

CHRISTOPHER S. HOTCHKISS*
GEORGE C. NEALE†

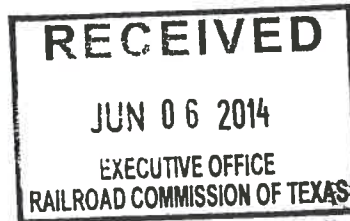
* BOARD CERTIFIED ADMINISTRATIVE LAW
TEXAS BOARD OF LEGAL SPECIALIZATION
† ALSO LICENSED TO PRACTICE IN LOUISIANA

GEORGE C. NEALE
ATTORNEYS AT LAW
1601 RIO GRANDE STREET, SUITE 335
AUSTIN, TEXAS 78701

TELEPHONE (512) 477-1976
FACSIMILE (512) 477-1907

MAILING ADDRESS:
POST OFFICE BOX 1945
AUSTIN, TEXAS 78767

June 6, 2014



2014 JUN -6 PM 4:13
DOCKET SERVICES
RAILROAD COMMISSION
OF TEXAS
FILED

Mr. Milton Rister
Executive Director
RAILROAD COMMISSION OF TEXAS
Executive Office
P. O. Drawer 12967
Austin, Texas 78711

In Re: Bridgeport Tank Trucks, LLC
Parker Salty SWD No. 1 Well (API No. 367-33999)
Newark East (Barnett Shale) Field
Parker County, Texas

Dear Mr. Rister:

In response to the enclosed May 6th letter, enclosed are the documents in the possession of Bridgeport Tank Trucks, LLC which are responsive to your request.

Thank you for your assistance. Please contact me if you have any questions.

Respectfully submitted,

A handwritten signature in cursive script that reads "G. C. Neale".

George C. Neale
Attorney for Bridgeport Tank Trucks, LLC

GCN/apf
encls.

BARRY T. SMITHERMAN, CHAIRMAN
DAVID PORTER, COMMISSIONER
CHRISTI CRADDICK, COMMISSIONER



MILTON A. RISTER
EXECUTIVE DIRECTOR
(512) 463-7068

RAILROAD COMMISSION OF TEXAS EXECUTIVE OFFICE

May 6, 2014

Bridgeport Tank Trucks, L.L.C.
P.O. Box 6
Bridgeport, Texas 76426

Re: Request for Information Regarding Operation of the Parker Salty SWD #1, Newark, East (Barnett Shale) Field, Parker County, API # 36733999

Dear Operator:

The Railroad Commission of Texas is working with academic researchers to acquire information to assist in understanding whether oil and gas operations may be related to recent seismic activity observed in northeast Parker County and northwest Tarrant County. We need your assistance in gathering this information. The Railroad Commission of Texas seismologist, Dr. Craig Pearson, will facilitate data exchanges between your organization and academic institutions conducting the research.

Please submit the information outlined below for the wells identified in the reference line above by May 30, 2014.

- All open-hole logs for each of the subject wells, and any structure and isopach maps of the Ellenburger formation encompassing and part of the area where the subject well(s) are located.
- All well log cross-sections that you may possess that would include the area of the subject well(s).
- Description of the input parameters and results of any hydrologic modeling performed to predict the fluid behavior in the target formation(s) of your disposal operation.
- Daily injection rates and wellhead injection pressures for the subject well(s) commencing August 1, 2013 through April 1, 2014.
- Results of any static bottom hole pressure measurements, injectivity testing, and/or pressure fall off testing performed on the subject well(s).
- Maps, preferably GIS format, based on seismic interpretations identifying any faults or karsts in the vicinity of the subject well(s).

Please send your information to:

Railroad Commission of Texas
Attn: Dr. Craig Pearson
P.O. Box 12967
Austin, Texas 78711-2967
512/463-8252
craig.pearson@rrc.state.tx.us

Sincerely,

Handwritten signature of Milton Rister in black ink.

Milton Rister
Executive Director

MAR:cp:ms

DOCKET SERVICES
RAILROAD COMMISSION
OF TEXAS

2014 JUN -6 PM 4:13

FILED

Parker Salty SWD #1 - Daily Volume and Pressure

Date	8/1/2013	8/2/2013	8/3/2013	8/4/2013	8/5/2013	8/6/2013	8/7/2013	8/8/2013
Barrells per day	11730	9461	12603	10025	10309	13304	12246	12113
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1400	1400	1400	1400	1400	1400	1400	1400

Date	8/9/2013	8/10/2013	8/11/2013	8/12/2013	8/13/2013	8/14/2013	8/15/2013	8/16/2013
Barrells per day	13724	9090	10434	10430	11596	11297	9647	9342
Low tubing press.	0	800	0	0	0	0	0	0
High tubing press.	1400	1400	1400	1400	1400	1400	1400	1400

Date	8/17/2013	8/18/2013	8/19/2013	8/20/2013	8/21/2013	8/22/2013	8/23/2013	8/24/2013
Barrells per day	8690	8188	1240	Down	0	3445	8929	7551
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1400	1400	1000	0	0	1000	1400	1400

Date	8/25/2013	8/26/2013	8/27/2013	8/28/2013	8/29/2013	8/30/2013	8/31/2013
Barrells per day	8920	5954	7422	6800	6387	8765	5520
Low tubing press.	0	0	0	0	0	0	0
High tubing press.	1400	1000	1400	1400	1000	1400	1000

Parker Salty SWD #1 - Daily Volume and Pressure

Date	9/1/2013	9/2/2013	9/3/2013	9/4/2013	9/5/2013	9/6/2013	9/7/2013	9/8/2013
Barrells per day	7163	7931	6753	5740	8577	6835	7302	7038
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1400	1400	1000	1400	1000	1000	1000

Date	9/9/2013	9/10/2013	9/11/2013	9/12/2013	9/13/2013	9/14/2013	9/15/2013	9/16/2013
Barrells per day	6705	8445	7113	7250	7950	7447	8140	6870
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1400	1400	1400	1000	1000	1400	1000

Date	9/17/2013	9/18/2013	9/19/2013	9/20/2013	9/21/2013	9/22/2013	9/23/2013	9/24/2013
Barrells per day	6716	6520	5140	7875	7720	7925	6325	7555
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1000	1000	1400	1400	1400	1000	1000

Date	9/25/2013	9/26/2013	9/27/2013	9/28/2013	9/29/2013	9/30/2013
Barrells per day	7230	6377	6714	9514	7394	7670
Low tubing press.	0	0	0	0	0	0
High tubing press.	1000	1000	1000	1400	1400	1400

Parker Salty SWD #1 - Daily Volume and Pressure

Date	10/1/2013	10/2/2013	10/3/2013	10/4/2013	10/5/2013	10/6/2013	10/7/2013	10/8/2013
Barrells per day	6350	6652	7332	8805	7210	6135	5555	6900
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1400	1400	1400	1400	1000	1000	1000	1000
Date	10/9/2013	10/10/2013	10/11/2013	10/12/2013	10/13/2013	10/14/2013	10/15/2013	10/16/2013
Barrells per day	7170	8128	7166	6490	7565	7175	7618	5990
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1400	1000	1400	1000	1400	1000	1000
Date	10/17/2013	10/18/2013	10/19/2013	10/20/2013	10/21/2013	10/22/2013	10/23/2013	10/24/2013
Barrells per day	7688	7067	8645	6520	8079	5843	7186	7270
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1000	1400	1000	1400	1000	1000	1400
Date	10/25/2013	10/26/2013	10/27/2013	10/28/2013	10/29/2013	10/30/2013	10/31/2013	
Barrells per day	5628	8095	6890	7130	9039	7485	6955	
Low tubing press.	0	0	0	0	0	0	0	
High tubing press.	1000	1400	1400	1000	1400	1000	1400	

Parker Salty SWD #1 - Daily Volume and Pressure

Date	11/1/2013	11/2/2013	11/3/2013	11/4/2013	11/5/2013	11/6/2013	11/7/2013	11/8/2013
Barrells per day	4925	6945	7587	6860	6025	7853	6492	7435
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1000	1400	1400	1000	1400	1000	1000
Date	11/9/2013	11/10/2013	11/11/2013	11/12/2013	11/13/2013	11/14/2013	11/15/2013	11/16/2013
Barrells per day	6900	7185	6510	6345	6798	6560	7456	6010
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1400	1000	1000	1000	1000	1000	1000
Date	11/17/2013	11/18/2013	11/19/2013	11/20/2013	11/21/2013	11/22/2013	11/23/2013	11/24/2013
Barrells per day	7747	8280	9260	11361	10165	9074	8284	6180
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1000	1400	1400	1400	1400	1400	1000
Date	11/25/2013	11/26/2013	11/27/2013	11/28/2013	11/29/2013	11/30/2013	11/31/2013	
Barrells per day	7990	10265	7650	6337	9127	6087		
Low tubing press.	0	0	0	0	0	0		
High tubing press.	1400	1400	1000	1000	1400	1000		

Request for Information - Parker Salty SWD #1

Date	12/1/2013	12/2/2013	12/3/2013	12/4/2013	12/5/2013	12/6/2013	12/7/2013	12/8/2013
Barrells per day	5020	6872	7540	6987	7955	120	0	0
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1000	1000	1000	1400	0	0	0

Date	12/9/2013	12/10/2013	12/11/2013	12/12/2013	12/13/2013	12/14/2013	12/15/2013	12/16/2013
Barrells per day	610	8880	8002	8522	8699	8360	8210	7978
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1400	1400	1400	1400	1000	1000	1400

Date	12/17/2013	12/18/2013	12/19/2013	12/20/2013	12/21/2013	12/22/2013	12/23/2013	12/24/2013
Barrells per day	8762	9094	8812	10315	9215	9360	8525	6294
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1400	1400	1400	1400	1400	1400	1400	1000

Date	12/25/2013	12/26/2013	12/27/2013	12/28/2013	12/29/2013	12/30/2013	12/31/2013
Barrells per day	6455	7440	7515	9640	7540	5620	8580
Low tubing press.	0	0	0	0	0	0	0
High tubing press.	1000	1000	1000	1400	1000	1000	1400

Parker Salty SWD #1 - Daily Volume and Pressure

Parker Salty SWD #1 - Daily Volume and Pressure

Date	2/1/2014	2/2/2014	2/3/2014	2/4/2014	2/5/2014	2/6/2014	2/7/2014	2/8/2014
Barrells per day	10895	11343	10223	8062	7190	8110	8040	7082
Low tubing press.	0	1000	0	0	0	0	0	0
High tubing press.	1400	1400	1400	1400	1400	1400	1400	1000
Date	2/9/2014	2/10/2014	2/11/2014	2/12/2014	2/13/2014	2/14/2014	2/15/2014	2/16/2014
Barrells per day	8308	7275	6475	8540	8700	9448	8725	7430
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1400	1400	1000	1400	1400	1400	1400	1400
Date	2/17/2014	2/18/2014	2/19/2014	2/20/2014	2/21/2014	2/22/2014	2/23/2014	2/24/2014
Barrells per day	8682	8650	8220	8860	7980	9130	9127	9295
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1400	1400	1400	1400	1400	1000	1400	1400
Date	2/25/2014	2/26/2014	2/27/2014	2/28/2014				
Barrells per day	7795	10638	7320	8045				
Low tubing press.	0	0	0	0				
High tubing press.	1400	1400	1400	1400				

Parker Salty SWD #1 - Daily Volume and Pressure

Date	3/1/2014	3/2/2014	3/3/2014	3/4/2014	3/5/2014	3/6/2014	3/7/2014	3/8/2014
Barrells per day	7630	9964	11135	7640	8078	9020	7790	6142
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1000	1400	1400	1400	1400	1400	1400	1000

Date	3/9/2014	3/10/2014	3/11/2014	3/12/2014	3/13/2014	3/14/2014	3/15/2014	3/16/2014
Barrells per day	7536	5636	6072	6700	6910	10555	11085	8379
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1400	1000	1000	1000	1000	1400	1400	1400

Date	3/17/2014	3/18/2014	3/19/2014	3/20/2014	3/21/2014	3/22/2014	3/23/2014	3/24/2014
Barrells per day	8150	7235	7012	8995	6185	10281	6094	6346
Low tubing press.	0	0	0	0	0	0	0	0
High tubing press.	1400	1000	1000	1400	1000	1400	1000	1400

Date	3/25/2014	3/26/2014	3/27/2014	3/28/2014	3/29/2014	3/30/2014	3/31/2014
Barrells per day	9174	8315	6678	6805	6010	7602	8468
Low tubing press.	0	0	0	0	0	0	0
High tubing press.	1400	1400	1000	1000	1000	1400	1400

Parker Salty SWD #1 - Daily Volume and Pressure

Date 4/1/2014 4/2/2014 4/3/2014 4/4/2014 4/5/2014 4/6/2014 4/7/2014 4/8/2014

Barrells per day 6230

Low tubing press. 0

High tubing press. 1000

Schlumberger

Winston Land & Cattle 1 LTD
 Johnson Salty SWD 1
 Newark, East (Barnett Shale)
 Parker
 State: Texas

Array Induction Imager

Gamma Ray / SP

Platform Express

438 ' FNL & 733' FEL of the
 R. M. Throckmorton Survey
 Abstract-1329
 Elev: K.B. 816 ft
 G.L. 799 ft
 D.F. 815 ft

Permanent Datum: Ground Level Elev.: 789 ft
 Log Measured From: Kelly Bushing 27.0 ft above Perm. Datum
 Drilling Measured From: Kelly Bushing

API Serial No. 42-367-33999 Lat: 32.98 N Long: 97.89 W Rig: Patman 1

Field: Newark, East (Barnett Shale)
 Location: 438 ' FNL & 733' FEL of the
 Well: Johnson Salty SWD 1
 Company: Winston Land & Cattle 1 LTD

Logging Date	17-May-2007	
Run Number	1	
Depth Driller	9805 ft	
Schlumberger Depth	9814 ft	
Bottom Log Interval	9805 ft	
Top Log Interval	1045 ft	
Casing Driller Size @ Depth	9.625 in @ 1045 ft	
Casing Schlumberger	1045 ft	
Bit Size	8.750 in	
Type Fluid In Hole	Water Based Mud	
Density	9.8 lbm/gal	63 s
Viscosity	7.6 cm3	
PH	9.7	
Source Of Sample	Circulation Tank	
M @ Measured Temperature	1.486 ohm.m	@ 73 degF
MF @ Measured Temperature	1.189 ohm.m	@ 73 degF
MC @ Measured Temperature	1.932 ohm.m	@ 73 degF
Source RMF	Calculated	Calculated
M @ MRT	0.590 @ 194	0.472 @ 194
Maximum Recorded Temperatures	194 degF	
Circulation Stopped	17-May-2007	2:00
Logger On Bottom	17-May-2007	12:15
Unit Number	2217	Graham, TX
Recorded By	B. Storms	
Witnessed By	Tony Bellman	

Logging Date	Run Number	Depth Driller	Schlumberger Depth	Bottom Log Interval	Top Log Interval	Casing Driller Size @ Depth	Casing Schlumberger	Bit Size	Type Fluid In Hole	Density	Viscosity	PH	Source Of Sample	M @ Measured Temperature	MF @ Measured Temperature	MC @ Measured Temperature	Source RMF	M @ MRT	Maximum Recorded Temperatures	Circulation Stopped	Logger On Bottom	Unit Number	Recorded By	Witnessed By
	Run 1																							
	Run 2																							
	Run 3																							
	Run 4																							

DEPTH SUMMARY LISTING

Date Created: 17-MAY-2007 10:23:29

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: 900 Calibration Date: 15-Feb-2007 Calibrator Serial Number: 33 Calibration Cable Type: 7-46P-XS Wheel Correction 1: -5 Wheel Correction 2: -6	Type: CMTD-B/A Serial Number: 2513 Calibration Date: 7-May-2007 Calibrator Serial Number: 80699 Calibration Gain: 0.74 Calibration Offset: 136.00	Type: 7-46P-XS Serial Number: 6084 Length: 12500.00 FT Conveyance Method: Wireline Rig Type: LAND

Depth Control Parameters

Wheel Correction 1: -5
 Wheel Correction 2: -6

Calibration Offset: 100.00

Depth Control Parameters

Log Sequence: First Log in the Well
 Rig Up Length At Surface: 253.00 FT
 Rig Up Length At Bottom: 252.00 FT
 Rig Up Length Correction: 1.00 FT
 Stretch Correction: 7.00 FT
 Tool Zero Check At Surface: 1.00 FT

Depth Control Remarks

1. Schlumberger Depth Control Policy adhered to
2. Calibrated IDW used as primary depth reference
- 3.
- 4.
- 5.
- 6.

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SLM SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1 OS1: PEX-AIT OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1 Tool run as per toolsketch	REMARKS: RUN NUMBER 2
Matrix Logged as Limestone (MATR=LIMESTONE, MDEN=2.71g/cc)	
Presentations as per client request	
Cement volume calculated using 7" casing	
Neutron corrected for Hole Size (HSCO) and Standoff (SOCO)	
No Bowspring ran at client request	
Max Temperature from HGNS (HTEM)	
Porosity Logged to top of Barnett, 6410'	
Thanks for choosing Schlumberger!	
Schlumberger Graham Shopline 940-549-2220	
Your Crew Today: Morgan, Duffield	
RUN 1 SERVICE ORDER #: 11624912 PROGRAM VERSION: 15C0-309 FLUID LEVEL: 0 ft	RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:
LOGGED INTERVAL START STOP	LOGGED INTERVAL START STOP

EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT	
WITM (CTS)-A GSR-U/Y 675 NCT-B CNB-AB	NCS-VB
DOWNHOLE EQUIPMENT	
LEH-QT LEH-QT 2630	40.6
HGNS HTEM HMCA TelStatus CTEM	37.6
HILTB-CTS HGNSC-B HMCA TCC-B HGNI 1784 NLS-KL NSR-F 2247 HACCZ 560 HCNT HGR HRCC-B 1772 HRMS-B 1768 HRGD-B 992 GLS-VJ 1801 MCFL Device HILT Nucl. LS 42767	37.6 36.9
HGNS Gamm	
HGNS Neut HGNS Neut	31.1 30.6



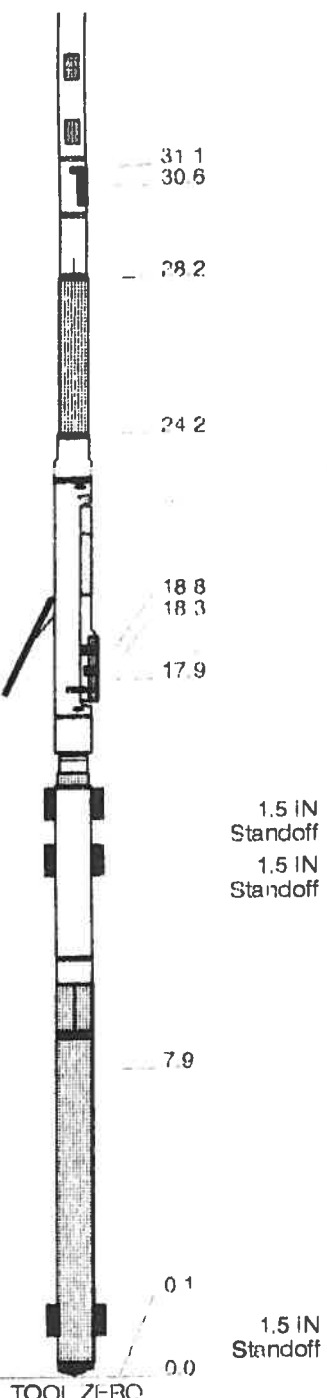
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 NLS-KL
 NSR-F 2247
 HACCZ 560
 HCNT
 HGR
 HRCC-B 1772
 HRMS-B 1768
 HRGD-B 992
 GLS-VJ 1801
 MCFL Device
 HILT Nucl. LS 42767
 HILT Nucl. SS 42767
 HILT Nucl. BS 42767
 AIT-H
 AHIS-BA 274
 AHRM-A
 NPV-N

HRCC cart

MCFL
 HILT call
 HRDD-LS
 HRDD-SS
 HRDD-BS

Induction
 Temperatu
 Power Sup

SP SENSOR
 HTEN HMAS
 Accelerom HV
 Mud Resis
 Tension



MAXIMUM STRING DIAMETER 0.88 IN
 MEASUREMENTS RELATIVE TO TOOL ZERO
 ALL LENGTHS IN FEET

Schlumberger

MAIN PASS 2" = 100'

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_019LUP	FN:15	PRODUCER	17-May-2007 12:27	9822.0 FT	1001.0 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_020PUP	FN:19	PRODUCER	17-May-2007 14:56	9822.0 FT	1005.5 FT
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OP System Version: 15C0-309
 MCM

HILTB-CTS SPC-3345-AIT

PIP SUMMARY

Time Mark Every 60 S

SP (SP)		AIT-H 60 Inch Investigation Conductivity (AHFC00)	
-180	(MV) 40	1000	(MM/M) 0
Tension (TENS)		AIT-H 60 Inch Investigation (AHFC00)	HGNS Deviation (GDEV)

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 17-May-2007 12:27 9822.0 FT 1001.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 17-May-2007 14:56 9822.0 FT 1005.5 FT

OF System Version: 15C0-309
MCM

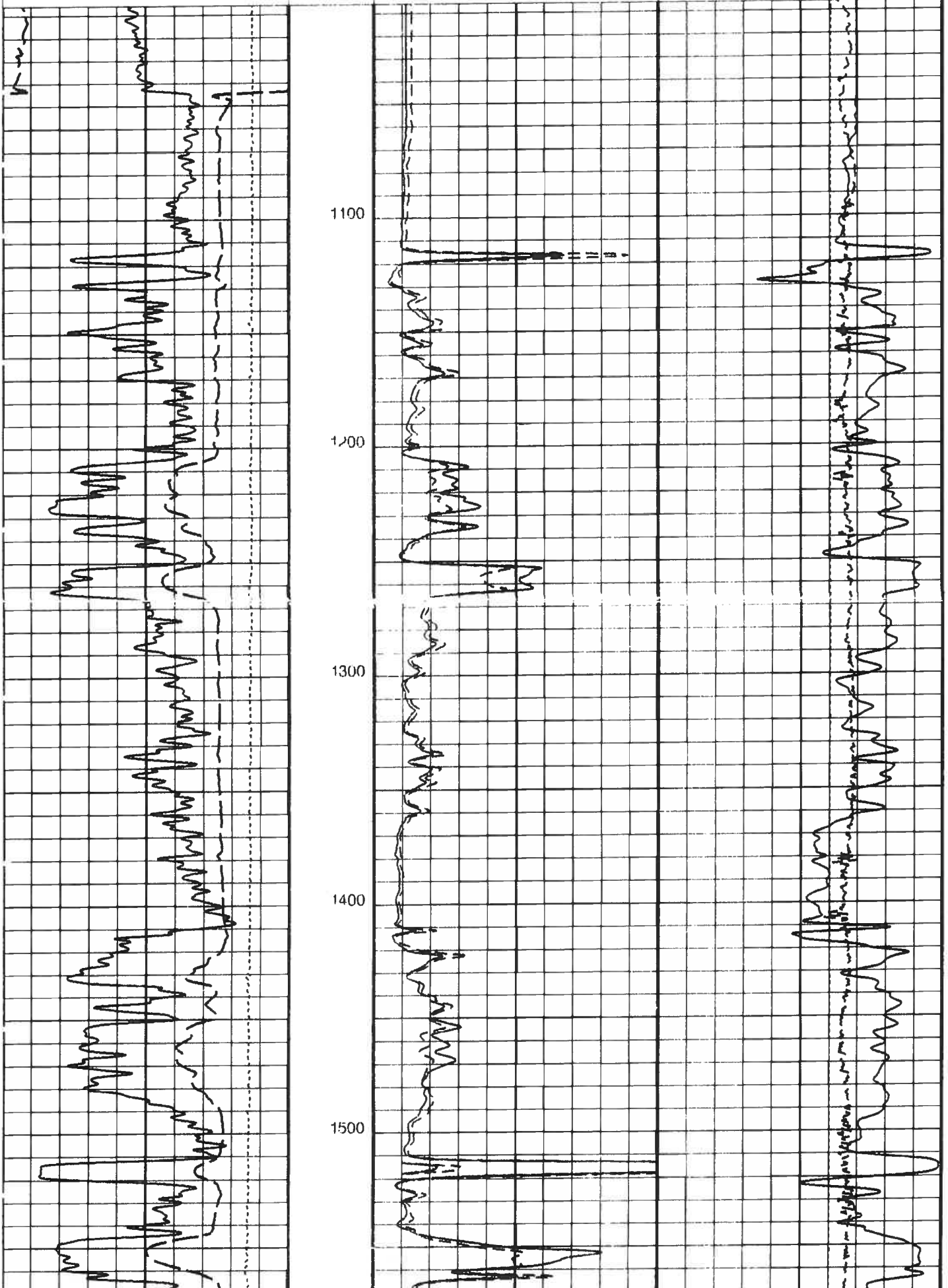
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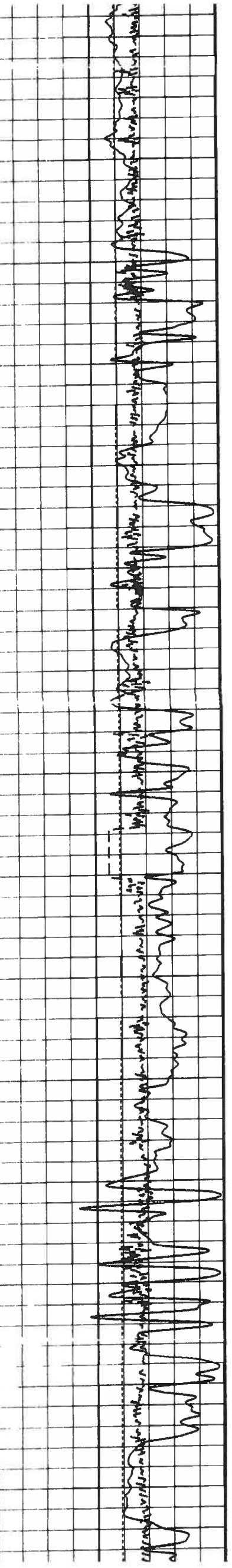
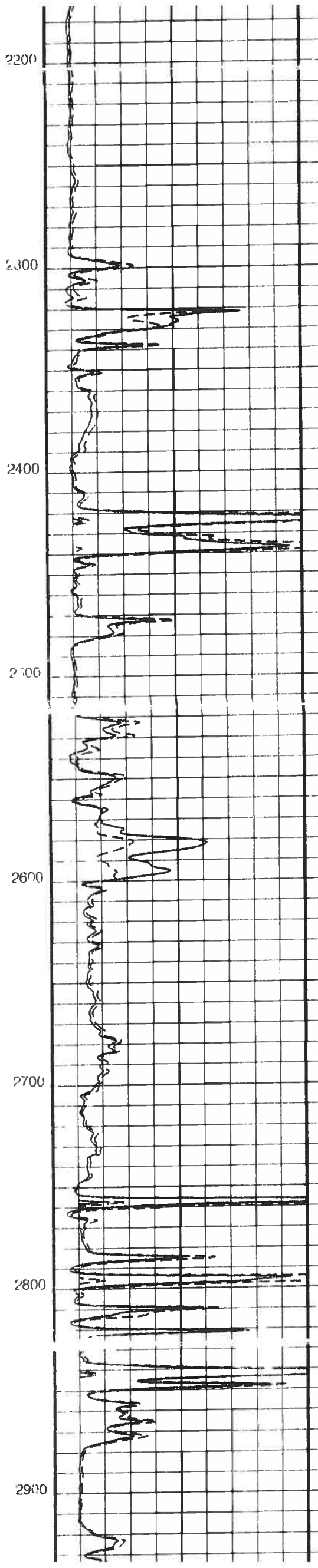
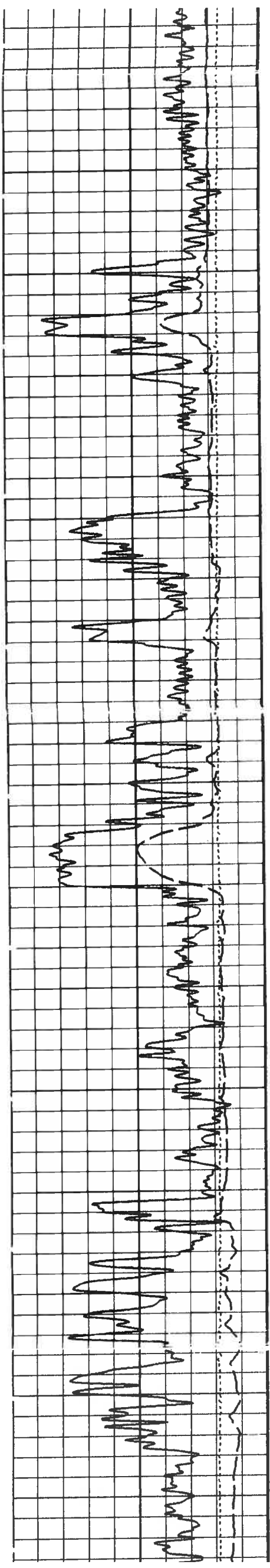
PIP SUMMARY

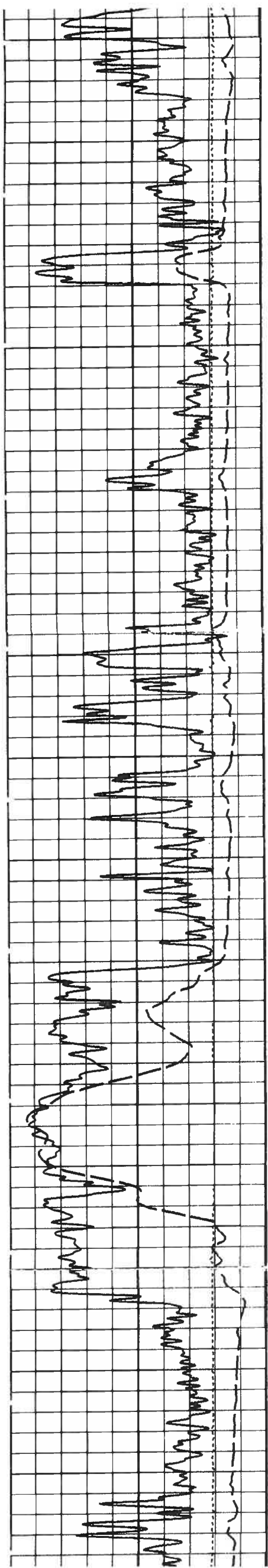
Time Mark Every 60 S

SP (SP) (MV)	40
Tension (TFNS) (LBF)	0
Gamma Ray (GR) (GAPI)	150

AIT-H 60 Inch Investigation Conductivity (AHFC60) (MM/M)		0
AIT-H 60 Inch Investigation (AHF60) (OHMM)		50
AIT-H 20 Inch Investigation (AHF20) (OHMM)		50
HGNS Deviation (GDEV) (DEG)		9
AIT-H Mud Full Cal (AHMF) (OHMM)		5







2900

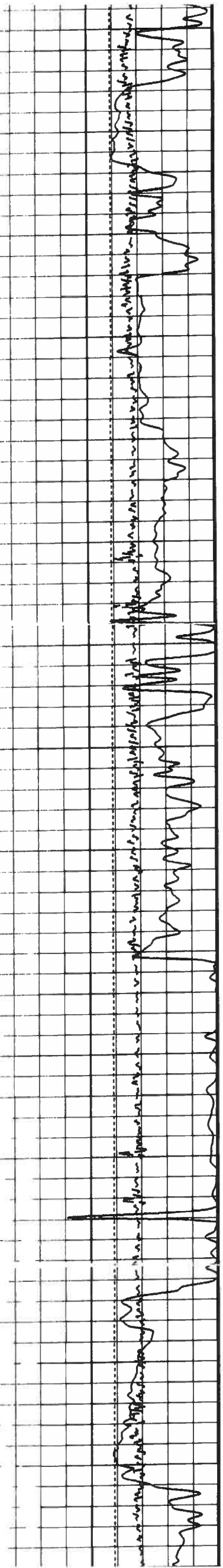
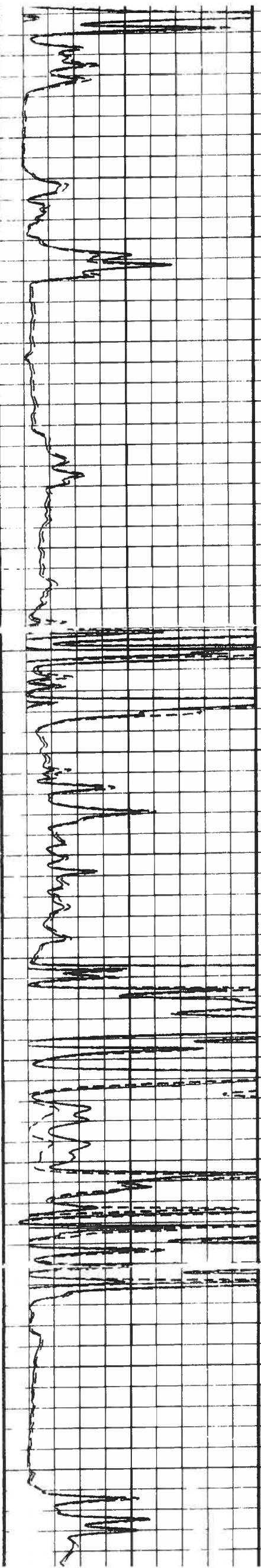
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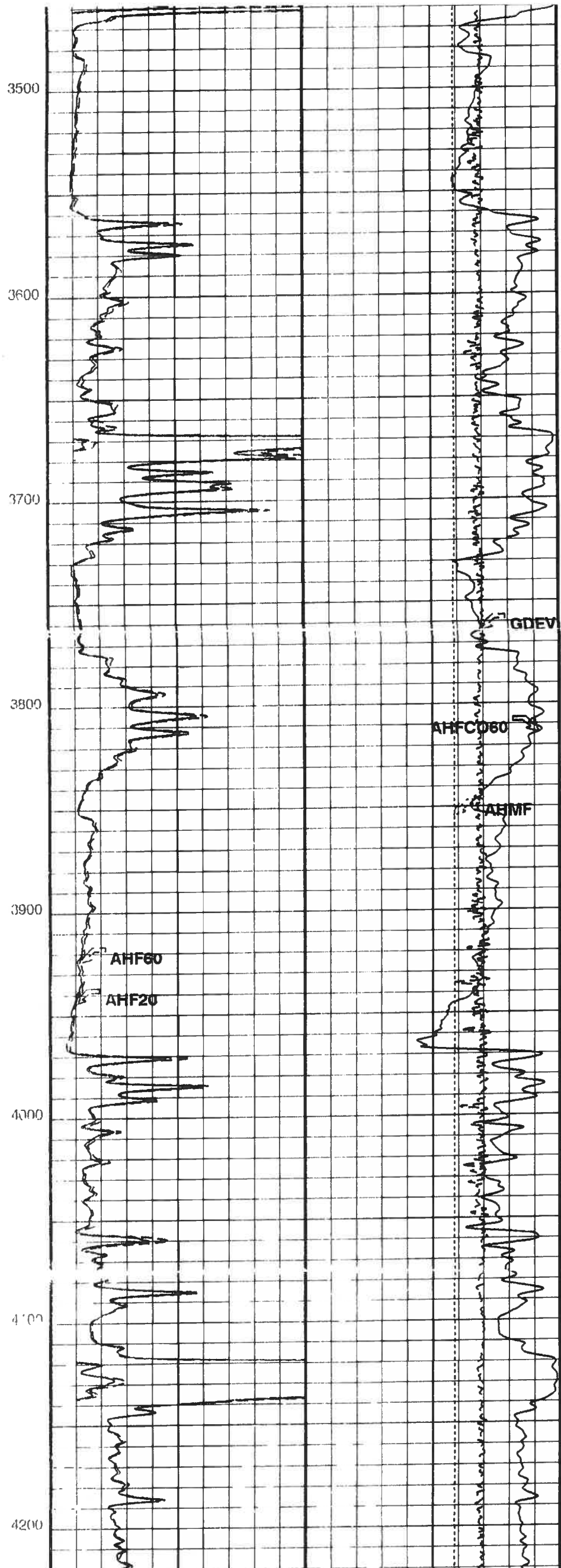
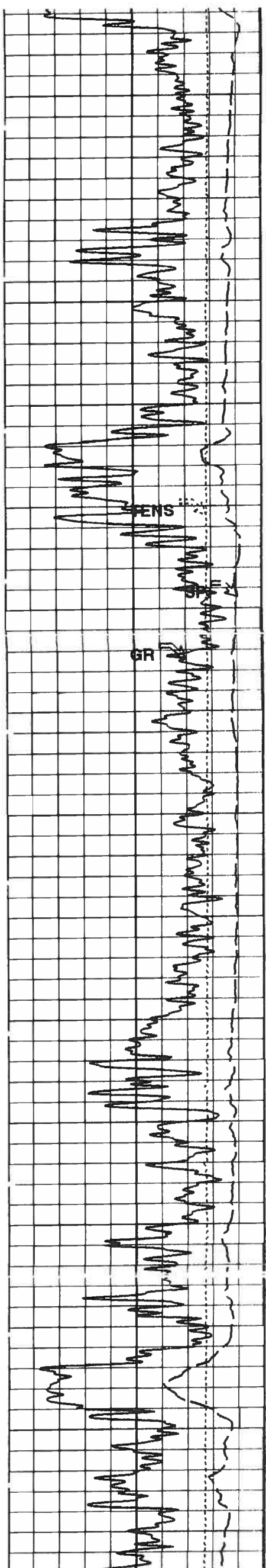
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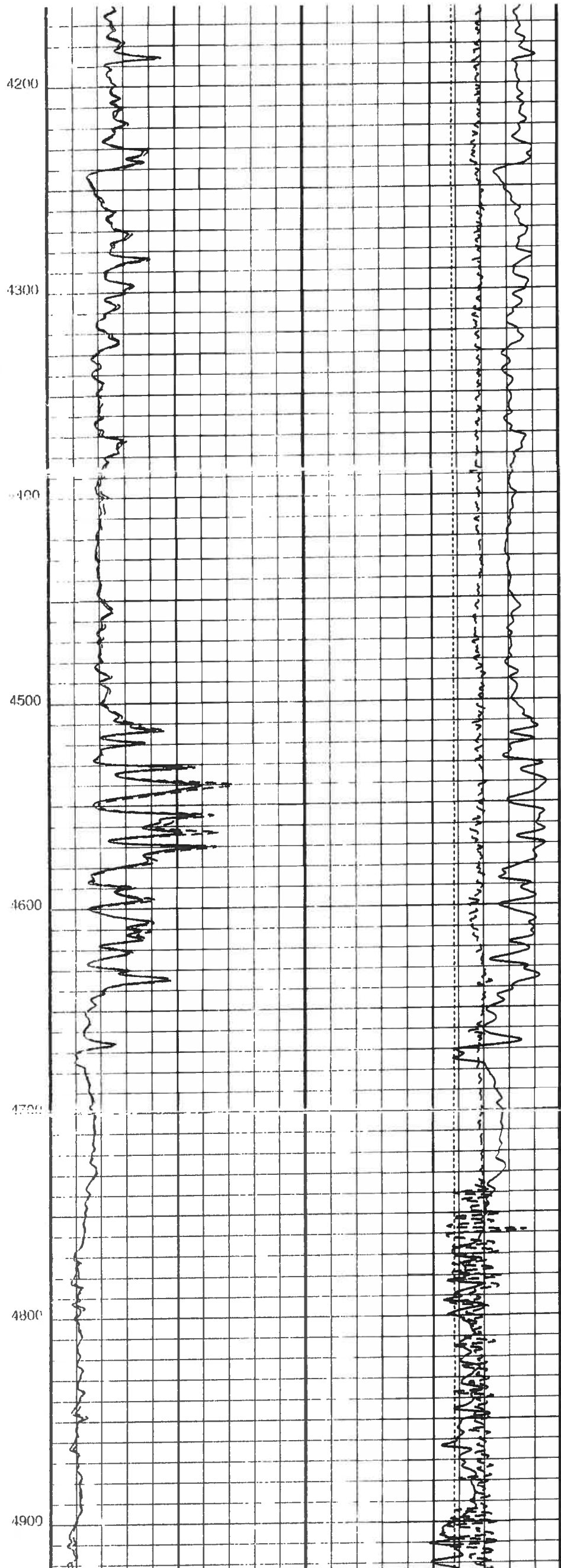
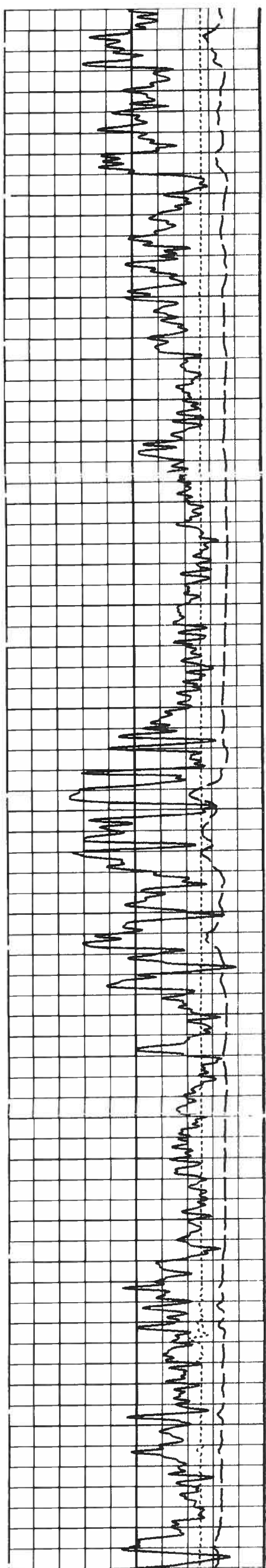
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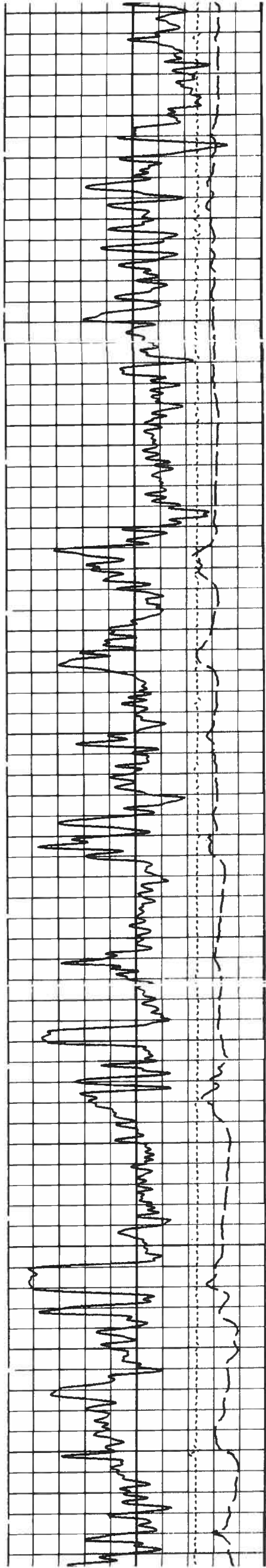
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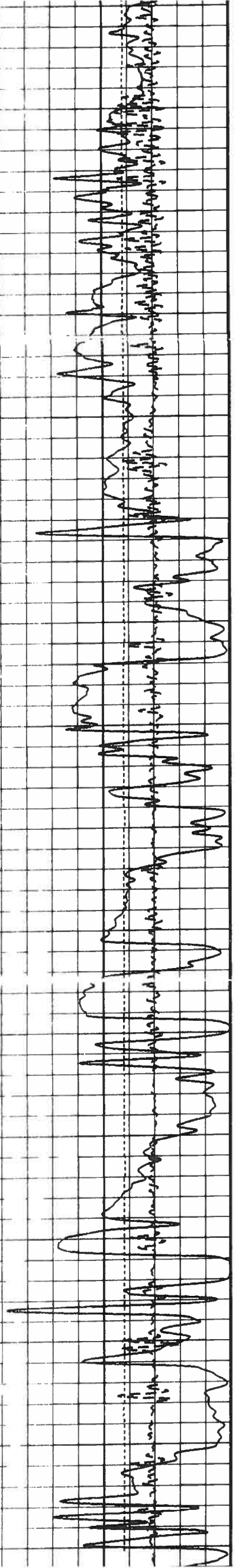
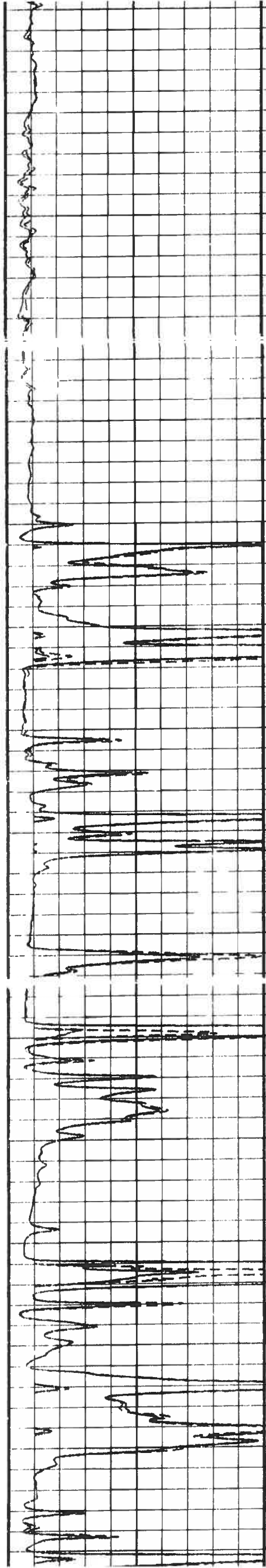
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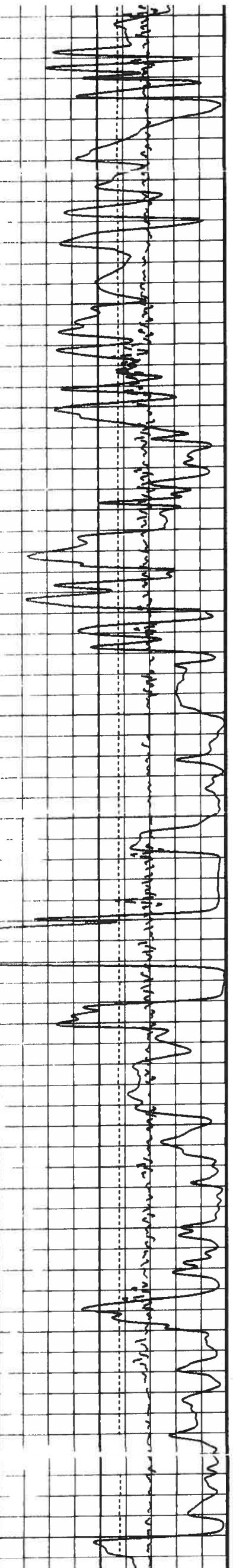
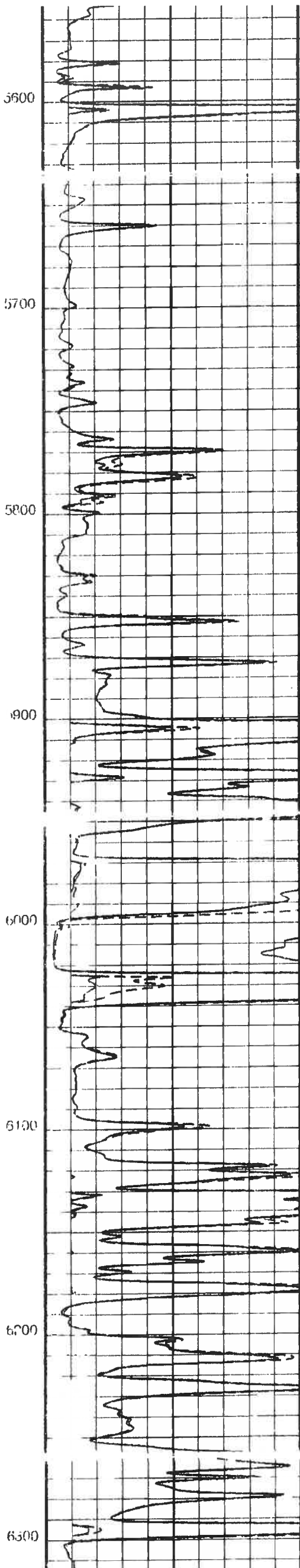
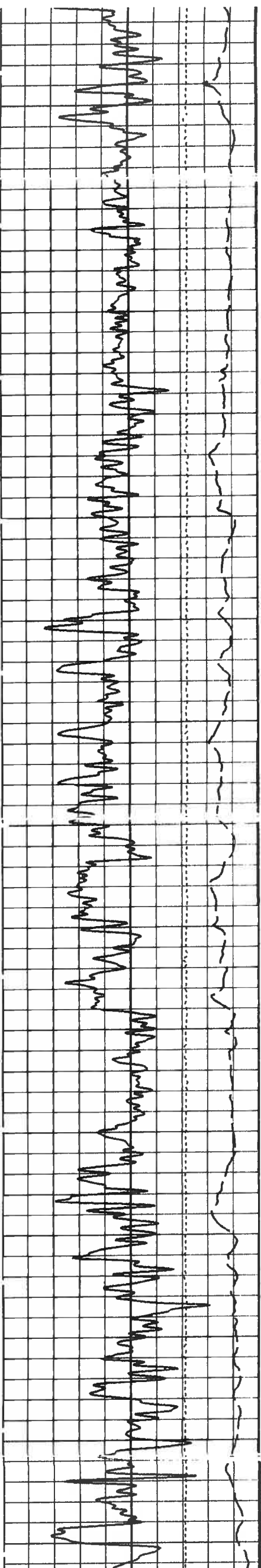
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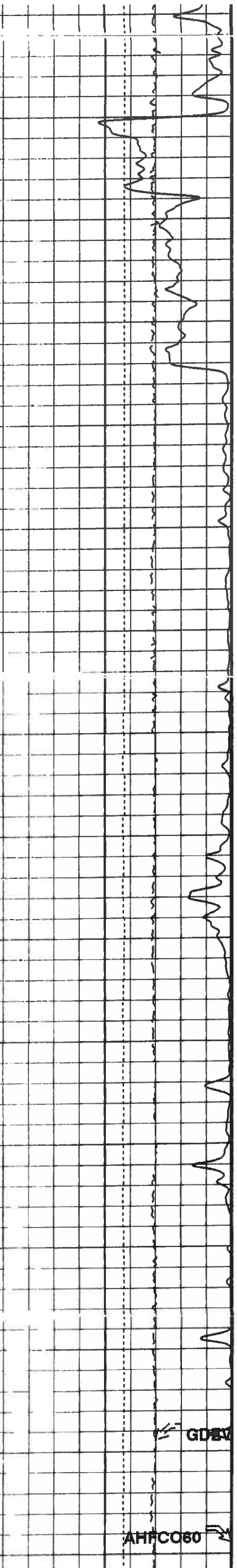
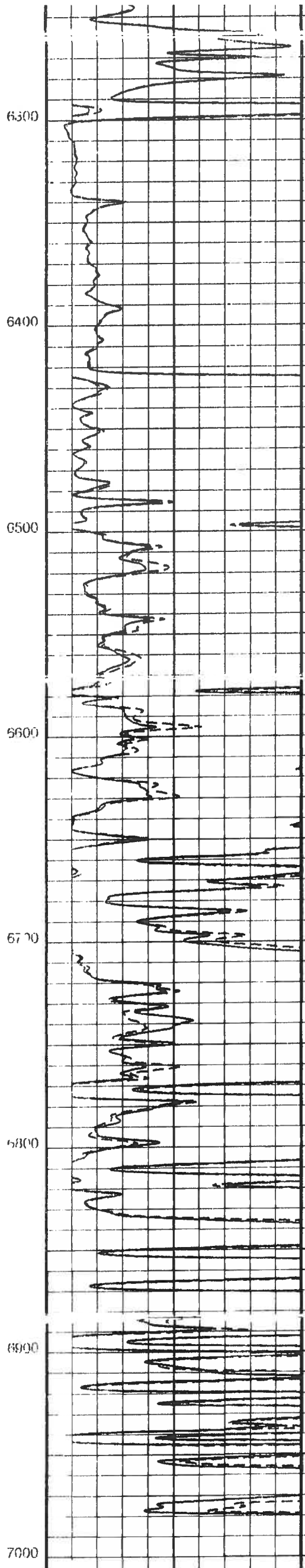
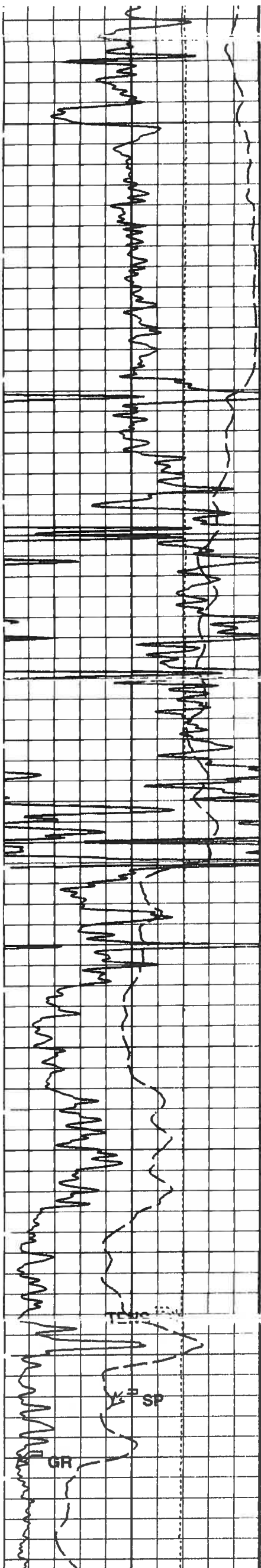
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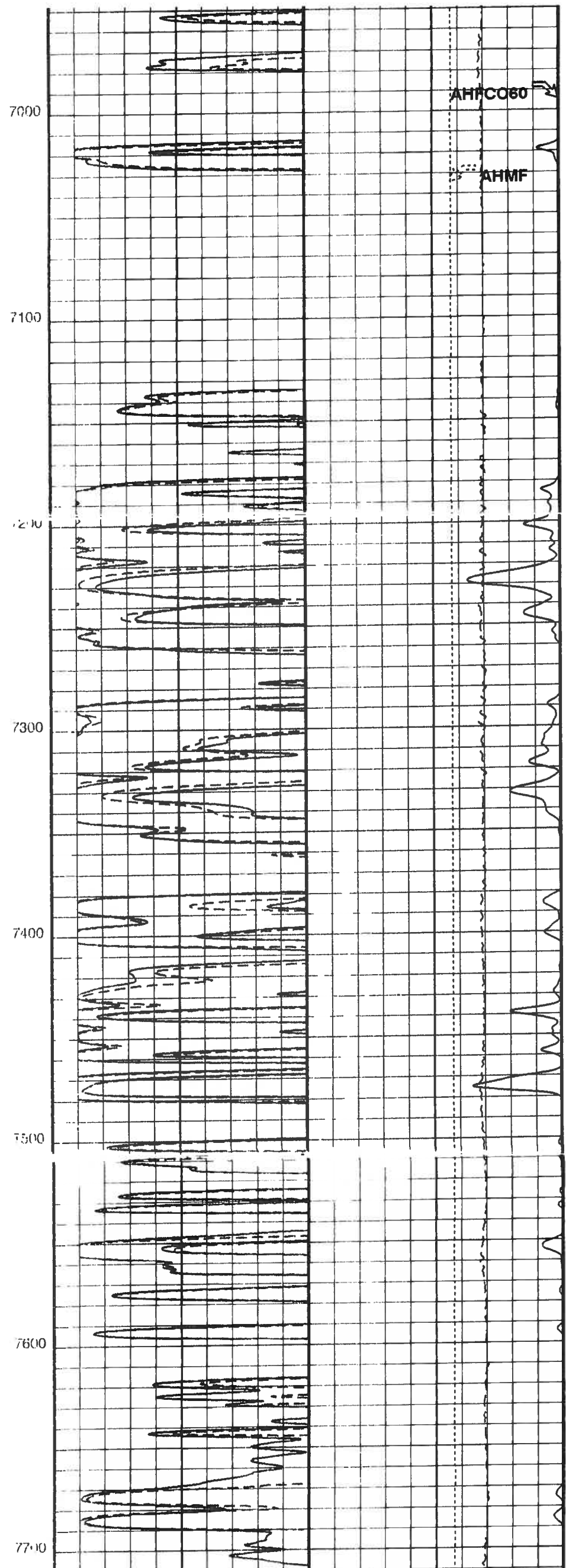
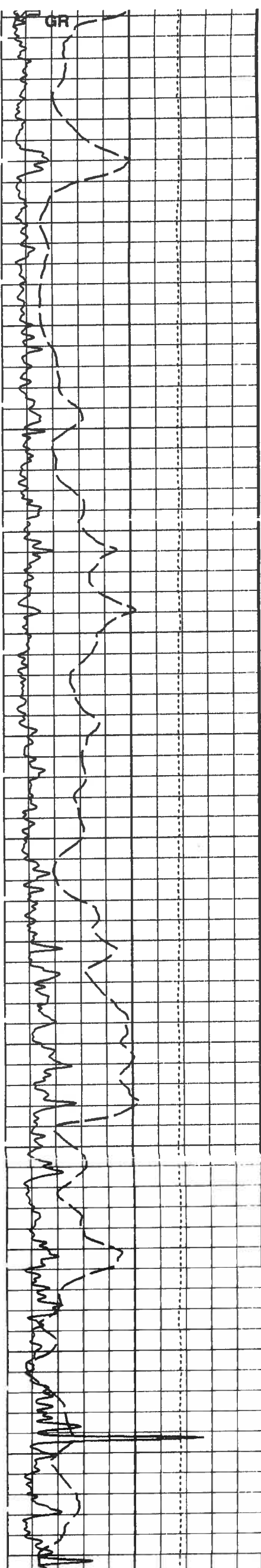
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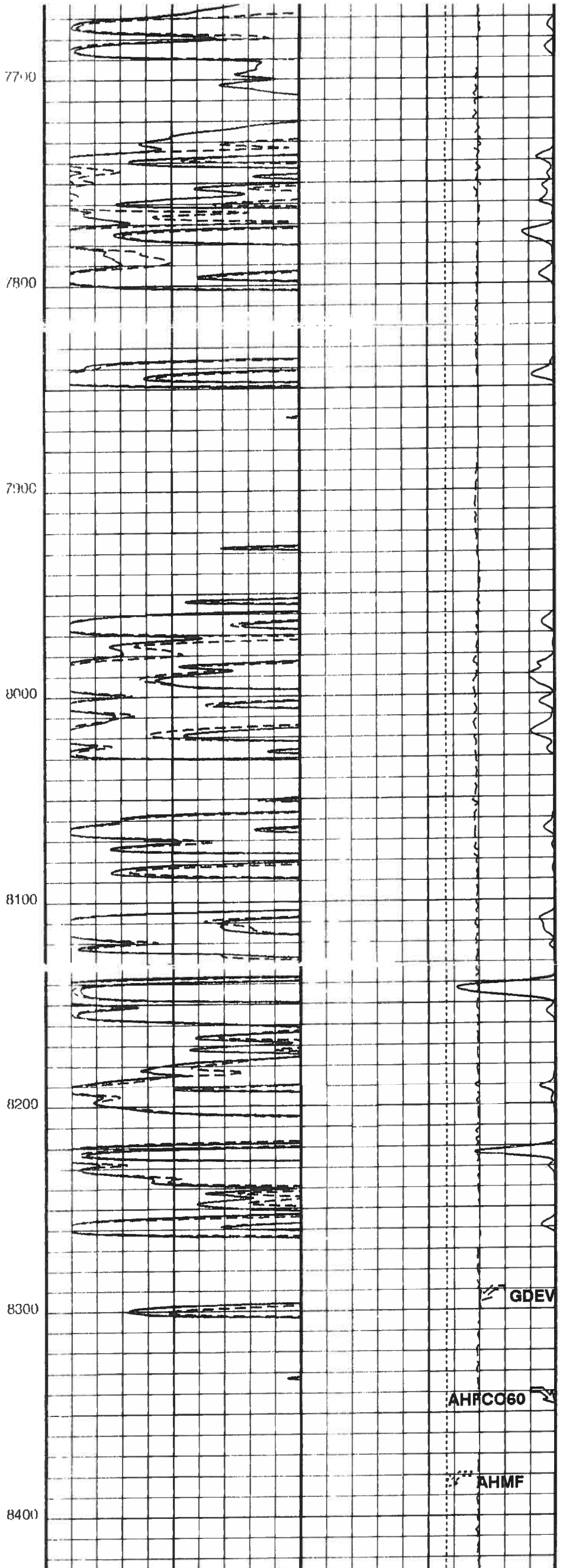
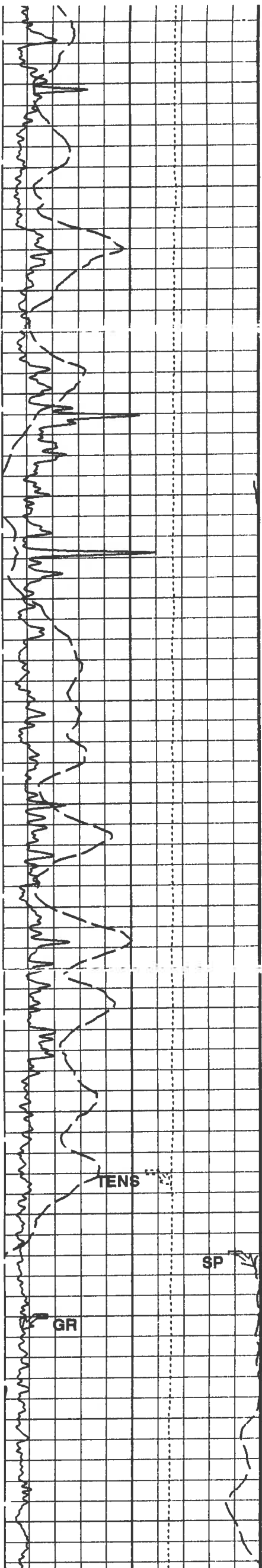
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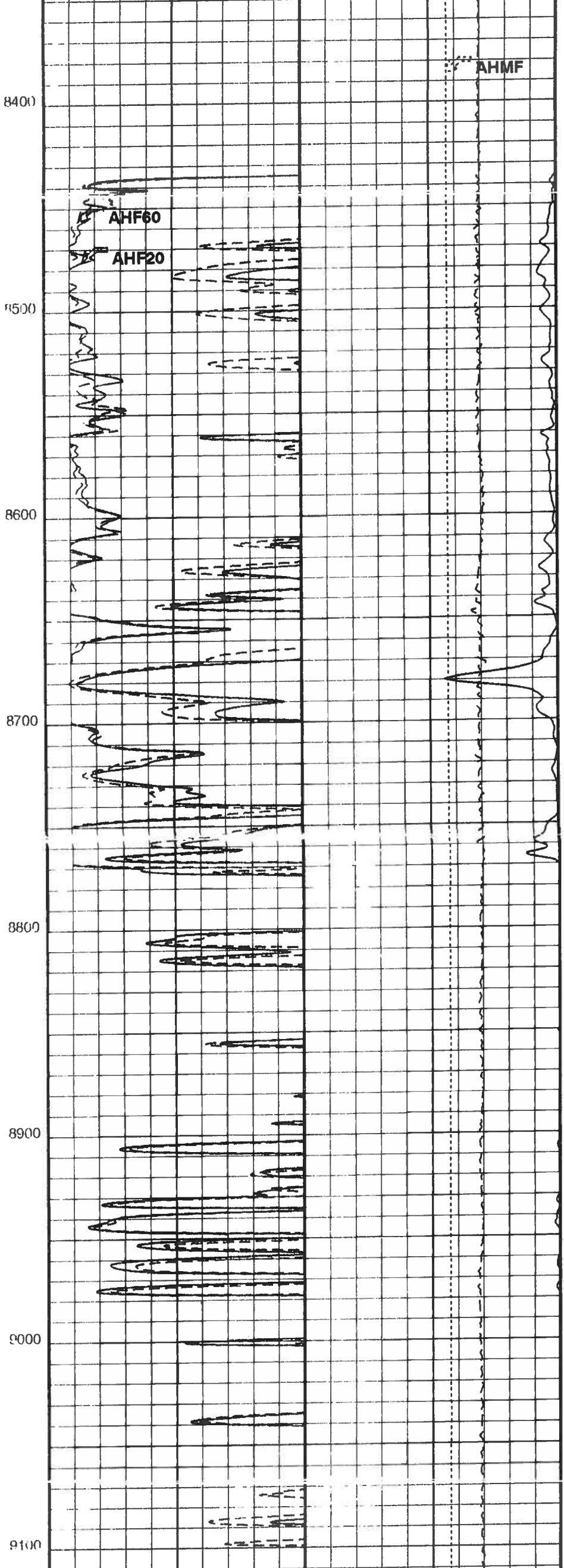
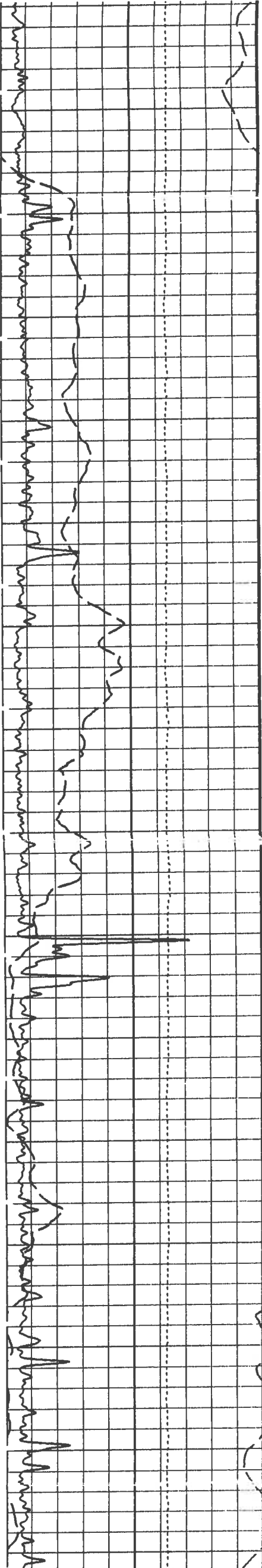


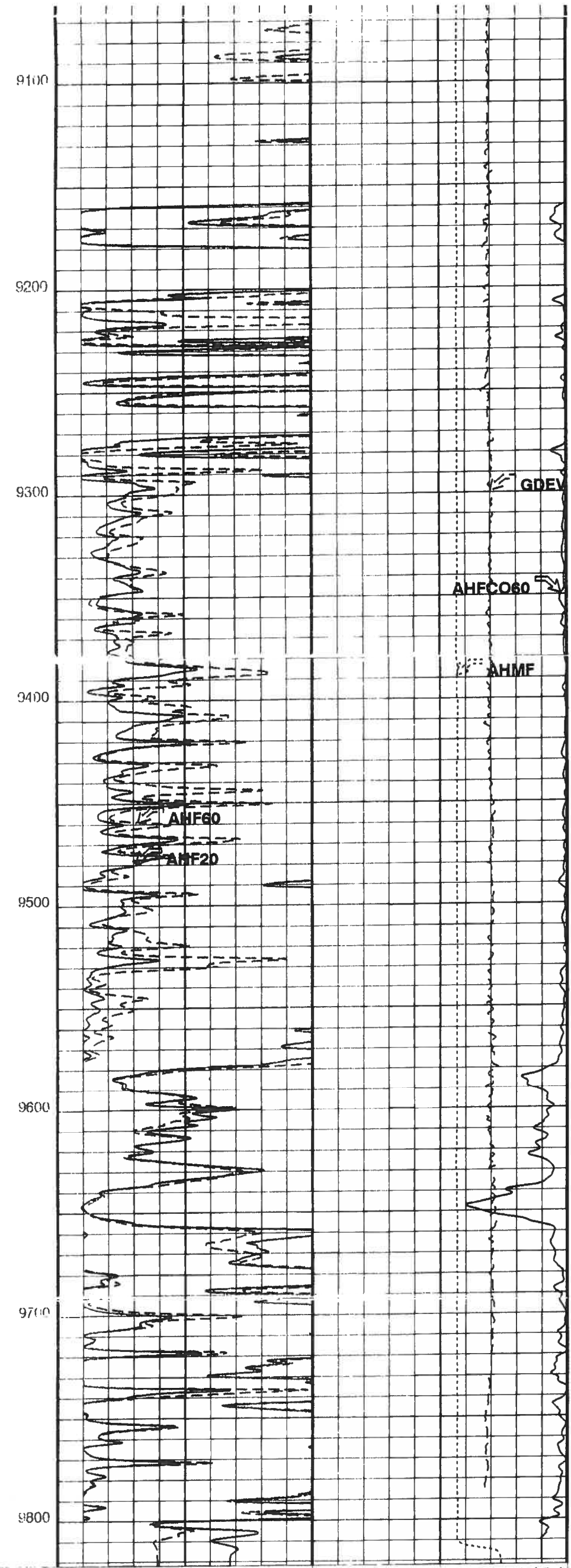
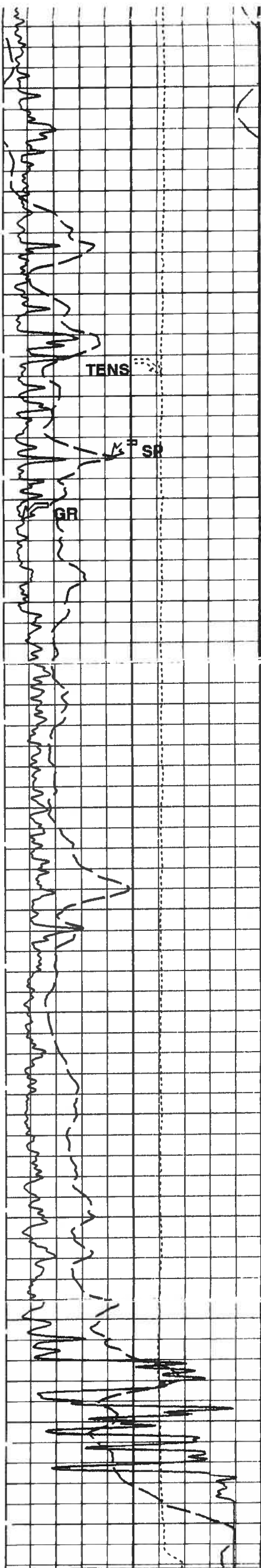


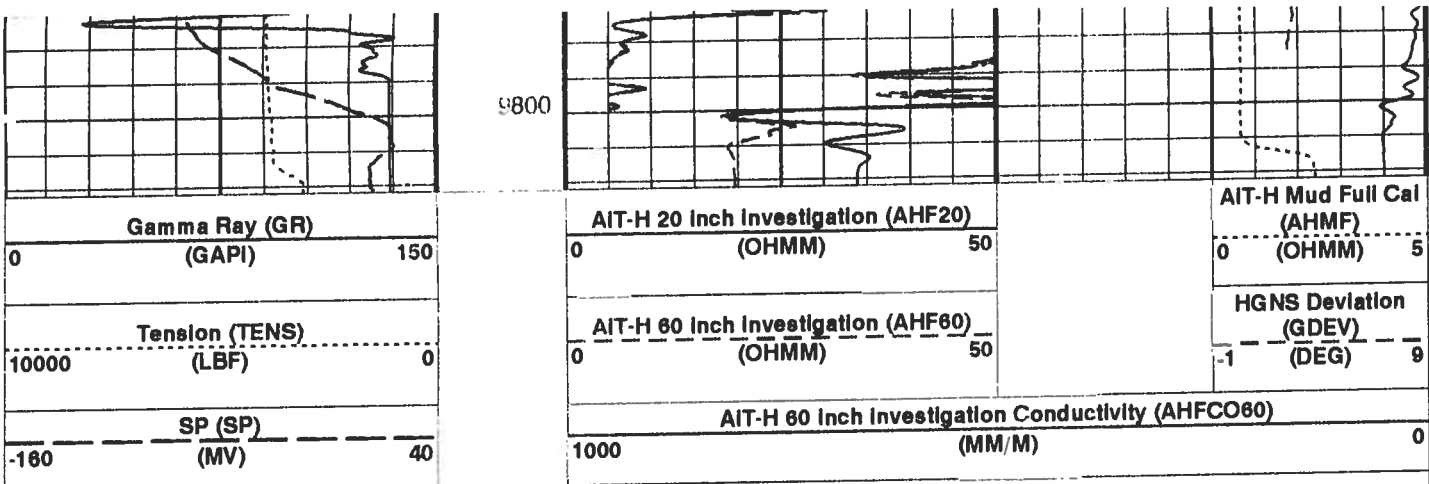












PIP SUMMARY

Time Mark Every 60 S

AIT-H Answer Product Processing Summary. Data taken with Tool # 274 (AHTNO)
 ...Acquired data from HILT/HAIT

***** Borehole Correction *****

Effective Tool Standoff computed. Borehole diameter and mud res. taken as Input (see GCSE and GRSE parameters)
 Tool is run in ECCENTERED mode with a tool stand-off of 1.50 IN. Bit Size is 8.75 IN.

***** Input Selections to AIT-H Answer Product Processing *****

Calliper (GCSE): HCAL Mud Resistivity (GRSE): AHMF Temperature (GTSE): HTEM Porosity (FPHI): DPHZ

***** Control Parameters used by AIT-H Answer Product Processing *****

Form Factor Exponent (FEXP) 2.000 Form Factor Numerator (FNUM) 1.000
 Mud Filtrate Sample Resistivity (RMFS) 1.189 OHMM Mud Filtrate Sample Temperature (MFST) 73.000 DEG
 Resistivity Connate Water (RW) 1.000 OHMM

***** AIT-H Answer Product Processing Control Parameters *****

Playback Mode: RECOMPUTE
 (AHEBC): Yes (AHEBL): Yes (AHERP): Yes
 (AHBHM): 2_ComputeStandoff (AHBLM): 6_One_Two_and_Four (AHRPM): 1_Two

Parameters

DLIS Name	Description	Value
HILTB-CTS: High resolution Integrated Logging Tool-CTS		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff
AHBHV	Array Induction Borehole Correction Code Version Number	900
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four
AHBLV	Array Induction Basic Logs Code Version Number	223
AHCDE	Array Induction Casing Detection Enable	Yes
AHCEN	Array Induction Tool Centering Flag (In Borehole)	Eccentered
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20
AHMRF	Array Induction Mud Resistivity Factor	1
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20
AHRFV	Array Induction Radial Profiling Code Version Number	701
AHRPV	Array Induction Radial Parametrization Code Version Number	232
AHSTA	Array Induction Tool Standoff	1.5 IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20
BHT	Bottom Hole Temperature (used in calculations)	194.24 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCSE	Generalized Calliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
SHT	Surface Hole Temperature	80 DEGF
SPNV	SP Next Value	0 MV
RWA: Apparent Water Resistivity		
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
HOLEV: Integrated Hole/Cement Volume		
BHT	Bottom Hole Temperature (used in calculations)	194.24 DEGF
GCSE	Generalized Calliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
SHT	Surface Hole Temperature	80 DEGF
PERT: Preliminary Evaluation - Real Time		
BHT	Bottom Hole Temperature (used in calculations)	194.24 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCSE	Generalized Calliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
SHT	Surface Hole Temperature	80 DEGF
System and Miscellaneous		
BS	Bit Size	8.750 IN
DFD	Drilling Fluid Density	9.80 LB/G
DO	Depth Offset for Playback	0.0 FT
DORL	Depth Offset for Repeat Analysis	0.0 FT
FLEV	Fluid Level	0.00 FT
MST	Mud Sample Temperature	73.00 DEGF
PP	Playback Processing	RECOMPUTE
TD	Total Depth	9814 FT

OP System Verlon: 15C0-309
 MCM

HILTB-CTS SPC-3345-AIT

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 17-May-2007 12:27 9822.0 FT 1001.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 17-May-2007 14:56

Schlumberger

MAIN PASS 5" = 100'

MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 17-May-2007 12:27 9822.0 FT 1001.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 17-May-2007 14:56 9822.0 FT 1005.5 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 5934.03 F3
 Cement Volume = 3590.51 F3 (assuming 7.00 IN casing O.D.)
 Computed from 9814.0 FT to 1045.0 FT using data channel(s) HCAL

OP System Verlon: 15C0-309
 MCM

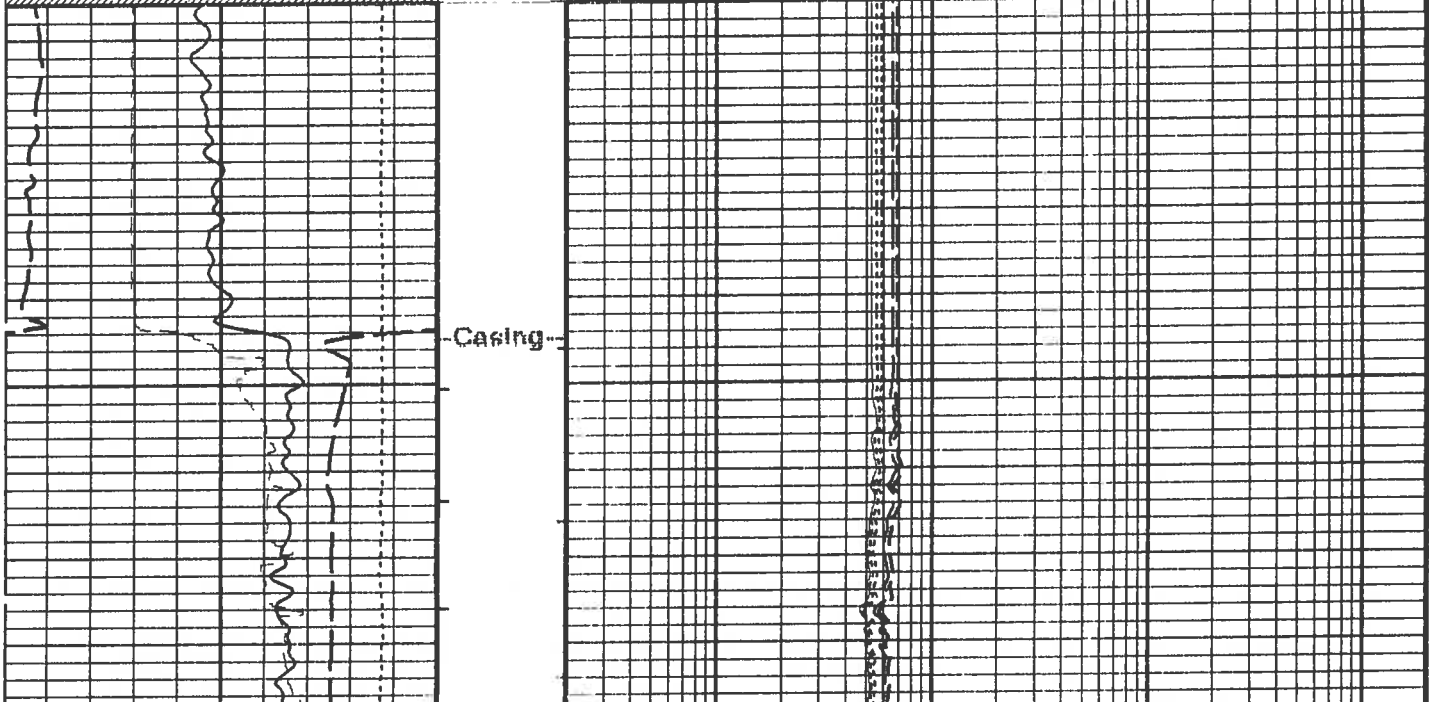
HILTB-CTS SPC-3345-AIT

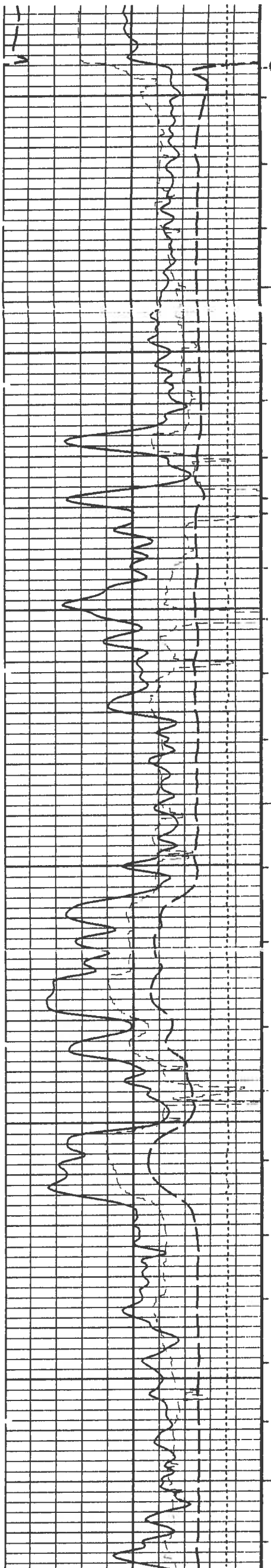
PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

SP (SP) (MV)	40	AIT-H 90 Inch Investigation (AHT90) (OHMM)	2000
Tension (TENS) (LBF)	0	AIT-H 60 Inch Investigation (AHT60) (OHMM)	2000
Gamma Ray (GR) (GAPI)	150	AIT-H 30 Inch Investigation (AHT30) (OHMM)	2000
AIT-H Input Bhole Diameter (AHIBD) (IN)	16	AIT-H 20 Inch Investigation (AHT20) (OHMM)	2000
GAMMA RAY BACKUP		AIT-H 10 Inch Investigation (AHT10) (OHMM)	2000



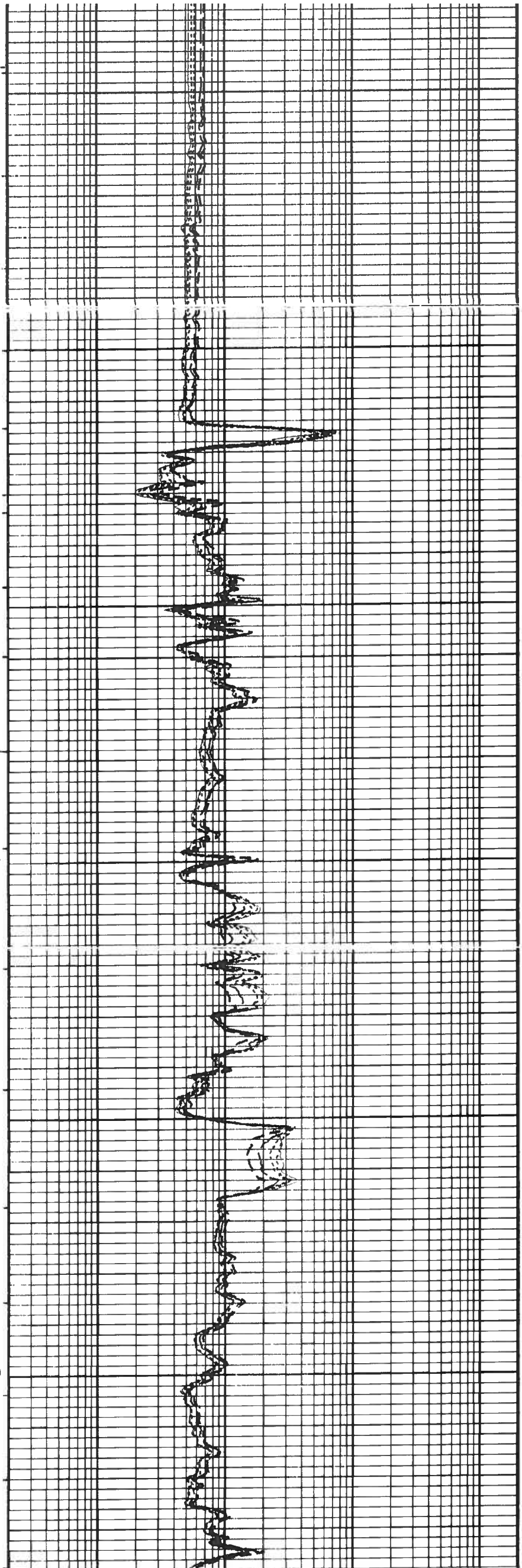


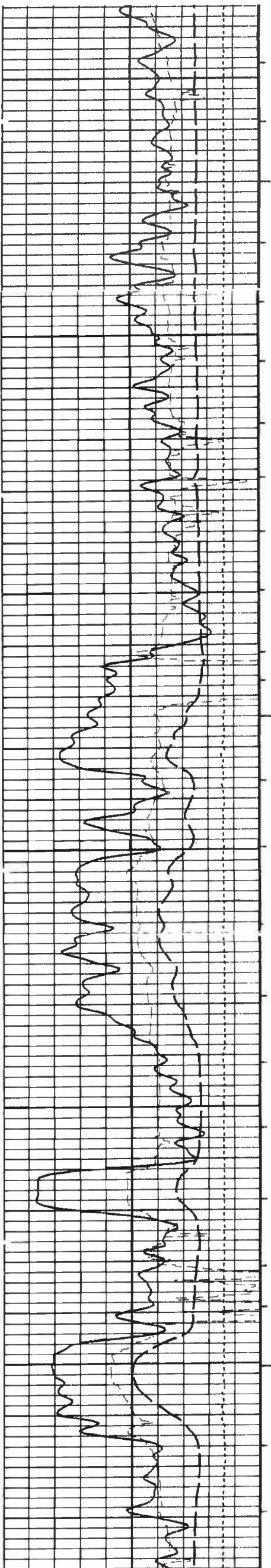
Casing

1100

1200

1300

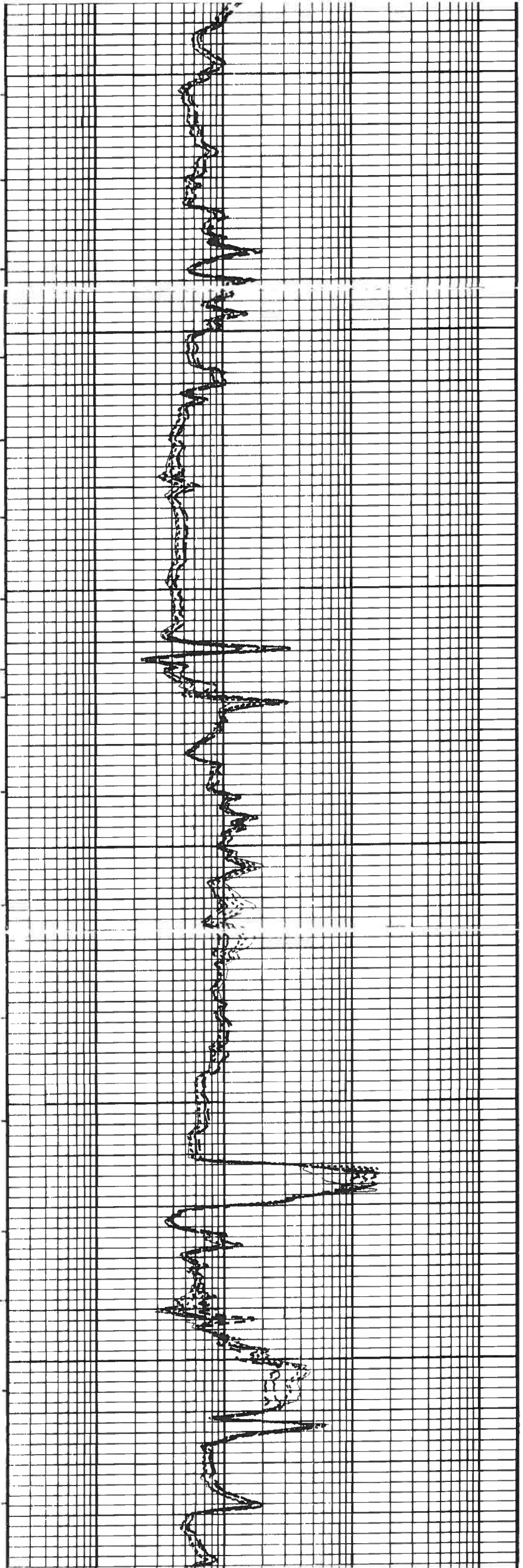


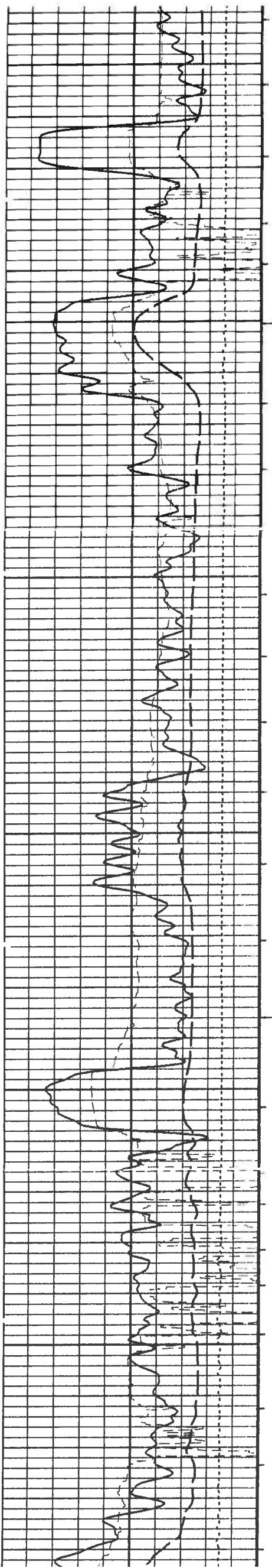


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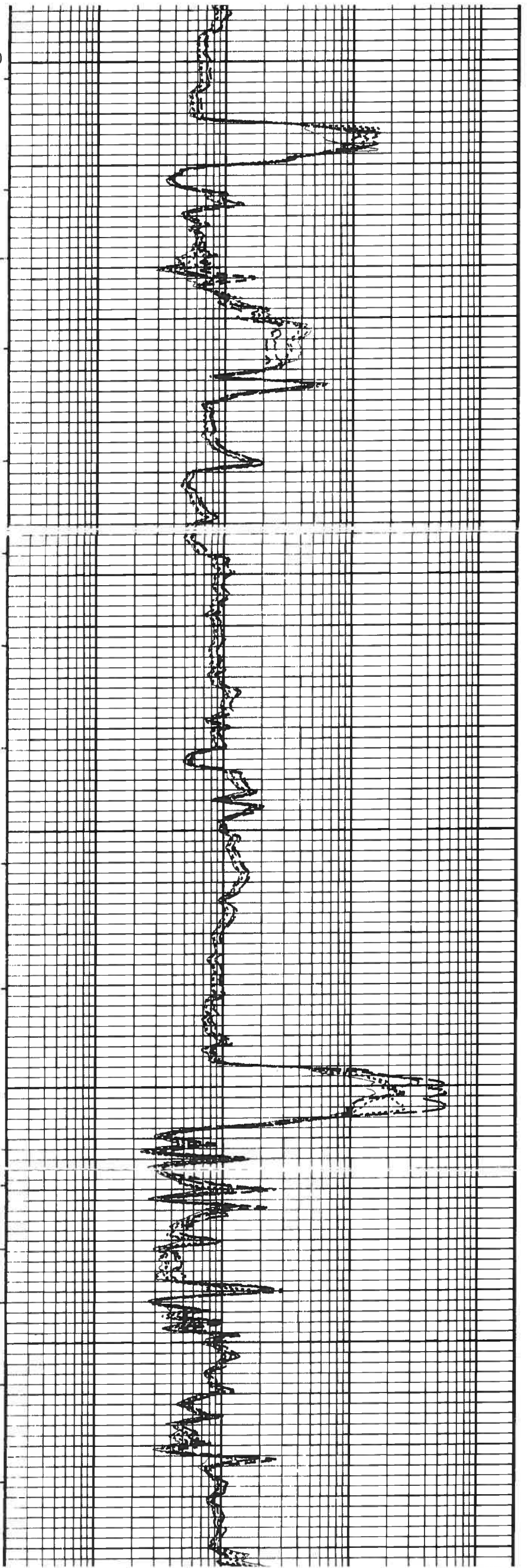
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1500



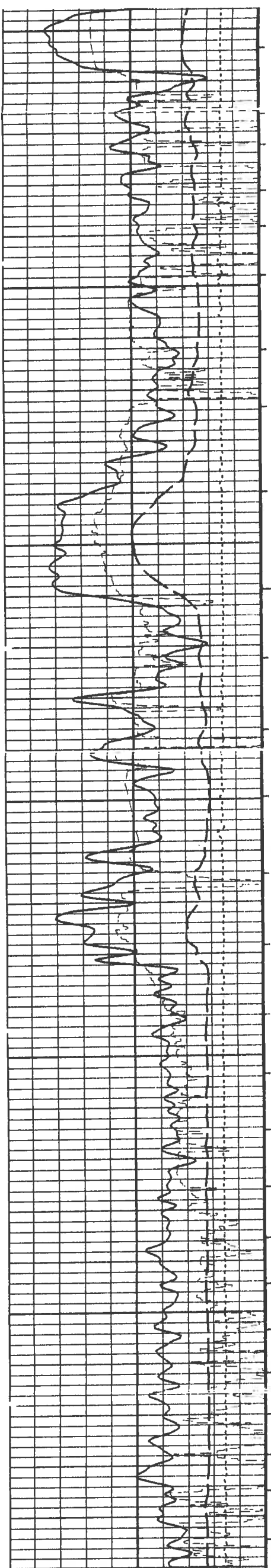


1500



1600

1700

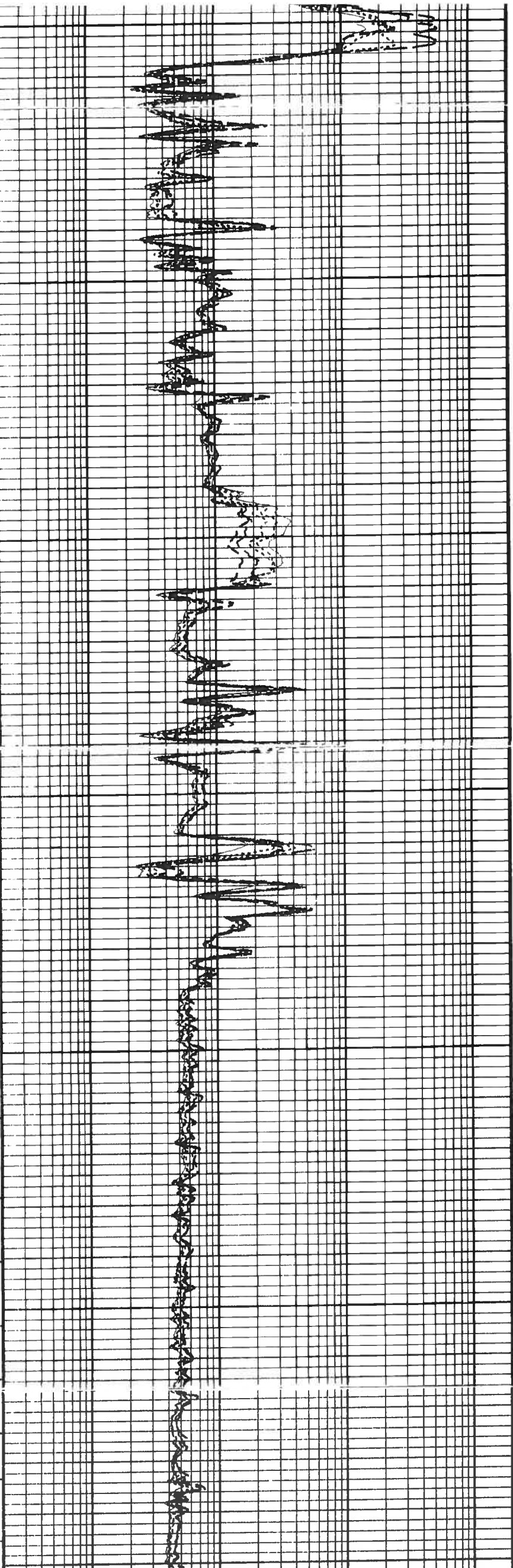


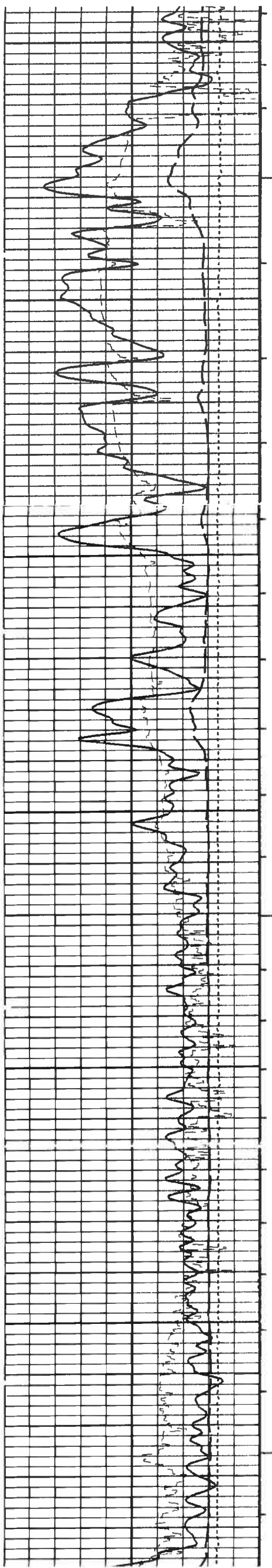
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1800

1900

2000

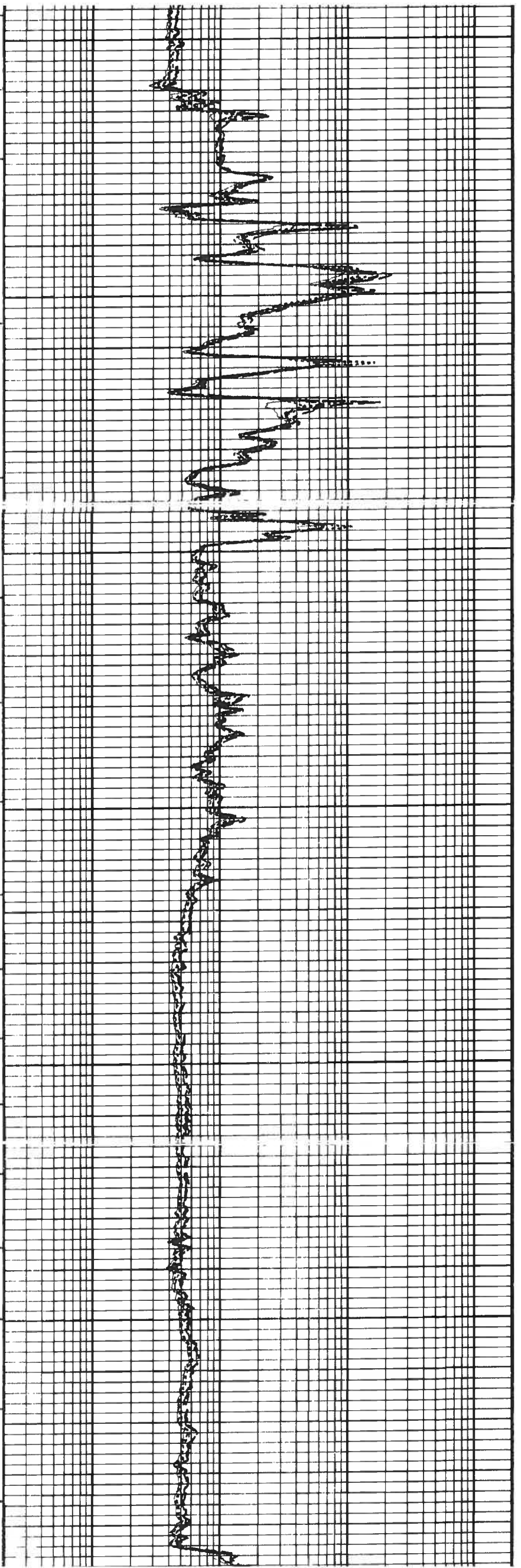


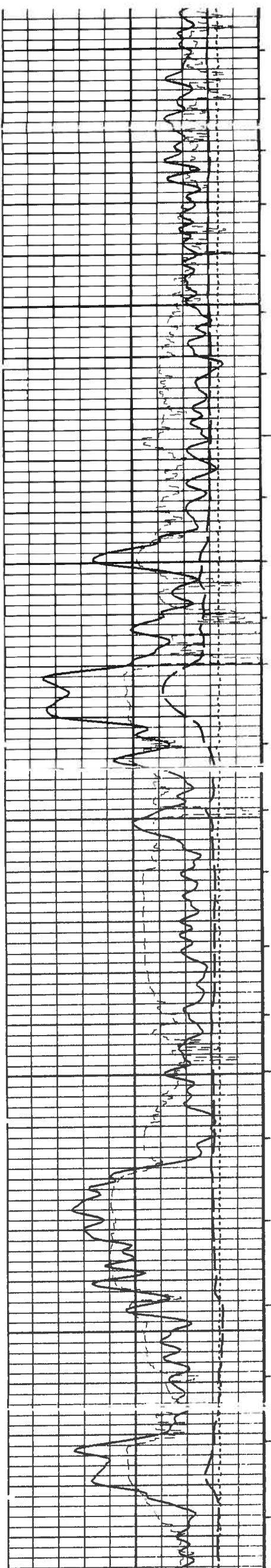


2000

2100

2200

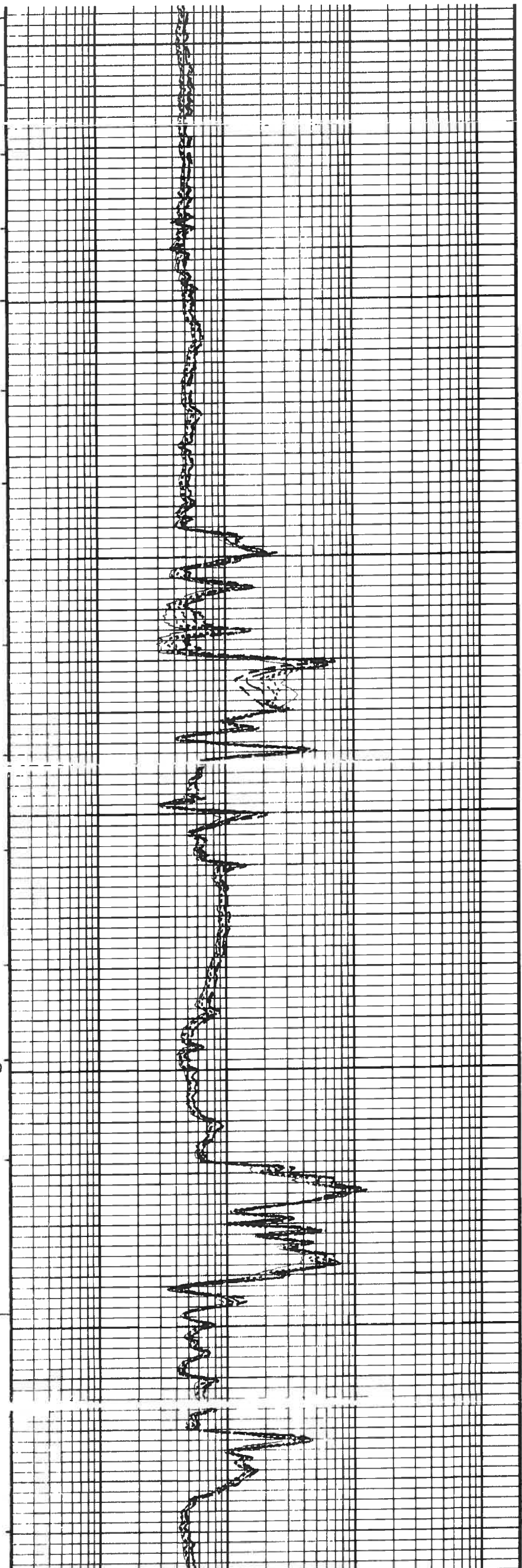


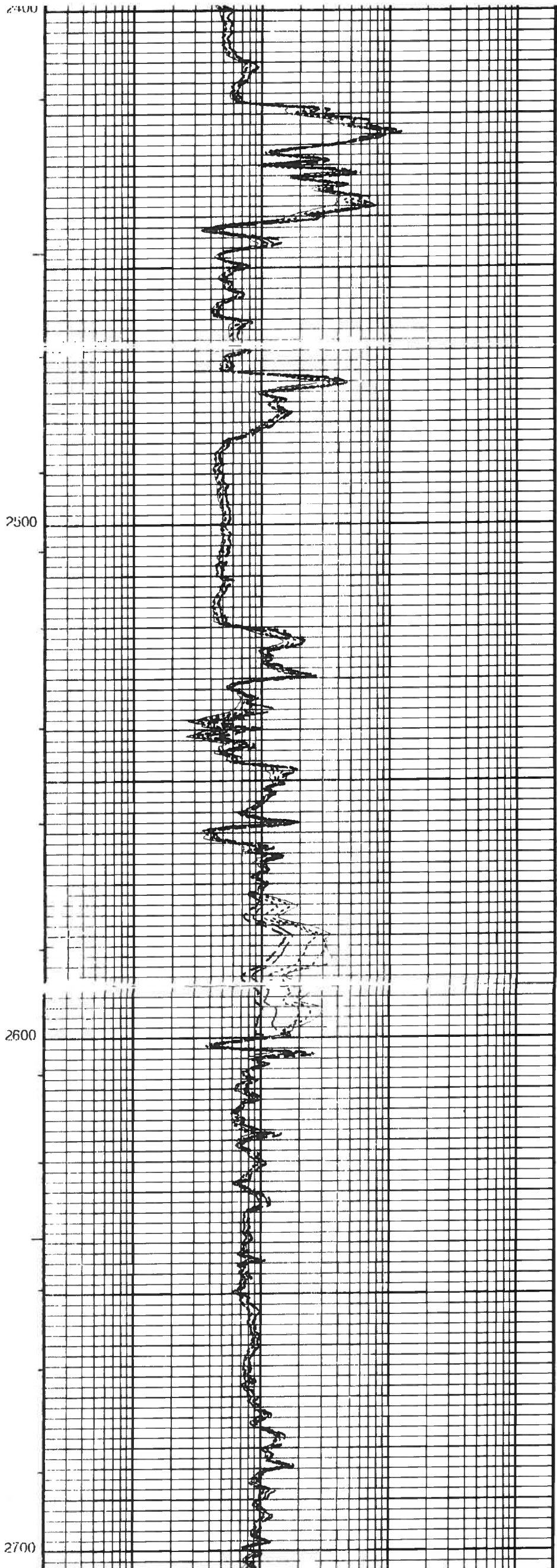
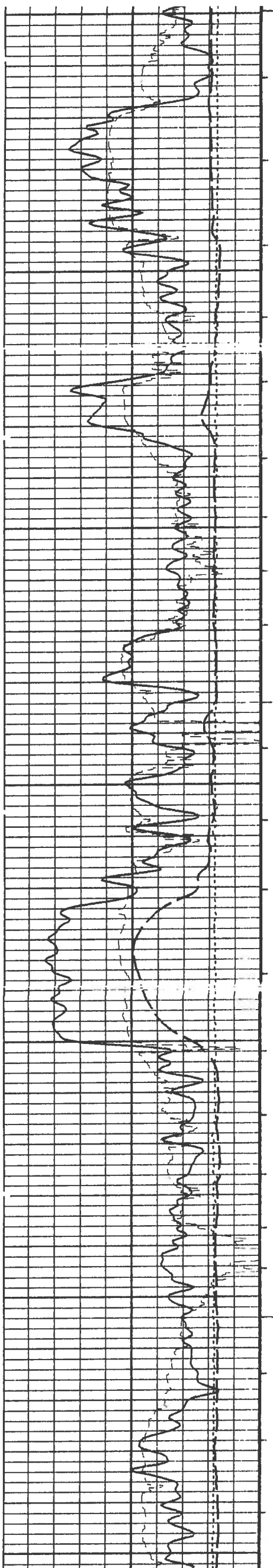


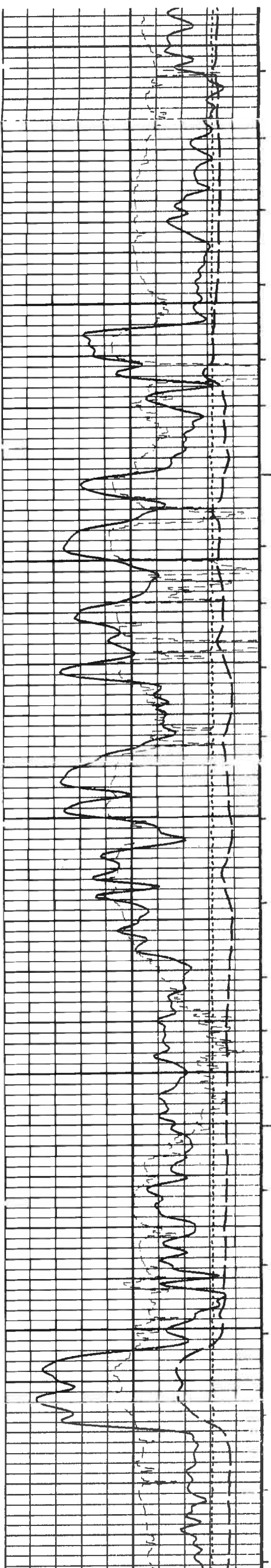
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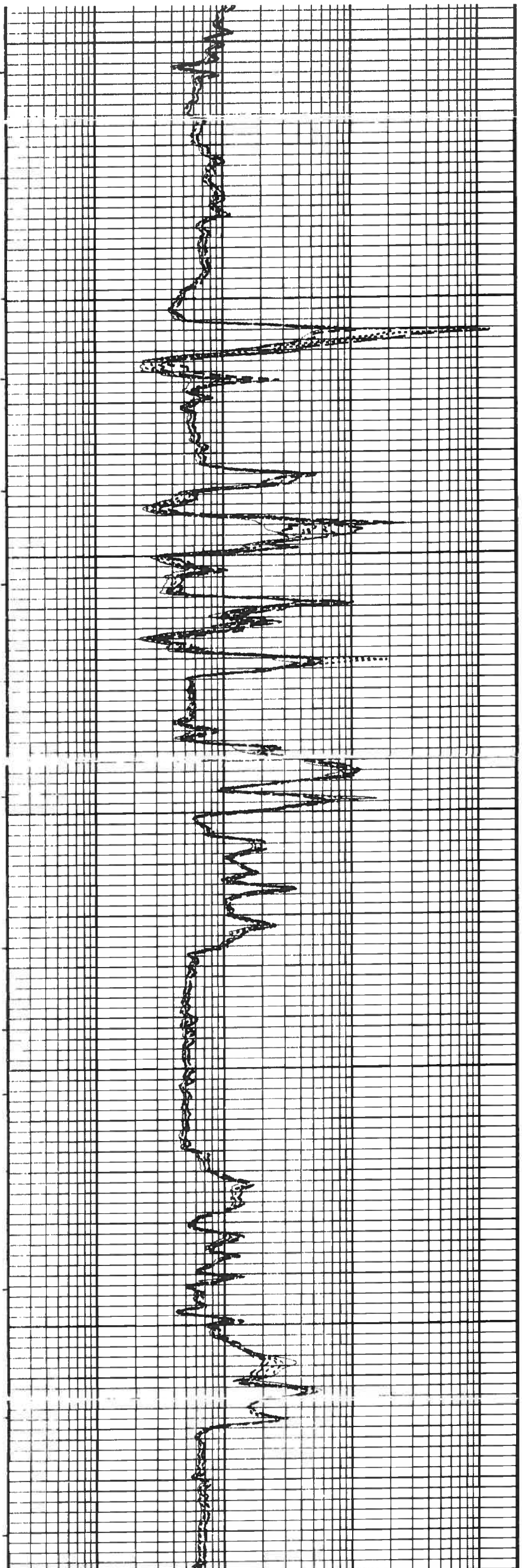


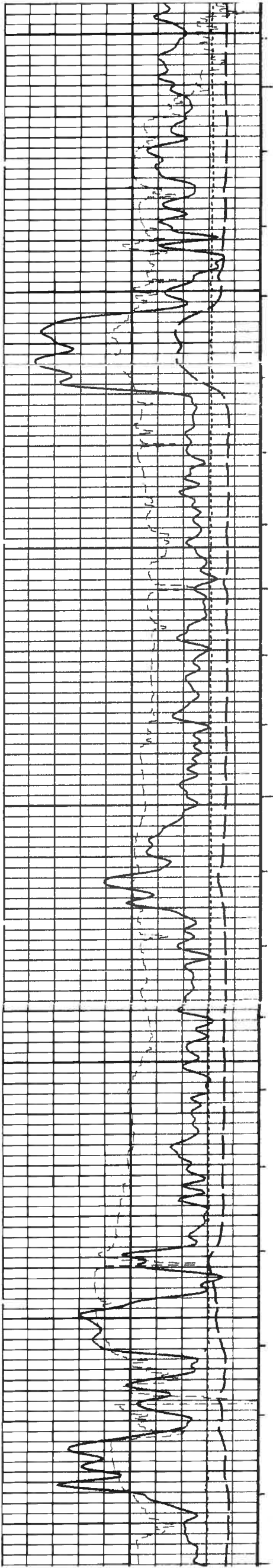


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2800

2900

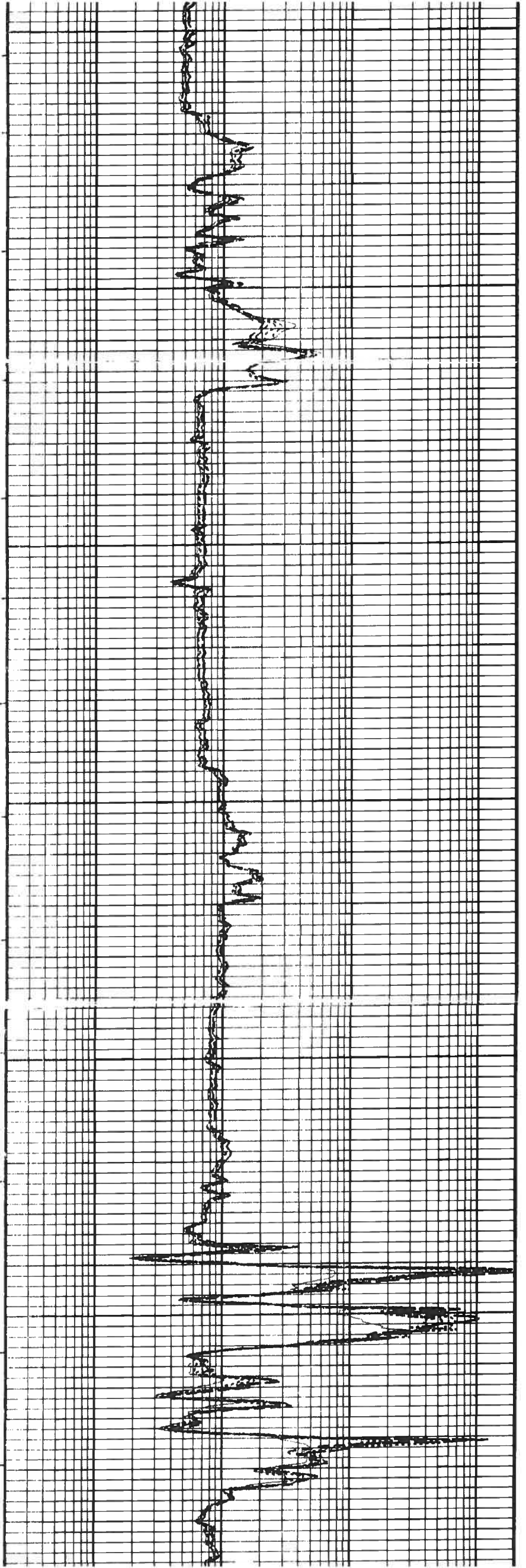


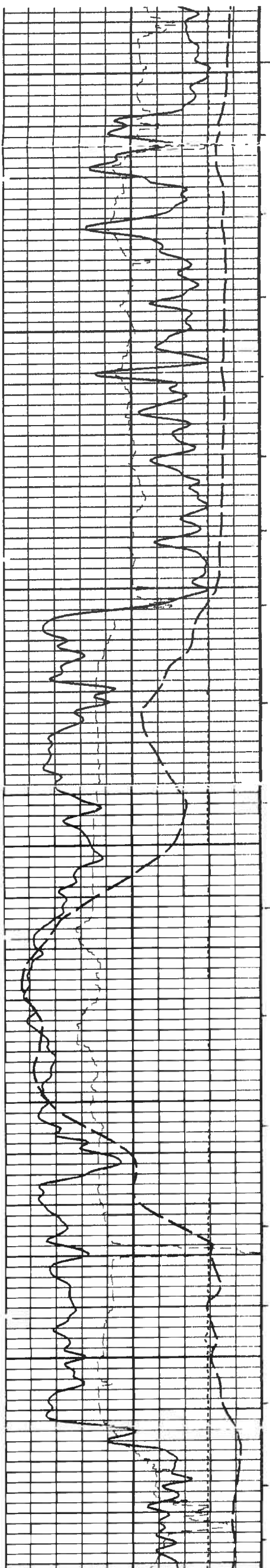


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3000

3100

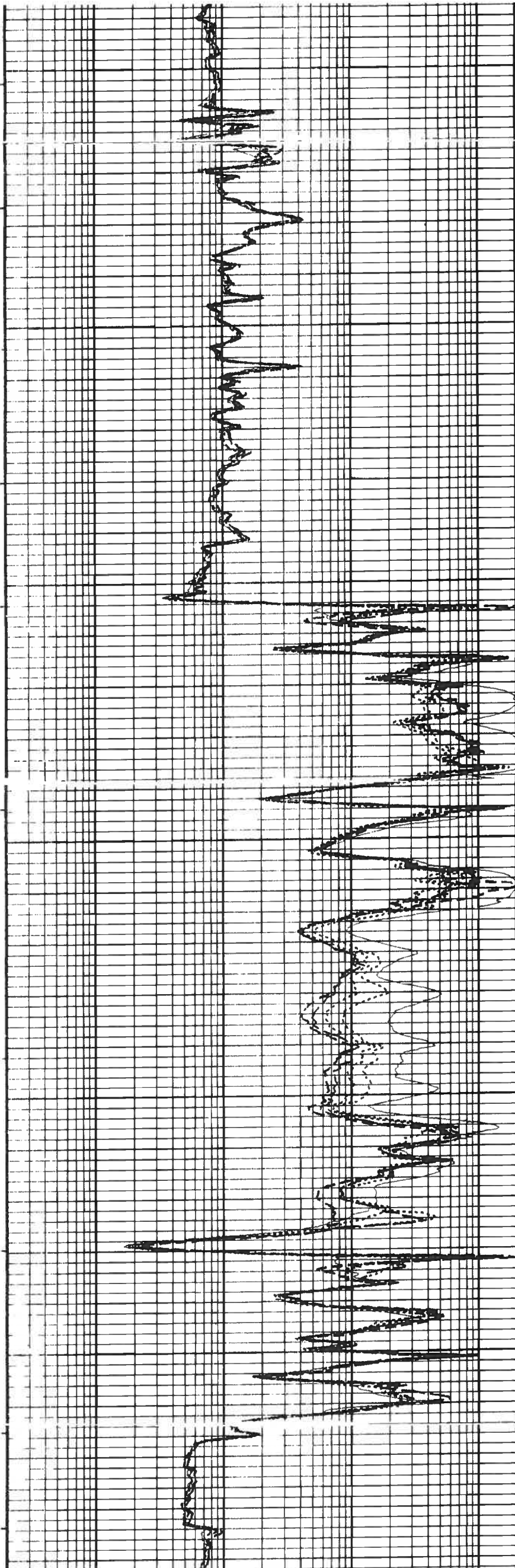


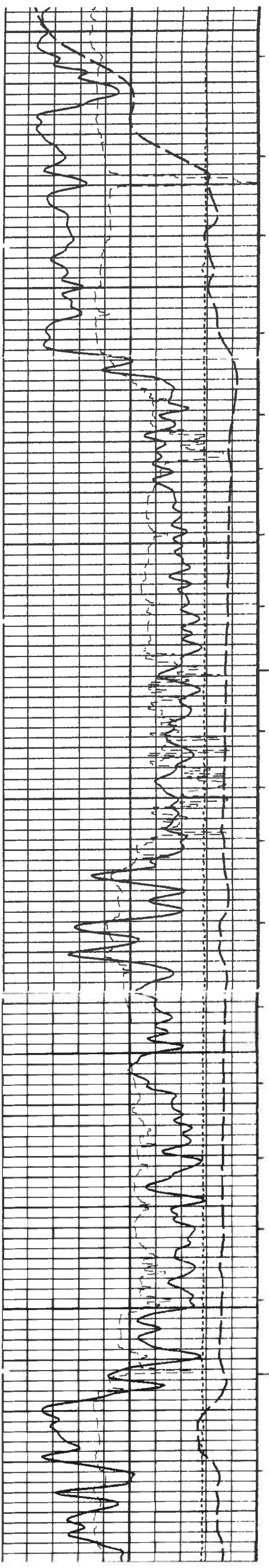


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3300

3400



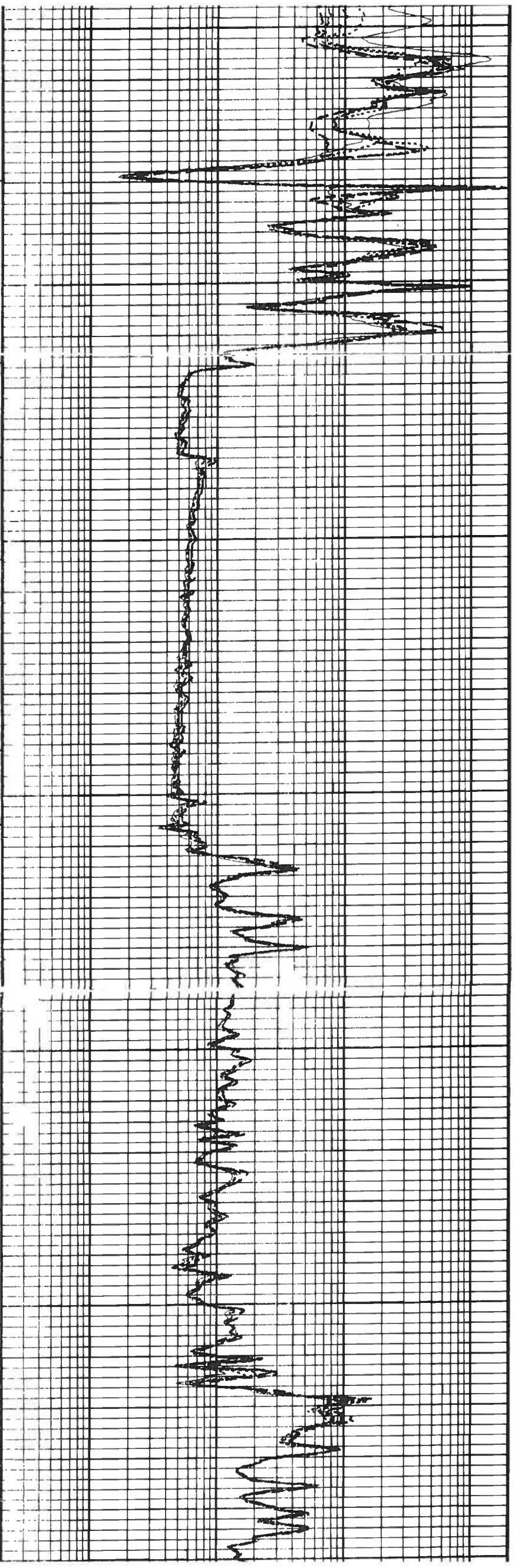


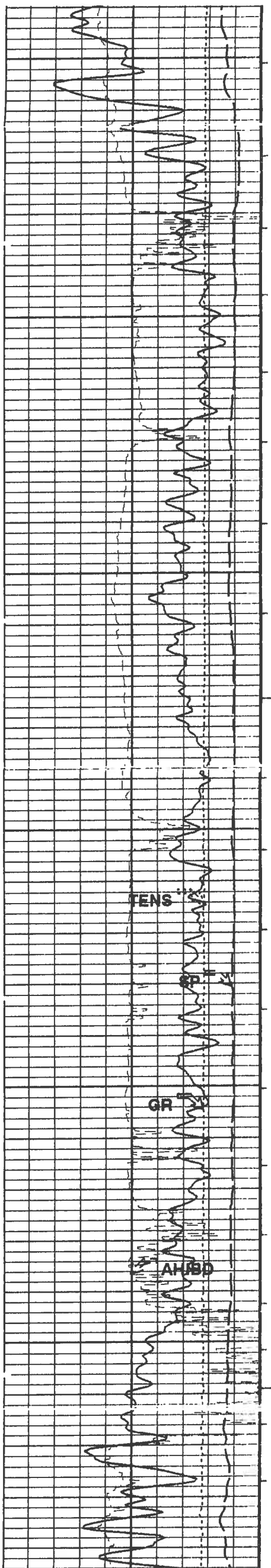
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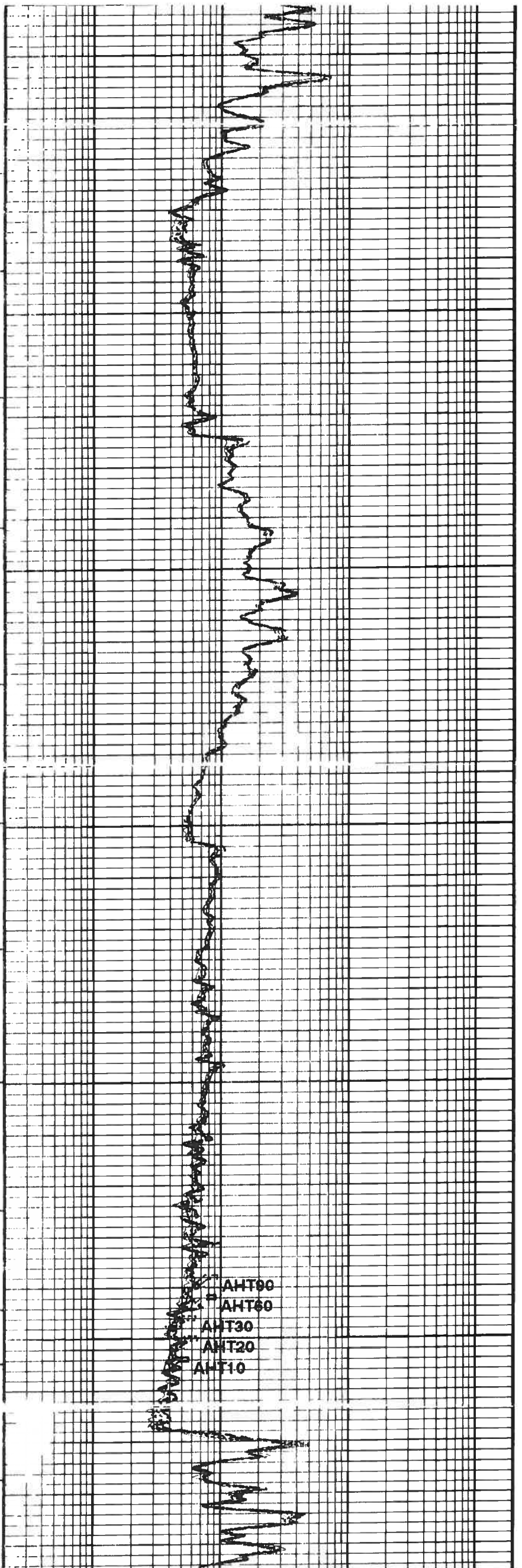




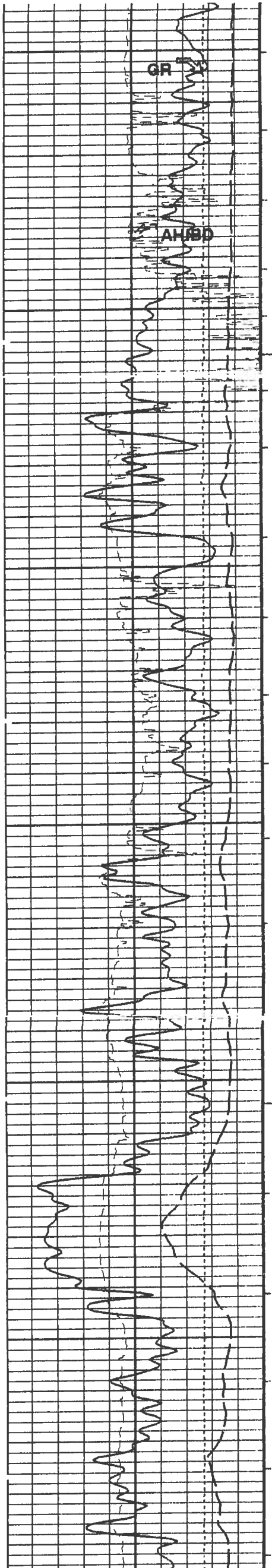
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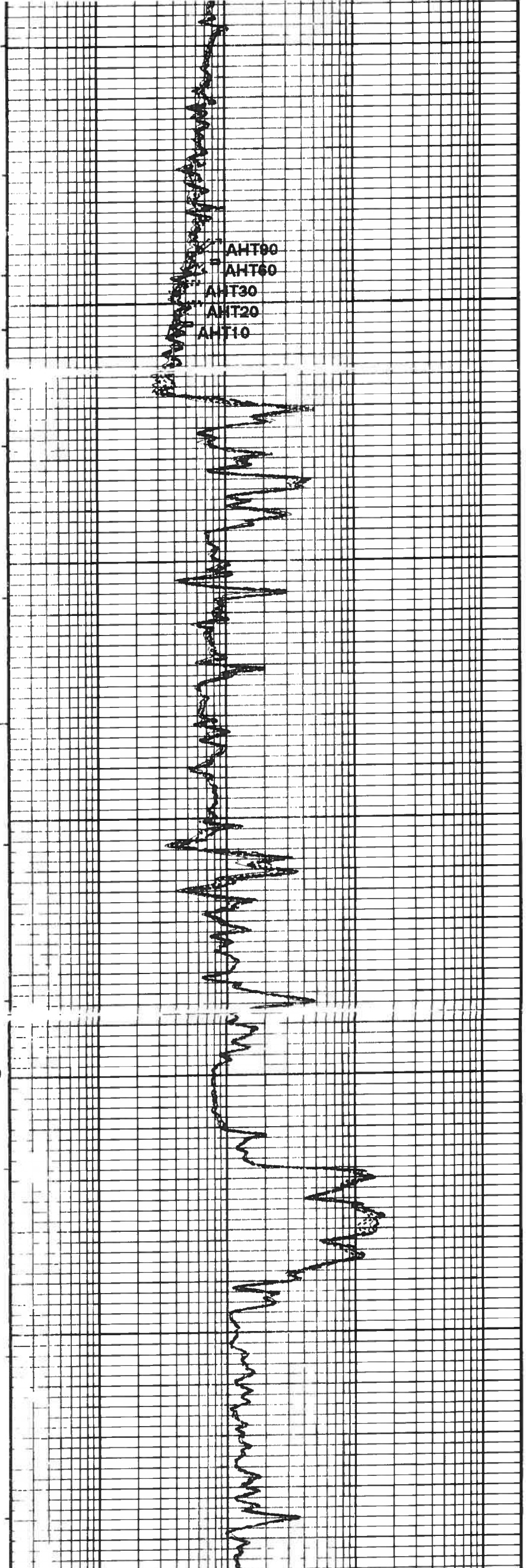
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AHT20
AHT10

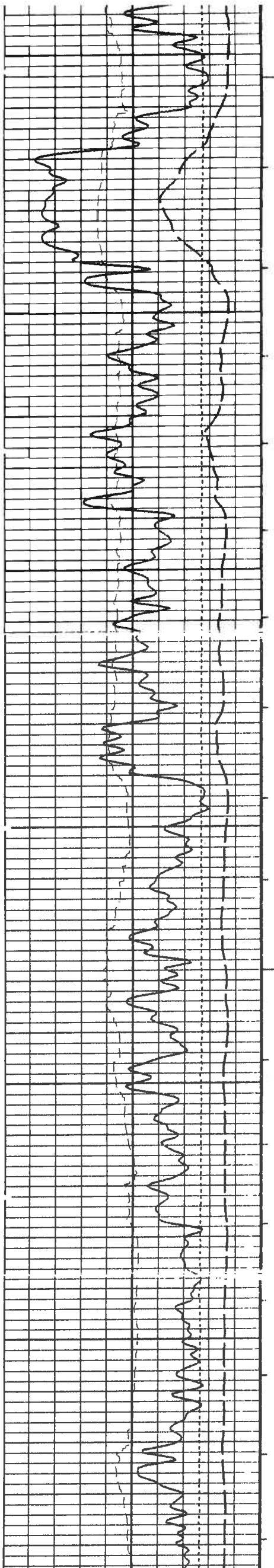


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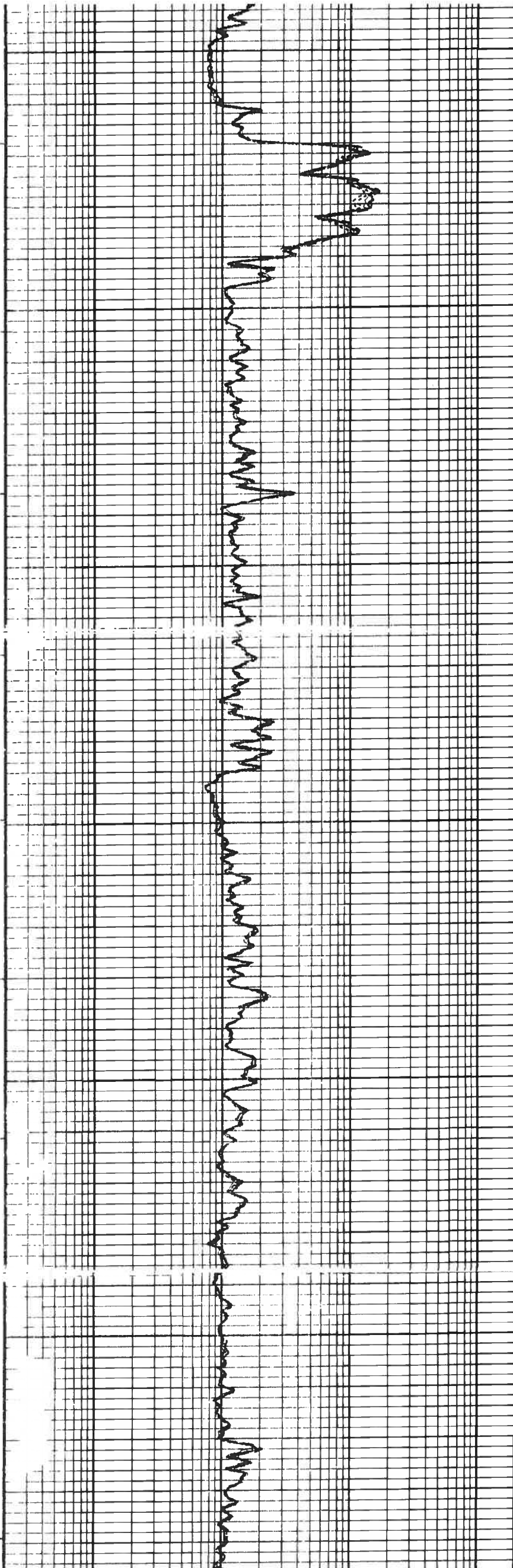


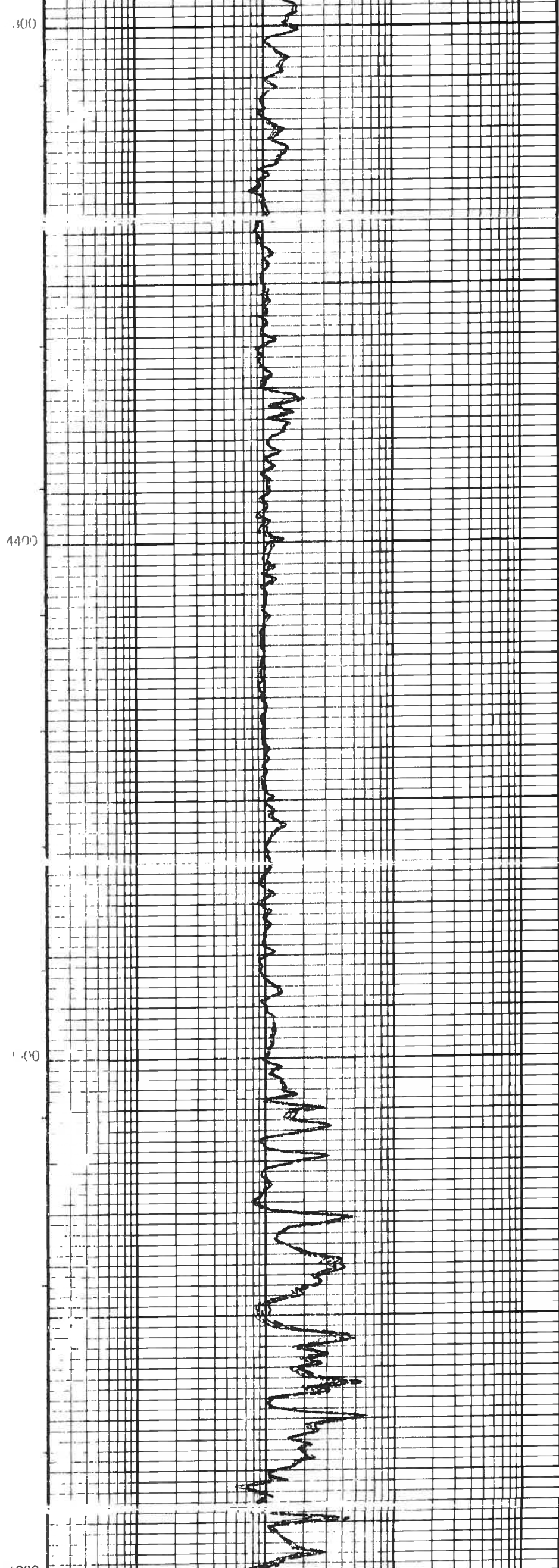
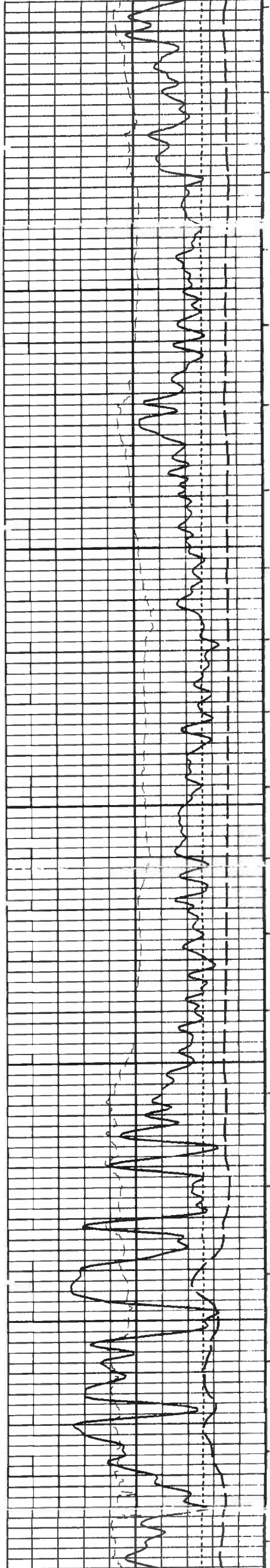


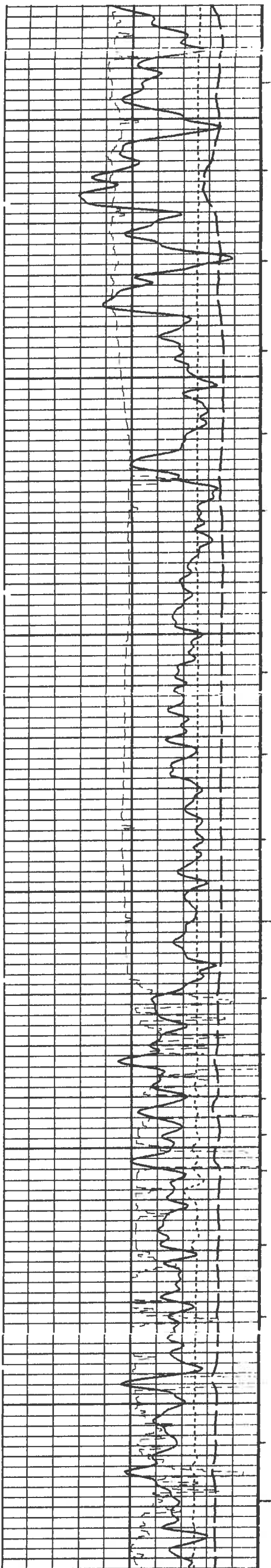
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4200

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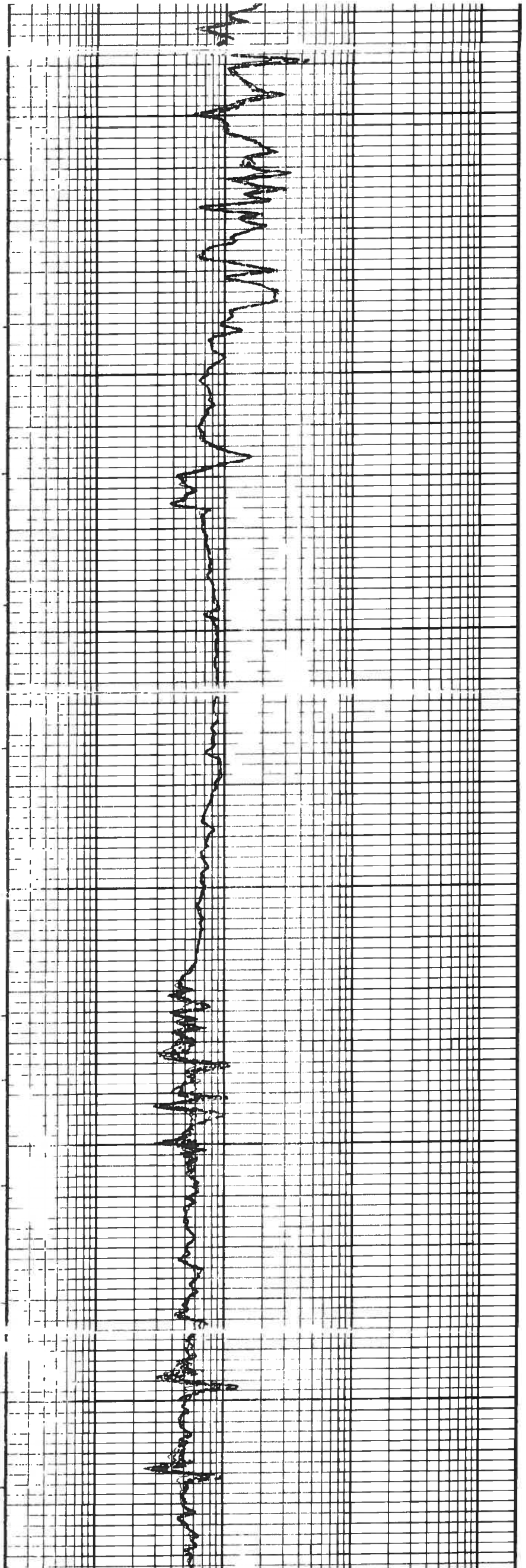


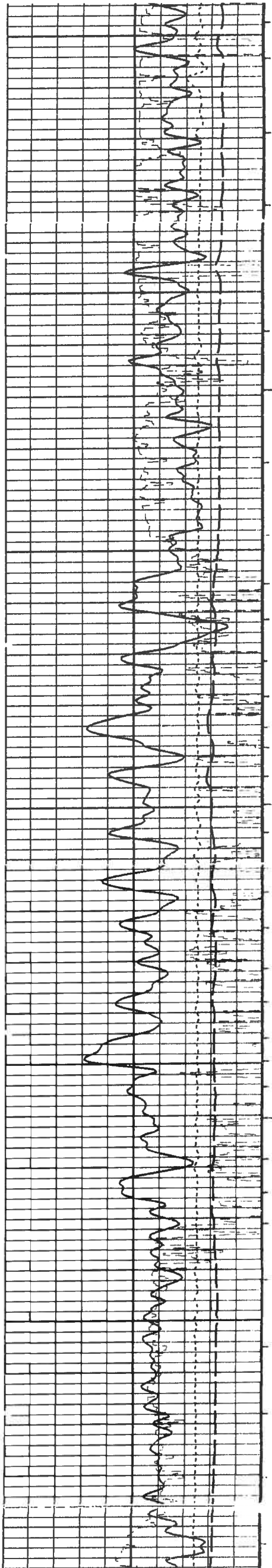


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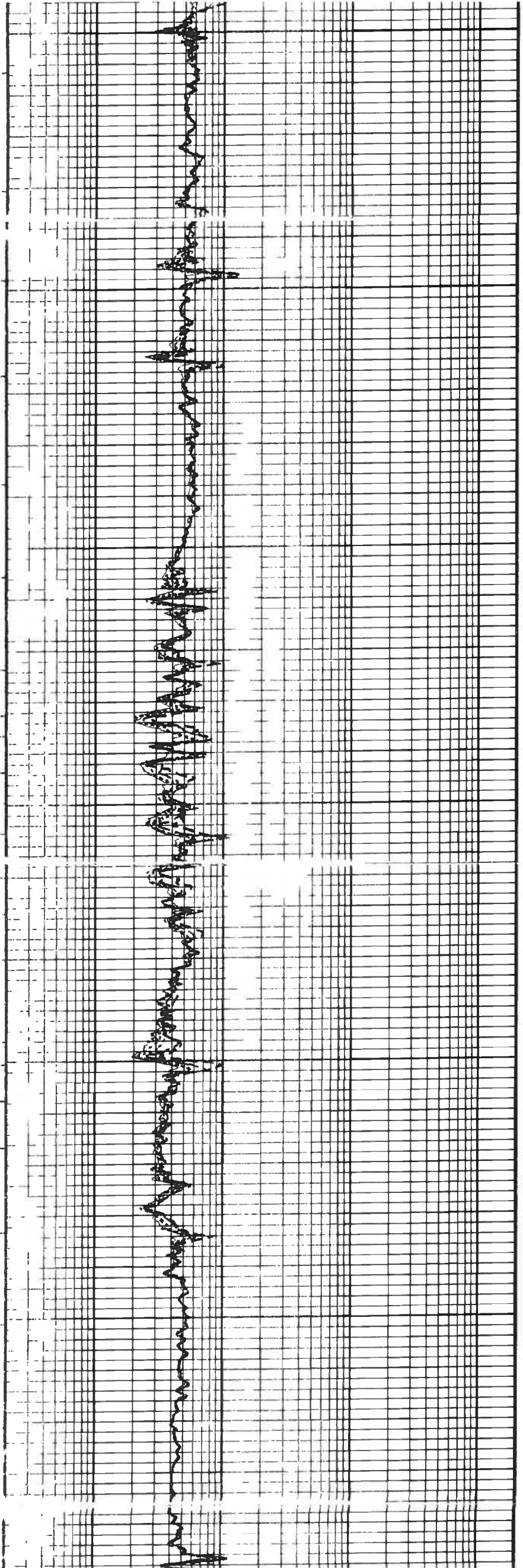


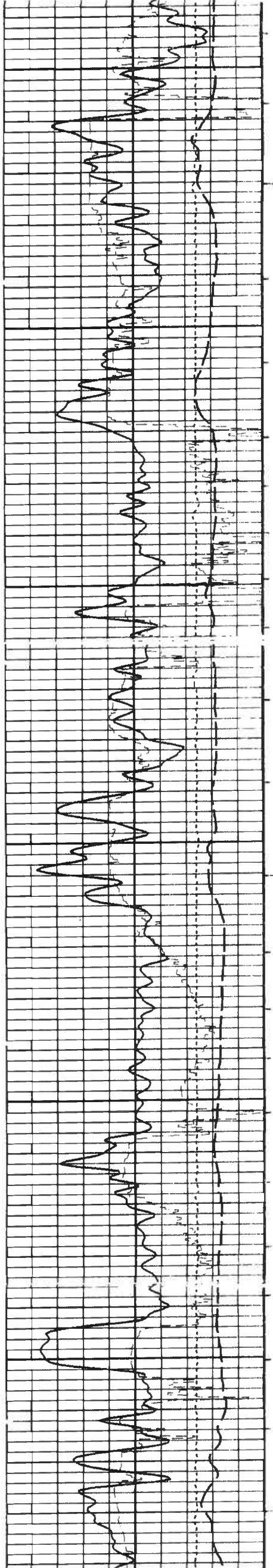


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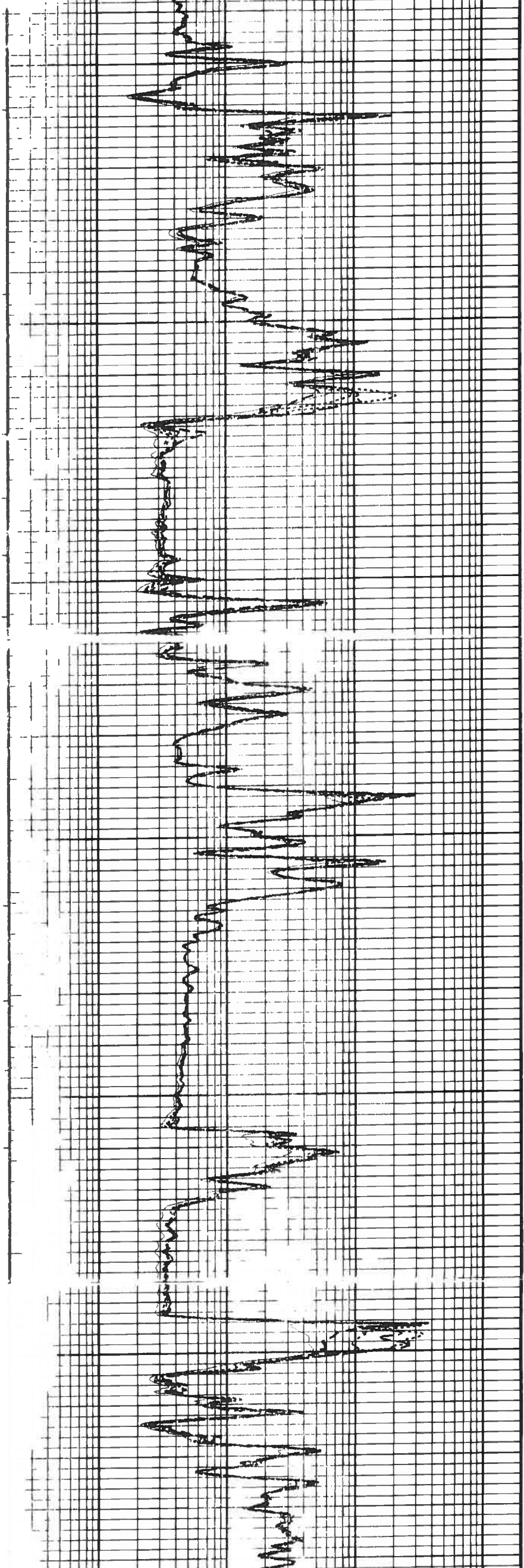
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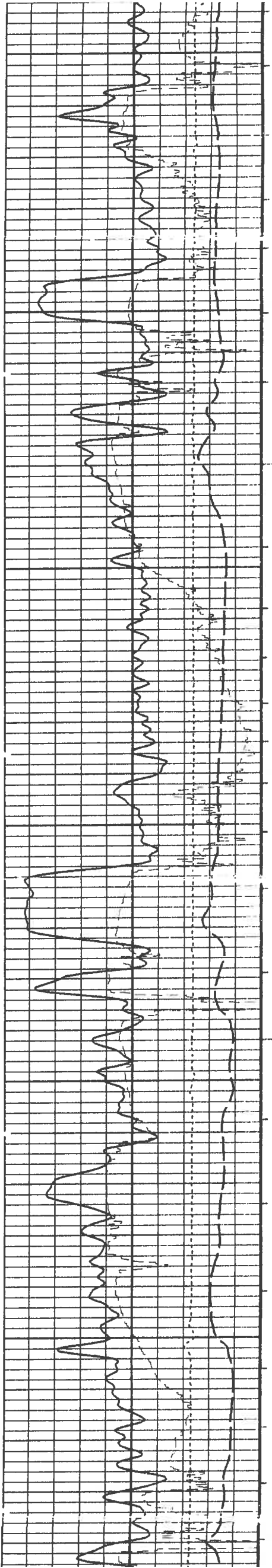




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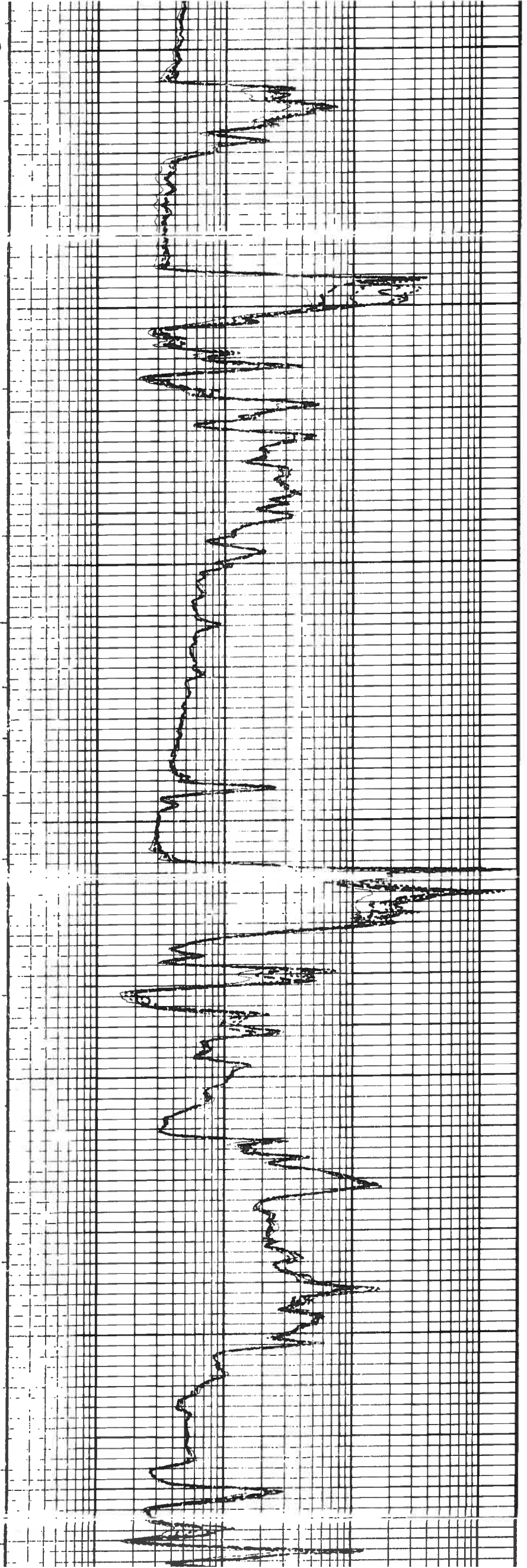


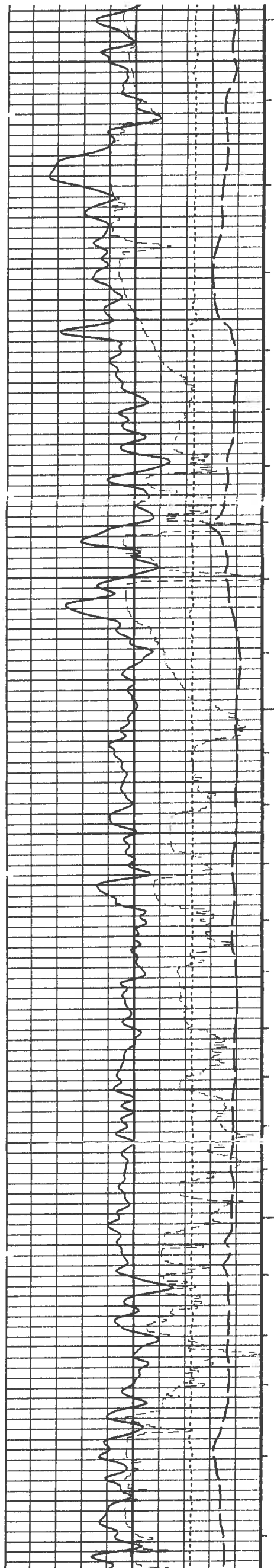


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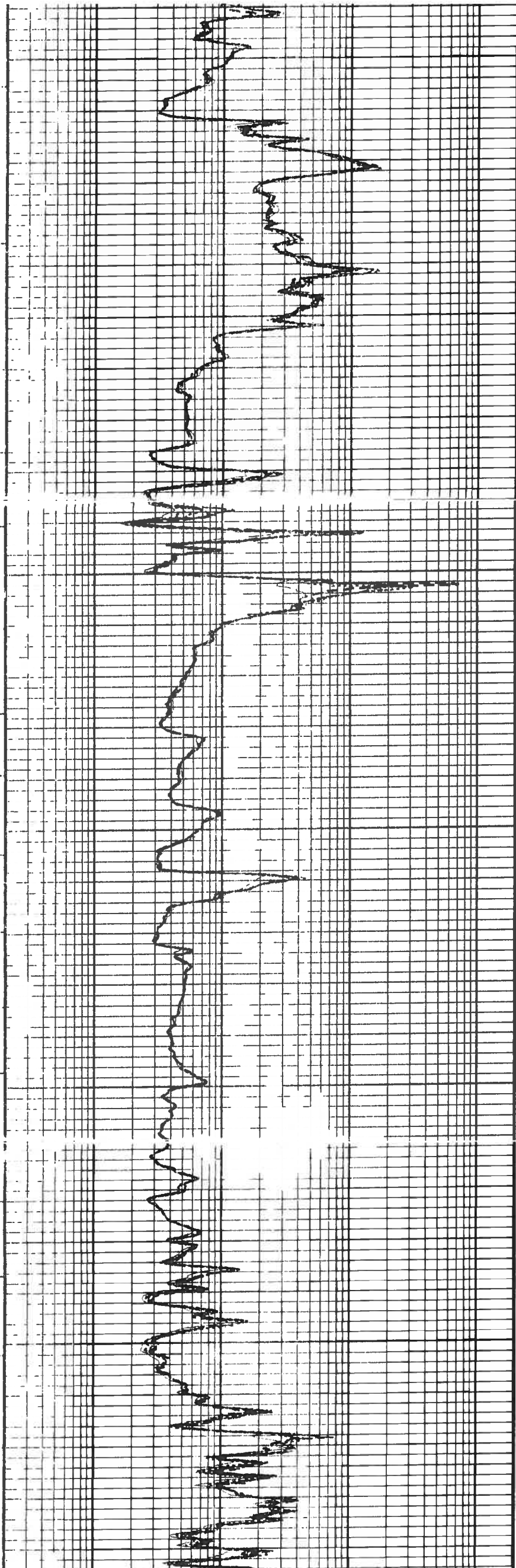


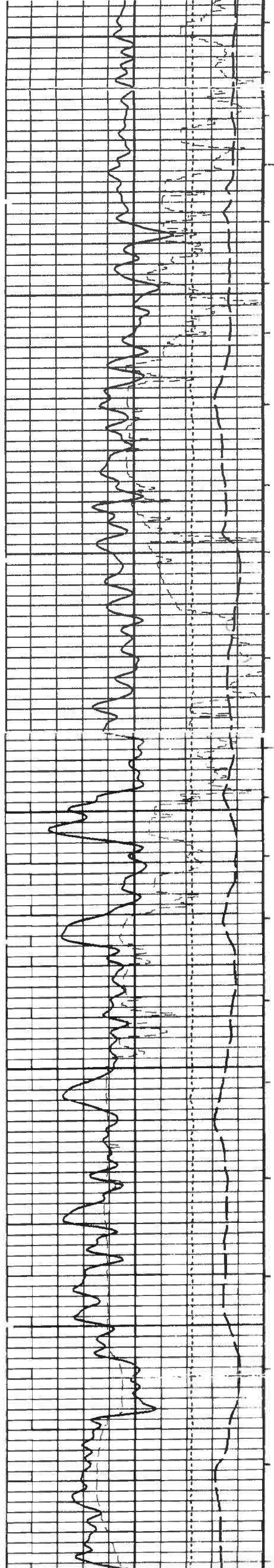


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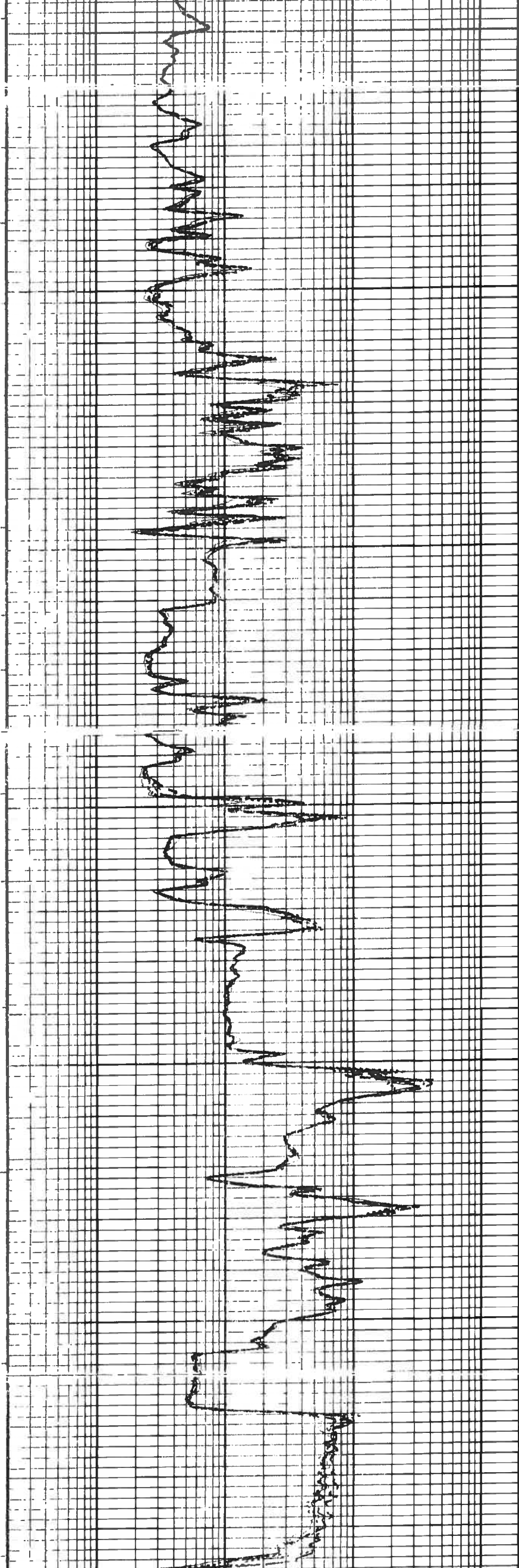


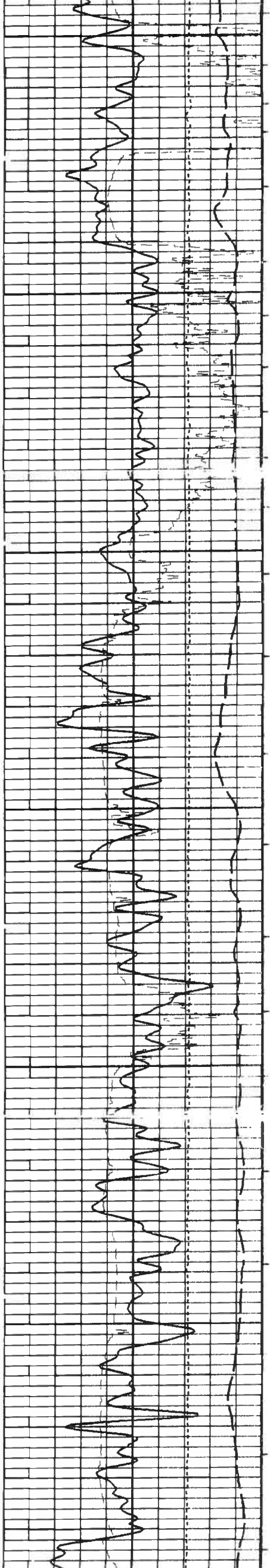


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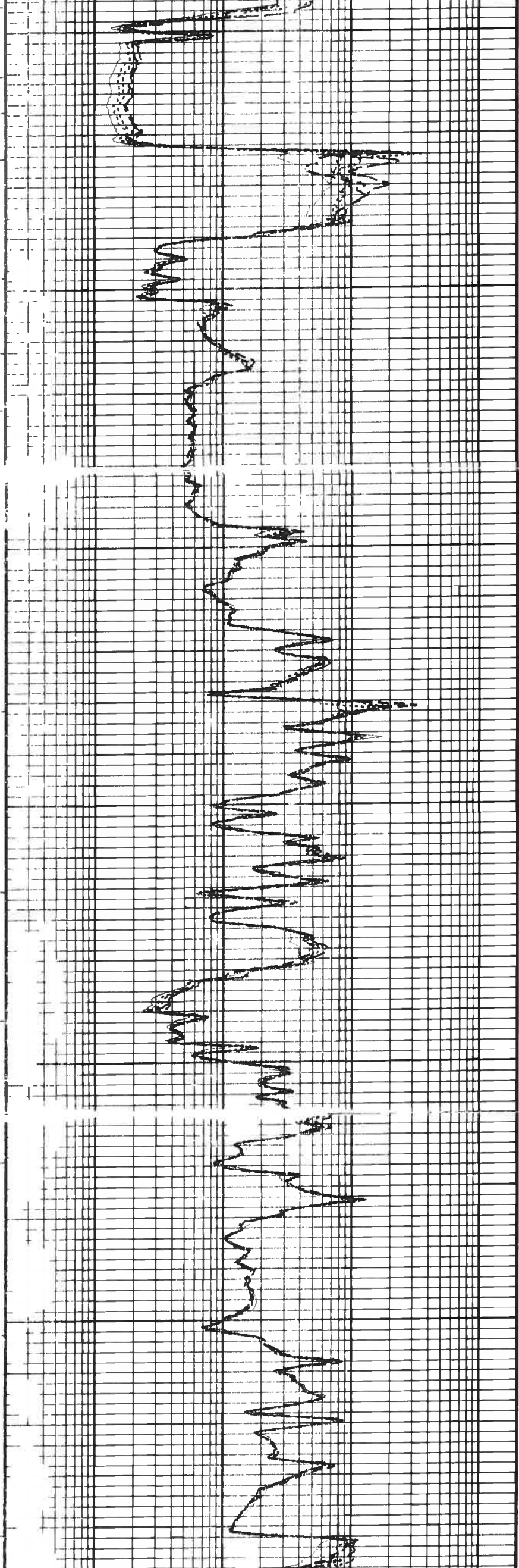
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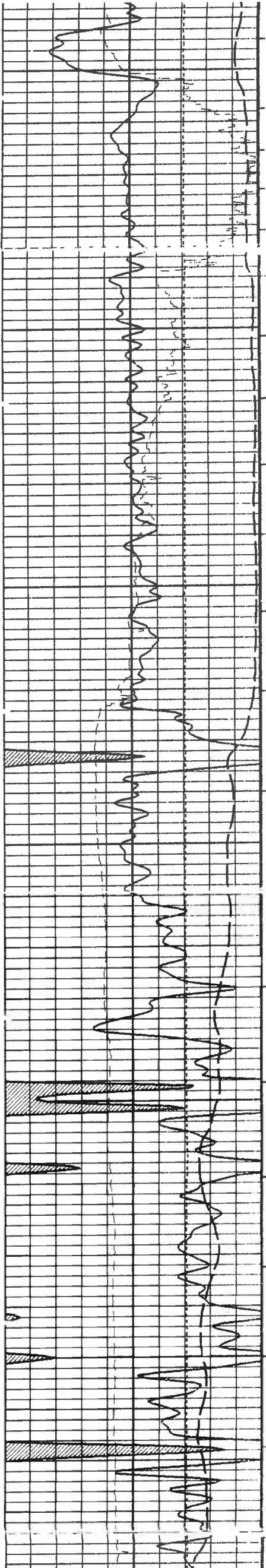




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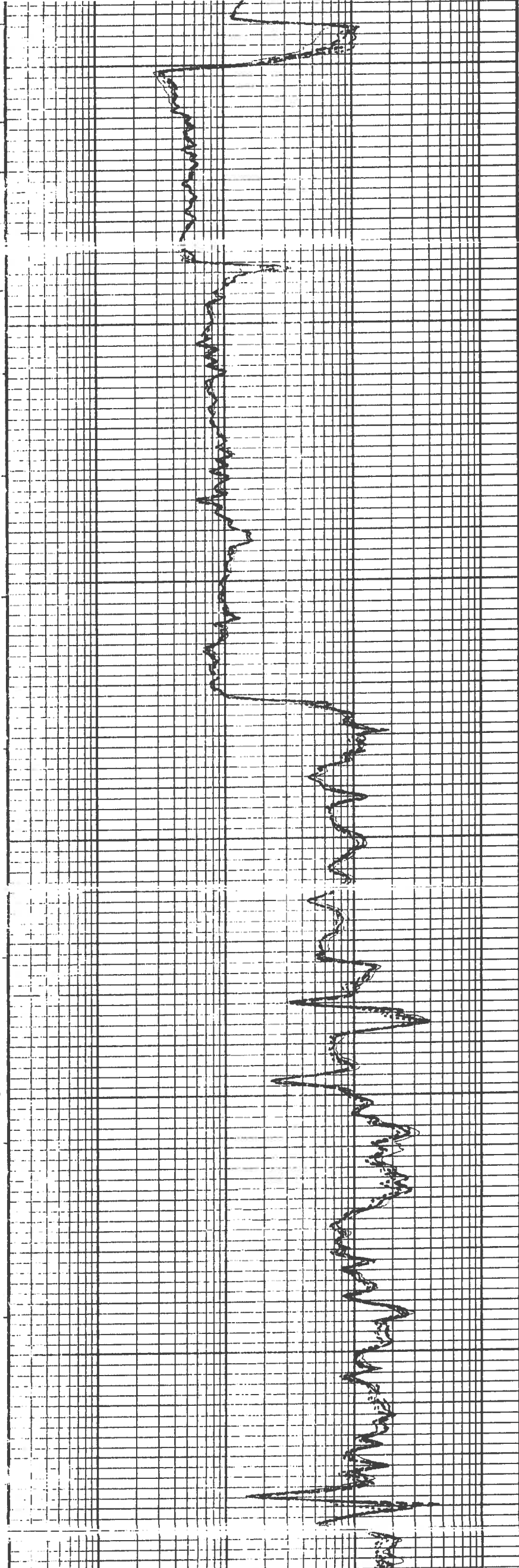
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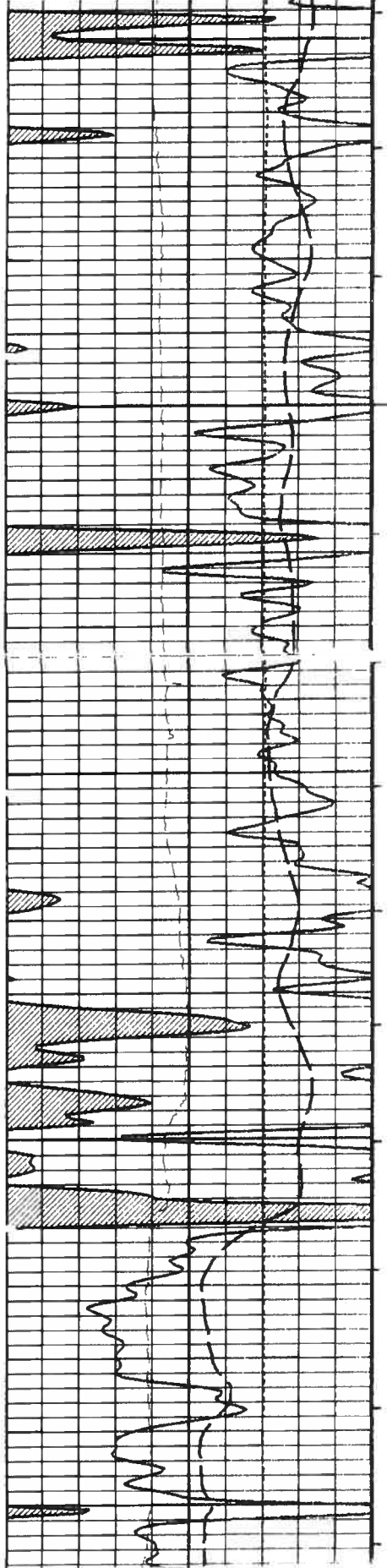


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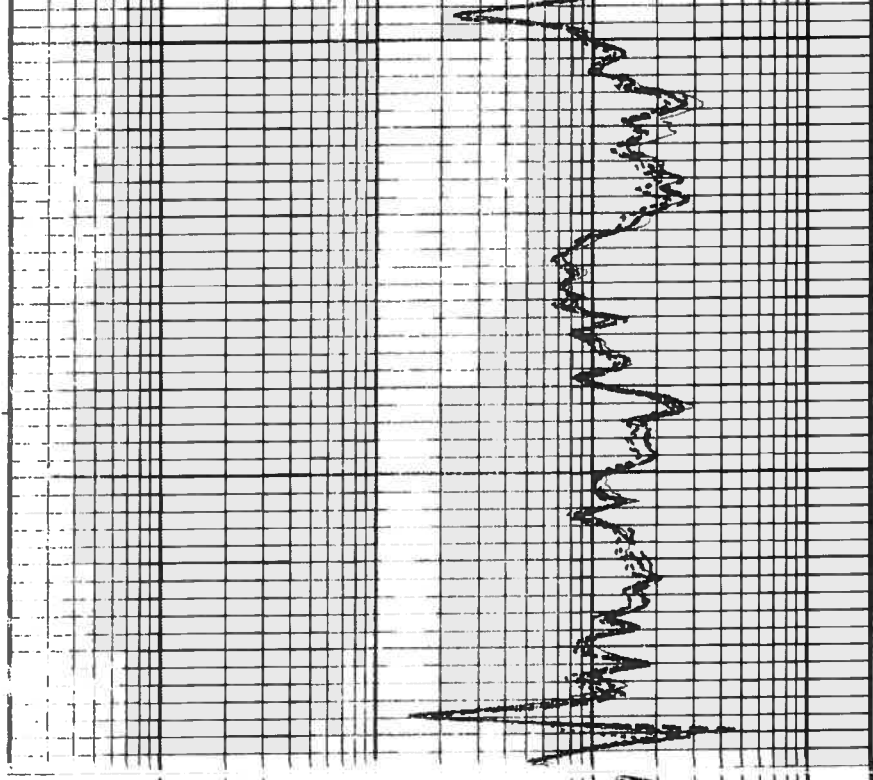
€ 400

€ 500

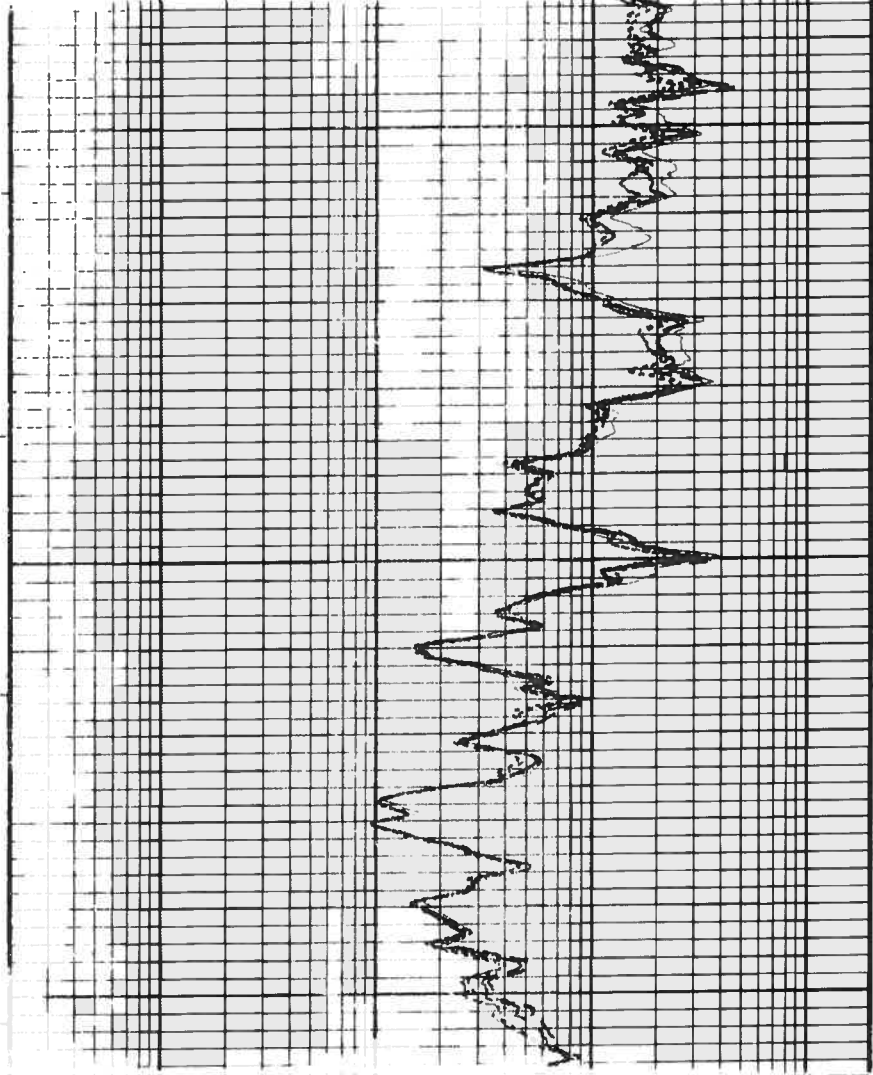




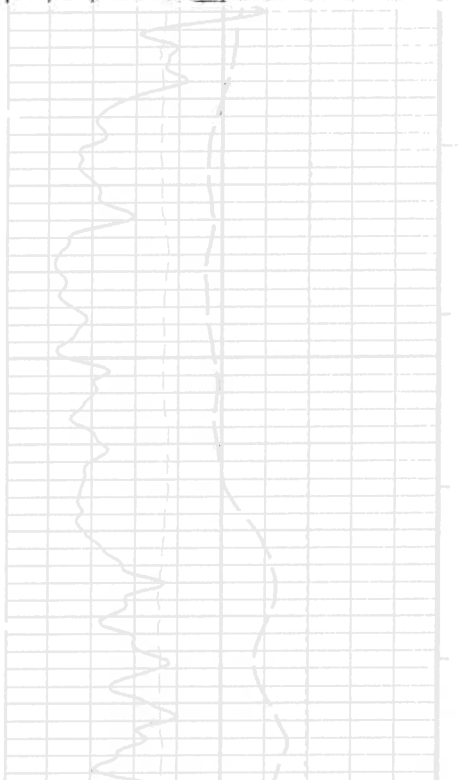
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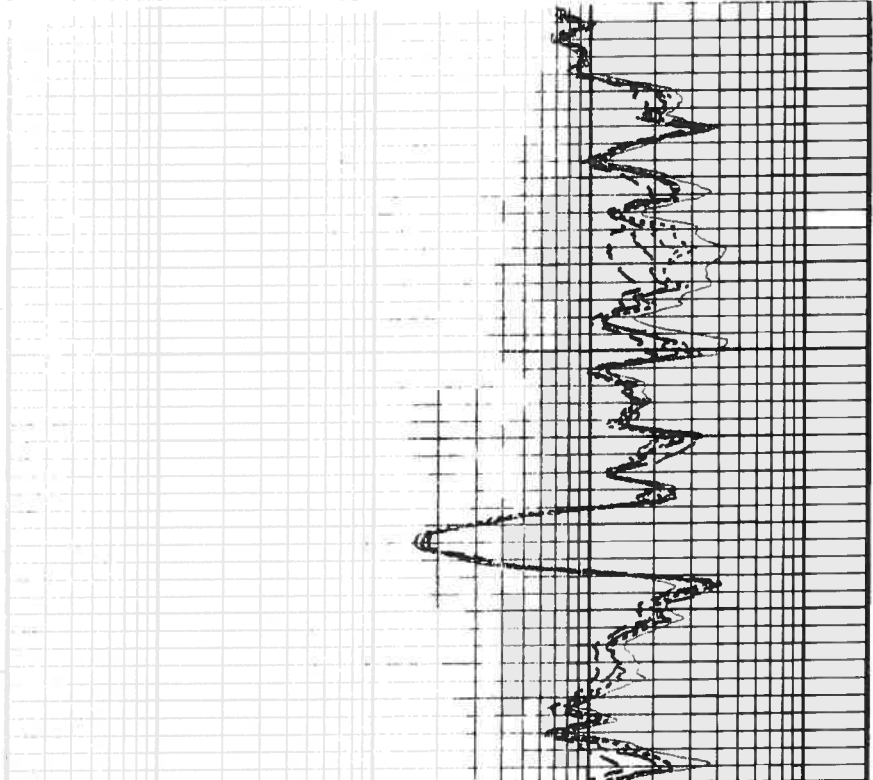
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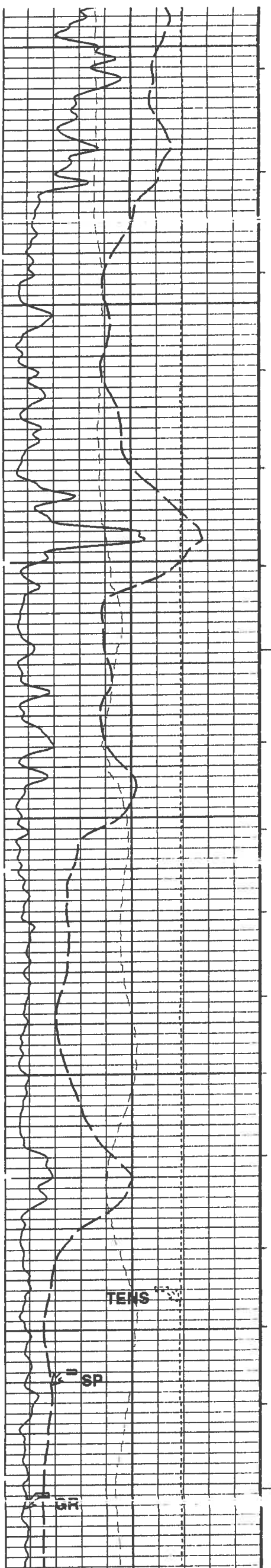


6700



6800

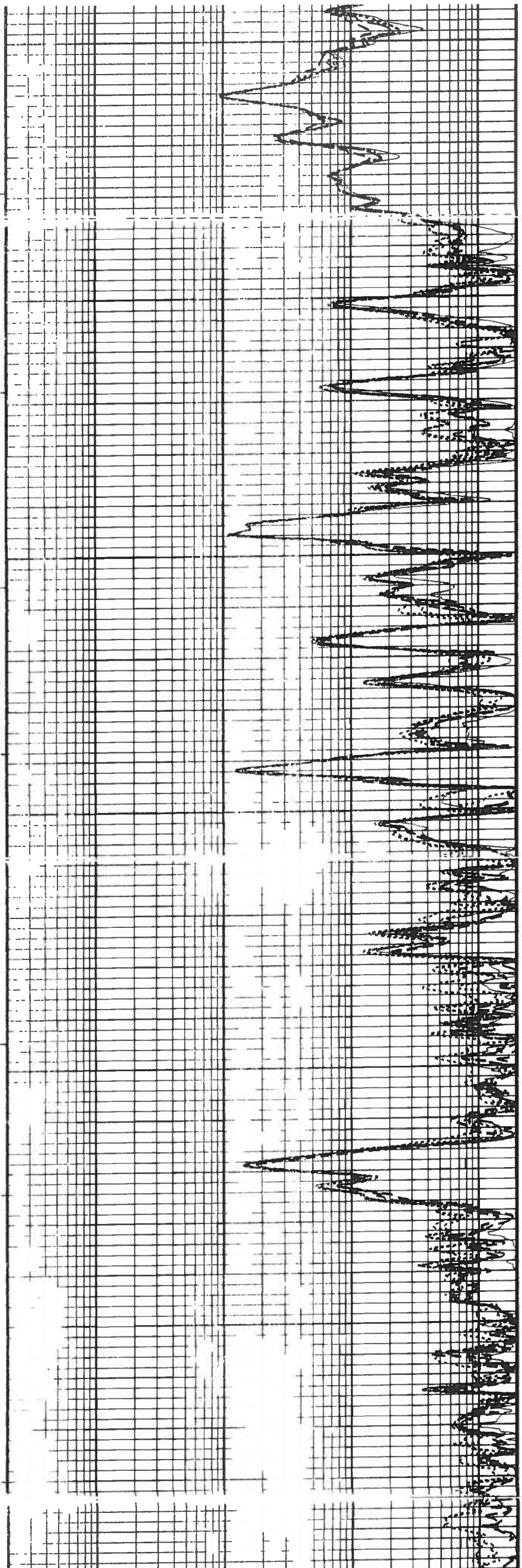




6800

6900

7000



7000

TENS

SP

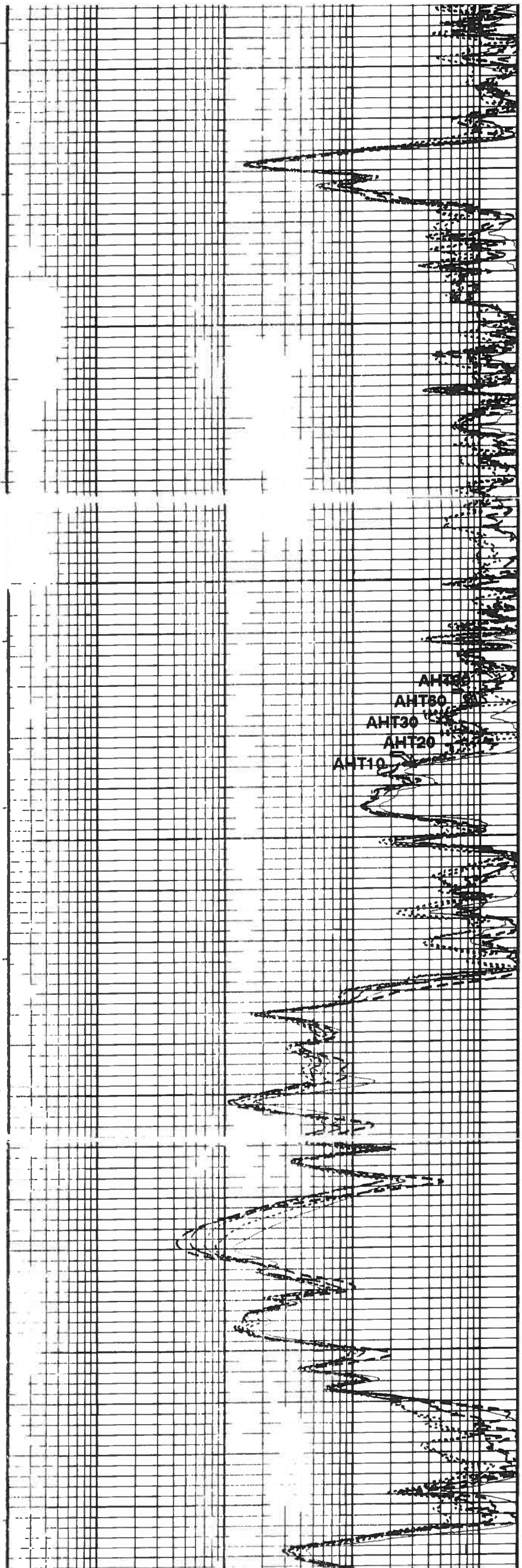
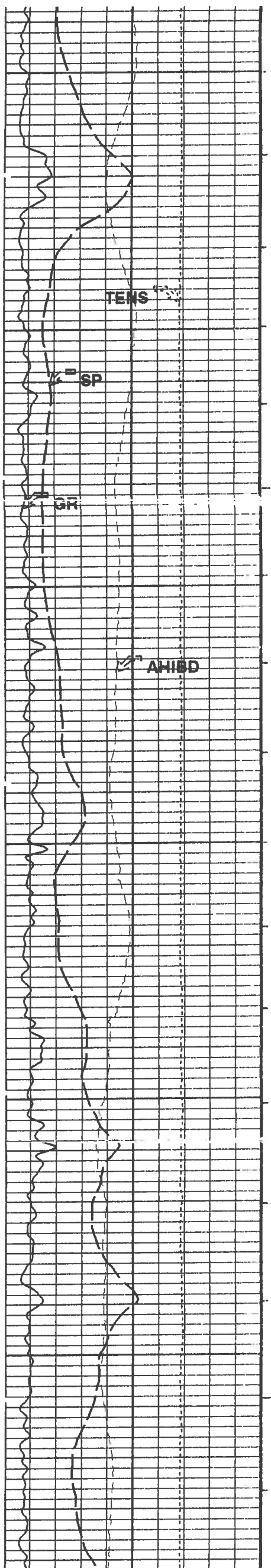
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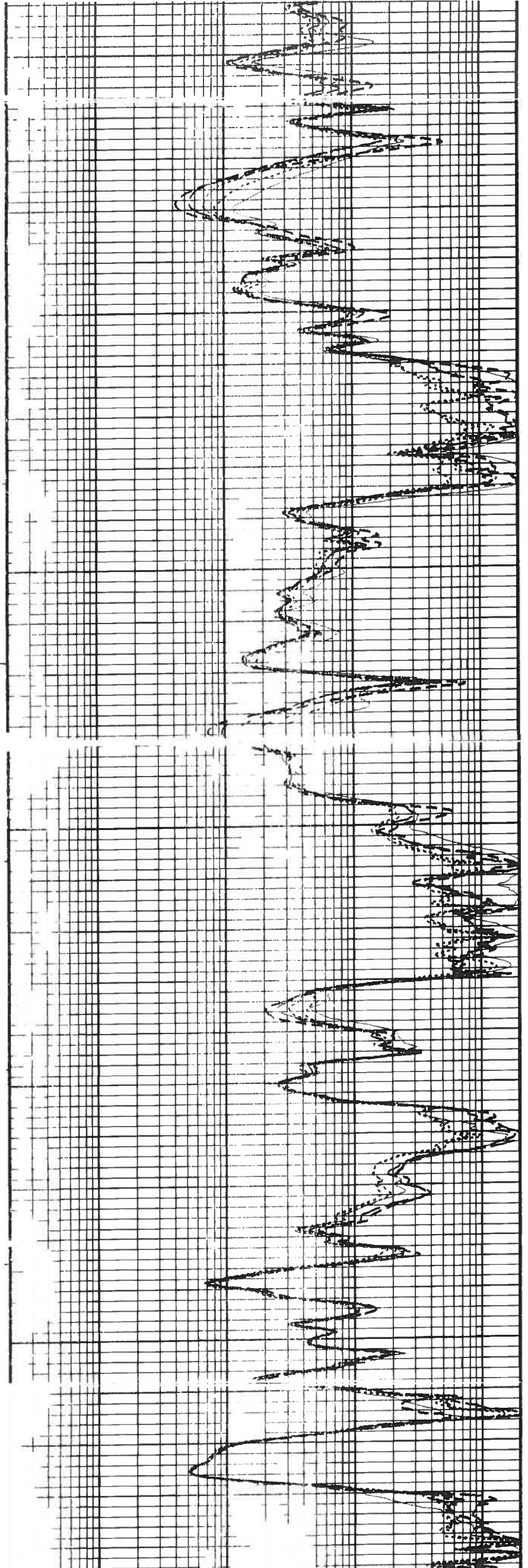
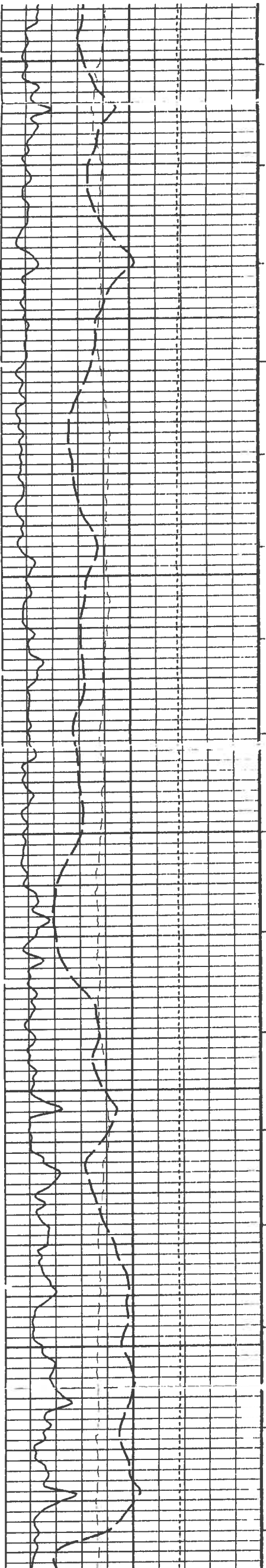
AH100

AH100
AH150
AH200
AH250
AH300
AH350
AH400
AH450
AH500
AH550
AH600
AH650
AH700
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AH800
AH850
AH900
AH950
AH1000

7200

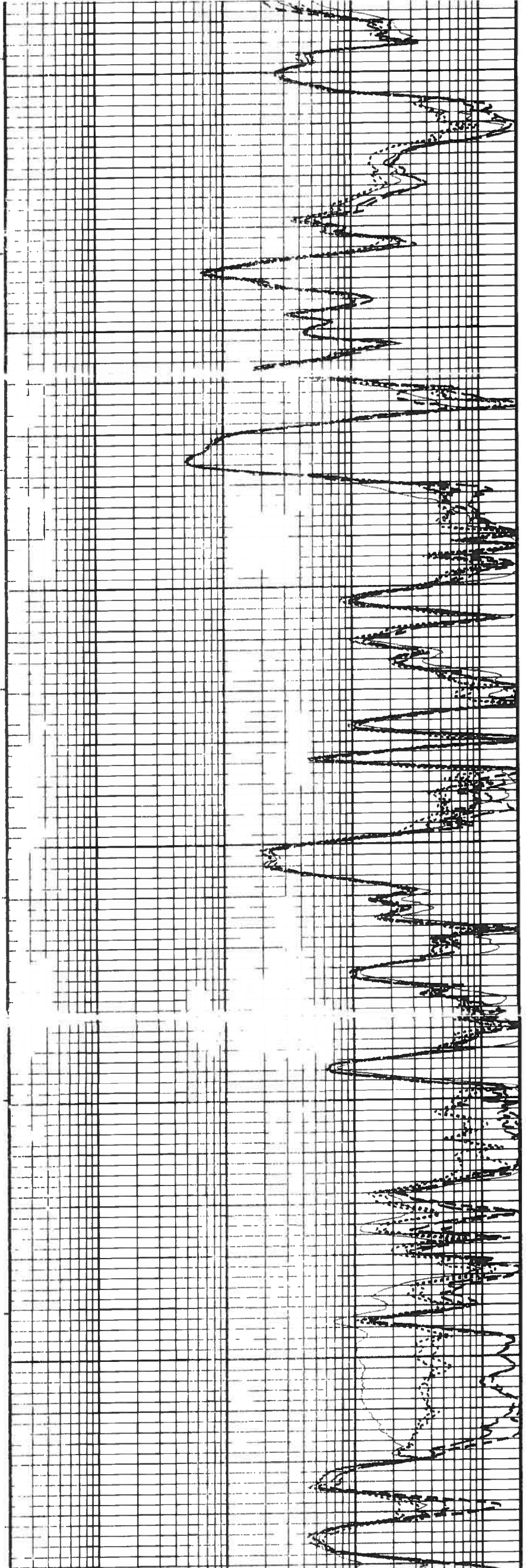
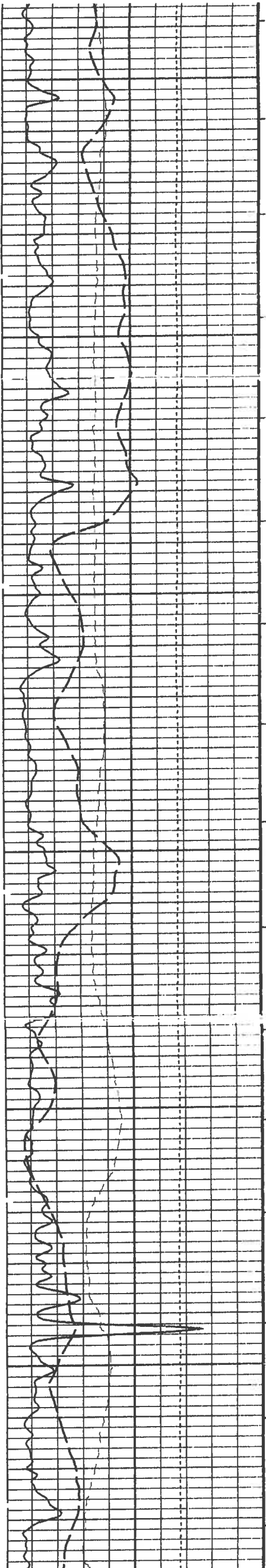


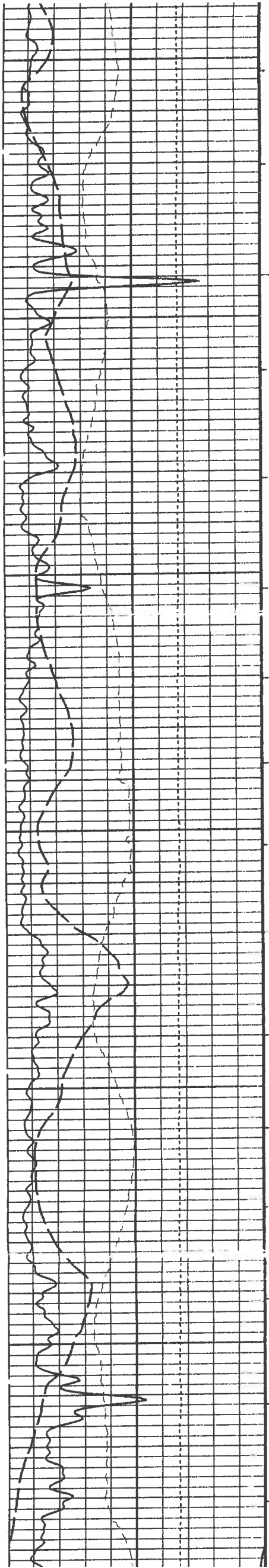
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7400

7600

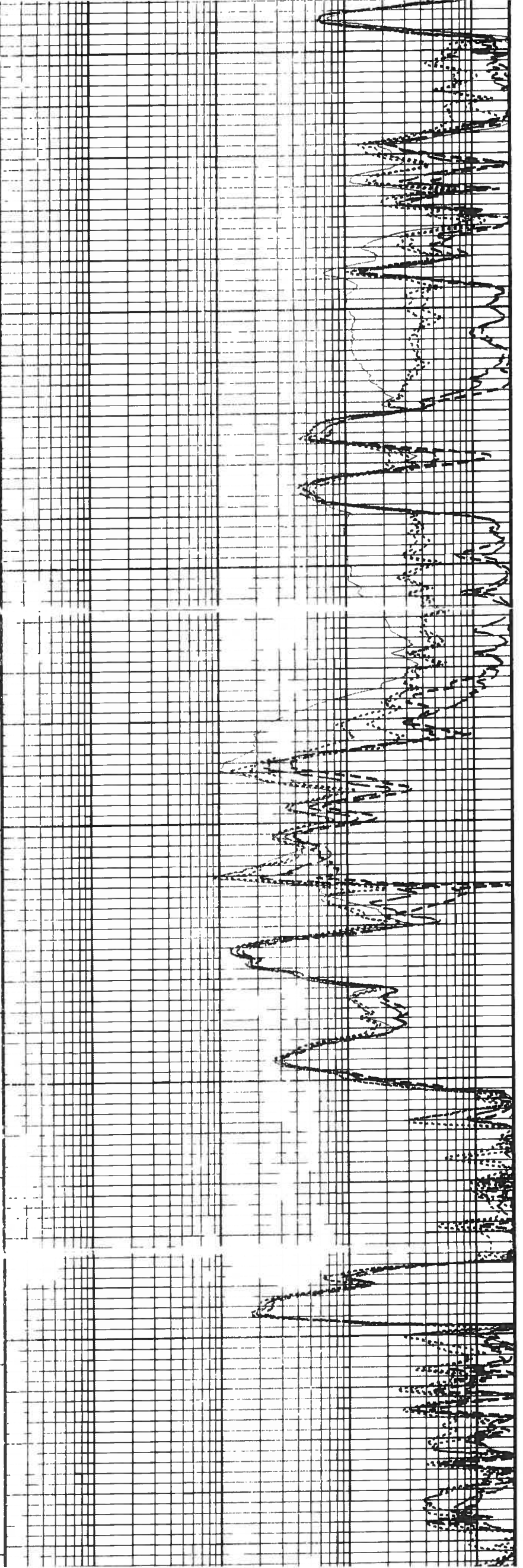




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7700

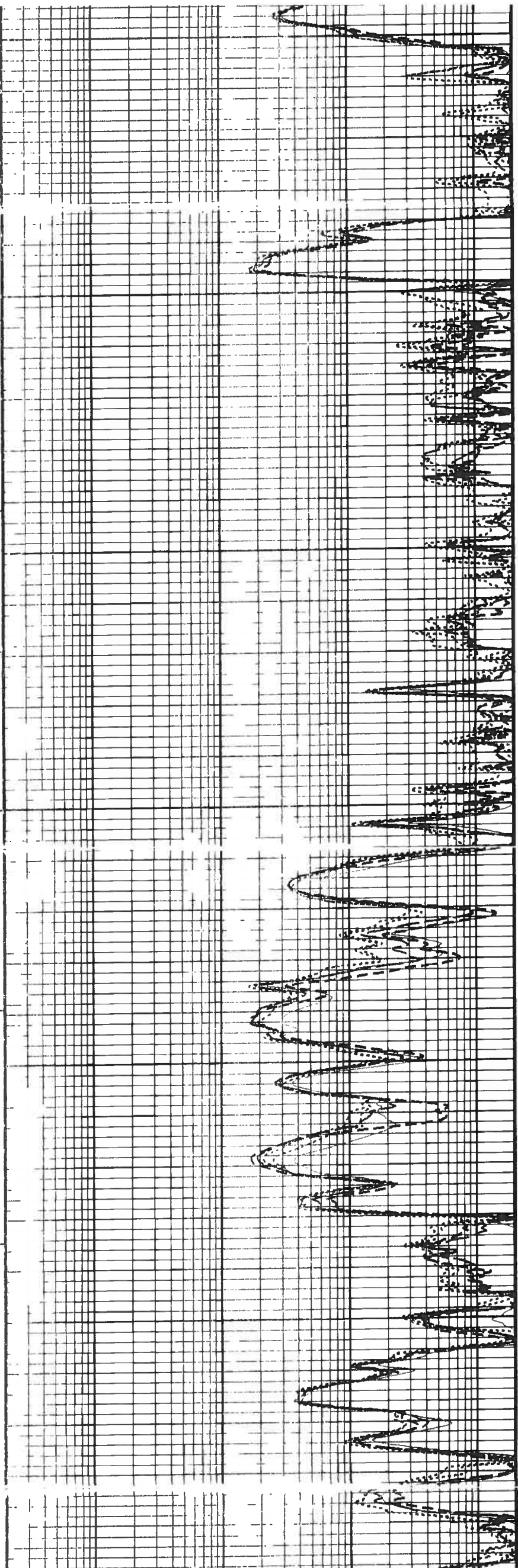
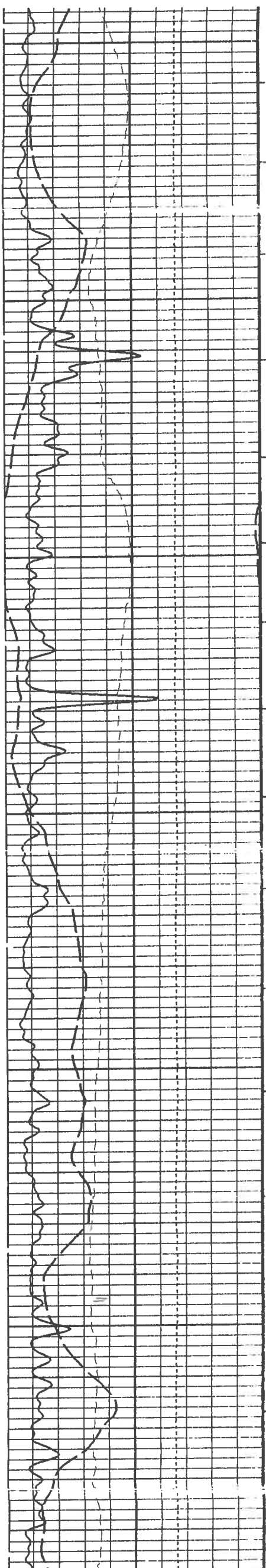
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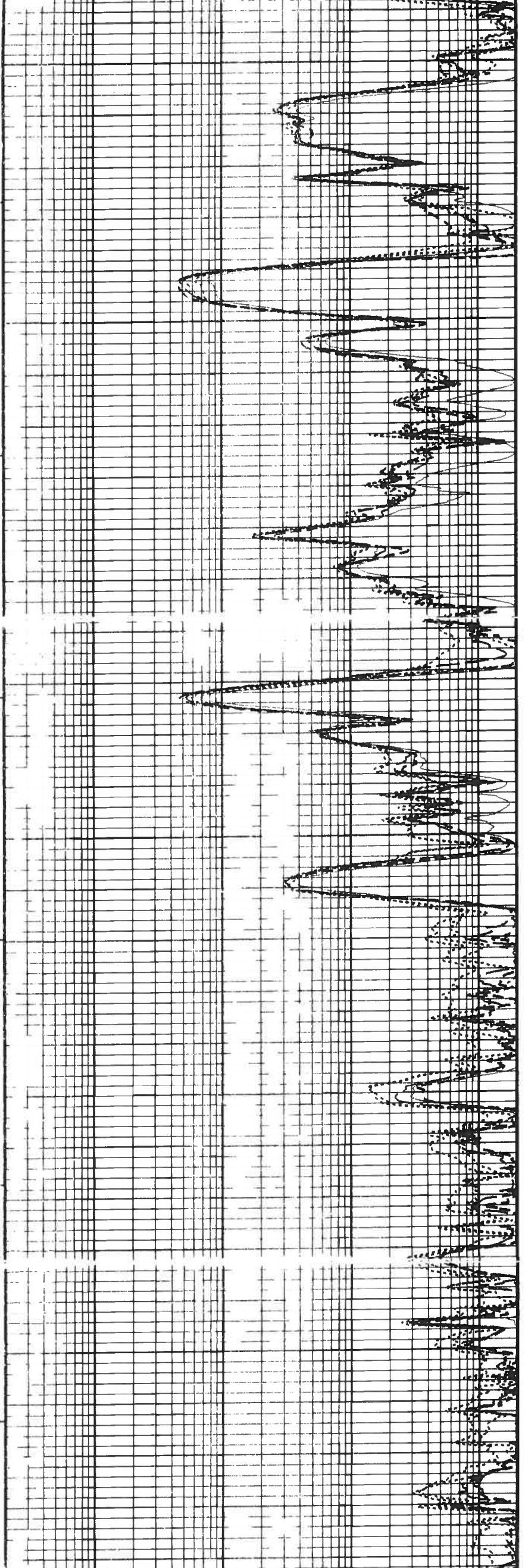
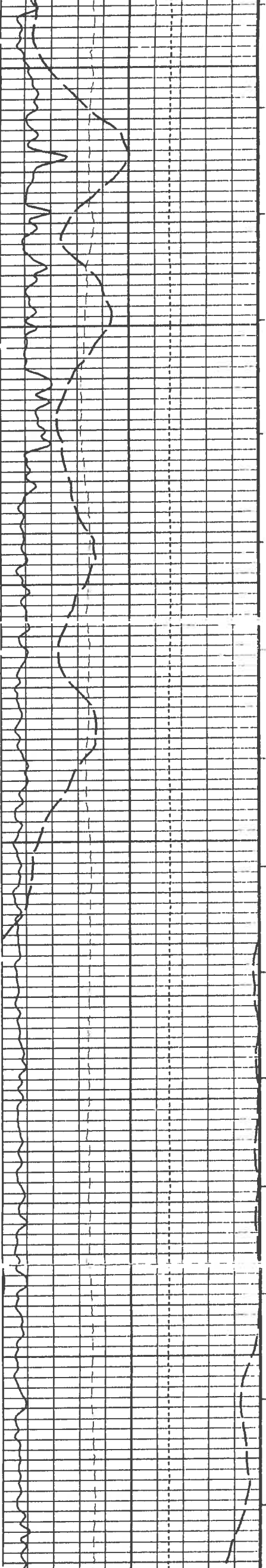
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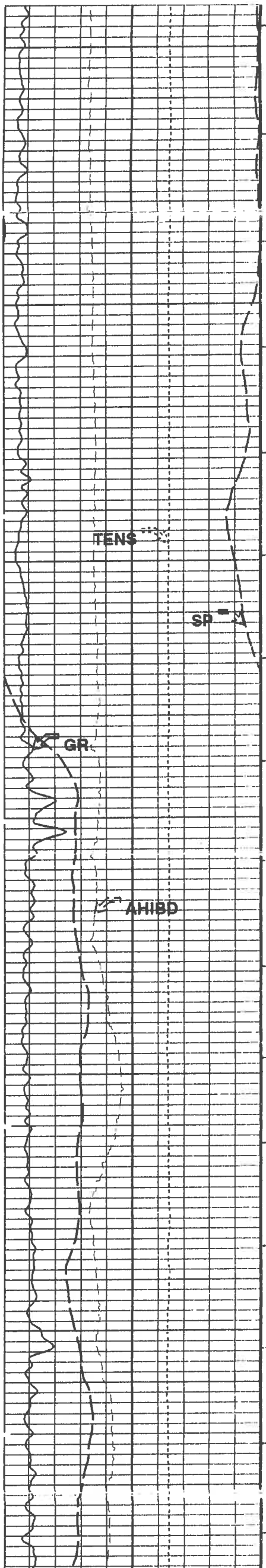
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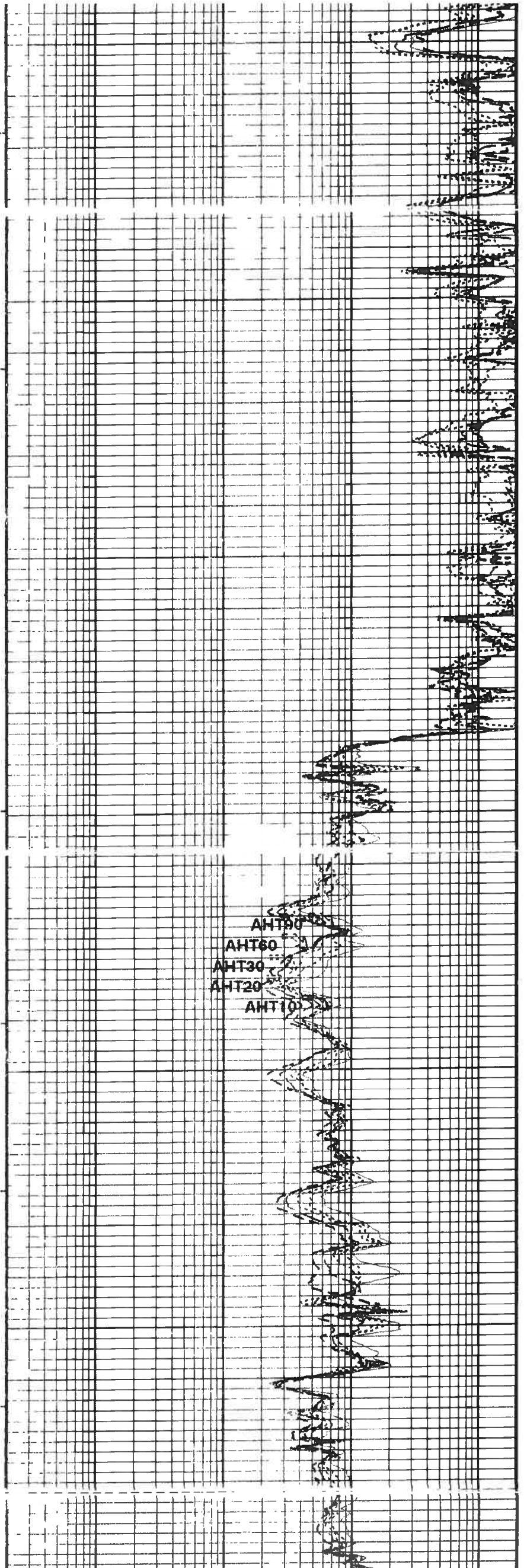


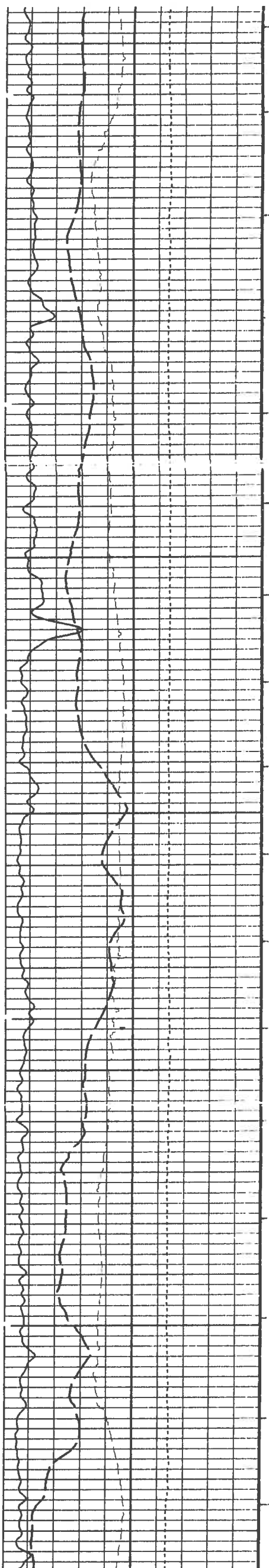


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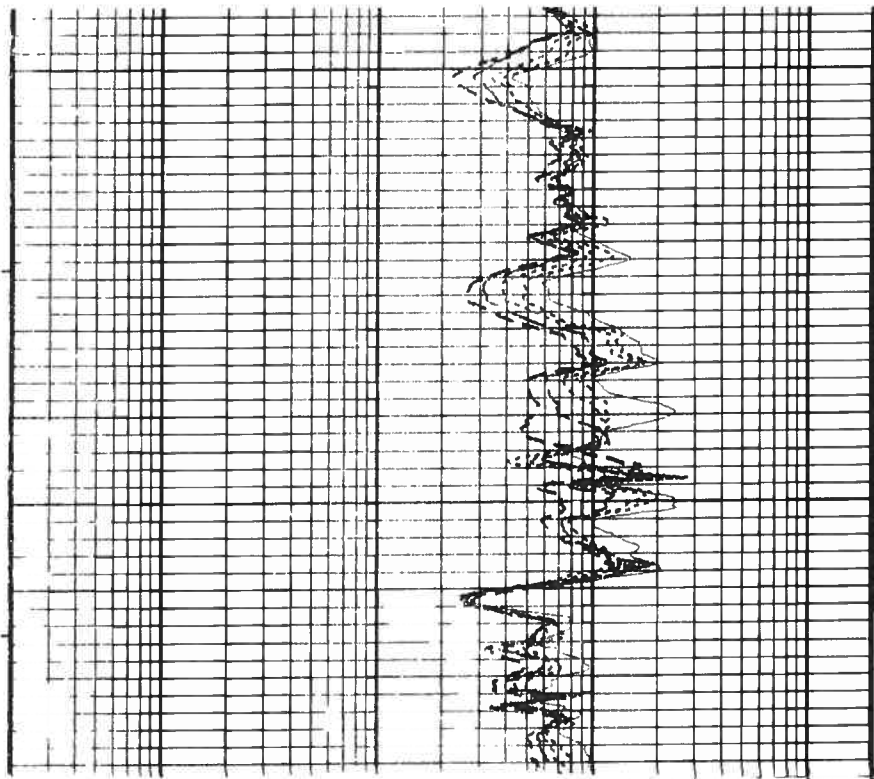
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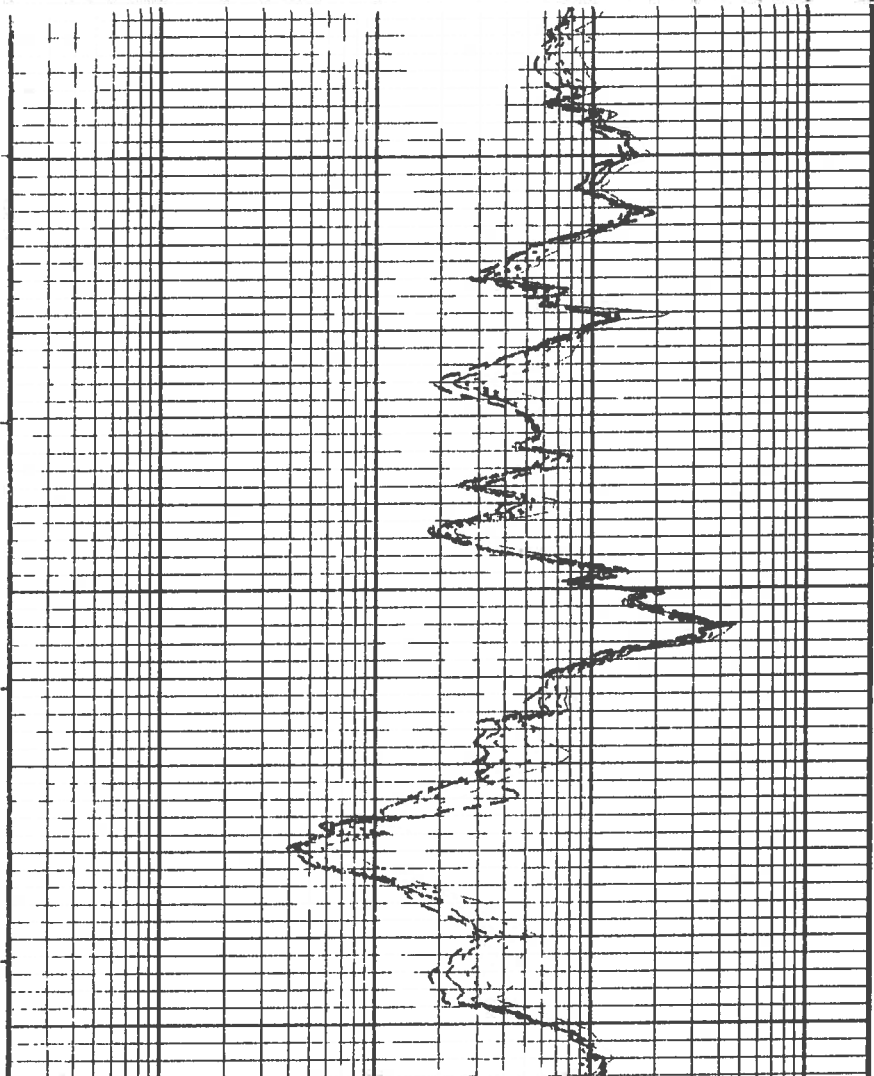




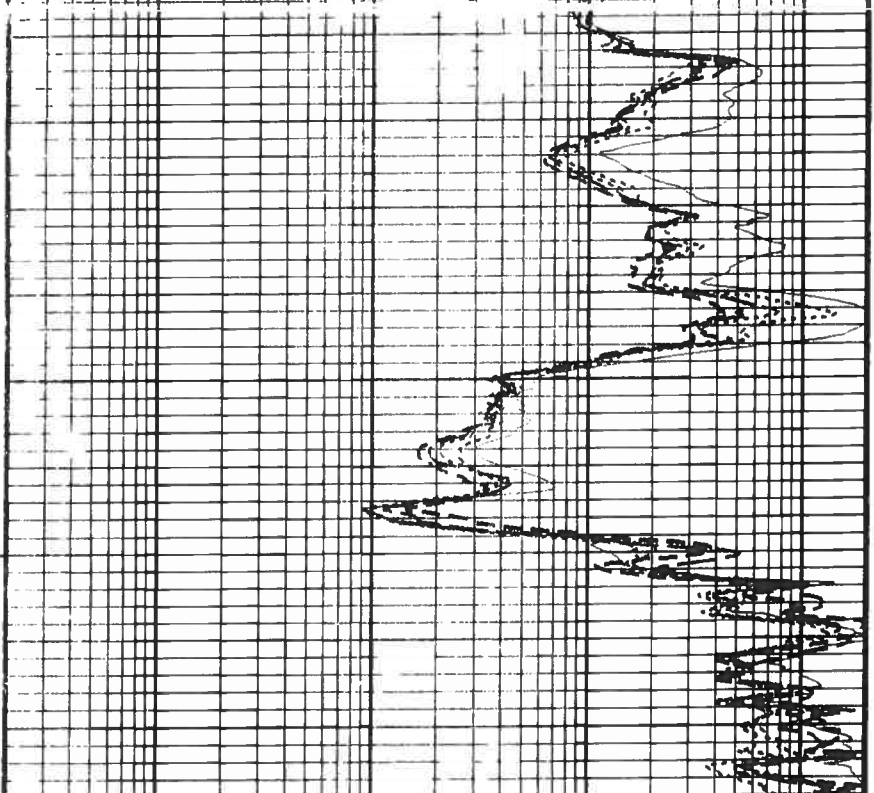
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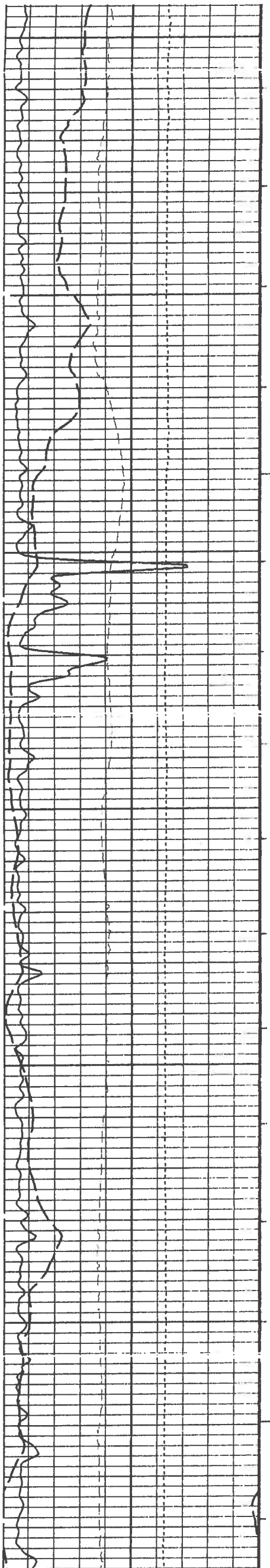


8600



8500

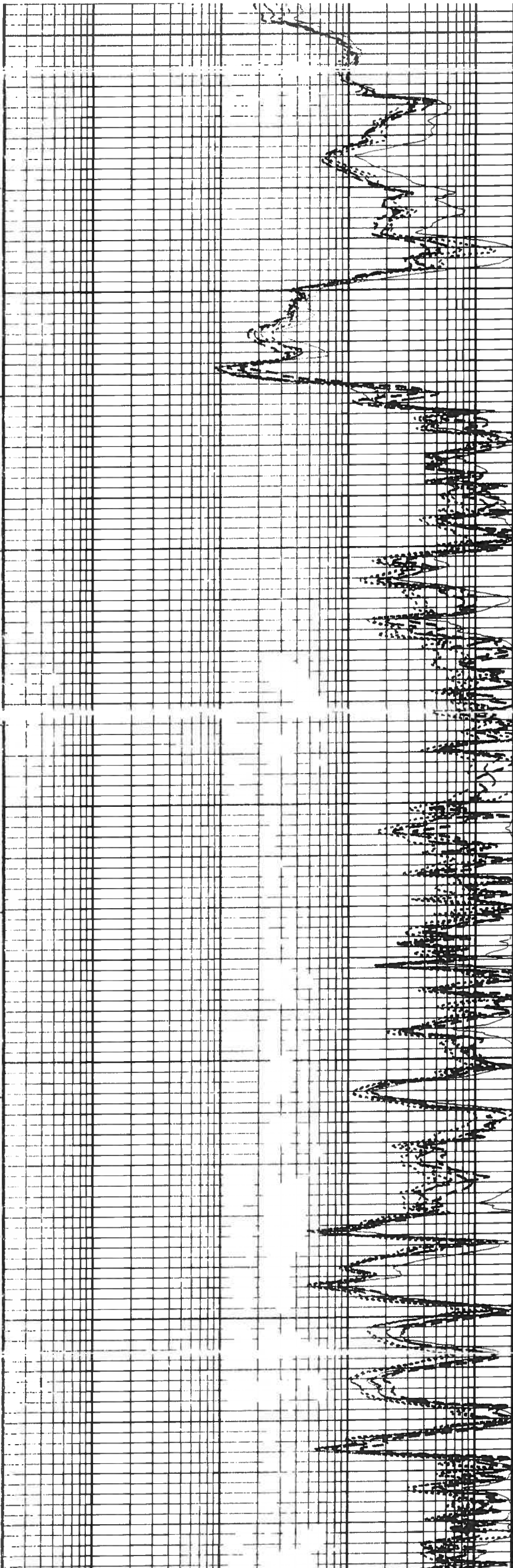


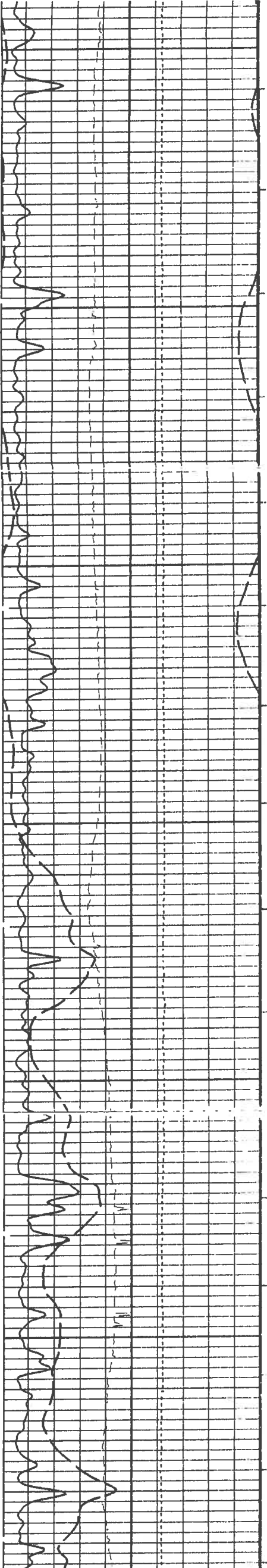


8700

8500

8300

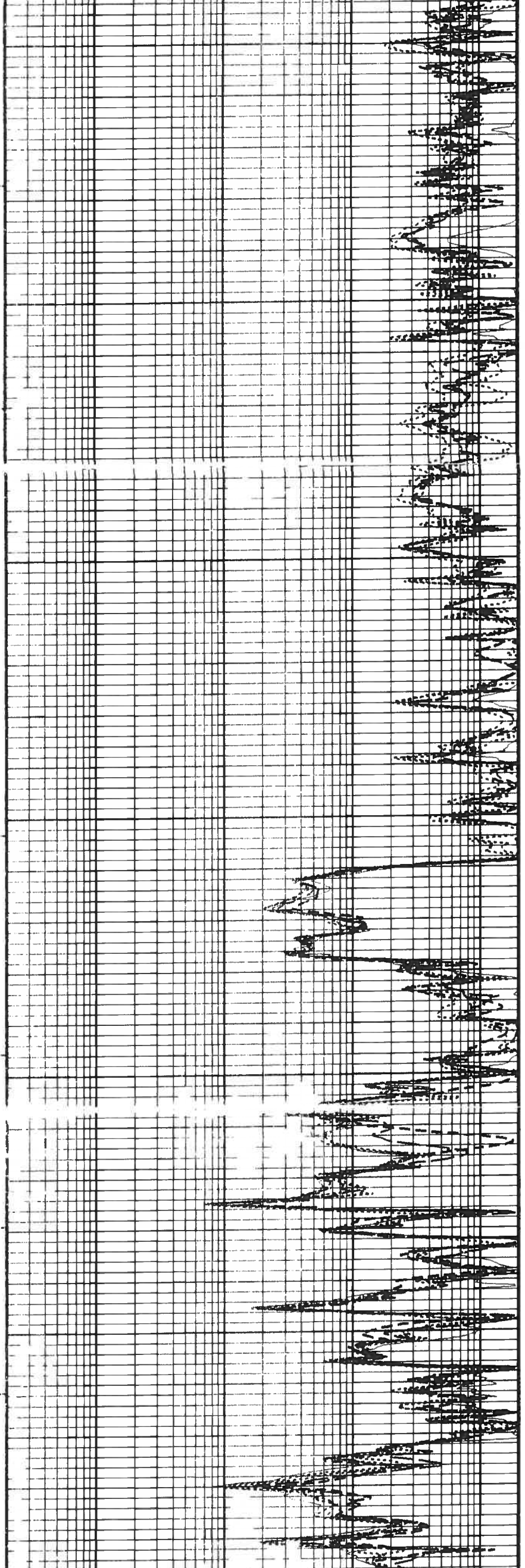


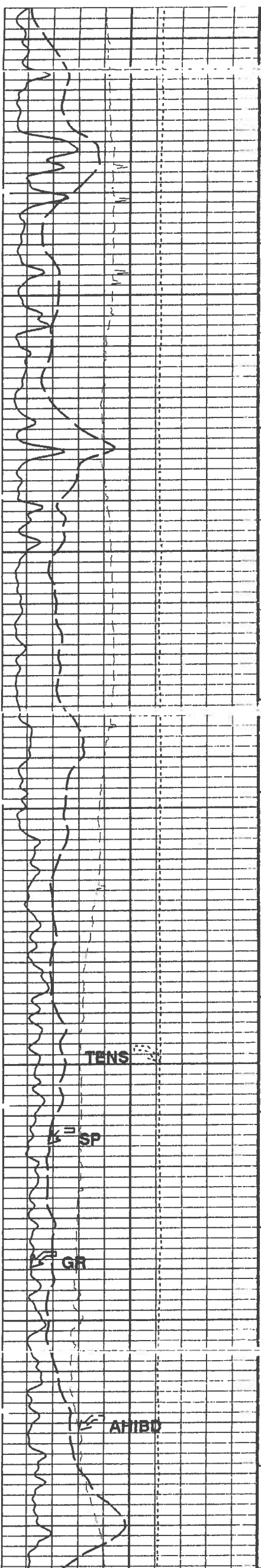


9100

9100

9200





9200

9100

9000

TENS

SP

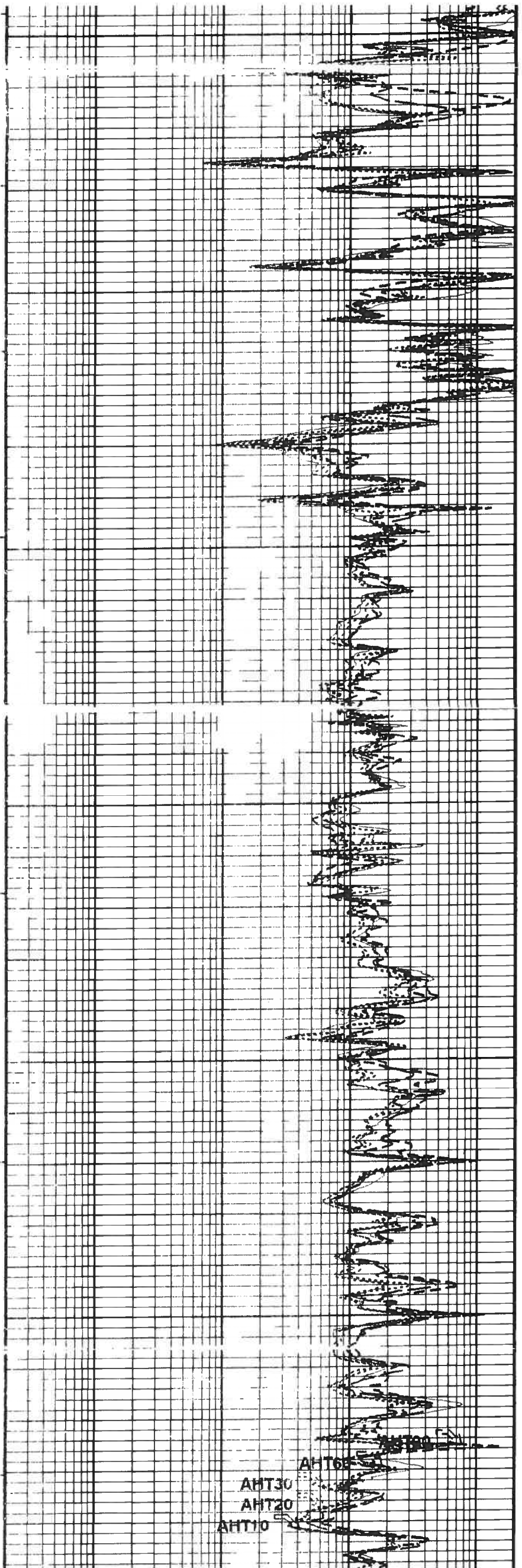
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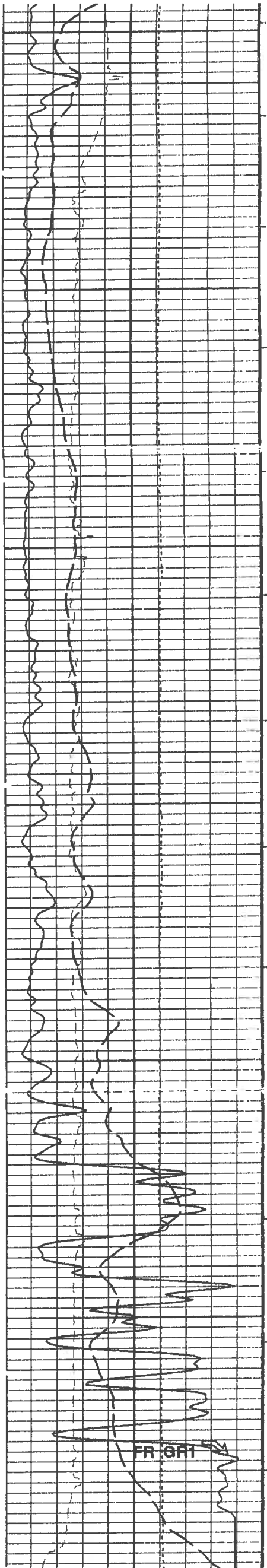
AHT10

AHT30
AHT20
AHT10

AHT60

AHT90



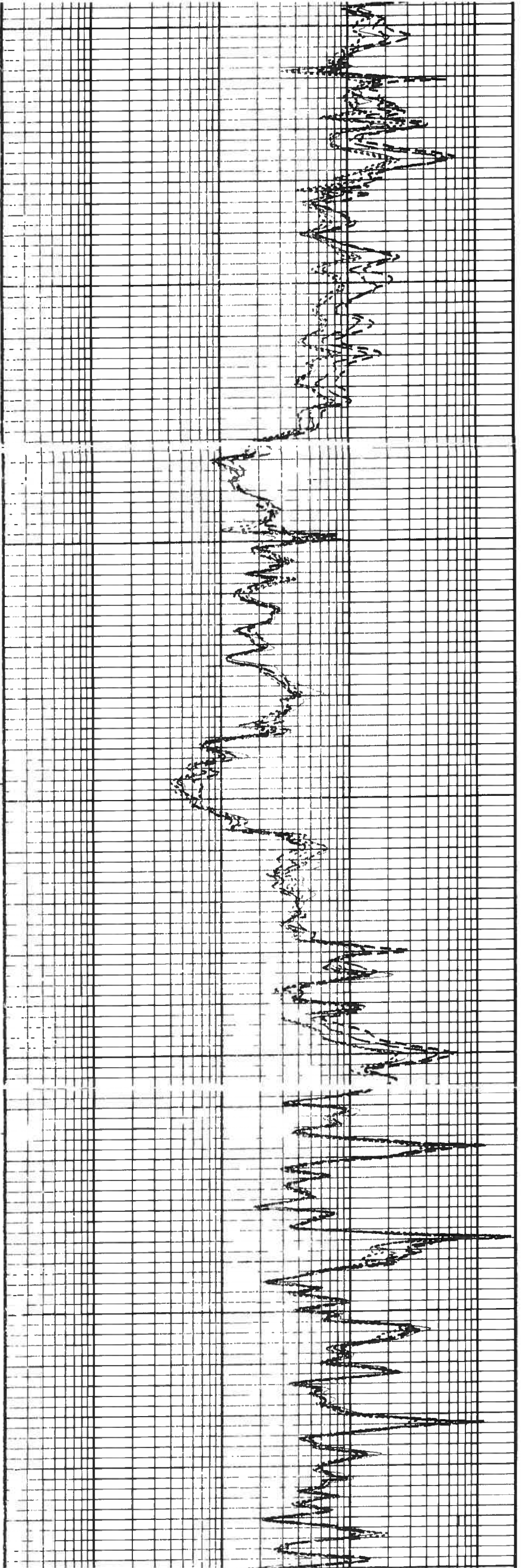


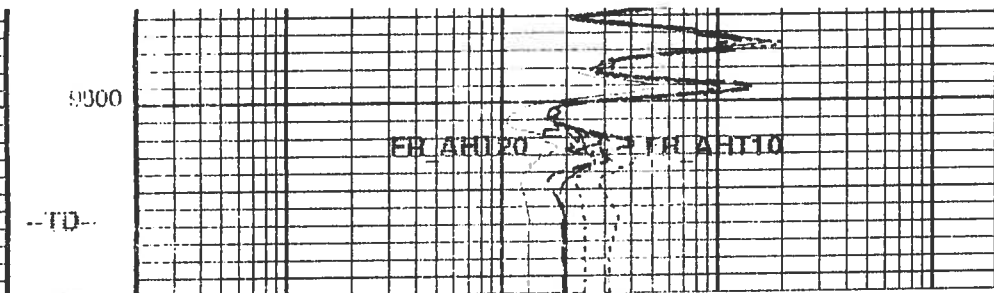
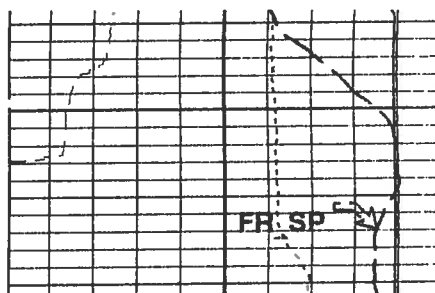
9500

9500

9500

9500





GAMMA RAY BACKUP		0.2	AIT-H 10 Inch Investigation (AHT10) (OHMM)	2000
AIT-H Input Bhole Diameter (AHIBD) (IN)	6 16	0.2	AIT-H 20 Inch Investigation (AHT20) (OHMM)	2000
Gamma Ray (GR) (GAPI)	0 150	0.2	AIT-H 30 Inch Investigation (AHT30) (OHMM)	2000
Tension (TENS) (LBF)	10000 0	0.2	AIT-H 60 Inch Investigation (AHT60) (OHMM)	2000
SP (SP) (MV)	-160 40	0.2	AIT-H 90 Inch Investigation (AHT90) (OHMM)	2000

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

AIT-H Answer Product Processing Summary. Data taken with Tool # 274 (AHTNO)

...Acquired data from HILT/HAIT

***** Borehole Correction *****

Effective Tool Standoff computed. Borehole diameter and mud res. taken as input (see GCSE and GRSE parameters)

Tool is run in ECCENTERED mode with a tool stand-off of 1.50 IN, Bit Size is 8.75 IN.

***** Input Selections to AIT-H Answer Product Processing *****

Caliper (GCSE): HCAL Mud Resistivity (GRSE): AHMF Temperature (GTSE): HTEM Porosity (FPHI): DPHZ

***** Other Parameters used by AIT-H Answer Product Processing *****

Form Factor Exponent (FEXP) 2.000 Form Factor Numerator (FNUM) 1.000
 Mud Filtrate Sample Resistivity (RMFS) 1.189 OHMM Mud Filtrate Sample Temperature (MFST) 73.000 DEGF
 Resistivity Connate Water (RW) 1.000 OHMM

***** AIT-H Answer Product Processing Control Parameters *****

Playback Mode: RECOMPUTE

(AHEBC) : Yes (AHEBL) : Yes (AHERP) : Yes

(AHBHM) : 2_ComputeStandoff (AHBLM) : 6_One_Two_and_Four (AHRPM) : 1_Two

Parameters

DLIS Name	Description	Value
HILTB-CTS: High resolution Integrated Logging Tool-CTS		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff
AHBHV	Array Induction Borehole Correction Code Version Number	900
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four
AHBLV	Array Induction Basic Logs Code Version Number	223
AHCDE	Array Induction Casing Detection Enable	Yes
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20
AHMRF	Array Induction Mud Resistivity Factor	1
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20
AHRFV	Array Induction Radial Profiling Code Version Number	701
AHRPV	Array Induction Radial Parametrization Code Version Number	232
AHSTA	Array Induction Tool Standoff	1.5 IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20
BHT	Bottom Hole Temperature (used in calculations)	194.24 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
SHT	Surface Hole Temperature	80 DEGF
SPNV	SP Next Value	0 MV
RWA: Apparent Water Resistivity		
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
HOLEV: Integrated Hole/Cement Volume		
BHT	Bottom Hole Temperature (used in calculations)	194.24 DEGF
FCD	Future Casing (Outer) Diameter	7 IN
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
HVCS	Integrated Hole Volume Caliper Selection	HCAL
SHT	Surface Hole Temperature	80 DEGF
PERT: Preliminary Evaluation - Heat Time		
BHT	Bottom Hole Temperature (used in calculations)	194.24 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
SHT	Surface Hole Temperature	80 DEGF

GUEV	Average Angular Deviation of Borehole from Vertical	0.01	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTB_HTEM	
SHT	Surface Hole Temperature	80	DEGF
STI	STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL	
TDD	Total Depth - Driller	9805.00	FT
TDL	Total Depth - Logger	9814.00	FT
System and Miscellaneous			
BS	Bit Size	8.750	IN
DFD	Drilling Fluid Density	9.80	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	0.00	FT
MST	Mud Sample Temperature	73.00	DEGF
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	9814	FT

Format: AIT_5 Vertical Scale: 5" per 100' Graphics File Created: 17-May-2007 14:58

OP System Version: 15C0-309
MCM

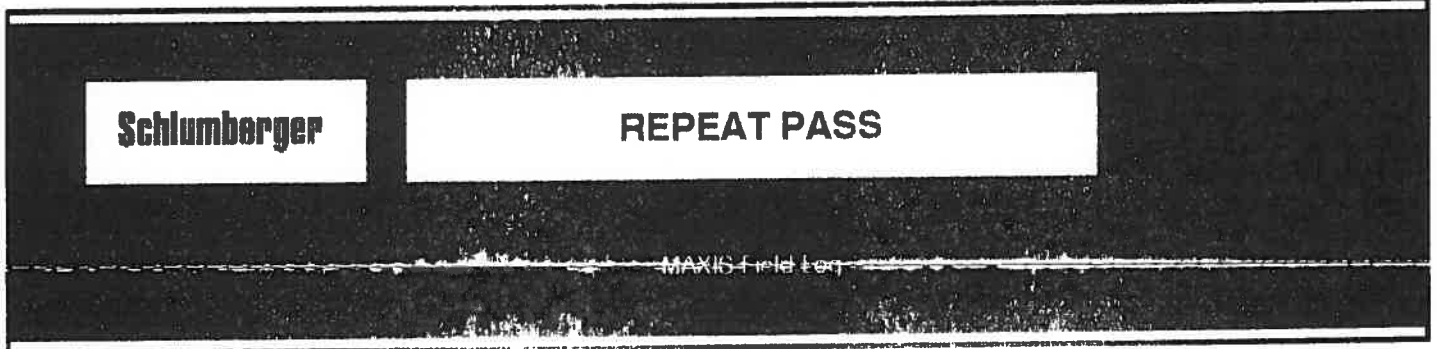
HILTB-CTS SPC-3345-AIT

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_016LUP	FN:15	PRODUCER	17-May-2007 12:27	9822.0 FT	1001.0 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_020PUP	FN:19	PRODUCER	17-May-2007 14:56		
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Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_034LUP	FN:13	PRODUCER	17-May-2007 12:13	9828.0 FT	9334.0 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_016PUP	FN:14	PRODUCER	17-May-2007 12:26	9825.0 FT	9335.0 FT
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Integrated Hole/Cement Volume Summary

Hole Volume = 202.63 F3
 Cement Volume = 74.62 F3 (assuming 7.00 IN casing O.D.)
 Computed from 9814.0 FT to 9335.5 FT using data channel(s) HCA1.

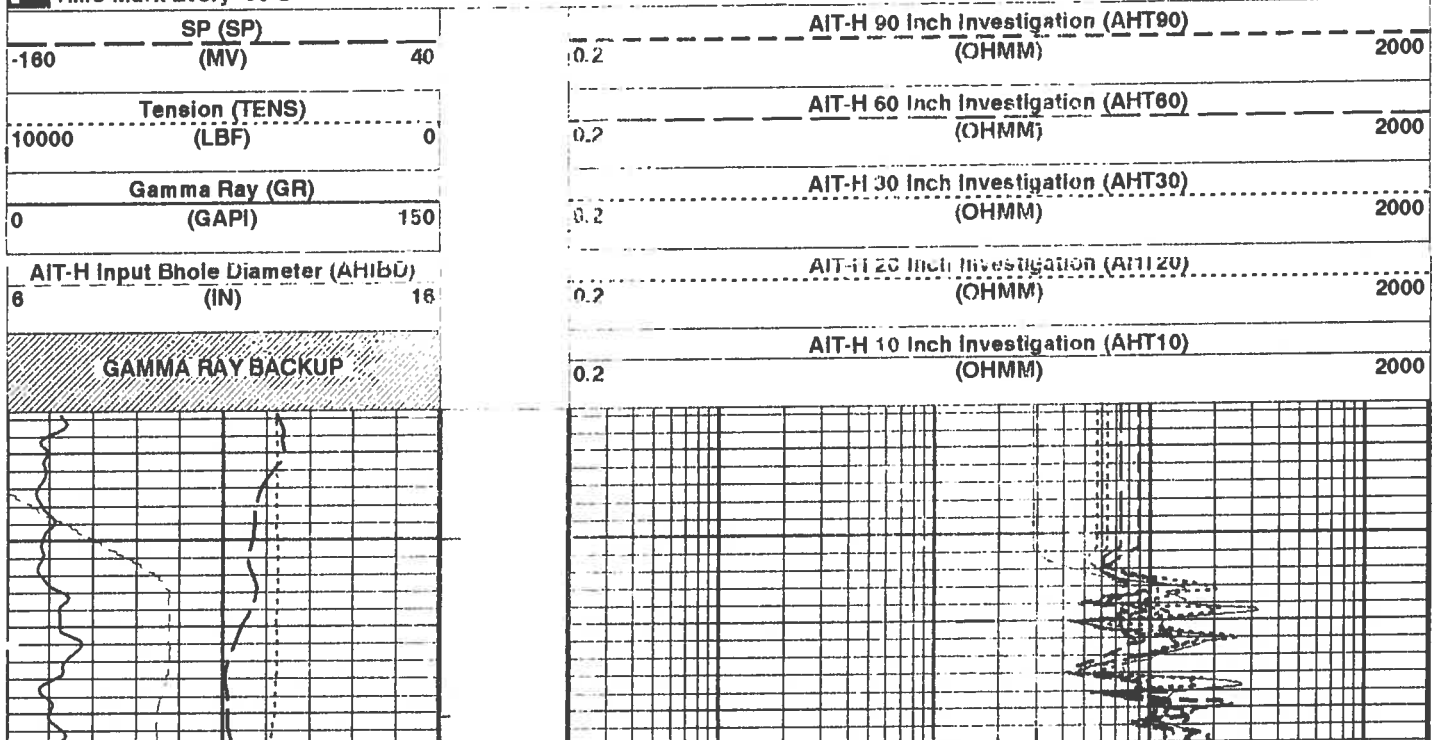
OP System Version: 15C0-309
MCM

HILTB-CTS SPC-3345-AIT

PIP SUMMARY

- [-] Integrated Hole Volume Minor Pip Every 10 F3
- [-] Integrated Hole Volume Major Pip Every 100 F3
- [-] Integrated Cement Volume Minor Pip Every 10 F3
- [-] Integrated Cement Volume Major Pip Every 100 F3

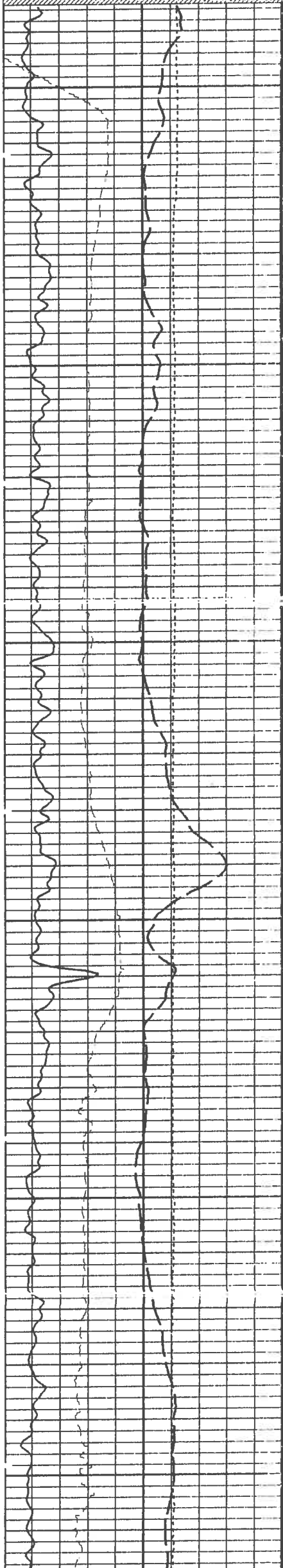
Time Mark Every 60 S



0 (GAPI) 130

AIT-H Input Bore Diameter (AHIBD) (IN) 18

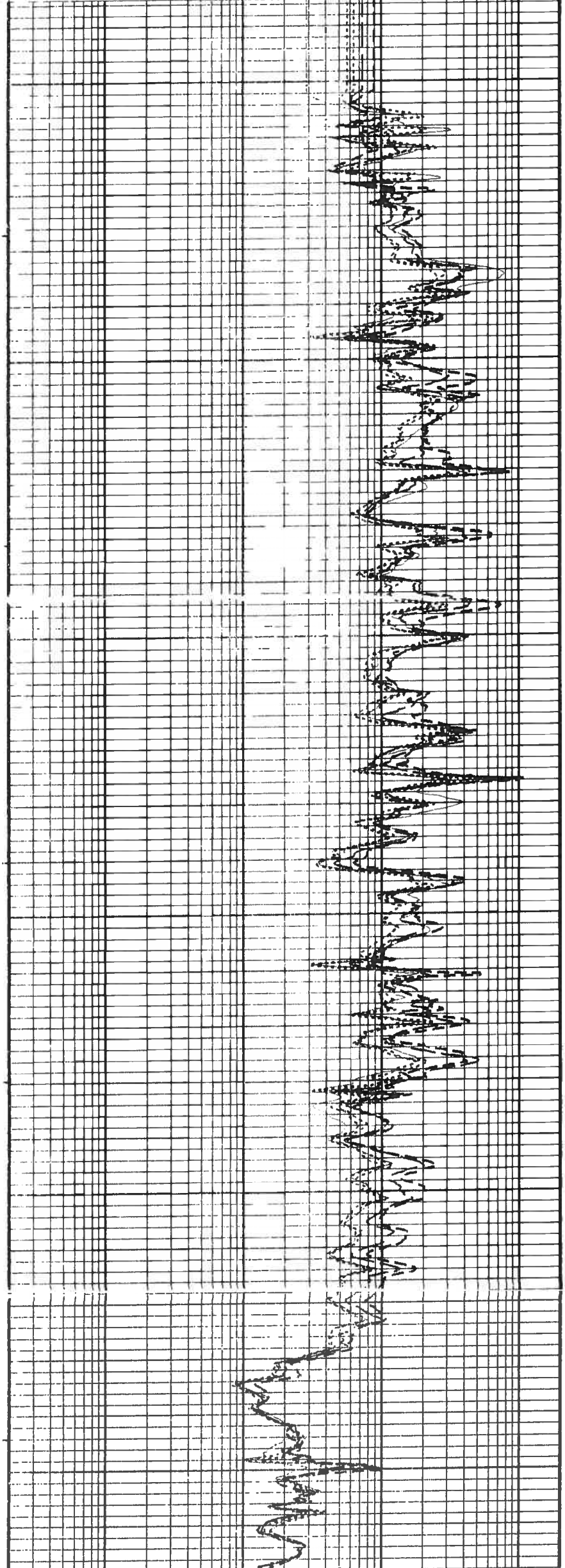
GAMMA RAY BACKUP

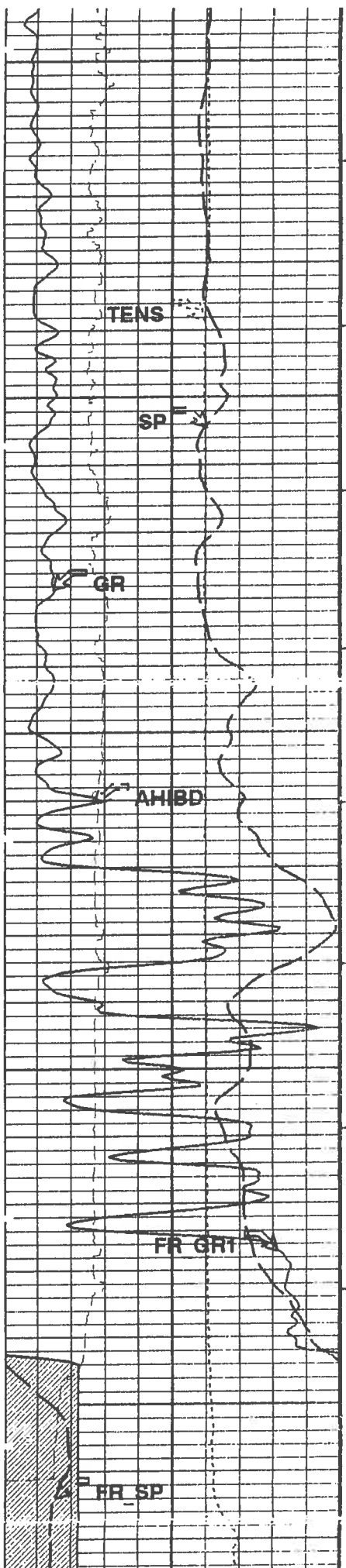


0.2 (OHMM) 2000

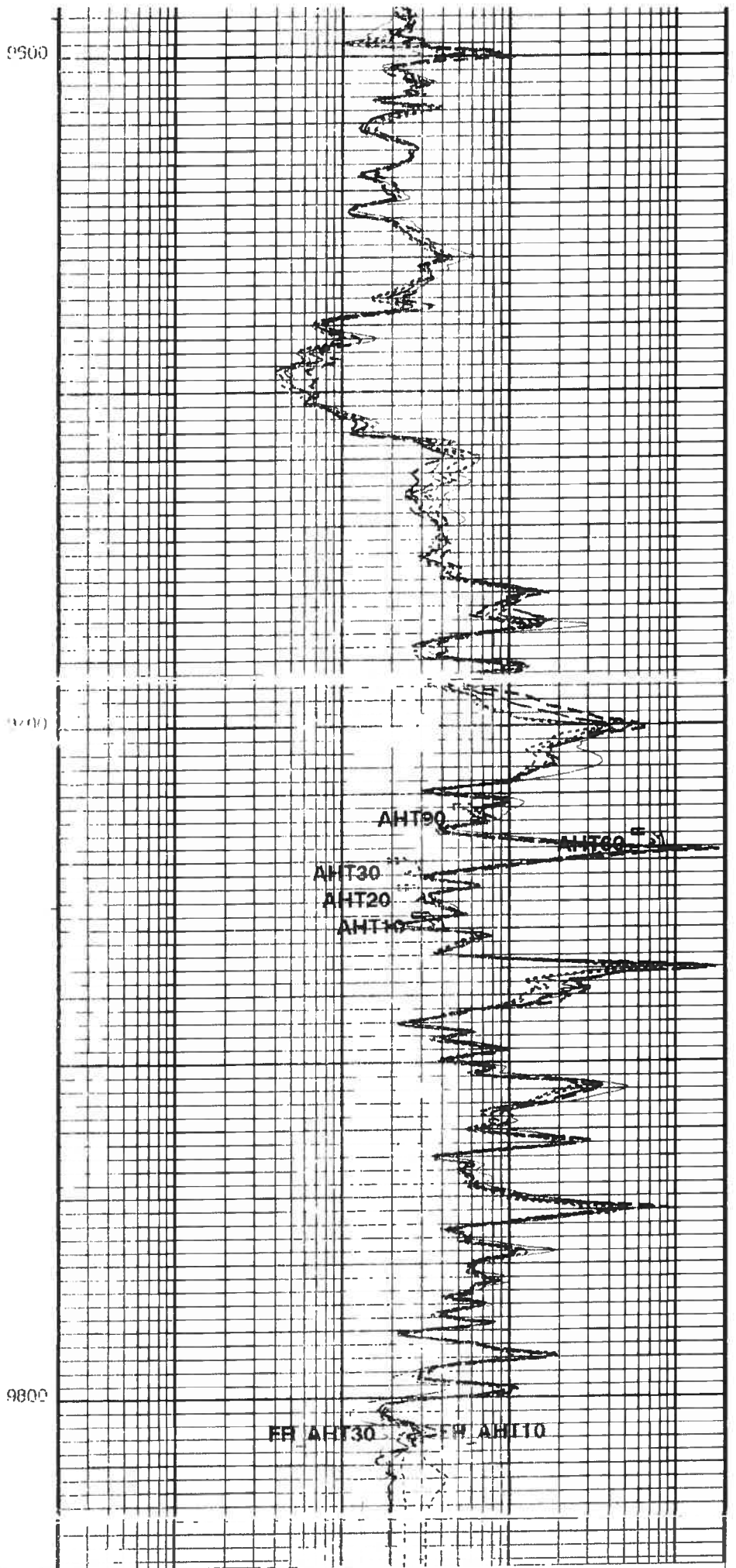
AIT-H 20 Inch Investigation (AHT20) (OHMM) 2000

AIT-H 10 Inch Investigation (AHT10) (OHMM) 2000





GAMMA RAY BACKUP		
AIT-H Input Bhole Diameter (AHIBD)	(IN)	16
Gamma Ray (GR)	(GAPI)	150
Tension (TENS)	(LBF)	0
SP (SP)	(MV)	40



0.2	AIT-H 10 Inch Investigation (AHT10)	(OHMM)	2000
0.2	AIT-H 20 Inch Investigation (AHT20)	(OHMM)	2000
0.2	AIT-H 30 Inch Investigation (AHT30)	(OHMM)	2000
0.2	AIT-H 60 Inch Investigation (AHT60)	(OHMM)	2000
0.2	AIT-H 90 Inch Investigation (AHT90)	(OHMM)	2000

PIP SUMMARY

- ┌ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- ┌ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

- Integrated Hole Volume Minor Pip Every 10 F3
 - Integrated Hole Volume Major Pip Every 100 F3
 - Integrated Cement Volume Minor Pip Every 10 F3
 - Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

AIT-H Answer Product Processing Summary. Data taken with Tool # 274 (AHTNO)

...Acquired data from HILT/HAIT

**** Borehole Correction ****

Effective Tool Standoff computed. Borehole diameter and mud res. taken as input (see GCSE and GRSE parameters)
 Tool is run in ECCENTERED mode with a tool stand-off of 1.50 IN. Bit Size is 8.75 IN.

**** Input Selections to AIT-H Answer Product Processing ****

Caliper (GCSE): HCAL Mud Resistivity (GRSE): AHMF Temperature (GTSE): HTEM Porosity (FPHI): DPHZ

**** Other Parameters used by AIT-H Answer Product Processing ****

Form Factor Exponent (FEXP) 2.000 Form Factor Numerator (FNUM) 1.000
 Mud Filtrate Sample Resistivity (RMFS) 1.189 OHMM Mud Filtrate Sample Temperature (MFST) 73.000 DEGF
 Resistivity Connate Water (RW) 1.000 OHMM

**** AIT-H Answer Product Processing Control Parameters ****

Playback Mode: NORMAL

Parameters

DLIS Name	Description	Value	
HILTB-CTS: High resolution Integrated Logging Tool-CTS			
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	900	
AHBLM	Array Induction Basic Logs Mode	6_One_two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	223	
AHCDE	Array Induction Casing Detection Enable	Yes	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
AHRFV	Array Induction Radial Profiling Code Version Number	701	
AHRPV	Array Induction Radial Parametrization Code Version Number	232	
AHSTA	Array Induction Tool Standoff	1.5	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	80	DEGF
SPNV	SP Next Value	0	MV
RWA: Apparent Water Resistivity			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
FCD	Future Casing (Outer) Diameter	7	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
SHT	Surface Hole Temperature	80	DEGF
PERT: Preliminary Evaluation - Real Time			
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	80	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
TDD	Total Depth - Driller	9805.00	FT
TDL	Total Depth - Logger	9814.00	FT
System and Miscellaneous			
BS	Bit Size	8.750	IN
DFD	Drilling Fluid Density	9.80	LB/G
DO	Depth Offset for Playback	-3.0	FT
FLEV	Fluid Level	0.00	FT
MST	Mud Sample Temperature	73.00	DEGF
PP	Playback Processing	NORMAL	
TD	Total Depth	9814	FT

Format: AIT_5 Vertical Scale: 5" per 100'

Graphics File Created: 17-May-2007 12:28

OP System Version: 15C0-309
MCM

HILTB-CTS SPC-3345-AIT

Input DLIS Files

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Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_015PUP FN:14 PRODUCER 17-May-2007 12:26

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_014LUP FN:13 PRODUCER 17-May-2007 12:13 9828.0 FT 9334.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_015PUP FN:14 PRODUCER 17-May-2007 12:26

Schlumberger

BEFORE CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Normal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Electronics Calibration Check - Thru Cal Mag & Phase							
Master: 2-Mar-2007 11:22 Before: 17-May-2007 5:37							
Thru Cal Magnitude - 0	0	0.6115	0.6165	N/A	N/A	N/A	V
Thru Cal Magnitude - 1	0	1.257	1.267	N/A	N/A	N/A	V
Thru Cal Magnitude - 2	0	0.6224	0.6278	N/A	N/A	N/A	V
Thru Cal Magnitude - 3	0	0.7032	0.7090	N/A	N/A	N/A	V
Thru Cal Magnitude - 4	0	1.324	1.335	N/A	N/A	N/A	V
Thru Cal Magnitude - 5	0	1.917	1.932	N/A	N/A	N/A	V
Thru Cal Magnitude - 6	0	1.918	1.934	N/A	N/A	N/A	V
Thru Cal Magnitude - 7	0	1.384	1.394	N/A	N/A	N/A	V
Phase - 0	0	53.88	54.30	N/A	N/A	N/A	DEG
Phase - 1	0	52.86	53.28	N/A	N/A	N/A	DEG
Phase - 2	0	49.22	49.63	N/A	N/A	N/A	DEG
Phase - 3	0	48.45	48.85	N/A	N/A	N/A	DEG
Phase - 4	0	42.17	42.56	N/A	N/A	N/A	DEG
Phase - 5	0	40.34	40.70	N/A	N/A	N/A	DEG
Phase - 6	0	40.35	40.71	N/A	N/A	N/A	DEG
Phase - 7	0	36.97	37.19	N/A	N/A	N/A	DEG
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Electronics Calibration Check - Auxiliary							
Master: 2-Mar-2007 11:22 Before: 17-May-2007 5:37							
Array Induction SPA Plus	0	993.7	993.5	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	0.1258	0.1446	N/A	N/A	N/A	MV
Array Induction Temperature PI	0	0.9150	0.9203	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	0.0001319	0.0001319	N/A	N/A	N/A	V
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Test Loop Gain Correction							
Master: 2-Mar-2007 11:22							
Test Loop Gain Magnitude - 0	0	1.018	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 1	0	1.002	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 2	0	1.020	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 3	0	1.000	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 4	0	1.003	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 5	0	1.003	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 6	0	1.016	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 7	0	1.017	N/A	N/A	N/A	N/A	V
Phase - 0	0	0.4136	N/A	N/A	N/A	N/A	DEG
Phase - 1	0	0.5018	N/A	N/A	N/A	N/A	DEG
Phase - 2	0	0.09716	N/A	N/A	N/A	N/A	DEG
Phase - 3	0	-0.01476	N/A	N/A	N/A	N/A	DEG
Phase - 4	0	0.04331	N/A	N/A	N/A	N/A	DEG
Phase - 5	0	0.4066	N/A	N/A	N/A	N/A	DEG
Phase - 6	0	0.005999	N/A	N/A	N/A	N/A	DEG
Phase - 7	0	0.3618	N/A	N/A	N/A	N/A	DEG
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Sonde Error Correction							
Master: 2-Mar-2007 11:22							
R Sonde Error Correction - 0	0	-13.09	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 1	0	151.6	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 2	0	110.4	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 3	0	75.38	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 4	0	21.02	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 5	0	13.08	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 6	0	8.890	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 7	0	-1.103	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 0	0	562.2	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 1	0	-172.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 2	0	63.43	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 3	0	25.89	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 4	0	20.82	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 5	0	0.7479	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 6	0	-8.529	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 7	0	7.849	N/A	N/A	N/A	N/A	MM/M
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Mud Gain Correction							
Master: 2-Mar-2007 11:22							
Coarse - Mag, Real, Imag - 0	0	1.000	N/A	N/A	N/A	N/A	N/A
Coarse - Mag, Real, Imag - 1	0	1.000	N/A	N/A	N/A	N/A	N/A
Coarse - Mag, Real, Imag - 2	0	1.000	N/A	N/A	N/A	N/A	N/A
Fine - Mag, Real, Imag - 0	0	1.000	N/A	N/A	N/A	N/A	N/A
Fine - Mag, Real, Imag - 1	0	1.000	N/A	N/A	N/A	N/A	N/A
Fine - Mag, Real, Imag - 2	0	1.000	N/A	N/A	N/A	N/A	N/A
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Stab Measurement Summary							
Before: 17-May-2007 5:39							
BS Window Ratio	0.7660	N/A	0.7683	N/A	N/A	N/A	
BS Window Sum	11080	N/A	11140	N/A	N/A	N/A	CPS
SS Window Ratio	1.0000	N/A	0.4966	N/A	N/A	N/A	

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Stab Measurement Summary

Before: 17-May-2007 5:39

BS Window Ratio	0.7660	N/A	0.7683	N/A	N/A	N/A	
BS Window Sum	11090	N/A	11140	N/A	N/A	N/A	CPS
SS Window Ratio	0.4966	N/A	0.4966	N/A	N/A	N/A	
SS Window Sum	9503	N/A	9503	N/A	N/A	N/A	CPS
LS Window Ratio	0.2972	N/A	0.2972	N/A	N/A	N/A	
LS Window Sum	1324	N/A	1324	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Photo-multiplier High Voltages Calibrations

Before: 17-May-2007 5:39

BS PM High Voltage (Command)	1434	N/A	1434	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1472	N/A	1472	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1359	N/A	1359	N/A	N/A	N/A	V

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Crystal Quality Resolutions Calibration

Before: 17-May-2007 5:39

BS Crystal Resolution	9.777	N/A	9.777	N/A	N/A	N/A	%
SS Crystal Resolution	10.95	N/A	10.95	N/A	N/A	N/A	%
LS Crystal Resolution	8.376	N/A	8.376	N/A	N/A	N/A	%

High resolution Integrated Logging Tool-CTS Wellsite Calibration - MCFL Calibration

Before: 17-May-2007 5:40

Raw B0 Resistivity	3677	N/A	3657	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3816	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3677	N/A	3617	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool-CTS Wellsite Calibration - HILT Caliper Calibration

Before: 17-May-2007 5:36

HILT Caliper Zero Measurement	7.041	N/A	7.041	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	11.31	N/A	11.31	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Detector Calibration

Before: 17-May-2007 5:37

Gamma Ray Background	38.03	N/A	38.03	N/A	N/A	N/A	GAPI
Gamma Ray (Jig - Bkg)	160.2	N/A	160.2	N/A	N/A	16.38	GAPI
Gamma Ray (Calibrated)	160.0	N/A	160.0	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Zero Measurement

Master: 20-Feb-2007 11:27 Before: 17-May-2007 5:38

CNTC Background	31.41	31.41	31.38	N/A	N/A	4.712	CPS
CFTC Background	30.31	30.31	32.19	N/A	N/A	4.547	CPS

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Ratio Measurement

Master: 20-Feb-2007 11:27

Thermal Near Corr. (Tank)	5765	5765	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2414	2414	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.359	2.388	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Accelerometer Calibration

Before: 17-May-2007 11:15

Z-Axis Acceleration	32.14	N/A	32.14	N/A	N/A	N/A	G/G
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High resolution Integrated Logging Tool-CTS Master Calibration - Inversion results

Master: 2-May-2007 12:42

Rho Aluminum	2.596	2.597	--	--	--	--	G/C3
Rho Magnesium	1.686	1.685	--	--	--	--	G/C3
Pi Aluminum	2.570	2.595	--	--	--	--	
Pi Magnesium	2.650	2.612	--	--	--	--	

High resolution Integrated Logging Tool-CTS Master Calibration - Deviation Summary

Master: 2-May-2007 12:42

BS Average Deviation	0	0.2503	--	--	--	--	%
BS Max Deviation	0	0.9921	--	--	--	--	%
SS Average Deviation	0	0.3589	--	--	--	--	%
SS Max Deviation	0	1.077	--	--	--	--	%
LS Average Deviation	0	0.7800	--	--	--	--	%
LS Max Deviation	0	1.990	--	--	--	--	%

The GLS-VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters:

NCT-B Water Temperature 64.0 DEGF
 Thermal Housing Size 3.371 IN.
 NSR-F serial number 2247

High resolution Integrated Logging Tool-CTS / Equipment Identification

Primary Equipment:

Array Induction Tool - H	AIT - H	
Rm/SP Bottom Nose	AHRM - A	
Array Induction Sonde	AHIS - BA	274
HILT high-Resolution Mechanical Sonde	HRMS - B	1782
HILT Rxo Gamma-ray Device	HRGD - E	892
HILT Micro Cylindrically Focused Log Dev	MCF1 -	
GR Logging Source	GLS - VJ	1801
HILT High Res. Control Cartridge	HRCC - B	1772

Auxiliary Equipment:

High resolution Integrated Logging Tool-CTS Wellsite Calibration							
Electronics Calibration Check Thru Cal Mag & Phase							
Idx	Phase	Value	Thru Cal Magnitude	Nominal	Value	Phase DEB	Nominal
0	Master	0.6115		0.6050	53.88		54.00
	Before	0.6165			54.30		
1	Master	1.257		1.270	52.86		53.00
	Before	1.267			53.28		
Master	0.6224				49.22		

Auxiliary Equipment:

High resolution Integrated Logging Tool-CIS Wellsite Calibration							
Electronics Calibration Check Thru Cal Mag & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6115		0.6050	53.88		50.00
	Before	0.6165			54.30		
1	Master	1.257		1.271	52.86		50.00
	Before	1.267			53.28		
2	Master	0.6224		0.6237	49.22		50.00
	Before	0.6278			49.63		
3	Master	0.7032		0.704	48.45		50.00
	Before	0.7090			48.85		
4	Master	1.324		1.337	42.17		50.00
	Before	1.335			42.56		
5	Master	1.917		1.955	40.34		50.00
	Before	1.932			40.70		
6	Master	1.918		1.955	40.35		50.00
	Before	1.934			40.71		
7	Master	1.384		1.415	36.97		50.00
	Before	1.394			37.19		
		60.00 % (Minimum)	(Nominal)	142.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Max -50.00 (Maximum)
Master: 2-Mar-2007 11:22				Before: 17-May-2007 5:37			

High resolution Integrated Logging Tool-CIS Wellsite Calibration							
Electronics Calibration Check Auxiliary							
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value		
Master		993.7	Master		0.1255		
Before		991.5	Before		0.1445		
		941.0 (Minimum)	990.5 (Nominal)	1040 (Maximum)			
					0 (Minimum)	50.00 (Maximum)	
Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value		
Master		0.9203	Master		0.000319		
Before		0.9202	Before		0.000319		
		0.8700 (Minimum)	0.9150 (Nominal)	0.9600 (Maximum)			
					0 (Minimum)	0.05000 (Maximum)	
Master: 2-Mar-2007 11:22				Before: 17-May-2007 5:37			

High resolution Integrated Logging Tool-CIS Wellsite Calibration							
Test Loop Gain Correction:							
Idx	Value	Test Loop Gain Magnitude V	Value	Phase DEG			
0	1.018		0.4136				
			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)
1	1.022		1.5018				
			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)
2	1.020		1.0716				
			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)
3	1.019		-0.01475				
			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)
4	1.003		-0.04431				
			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)
5	1.003		-0.10266				
			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)
6	1.016		0.005995				
			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)
7	1.017		0.0018				
			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)
Master: 2-Mar-2007 11:22							

High resolution Integrated Logging Tool-CIS Wellsite Calibration							
Sonde Error Correction							
Idx	Value	R Sonde Error Correction MM/M	Value	X Sonde Error Correction MM/M			
0	-13.03		562.2				
			-231.0 (Minimum)	-58.00 (Nominal)	119.0 (Maximum)	2250 (Minimum)	0 (Nominal)
1	151.6		172.1				
			114.0 (Minimum)	158.0 (Nominal)	204.0 (Maximum)	-625.0 (Minimum)	0 (Nominal)
2	110.4		63.41				
			68.00 (Minimum)	111.0 (Nominal)	158.0 (Maximum)	-350.0 (Minimum)	0 (Nominal)

High resolution Integrated Logging Tool-CTS Wellsite Calibration							
Sonde Error Correction							
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M	
0	-13.03				562.2		
	-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	151.6				172.1		
	114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	110.4				63.4		
	66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	76.38				25.89		
	39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)		-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	21.02				20.82		
	15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal)	83.00 (Maximum)
5	13.08				17.79		
	4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	8.890				8.529		
	5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-10.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-1.103				7.249		
	-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Wellsite Calibration							
Mud Gain Correction							
Idx	Value	Coarse - Mag Real, Imag			Value	Fine - Mag, Real, Imag	
0	1.000				1.000		
	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	1.000				1.000		
	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	1.000				1.000		
	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
Stab Measurement Summary									
Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value
Before				0.7683	Before				0.4965
	0.7277 (Minimum)	0.7660 (Nominal)	0.8043 (Maximum)			0.4740 (Minimum)	0.4990 (Nominal)	0.5239 (Maximum)	
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value
Before				11140	Before				9503
	10530 (Minimum)	11080 (Nominal)	11640 (Maximum)			8953 (Minimum)	9529 (Nominal)	10010 (Maximum)	
Phase	LS Window Ratio			Value	Phase	LS Window Sum CPS			Value
Before				0.2972	Before				1324
	0.2844 (Minimum)	0.2994 (Nominal)	0.3144 (Maximum)			1266 (Minimum)	1332 (Nominal)	1399 (Maximum)	

Before: 17-May-2007 5:39

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
Photo multiplier High Voltages Calibrations									
Phase	BS PM High Voltage (Command) V			Value	Phase	SS PM High Voltage (Command) V			Value
Before				1434	Before				1472
	1337 (Minimum)	1437 (Nominal)	1537 (Maximum)			1368 (Minimum)	1468 (Nominal)	1568 (Maximum)	
Phase	LS PM High Voltage (Command) V			Value	Phase	LS PM High Voltage (Command) V			Value
Before				1359	Before				1359
	1259 (Minimum)	1359 (Nominal)	1459 (Maximum)			1259 (Minimum)	1359 (Nominal)	1459 (Maximum)	

Before: 17-May-2007 5:39

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
Crystal Quality Resolutions Calibration									
Phase	BS Crystal Resolution %			Value	Phase	SS Crystal Resolution %			Value
Before				9.777	Before				10.95
	8.715 (Minimum)	9.715 (Nominal)	10.72 (Maximum)			9.93 (Minimum)	10.93 (Nominal)	11.93 (Maximum)	
Phase	LS Crystal Resolution %			Value	Phase	LS Crystal Resolution %			Value
Before				8.376	Before				8.376
	7.347 (Minimum)	8.347 (Nominal)	9.347 (Maximum)			7.347 (Minimum)	8.347 (Nominal)	9.347 (Maximum)	

Before: 17-May-2007 5:39

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
Raw Resistivity Calibration									
Phase	Raw BS Resistivity OHMM			Value	Phase	Raw SS Resistivity OHMM			Value
Before				3857	Before				3817
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)			3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	
Phase	Raw LS Resistivity OHMM			Value	Phase	Raw LS Resistivity OHMM			Value
Before				3817	Before				3817
	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)			3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	

Before: 17-May-2007 5:40

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
HILT Caliper Calibration									
Phase	HILT Caliper Zero Measurement IN			Value	Phase	HILT Caliper Plus Measurement IN			Value
Before				7.041	Before				11.31
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)			9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)	

Before: 17-May-2007 5:36

High resolution Integrated Logging Tool-CTS Wellsite Calibration						
HILT Caliper Calibration						
Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value	
Before		7.041	Before		11.31	
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)	9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)

Before: 17-May-2007 5:36

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
Detector Calibration									
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value	
Before		38.03	Before		180.2	Before		160.0	
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	169.8 (Minimum)	180.2 (Nominal)	198.6 (Maximum)	145.0 (Minimum)	180.0 (Nominal)	175.0 (Maximum)

Before: 17-May-2007 5:37

High resolution Integrated Logging Tool-CTS Wellsite Calibration						
Zero Measurement						
Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value	
Master		31.41	Master		30.31	
Before		31.36	Before		30.19	
	5.000 (Minimum)	31.41 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	30.31 (Nominal)	40.00 (Maximum)

Master: 20-Feb-2007 11:27 Before: 17-May-2007 5:38

High resolution Integrated Logging Tool-CTS Wellsite Calibration								
Ratio Measurement								
Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	NITC/CFTC (Tank)	Value
Master		5765	Master		2411	Master		2.388
	4700 (Minimum)	5000 (Nominal)	6000 (Maximum)	1800 (Minimum)	2400 (Nominal)	3000 (Maximum)	2.200 (Minimum)	2.500 (Maximum)

Master: 20-Feb-2007 11:27

High resolution Integrated Logging Tool-CTS Wellsite Calibration			
Accelerometer Calibration			
Phase	Z-Axis Acceleration F/S2	Value	
Before		32.14	
	31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)

Before: 17-May-2007 11:15

High resolution Integrated Logging Tool-CTS Master Calibration							
Electronics Calibration Check - Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6115		0.6250	53.88		53.90
1	Master	1.257		1.250	52.86		53.90
2	Master	0.6224		0.6250	49.22		53.90
3	Master	0.7032		0.7000	48.45		53.90
4	Master	1.324		1.337	42.17		53.90
5	Master	1.917		1.955	40.34		53.90
6	Master	1.918		1.955	40.35		53.90
7	Master	1.384		1.415	36.97		53.90
		60.00 (Minimum)	60.00 (Nominal)	100.00 (Maximum)	Nom -60.00 (Minimum)	Nominal	Com -50.00 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration						
Electronics Calibration Check - Auxiliary						
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value	
Master		993.7	Master		0.1252	
	941.0 (Minimum)	990.5 (Nominal)	1040 (Maximum)	60.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
Phase	Array Induction Temperature F	Value	Phase	Temperature F	Value	
Master		0.9203	Master		0.000191	
	0.8700 (Minimum)	0.9150 (Nominal)	0.9600 (Maximum)	0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration							
Test Loop Gain Correction							
Idx	Value	Test Loop Gain Magnitude "	Phase DEG	Value	Phase DEG	Value	
0	1.018		0.4135				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.022		0.5018				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.020		-0.08716				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.019		-0.01478				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.003		-1.04433				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Test Loop Gain Correction							
Idx	Value	Test Loop Gain Magnitude			Value	Phase DEG	
0	1.018				0.4135		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.022				0.5718		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.020				-0.0976		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.019				-0.11478		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.003				-0.0133		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	1.003				-0.1166		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	1.016				0.015990		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.017				-0.3618		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration							
Sonde Error Correction							
Idx	Value	R Sonde Error Correction MMH			Y Sonde Error Correction MMH		
0	-13.03				11.22		
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)	-250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	151.6				172.1		
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)	675.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	110.4				63.1		
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)	-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	76.38				25.89		
		39.00 (Minimum)	94.00 (Nominal)	99.00 (Maximum)	250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	21.02				21.62		
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)	-53.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	13.08				0.7479		
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)	-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	8.890				9.529		
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)	-33.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-1.103				-7.643		
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)	-33.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration							
Mud Gain Correction							
Idx	Value	Coarse - Mag, Real, Imag			Value	Fine - Mag, Real, Imag	
0	1.000				1.000		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	1.000				1.000		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	1.000				1.000		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration						
Inversion results						
Phase	Rho Aluminum G/C3	Value	Phase	Rho Magnesium G/C3	Value	
Master		2.597	Master		1.595	
	2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)	1.676 (Minimum)	1.988 (Nominal)	1.696 (Maximum)
Phase	Pe Aluminum	Value	Phase	Pe Magnesium	Value	
Master		2.595	Master		2.612	
	2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)

Master: 2-May-2007 12:42

High resolution Integrated Logging Tool-CTS Master Calibration									
Deviation Summary									
Phase	BS Average Deviation %	Value	Phase	BS Average Deviation %	Value	Phase	LS Average Deviation %	Value	
Master		0.2503	Master		0.3529	Master		0.7800	
	-0.8000 (Minimum)	0 (Nominal)	0.8000 (Maximum)	-1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)	-1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)
Phase	BS Max Deviation %	Value	Phase	SS Max Deviation %	Value	Phase	LS Max Deviation %	Value	
Master		0.8000	Master		1.000	Master		1.800	

2.470 (Minimum)	2.670 (Nominal)	2.670 (Maximum)	2.530 (Minimum)	2.650 (Nominal)	2.750 (Maximum)
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Master: 2-May-2007 12:42

High resolution Integrated Logging Tool-CTS Master Calibration:

Deviation Summary

Phase	BS Average Deviation %	Value	Phase	SS Average Deviation %	Value	Phase	LS Average Deviation %	Value
Master		0.2603	Master		0.3509	Master		0.7800
	-0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)		-1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)	
	-1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)		-2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)	

Master: 2-May-2007 12:42

High resolution Integrated Logging Tool-CTS Master Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		31.41	Master		30.31
	5.000 (Minimum)	31.41 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	30.31 (Nominal)

Master: 20-Feb-2007 11:27

High resolution Integrated Logging Tool-CTS Master Calibration

Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	Near Corr. (Tank)	Value
Master		5795	Master		2414	Master		2.388
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.100 (Minimum)	2.159 (Nominal)
								2.540 (Maximum)

Master: 20-Feb-2007 11:27

Schlumberger

MAIN PASS 1" = 100'

MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_018LUP FN:15 PRODUCER 17-May-2007 12:27 9822.0 FT 1001.0 FT

Output DLIS Files

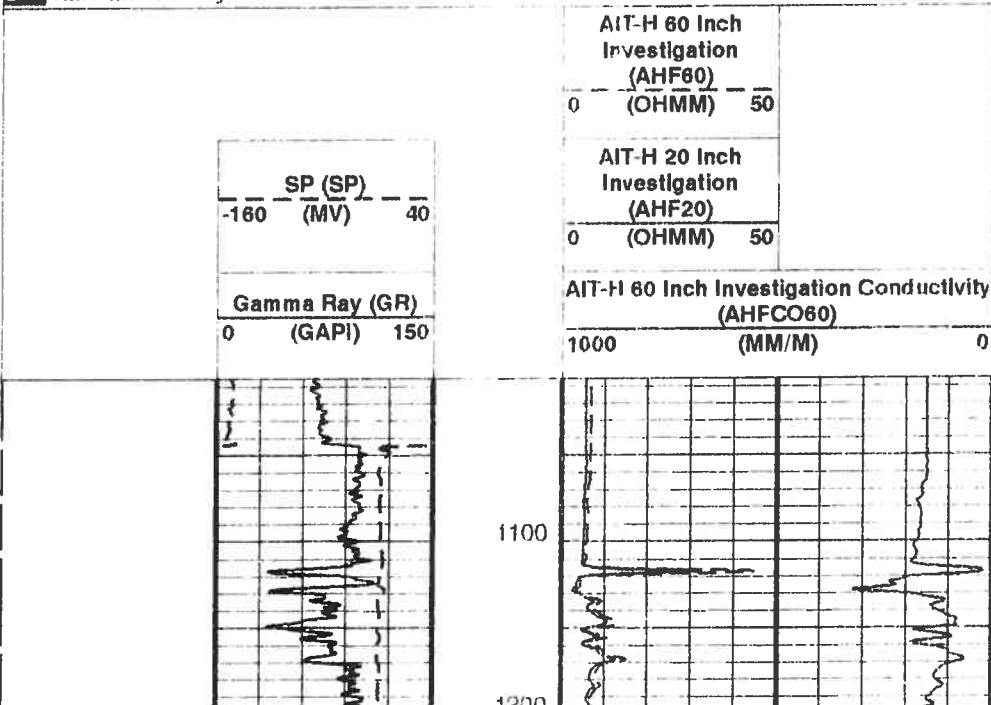
DEFAULT AIT_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 17-May-2007 14:56 9822.0 FT 1005.5 FT

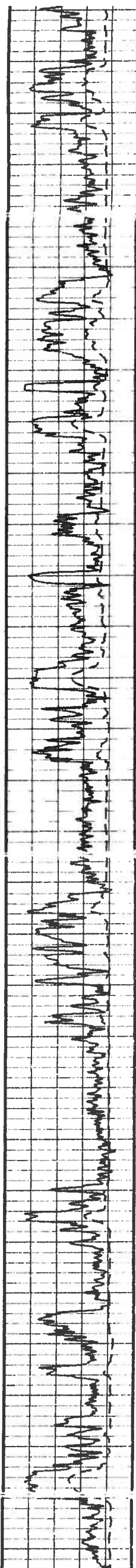
OP System Version: 15C0-309
MCM

HILTB-CTS SPC-3345-AIT

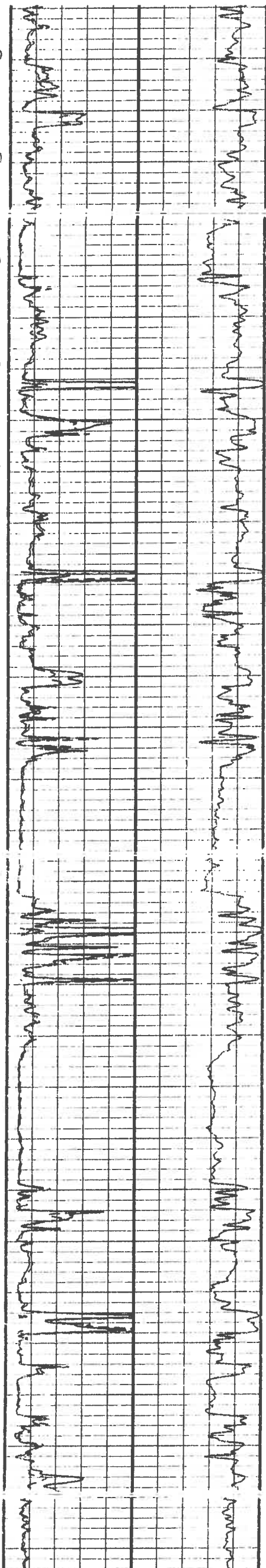
PIP SUMMARY

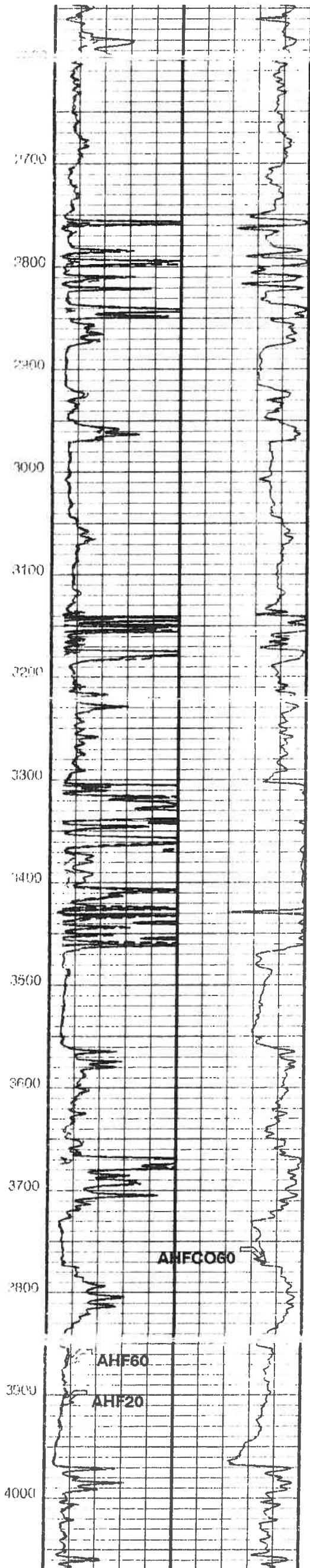
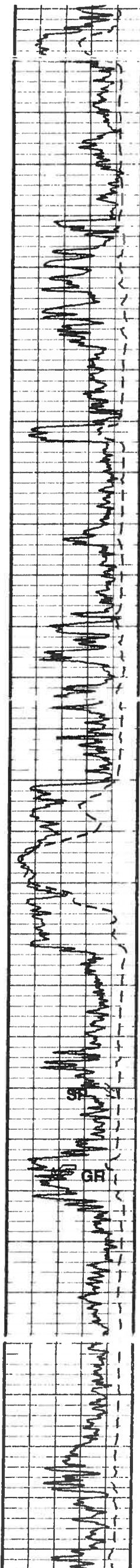
Time Mark Every 60 S

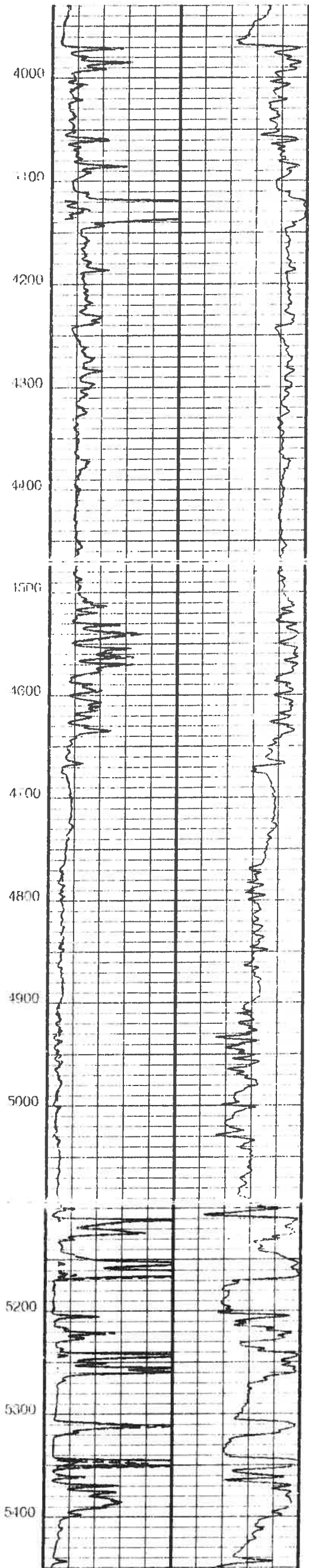
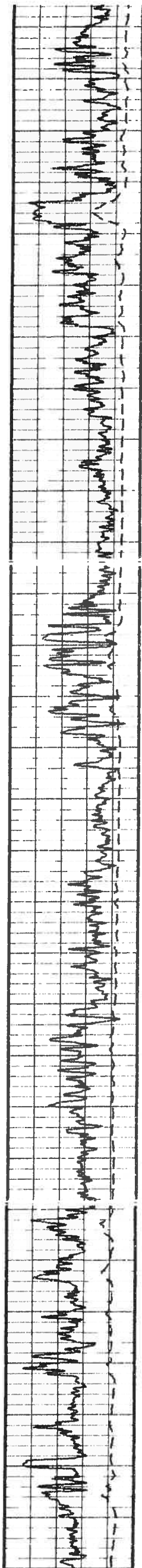


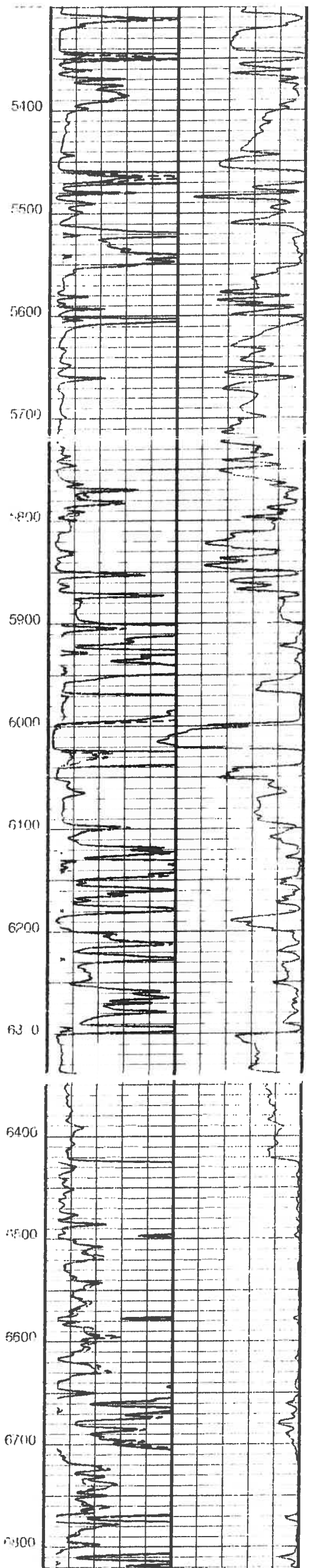
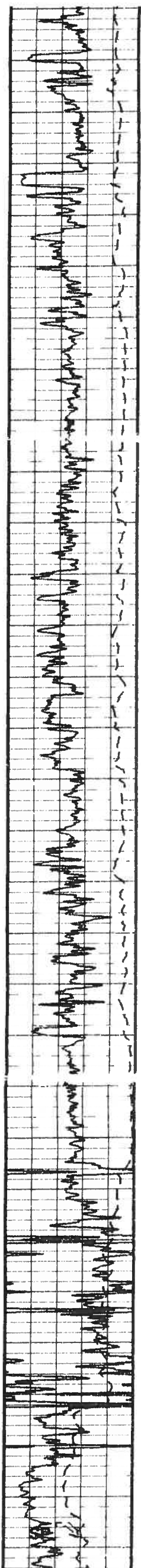


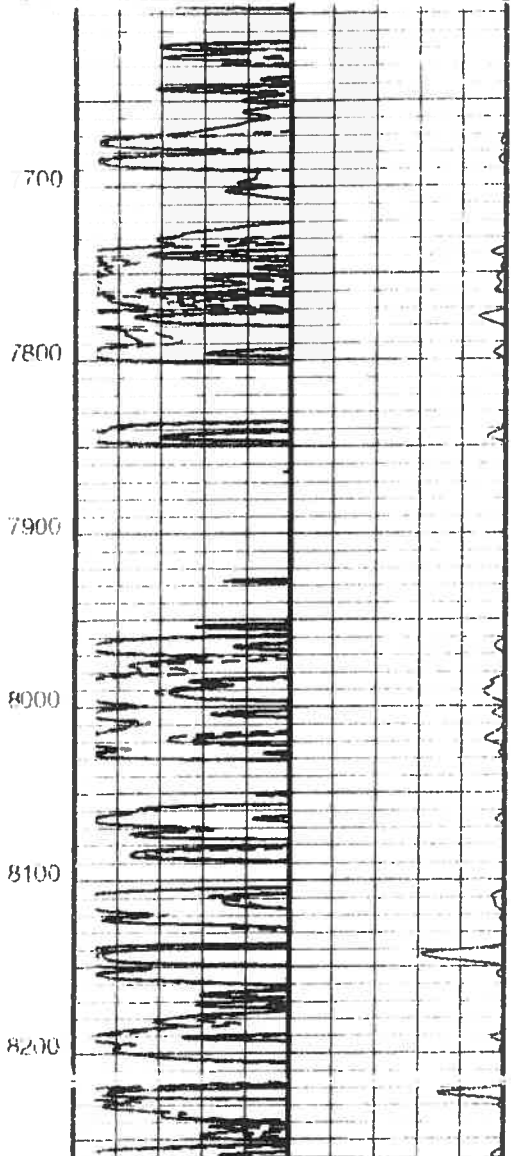
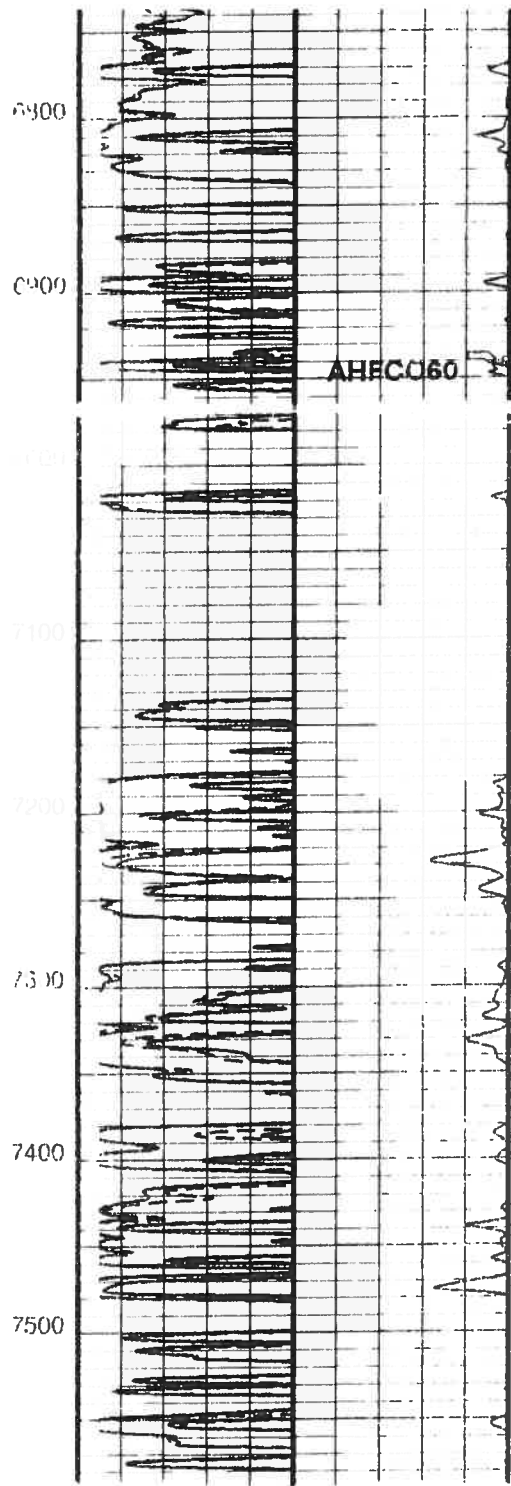
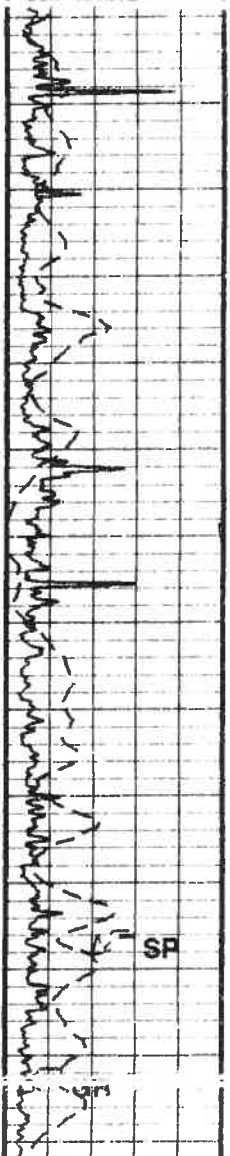
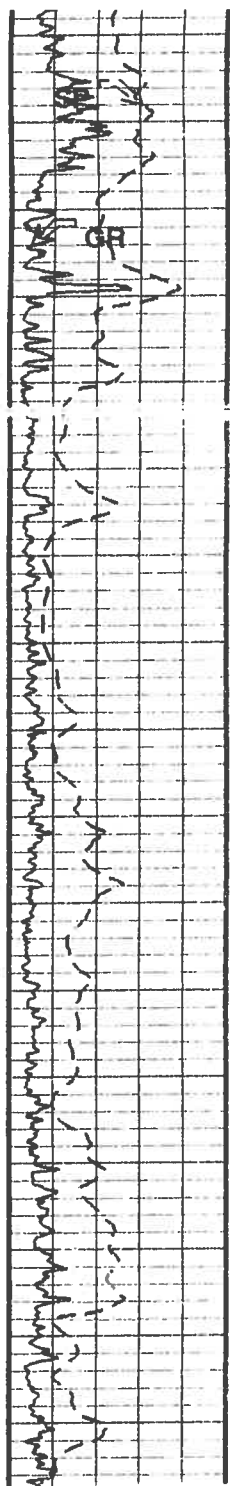
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2550

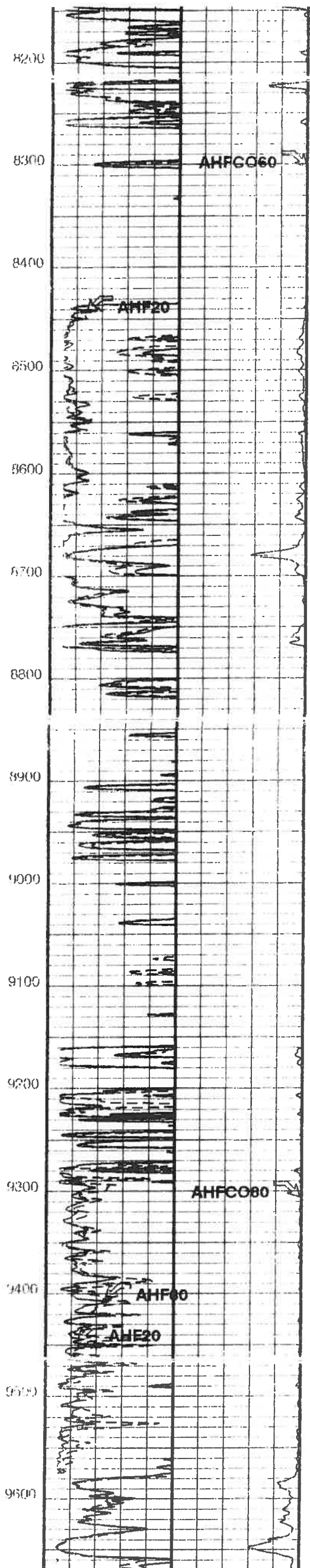
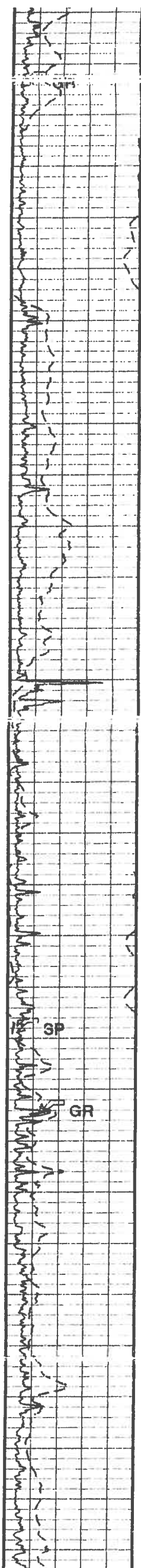


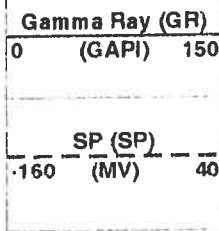
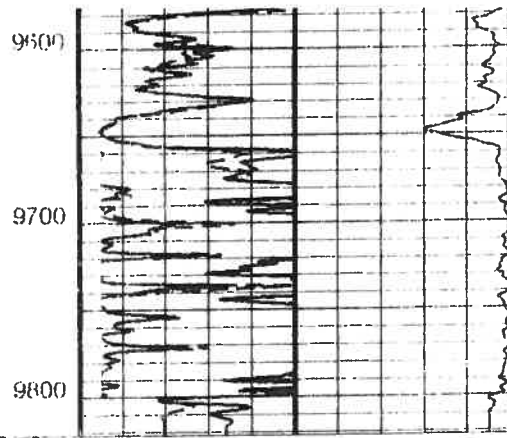
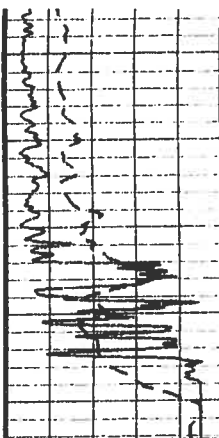












AIT-H 20 Inch Investigation (AHF20)	
0 (OHMM)	50
AIT-H 60 Inch Investigation (AHF60)	
0 (OHMM)	50

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HILTB-CTS: High resolution Integrated Logging Tool-CTS		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff
AHBHV	Array Induction Borehole Correction Code Version Number	900
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four
AHBLV	Array Induction Basic Logs Code Version Number	223
AHCDE	Array Induction Casing Detection Enable	Yes
AHCEN	Array Induction Tool Centering Flag (In Borehole)	Eccentered
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20
AHMRF	Array Induction Mud Resistivity Factor	1
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20
AHRFV	Array Induction Radial Profiling Code Version Number	701
AHRPV	Array Induction Radial Parametrization Code Version Number	232
AHSTA	Array Induction Tool Standoff	1.5
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20
BHT	Bottom Hole Temperature (used in calculations)	194.24
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0
GGRD	Geothermal Gradient	0.01
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
SHT	Surface Hole Temperature	80
SPNV	SP Next Value	0
RWA: Apparent Water Resistivity		
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
HOLEV: Integrated Hole/Cement Volume		
BHT	Bottom Hole Temperature (used in calculations)	194.24
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0
GGRD	Geothermal Gradient	0.01
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
SHT	Surface Hole Temperature	80
PERT: Preliminary Evaluation - Real Time		
BHT	Bottom Hole Temperature (used in calculations)	194.24
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0
GGRD	Geothermal Gradient	0.01
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
SHT	Surface Hole Temperature	80
System and Miscellaneous		
BS	Bit Size	9.750
DFD	Drilling Fluid Density	9.80
DO	Depth Offset for Playback	0.0
DORL	Depth Offset for Repeat Analysis	0.0
FLEV	Fluid Level	0.00
MST	Mud Sample Temperature	73.00
PP	Playback Processing	RECOMPUTE
TD	Total Depth	9814

Format: AIT_1 Vertical Scale: 1" per 100'

Graphics File Created: 17-May-2007 14:56

OP System Version: 15C0-309
MCM

HILTB-CTS SPC-3345-AIT

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_016LUP	FN:15	PRODUCER	17-May-2007 12:27	9822.0 FT	1001.0 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_020PUP	FN:19	PRODUCER	17-May-2007 14:56
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PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HILTB-CTS: High resolution Integrated Logging Tool-CTS			
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	900	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	223	
AHCDE	Array Induction Casing Detection Enable	Yes	
AHCEN	Array Induction Tool Centering Flag (In Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
AHRFV	Array Induction Radial Profiling Code Version Number	701	
AHRPV	Array Induction Radial Parameterization Code Version Number	232	
AHSTA	Array Induction Tool Standoff	1.5	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
BHT	Bottom Hole Temperature (used in calculations)	194.24	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Calliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	80	DEGF
SPNV	SP Next Value	0	MV
RWA: Apparent Water Resistivity			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHT	Bottom Hole Temperature (used in calculations)	194.24	DEGF
GCSE	Generalized Calliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	80	DEGF
PERT: Preliminary Evaluation - Real Time			
BHT	Bottom Hole Temperature (used in calculations)	194.24	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Calliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	80	DEGF
System and Miscellaneous			
BS	Bit Size	8.750	IN
DFD	Drilling Fluid Density	9.80	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	0.00	FT
MST	Mud Sample Temperature	73.00	DEGF
PP	Playback Processing	RE-COMPUTE	
TD	Total Depth	9814	FT

Format: AIT_1 Vertical Scale: 1" per 100'

Graphics File Created: 17-May-2007 14:56

OP System Version: 15C0-309
MCM

HILTB-CTS SPC-3345-AIT

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 17-May-2007 12:27 9822.0 FT 1001.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 17-May-2007 14:56

Company: Winston Land & Cattle 1 LTD



Well: Johnson Salty SWD 1
Field: Newark, East (Barnett Shale)
County: Parker
State: Texas

Array Induction Imager
Gamma Ray / SP
**Platform Express

Calibration Cable Type: 7-481	Calibration Gain: 0.74	R/a Type: LAND
Wheel Correction 1: -5	Calibration Offset: 136.00	
Wheel Correction 2: -6		

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	253.00 FT
Rig Up Length At Bottom:	252.00 FT
Rig Up Length Correction:	1.00 FT
Stretch Correction:	7.00 FT
Tool Zero Check At Surface:	1.00 FT

Depth Control Remarks


1. Schlumberger Depth Control Policy adhered to
2. Calibrated IDW used as primary depth reference
- 3.
- 4.
- 5.
- 6.

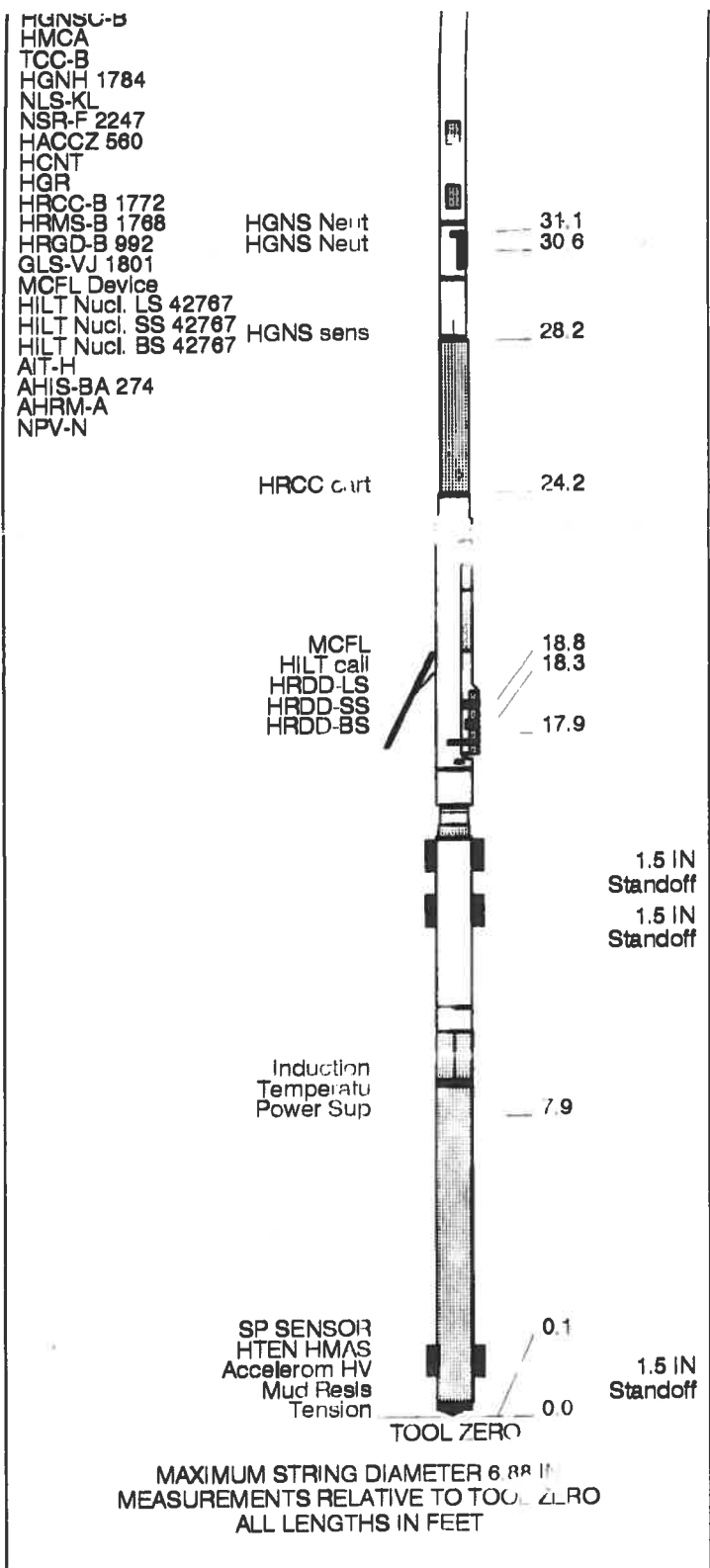
DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1 OS1: PEX-AIT OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Tool run as per toolsketch	
Matrix Logged as Limestone (MATR=LIMESTONE, MDEN=2.71g/cc)	
Presentations as per client request	
Cement volume calculated using 7" casing	
Neutron corrected for Hole Size (HSCO) and Standoff (SOCO)	
No Bowspring ran at client request	
Max Temperature from HGNS (HTEM)	
Porosity Logged to top of Barnett, 8410'	
Thanks for choosing Schlumberger!	
Schlumberger Graham Shopline 940 549-2220	
Your Crew Today: Morgan, Duffield	
RUN 1	RUN 2
SERVICE ORDER #: 1162912	SERVICE ORDER #:
PROGRAM VERSION: 1501309	PROGRAM VERSION:
FLUID LEVEL: 0 ft	FLUID LEVEL:
LOGGED INTERVAL START STOP	LOGGED INTERVAL START STOP

EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT	
WITM (CTS)-A GSR-U/Y 675 NCT-B CNB-AB NCS-VB	
DOWNHOLE EQUIPMENT	
LEH-QT LEH-QT 2630 HILTB-CTS HGNSC-B HMCA TCC-B HGNIH 1784 NLS-KL NSR-F 2247 HACCZ 560 HCNT HGR HRCC-B 1772 HRMS-B 1768 HRGD-B 992 GLS-VJ 1801 MCFL Device HILTB-CTS 42787	40.6 37.6 36.9 37.6 31.1 30.6
HGNS HTEM HMCA TelStatus CTEM HGNS Gainm HGNS Neut HGNS Neut	



Schlumberger

MAIN PASS 2" = 100'

Schlumberger

MAIN PASS 2" = 100'

MAXR Lcrl Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNLC_PUP FN:15 PRODUCER 17-May-2007 12:27 9822.0 FT 1001.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNLC_020PUP FN:19 PRODUCER 17-May-2007 14:58

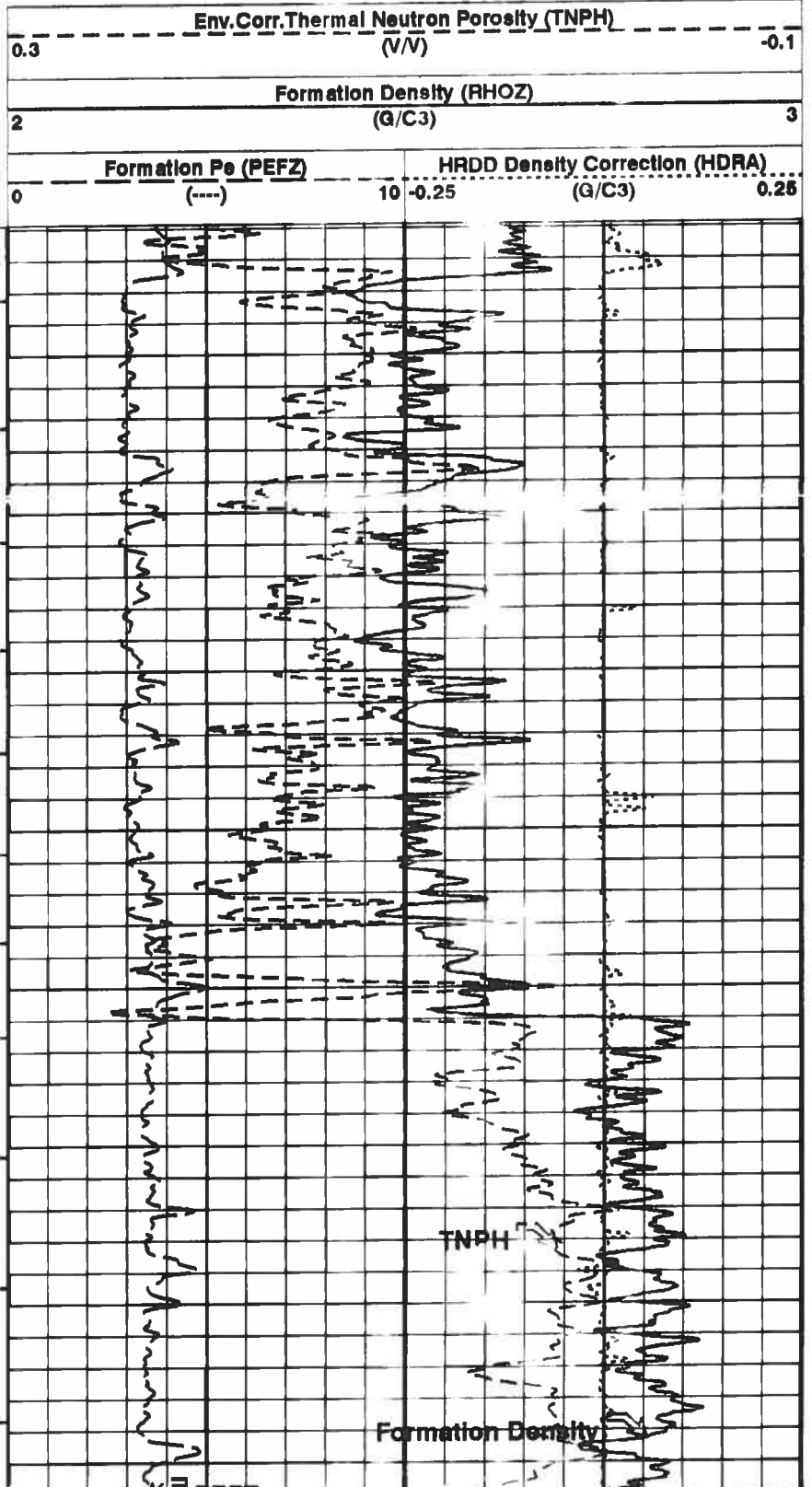
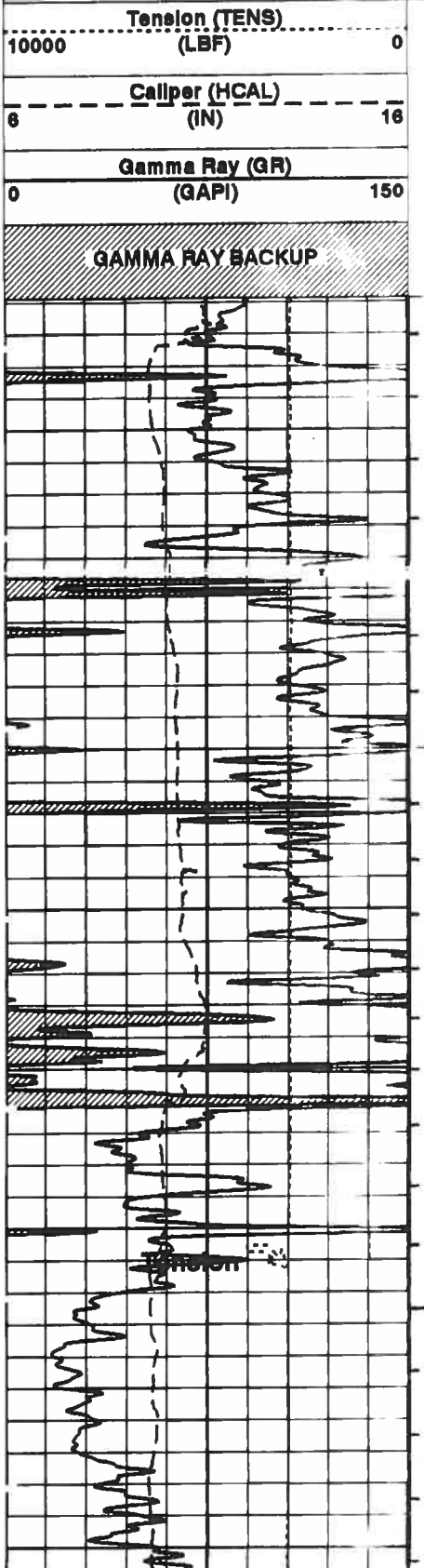
OP System Version: 15C0-309
MCM

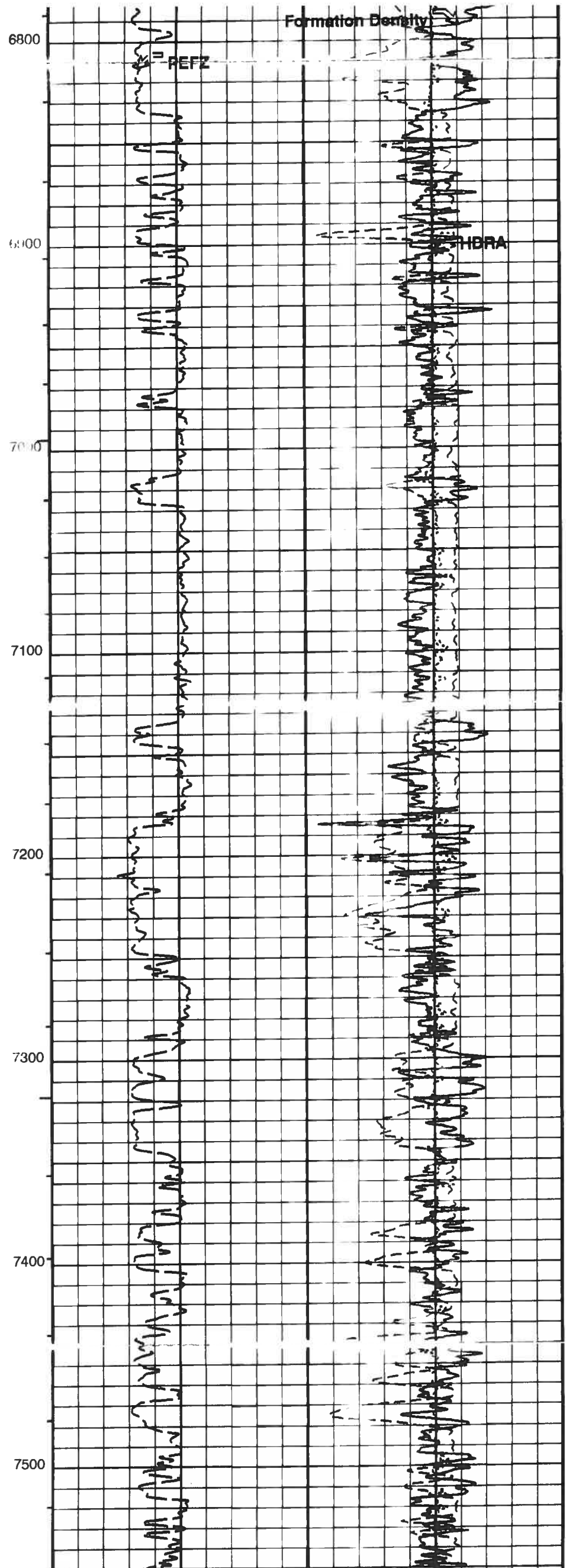
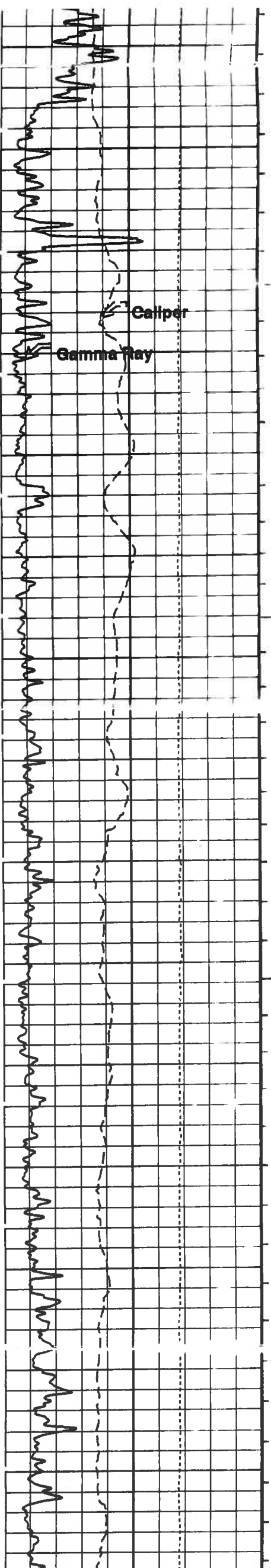
HILTB-CTS SPC-3345-AIT

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
 - Integrated Cement Volume Minor Pip Every 10 F3
 - Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S





6800

6900

7000

7100

7200

7300

7400

7500

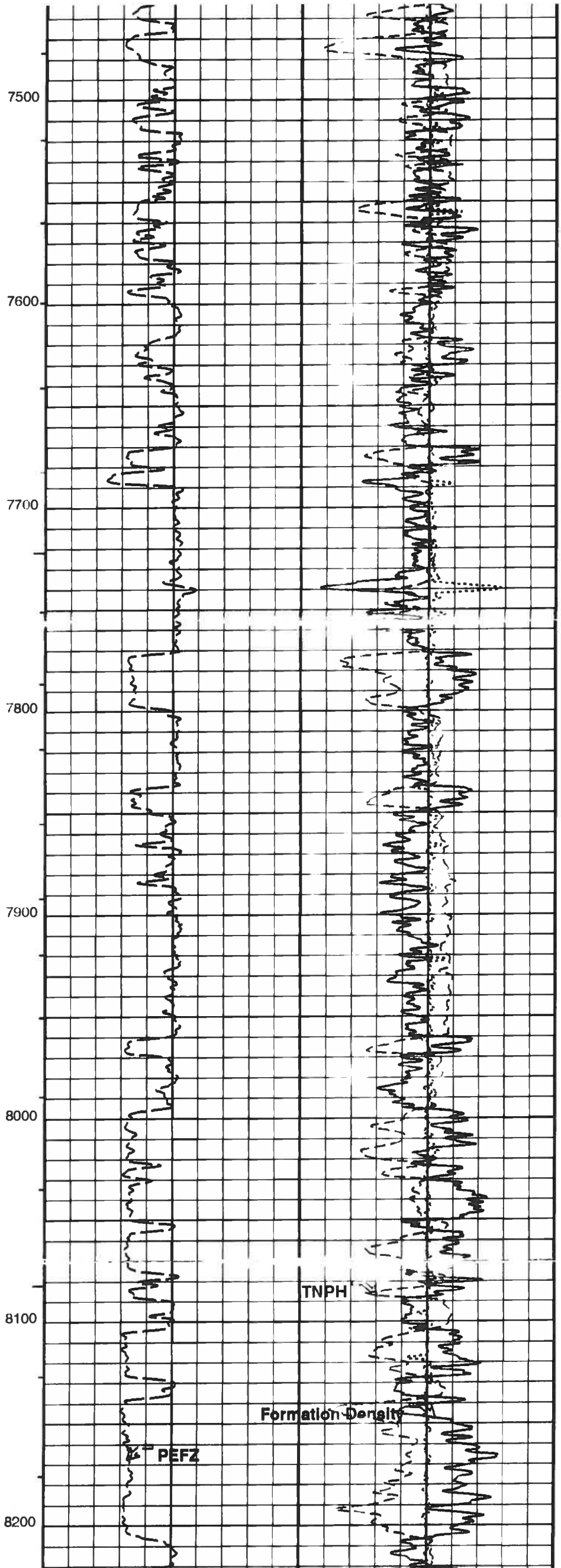
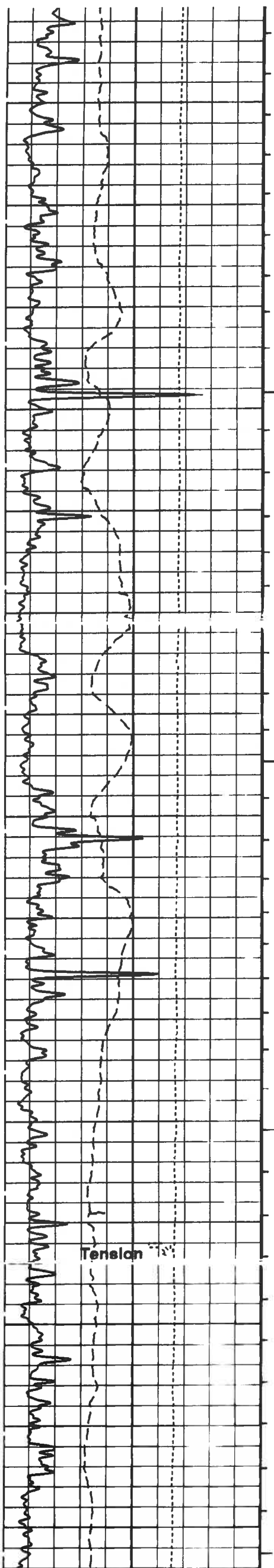
Formation Density

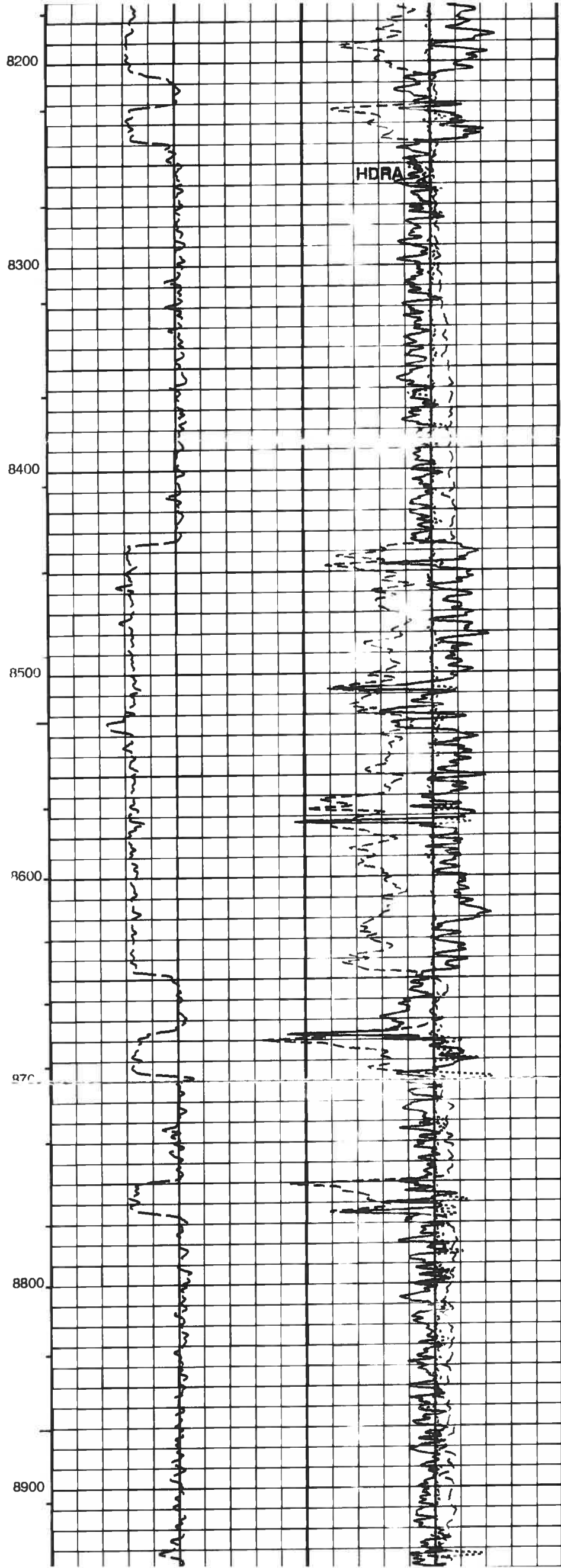
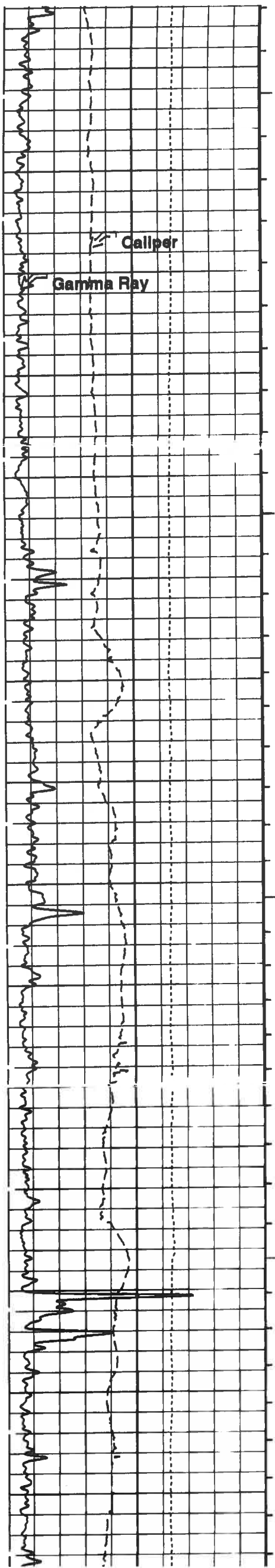
PEZ

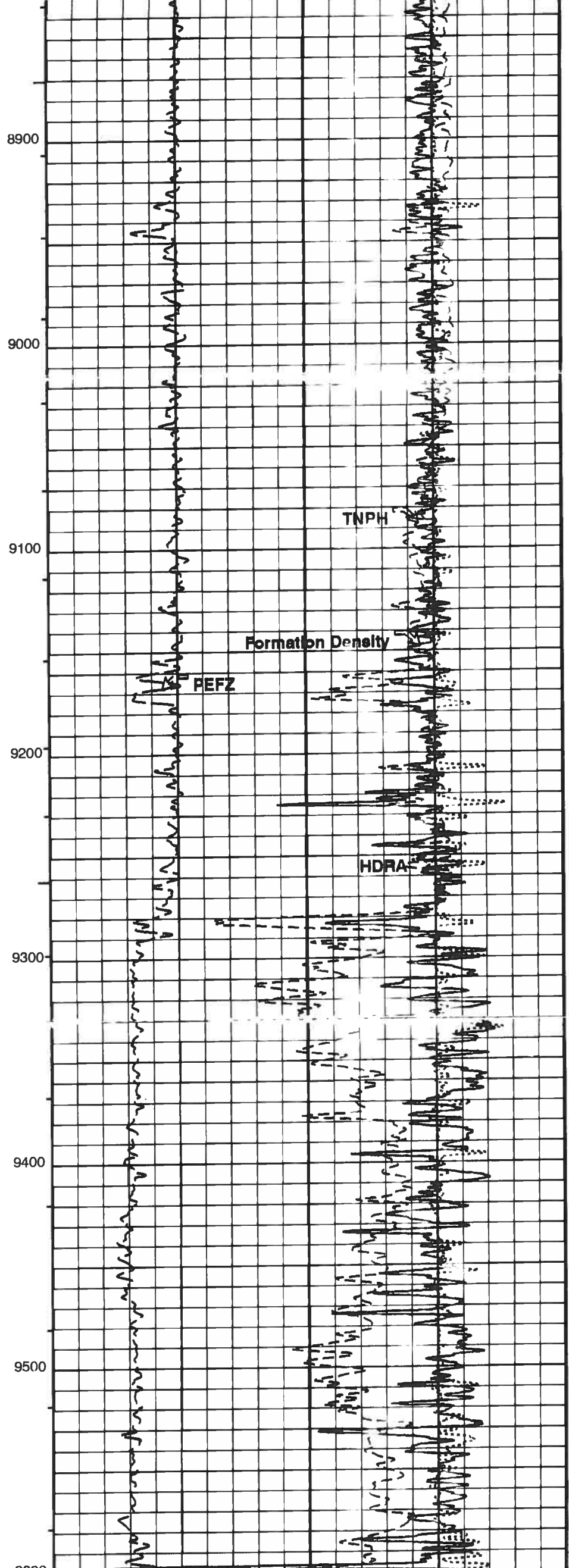
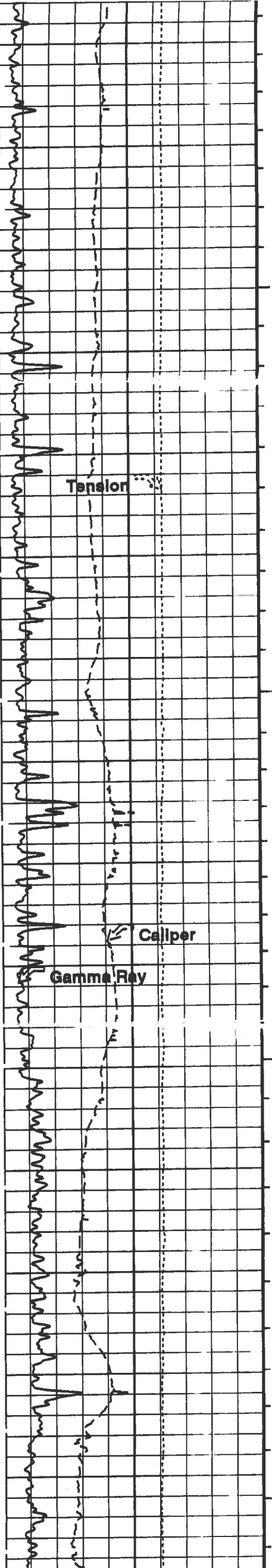
HDRA

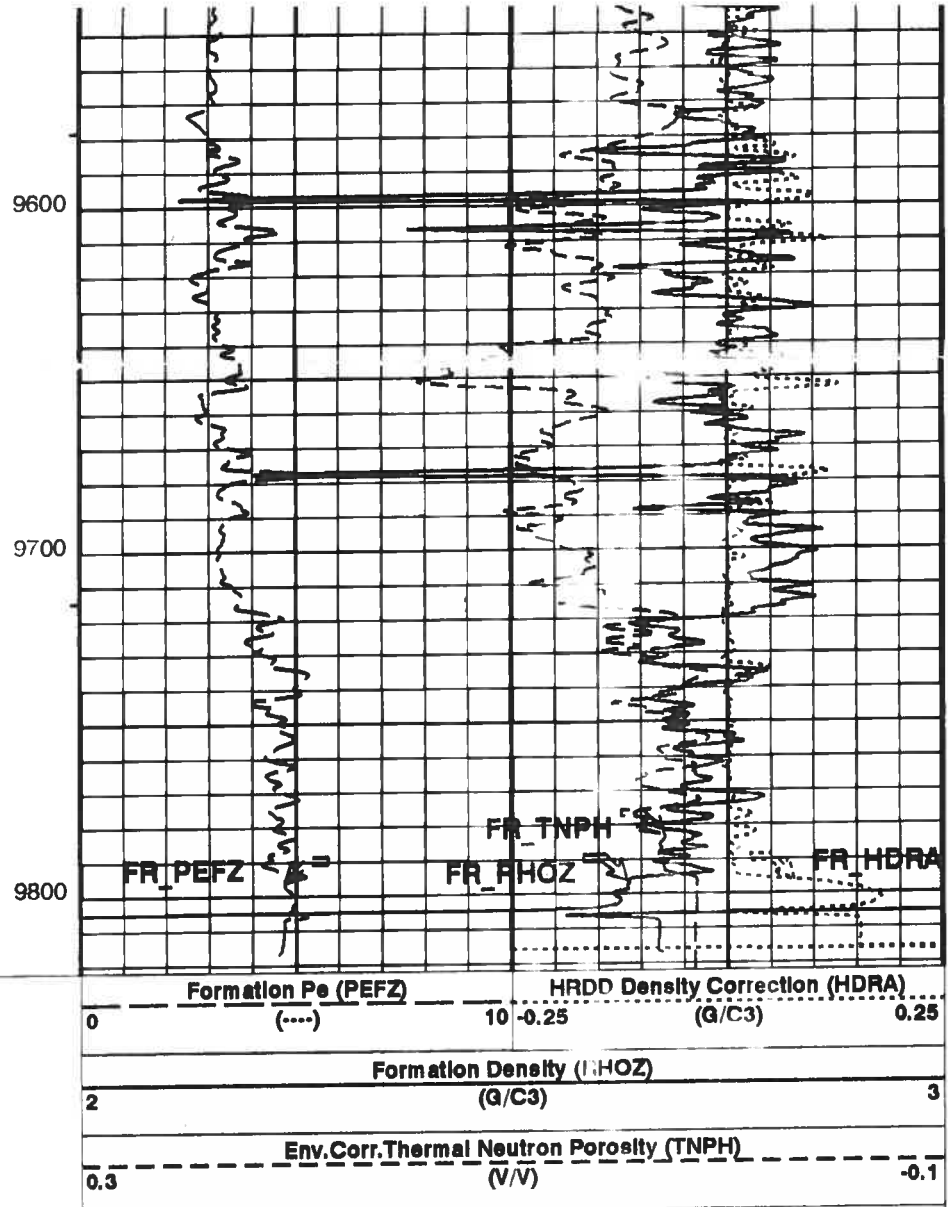
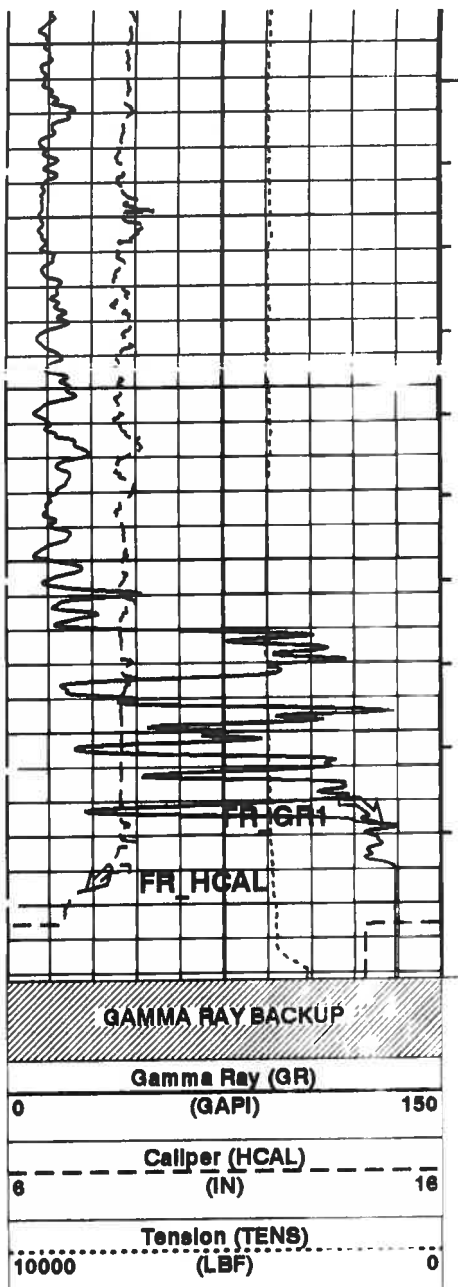
Caliper

Gamma Ray









PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S
 Format: DENS Vertical Scale: 2" per 100' Graphics File Created: 17-May-2007 14:56

OP System Version: 15C0-309
 MCM

HILTB-CTS SPC-3345-AIT

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 17-May-2007 12:27 9822.0 FT 1001.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 17-May-2007 14:56

Schlumberger

MAIN PASS 5" = 100'

MAXE Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 17-May-2007 12:27 9822.0 FT 1001.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 17-May-2007 14:56

OP System Version: 15C0-309
 MCM

HILTB-CTS SPC-3345-AIT

PIP SUMMARY

Output DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_020PUP

FN:10

PRODUCER

17-May-2007 14:56

OP System Version: 15C0-309 MCM

HILTB-CTS

SPC-3345-AIT

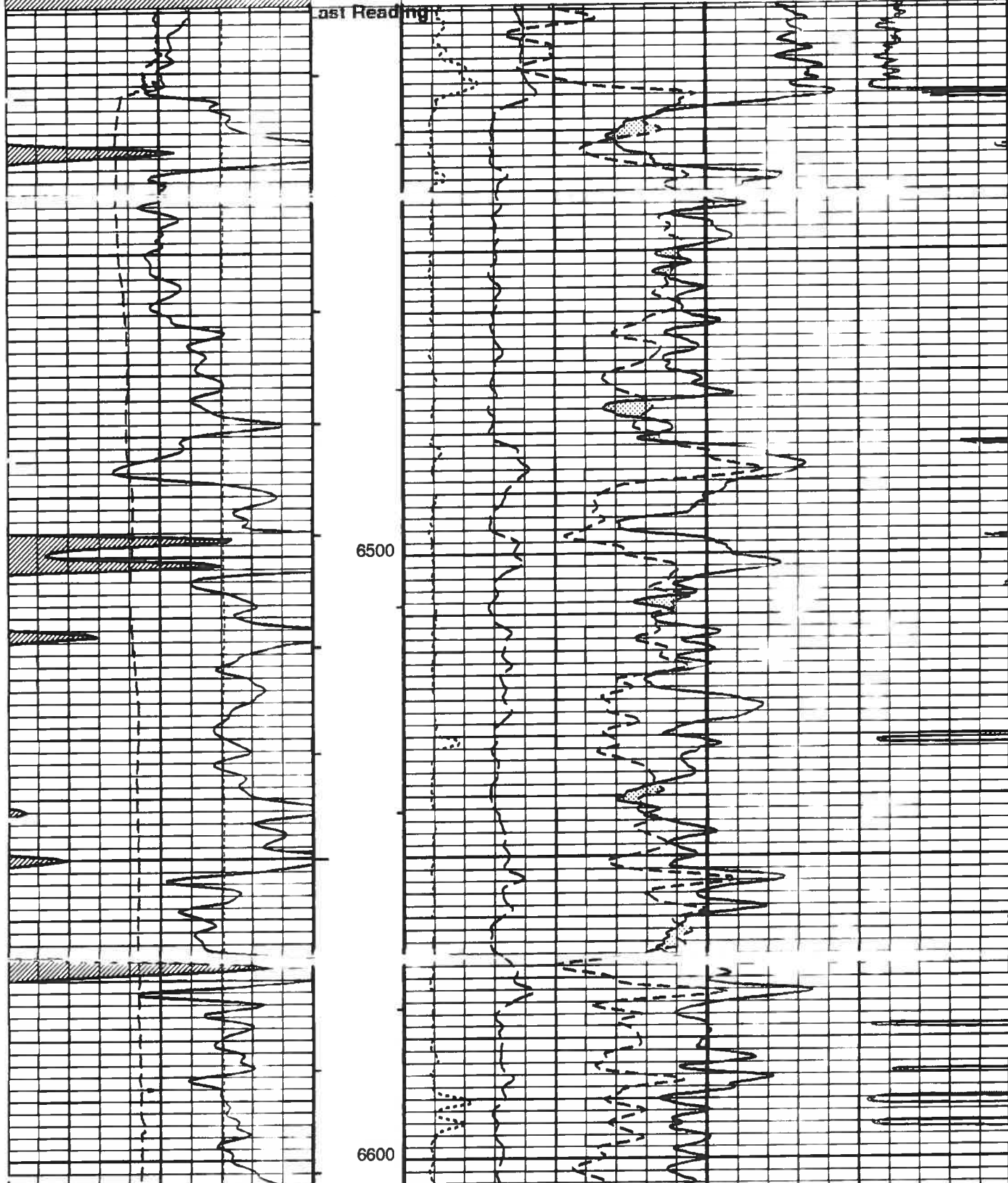
PIP SUMMARY

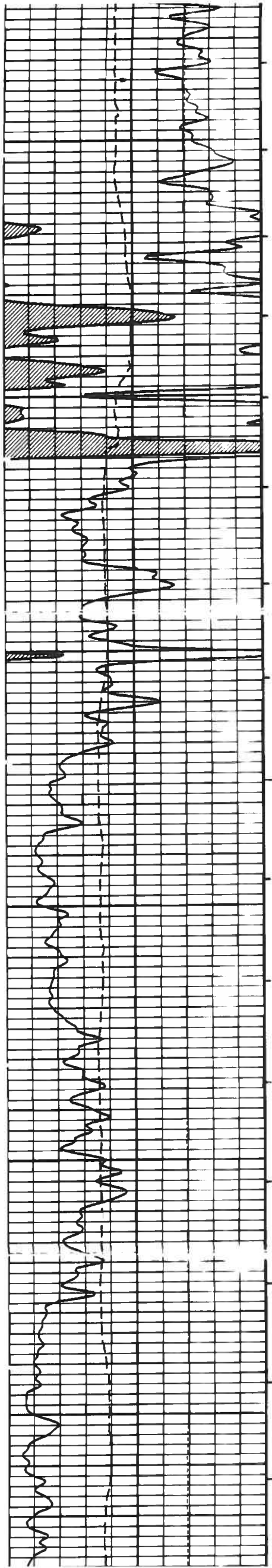
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

MICROLOG PERM
From HMIN to
HMNO

Env. Corr. Thermal Neutron Porosity (TNPH)		-0.1
0.3	(V/V)	
Callper (HCAL) (IN)		
6	16	
Crossover From DPHZ to TNPH		
HRDD Density Correction (HDRA) -0.05 (G/C3) 0.2		Micro Normal Resistivity (HMNO) (OHMM) 40
Gamma Ray (GR) (GAPI)		
0	150	
Formation Ps (PEFZ) (----)		Micro Inverse Resistivity (HMIN) (OHMM) 40
0	10	
Std Res Density Porosity (DPHZ)		-0.1
0.3	(V/V)	
Tension (TENS) (LBF)		
10000	0	

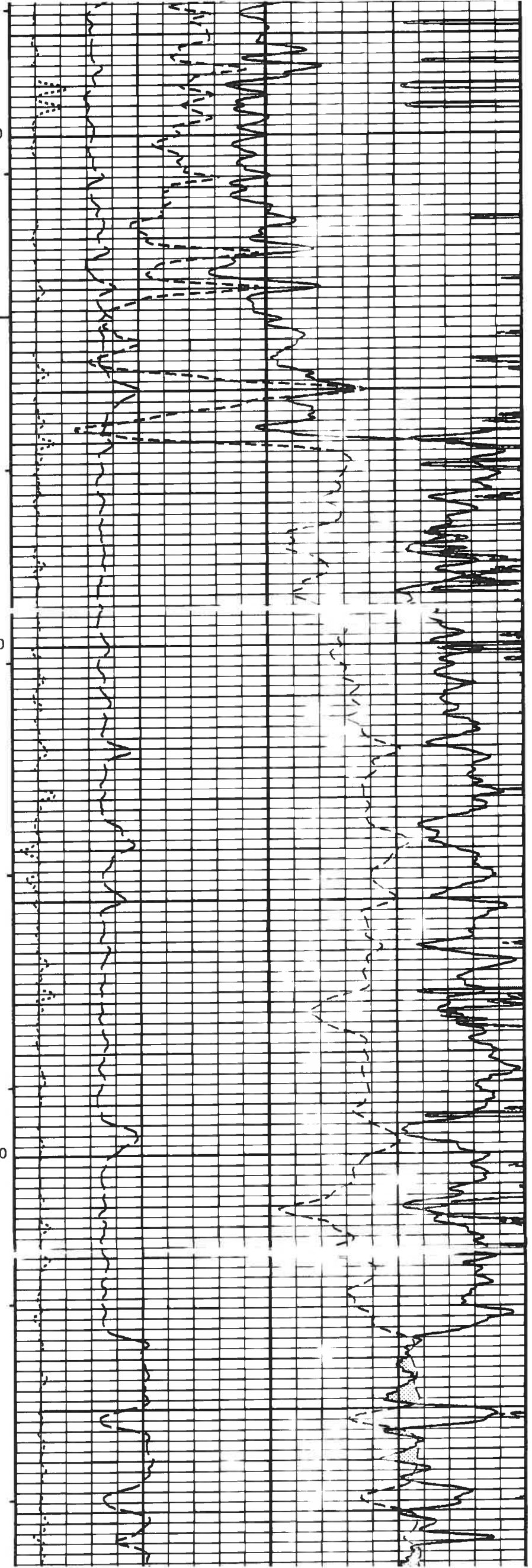


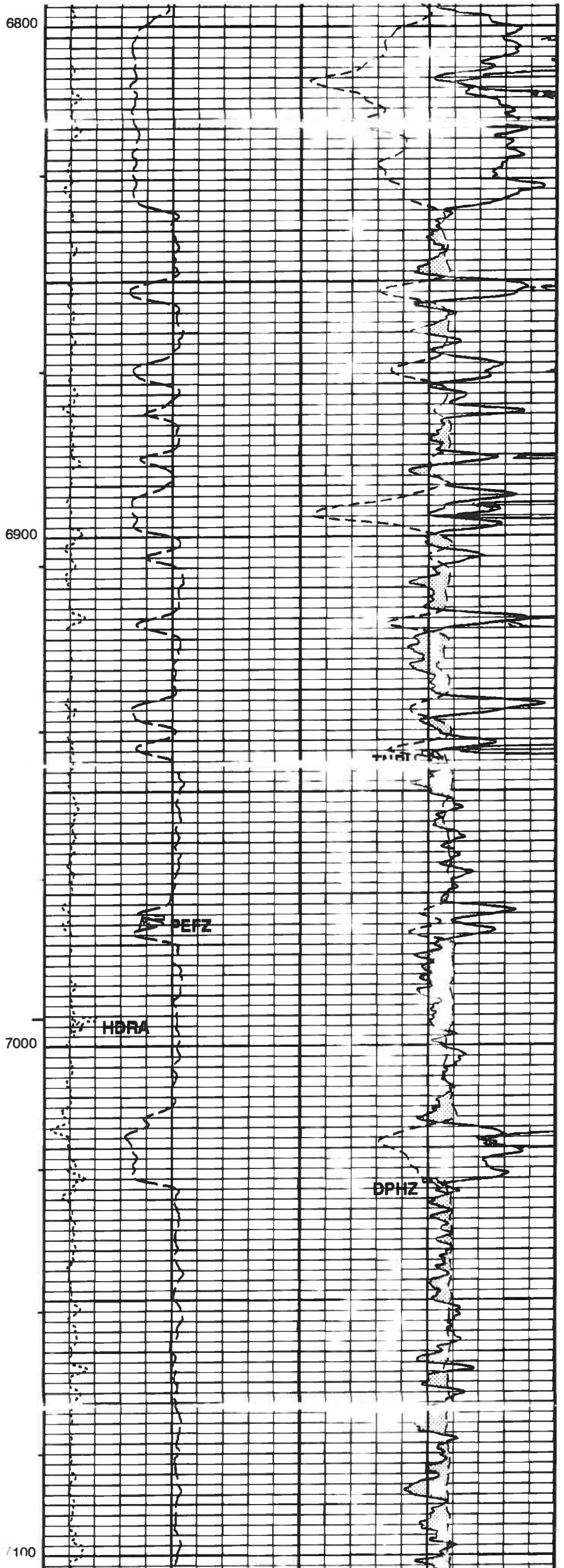
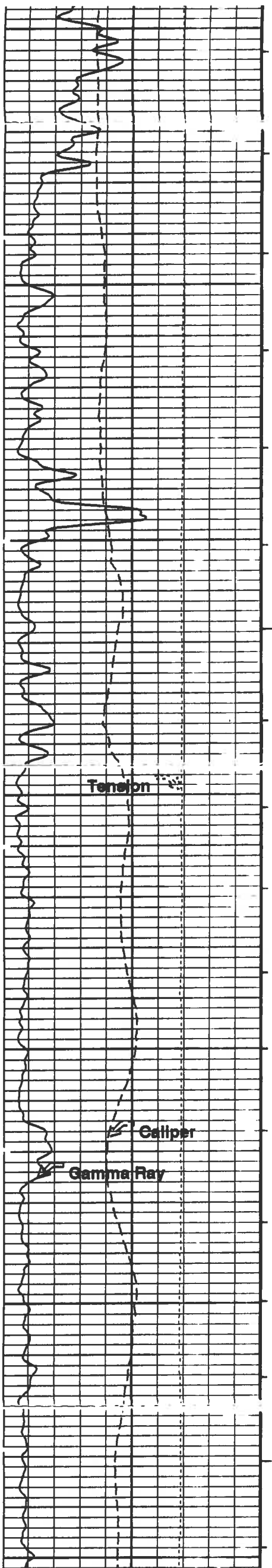


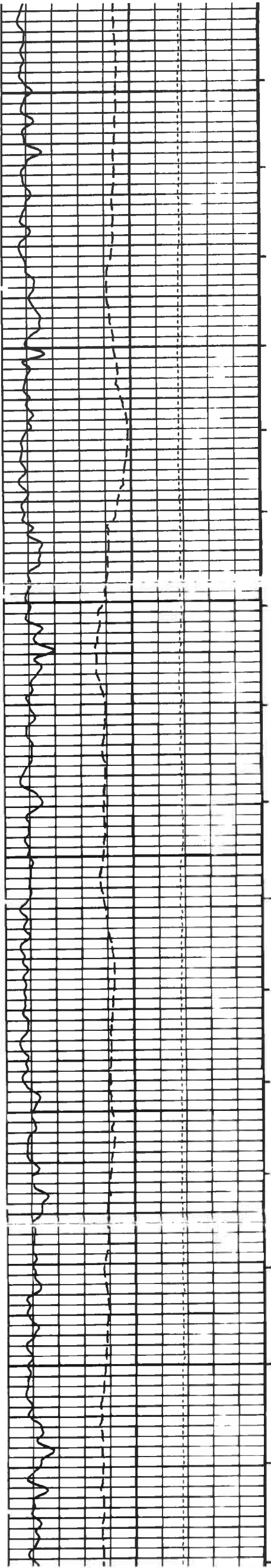
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6700

6800



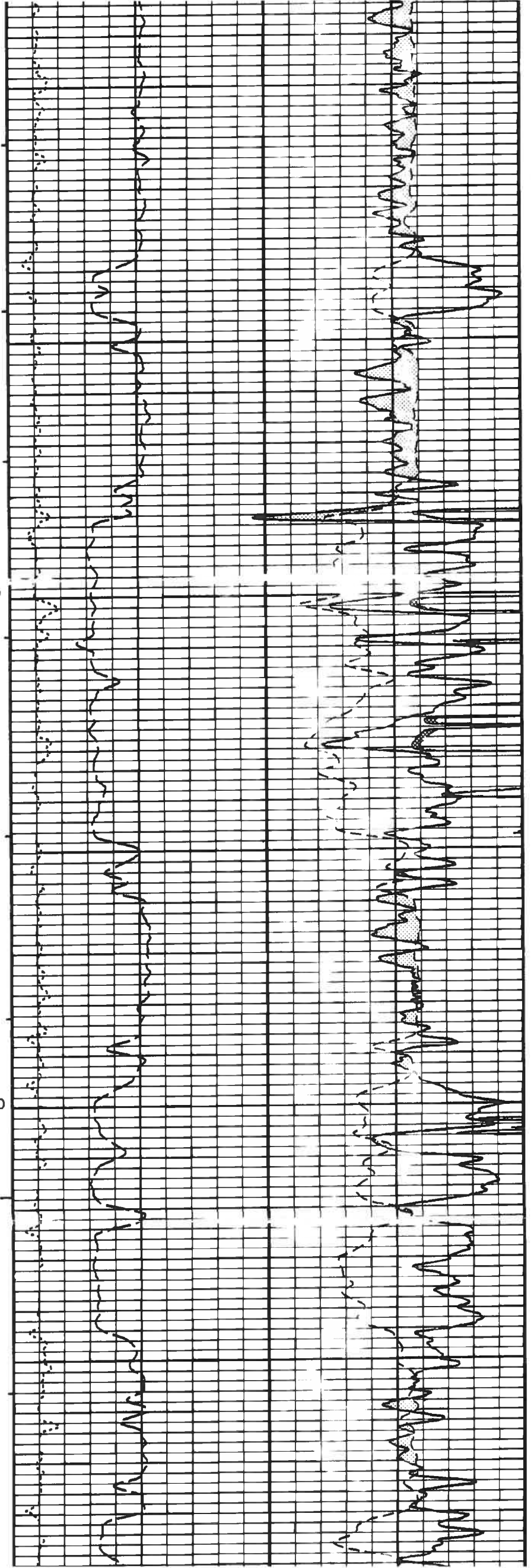


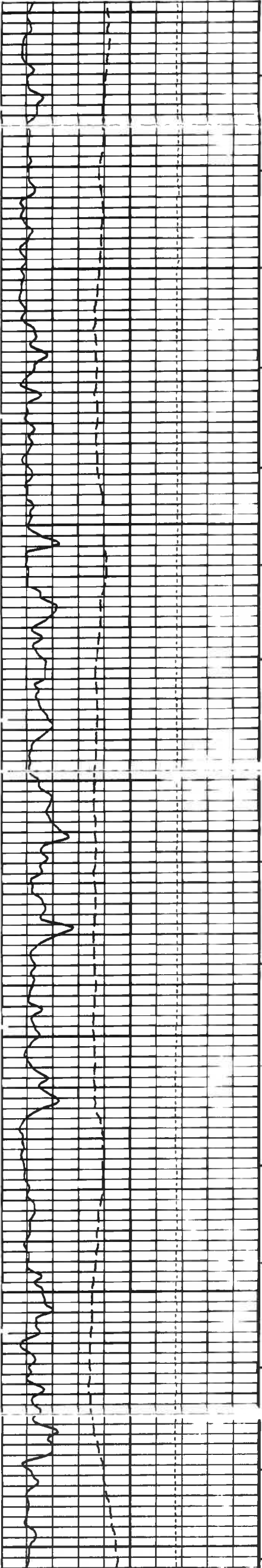


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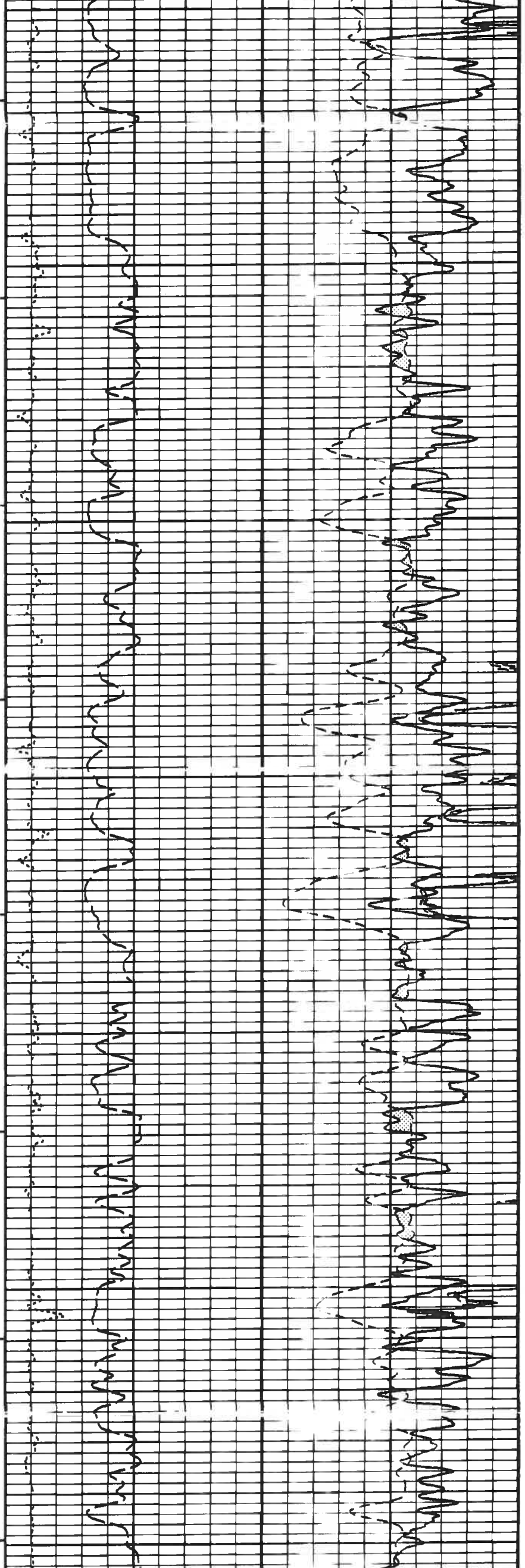
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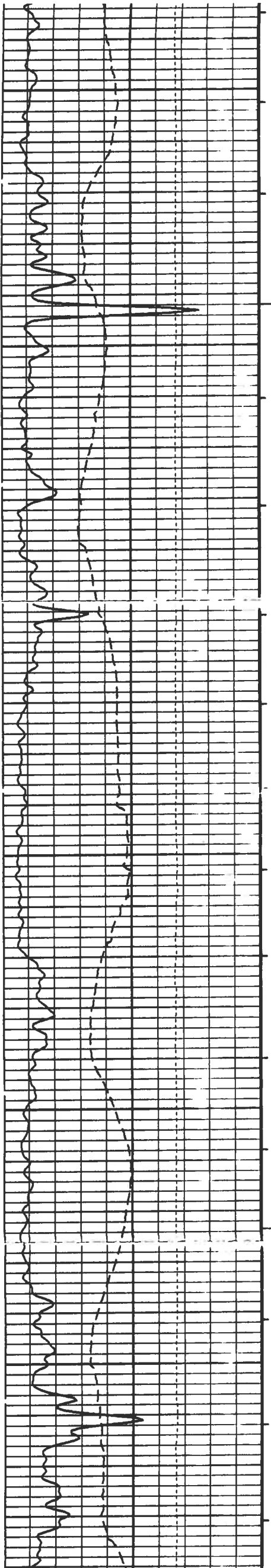
7300





7300
7400
7500
7600

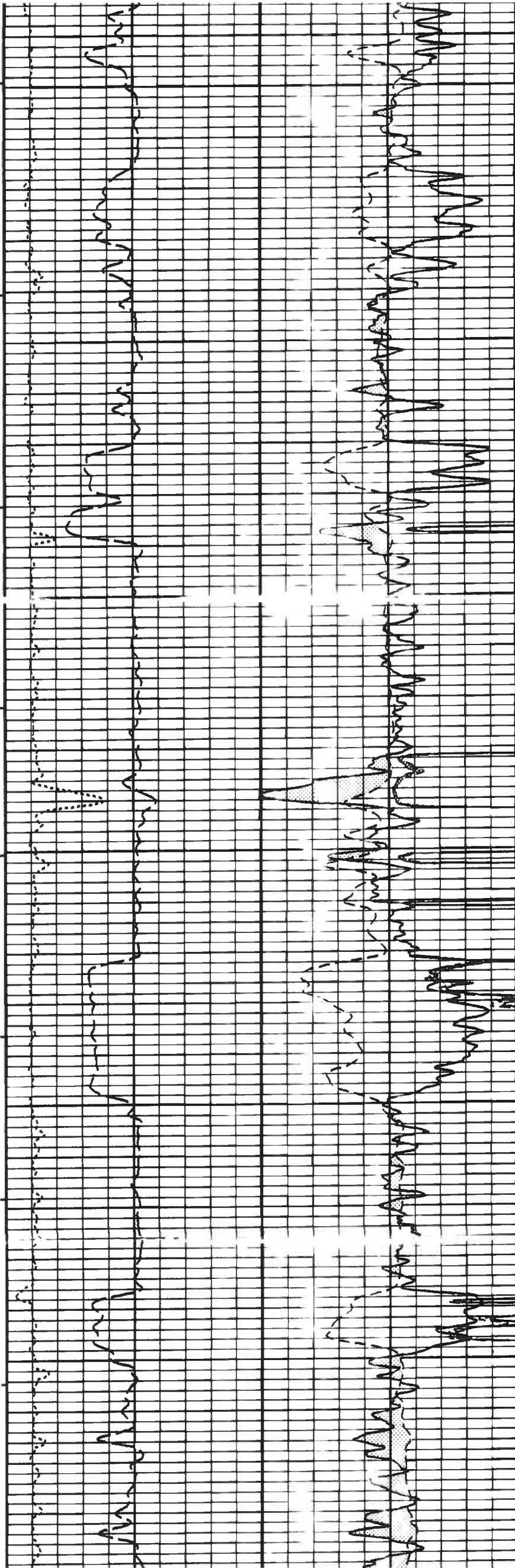


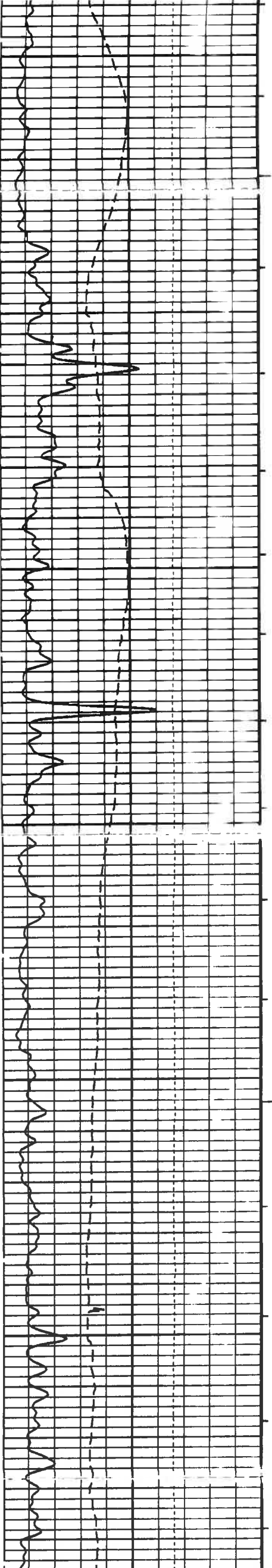


7600

7700

800

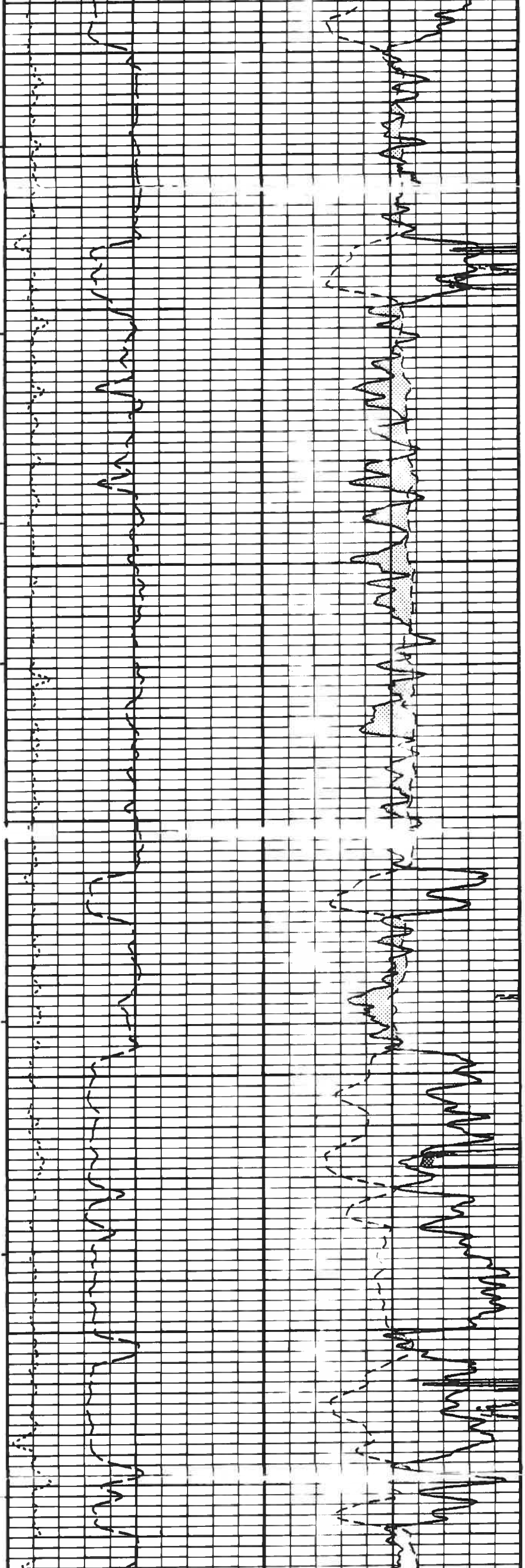


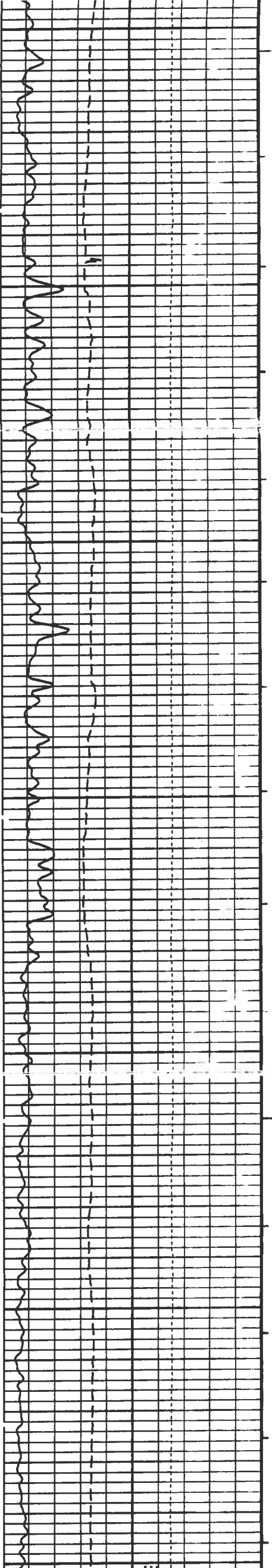


7800

7900

8000



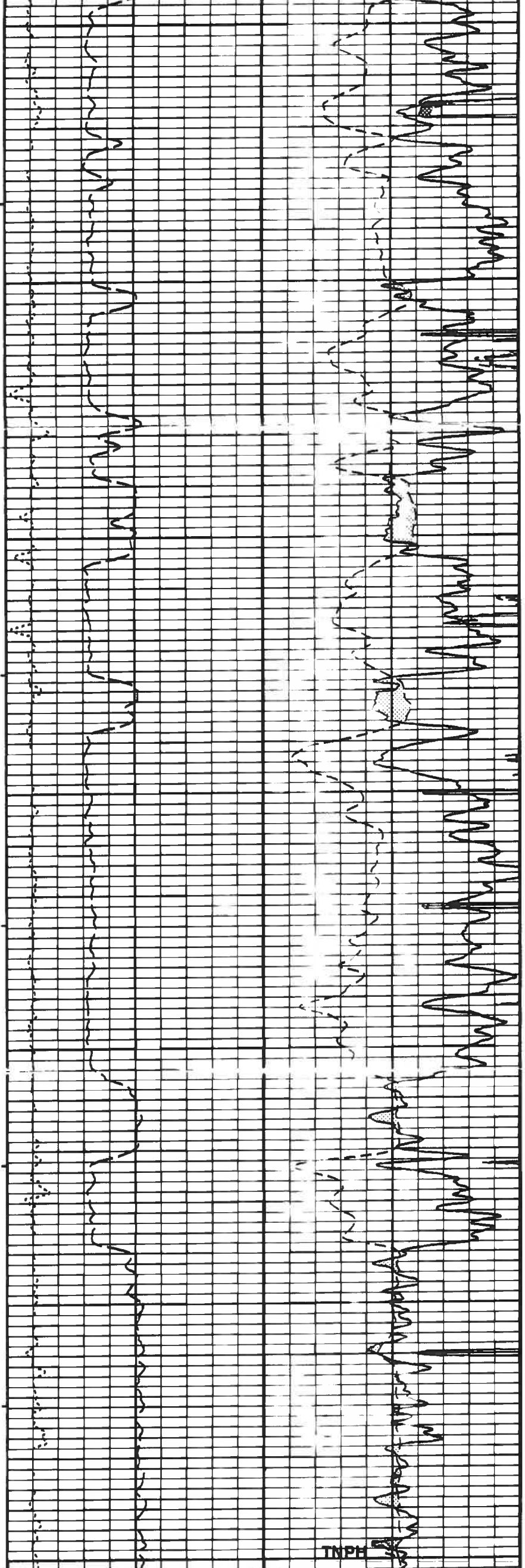


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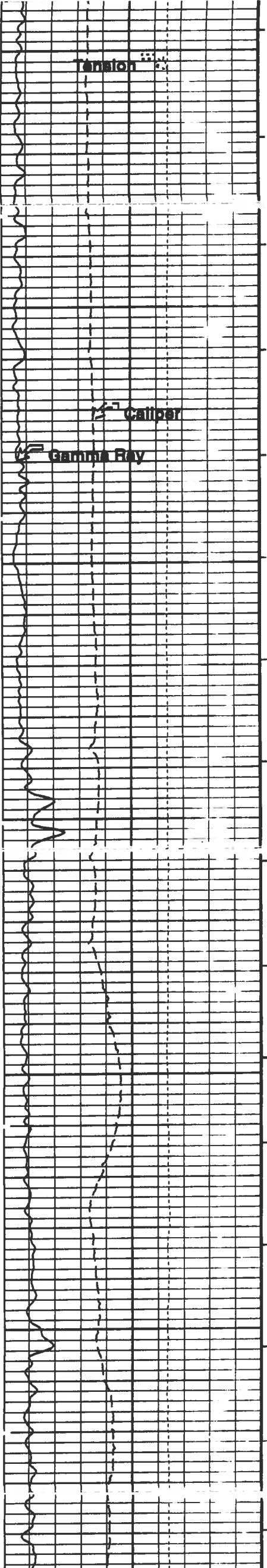
8100

8200

8300



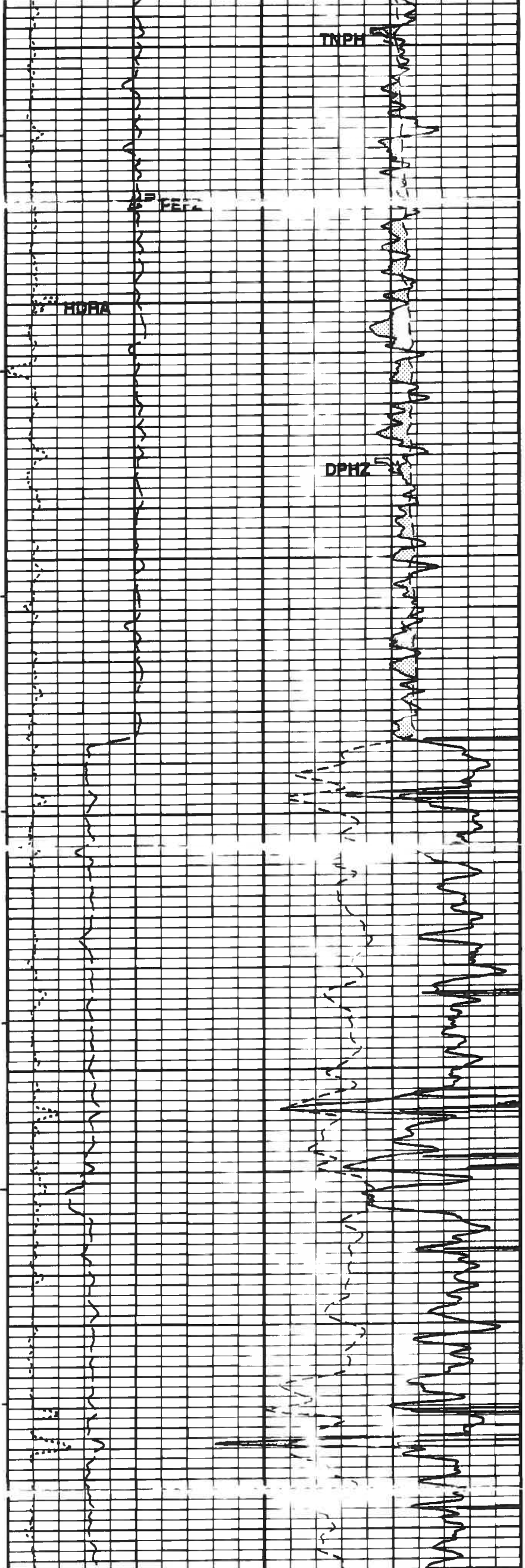
TNPH



8300

8400

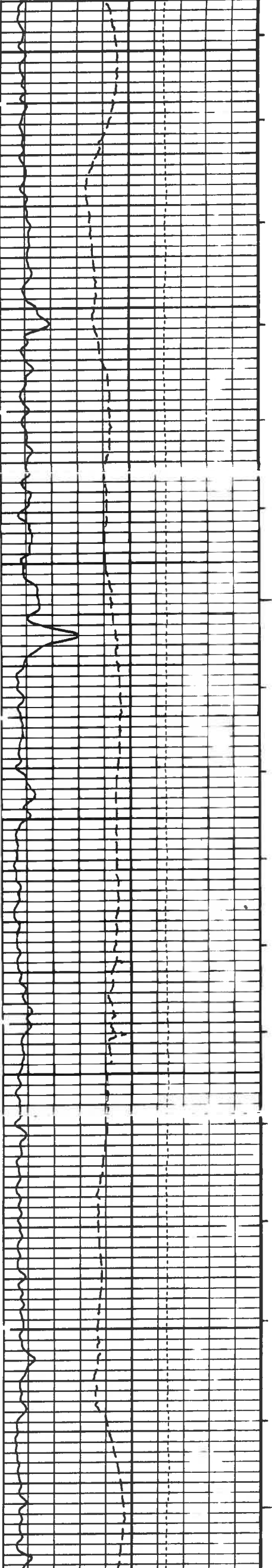
8500



TNPH

HDPA

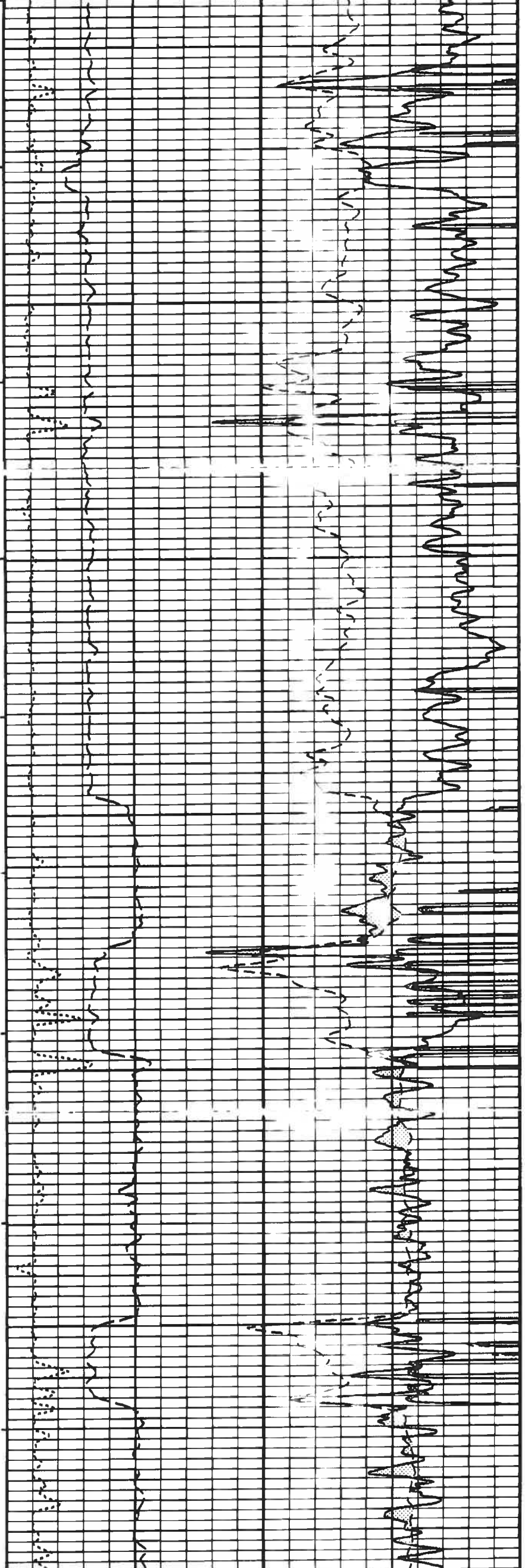
DPHZ

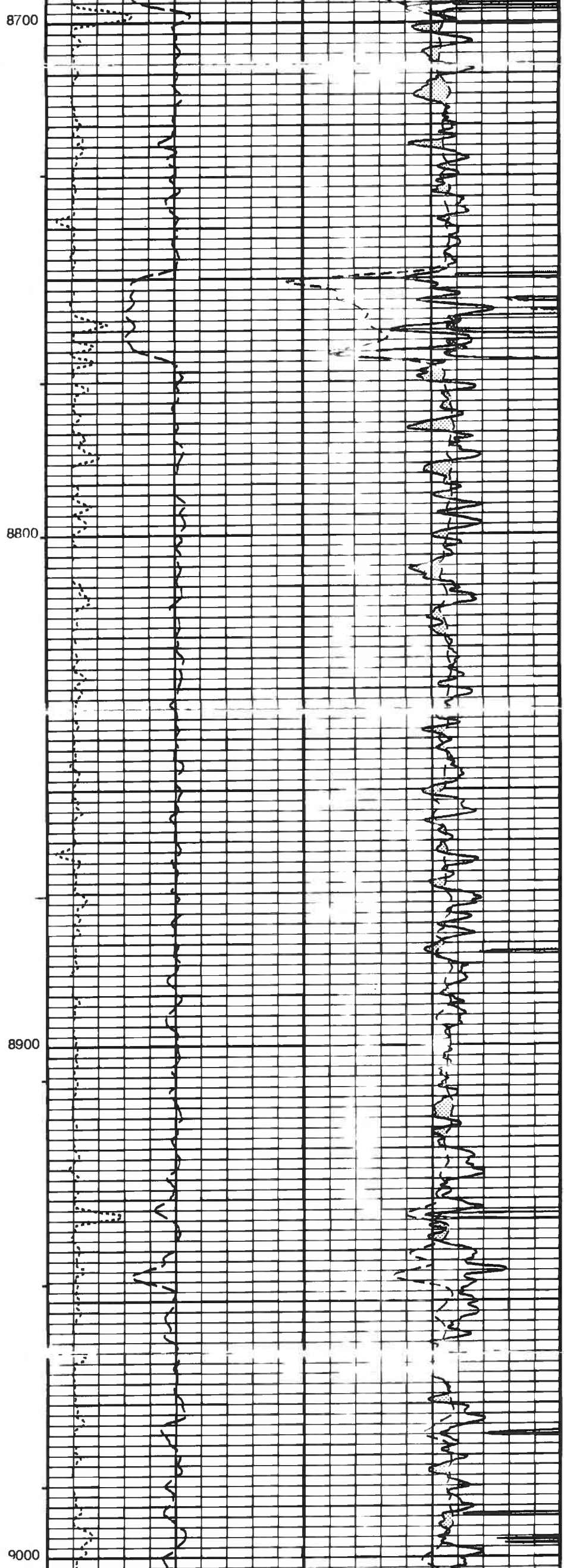
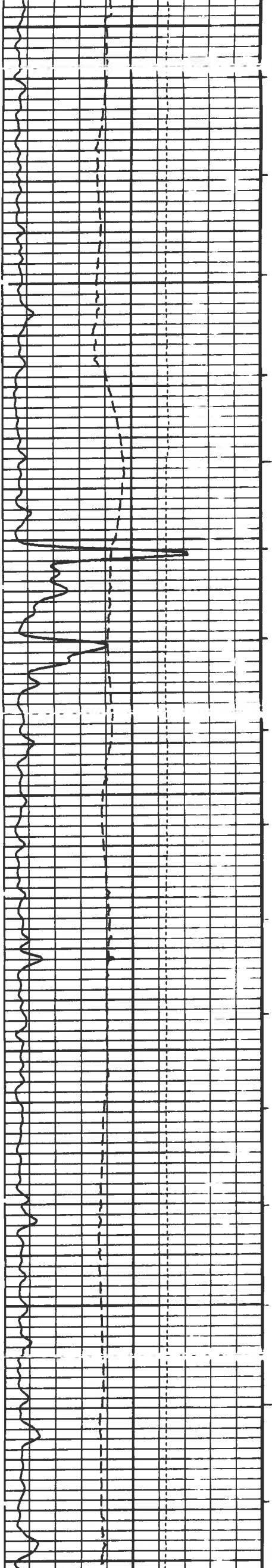


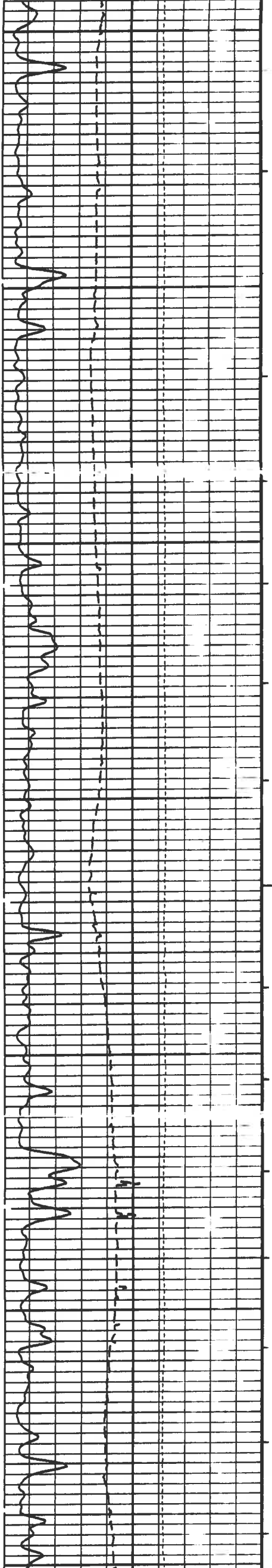
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8600

8700





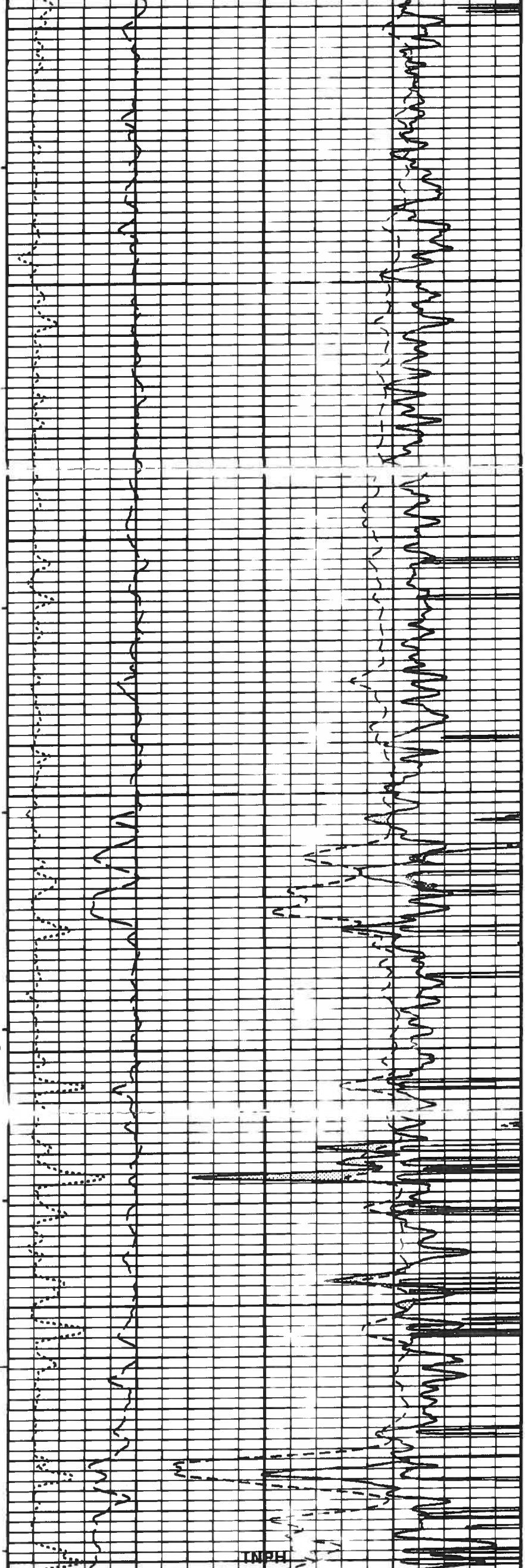


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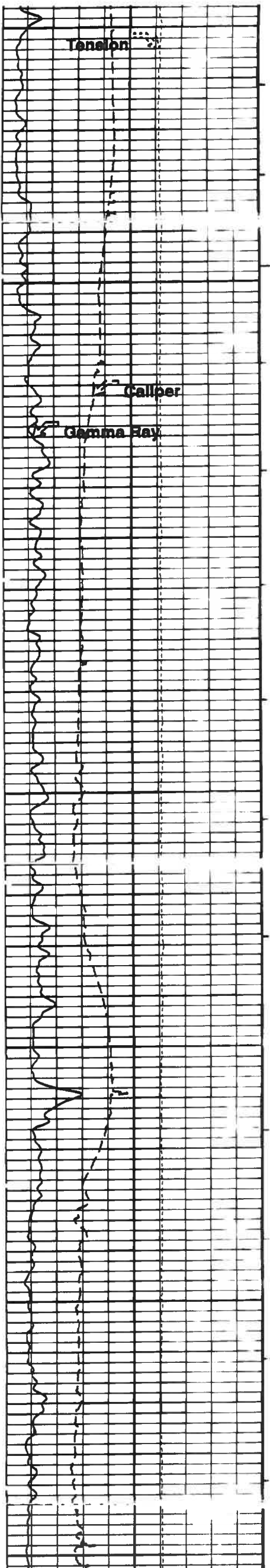
9100

9200

9300



INPH

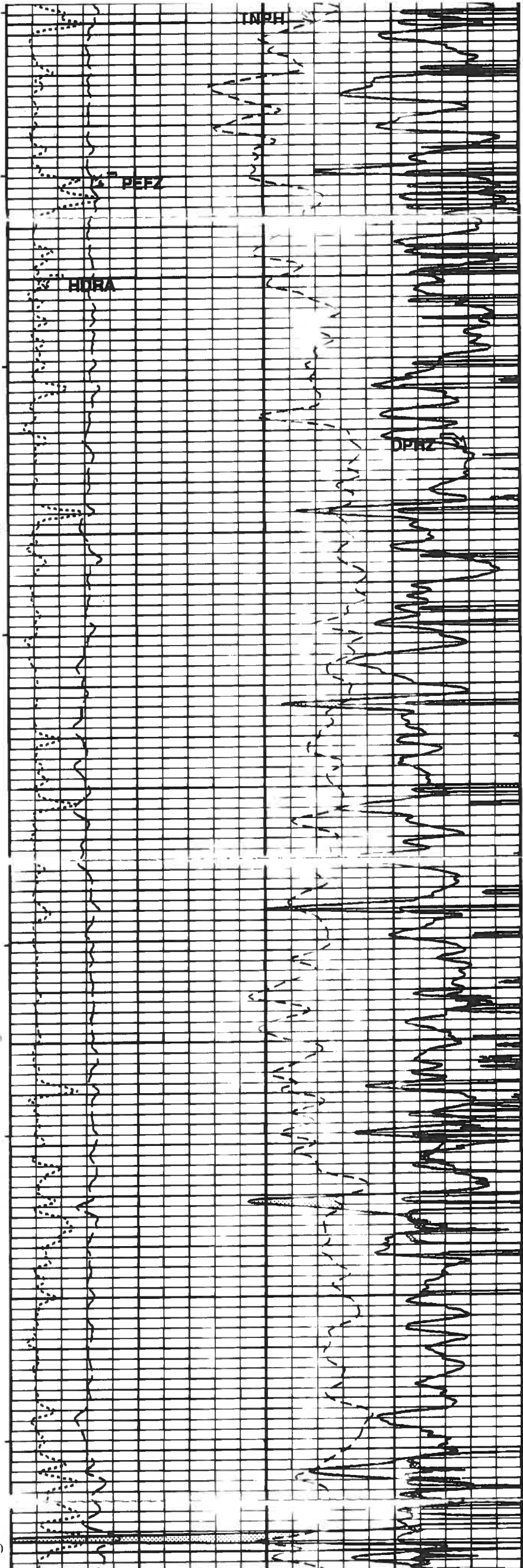


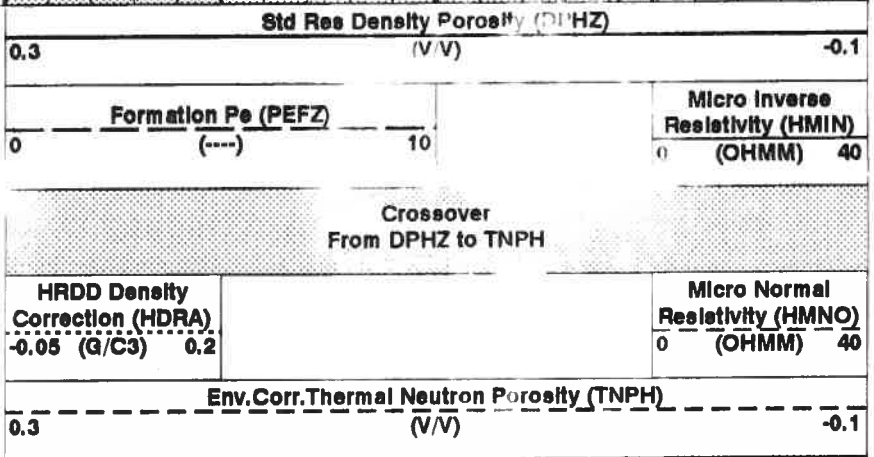
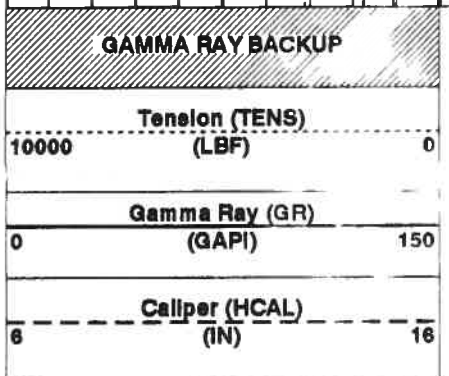
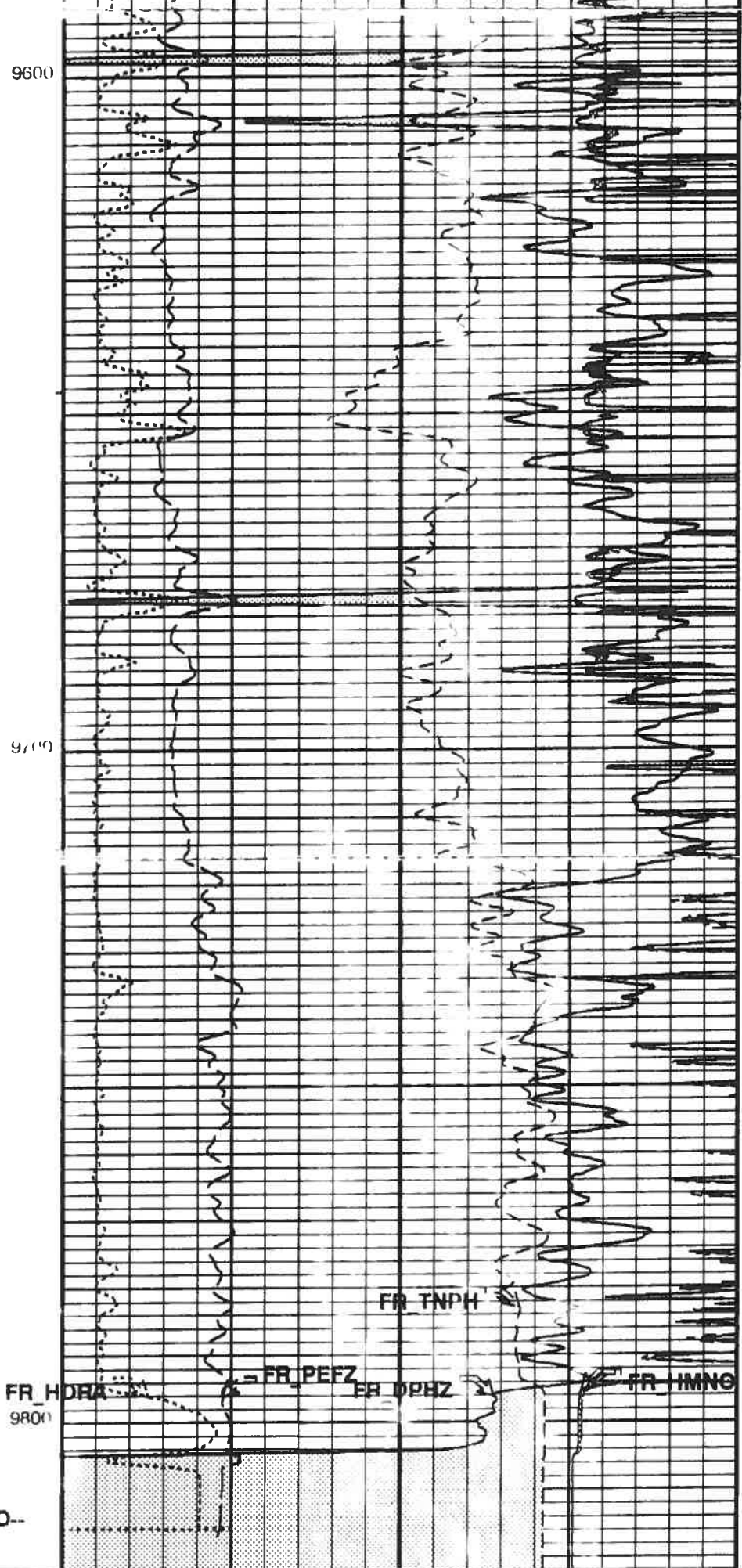
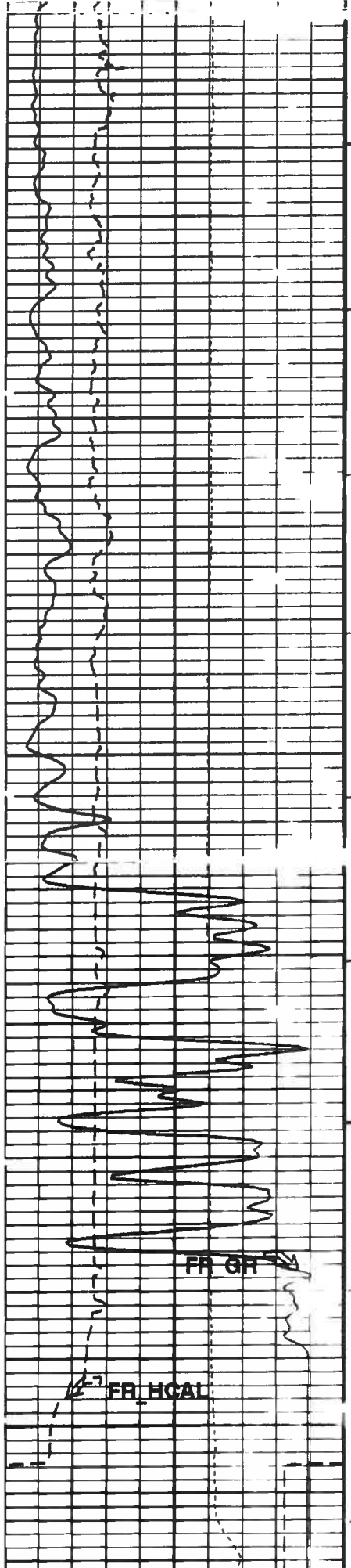
9300

90

9500

9600





MICROLOG PERM
From HMNO to HMNO

PIP SUMMARY

Integrated Hole Volume Minor Pip Every 10 F3

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
 - Integrated Cement Volume Minor Pip Every 10 F3
 - Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HILTB-CTS: High resolution Integrated Logging Tool-CTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-Ilike Formation Option	NO	
GCSE	Generalized Calliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOH	Mud Cake		
MDEN	Matrix Density	2.71	G/C3
MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HIRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	80	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
FCD	Future Casing (Outer) Diameter	7	IN
GCSE	Generalized Calliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HVCS	Integrated Hole Volume Calliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	80	DEGF
PERT: Preliminary Evaluation - Real Time			
BHS	Borehole Status	OPEN	
GCSE	Generalized Calliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	80	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
TDD	Total Depth - Driller	9805.00	FT
TDL	Total Depth - Logger	9814.00	FT
System and Miscellaneous			
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	2100.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	36.00	LB/F
DFD	Drilling Fluid Density	9.80	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
MST	Mud Sample Temperature	73.00	DEGF
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	1.1886	OHMM
TD	Total Depth	9814	FT

Format: PORO Vertical Scale: 5" per 100' Graphics File Created: 17-May-2007 14:56

OS System Version: 1500-309
MCM

HILTB-CTS SPC-3345-AIT

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 17-May-2007 12:27 9822.0 FT 1001.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 17-May-2007 14:56

Schlumberger

REPEAT PASS

MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:13 PRODUCER 17-May-2007 12:13 9828.0 FT 9334.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:14 PRODUCER 17-May-2007 12:28 9825.0 FT 9338.0 FT

DEFAULT

AIT_TLD_MCFL_CNL_018LUP

FN:15

PRODUCER

17-May-2007 12:27

9822.0 FT

1001.0 FT

Output DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_020PUP

FN:19

PRODUCER

17-May-2007 14:56

Schlumberger

REPEAT PASS

MAXIS Field Log

Input DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_014LUP

FN:13

PRODUCER

17-May-2007 12:13

9828.0 FT

9334.0 FT

Output DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_015PUP

FN:14

PRODUCER

17-May-2007 12:26

9825.0 FT

9335.0 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 202.63 F3

Cement Volume = 74.62 F3 (assuming 7.00 IN casing O.D.)

Computed from 9914.0 FT to 9335.5 FT using data channel(s) HCAL

OP System Version: 15C0-309

MCM

HILTB-CTS

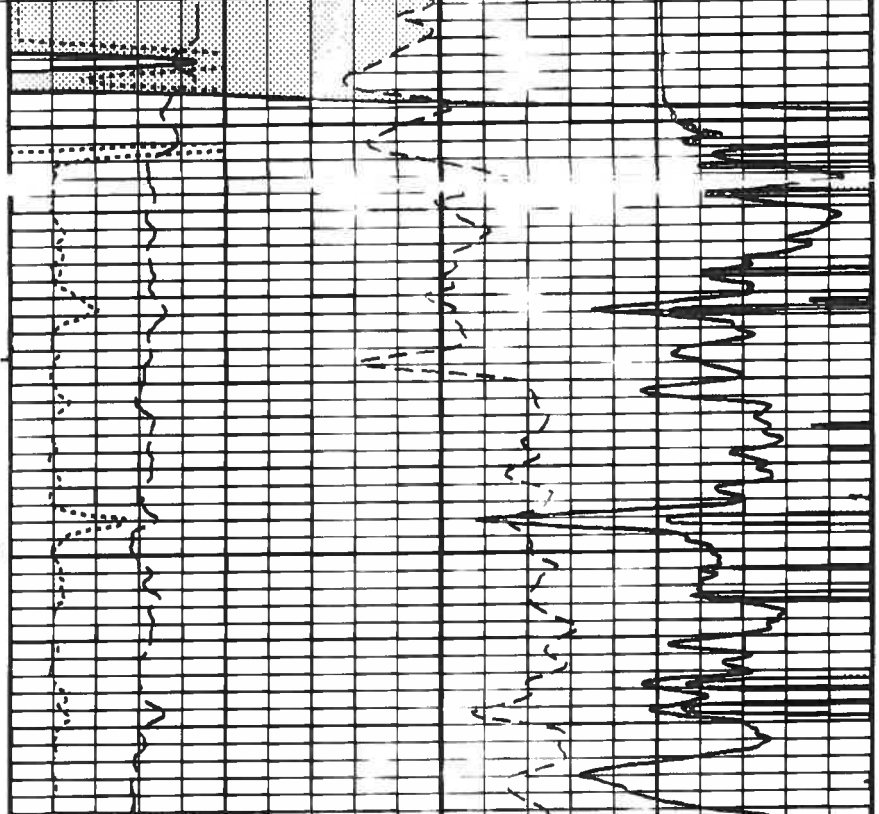
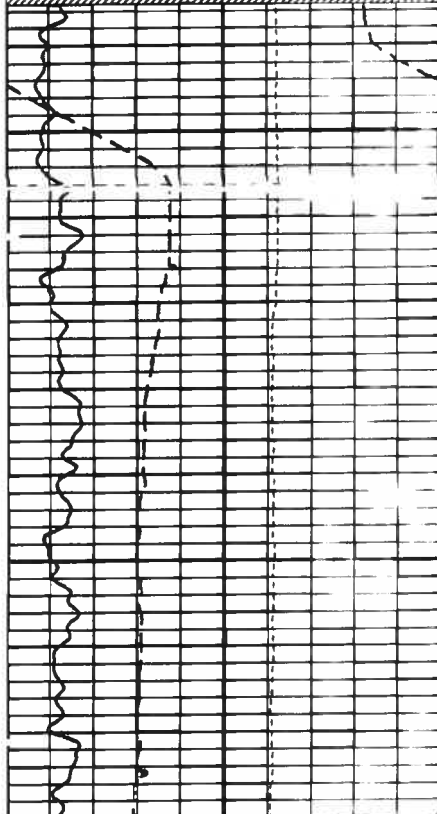
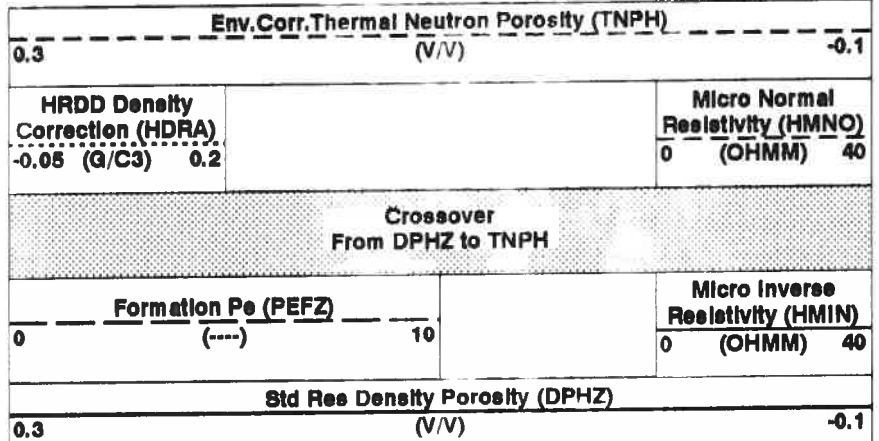
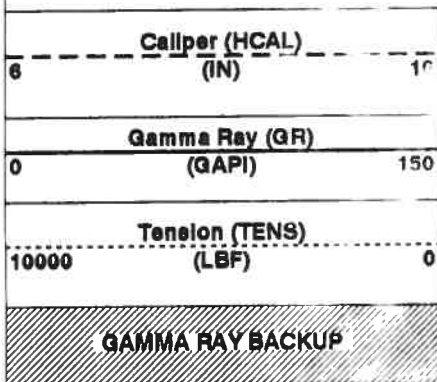
SPC-3345-AIT

PIP SUMMARY

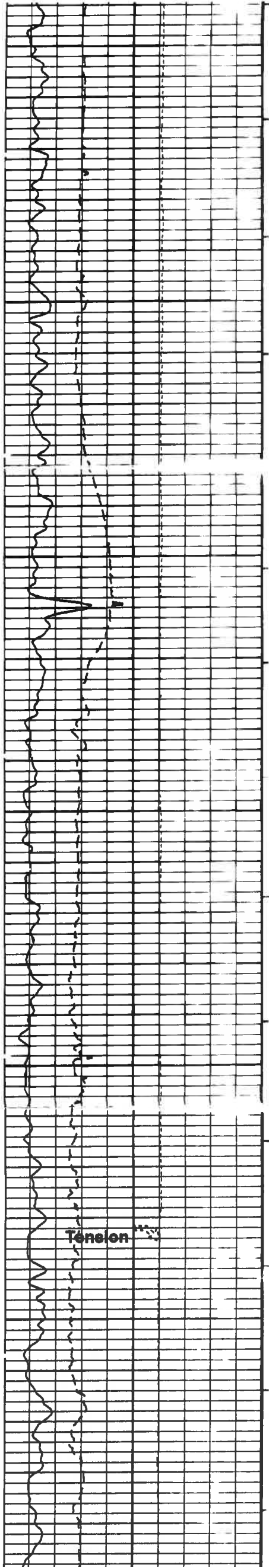
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

MICROLOG PERM
From HMIN to
HMNO



9400

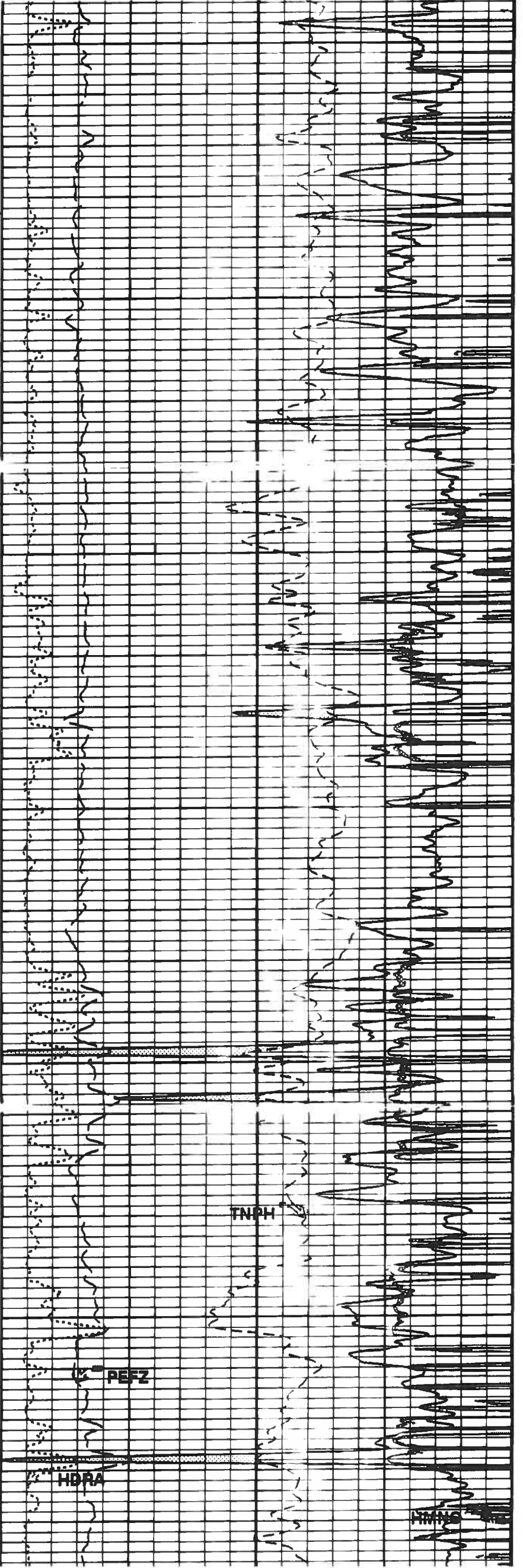


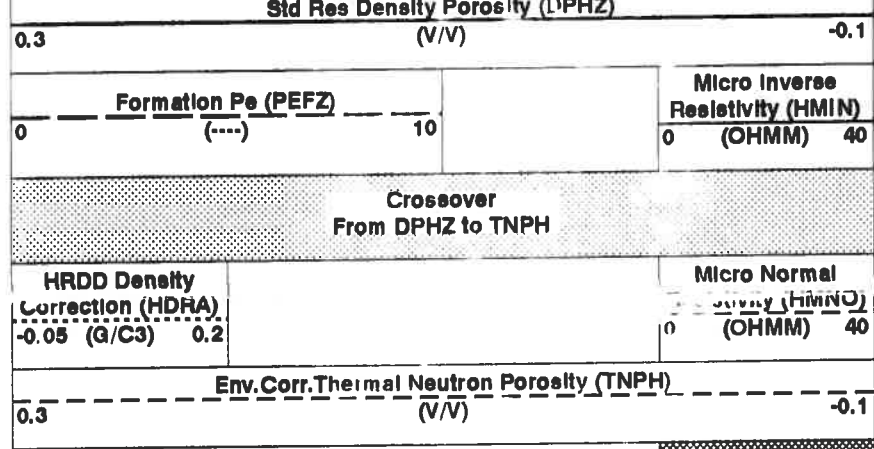
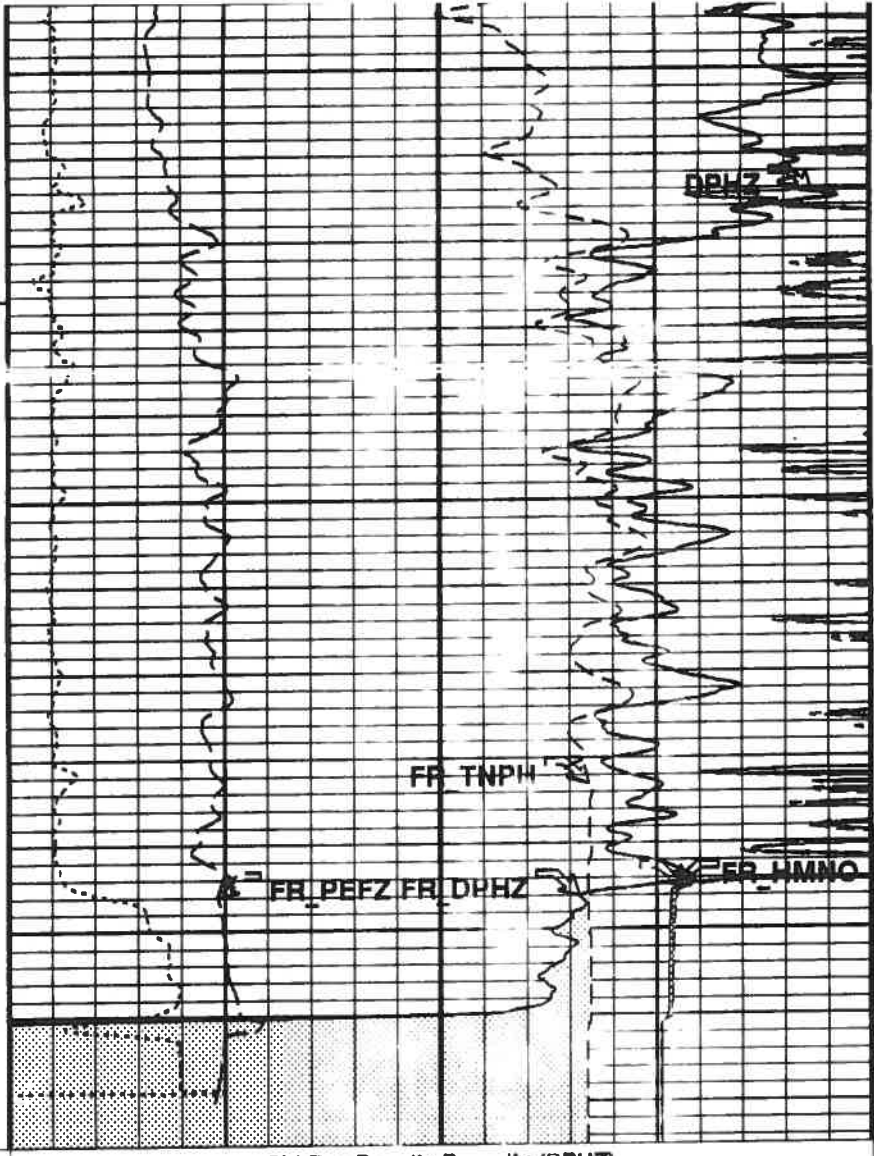
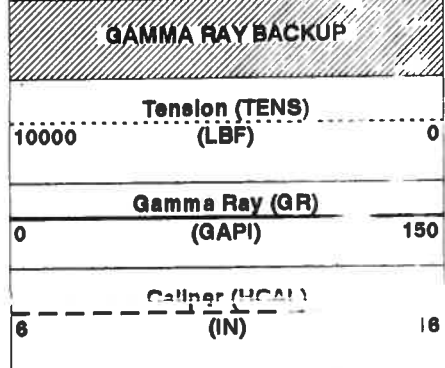
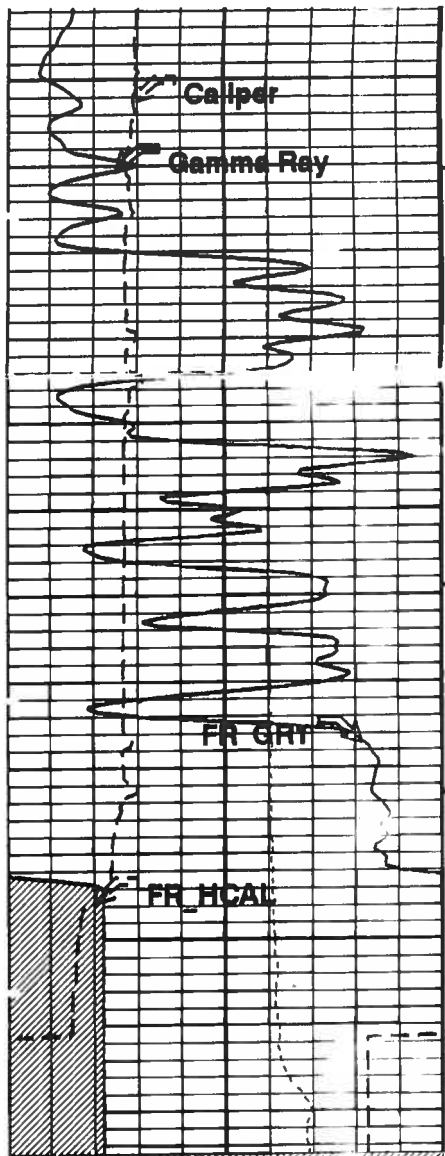
9400

9500

9600

9700





Std Res Density Porosity (DPHZ) (V/V) -0.1
 Formation Pe (PEFZ) (----) 10
 Micro Inverse Resistivity (HMNO) (OHMM) 40
 Crossover From DPHZ to TNPH
 HRDD Density Correction (HDRA) -0.05 (G/C3) 0.2
 Micro Normal Resistivity (HMNO) (OHMM) 40
 Env. Corr. Thermal Neutron Porosity (TNPH) (V/V) -0.1

MICROLOG PERM From HMNO to HMNO

PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HILTB-CTS: High resolution Integrated Logging Tool-CTS		
BHFL	Borehole Fluid Type	WATER
BHFL_TLD	HILT Nuclear Mud Base	WATER
BHS	Borehole Status	OPEN
BSCO	Borehole Salinity Correction Option	NO
CCCO	Casing & Cement Thickness Correction Option	NO
DHC	Density Hole Correction	BS
FD	Fluid Density	1 G/C3
FSAL	Formation Salinity	-50000 PPM
FSCO	Formation Salinity Correction Option	NO
GCLF	Germany Coal-like Formation Option	NO
GCSE	Generalized Calliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
HSCO	Hole Size Correction Option	YES
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE
MCCO	Mud Cake Correction Option	NO
MCOR	Mud Correction	NATU
MDEN	Matrix Density	2.71 G/C3
MPOF	MCFL Processing Operation Mode	ON
MWCO	Mud Weight Correction Option	NO
NAAC	HRDD APS Activation Correction	OFF
NMT	HILT Nuclear Mud Type	NORARITE
NPHM	HRDD Depth Sampling Rate	1 IN
NSAR	HRDD Depth Sampling Rate	1 IN
PTCO	Pressure/Temperature Correction Option	NO
SDAT	Standoff Data Source	SOCN
SHT	Surface Hole Temperature	80 DEG F

PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	80	DEGF
SHT	Surface Hole Temperature	0.125	IN
SOCN	Standoff Distance	YES	
SOCO	Standoff Correction Option		
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
FCO	Future Casing (Outer) Diameter	7	IN
GCSE	Generalized Calliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HVCS	Integrated Hole Volume Calliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	80	DEGF
PERT: Preliminary Evaluation - Real Time			
BHS	Borehole Status	OPEN	
GCSE	Generalized Calliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	80	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
TDD	Total Depth - Driller	9805.00	FT
TDL	Total Depth - Logger	9814.00	FT
System and Miscellaneous			
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	2100.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	36.00	LB/F
DFD	Drilling Fluid Density	9.80	LB/G
DO	Depth Offset for Playback	-3.0	FT
MST	Mud Sample Temperature	73.00	DEGF
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	1.1886	OHMM
TD	Total Depth	9814	FT

Format: PORO Vertical Scale: 5" per 100' Graphics File Created: 17-May-2007 12:26

OP System Version: 15C0-309
MCM

HILTB-CTS SPC-3345-AIT

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_014LUP	FN:13	PRODUCER	17-May-2007 12:26	9334.0 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_015PUP	FN:14	PRODUCER	17-May-2007 12:26
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BEFORE CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Electronics Calibration Check - Thru Cal Mag. & Phase							
Master: 2-Mar-2007 11:22 Before: 17-May-2007 5:37							
Thru Cal Magnitude - 0	0	0.6115	0.6165	N/A	N/A	N/A	V
Thru Cal Magnitude - 1	0	1.257	1.267	N/A	N/A	N/A	V
Thru Cal Magnitude - 2	0	0.8224	0.8278	N/A	N/A	N/A	V
Thru Cal Magnitude - 3	0	0.7032	0.7090	N/A	N/A	N/A	V
Thru Cal Magnitude - 4	0	1.324	1.335	N/A	N/A	N/A	V
Thru Cal Magnitude - 5	0	1.917	1.932	N/A	N/A	N/A	V
Thru Cal Magnitude - 6	0	1.918	1.934	N/A	N/A	N/A	V
Thru Cal Magnitude - 7	0	1.364	1.394	N/A	N/A	N/A	V
Phase - 0	0	53.88	54.30	N/A	N/A	N/A	DEG
Phase - 1	0	52.66	53.28	N/A	N/A	N/A	DEG
Phase - 2	0	49.22	49.63	N/A	N/A	N/A	DEG
Phase - 3	0	48.45	48.85	N/A	N/A	N/A	DEG
Phase - 4	0	42.17	42.56	N/A	N/A	N/A	DEG
Phase - 5	0	40.34	40.70	N/A	N/A	N/A	DEG
Phase - 6	0	40.35	40.71	N/A	N/A	N/A	DEG
Phase - 7	0	36.97	37.19	N/A	N/A	N/A	DEG
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Electronics Calibration Check - Auxiliary							
Master: 2-Mar-2007 11:22 Before: 17-May-2007 5:37							
Array Induction SPA Plus	990.5	993.7	993.5	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	0.1258	0.1448	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9150	0.9203	0.9202	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	0.0001319	0.0001319	N/A	N/A	N/A	V
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Test Loop Gain Correction							
Master: 2-Mar-2007 11:22							
Test Loop Gain Magnitude - 0	0	1.016	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 1	0	1.022	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 2	0	1.020	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 3	0	1.019	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 4	0	1.003	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 5	0	1.003	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 6	0	1.016	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 7	0	1.017	N/A	N/A	N/A	N/A	V
Phase - 0	0	0.4138	N/A	N/A	N/A	N/A	DEG
Phase - 1	0	0.5018	N/A	N/A	N/A	N/A	DEG

Test Loop Gain Magnitude - 4	0	1.003	N/A	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 5	0	1.003	N/A	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 6	0	1.018	N/A	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 7	0	1.017	N/A	N/A	N/A	N/A	N/A	V
Phase - 0	0	0.4136	N/A	N/A	N/A	N/A	N/A	DEG
Phase - 1	0	0.5018	N/A	N/A	N/A	N/A	N/A	DEG
Phase - 2	0	-0.06716	N/A	N/A	N/A	N/A	N/A	DEG
Phase - 3	0	-0.01476	N/A	N/A	N/A	N/A	N/A	DEG
Phase - 4	0	-0.04331	N/A	N/A	N/A	N/A	N/A	DEG
Phase - 5	0	-0.4066	N/A	N/A	N/A	N/A	N/A	DEG
Phase - 6	0	0.005999	N/A	N/A	N/A	N/A	N/A	DEG
Phase - 7	0	-0.3618	N/A	N/A	N/A	N/A	N/A	DEG
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Sonde Error Correction								
Master: 2-Mar-2007 11:22								
R Sonde Error Correction - 0	0	-13.03	N/A	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 1	0	151.6	N/A	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 2	0	110.4	N/A	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 3	0	76.38	N/A	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 4	0	21.02	N/A	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 5	0	13.06	N/A	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 6	0	8.890	N/A	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 7	0	-1.103	N/A	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 0	0	562.2	N/A	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 1	0	-172.1	N/A	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 2	0	63.43	N/A	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 3	0	25.89	N/A	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 4	0	20.82	N/A	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 5	0	0.7479	N/A	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 6	0	-8.529	N/A	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 7	0	-7.849	N/A	N/A	N/A	N/A	N/A	MM/M
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Mud Gain Correction								
Master: 2-Mar-2007 11:22								
Coarse - Mag, Real, Imag - 0	0	1.000	N/A	N/A	N/A	N/A	N/A	
Coarse - Mag, Real, Imag - 1	0	1.000	N/A	N/A	N/A	N/A	N/A	
Coarse - Mag, Real, Imag - 2	0	1.000	N/A	N/A	N/A	N/A	N/A	
Fine - Mag, Real, Imag - 0	0	1.000	N/A	N/A	N/A	N/A	N/A	
Fine - Mag, Real, Imag - 1	0	1.000	N/A	N/A	N/A	N/A	N/A	
Fine - Mag, Real, Imag - 2	0	1.000	N/A	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Stab Measurement Summary								
Before: 17-May-2007 5:39								
BS Window Ratio	0.7660	N/A	0.7683	N/A	N/A	N/A	N/A	CPS
BS Window Sum	11080	N/A	11140	N/A	N/A	N/A	N/A	
SS Window Ratio	0.4990	N/A	0.4966	N/A	N/A	N/A	N/A	CPS
SS Window Sum	9529	N/A	9503	N/A	N/A	N/A	N/A	
LS Window Ratio	0.2994	N/A	0.2972	N/A	N/A	N/A	N/A	CPS
LS Window Sum	1332	N/A	1324	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Photo-multiplier High Voltages Calibrations								
Before: 17-May-2007 5:39								
BS PM High Voltage (Command)	1437	N/A	1434	N/A	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1468	N/A	1472	N/A	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1359	N/A	1359	N/A	N/A	N/A	N/A	V
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Crystal Quality Resolutions Calibration								
Before: 17-May-2007 5:39								
BS Crystal Resolution	9.715	N/A	9.777	N/A	N/A	N/A	N/A	%
SS Crystal Resolution	10.93	N/A	10.95	N/A	N/A	N/A	N/A	%
LS Crystal Resolution	8.347	N/A	8.376	N/A	N/A	N/A	N/A	%
High resolution Integrated Logging Tool-CTS Wellsite Calibration - MCFL Calibration								
Before: 17-May-2007 5:40								
Raw B0 Resistivity	3875	N/A	3657	N/A	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3616	N/A	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3617	N/A	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool-CTS Wellsite Calibration - HILT Callper Calibration								
Before: 17-May-2007 5:38								
HILT Callper Zero Measurement	8.000	N/A	7.041	N/A	N/A	N/A	N/A	IN
HILT Callper Plus Measurement	12.00	N/A	11.31	N/A	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Detector Calibration								
Before: 17-May-2007 5:37								
Gamma Ray Background	30.00	N/A	36.03	N/A	N/A	N/A	N/A	GAPI
Gamma Ray (Hlg - Rkn)	160.0	N/A	160.2	N/A	N/A	N/A	16.00	GAPI
Gamma Ray (Calibrated)	160.0	N/A	160.0	N/A	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Zero Measurement								
Master: 20-Feb-2007 11:27 Before: 17-May-2007 5:38								
CNTC Background	31.41	31.41	31.36	N/A	N/A	N/A	4.712	CPS
CFTC Background	30.31	30.31	32.19	N/A	N/A	N/A	4.717	CPS
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Ratio Measurement								
Master: 20-Feb-2007 11:27								
Thermal Near Corr. (Tank)	5800	5765	N/A	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2414	N/A	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.386	N/A	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Accelerometer Calibration								
Before: 17-May-2007 11:15								
Z-Axis Acceleration	32.19	N/A	32.14	N/A	N/A	N/A	N/A	F/S2
High resolution Integrated Logging Tool-CTS Master Calibration - Inversion results								
Master: 2-May-2007 12:42								
Rho Aluminum	2.596	2.597	--	--	--	--	--	G/C3
Rho Magnesium	1.666	1.665	--	--	--	--	--	G/C3
Pe Aluminum	2.570	2.595	--	--	--	--	--	
Pe Magnesium	2.650	2.612	--	--	--	--	--	
High resolution Integrated Logging Tool-CTS Master Calibration - Deviation Summary								
Master: 2-May-2007 12:42								
BS Average Deviation	0	0.2503	--	--	--	--	--	%
BS Max Deviation	0	0.8921	--	--	--	--	--	%
SS Average Deviation	0	0.3589	--	--	--	--	--	%
SS Max Deviation	0	1.077	--	--	--	--	--	%
LS Average Deviation	0	0.7600	--	--	--	--	--	%
LS Max Deviation	0	1.990	--	--	--	--	--	%

The GLS-VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT-B Water Temperature 64.0 DEG
 Thermal Housing Size 3.371 IN.
 NSRF serial number 2247

High resolution Integrated Logging Tool-CTS / Equipment Identification

Auxiliary Equipment:
 Primary Equipment:
 Array Induction Tool - H
 Array Induction Nose
 Rm/SP Bottom Nose
 Array Induction Sonde
 HILT High-Resolution Mechanical Sonde
 HILT Rxo Gamma-ray Device
 HILT Micro Cylindrically Focused Log Dev
 GR Logging Source
 HILT High Res. Control Cartridge

AIT - H
 AHRM - A
 AHIS - BA
 HRMS - B
 HRGD - B
 MCFL -
 GLS - VJ
 HRCC - B
 274
 1759
 98
 1801
 1772

High resolution Integrated Logging Tool-CTS Wellbore Calibration									
Electronics Calibration Check - Thru Cal Mag. & Phase									
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Phase DEG	Nom + 60.00	Nom - 60.00
				140.0 %				(Minimum)	(Maximum)
0	Master	0.6115		0.6080	63.85				
	Before	1.257		1.270	62.86				
1	Master	1.257		1.270	63.28				
	Before	0.6278		0.6230	48.22				
2	Master	0.6224		0.6230	48.83				
	Before	0.7032		0.7040	48.45				
3	Master	0.7032		0.7040	48.85				
	Before	1.324		1.337	42.17				
4	Master	1.324		1.337	42.56				
	Before	1.335		1.337	40.34				
5	Master	1.317		1.335	40.70				
	Before	1.818		1.855	40.35				
6	Master	1.834		1.855	40.71				
	Before	1.384		1.415	38.87				
7	Master	1.384		1.415	37.19				
	Before	1.394		1.415	37.19				

High resolution Integrated Logging Tool-CTS Wellbore Calibration									
Electronics Calibration Check - Auxiliary									
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value				
Master	Before	993.7	Master	Before	0.1258				
Before	Before	893.5	Before	Before	0.1446				
941.0	890.5	1.040	50.00	0	50.00				
(Minimum)	(Nominal)	(Minimum)	(Minimum)	(Nominal)	(Maximum)				
Phase Array Induction Temperature Plus	Value	Phase Array Induction Temperature Zero	Value						
Master	Before	Master	Before						
0.9203	0.9202	0.0001319	0.0001319						
0.9500	0.9500	0.05000	0.05000						
(Minimum)	(Nominal)	(Minimum)	(Maximum)						
Master: 2-Mar-2007 11:22									
Before: 17-May-2007 5:37									

High resolution Integrated Logging Tool-CTS Wellbore Calibration									
Test Loop Gain Correction									
Idx	Value	Test Loop Gain Magnitude V	Value	Phase DEG					
0	1.018	0.4136	0	3.000					
1	1.022	0.5019	0	3.000					
2	1.020	-0.08716	0	3.000					
3	1.018	-0.01475	0	3.000					
4	1.003		0	3.000					
5	1.003	-0.4088	0	3.000					
	0.9500	1.000	1.050	3.000					
(Minimum)	(Nominal)	(Minimum)	(Maximum)	(Maximum)					
Master: 2-Mar-2007 11:22									
Before: 17-May-2007 5:37									

5	1.003			0.4088		
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	1.018			0.005999		
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.017			-0.3618		
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Wellsite Calibration							
Sonde Error Correction							
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M	
0	-13.03				562.2		
	-231.0 (Minimum)	-58.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	151.8				-172.1		
	114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	110.4				83.43		
	68.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	78.38				25.69		
	39.00 (Minimum)	84.00 (Nominal)	119.00 (Maximum)		-280.0 (Minimum)	0 (Nominal)	280.0 (Maximum)
4	21.02				20.62		
	15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	13.08				0.7479		
	4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	8.890				-8.529		
	5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-1.103				-7.849		
	-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Wellsite Calibration							
Mud Gain Correction							
Idx	Value	Coarse - Mag, Real, Imag			Value	Fine - Mag, Real, Imag	
0	1.000				1.000		
	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	1.000				1.000		
	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	1.000				1.000		
	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Wellsite Calibration														
Stab Measurement Summary														
Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value	Phase	LS Window Ratio			Value
Before				0.7883	Before				0.4966	Before				0.2972
	0.7277 (Minimum)	0.7880 (Nominal)	0.8043 (Maximum)			0.4740 (Minimum)	0.4980 (Nominal)	0.5239 (Maximum)			0.2844 (Minimum)	0.2994 (Nominal)	0.3144 (Maximum)	
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value	Phase	LS Window Sum CPS			Value
Before				11140	Before				9503	Before				1324
	10830 (Minimum)	11080 (Nominal)	11640 (Maximum)			9053 (Minimum)	9529 (Nominal)	10010 (Maximum)			1268 (Minimum)	1332 (Nominal)	1399 (Maximum)	

Before: 17-May-2007 5:39

High resolution Integrated Logging Tool-CTS Wellsite Calibration														
Photo-multiplier High Voltage Calibrations														
Phase	BS PM High Voltage (Command) V			Value	Phase	SS PM High Voltage (Command) V			Value	Phase	LS PM High Voltage (Command) V			Value
Before				1434	Before				1472	Before				1359
	1337 (Minimum)	1437 (Nominal)	1537 (Maximum)			1368 (Minimum)	1468 (Nominal)	1568 (Maximum)			1259 (Minimum)	1359 (Nominal)	1459 (Maximum)	

Before: 17-May-2007 5:39

High resolution Integrated Logging Tool-CTS Wellsite Calibration														
Crystal Quality Resolutions Calibration														
Phase	BS Crystal Resolution %			Value	Phase	SS Crystal Resolution %			Value	Phase	LS Crystal Resolution %			Value
Before				9.777	Before				10.95	Before				6.378
	8.715 (Minimum)	9.715 (Nominal)	10.72 (Maximum)			9.932 (Minimum)	10.93 (Nominal)	11.93 (Maximum)			7.347 (Minimum)	8.347 (Nominal)	9.347 (Maximum)	

Before: 17-May-2007 5:39

High resolution Integrated Logging Tool-CTS Wellsite Calibration														
MCFL Calibration														
Phase	Raw B0 Resistivity OHMM			Value	Phase	Raw B1 Resistivity OHMM			Value	Phase	Raw B2 Resistivity OHMM			Value
Before				3857	Before				3816	Before				3817
	3566 (Minimum)	3876 (Nominal)	4185 (Maximum)			3524 (Minimum)	3830 (Nominal)	4138 (Maximum)			3524 (Minimum)	3830 (Nominal)	4138 (Maximum)	

Before: 17-May-2007 5:40

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
HILT Caliper Calibration									

High resolution Integrated Logging Tool-CTS Wellsite Calibration						
HILT Caliper Calibration						
Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value	
Before		7.41	Before		11.31	
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)	8.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)

Before: 17-May-2007 5:36

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
Detector Calibration									
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value	
Before		38.03	Before		160.2	Before		160.0	
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	163.6 (Minimum)	160.2 (Nominal)	196.6 (Maximum)	145.0 (Minimum)	160.0 (Nominal)	175.0 (Maximum)

Before: 17-May-2007 5:37

High resolution Integrated Logging Tool-CTS Wellsite Calibration						
Zero Measurement						
Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value	
Master			Master		30.31	
Before		31.36	Before		32.19	
	5.000 (Minimum)	31.41 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	30.31 (Nominal)	40.00 (Maximum)

Master: 20-Feb-2007 11:27

Before: 17-May-2007 5:38

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
Ratio Measurement									
Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value	
Master		5765	Master		2414	Master		2.368	
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 20-Feb-2007 11:27

High resolution Integrated Logging Tool-CTS Wellsite Calibration			
Accelerometer Calibration			
Phase	Z-Axis Acceleration F/S2	Value	
Before		32.14	
	31.53 (Minimum)	32.19 (Nominal)	32.81 (Maximum)

Before: 17-May-2007 11:15

High resolution Integrated Logging Tool-CTS Master Calibration							
Electronics Calibration Check - Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.8115		0.8050	53.68		53.00
1	Master	1.257		1.270	52.86		70.00
2	Master	0.8224		0.8230	49.22		61.00
3	Master	0.7032		0.7040	48.48		66.00
4	Master	1.324		1.337	42.17		59.00
5	Master	1.817		1.955	40.34		57.00
6	Master	1.818		1.955	40.35		57.00
7	Master	1.384		1.415	38.97		53.00
		80.00 % (Minimum)	(Nominal)	(Maximum)	Nom -80.00 (Minimum)	(Nominal)	

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration						
Electronics Calibration Check - Auxiliary						
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value	
Master		993.7	Master		0.1258	
	941.0 (Minimum)	990.5 (Nominal)	1040 (Maximum)	-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value	
Master		0.9203	Master		0.0001319	
	0.8700 (Minimum)	0.9150 (Nominal)	0.9600 (Maximum)	-0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration							
Test Loop Gain Correction							
Idx	Value	Test Loop Gain Magnitude V	Value	Phase DEG			
0	1.018		0.4136				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.022		0.5018				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.020		-0.08716				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.019		-0.01478				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.003		-0.04331				

ICB	Value	Minimum	Nominal	Maximum	Value	Minimum	Nominal	Maximum
1	1.022	0.9500	1.000	1.050	0.5018	-3.000	0	3.000
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
2	1.020	0.9500	1.000	1.050	-0.08718	-3.000	0	3.000
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
3	1.018	0.9500	1.000	1.050	-0.01478	-3.000	0	3.000
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
4	1.003	0.9500	1.000	1.050	-0.04331	-3.000	0	3.000
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
5	1.003	0.9500	1.000	1.050	-0.4068	-3.000	0	3.000
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
6	1.018	0.9500	1.000	1.050	-0.0000	-3.000	0	3.000
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
7	1.017	0.9500	1.000	1.050	-0.3618	-3.000	0	3.000
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration								
Sonde Error Correction								
ICB	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M		
0	-13.03	-231.0	-58.00	119.0	582.2	-2250	0	2250
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
1	151.8	114.0	189.0	204.0	-172.1	-825.0	0	825.0
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
2	110.4	89.00	111.0	156.0	63.43	-350.0	0	350.0
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
3	76.38	39.00	84.00	89.00	25.89	-250.0	0	250.0
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
4	21.02	15.00	25.00	35.00	20.82	-53.00	0	53.00
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
5	13.08	4.000	14.00	0	0.7479	-50.00	0	50.00
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
6	8.890	5.000	10.00	15.00	-6.529	-30.00	0	30.00
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
7	-1.103	-5.000	0	5.000	-7.649	-30.00	0	30.00
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration								
Sonde Error Correction								
ICB	Value	Coarse - Mag, Real, Imag			Value	Fine - Mag, Real, Imag		
0	1.000	0.8000	1.000	1.200	1.000	0.8000	1.000	1.200
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
1	1.000	0.8000	1.000	1.200	1.000	0.8000	1.000	1.200
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
2	1.000	0.8000	1.000	1.200	1.000	0.8000	1.000	1.200
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration						
Inversion results						
Phase	Rho Aluminum G/C3	Value	Phase	Rho Magnesium G/C3	Value	
Master		2.597	Master		1.685	
		2.588 (Minimum)			1.678 (Minimum)	
		2.606 (Maximum)			1.698 (Maximum)	
Phase	Pe Aluminum	Value	Phase	Pe Magnesium	Value	
Master		2.595	Master		2.612	
		2.470 (Minimum)			2.550 (Minimum)	
		2.670 (Maximum)			2.750 (Maximum)	

Master: 2-May-2007 12:42

High resolution Integrated Logging Tool-CTS Master Calibration									
Deviation Summary									
Phase	BS Average Deviation %	Value	Phase	SS Average Deviation %	Value	Phase	LS Average Deviation %	Value	
Master		0.2503	Master		0.3589	Master		0.7800	
		-0.8000 (Minimum)			-1.000 (Minimum)			-1.500 (Minimum)	
		0 (Nominal)			0 (Nominal)			0 (Nominal)	
		0.8000 (Maximum)			1.000 (Maximum)			1.500 (Maximum)	
Phase <th>SS Max Deviation %</th> <th>Value</th> <td>Phase <th>SS Max Deviation %</th> <th>Value</th> <td>Phase <th>LS Max Deviation %</th> <th>Value</th> <td></td> </td></td>	SS Max Deviation %	Value	Phase <th>SS Max Deviation %</th> <th>Value</th> <td>Phase <th>LS Max Deviation %</th> <th>Value</th> <td></td> </td>	SS Max Deviation %	Value	Phase <th>LS Max Deviation %</th> <th>Value</th> <td></td>	LS Max Deviation %	Value	
Master		0.8921	Master		1.077	Master		1.890	
		-1.500 (Minimum)			-2.500 (Minimum)			-3.500 (Minimum)	
		0 (Nominal)			0 (Nominal)			0 (Nominal)	
		1.600 (Maximum)			2.500 (Maximum)			3.500 (Maximum)	

Master: 2-May-2007 12:42

High resolution Integrated Logging Tool-CTS Master Calibration									
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7	-1.103			-7.849		
	-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)	-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration								
Master Terms Plot								
Idx	Value	Coarse - Mag, Real, Imag			Value	Fine - Mag, Real, Imag		
0	1.000				1.000			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	1.000				1.000			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	1.000				1.000			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 2-Mar-2007 11:22

High resolution Integrated Logging Tool-CTS Master Calibration						
Inversion results						
Phase	Rho Aluminum G/C3	Value	Phase	Rho Magnesium G/C3	Value	
Master		2.597	Master		1.885	
	2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)	1.876 (Minimum)	1.886 (Nominal)	1.896 (Maximum)
Phase	Pe Aluminum	Value	Phase	Pe Magnesium	Value	
Master		2.595	Master		2.612	
	2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)

Master: 2-May-2007 12:42

High resolution Integrated Logging Tool-CTS Master Calibration									
Deviation Summary									
Phase	BS Average Deviation %	Value	Phase	SS Average Deviation %	Value	Phase	LS Average Deviation %	Value	
Master		0.2503	Master		0.3589	Master		0.7800	
	-0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)	-1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)	-1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)
Phase	SS Max Deviation %	Value	Phase	SS Max Deviation %	Value	Phase	LS Max Deviation %	Value	
Master		0.8921	Master		1.077	Master		1.990	
	-1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)	-2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)	-3.500 (Minimum)	0 (Nominal)	3.500 (Maximum)

Master: 2-May-2007 12:42

High resolution Integrated Logging Tool-CTS Master Calibration						
Zero Measurement						
Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value	
Master		31.41	Master		30.31	
	5.000 (Minimum)	31.41 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	30.31 (Nominal)	40.00 (Maximum)

Master: 20-Feb-2007 11:27

High resolution Integrated Logging Tool-CTS Master Calibration									
Tank Measurement									
Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CFTC/CFTC (Tank)	Value	
Master		5765	Master		2414	Master		2.388	
	4700 (Minimum)	5800 (Nominal)	5900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 20-Feb-2007 11:27

Company:	Winston Land & Cattle 1 LTD	Schlumberger
Well:	Johnson Salty SWD 1	
Field:	Newark, East (Barnett Shale)	
County:	Parker	
State:	Texas	
Compensated Neutron / Litho-Density Gamma Ray / Micro-Log **Platform Express**		