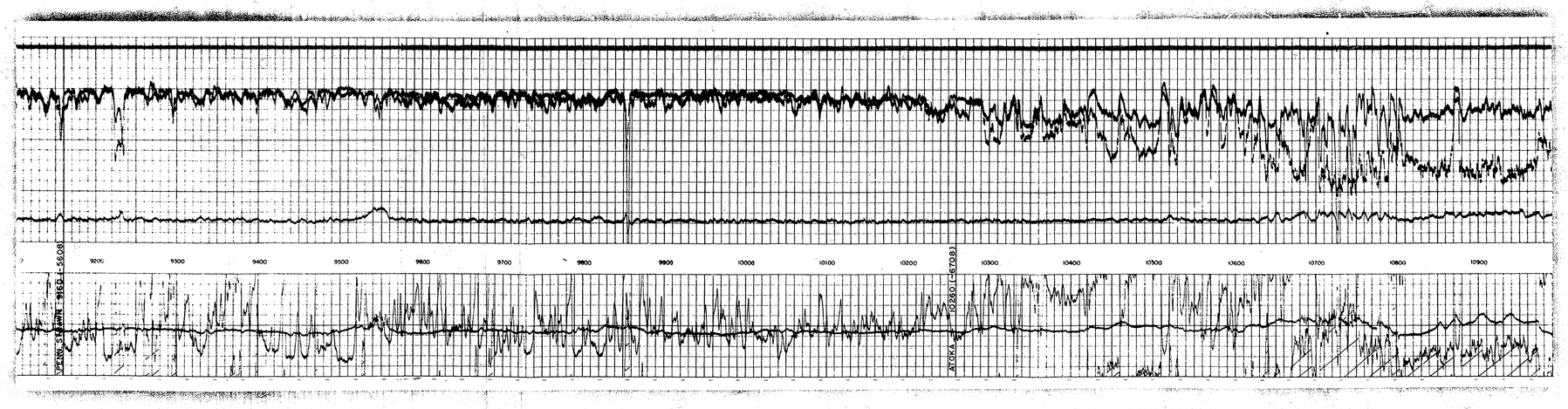

U.K.M.C.F. MICROGRAPHICS

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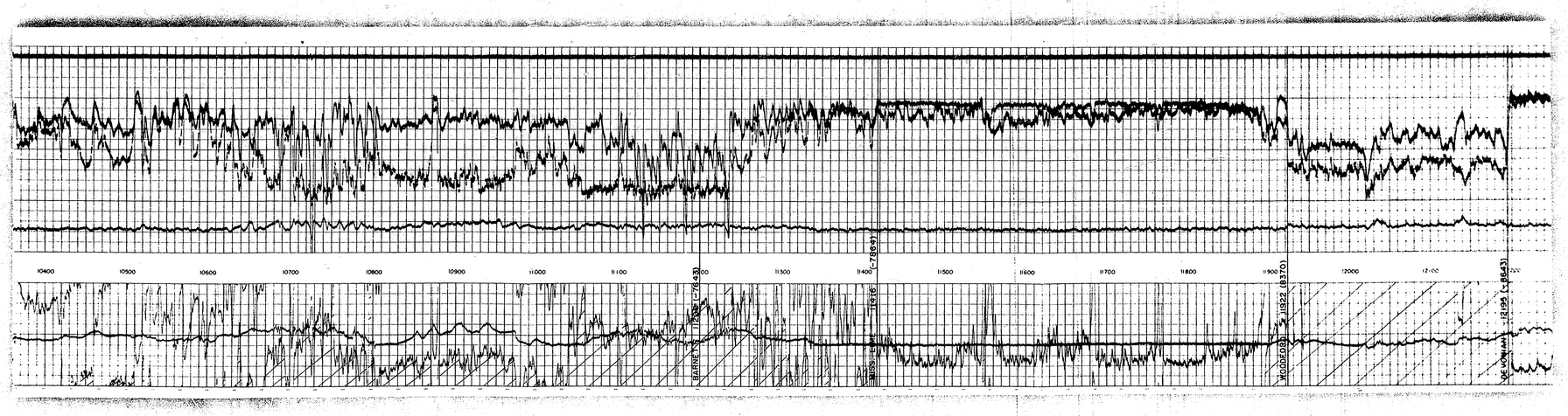

V.A.R.I.F. MICROGRAPHICS
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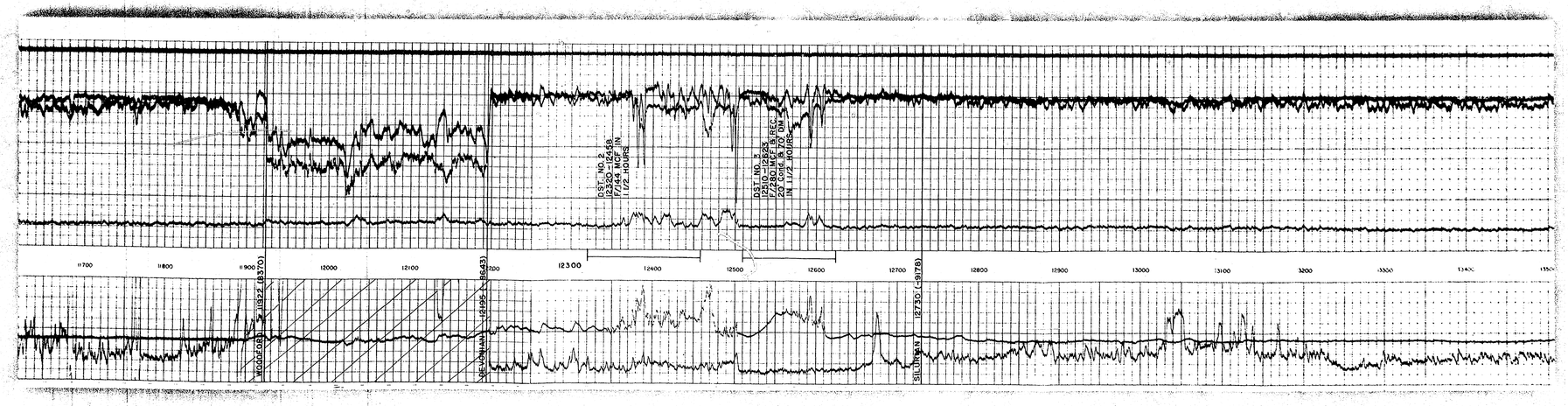

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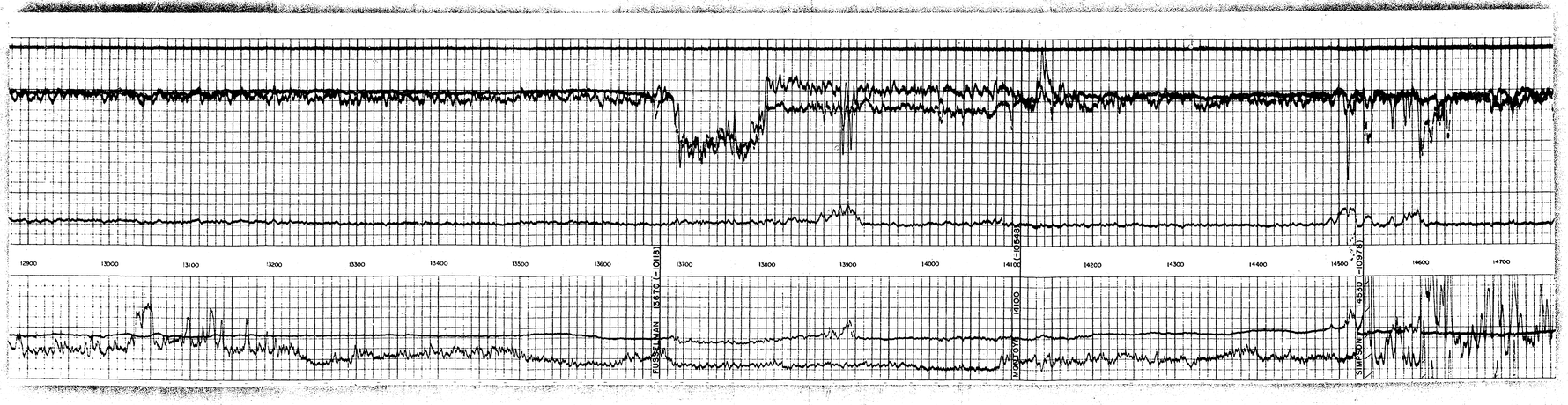

W.V.H.C.F. MICROGRAPHICS

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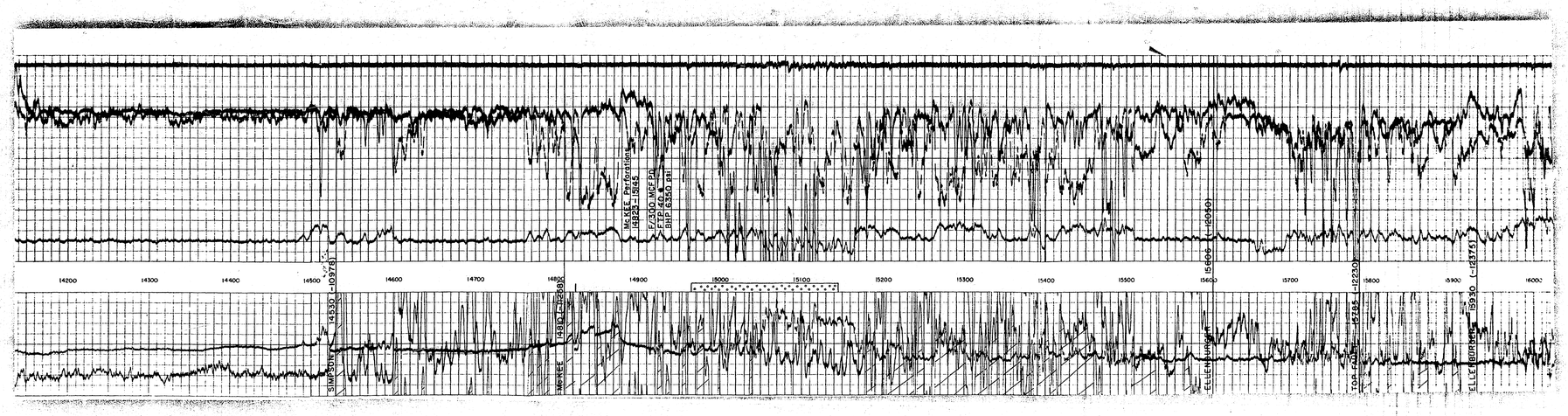

N.M.M.I.P. MICROGRAPHICS

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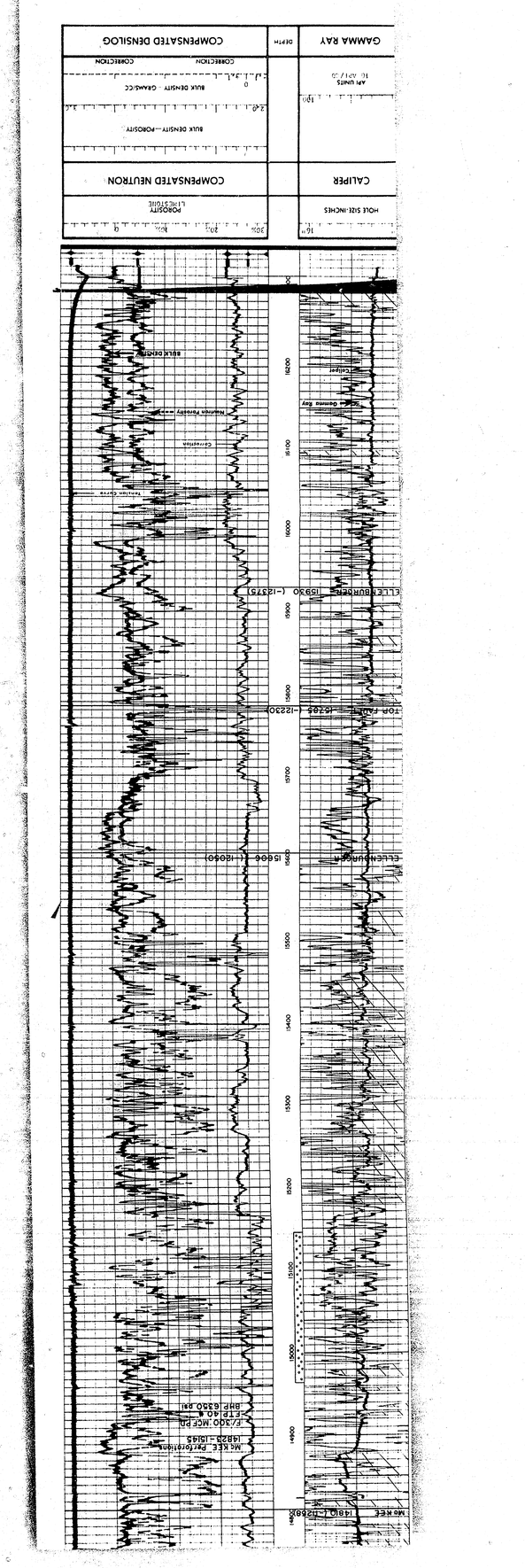

GAMMA RAY
DEPTH
COMPENSATED DENSILOG
CALIPER
COMPENSATED NEUTRON
HOLE SIZE-INCHES
BULK DENSITY—POROSITY
BULK DENSITY - GRAMS/CC
CORRECTION
CORRECTION
API UNITS
POROSITY
LIMESTONE
TOP FRUITLAND 16266 (-12230)
ELLENBURGER 15930 (-12370)
ELLENBURGER 16666 (-13096)
McKEE 14801 (-11268)
McKEE Perforations
14829 - 15145
F/300 MCFPD
FTP 40 #
BHP 6350 psi

Schlumberger

COMPENSATED NEUTRON-FORMATION DENSITY

COMPANY ATLANTIC RICHFIELD COMPANY

WELL LANGLEY GETTY COM. #1

FIELD LANGLEY ELLENBERGER GAS POOL

COUNTY LEA STATE NEW MEXICO

2310' FNL & 790' FSL

Sec 21 Twp 22-S Rge 36-E

Other Services: DIL BHC

Permanent Datum G.L.

Log Measured From K.B. 26.6 ft. Above Perm. Datum

Drilling Measured From K.B.

Elev. 3525

Elev. K.B. 3551.6 D.F. 3550 G.L. 3525

Date 5-24-78

Run One

Depth-Driller 10150

Depth-Logger 10148

Bottom Logged Interval 10147

Top Logged Interval 6700

Casing-Driller 9 5/8" @ 6200'

Casing-Logger 6195

Bit Size 8 3/4

Type Fluid in Hole EL. OIL MUD

Dens. Visc. 9.2 45

pH Fluid Loss 9.2 4.2

Source of Sample CIRC.

Rm @ Meas. Temp. 1.04 @ 74 °F

Rmf @ Meas. Temp. 1.00 @ 73 °F

Source Rmf Rmc

Rm @ BHT

Time Circulation Stopped 0100 5-23

Time Logger on Bottom 0210 5-24

Max. Rec. Temp. 151 °F

Equip. Location 6-65 HOBBS

Recorded By WILSON

Witnessed By Mr. [illegible]

This well data, however, and interpretations thereof are furnished to the customer

Scale Units

2" WOLFCAMP 8940 (-5388)

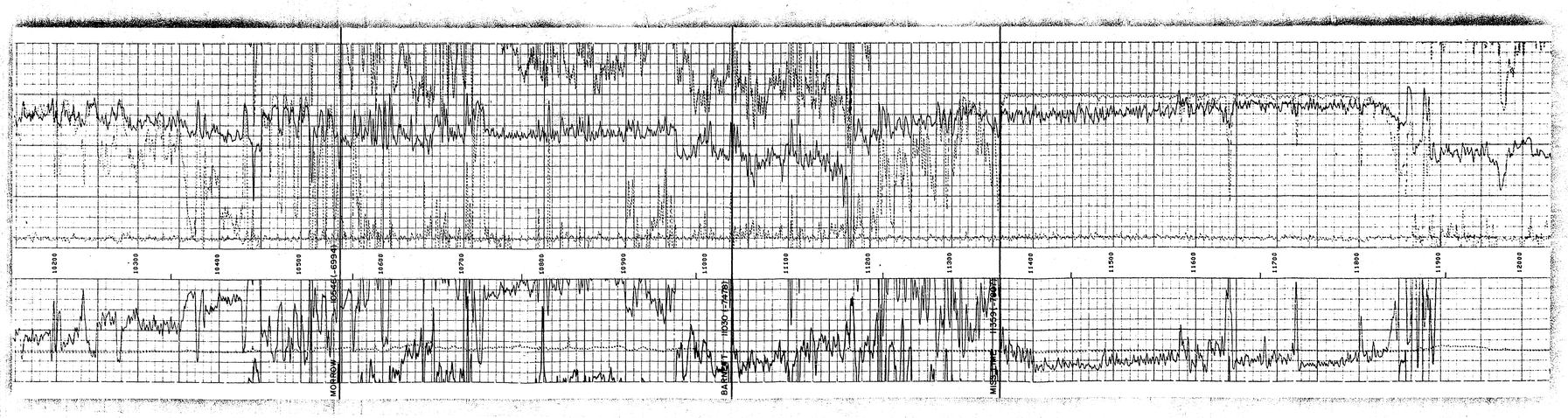
PENN. STRAWN 9096 (-5542)

ATOKA 10124 (-6572)

MORROW 10548 (-6994)

U.S.G.S. PHOTOGRAPHICS

BEST AVAILABLE COPY



W.N.R.C.F. MICROGRAPHICS

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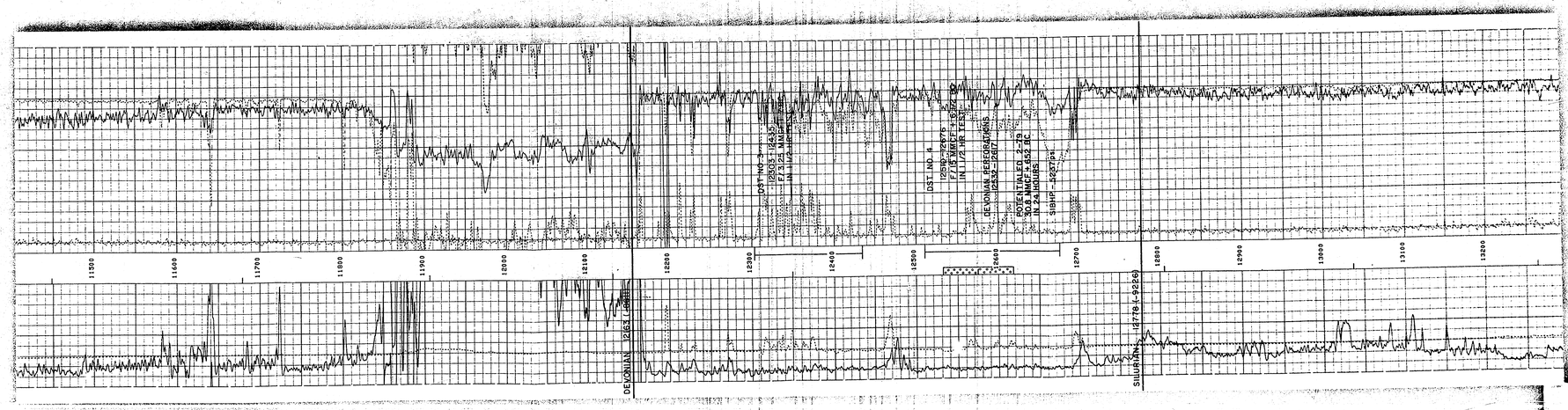

N.A.M.G.F. MICROGRAPHICS

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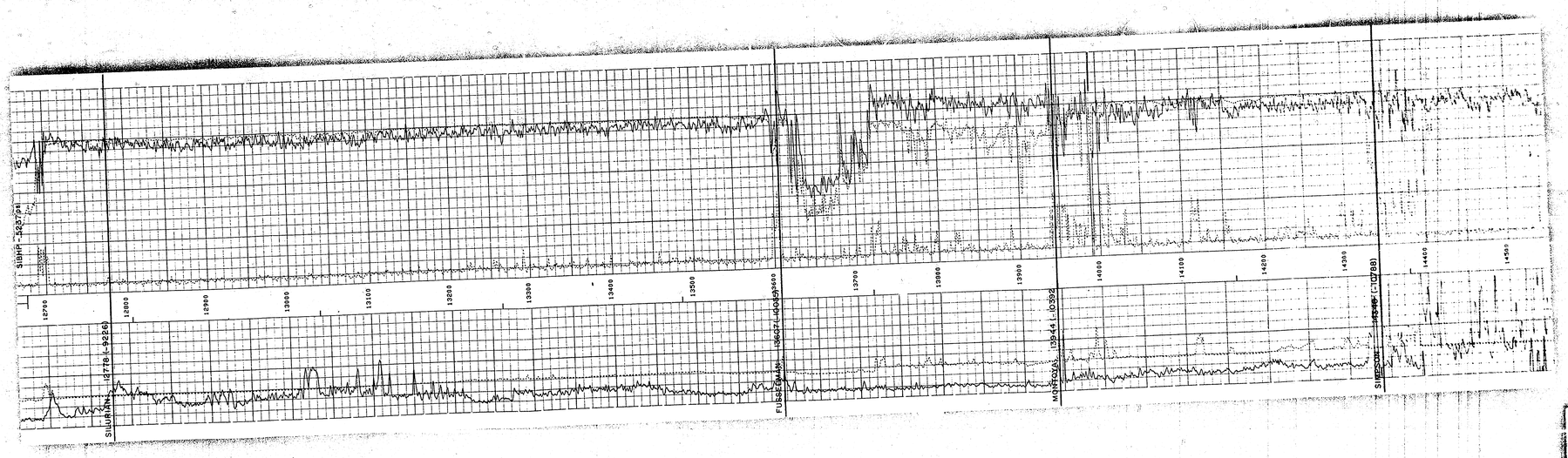

V.A.M.C.F. MICROGRAPHICS

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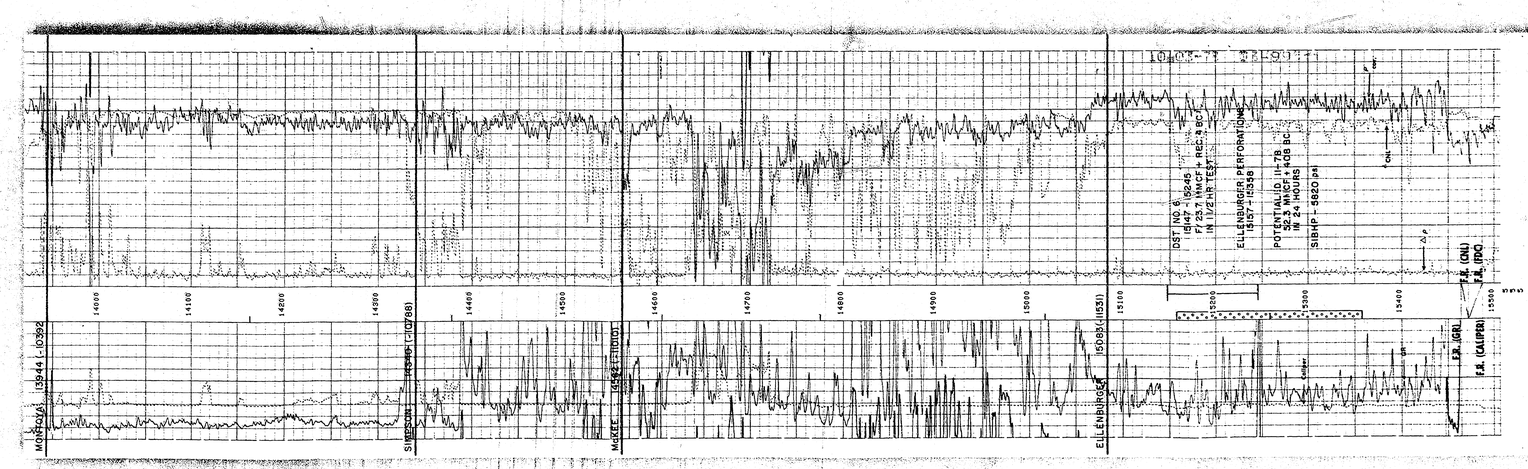

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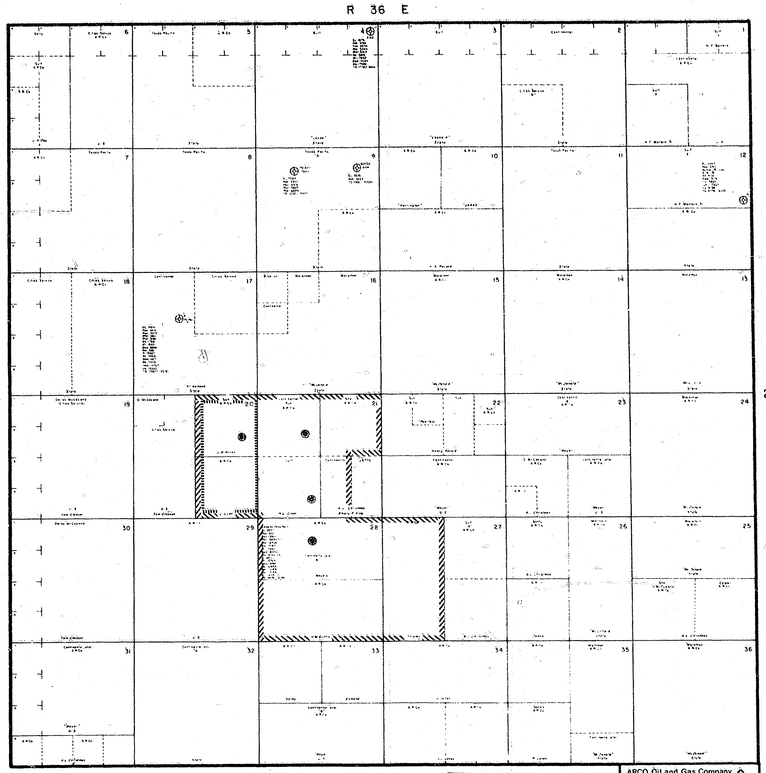
R 36 E



PROPOSED LOCATION - Langley Petco Com NO. 1
DEVONIAN
COMPLETING - McKEE
ELLENBURGER
LANGLEY DEEP W.I. UNIT
PRORATION UNIT

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 1
CASE NO. 6554
Submitted by
Hearing Date

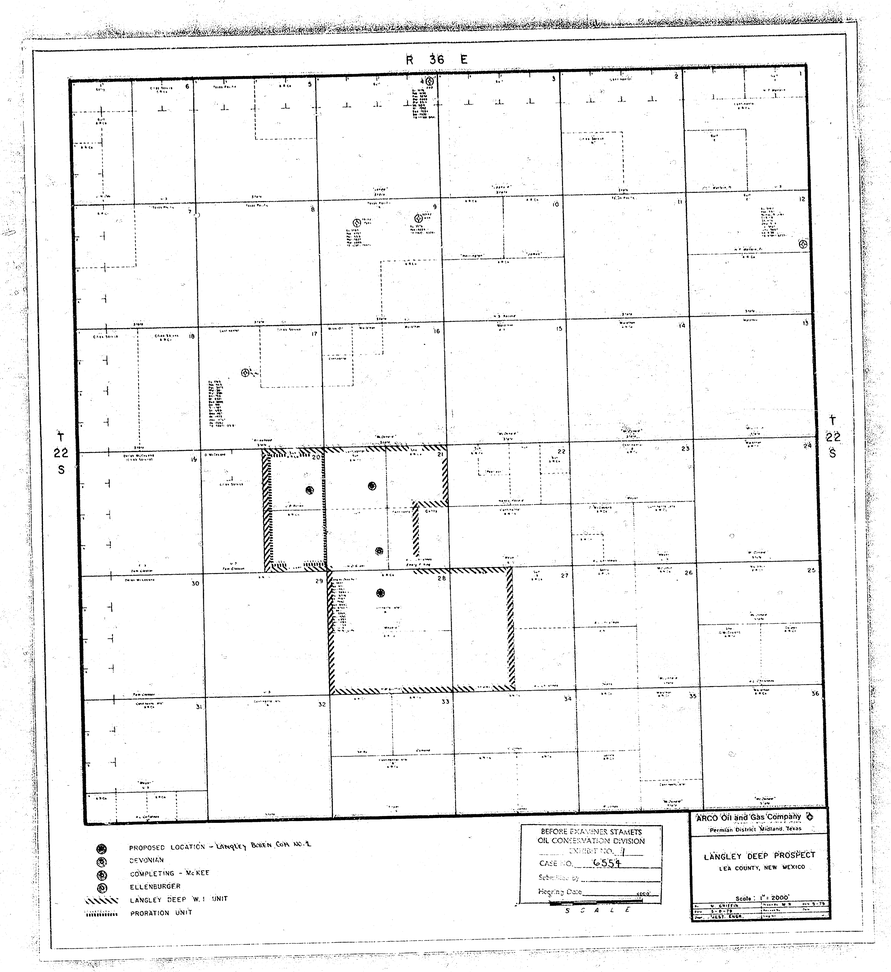
SCALE

ARCO Oil and Gas Company
Permian District Midland, Texas

LANGLEY DEEP PROSPECT
LEA COUNTY, NEW MEXICO

Scale: 1" = 2000'

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



N.M.O.C.D. MICROGRAPHICS
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