Schlumberger Technology Corporation

200 Gillingham Lane
Sugar Land, TX 77478

Schlumberger

July 18, 2008

United States Nuclear Regulatory Commission
Region IV – Materials Inspection Branch
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011

RE: Source Abandonment for Speed Mining: LRPB-21

Dear Sir or Madam:

This letter is to confirm the abandonment of irretrievable sources in a well in accordance with Part 39, Section 39.77(d). Information for this abandonment is attached.

If you have any questions or require additional information, please contact me at 281-285-7460.

Sincerely,

Thomas S. Wood
Deputy Radiation Safety Officer
Schlumberger Technology Corporation

Source Abandonment – Speed Mining
Well: LRPB-21

Date of Occurrence:	06/23/2008
Source #1	
Identification:	592 GBq, Am241Be, Neutron Source, Serial # G4042
Manufacturer:	Gammatron, Inc.
Model:	NSR-L
Depth:	1,713'
Source #2	
Identification:	63 Gbq, Cs 137, Density Source, Serial # A2435
Manufacturer:	AEA / Amersham
Model:	CDC.CY3
Depth:	1,723'
Well Identification:	Company: Speed Mining Well: LRPB-21 API Number: 47-005-02139 County: Boone State: West Virginia
Seal Results:	276' of Class A cement (0.4% D65, 0.4%D167 and D46) with Red Oxide Dye spotted on top of the tool from ~1,701' to 1,425'. An upside-down Tri-Cone drill bit was placed on top of the cement plug at 1,425' and will serve as a mechanical deflection device.
Recovery Attempts:	Multiple attempts from 04/03/08 to 06/22/08
Depth of Well:	1,725'
Identification:	Plaque as required by Part 39 ordered and will be attached to the well.
Reports:	No other agency will receive a copy of this report.
Initial Telephone Contact:	Mr. James Thompson, NRC Region IV on 05/01/08 @ 10:00 CDT.

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RADIATION FISHING & ABANDONMENT REPORT

☐ Offshore (OCS Waters) ☒ Land or State Lease Waters

Date 4/3/2008 Time 10:30

Company Name (Full Name) Speed Mining

Well Name or (OCS-G No. or State Lease No.) LRPB-21

Offshore State of N/A Rig Name N/A

API Number (If Available or CLSD) 47-005-02139

Location of Lease LAT: 38° 07'30" 7843W LONG" 81° 32'30" 15083S

County or Parish Boone County State West Virginia

District Beckley, WV Sales Engr Earl Dickman

TD 1725' Hole Size 10.25" Deviation Vertical

Casing Depth 1,221' Casing Size 10.25"

Depth of Fish (Top) 1,701' (Bottom) 1,725'

Source Type (1) GSR-Z Source Type (2) NSR-L

Source Activity (1) 63 GBq Source Activity (2) 592 GBq

Serial No. (1) A2435 Serial No. (2) G4042

Isotope (1) Cs137 Isotope (2) Am241Be

Depth (1) 1,723' Depth (2) 1,713'

Leak Test Date (1) 2/14/08 Leak Test Date (2) 2/14/08

Leak Test Results (1) .0884 Bq Leak Test Results (2) .175 Bq

Tool String (Head to Bottom ITGN-A – ILDT-A - BNS

Date and Time Stuck 3/35/08 at 12:30

Date and Time Cement Pumped 6/23/08

Hole Conditions See Attached Log

Fishing Attempts Multiple attempts from 25-Mar-08 to 25-Jun-08. The amount of debris in the hole was preventing the overshot from properly engaging the tool.

Comments (what happened to get stuck?, etc.,): While logging up the OP software froze at ~ 874 feet. While the computer rebooted the engineer decided to run back down ~ 80 feet to be ready when the computer was back up. The tool was at ~ 794 feet when the engineer started to spool the tool back down with the caliper arm still extended. The arm got caught up in the open hole while ~ 80 feet of line was spooled. When the engineer retracted the arm, not noticing or realizing that their was slack In the line, the tool free fell ~ 80 feet and disconnected due to the weight.

NOTE: Regulatory agencies should be contacted ONLY by the Schlumberger Technology Corporation (STC) Radiation Safety Officer or, if unavailable, his designee.

Notified: ☑ **NRC or** ☐ **State of : NRC Region IV**

Name:	James Thompson	Name:	
Date:	01-Jun-08	Date:	
Time:	10:00 CDT	Time:	

ABANDONMENT

The following is a summary of NRC and/or Agreement States regulations that ***must*** be followed when abandoning an irretrievable well logging source(s). The specific regulations are found in 10 CFR 39.15 and equivalent regulations in Agreement States.

An ***irretrievable well logging source*** means any licensed radioactive sealed source that becomes lodged in a well and cannot be retrieved after reasonable efforts have been made to recover the source(s).

1. If a well logging source is irretrievable, the following requirements must be implemented.

    a) The source(s) must be immobilized and sealed in place with a cement plug. The cement has to be dyed red in Texas as a condition of the Texas Railroad Commission (others occasionally).

    b) A mechanical deflection device must be set at some point in the well above the cement plug to prevent inadvertent intrusion on the source, unless the cement plug and sources(s) are not accessible to any subsequent drilling operations. The mechanical device can be devices such as a whipstock, old drill bit, etc. For LWD, drillpipe and/or collars left on top of the BHA usually are approved as a deflection device.

    c) A permanent identification plaque, (supplied by your QHSE Manager) made of stainless steel (or brass, bronze and monel), must be mounted at the surface of the well unless the mounting of the plaque is not practical (i.e. subsea completion).

2. The STC RSO (or his designee) will notify the NRC or Agreement State of the abandonment plan developed by/with the client. The NRC or Agreement State must approve the abandonment plan prior to implementation. The federal and/or state oil and gas well permitting agency normally will also require that they approve the abandonment plan. The contact with the well permitting agency is the responsibility of the well owner/client but we should advise him/her of that fact as a courtesy.

3. If any changes must be made to the abandonment plan submitted to the NRC or Agreement State, the STC RSO must be informed so that he/she can get approval of the modification, as appropriate. The actual abandonment must not begin until any abandonment plan or modification to that plan is approved by the appropriate agency.

4. The STC Radiation Safety Officer must file a written report with the NRC or Agreement State within 30 days after the abandonment. The facility management should file a written report within 10 days to the STC Radiation Safety Officer via the Health, Safety and Environment Manager. The facility report should cover the final abandonment details such as:

    a) Actual date of abandonment.

    b) Any changes in the data sent with the approved abandonment plan.

    c) A new well diagram if different from the that submitted with the approved abandonment plan.

    d) Any information pertinent to the abandonment that the STC RSO may not have for his/her final report.

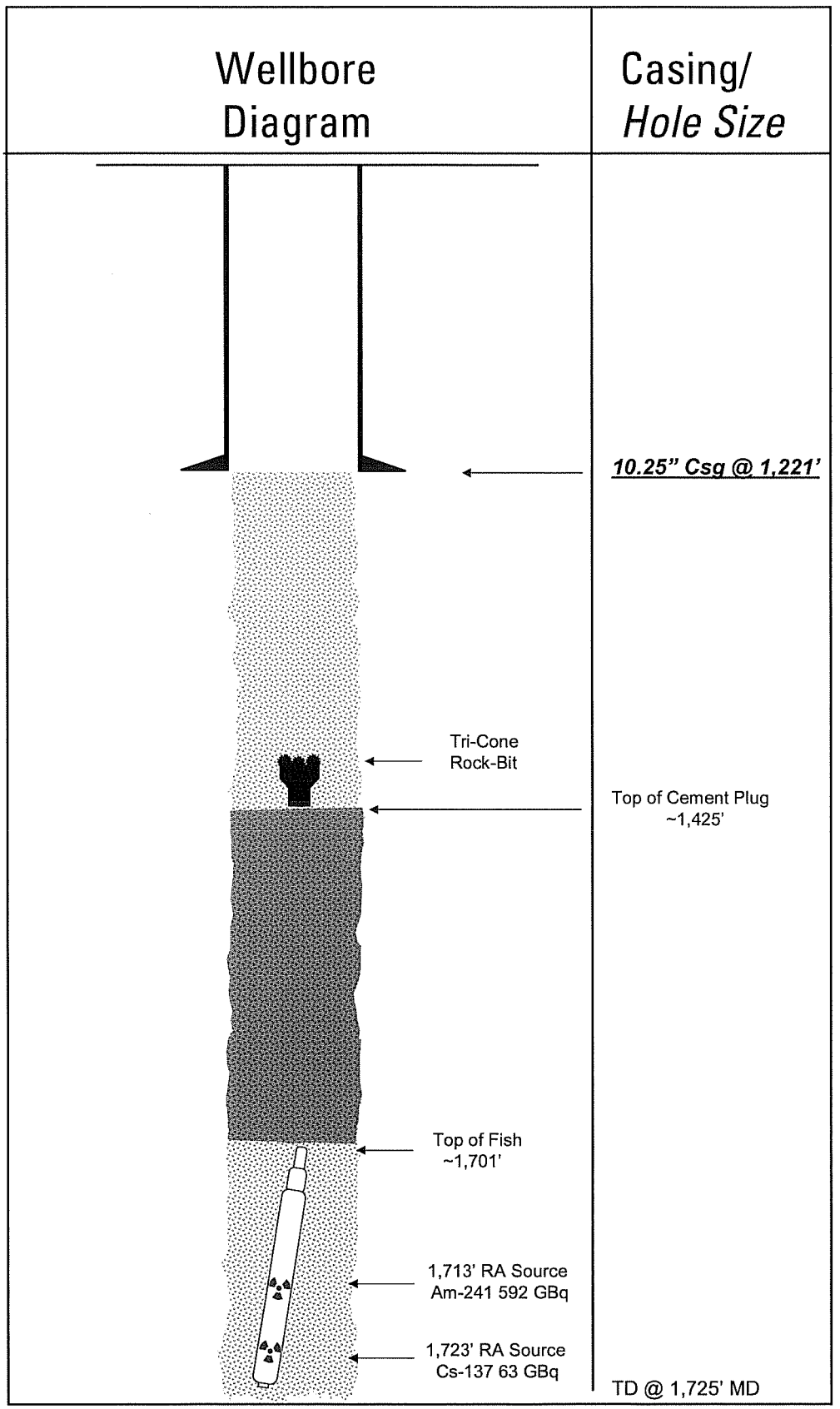
    e) If all data sent to the STC RSO is still applicable for the final report, an e-mail or fax is to be sent to the STC RSO confirming that fact so that he/she can be ensured that the data sent to the appropriate agency is totally accurate. Most facilities send a completely new report since many these documents often are incomplete or are poor quality fax reproductions.

If there are any questions regarding these procedures, discuss them with your Operations Manager.

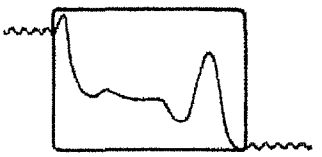
FACILITY MANAGEMENT MUST ENSURE THAT THE FINAL ABANDONMENT REPORT IS SUBMITTED TO THE STC RADIATION SAFETY OFFICER.

Speed Mining

LRPB-21



NOT TO SCALE



Monitoring Services

P.O. BOX 266677 . HOUSTON, TEXAS 77207-6677 . AREA CODE 713-478-6820 . FAX 281-532-0929

SEALED SOURCE LEAK TEST CERTIFICATE

RSO
SCHLUMBERGER 6430
260 INDUSTRIAL DR.

BECKLEY **WV**
25801

CUSTOMER #: 2258

SOURCE #: 36827

ACOUNT #: 1654

RADIONULCIDE: AM241BE SOURCE CODE: NSRL

ACTIVITY: 16 CI SERIAL NO: 4042

WIPE DATE: 2/14/2008

EFFICENCY: 1.32

GROSS CPM: 22 BKG CPM: 15 NET CPM: 7

$$\frac{\text{NET CPM}}{\text{EFF X 2.22x10\^6 DPM/u CI}} = \text{MICROCURIE}$$

THE ABOVE SOURCE WIPE TEST HAS BEEN ASSAYED IN ACCORDANCE WITH OUR RADIOACTIVE MATERIAL LICENSE AND THE APPROPRIATE REGULATORY REQUIREMENTS. THE REGULATIONS DEFINE A LEAKING SOURCE AS ONE FROM WHICH AN APPROPRIATE WIPE TEST HAS REMOVED 0.005 (5.0X10E-3) MICROCUIRE OR MORE OF ACTIVITY.

THE REMOVABLE ACTIVITY WAS: 2.39E-06 MICROCURIE

8.84E-02 Bq

ASSAY NO.: 2/20/2008 44 DATE: 2/21/2008

ASSAYED BY:

Monitoring Services

P.O. BOX 266677 . HOUSTON, TEXAS 77207-6677 . AREA CODE 713-478-6820 . FAX 281-532-0929

SEALED SOURCE LEAK TEST CERTIFICATE

RSO
SCHLUMBERGER 6430
260 INDUSTRIAL DR.

BECKLEY **WV**
25801

CUSTOMER #: 2258

SOURCE #: 36828

ACOUNT #: 1654

RADIONULCIDE: CS-137 SOURCE CODE: GSRZ

ACTIVITY: 1.7 CI SERIAL NO: 2435

WIPE DATE: 2/14/2008

EFFICENCY: 0.95

GROSS CPM: 25 BKG CPM: 15 NET CPM: 10

NET CPM / EFF X 2.22x10^6 DPM/u CI = MICROCURIE

THE ABOVE SOURCE WIPE TEST HAS BEEN ASSAYED IN ACCORDANCE WITH OUR RADIOACTIVE MATERIAL LICENSE AND THE APPROPRIATE REGULATORY REQUIREMENTS. THE REGULATIONS DEFINE A LEAKING SOURCE AS ONE FROM WHICH AN APPROPRIATE WIPE TEST HAS REMOVED 0.005 (5.0X10E-3) MICROCUIRE OR MORE OF ACTIVITY.

THE REMOVABLE ACTIVITY WAS: 4.74E-06 MICROCURIE

1.75E-01 Bq

ASSAY NO.: 2/20/2008 43 DATE: 2/21/2008

ASSAYED BY:

Schlumberger Technology Corporation
Radiation Safety & Compliance

200 Gillingham Lane, MD 7
Sugar Land, Texas 77478
Tel 281-285-7460
Fax 281-285-8526

Schlumberger

Fax

Date: July 18, 2008

To Ernie Jilek

Fax : 985-727-2165

From Tom Wood

Tel: 281-285-7460
Fax: 281-285-8526

Subject Abandonment Plaque

Pages 2 (including cover)

Ernie,

Request for abandonment plaque for **Speed Mining,** well information follows.

Regards,

Tom

Schlumberger Technology Corporation
Radiation Safety & Compliance

200 Gillingham Lane, MD 7
Sugar Land, Texas 77478
Tel 281-285-7460
Fax 281-285-8526

Schlumberger

Graphics N' Metal
1200 Clausel Street
Mandenville, LA. 70448
(504) 669-6082
(985) 727-2165 (Fax)

July 18, 2008

Attn: Ernie Jilek,

Please construct the standard abandonment plaque with the following information:

Company: Speed Mining
Well Name: LRPB-21
County: Boone
State: West Virginia
API#: 47-005-02139
Date of Abandonment: June 23, 2008
Well Depth: 1,725'
Plug Back: 1,425'
Top of Fish: 1,701'

Sources Abandoned: 592 GBq, (16 Ci), Am-241 Be, Neutron Source @ 1,713' MD
63 GBq, (1.7 Ci), Cs-137, Density Source @ 1,723' MD

Special Instructions: DO NOT RE-ENTER THIS WELL BEFORE CONTACTING REGION IV OF THE NUCLEAR REGULATORY COMMISSION OR SCHLUMBERGER TECHNOLOGY COPORATION

Please forward to me the completed plaque and invoice.

Respectfully,

Thomas S. Wood

MEMORY TRANSMISSION REPORT

PAGE : 001
TIME : JUL-18-08 11:30AM
TEL NUMBER1: +281-285-8526
TEL NUMBER2: +
NAME : Schlumberger Technology Corp.

FILE NUMBER	:	832
DATE	:	JUL-18 11:29AM
TO	:	☎919857272165
DOCUMENT PAGES	:	002
START TIME	:	JUL-18 11:29AM
END TIME	:	JUL-18 11:30AM
SENT PAGES	:	002
STATUS	:	OK

FILE NUMBER : 832 *** SUCCESSFUL TX NOTICE ***

Schlumberger Technology Corporation
Radiation Safety & Compliance

200 Gillingham Lane, MD 7
Sugar Land, Texas 77478
Tel 281-285-7460
Fax 281-285-8526

Schlumberger

Fax

Date: July 18, 2008

To Ernie Jilek — Fax : 985-727-2165

From Tom Wood — Tel: 281-285-7460
Fax: 281-285-8526

Subject Abandonment Plaque — Pages 2 (including cover)

Ernie,

Request for abandonment plaque for **Speed Mining,** well information follows.

Regards,

Tom

Schlumberger

Company: SPEED MINING

Well: LRPB 21
Field: SHERMAN
County: BOONE State: WEST VIRGINIA

COAL LOG
LITHO DENSITY / COMPENSATED NEUTRON
CALIPER / GAMMA RAY

County: BOONE
Field: SHERMAN
Location: LAT: 38* 07' 30" 7843 W
Well: LRPB 21
Company: SPEED MINING

LOCATION

LAT: 38* 07' 30" 7843 W
LONG: 81* 32' 30" 15083 S

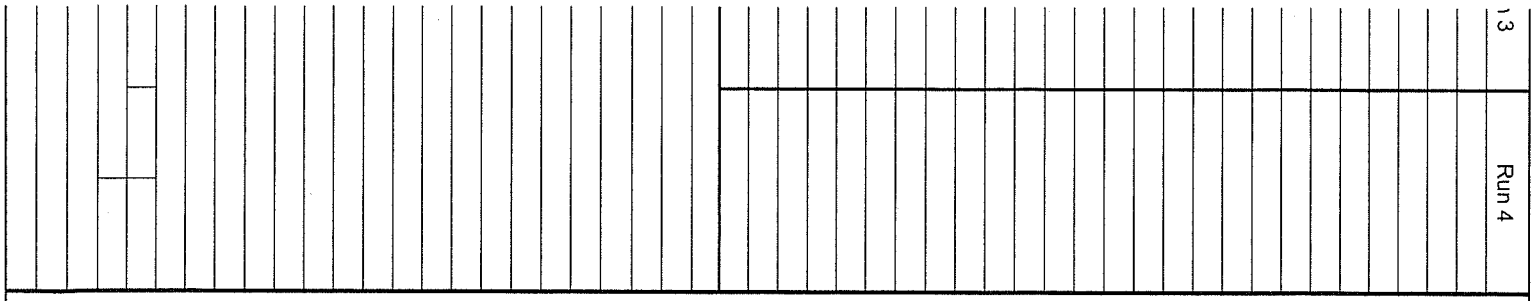
Elev.: K.B. 0 ft
G.L. 1672 ft
D.F. 0 ft

Permanent Datum: GROUND LEVEL Elev.: 1672 ft
Log Measured From: FLANGE 8"ABOVE GL 0.8 ft above Perm. Datum
Drilling Measured From: GROUND LEVEL

API Serial No.	District	Watershed:	Quadrangle:
47-005-02139P	SHERMAN	BIG COAL RIVER	SYLVESTER

Logging Date	25-Mar-2008					
Run Number	1					
Depth Driller	1352 ft					
Schlumberger Depth	1321 ft					
Bottom Log Interval	1318 ft					
Top Log Interval	880 ft					
Casing Fluid Type	AIR AND WATER					
Salinity						
Density	9 lbm/gal					
Fluid Level	1252 ft					
BIT/CASING/TUBING STRING						
Bit Size	9.500 in					
From	0 ft					
To	1321 ft					
Casing/Tubing Size	0.000 in					
Weight	0 lbm/ft					
Grade						
From	0 ft					
To	0 ft					
Maximum Recorded Temperatures	0 degF					
Logger On Bottom / Time	25-Mar-2008	9:50				
Unit Number / Location	333	BECKLEY, WV				
Recorded By	JEFF BROMFIELD					
Witnessed By	MARK ALLAMAN					

		Run 1	Run 2	Run
PVT DATA	Oil Density			
	Water Salinity			
	Gas Gravity			
	Bo			
	Bw			
	1/Bg			
	Bubble Point Pressure			
	Bubble Point Temperature			
	Solution GOR			
	Maximum Deviation	0 deg		
	CEMENTING DATA			
	Primary/Squeeze	Primary		
	Casing String No			
	Lead Cement Type			
	Volume			
	Density			
	Water Loss			
	Additives			
	Tail Cement Type			
	Volume			
	Density			
	Water Loss			
	Additives			
	Expected Cement Top			
	Logging Date			
	Run Number			
	Depth Driller			
	Schlumberger Depth			
	Bottom Log Interval			
	Top Log Interval			
	Casing Fluid Type			
	Salinity			
	Density			
	Fluid Level			
	BIT/CASING/TUBING STRING			
	Bit Size			
	From			
	To			
	Casing/Tubing Size			
	Weight			
	Grade			
	From			
	To			
	Maximum Recorded Temperatures			
	Logger On Bottom / Time			
	Unit Number / Location			
	Recorded By			
	Witnessed By			



DISCLAIMER

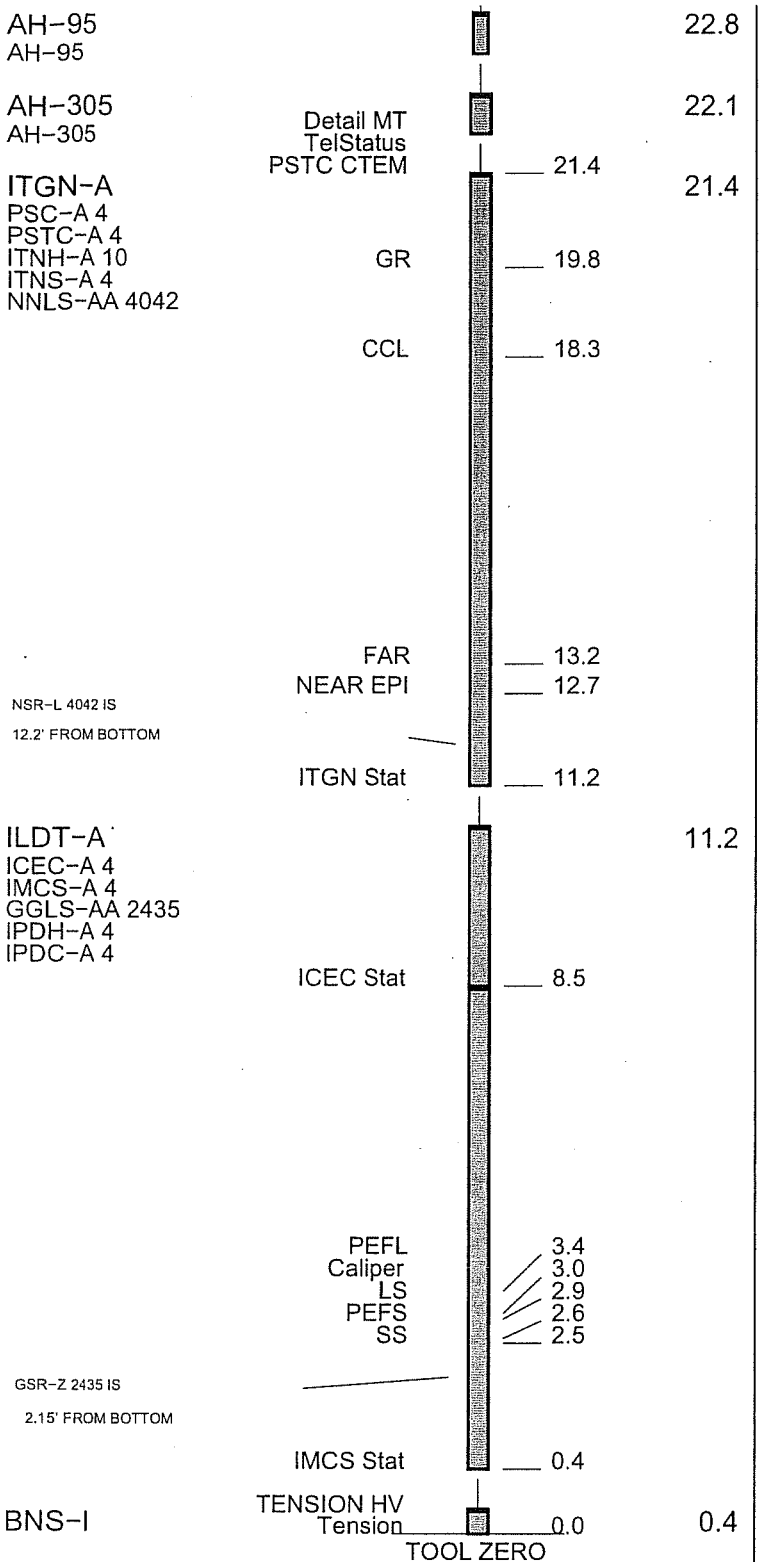
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (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	OTHER SERVICES2
OS1: NONE	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
ALL FIRST RUN IN WELL DEPTH CONTROL PROCEDURES FOLLOWED.	
PRESENTATIONS AS PER CLIENT REQUEST.	
MATRIX DENSITY: 2.68 G/CC	
NEUTRON MATRIX: LIMESTONE	
THERMAL POROSITY USED IN FLUID. EPITHERMAL POROSITY USED IN AIR.	
FLUID LEVEL AT 1252 FT.	
NO CALIBRATION REPORT FOR IFLEX TOOLSTRING.	
DATE ON LOGS NOT VALID.	
IFLEX TOOL LOST IN HOLE. ATTEMPTING FISHING OPERATION.	
.	
THANK YOU FOR CHOOSING SCHLUMBERGER WIRELINE!	

RUN 1			RUN 2		
SERVICE ORDER #:		12003446	SERVICE ORDER #:		
PROGRAM VERSION:		15C0-309	PROGRAM VERSION:		
FLUID LEVEL:		1252 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

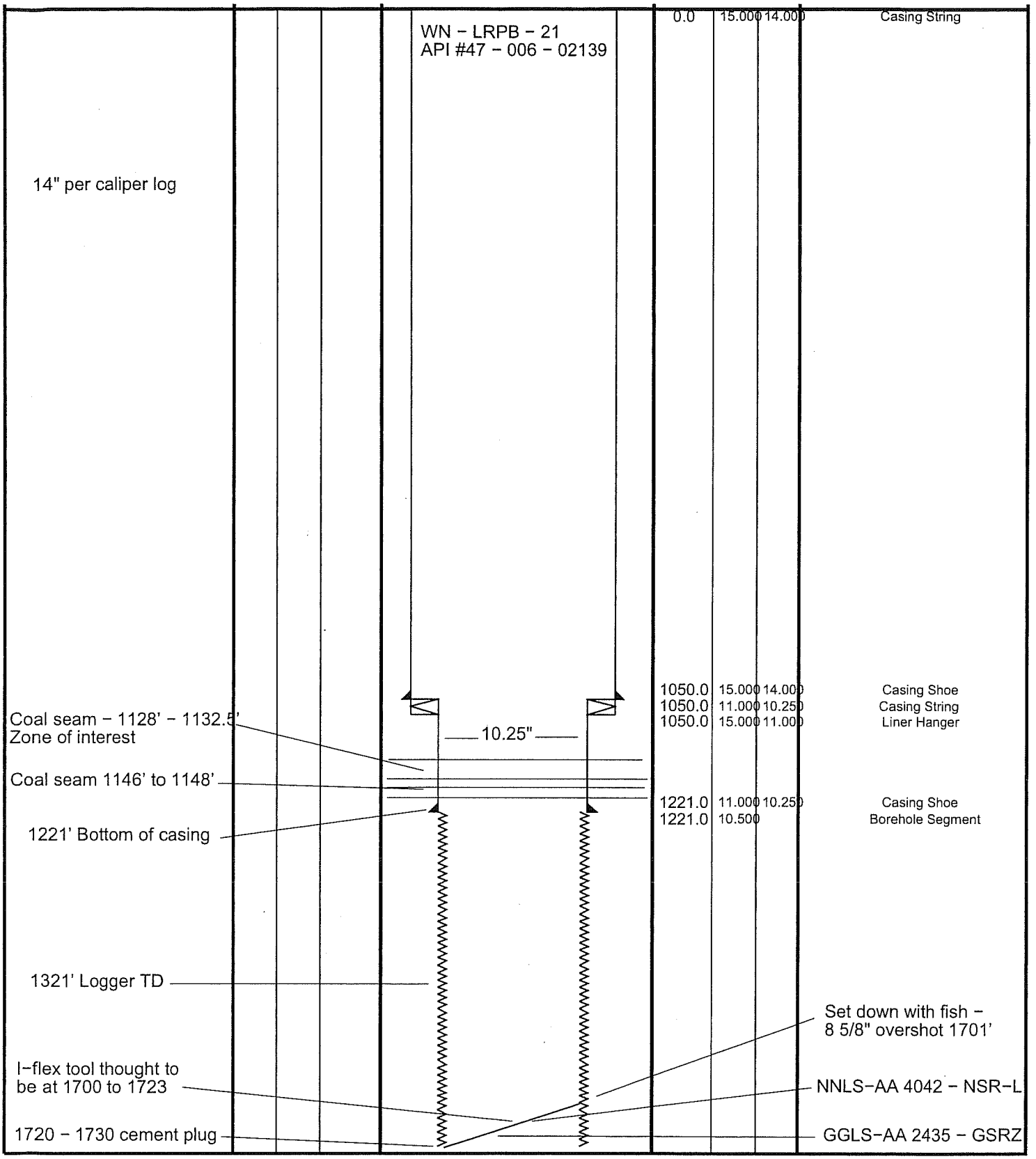
EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT	
WITM-A PSC_16MHZ	
DOWNHOLE EQUIPMENT	
MH-22 24.6 MH-22	
AH-38 23.1	



MAXIMUM STRING DIAMETER 2.25 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Production String	(in) OD	(in) ID	(ft) MD	Well Schematic	(ft) MD	(in) OD	(in) ID	Casing String


WN – LRPB – 21
API #47 – 006 – 02139
14" per caliper log
0.0 15.000 14.000 Casing String
1050.0 15.000 14.000 Casing Shoe
1050.0 11.000 10.250 Casing String
1050.0 15.000 11.000 Liner Hanger
1221.0 11.000 10.250 Casing Shoe
1221.0 10.500 Borehole Segment
10.25"
Coal seam – 1128' – 1132.5'
Zone of interest
Coal seam 1146' to 1148'
1221' Bottom of casing
1321' Logger TD
Set down with fish –
8 5/8" overshot 1701'
I–flex tool thought to
be at 1700 to 1723
NNLS–AA 4042 – NSR–L
1720 – 1730 cement plug
GGLS–AA 2435 – GSRZ

Schlumberger

HI RES

MAXIS Field Log

Input DLIS Files

DEFAULT	LDL_CNL_004LUP	FN:3	PRODUCER	13-Mar-2008 16:48	1330.0 FT	861.0 FT

Output DLIS Files

DEFAULT	LDL_CNL_008PUP	FN:7	PRODUCER	13-Mar-2008 16:13	1330.0 FT	875.5 FT

OP System Version: 15C0-309

MCM

ILDT-A	SPC-3520-IFLEX_b	ITGN-A	SPC-3520-IFLEX_b

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time

DFT_IFLEX | GAS | WATER | 1250.5 16:13:53

PIP SUMMARY

Time Mark Every 60 S

Corrected Casing Collar Locator Amplitude (CCL)
−10 (----- 5

HiRes GammaRay (HGR)
0 (GAPI) 200

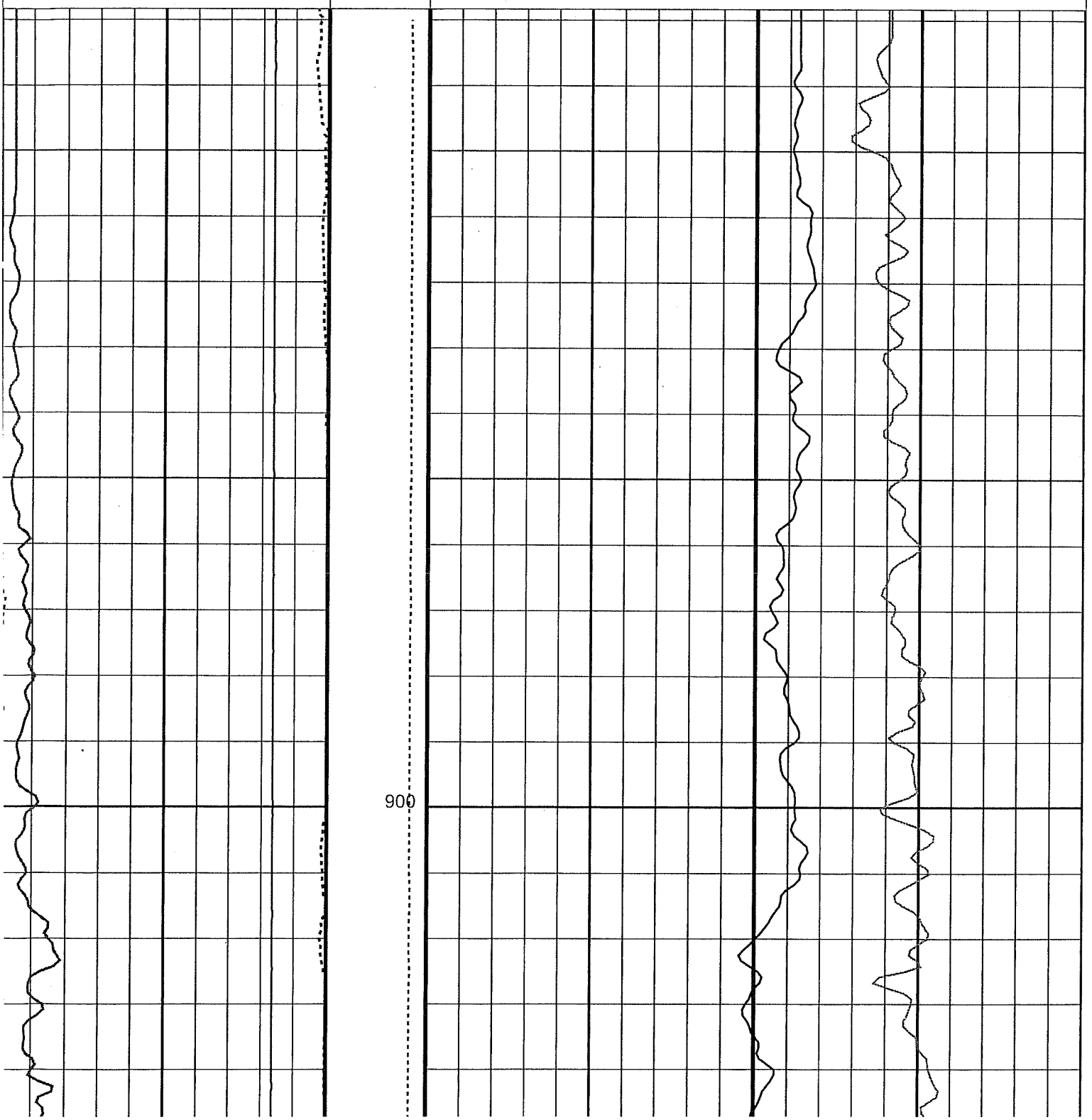
Caliper (CALI)
4 (IN) 14

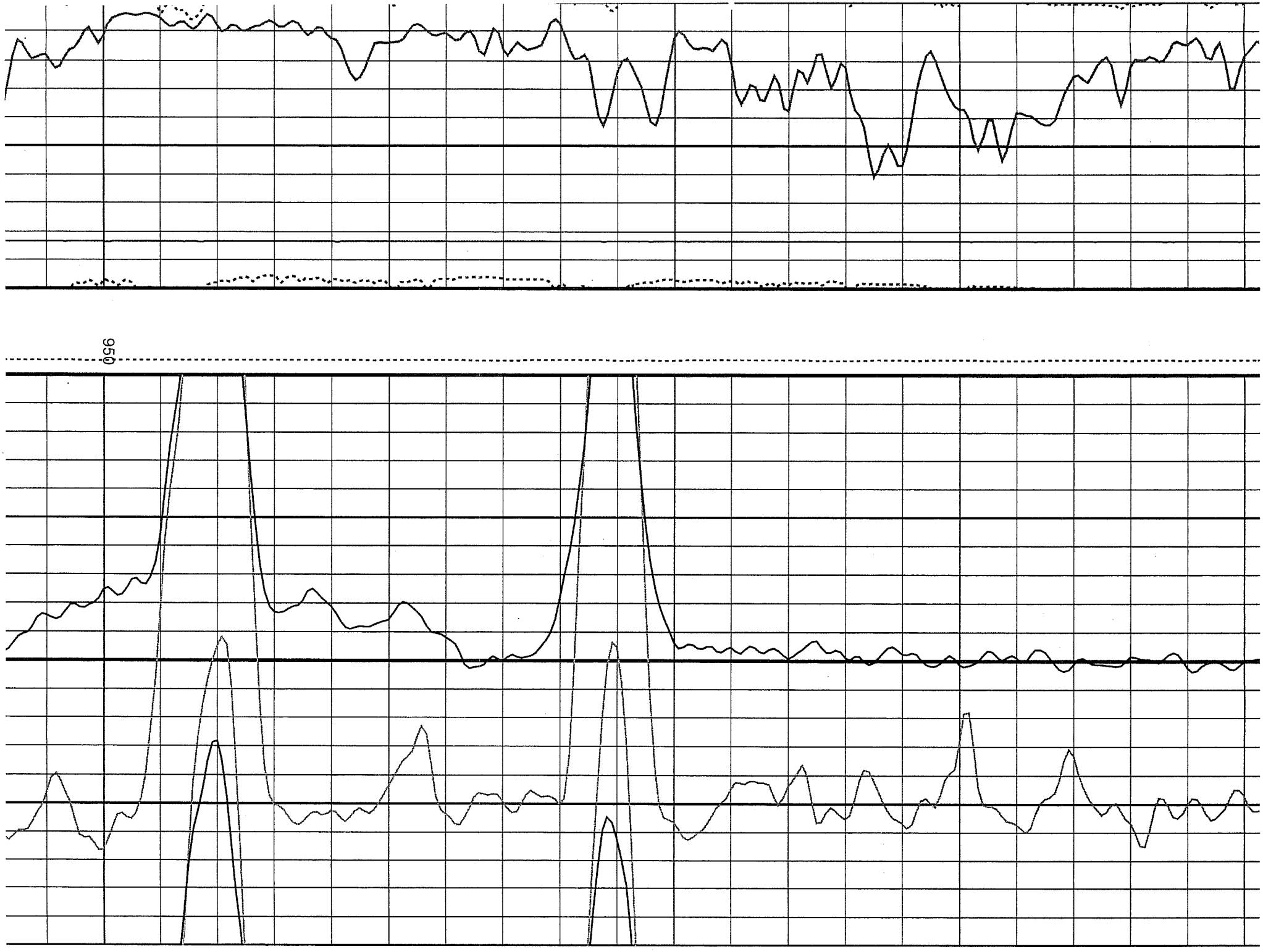
Tension (TENS) (LBF)
3000 0

High Resolution Epithermal Neutron Porosity (ENPH_HR)
0.3 (V/V) −0.1

High Resolution Thermal Neutron Porosity (HTNP)
0.3 (V/V) −0.1

High Resolution Bulk Density (HRHO)
1 (G/C3) 2

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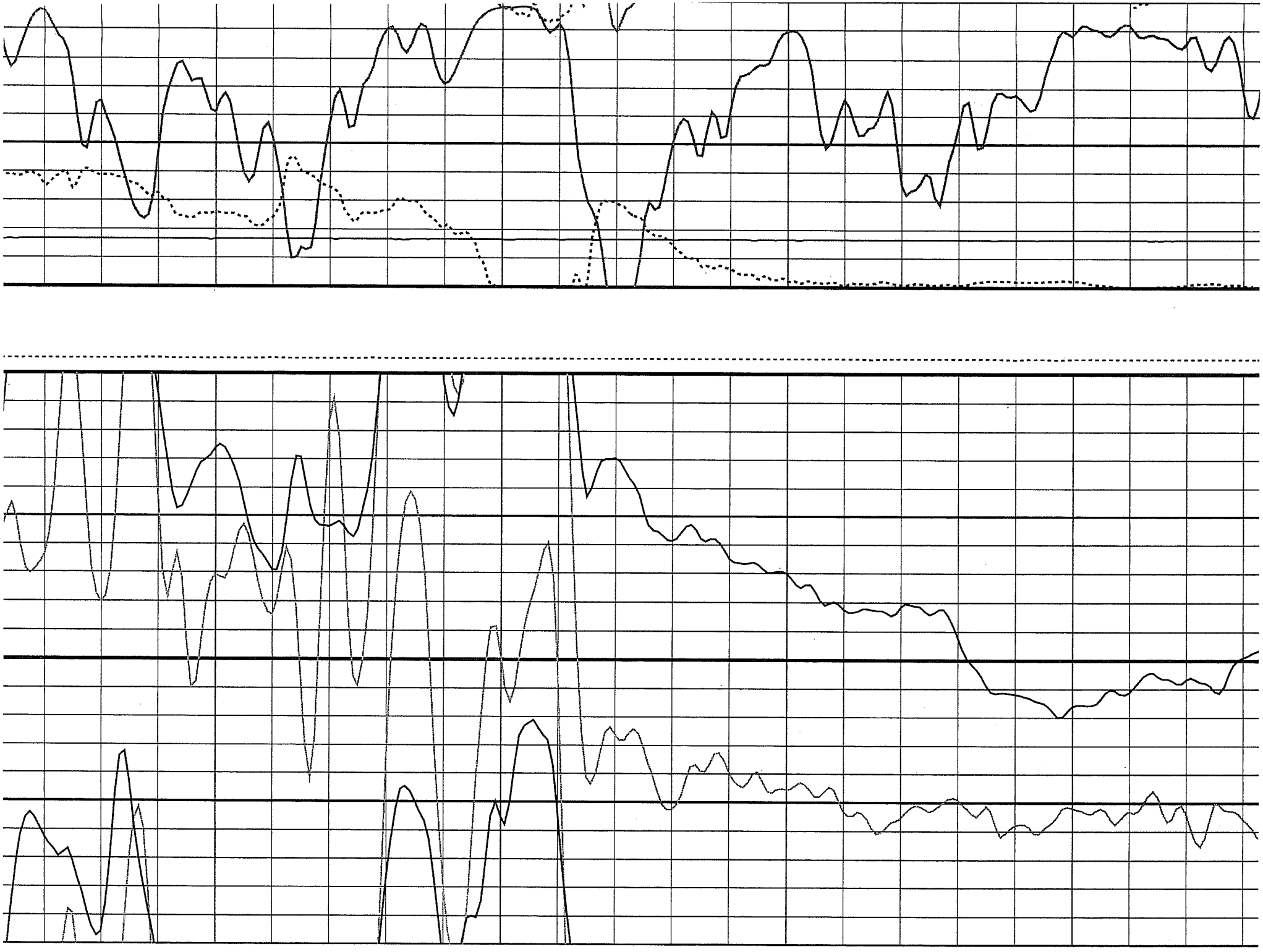

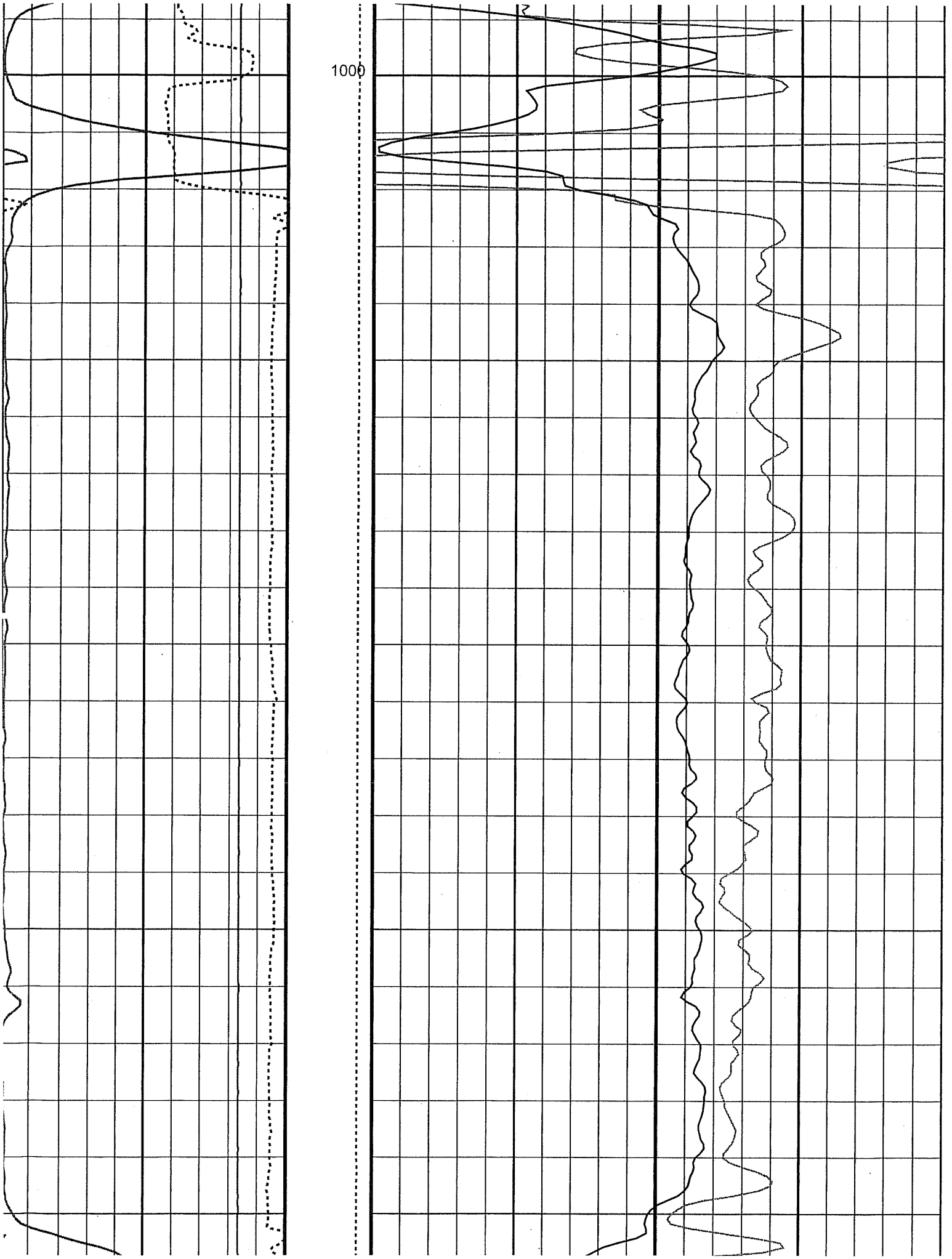
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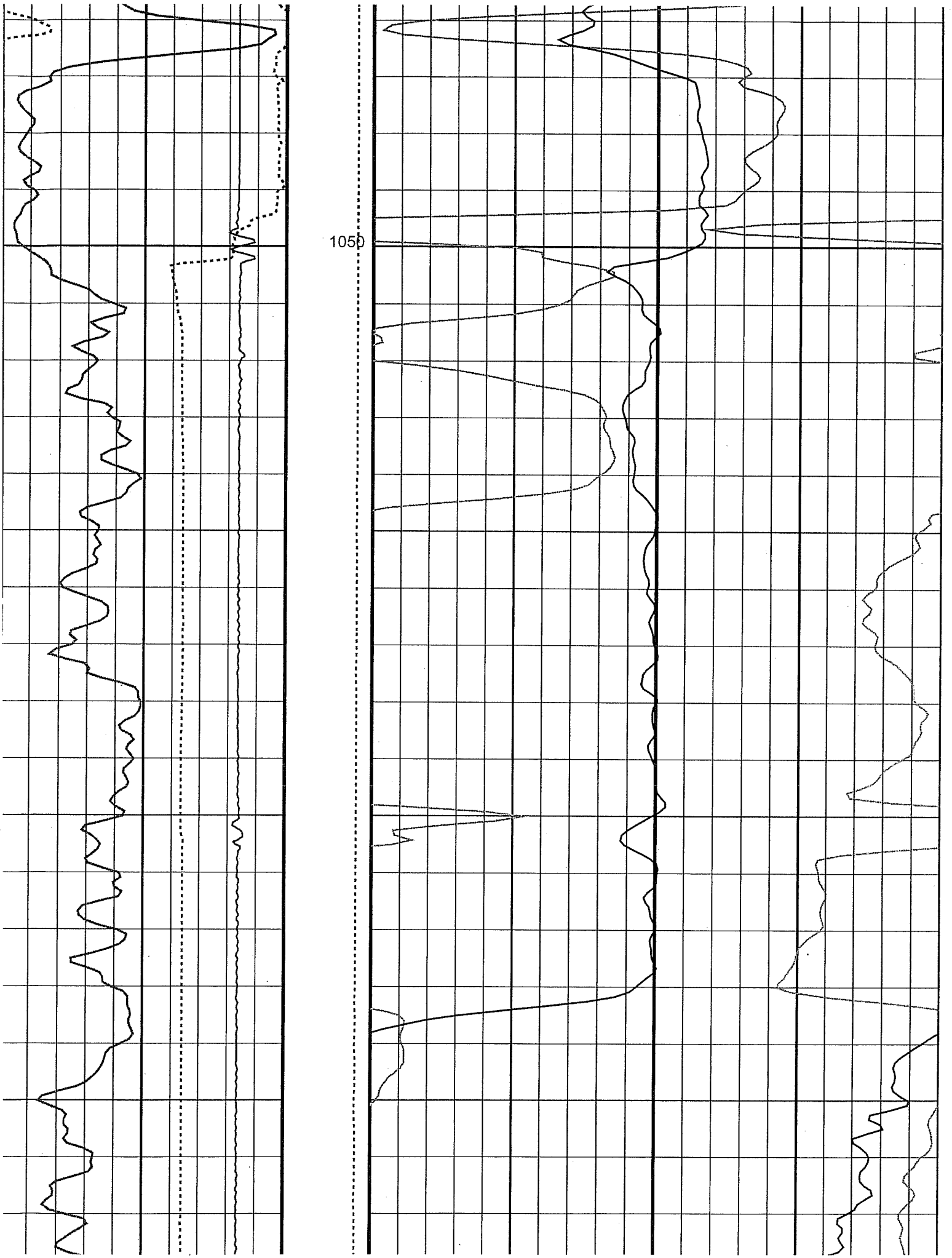
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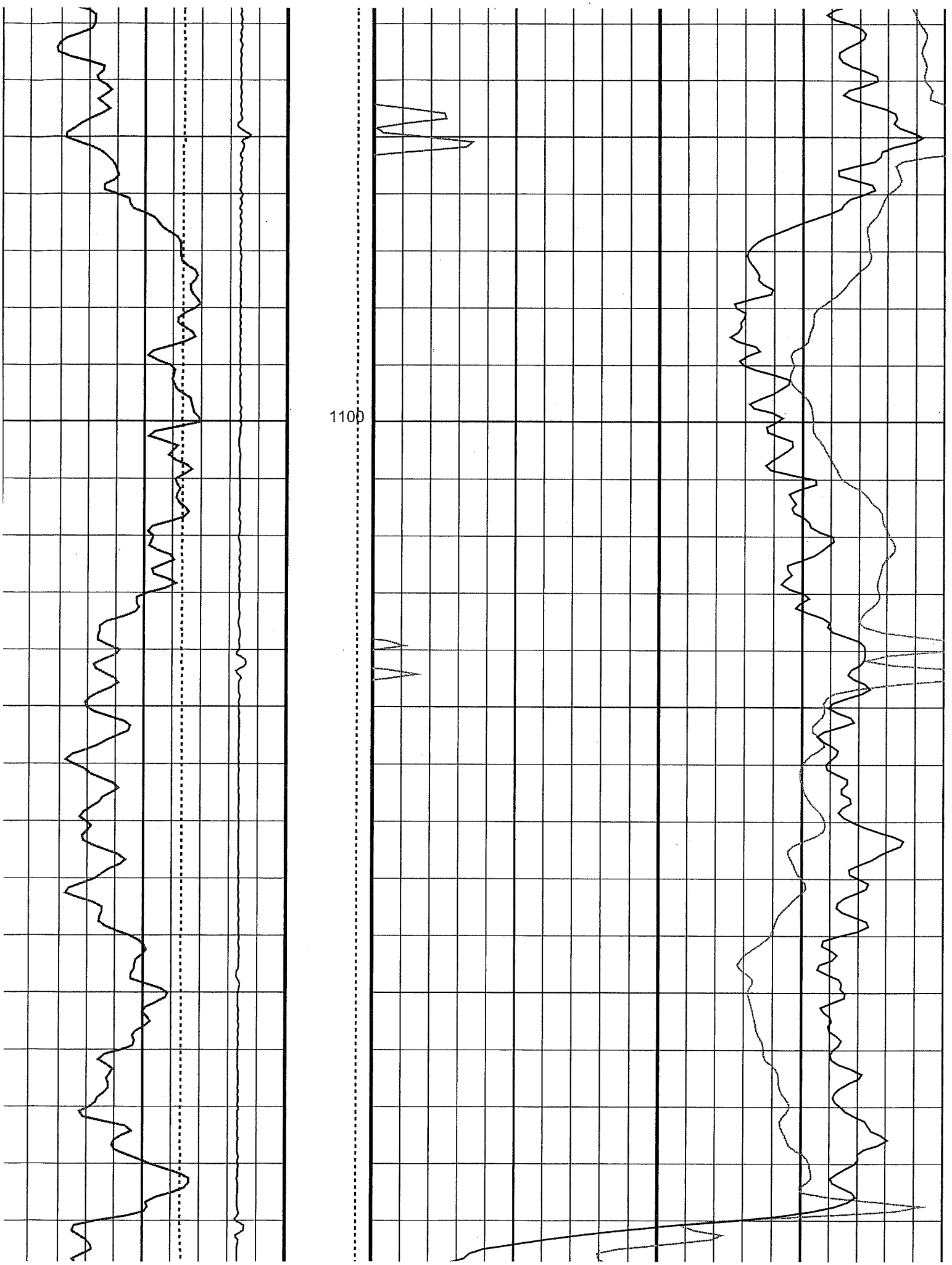
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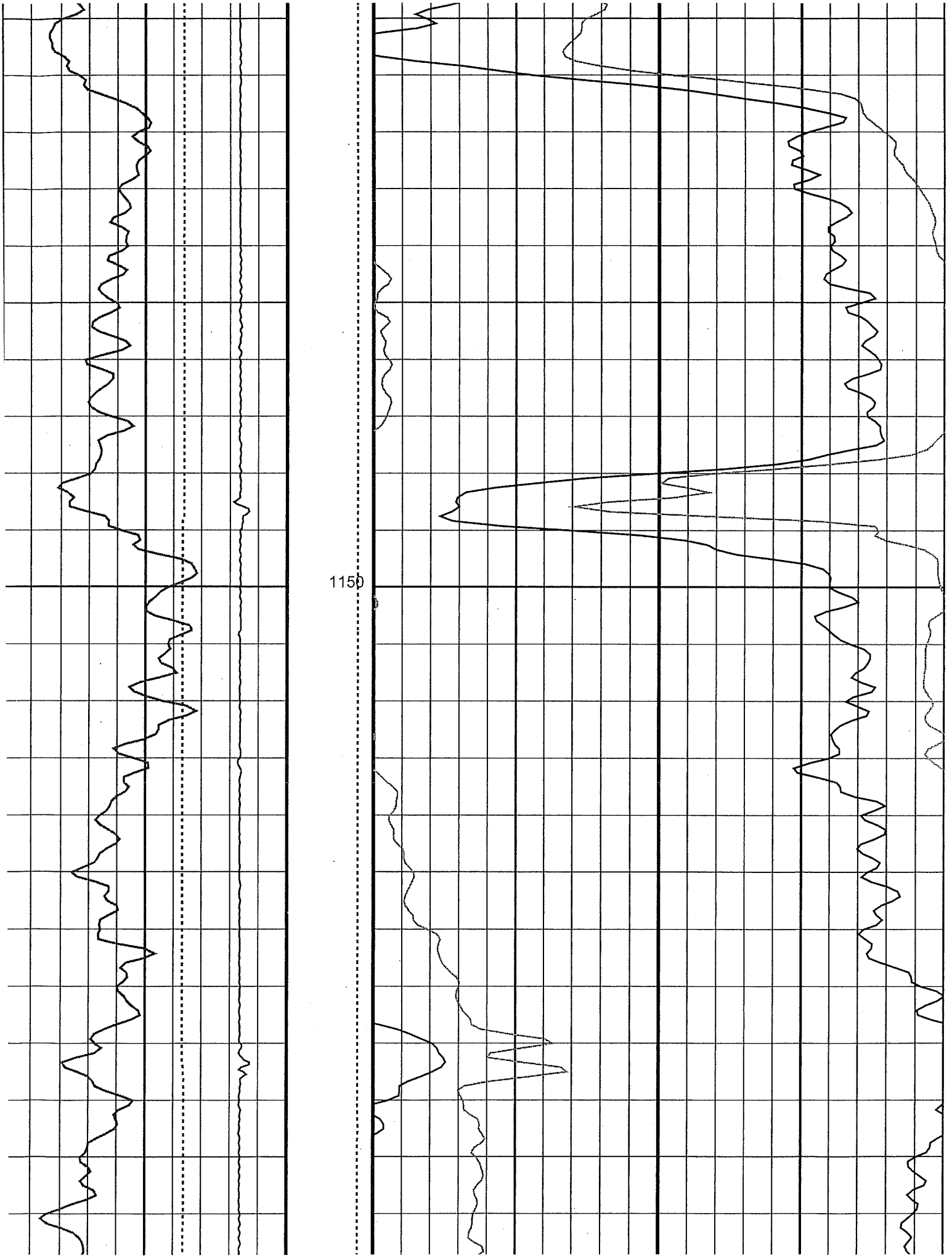
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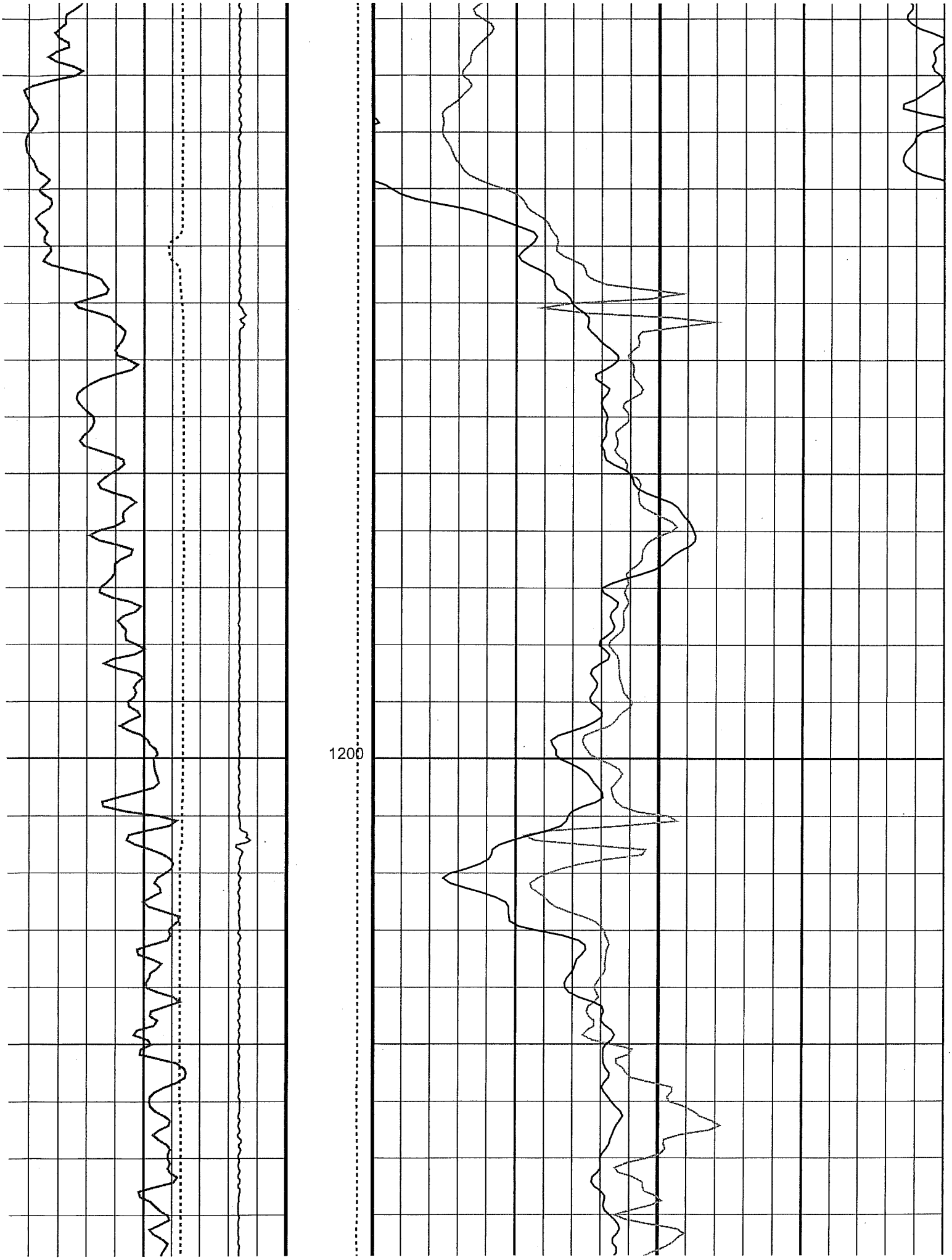
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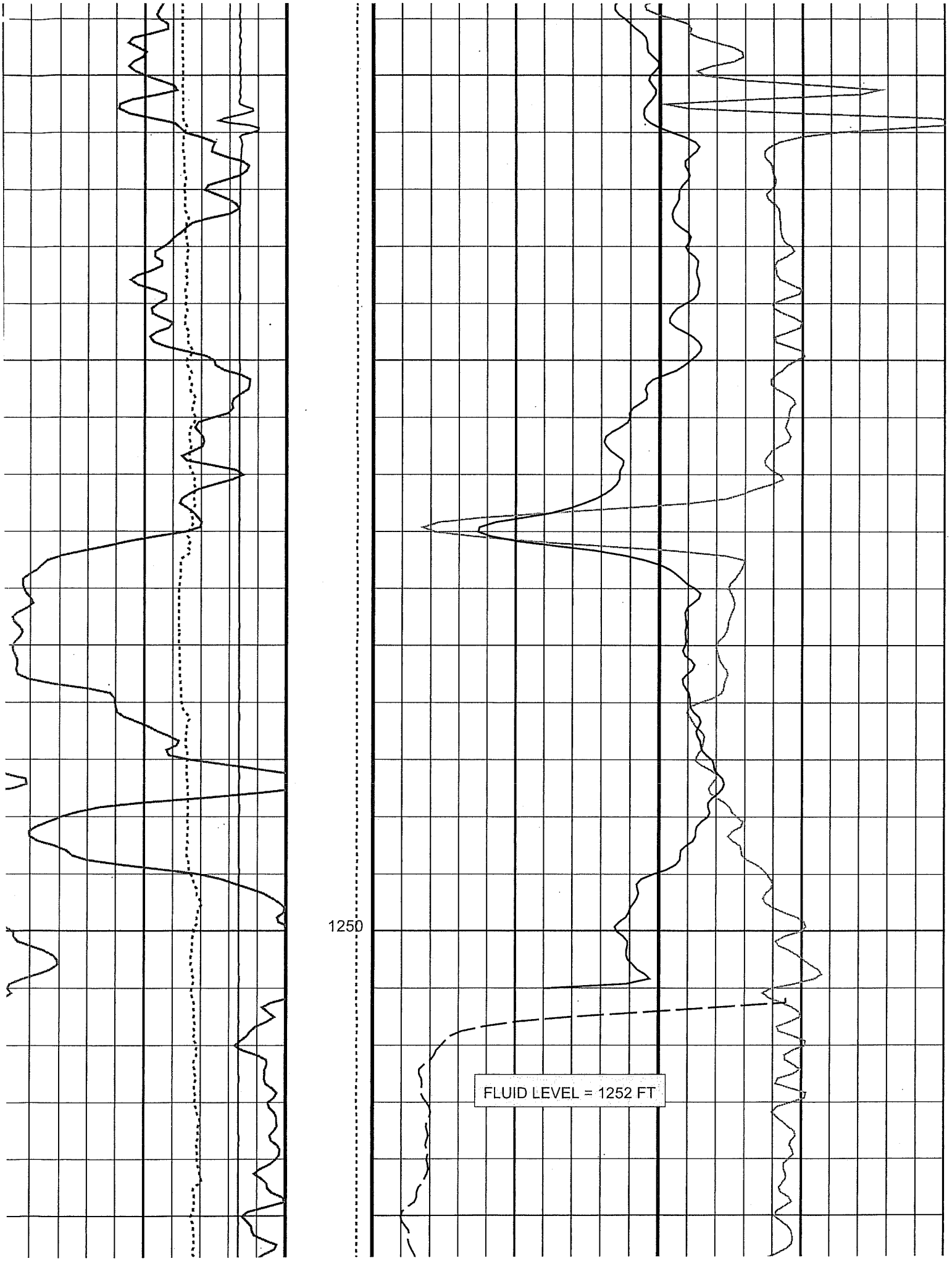
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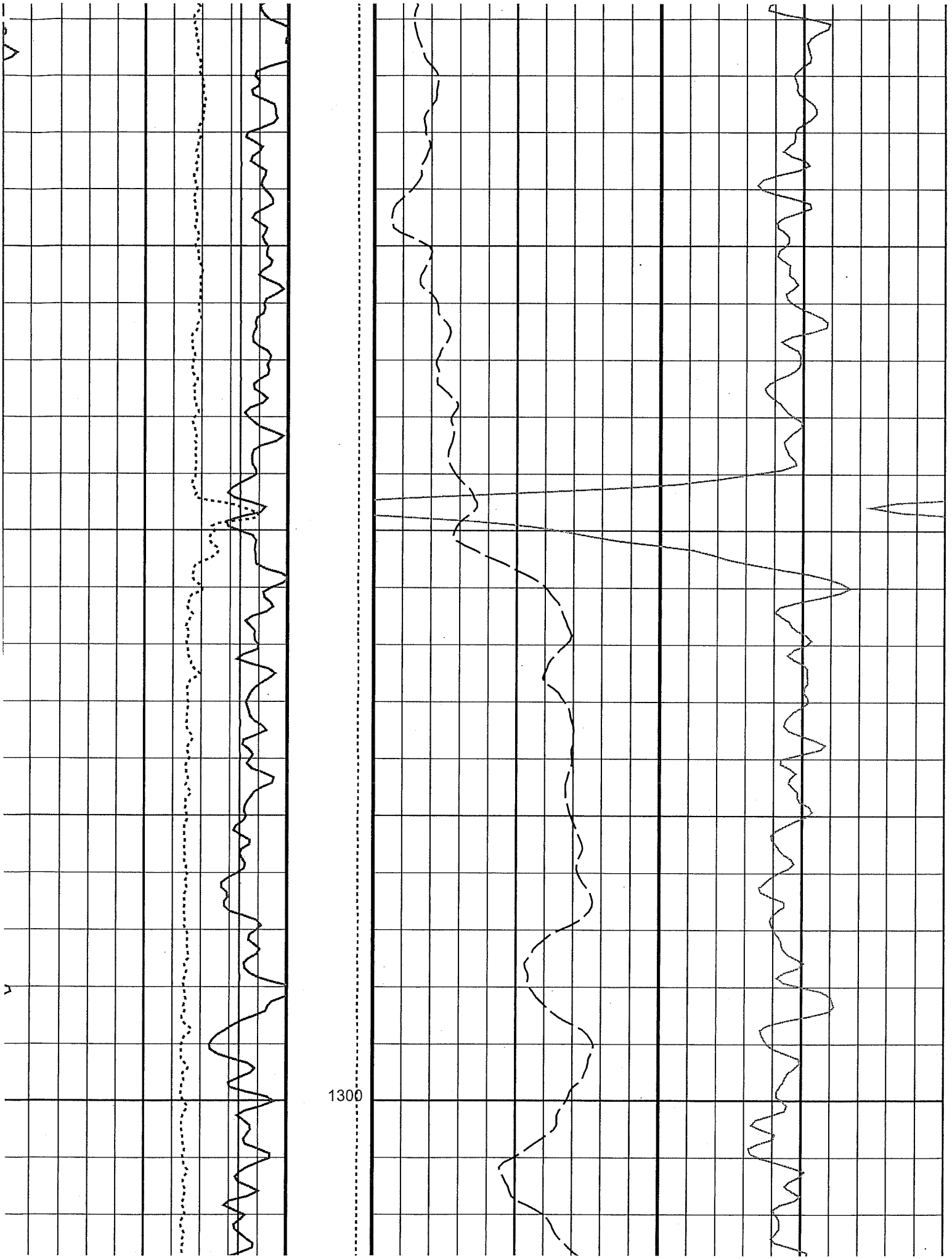
FLUID LEVEL = 1252 FT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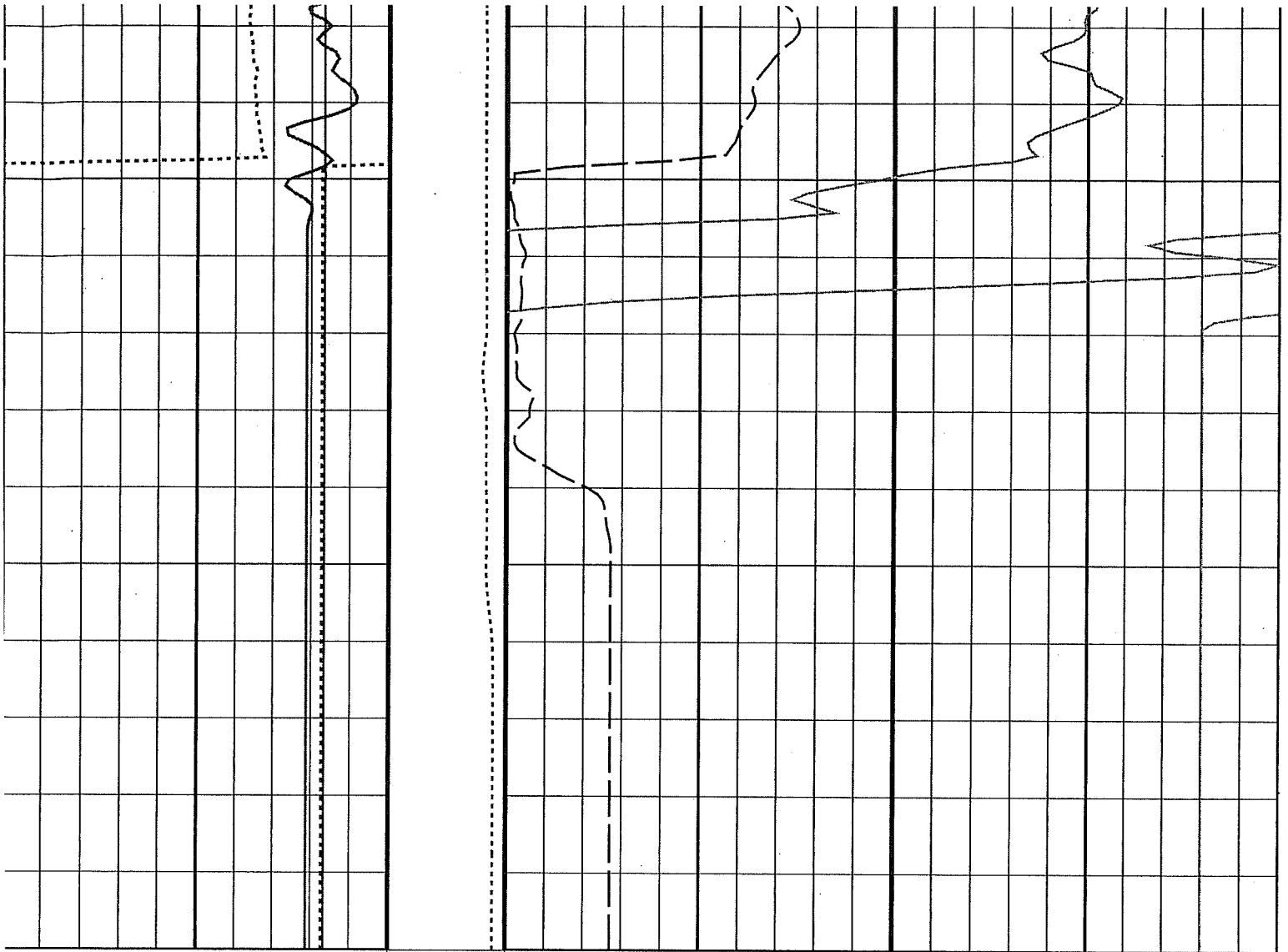


PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	ILDT-A: iFlex Litho Density Tool		
BHS	Borehole Status	OPEN	
DFT_IFLEX	Drilling Fluid Type	WATER	
DHNV_ICEC	ICEC Firmware Version	06.13.14	
DHNV_IPDP	IPDP Firmware Version	05.13.14	
FD	Fluid Density	1	G/C3
GCSE	Generalized Caliper Selection	CALI	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MDEN	Matrix Density	2.68	G/C3
PVN_IPDP	IPDP Computation Version	2.006	
TBHDS_ILDT	ILDT Tool Borehole Diameter Source	CALI	
	ITGN-A: iFlex Telemetry Gamma Neutron Tool		
BARI_ITGN	Barite Mud Presence Flag	NO	
BHS	Borehole Status	OPEN	

BHS	Borehole Status	OPEN	
BSCO	Borehole Salinity Correction Option	NO	
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	1	V
DFT_IFLEX	Drilling Fluid Type	WATER	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	CALI	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MWCO	Mud Weight Correction Option	NO	
NICO	Neutron Interference Correction Option	YES	
PTCO	Pressure Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SOCN	Standoff Distance	0	IN
SOCO	Standoff Correction Option	NO	
TBHDS	ITGN Tool Borehole Diameter Source	CALI	
TBHTS	ITGN Tool Borehole Temperature Source	GTSE	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	CALI	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
System and Miscellaneous			
BS	Bit Size	0.000	IN
BSAL	Borehole Salinity	-50000.00	PPM
DFD	Drilling Fluid Density	0.00	LB/G
DO	Depth Offset for Playback	0.0	FT
MST	Mud Sample Temperature	-50000.00	DEGF
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM

Format: COAL_LOG_HIRES Vertical Scale: 25" per 100' Graphics File Created: 13-Mar-2008 16:13

OP System Version: 15C0-309

MCM

ILDT-A	SPC-3520-IFLEX_b	ITGN-A	SPC-3520-IFLEX_b

Input DLIS Files

DEFAULT	LDL_CNL_004LUP	FN:3	PRODUCER	13-Mar-2008 16:48	1330.0 FT	861.0 FT

Output DLIS Files

DEFAULT	LDL_CNL_008PUP	FN:7	PRODUCER	13-Mar-2008 16:13		

Schlumberger

5'' MAIN PASS

MAXIS Field Log

Input DLIS Files

DEFAULT	LDL_CNL_004LUP	FN:3	PRODUCER	13-Mar-2008 16:48	1330.0 FT	861.0 FT

Output DLIS Files

DEFAULT	LDL_CNL_008PUP	FN:7	PRODUCER	13-Mar-2008 16:13	1330.0 FT	875.5 FT

OP System Version: 15C0-309

MCM

ILDT-A	SPC-3520-IFLEX_b	ITGN-A	SPC-3520-IFLEX_b

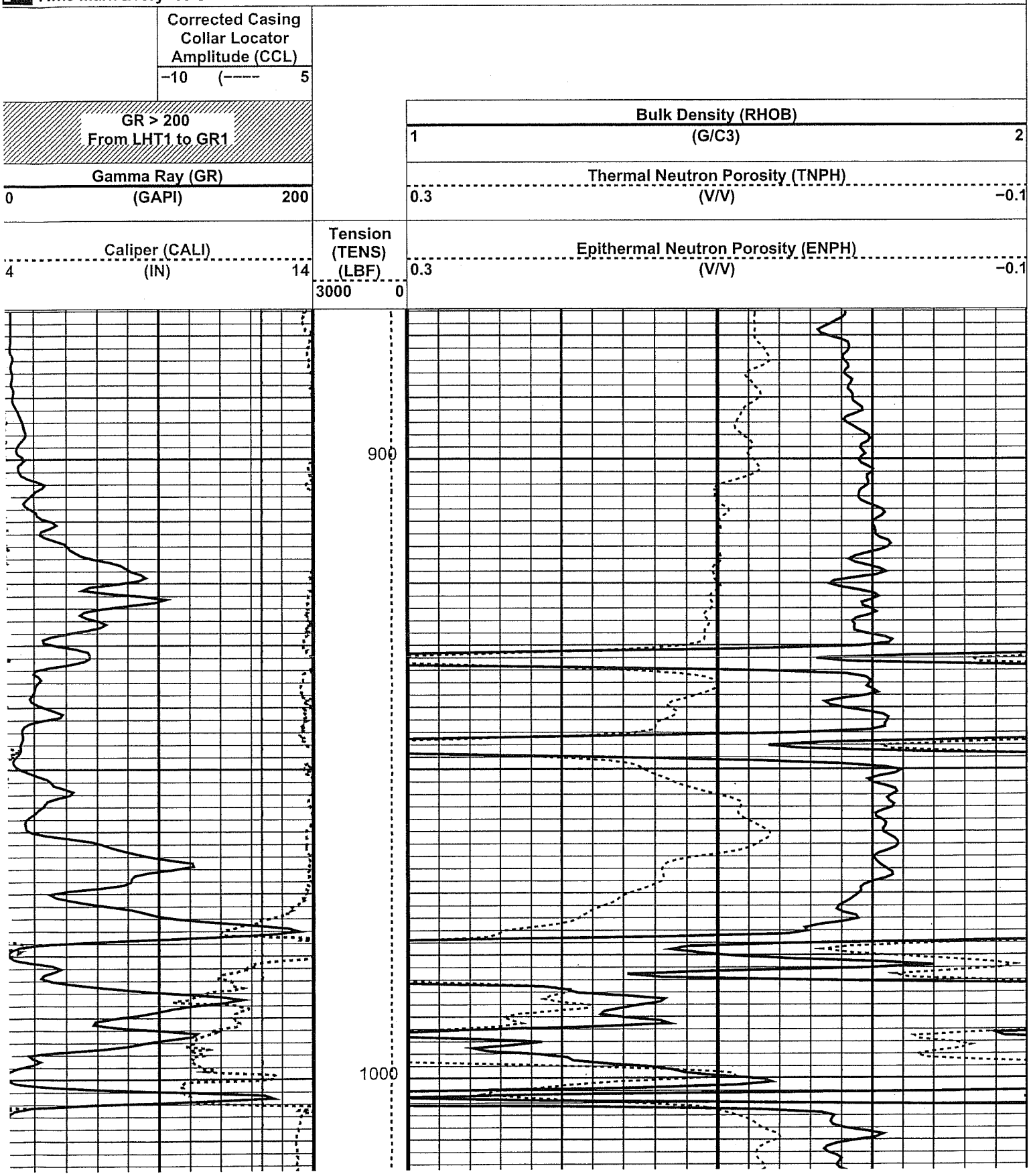
Changed Parameter Summary

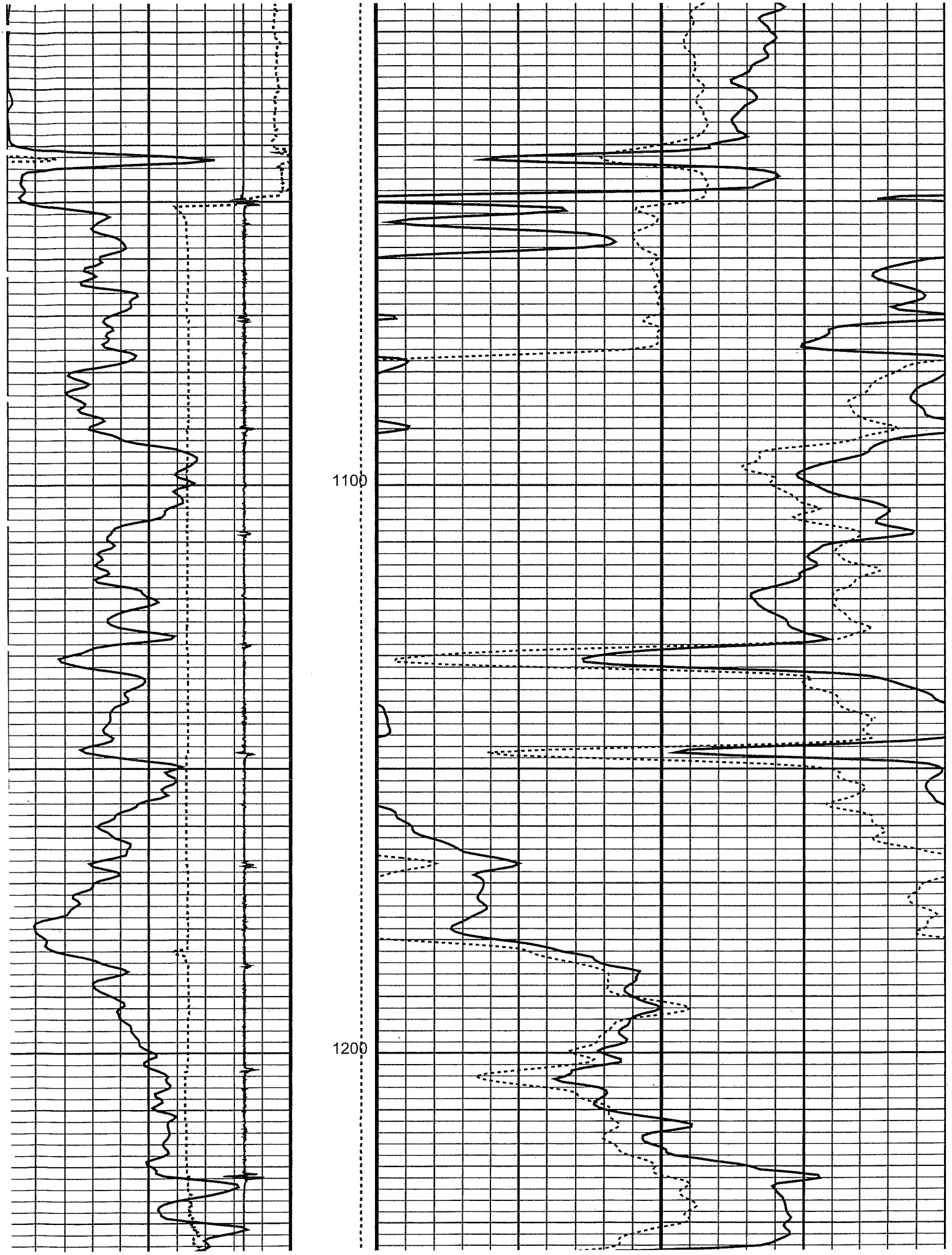
DLIS Name	New Value	Previous Value	Depth & Time
DFT_IFLEX	GAS	WATER	1250.5 16:13:53

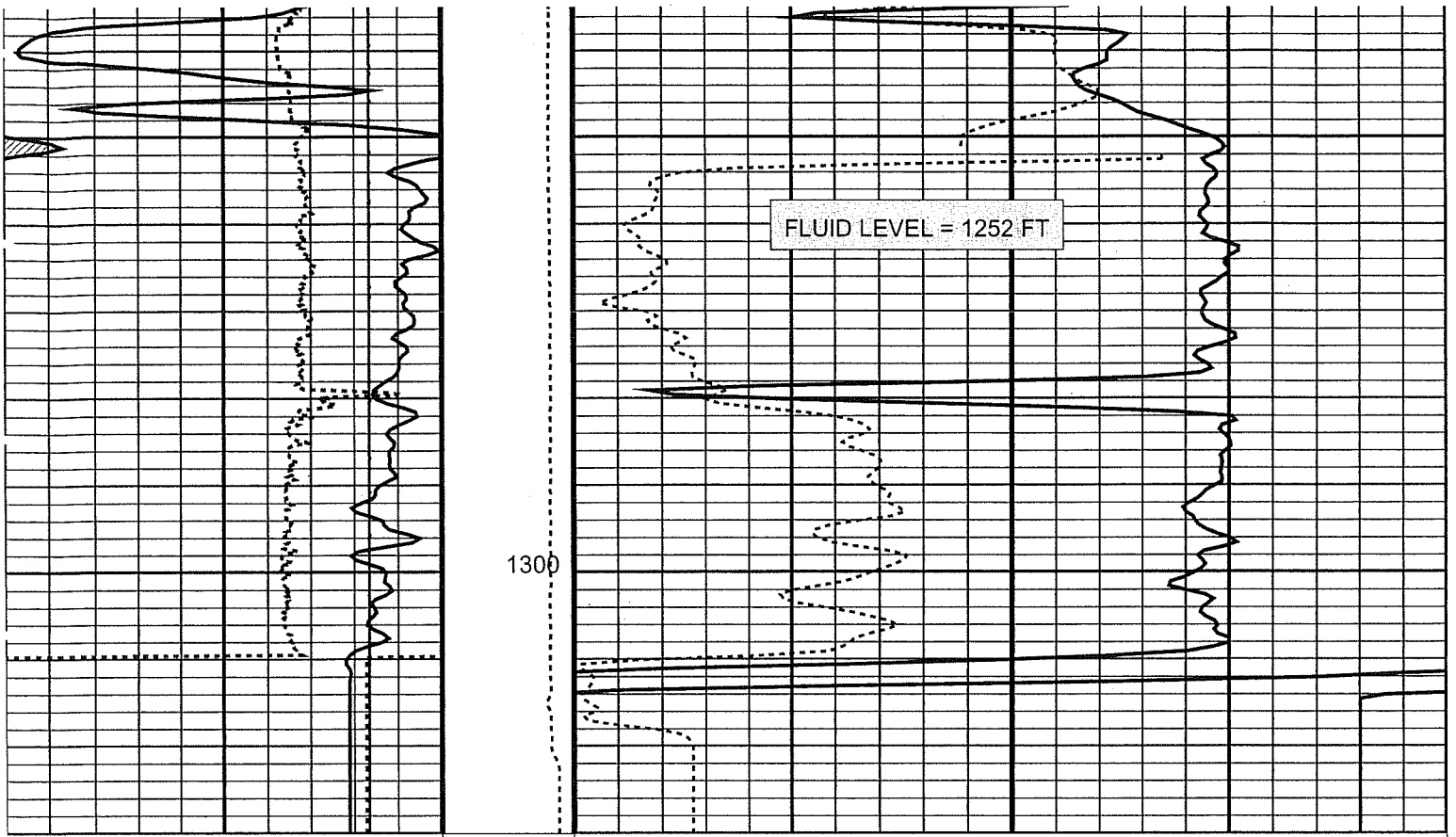
PIP SUMMARY

- 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




1100
1200



Caliper (CALI)
4 (IN) 14

Tension (TENS) (LBF)
3000 0

Epithermal Neutron Porosity (ENPH)
0.3 (V/V) −0.1

Gamma Ray (GR)
0 (GAPI) 200

Thermal Neutron Porosity (TNPH)
0.3 (V/V) −0.1

GR > 200
From LHT1 to GR1

Bulk Density (RHOB)
1 (G/C3) 2

Corrected Casing Collar Locator Amplitude (CCL)
−10 (---- 5

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	
ILDT-A: iFlex Litho Density Tool			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	125	DEGF
DALPO	Density Alpha Processing Option	NO	
DFT_IFLEX	Drilling Fluid Type	WATER	
DHC	Density Hole Correction	BS	
DHNV_ICEC	ICEC Firmware Version	06.13.14	
DHNV_IPDP	IPDP Firmware Version	05.13.14	
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	

MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MDEN	Matrix Density	2.68	G/C3
PSTP	PSTC Tool Position on CAN Bus	1	
PVN_ICEC	ICEC Computation Version	0.001	
PVN_IPDP	IPDP Computation Version	2.006	
SHT	Surface Hole Temperature	40	DEGF
TBHDS_ILDT	ILDT Tool Borehole Diameter Source	CALI	
ITGN-A: iFlex Telemetry Gamma Neutron Tool			
	Tractor Available in Tool String	NO	
BARI_ITGN	Barite Mud Presence Flag	NO	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	125	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	1	V
CSID	Casing Size I.D.	9.075	IN
DFT_IFLEX	Drilling Fluid Type	WATER	
DHNV_ITGN	ITGN Firmware Version	05.13.13	
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MWCO	Mud Weight Correction Option	NO	
NICO	Neutron Interference Correction Option	YES	
PSTP	PSTC Tool Position on CAN Bus	1	
PTCO	Pressure Temperature Correction Option	NO	
PVN_ITGN	ITGN Computation Version	1.001	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	40	DEGF
SOCN	Standoff Distance	0	IN
SOCO	Standoff Correction Option	NO	
TBHDS	ITGN Tool Borehole Diameter Source	CALI	
TBHTS	ITGN Tool Borehole Temperature Source	GTSE	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	125	DEGF
FCD	Future Casing (Outer) Diameter	4.5	IN
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	40	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	1352.00	FT
TDL	Total Depth - Logger	0.00	FT
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	0.000	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	0.000	IN
CWEI	Casing Weight	0.00	LB/F
DFD	Drilling Fluid Density	0.00	LB/G
DO	Depth Offset for Playback	0.0	FT
FLEV	Fluid Level	-50000.00	FT
MST	Mud Sample Temperature	-50000.00	DEGF
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1366	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

OP System Version: 15C0-309

MCM

ILDT-A SPC-3520-IFLEX_b ITGN-A SPC-3520-IFLEX_b

Input DLIS Files

DEFAULT	LDL_CNL_004LUP	FN:3	PRODUCER	13-Mar-2008 16:48	1330.0 FT	861.0 FT

Output DLIS Files

DEFAULT	LDL_CNL_008PUP	FN:7	PRODUCER	13-Mar-2008 16:13

Company:	**SPEED MINING**
Well:	**LRPB 21**
Field:	**SHERMAN**
County:	**BOONE**
State:	**WEST VIRGINIA**

Schlumberger

COAL LOG
LITHO DENSITY / COMPENSATED NEUTRON
CALIPER / GAMMA RAY