

Company: Alta Mesa Services

Well: Kauffman #1-9

Field: Willow

County: Payette State: Idaho

Platform Express - Borehole Compensated Sonic - Rt Scanner  
 Combo Print  
 ZAIT-BHC-TLD-CNL-GR

Location:	Permanent Datum:	Ground Level	Elev.:	K.B.	2620.00 ft
	Log Measured From:	Kelly Bushing	14.00 ft	G.L.	2606.00 ft
	Drilling Measured From:	Kelly Bushing		D.F.	2620.00 ft
	API Serial No.	Section: 9	Township: 8N	Range: 4W	
	11-075-20027				

Company: Alta Mesa Services

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Logging Date	20-Aug-2014
Run Number	ONE
Depth Driller	5755.00 ft
Schlumberger Depth	5766.00 ft
Bottom Log Interval	5756.00 ft
Top Log Interval	1124.50 ft
Casing Driller Size @ Depth	9.625 in @ 1129.00 ft
Casing Schlumberger	1124.5 ft
Bit Size	8.75 in
Type Fluid	Oil
Density	9.8 lbm/gal
Fluid Loss	10 cm3
PH	47 s
Source of Sample	
RM @ Meas Temp	N/A
RMF @ Meas Temp	N/A
RMC @ Meas Temp	N/A
Source RMC	N/A
RM @ BHT	N/A
RMF @ BHT	N/A
Max Recorded Temperatures	232.5 degF
Circulation Stopped	20-Aug-2014 03:00:00
Logger on Bottom	20-Aug-2014 14:00:40
Unit Number	2352
Location:	Rock Springs
Recorded By	EVAN MEADOWS
Witnessed By	MIKE MCMENNAMY

## 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 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.

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11. ONE Main Pass - Triple Combo

- 11.1 Integration Summary
- 11.2 Software Version
- 11.3 Composite Summary
- 11.4 Log ( Combo\_Fax )
- 11.5 Parameter Listing

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**Borehole Size/Casing/Tubing Record**

Bit					
Bit Size ( in )	8.75				
Top Driller ( ft )	0				
Top Logger ( ft )	0				
Bottom Driller ( ft )	5755				
Bottom Logger ( ft )	5766				
<b>Casing</b>					
Size ( in )	9.625				
Weight ( lbm/ft )	40				
Inner Diameter ( in )	8.835				
Grade	N/A				
Top Driller ( ft )	0				
Top Logger ( ft )	0				
Bottom Driller ( ft )	1129				
Bottom Logger ( ft )	1124.5				

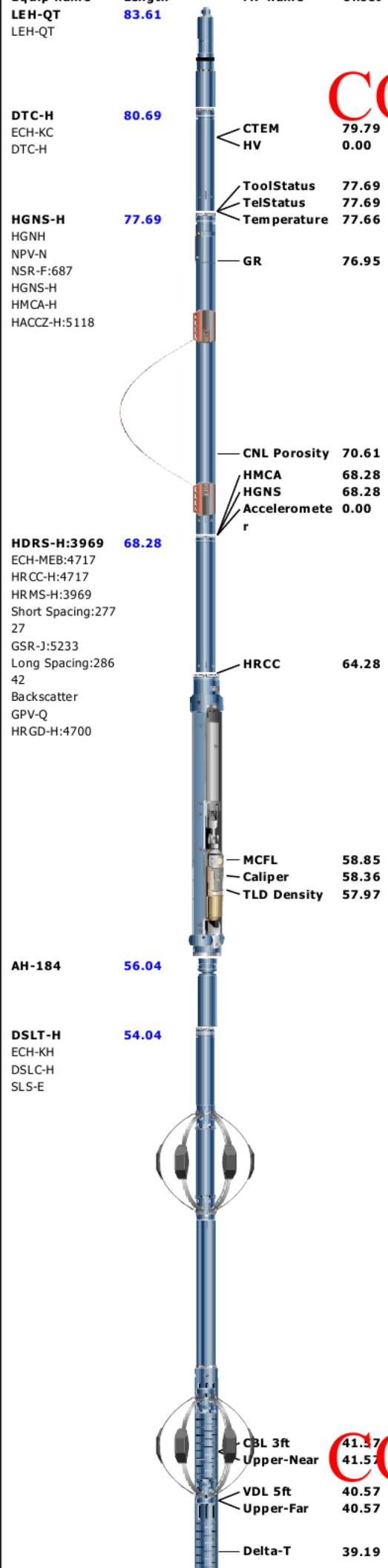
**Operational Run Summary**

Parameter ( unit )	ONE				
Date Log Started	20-Aug-2014				
Time Log Started	14:09:17				
Date Log Finished	20-Aug-2014				
Time Log Finished	18:13:22				
Top Log Interval ( ft )	1124.50				
Bottom Log Interval ( ft )	5756.00				
Total Depth ( ft )	5576.00				
Max Hole Deviation ( deg )	0.00				
Azimuth of Max Deviation ( deg )	0.00				
Bit Size ( in )	8.750				
Logging Unit Number	2352				
Logging Unit Location	Rock Springs				
Recorded By	EVAN MEADOWS				
Witnessed By	MIKE MCMENNAMY				
Service Order Number	CC40-00173				

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**Remarks and Equipment Summary**

ONE: Toolstring				ONE: Remarks	
Equip name	Length	MP name	Offset	1. THIS IS THE FIRST RUN IN THE WELL.	



2. TOOL RAN AS PER TOOL SKETCH.

3. MATRIX: SANDSTONE  
MUDEN: 2.65 G/ML

4. NEUTRON CORRECTIONS: BOREHOLE (BS), STANDOFF (0.125"), PRESSURE/TEMPERATURE

5. WASHOUTS MAY ADVERSELY AFFECT LOGS.

6. TD: 5,756'  
CSG: 1,125'

7. CALIPER READS 8.801" AFTER CALI\_SHIFT OF 0.228"

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LEH-QT 83.61

DTC-H 80.69  
ECH-KC  
DTC-H

HGNS-H 77.69  
HGNS-H  
NPV-N  
NSR-F:687  
HGNS-H  
HMCA-H  
HACCZ-H:5118

HDRS-H:3969 68.28  
ECH-MEB:4717  
HRCC-H:4717  
HRMS-H:3969  
Short Spacing:277  
27  
GSR-J:5233  
Long Spacing:286  
42  
Backscatter  
GPV-Q  
HRGD-H:4700

AH-184 56.04

DSLTL-H 54.04  
ECH-KH  
DSLCL-H  
SLS-E

CTEM  
HV

ToolStatus 77.69  
TelStatus 77.69  
Temperature 77.66

GR 76.95

CNL Porosity 70.61  
HMCA 68.28  
HGNS 68.28  
Acceleromete 0.00  
r

HRCC 64.28

MCFL 58.85  
Caliper 58.36  
TLD Density 57.97

CBL 3ft 41.57  
Upper-Near 41.57  
VDL 5ft 40.57  
Upper-Far 40.57  
Delta-T 39.19

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AH-107 33.4

Adaptor\_Head[2] 31.4

GPIT-F 27.4  
GPIH-B  
DHRU-F  
GPIC-F

Adaptor\_Head[1] 23.4

ZAIT-E:35 19.4  
AZIS:35  
AZRM:35

Lengths are in ft  
Maximum Outer Diameter = 9.000 in  
Line: Sensor Location, Value: Gating Offset  
All measurements are relative to TOOL\_ZERO

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Depth Summary

ONE		
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Depth Measurement Device

**Depth Measuring Device**

Type	IDW-B	<h1>CONFIDENTIAL</h1>
Serial Number		
Calibration Date		
Calibrator Serial Number		
Calibration Cable Type		
Wheel Correction 1	0	
Wheel Correction 2	0	

**Tension Device**

Type	CMTD-B/A
Serial Number	
Calibration Date	
Calibrator Serial Number	
Number of Calibration Points	0

**Logging Cable**

Type	7-46NT-XS
Serial Number	
Length	24000.00 ft
Conveyance Type	Wireline
Rig Type	Double

**ONE:Depth Control Parameters**

Log Sequence	First Log In the Well	<b>Depth Control Remarks</b> 1. ALL SCHLUMBERGER DEPTH CONTROL PROCEDURES WERE FOLLOWED DURING LOGGING. 2. IDW USED AS PRIMARY DEPTH CONTROL MEASURE. 3. Z CHART USED AS SECONDARY DEPTH CONTROL MEASURE. 4. TD: 5,756' CSG: 1,125' 5. STRETCH CORRECTION: 2.35'
Rig Up Length At Surface		
Rig Up Length At Bottom		
Rig Up Length Correction		
Stretch Correction	2.35 ft	
Tool Zero Check At Surface		

**ONE**

**Main Pass - Induction**

**Pass Summary**

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Main[3]:Up	Up	239.03 ft	5767.98 ft	20-Aug-2014 3:38:08 PM	20-Aug-2014 5:08:36 PM	ON	2.35 ft	No

All depths are referenced to toolstring zero

<b>Log</b>	Company:Alta Mesa Services    Well:Kauffman #1-9 ONE: Main[3]:Up:S091
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Description: Format: Log ( AIT ) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Aug-2014 17:50:05

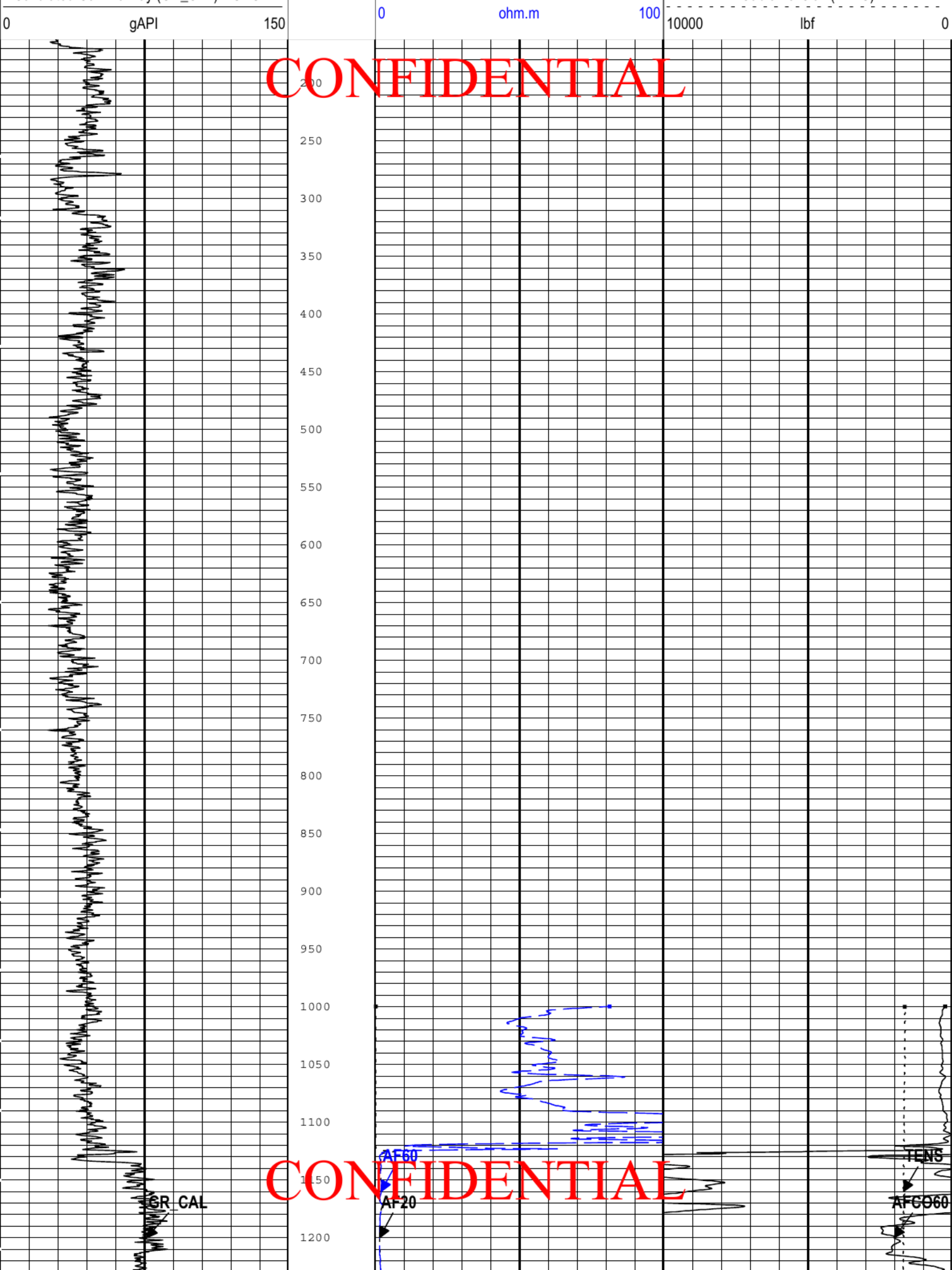
Channel	Source	Sampling
AF20	ZAIT-E:AZIS:AZIS	3in
AF60	ZAIT-E:AZIS:AZIS	3in
AFCO60	ZAIT-E:AZIS:AZIS	3in
GR_CAL	HGNS-H:HGNS-H:HGNS-H	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

TIME\_1900 - Time Marked every 60.00 (s)

Array Induction Four Foot Resistivity A20 (AF20) ZAIT-E	Array Induction Four Foot Conductivity A60 (AFCO60) ZAIT-E	
Array Induction Four Foot Resistivity A60 (AF60) ZAIT-E	Cable Tension (TENS)	

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Calibrated Gamma Ray (GR CAL) HGNS-H



gAPI

150

0

ohm.m

100

10000

lbf

0

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200

250

300

350

400

450

500

550

600

650

700

750

800

850

900

950

1000

1050

1100

1150

1200

GR CAL

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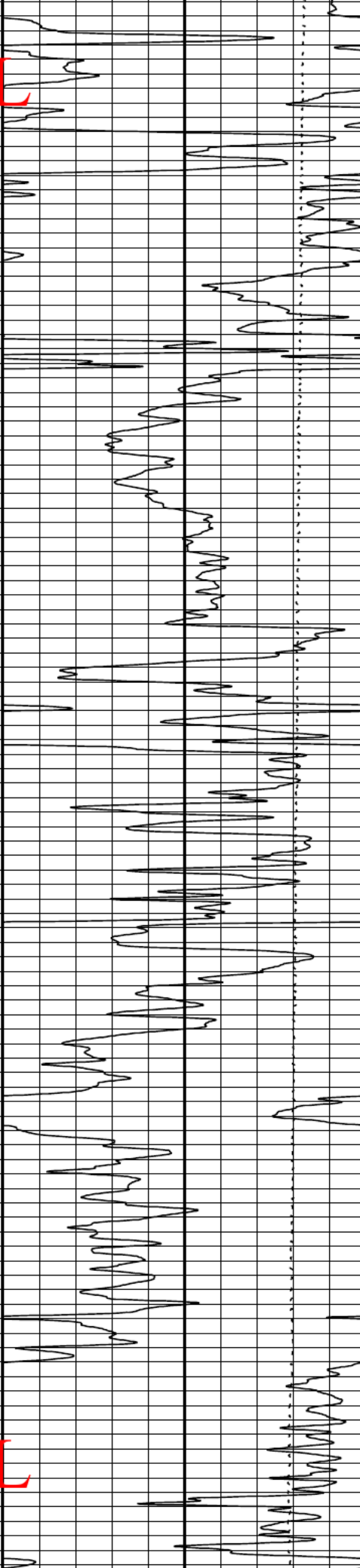
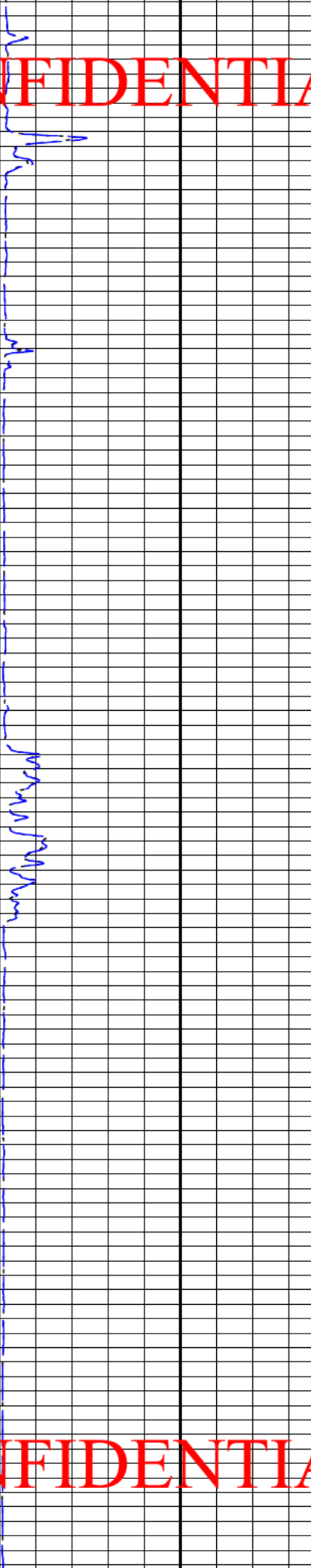
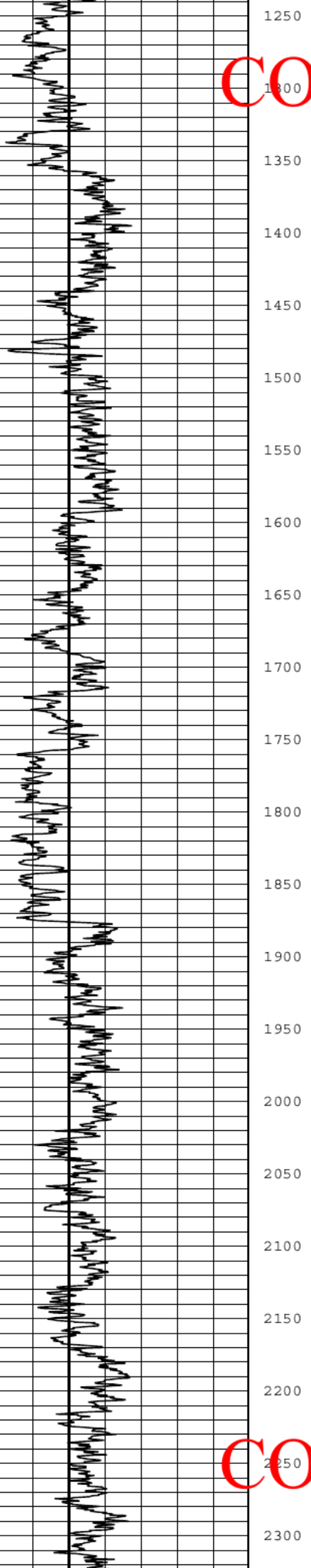
AF60

AF20

TENS

AFCO60

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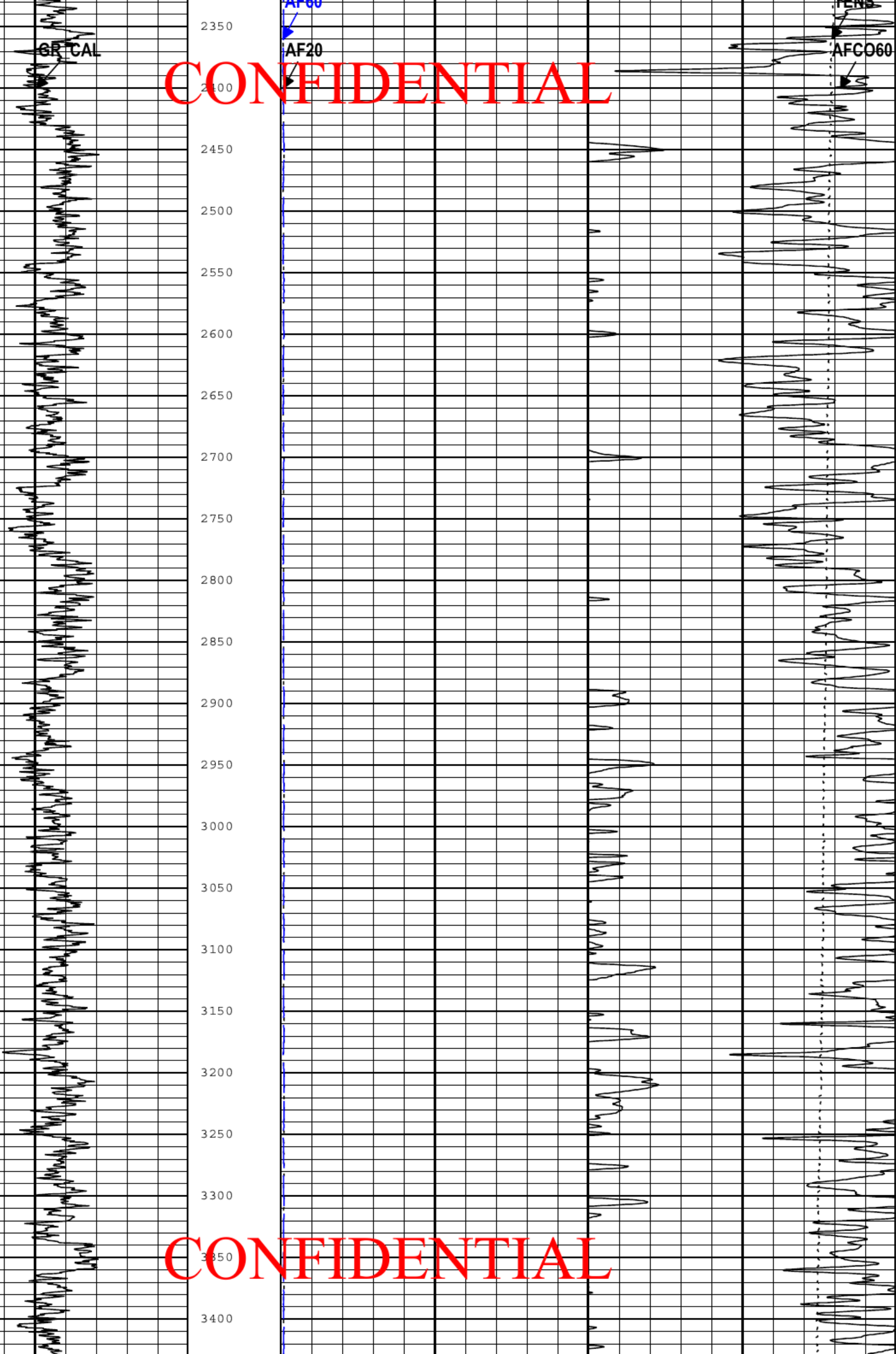


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AF60

AF60

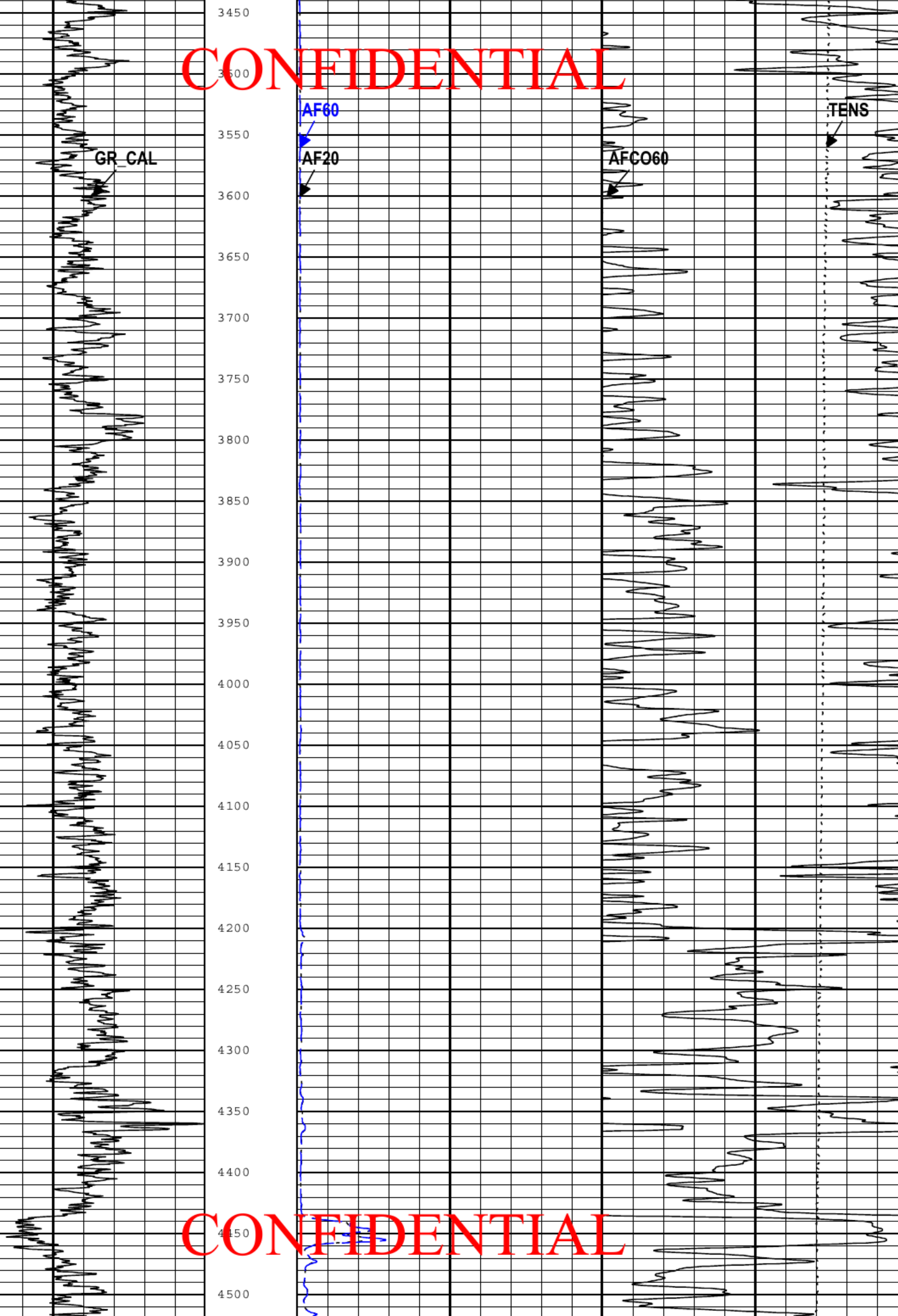
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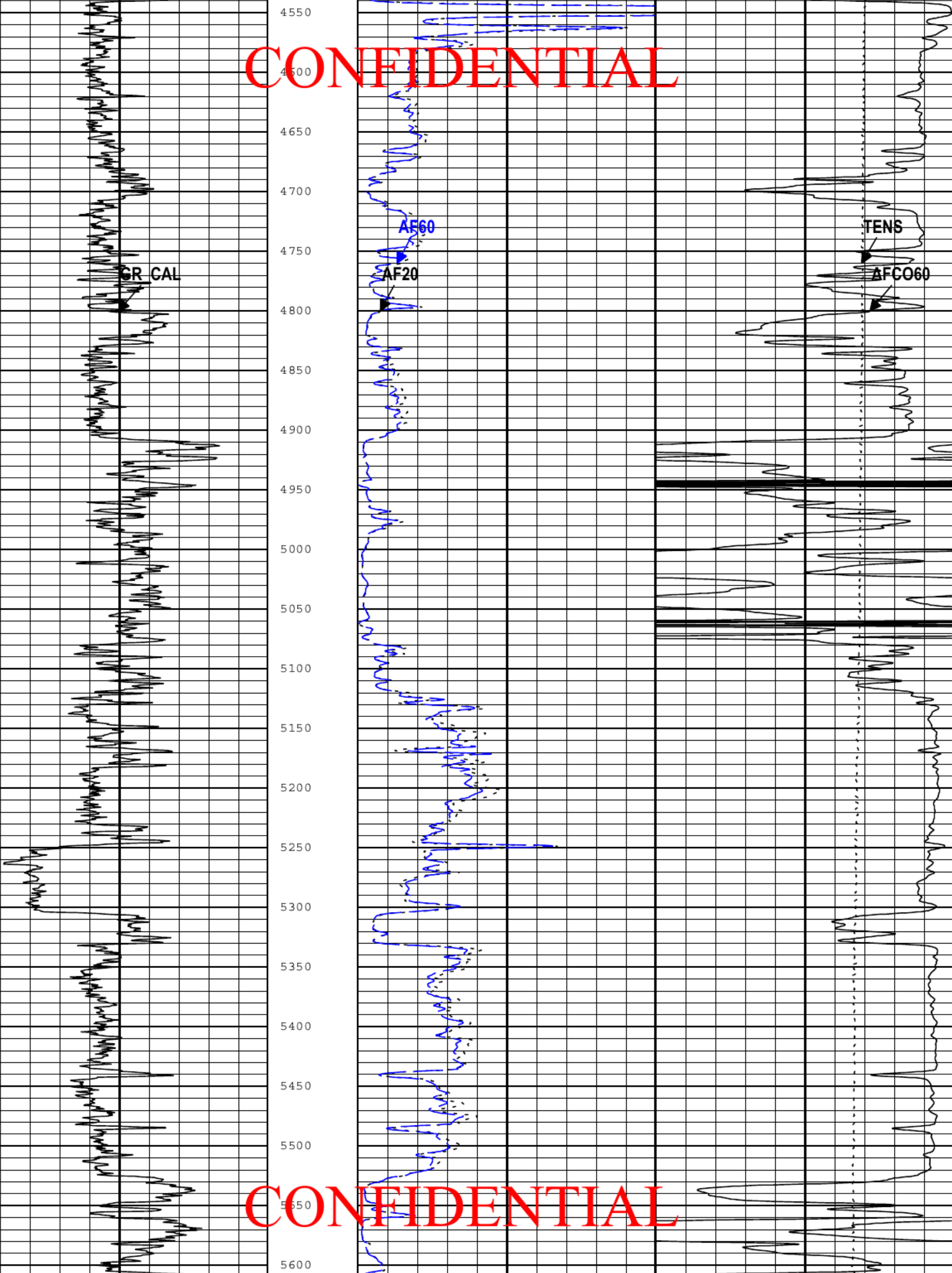


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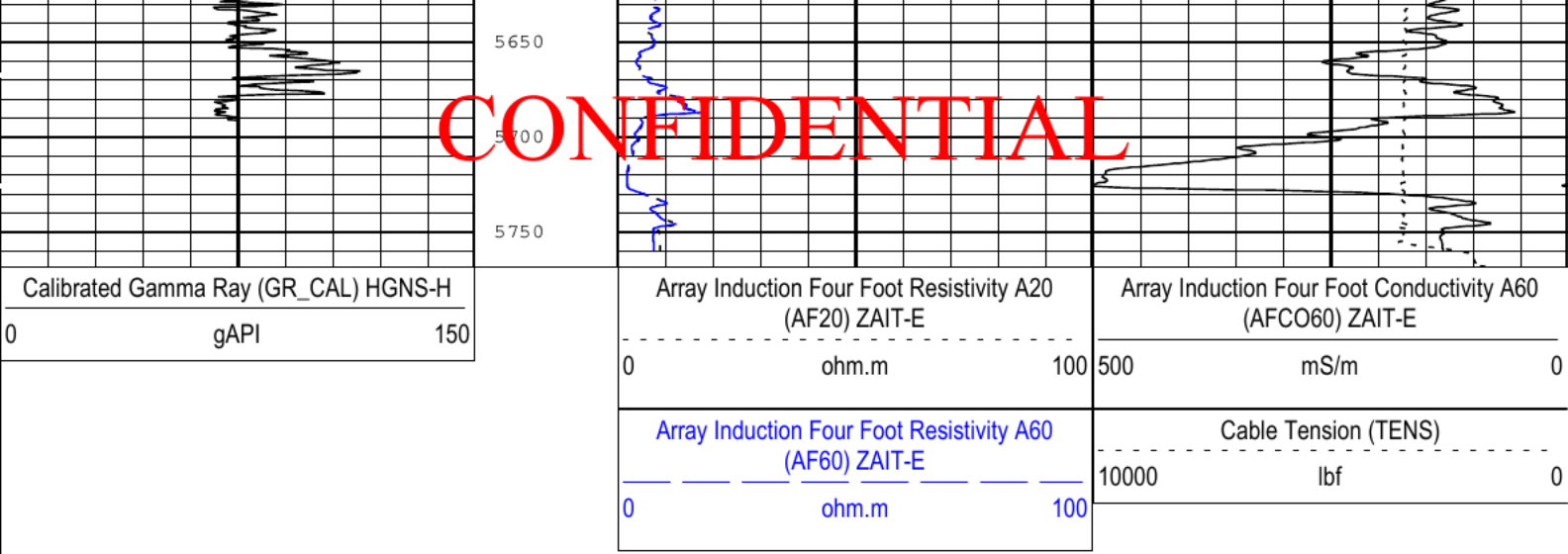
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TIME\_1900 - Time Marked every 60.00 (s)  
 Description: Format: Log (AIT) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Aug-2014 17:50:05

**ONE**

**Main Pass - Density**

**Software Version**

<b>Acquisition System</b>		<b>Version</b>	
MaxWell		4.0.9163.3000	
<b>Computation</b>	<b>Description</b>	<b>Version</b>	
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	4.0.9125.3000	
<b>Tool Elements</b>	<b>Description</b>	<b>Software Version</b>	<b>Firmware Version</b>
HRCC-H	HILT High-Resolution Control Cartridge, 150 degC	4.0.9033.3000	2.0
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	4.0.9033.3000	2.0
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	4.0.9033.3000	3.0

**Pass Summary**

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Main[3]:Up	Up	239.03 ft	5767.98 ft	20-Aug-2014 3:38:08 PM	20-Aug-2014 5:08:36 PM	ON	2.35 ft	No

All depths are referenced to toolstring zero

**Log** Company:Alta Mesa Services Well:Kauffman #1-9 ONE: Main[3]:Up:S091

Description: Format: Log (Dens) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Aug-2014 17:50:06

Channel	Source	Sampling
BS	Borehole	6in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DSOZ	HDRS-H:HRMS-H:HRGD-H	2in
GR_CAL	HGNS-H:HGNS-H:HGNS-H	6in
HDRA	HDRS-H:HRMS-H:HRGD-H	2in
PEFZ	HDRS-H:HRMS-H:HRGD-H	2in
RHOZ	HDRS-H:HRMS-H:HRGD-H	2in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

TIME\_1900 - Time Marked every 60.00 (s)

Area from BS to CALI	Standard Resolution	Standard Resolution Formation Photoelectric Factor (PEF7) HDRS H	Cable Tension (TENS)
			10000 lbf

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Caliper (CALI) HDRS-H

Density Standoff (DSOZ) HDRS-H

Factor (PEFZ) HDRS-H

Density Standoff Correction (HDRA) HDRS-H

4 in 14

0 10

-0.25 g/cm3 0.25

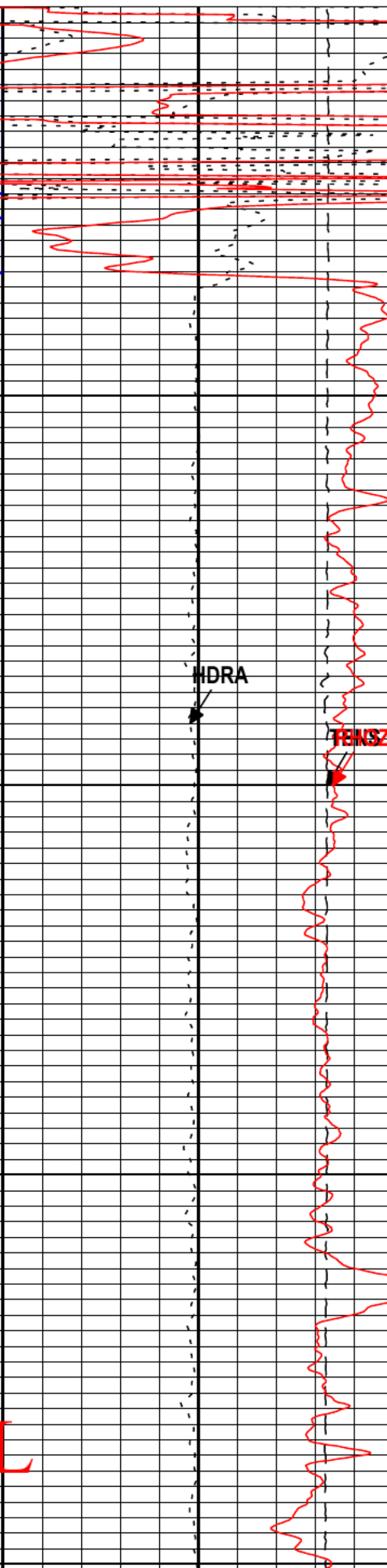
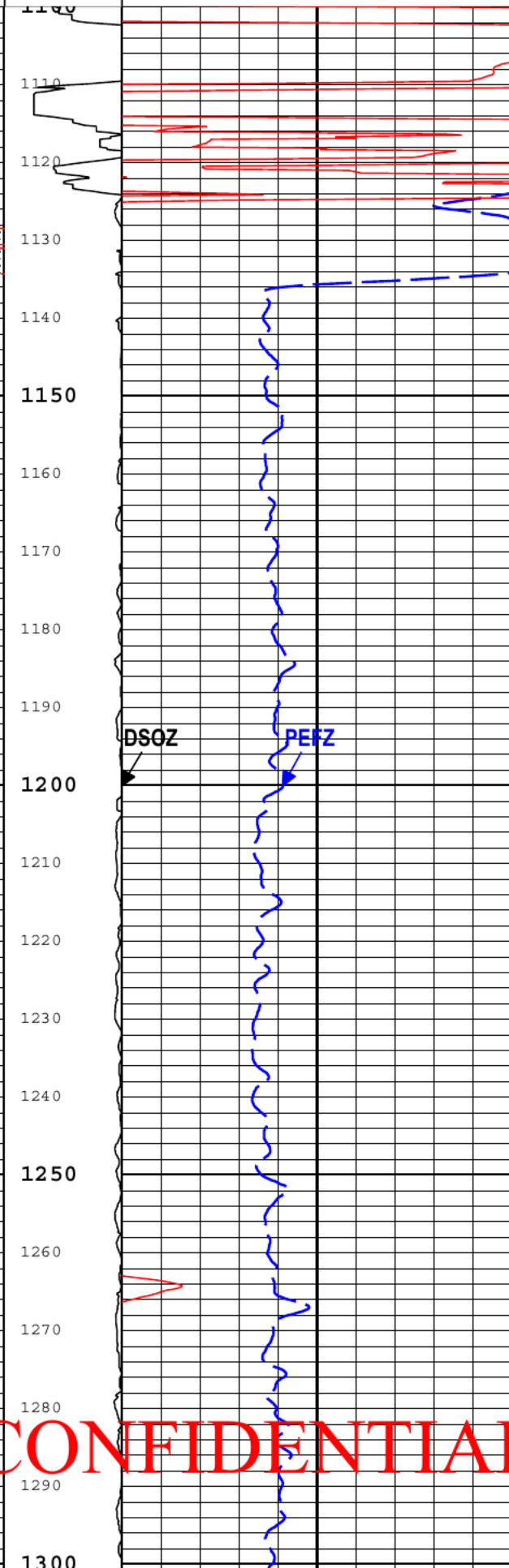
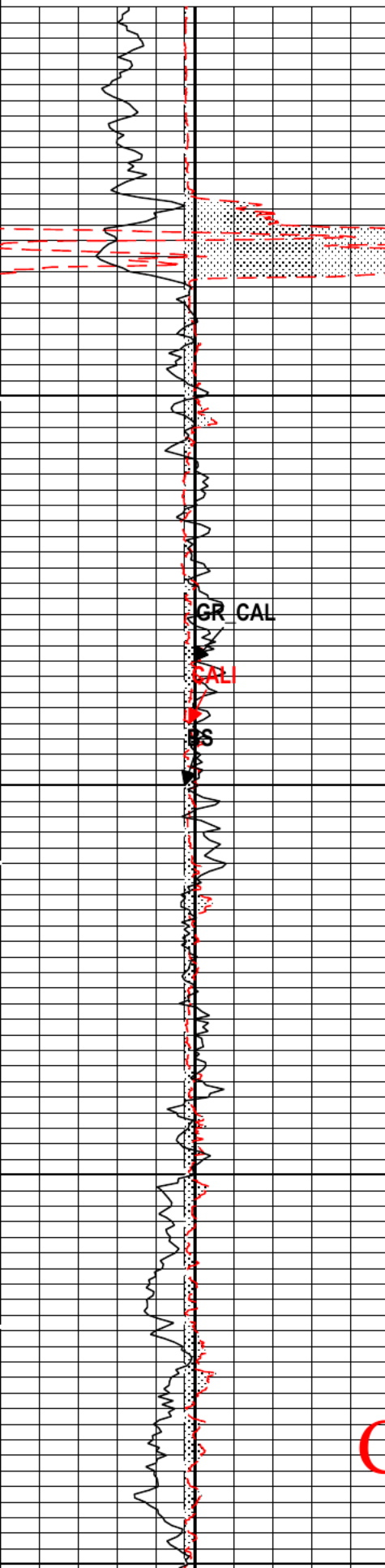
Calibrated Gamma Ray (GR\_CAL) HGNS-H

Standard Resolution Formation Density (RHOZ) HDRS-H

0 150 2 in 0 2

g/cm3

3



GR CAL

CALI

DS

DSOZ

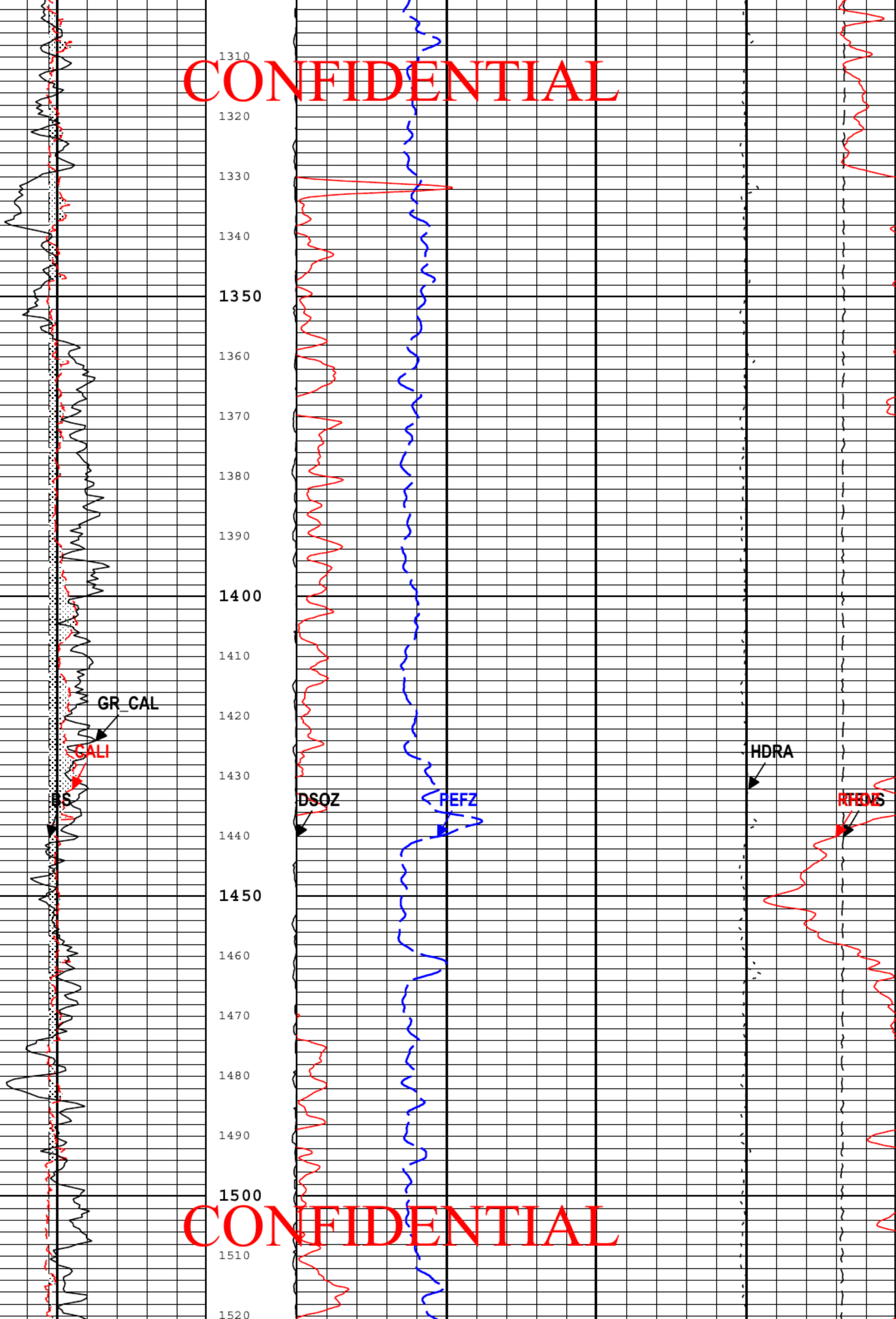
PEFZ

HDRA

TEMSZ

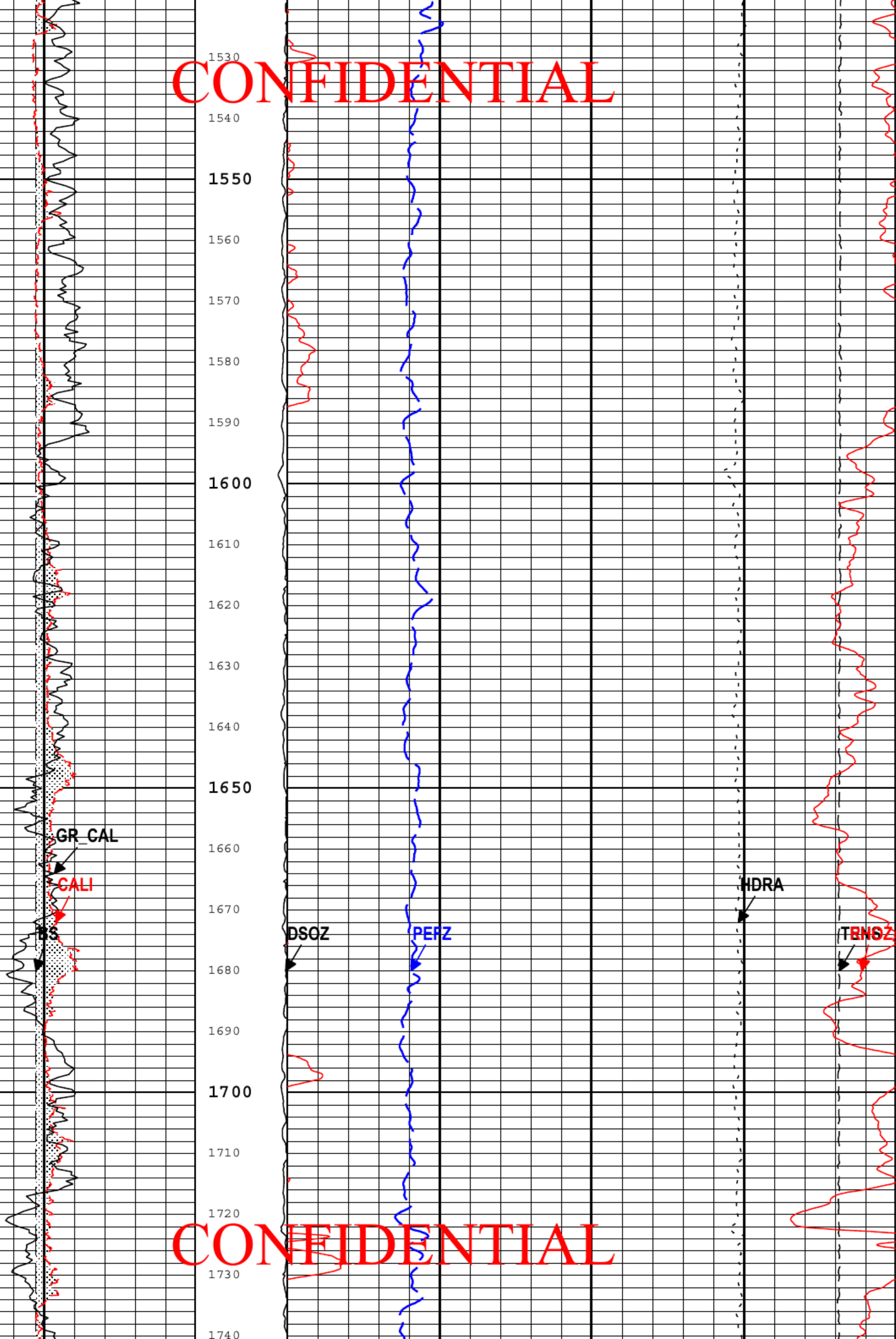
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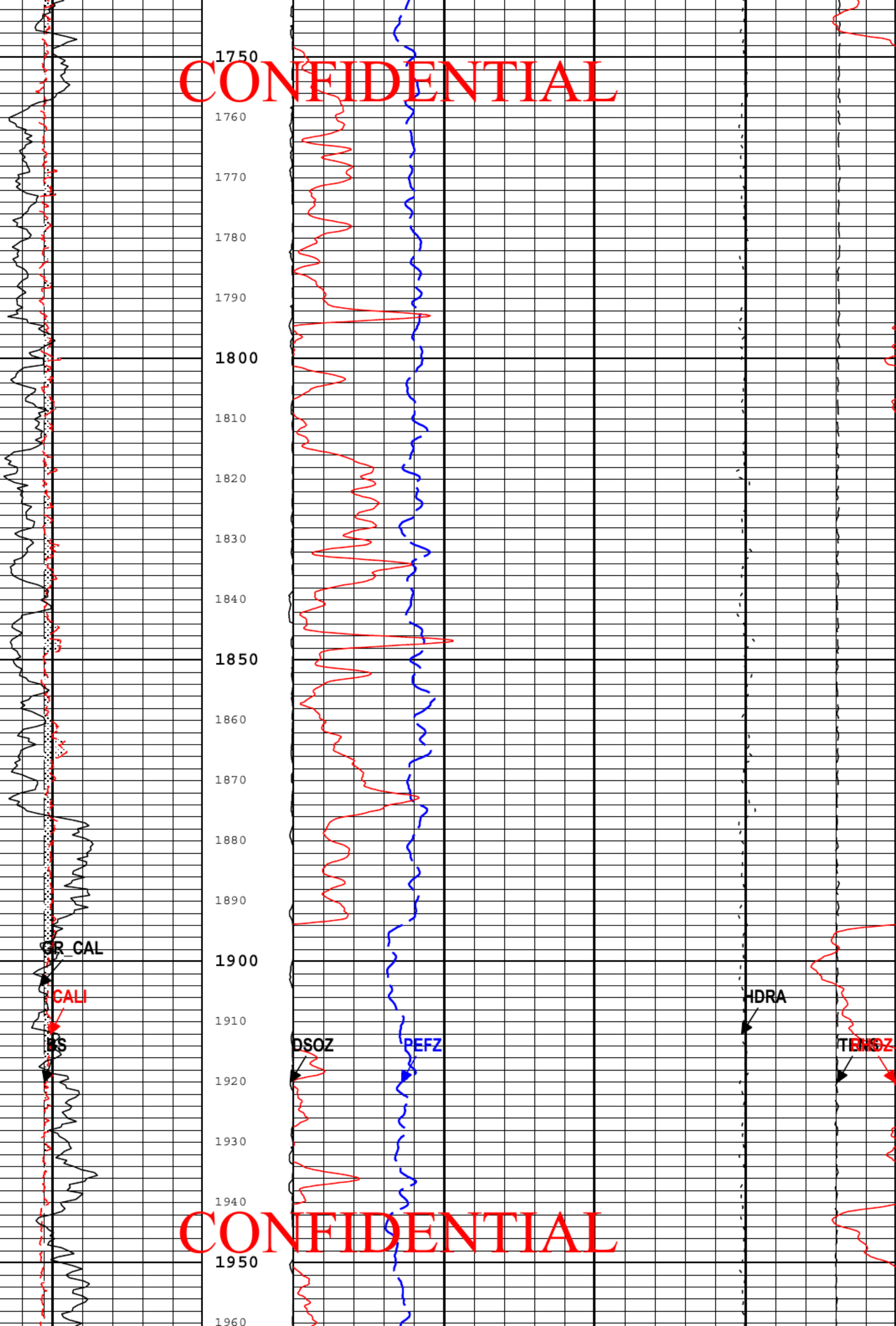
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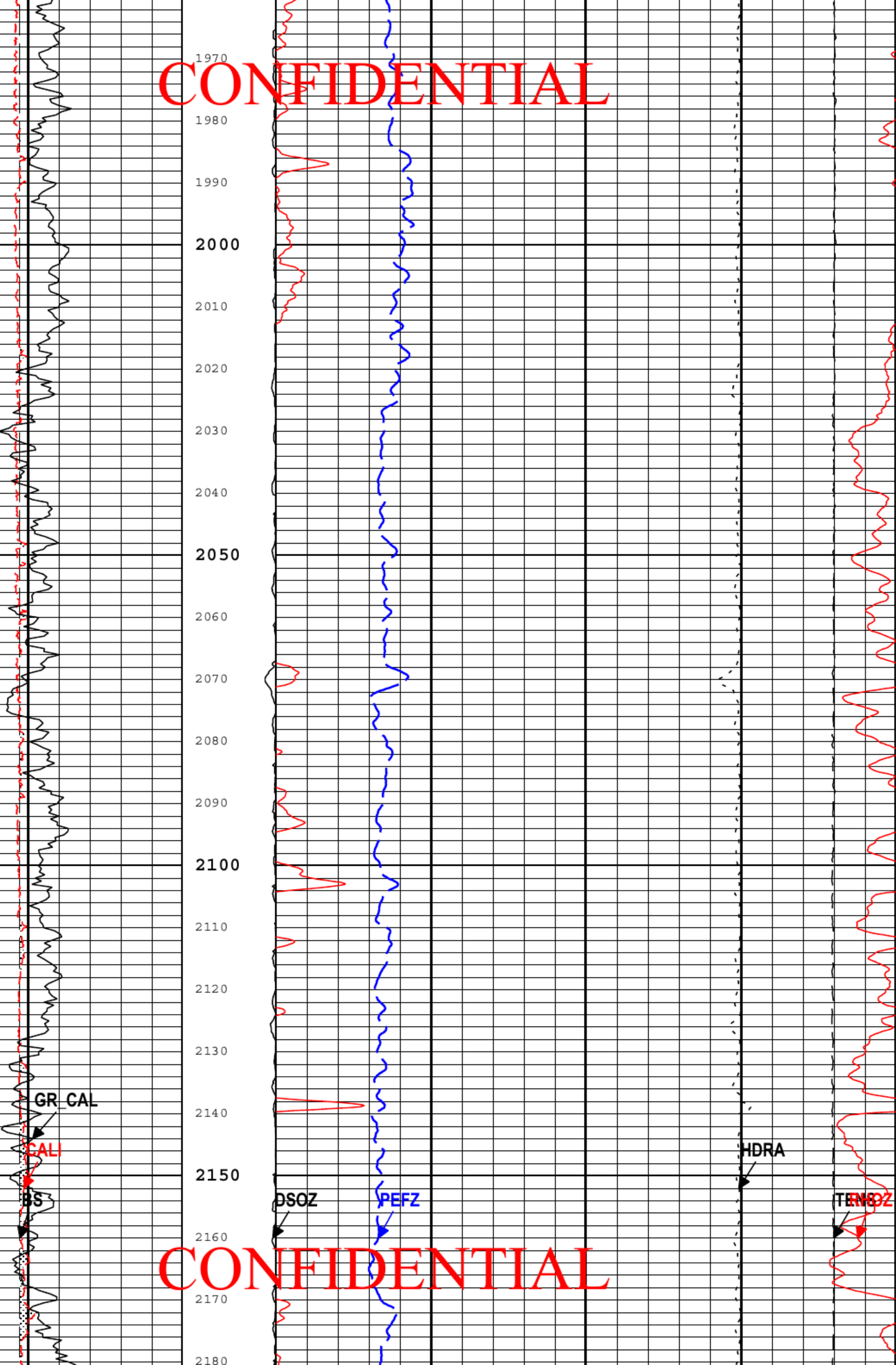
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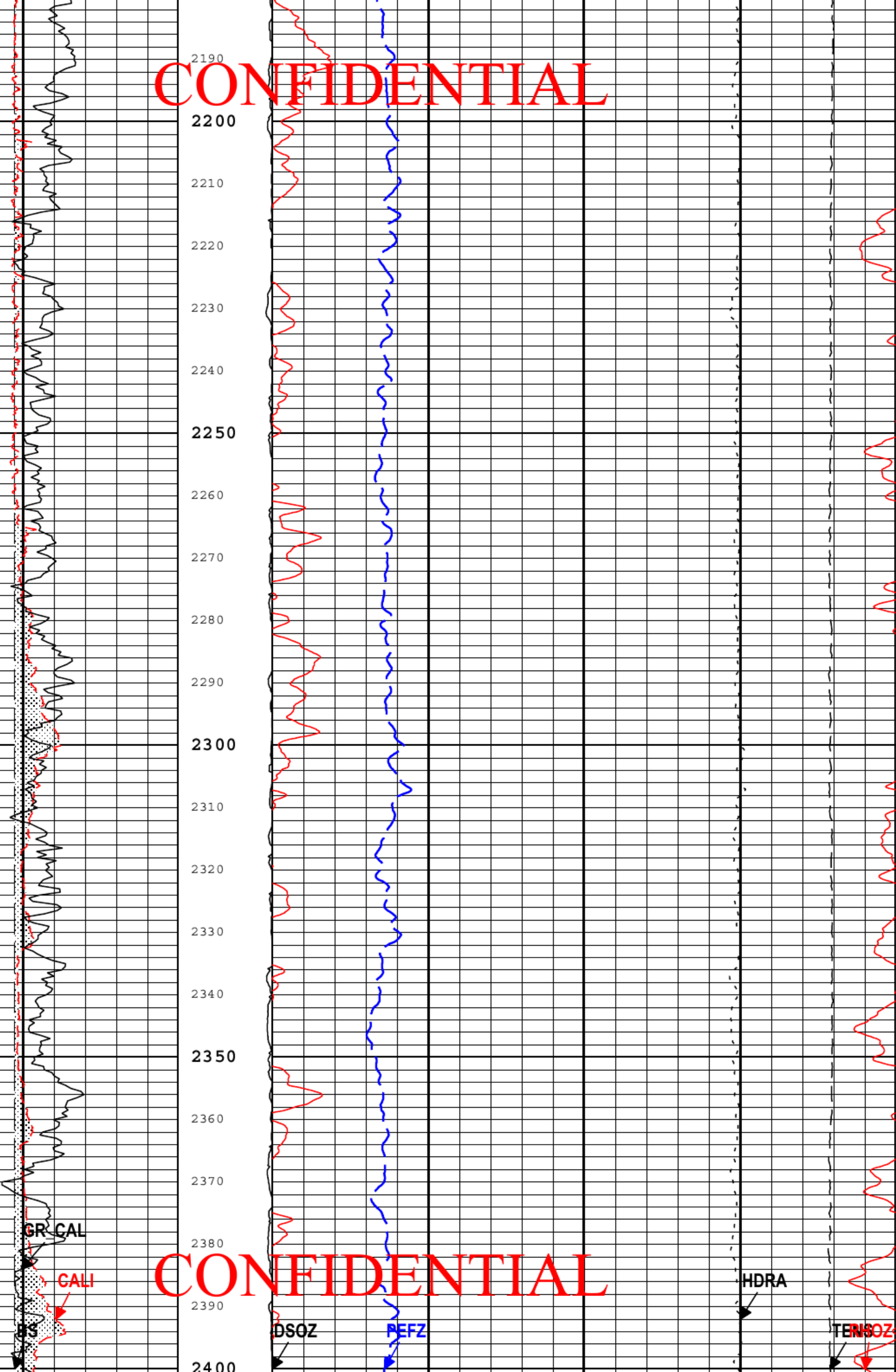
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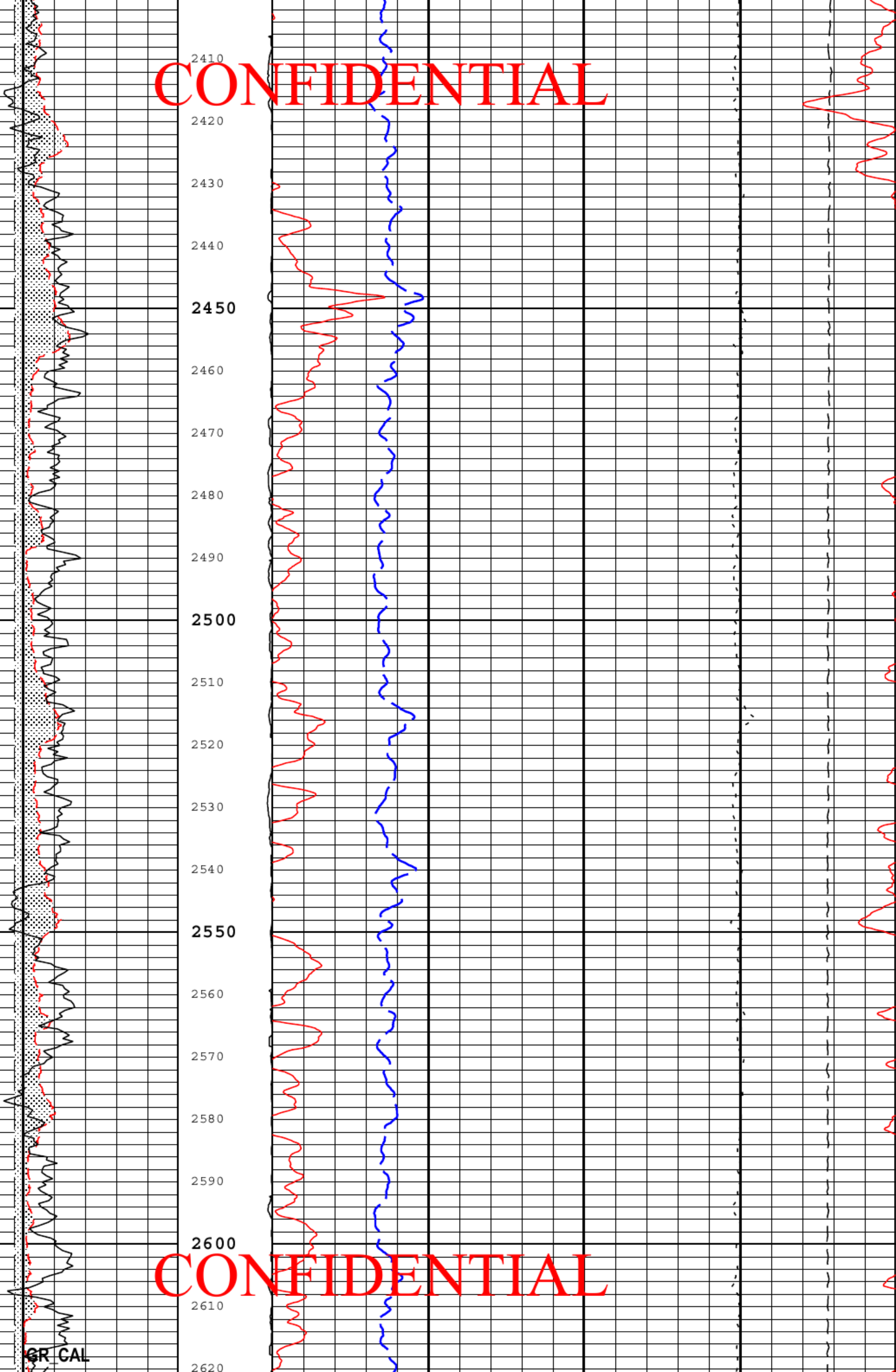


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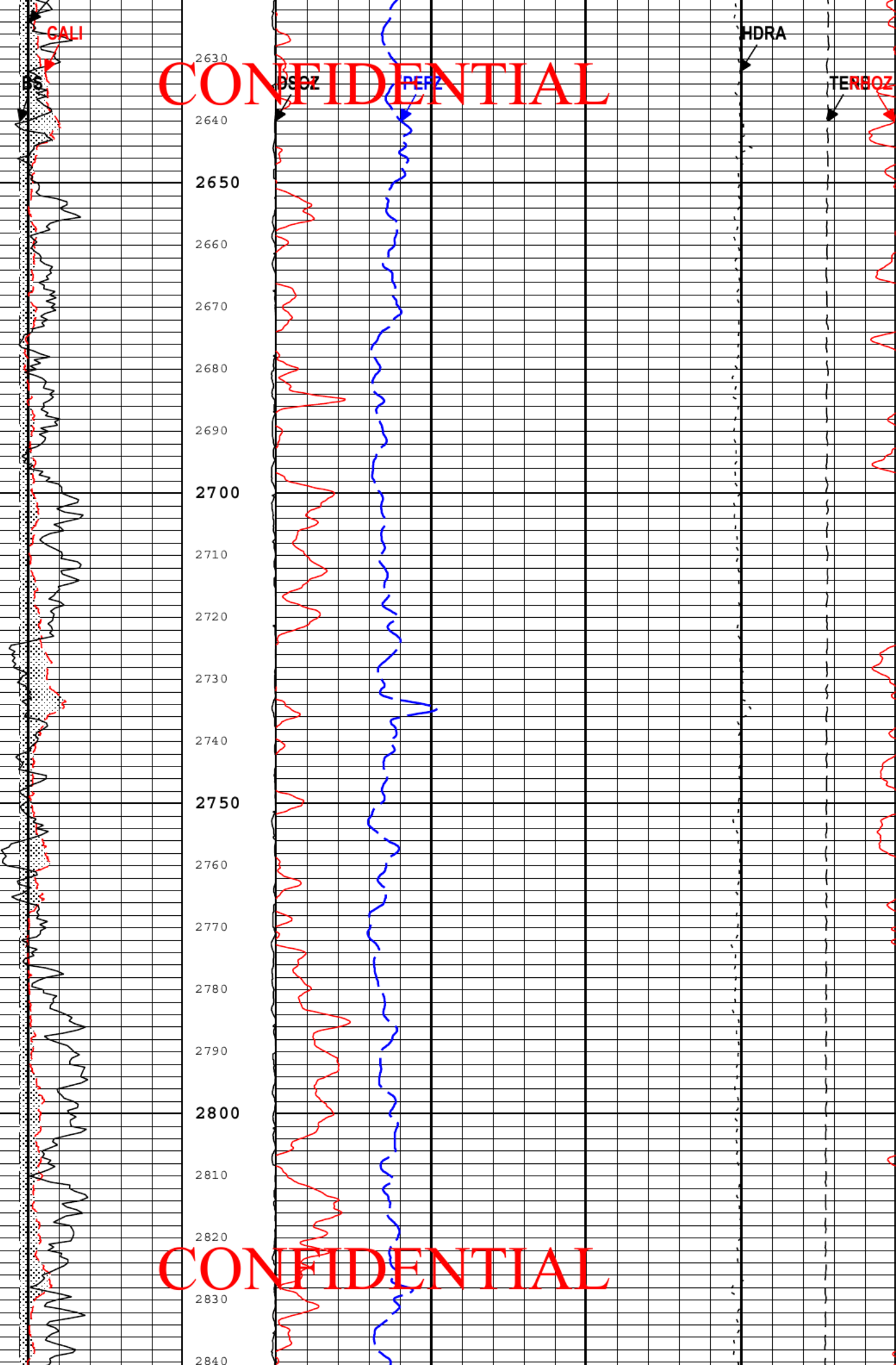
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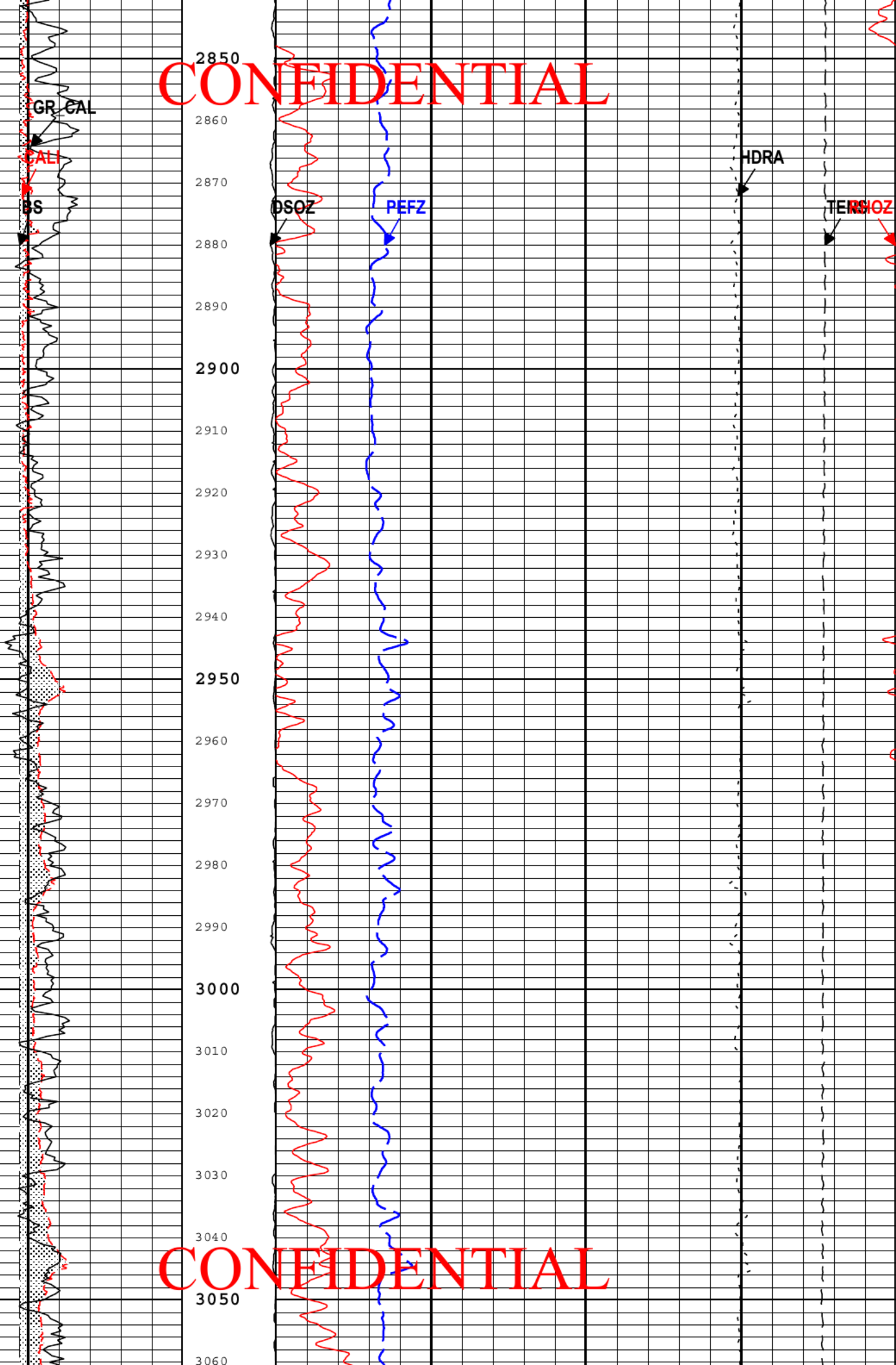
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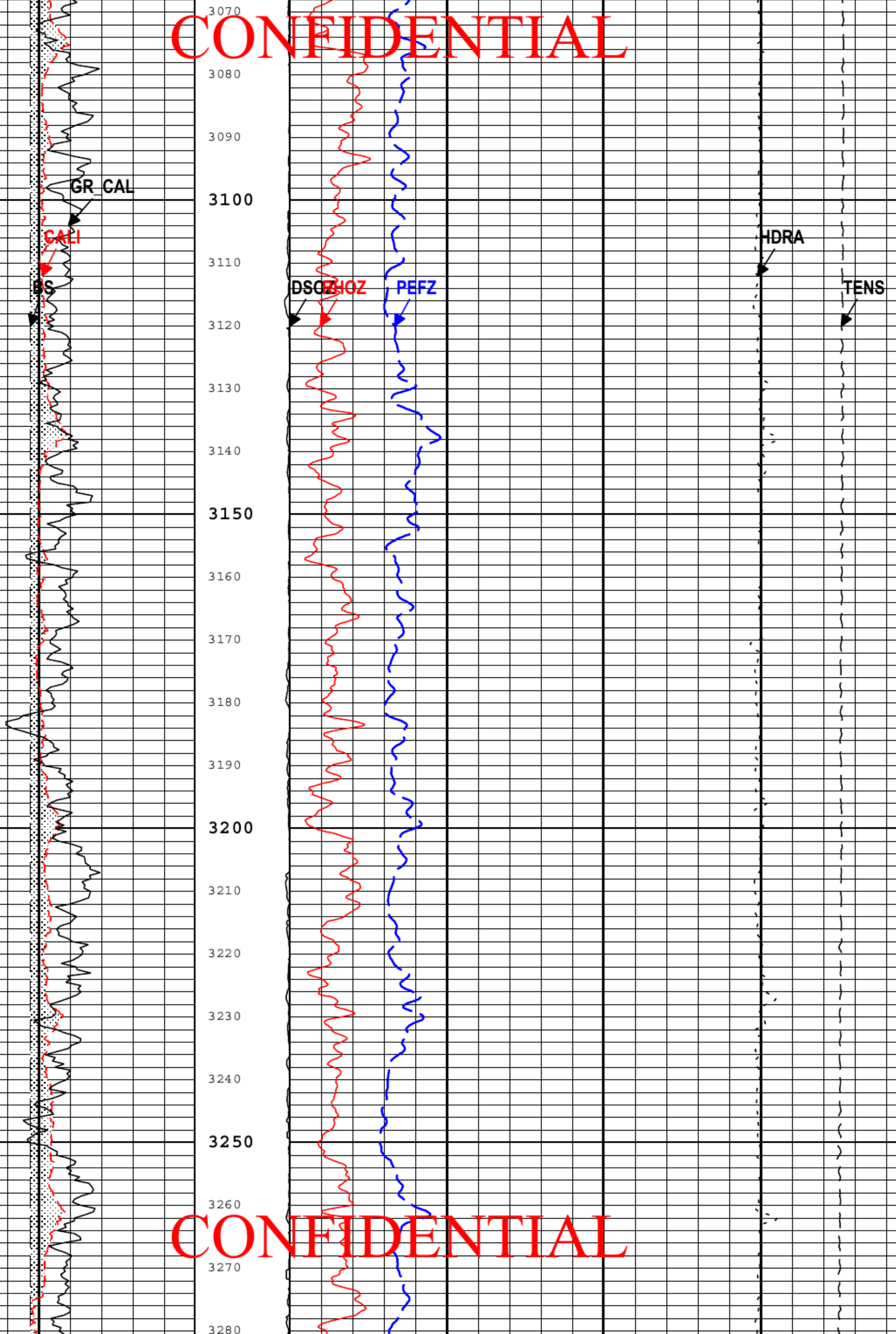
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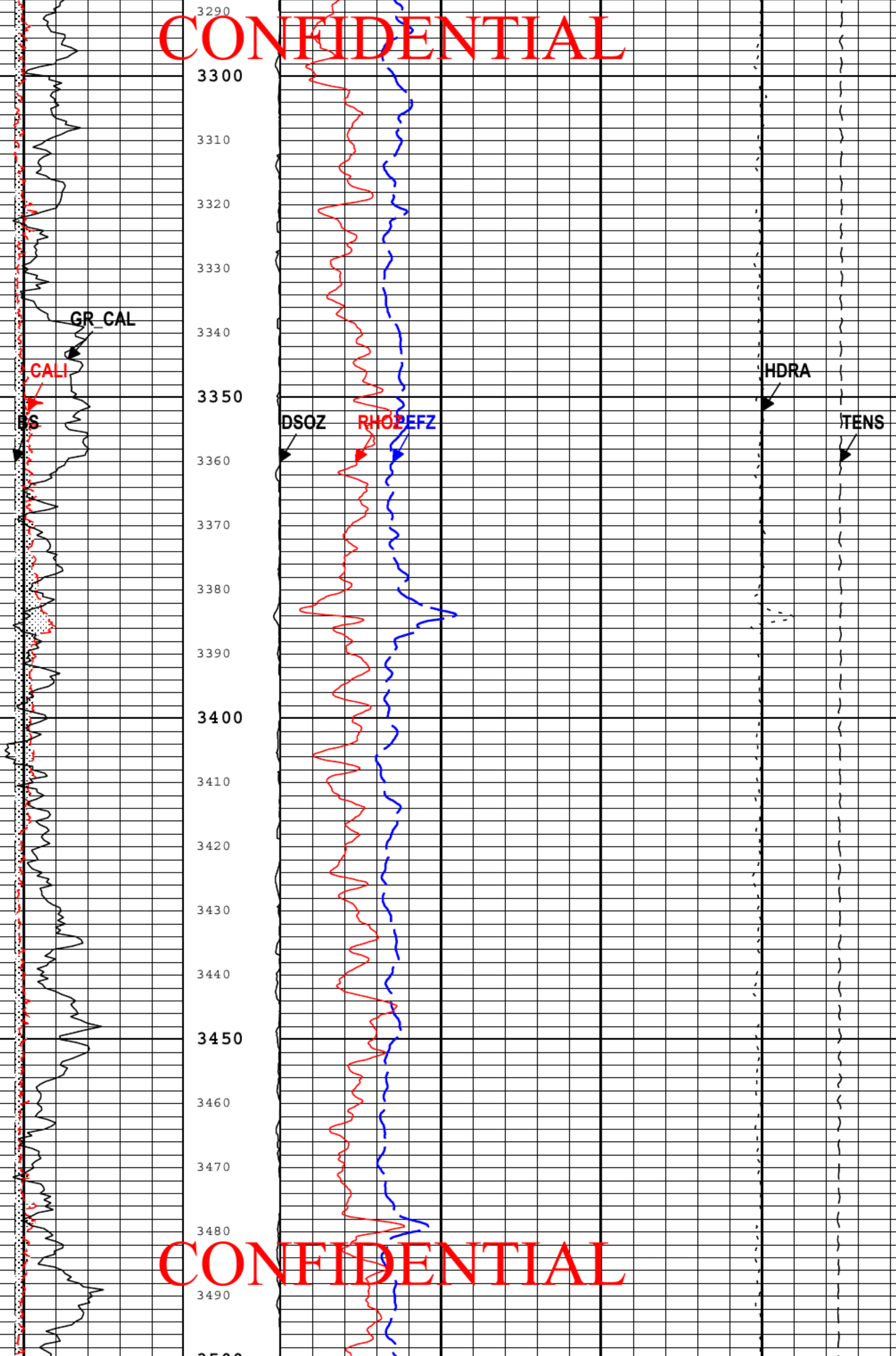
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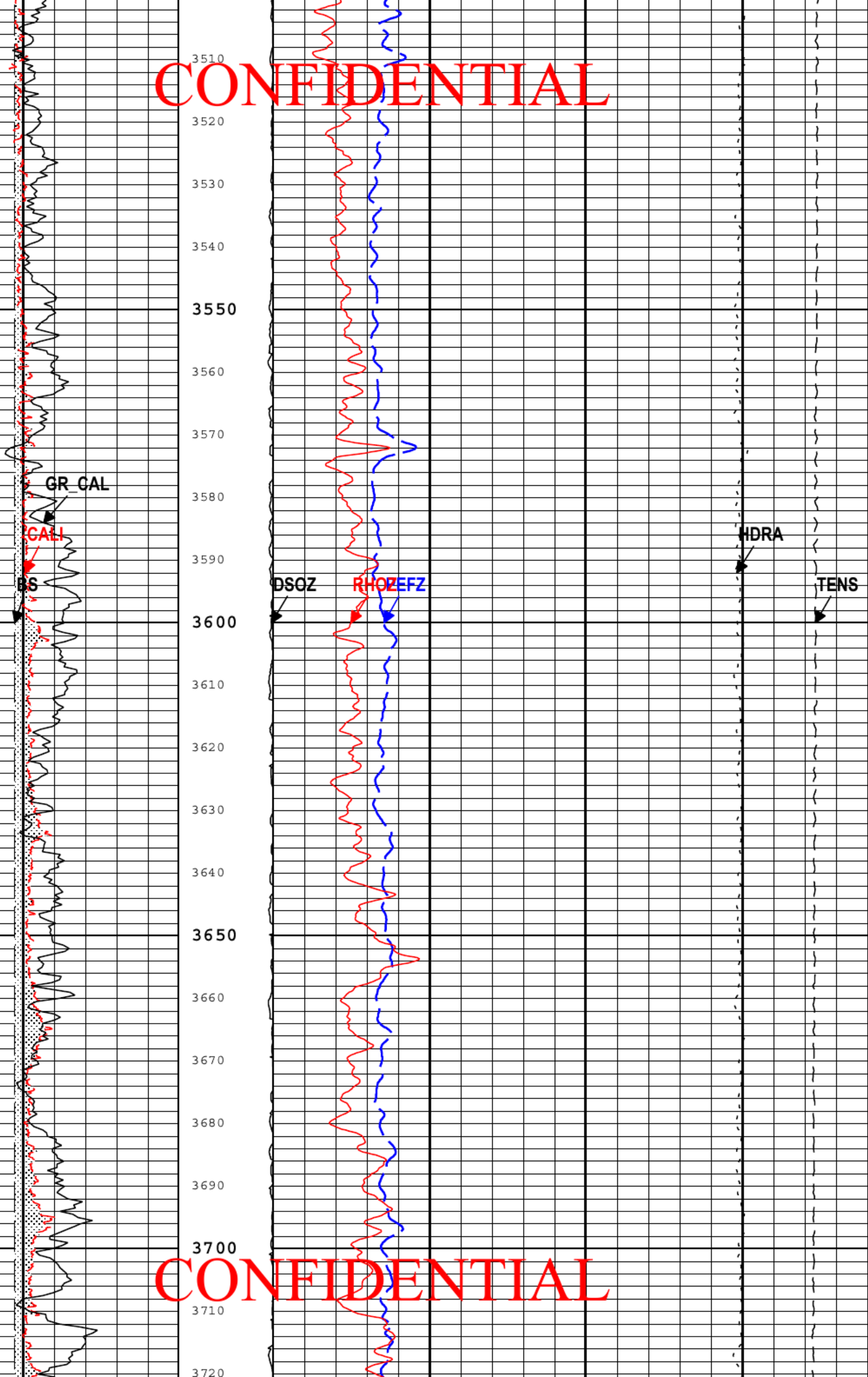
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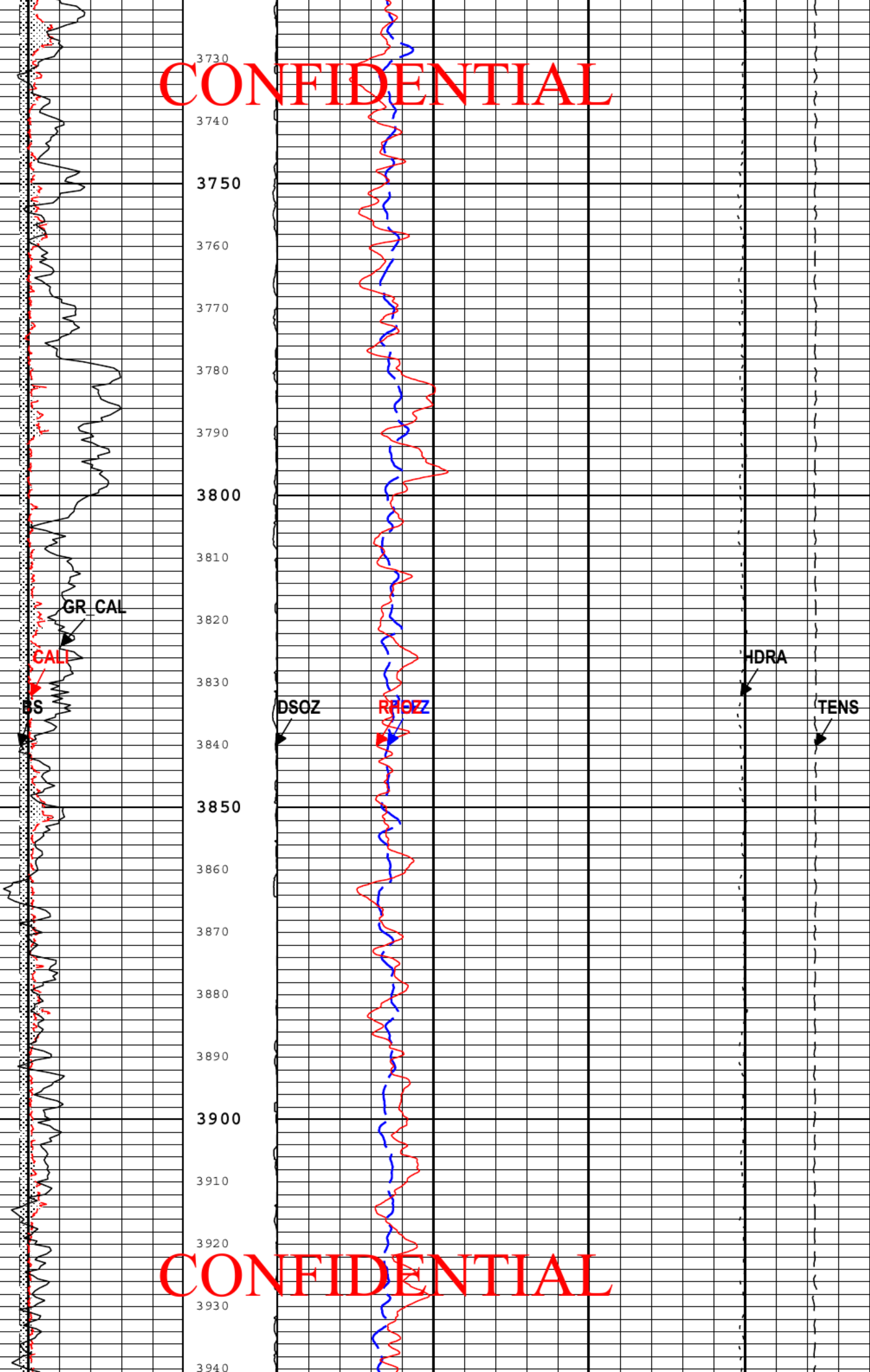
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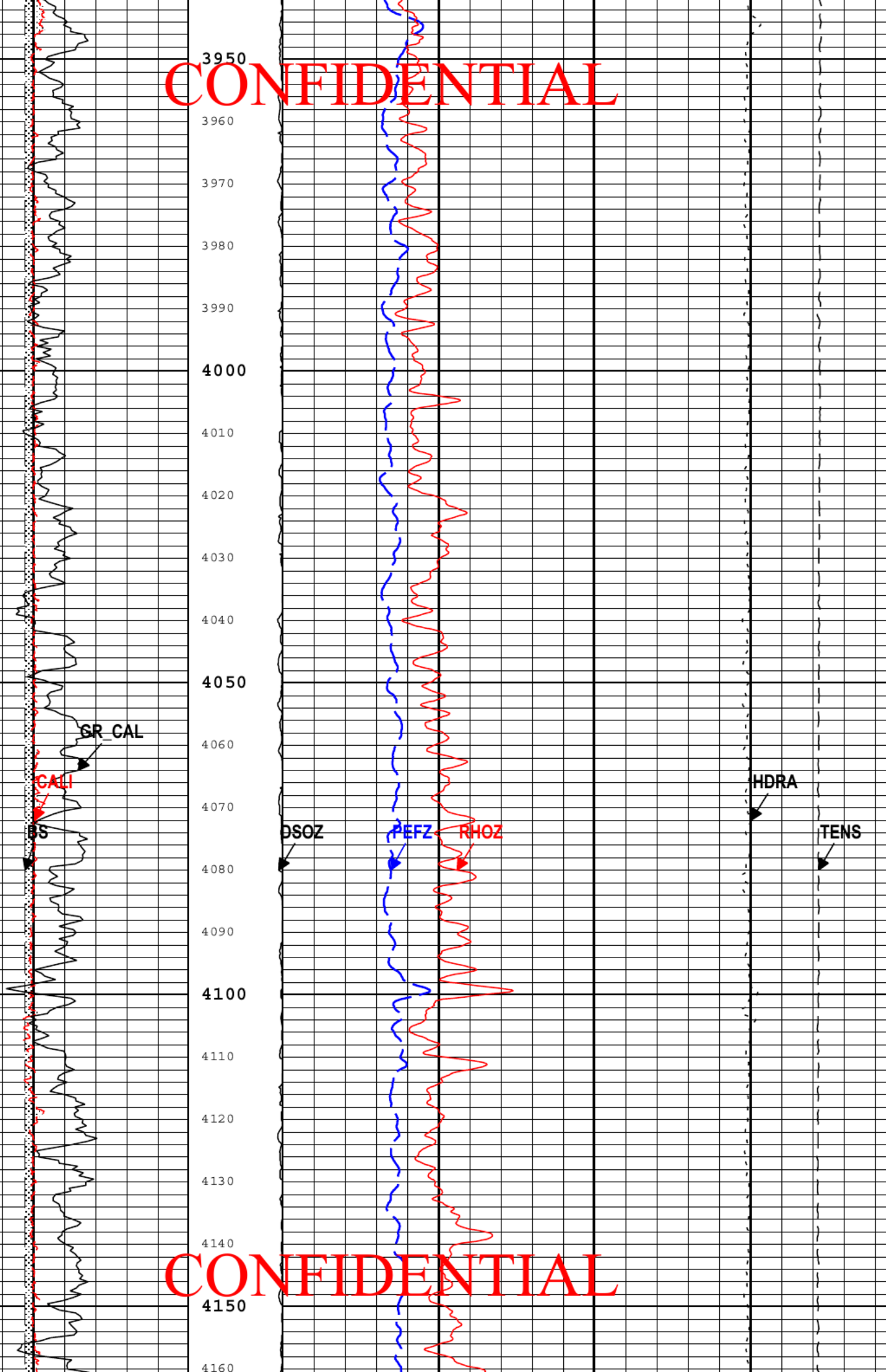
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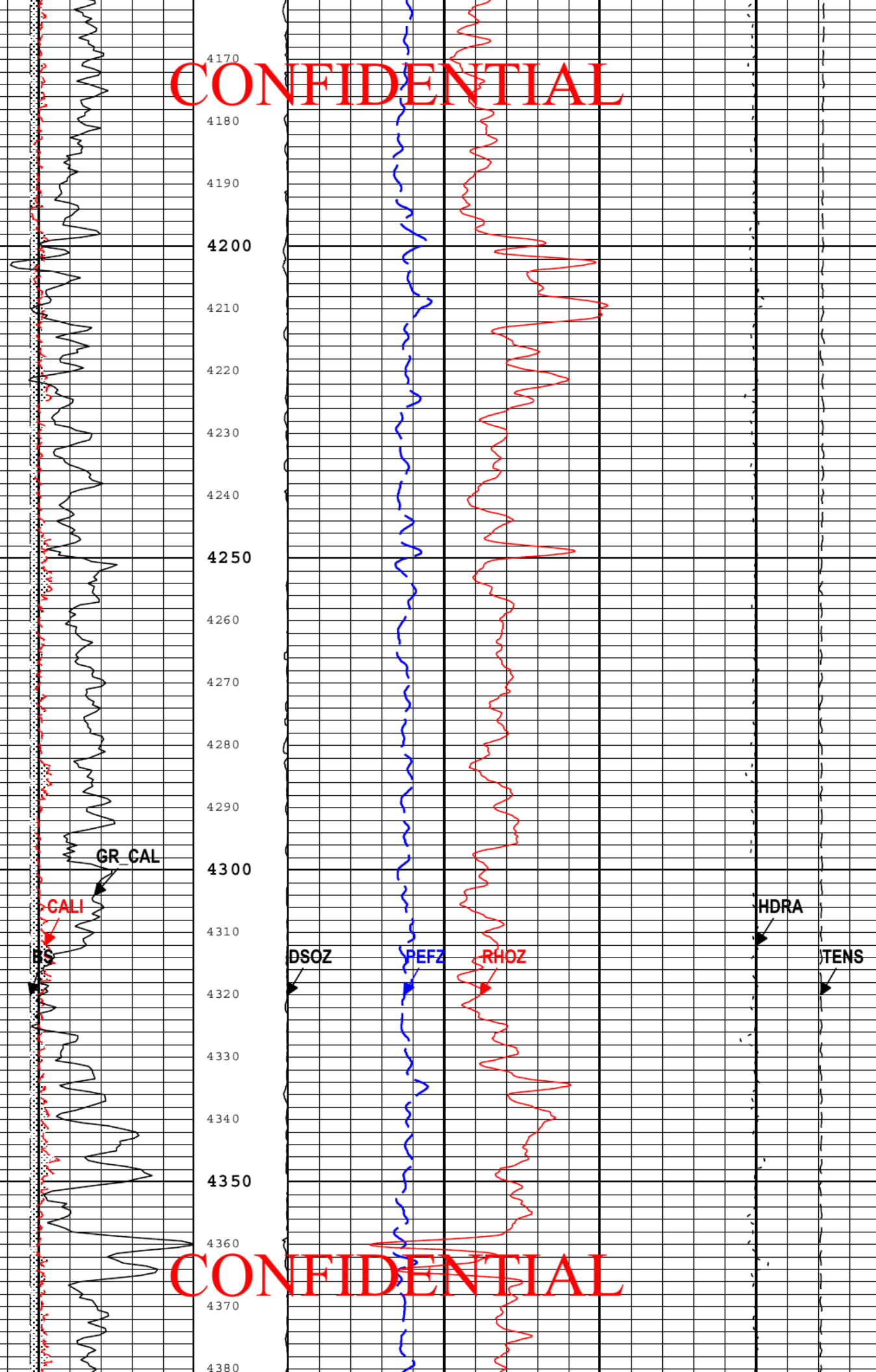


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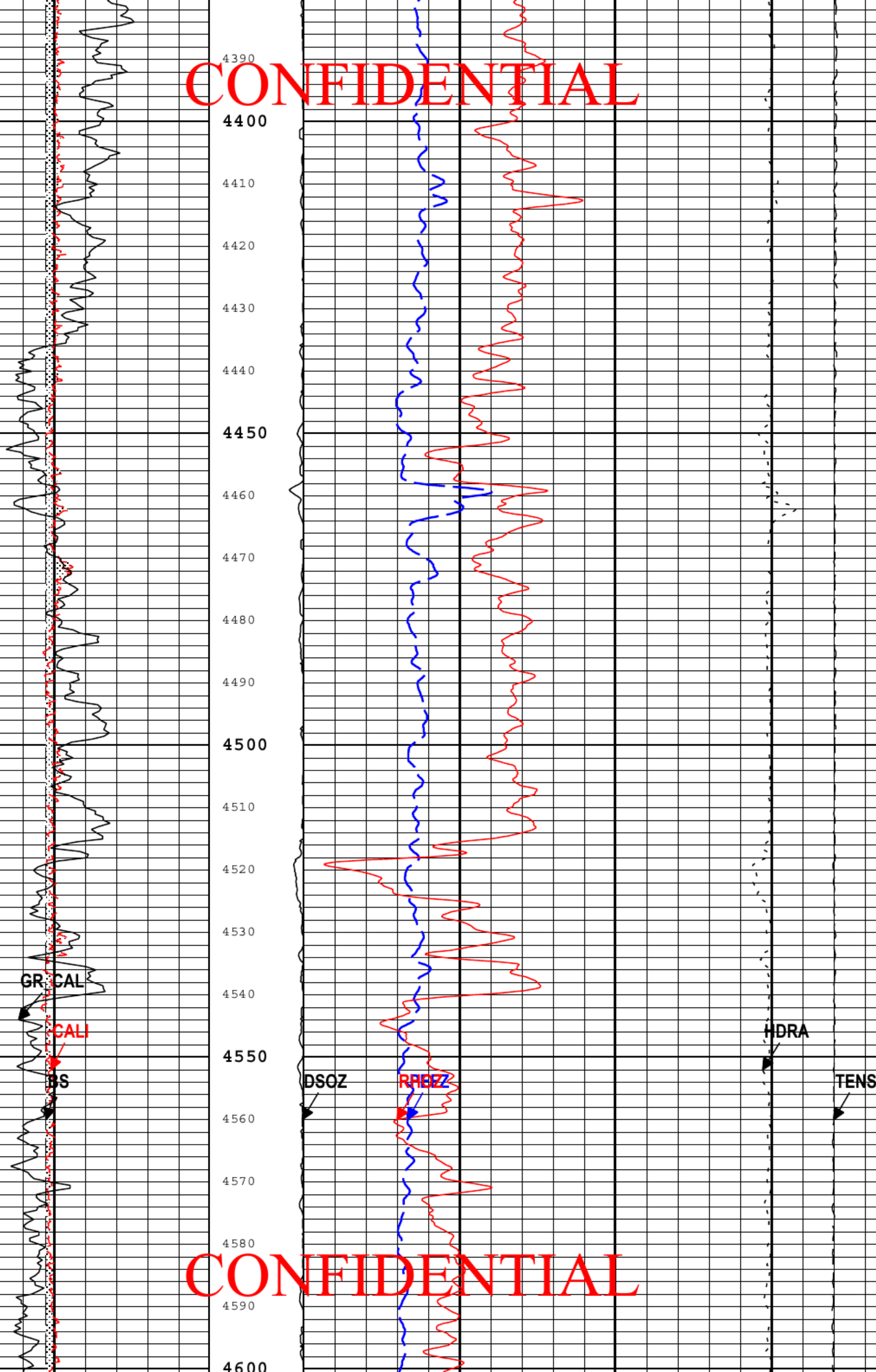
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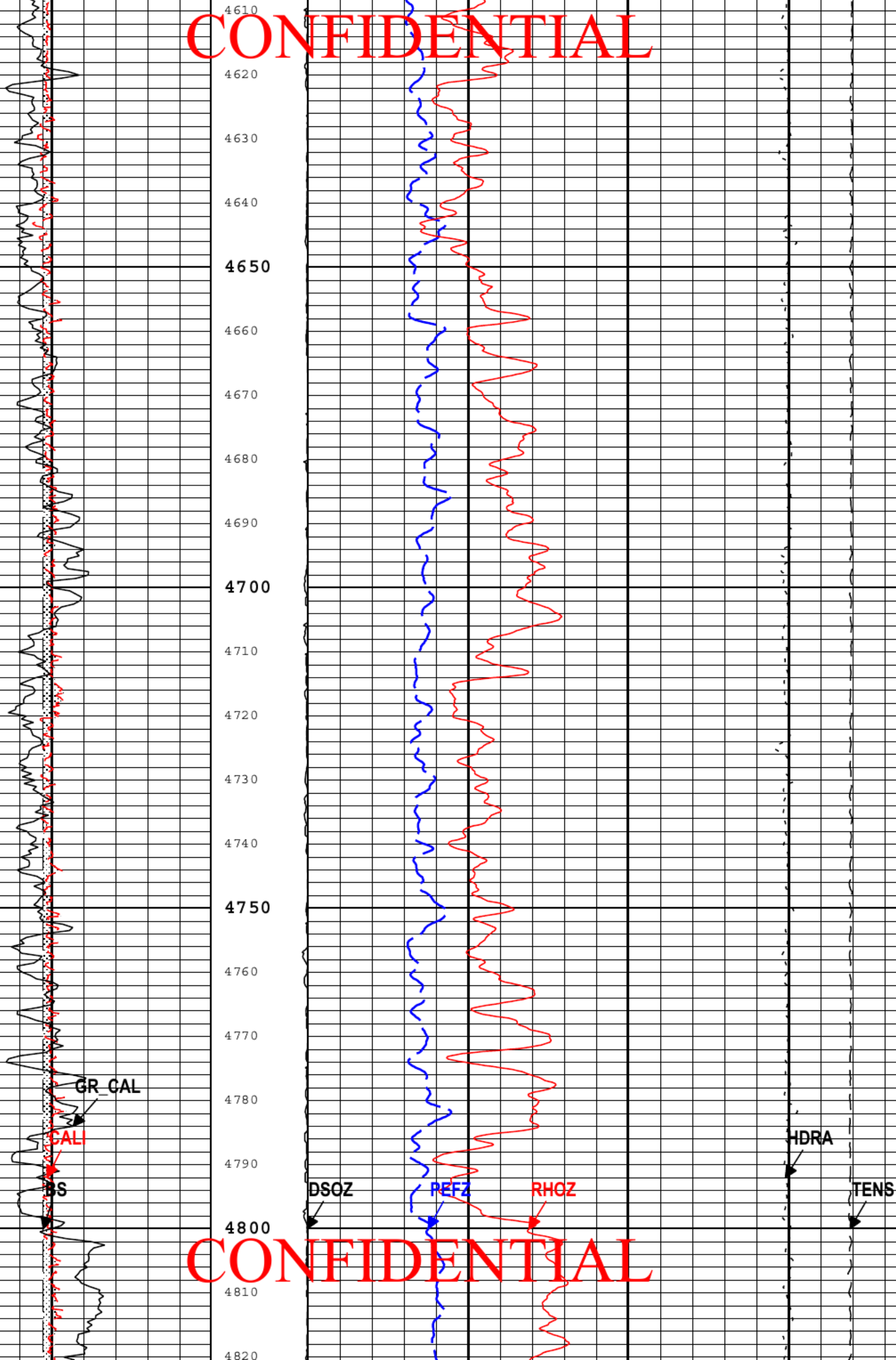
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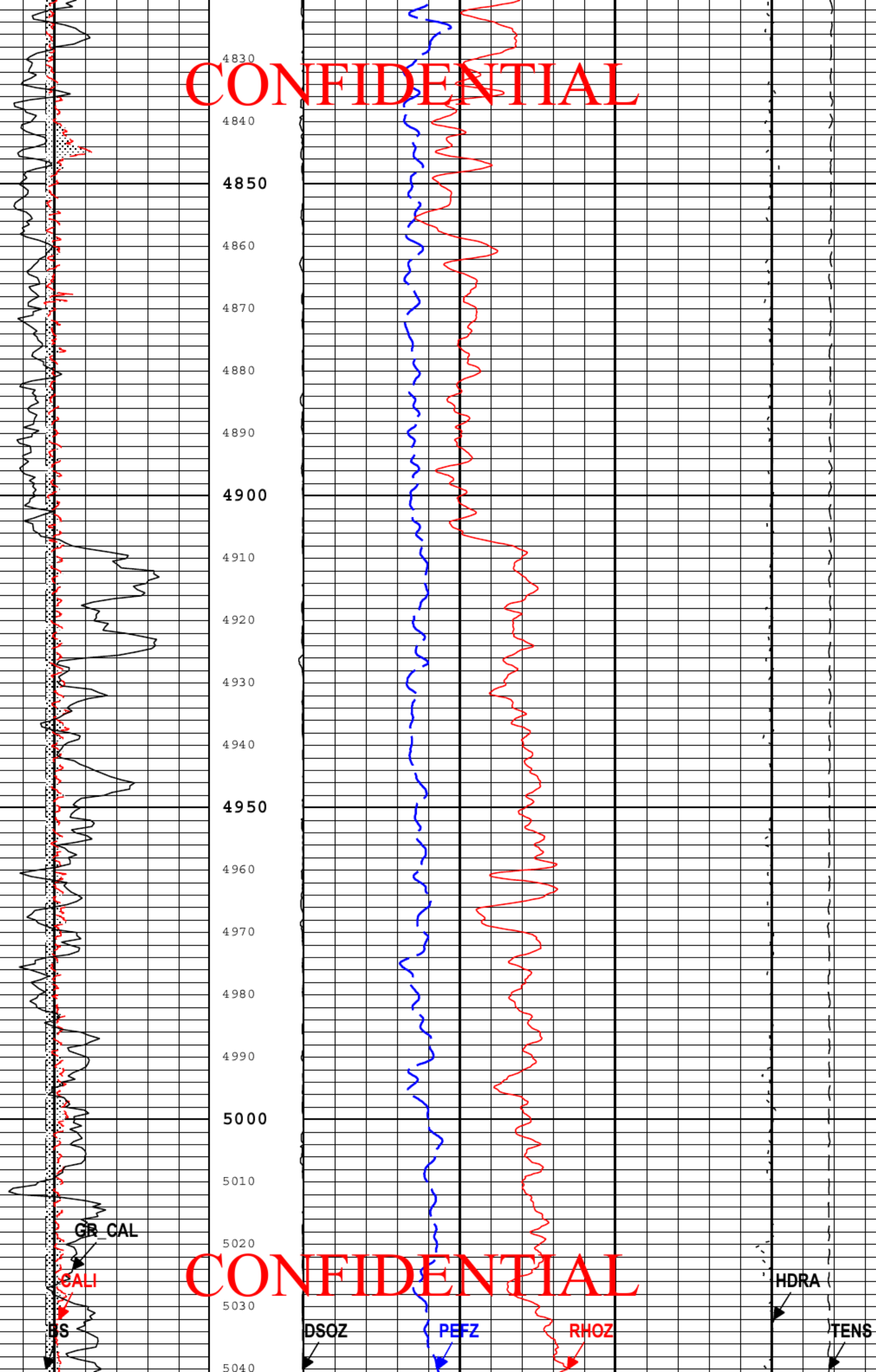
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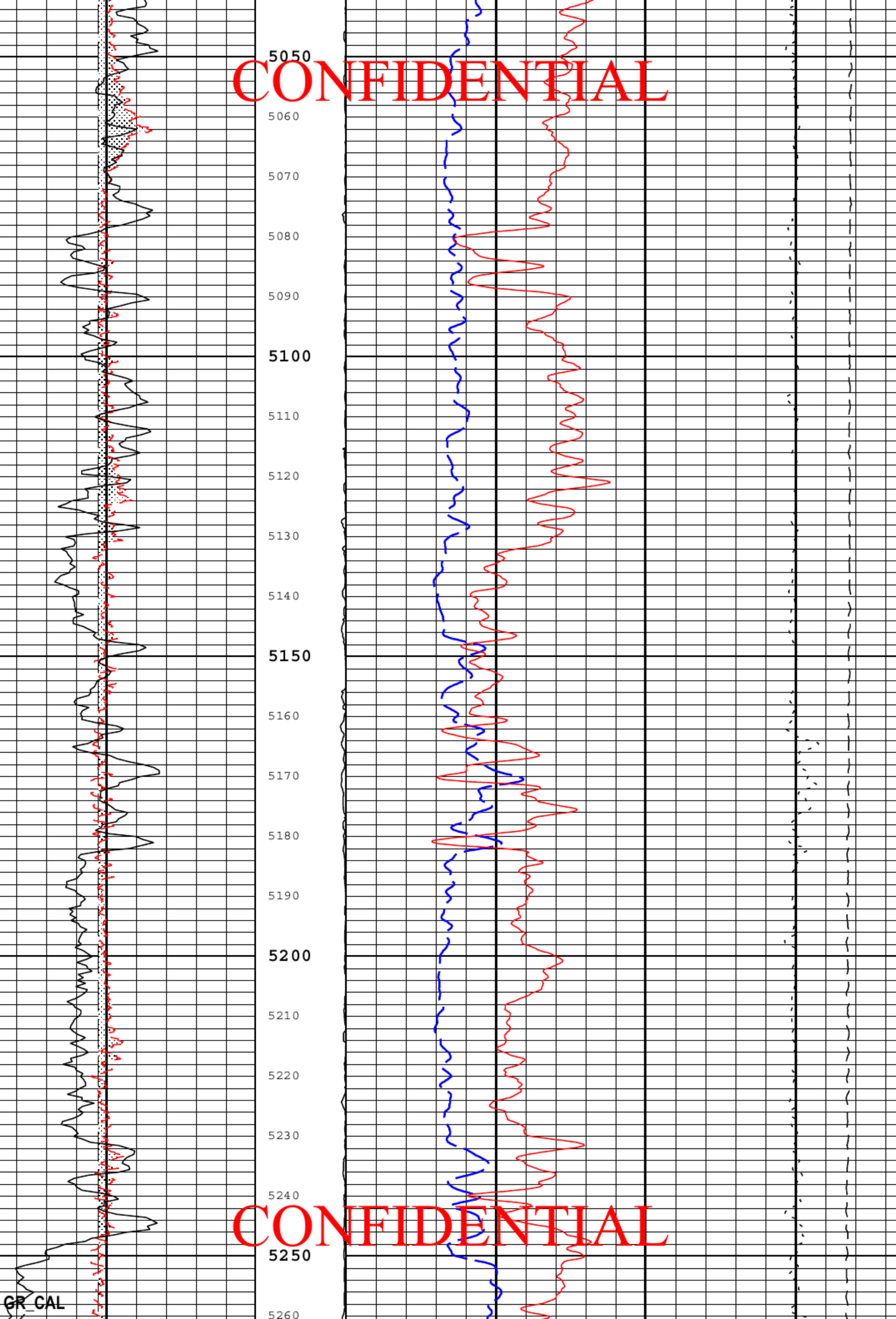
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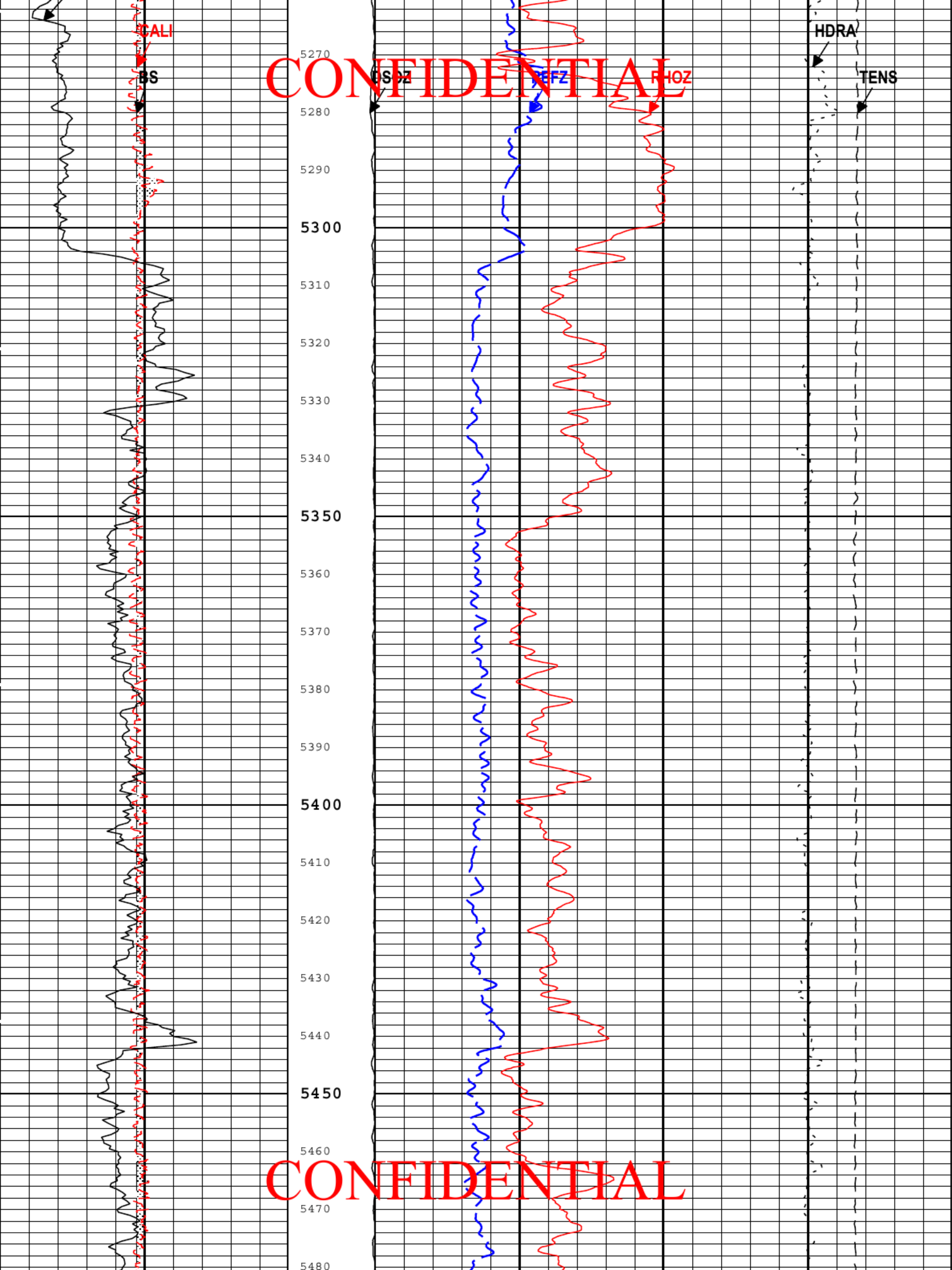
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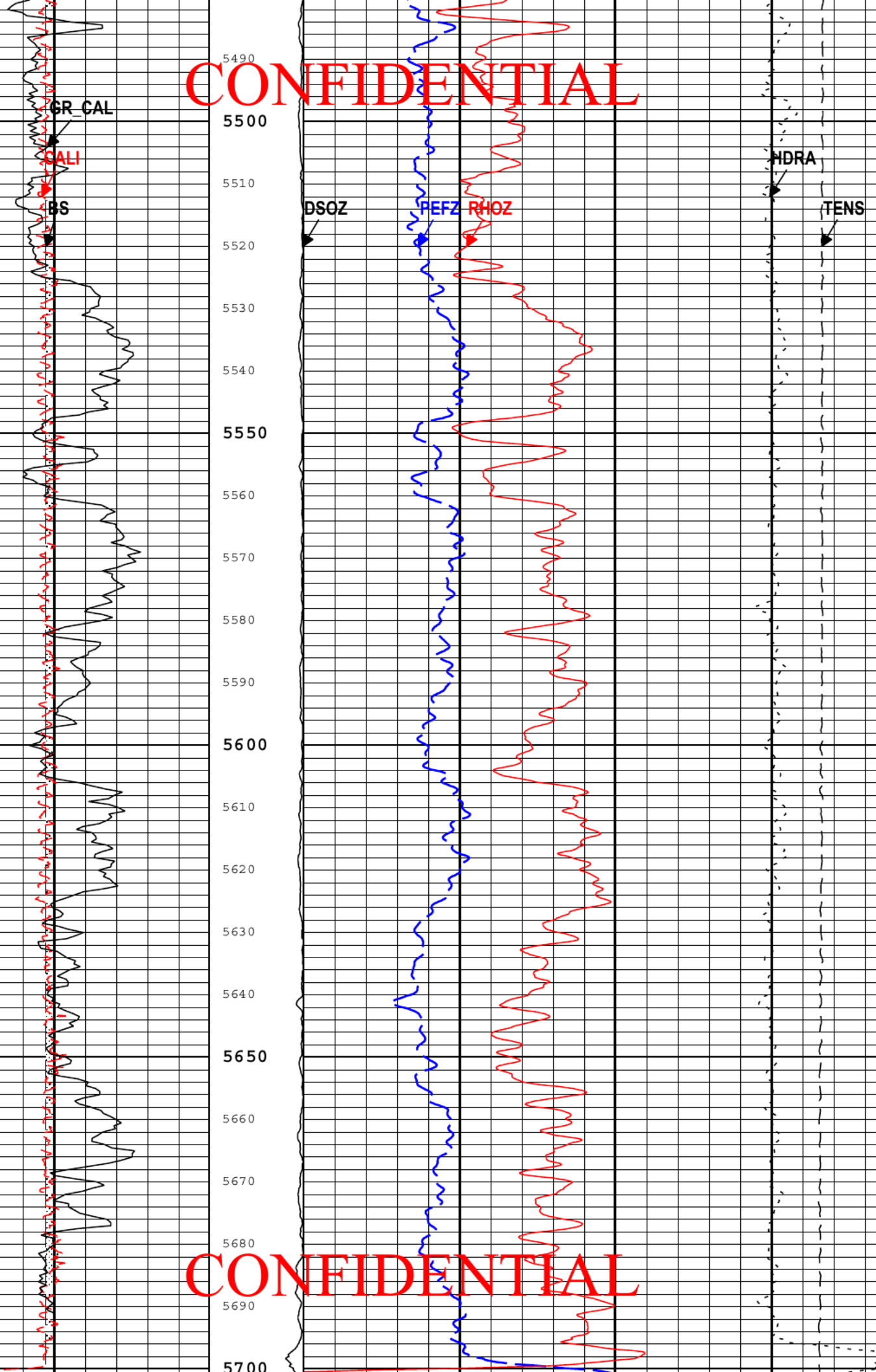


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GR CAL



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GR\_CAL

DSOZ

RHOZ

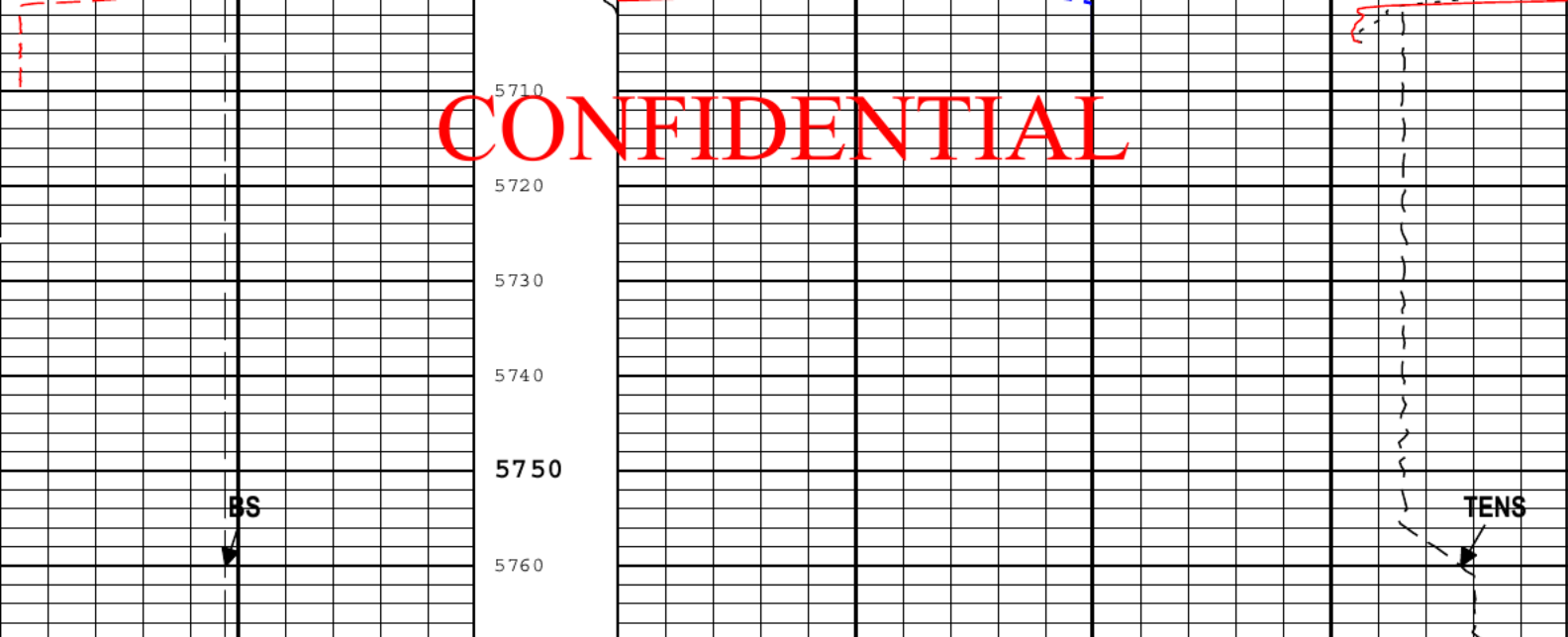
HDRA

TENS

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Area from BS to CALI		
4	in	14
Caliper (CALI) HDRS-H		
Calibrated Gamma Ray (GR_CAL) HGNS-H		
0	gAPI	150

2	in	0
Standard Resolution Density Standoff (DSOZ) HDRS-H		
0	in	0

Standard Resolution Formation Density (RHOZ) HDRS-H		
2	g/cm3	3
Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H		
10000	lb	0
Cable Tension (TENS)		
Density Standoff Correction (HDRA) HDRS-H		
-0.25	g/cm3	0.25

TIME\_1900 - Time Marked every 60.00 (s)

Description: Format: Log ( Dens ) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Aug-2014 17:50:06

### Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
BARI	Barite Mud Presence Flag	Borehole	No	
BS	Bit Size	WLSESSION	8.75	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.228	in
CBLO	Casing Bottom (Logger)	WLSESSION	1124.5	ft
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.8	lbm/gal
DFT	Drilling Fluid Type	Borehole	Oil	
DHC	Density Hole Correction	HDRS-H	Bit Size	

### Tool Control Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h
NPUC	Nuclear Pile-Up Correction	HDRS-H	On	

ONE

### Main Pass - Triple Combo

### Software Version

Acquisition System	Version
MaxWell	4.0.9163.3000

Computation	Description	Version
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	4.0.9125.3000
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections	4.0.9033.3000
Sonic Openhole Ensemble	Sonic Openhole Ensemble	4.0.9033.3000

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DepthCorrection	DepthCorrection		4.0.9125.3000
<b>Tool Elements</b>	<b>Description</b>	<b>Software Version</b>	<b>Firmware Version</b>
AZIS	Array Induction Sonde Z	4.0.1163.3000	
HRCC-H	HILT High-Resolution Control Cartridge, 150 degC	4.0.1073.3000	2.0
HMCA-H	HILT Master Communication Assembly, 150 degC	4.0.9033.3000	3.0
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	4.0.9033.3000	2.0
SLS-E	Sonic Logging Sonde E supports 3'-5'BHC DT and CBL/VDL	4.0.9033.3000	4.0
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	4.0.9033.3000	3.0

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## Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Main[3]:Up	Up	239.03 ft	5767.98 ft	20-Aug-2014 3:38:08 PM	20-Aug-2014 5:08:36 PM	ON	2.35 ft	No

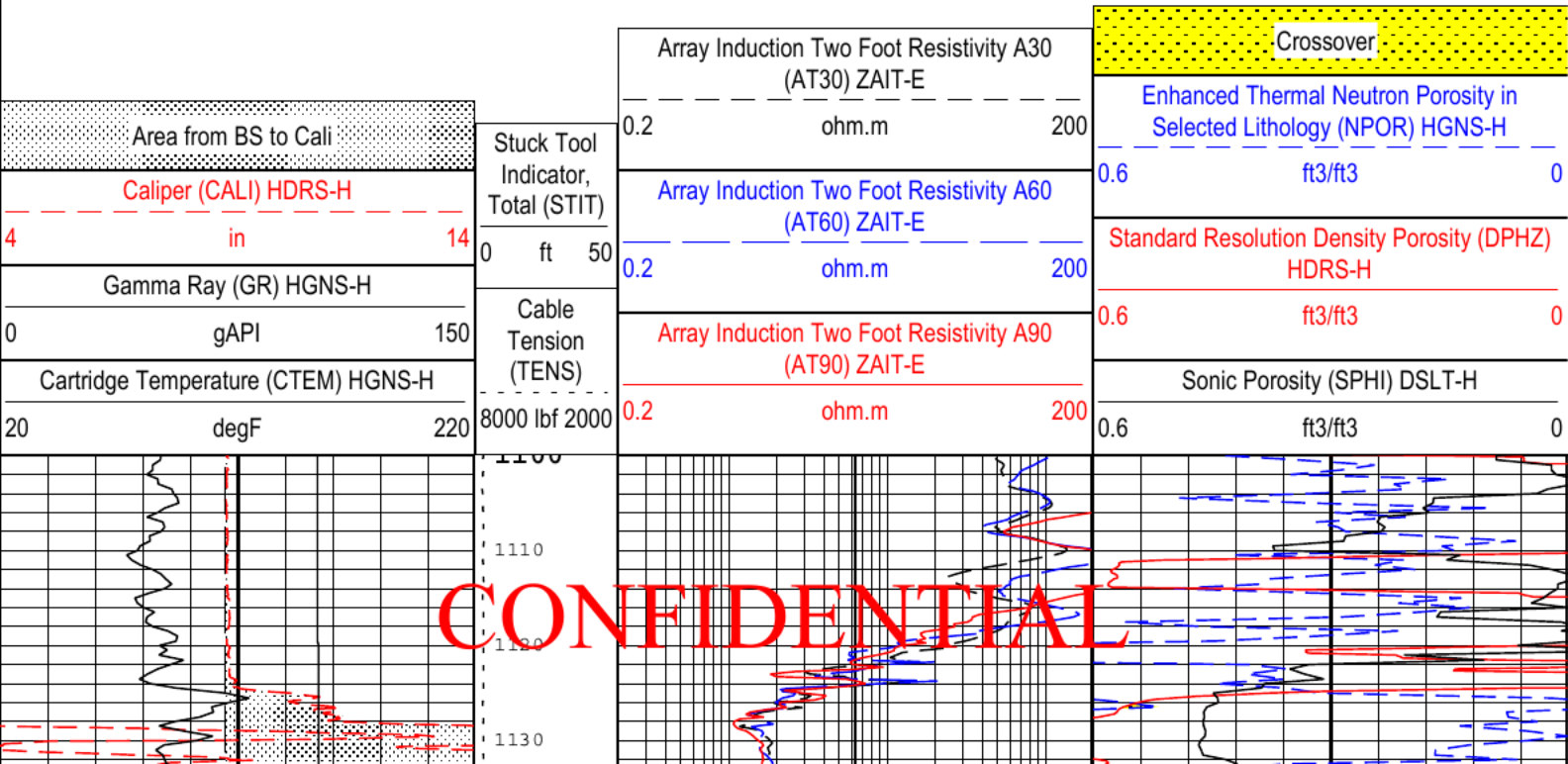
All depths are referenced to toolstring zero

<b>Log</b>	Company: Alta Mesa Services    Well: Kauffman #1-9 ONE: Main[3]:Up:S091
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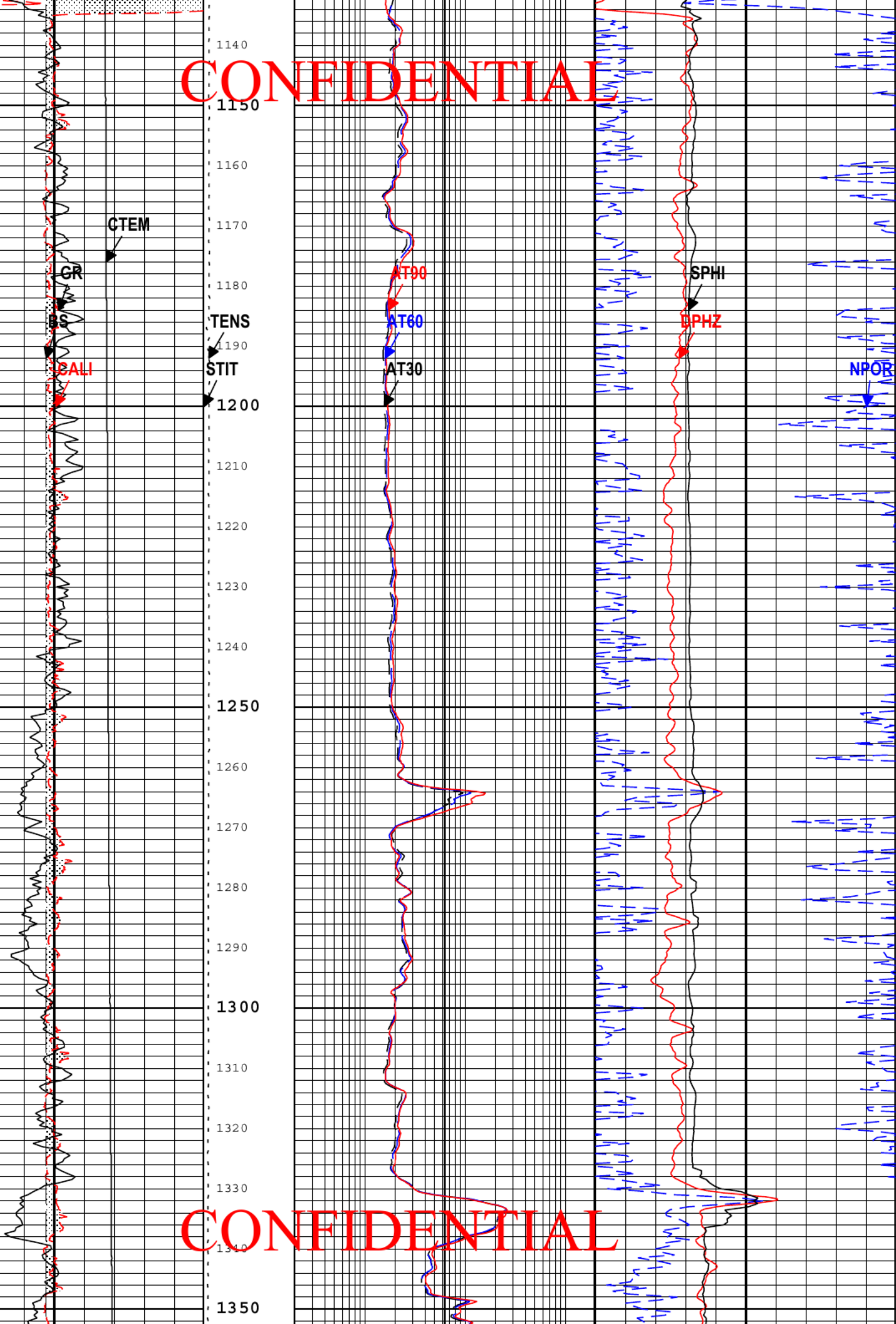
Description: Format: Log ( Combo\_Fax ) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Aug-2014 17:50:08

Channel	Source	Sampling
AT30	ZAIT-E:AZIS:AZIS	3in
AT60	ZAIT-E:AZIS:AZIS	3in
AT90	ZAIT-E:AZIS:AZIS	3in
BS	Borehole	6in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
CTEM	HGNS-H:HGNS-H:HMCA-H	6in
DPHZ	HDRS-H:HRMS-H:HRGD-H	2in
GR	HGNS-H:HGNS-H:HGNS-H	6in
NPOR	HGNS-H:HGNS-H:HGNS-H	6in
SPHI	DSL-T-H:SLS-E:SLS-E	6in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

TIME\_1900 - Time Marked every 60.00 (s)

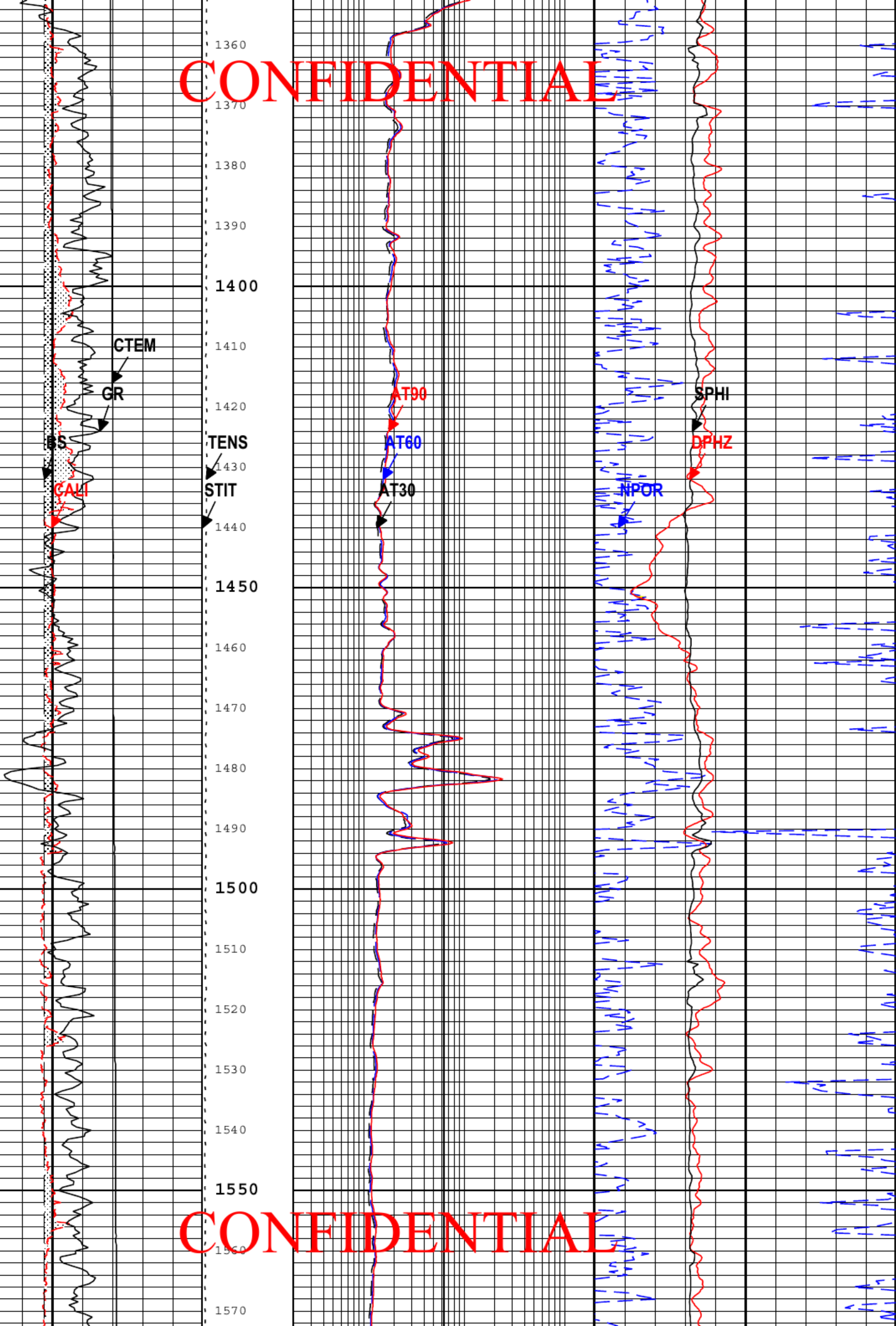


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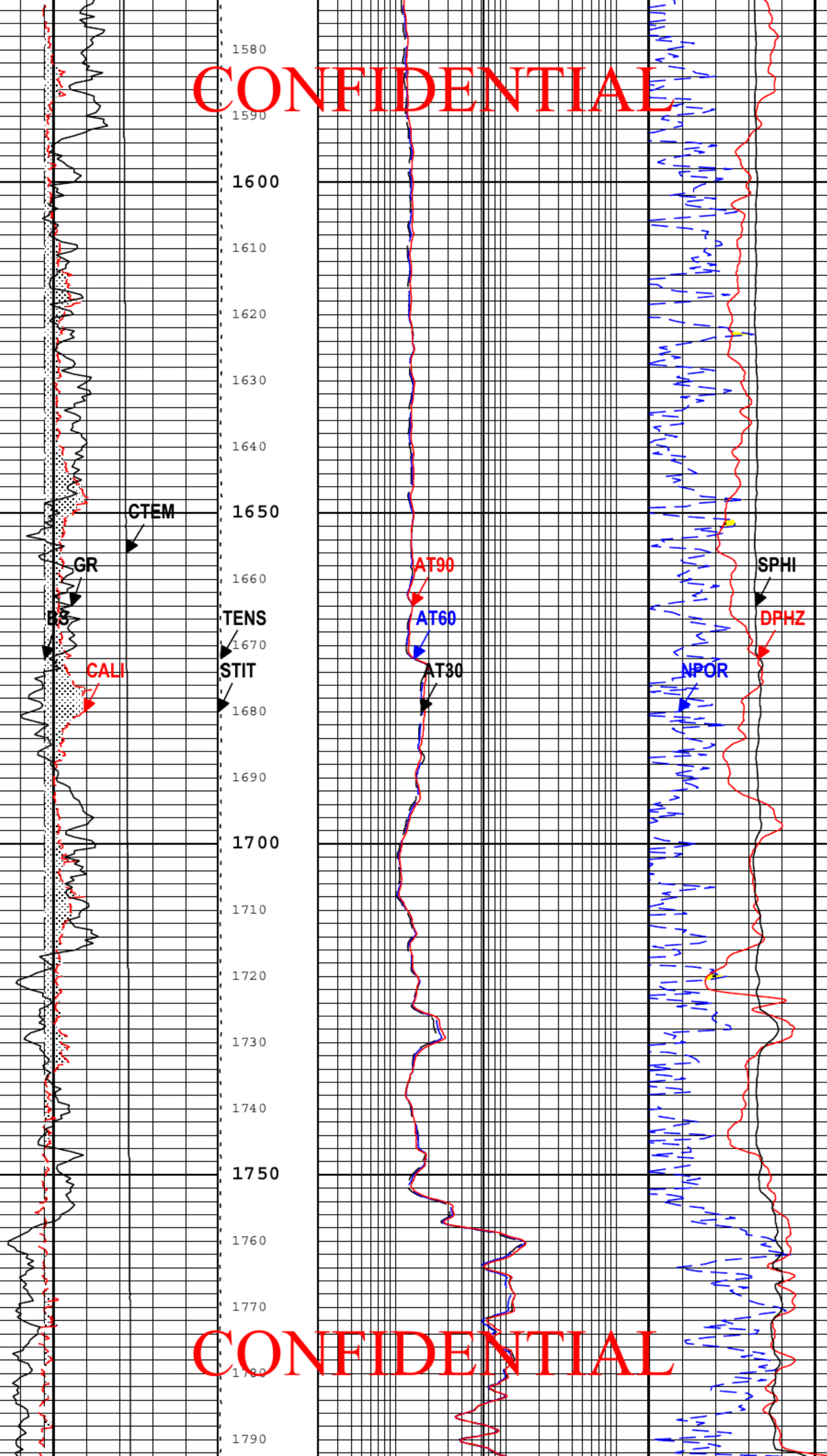
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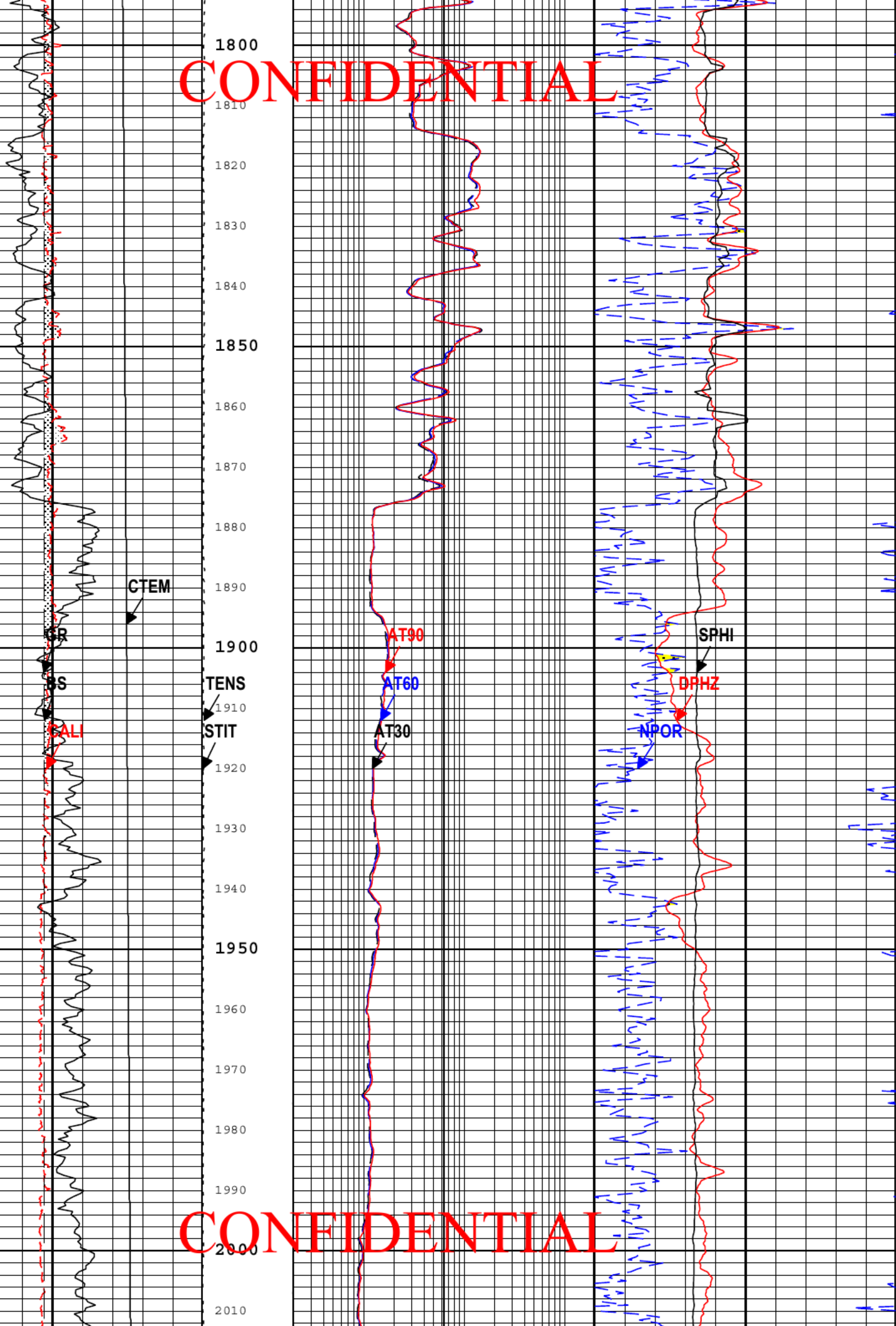
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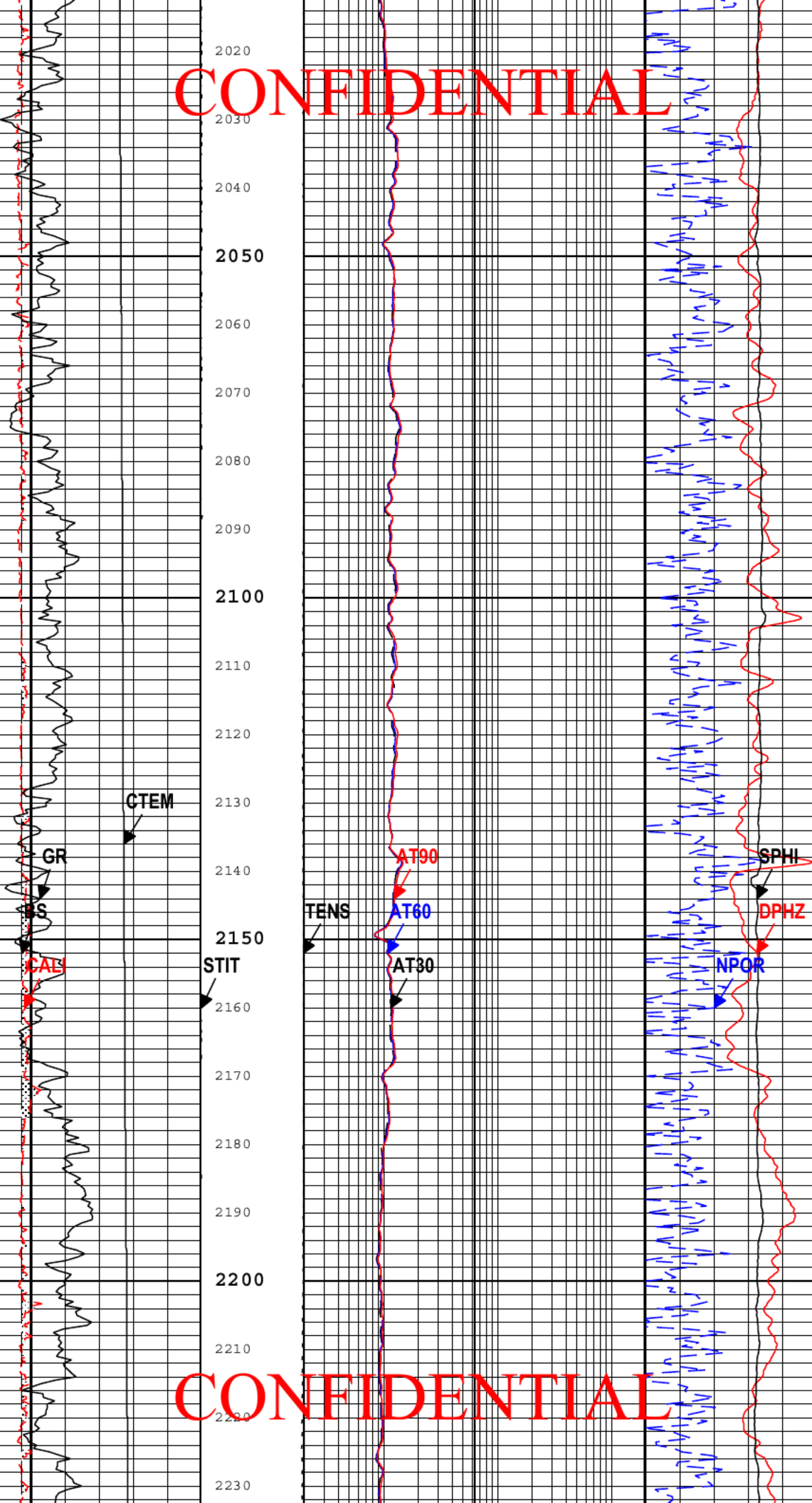
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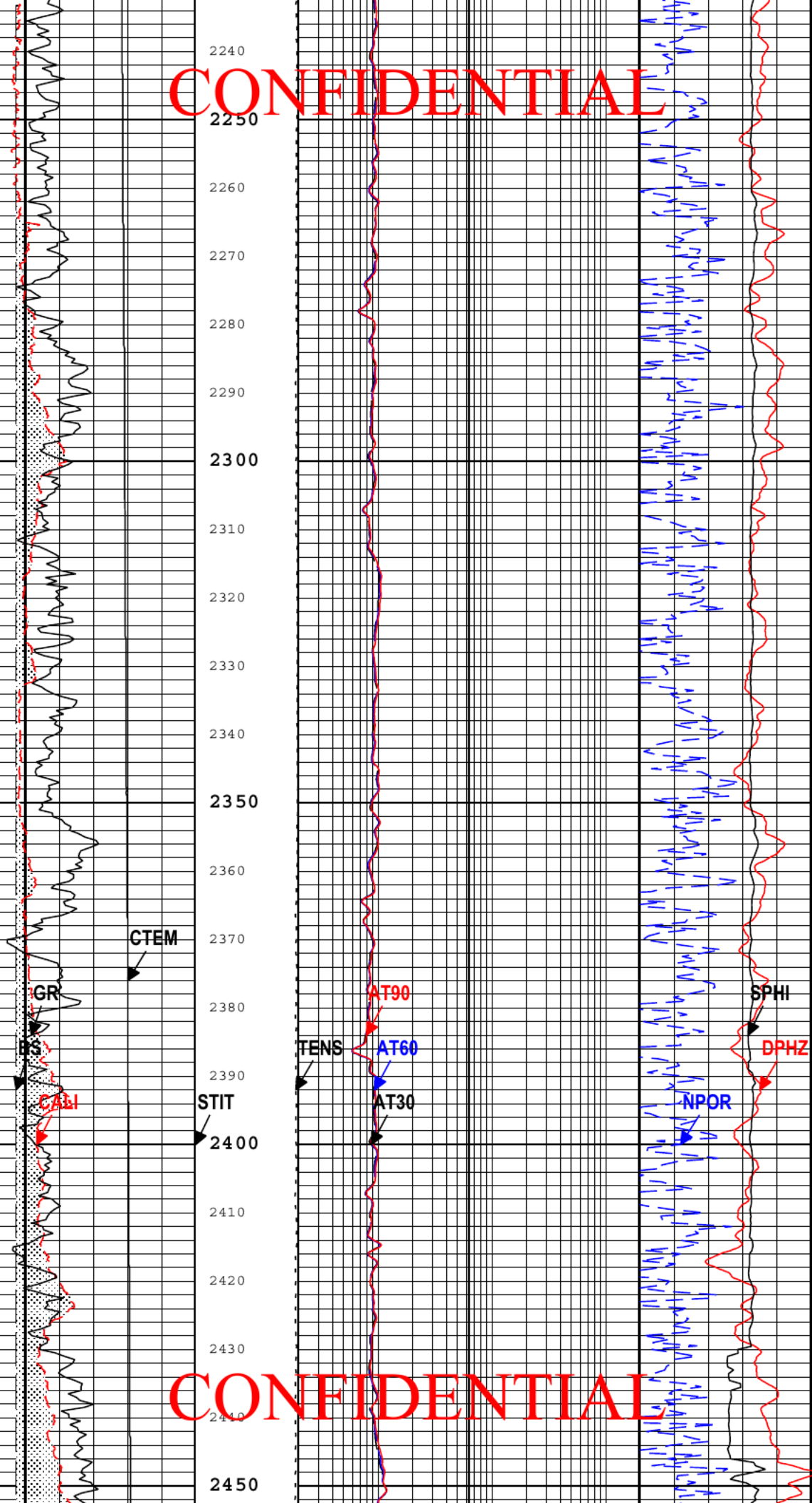
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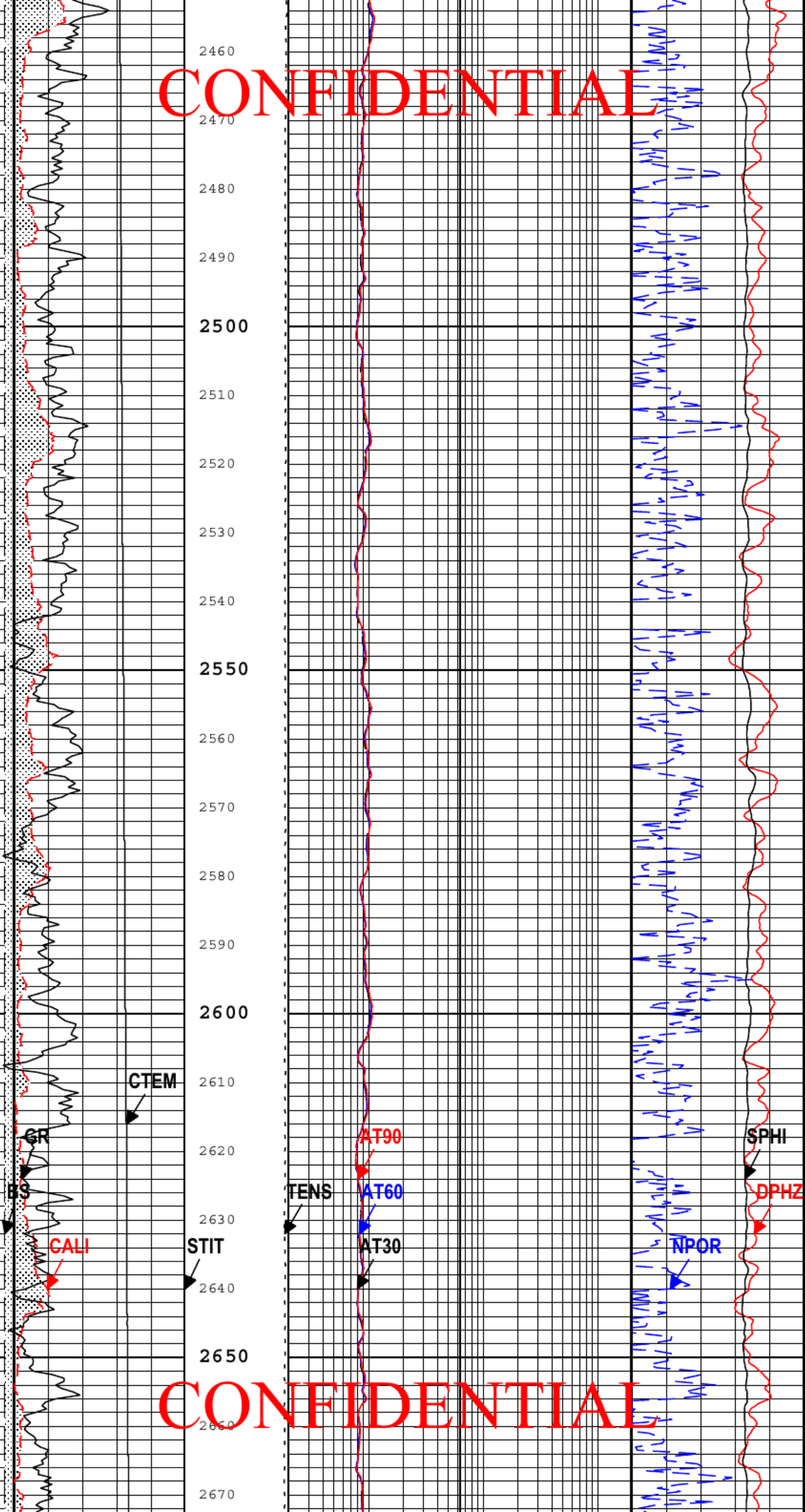
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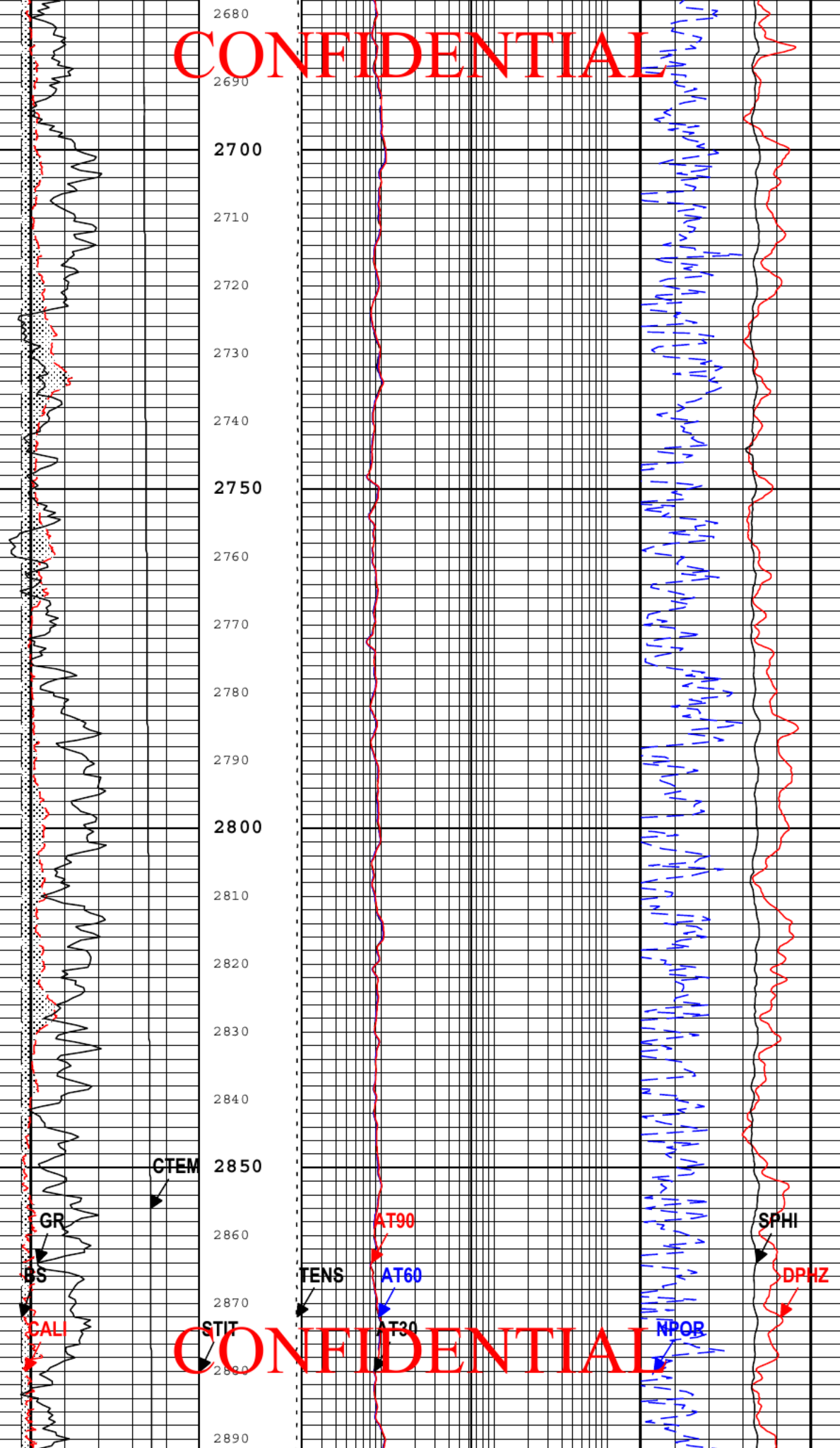


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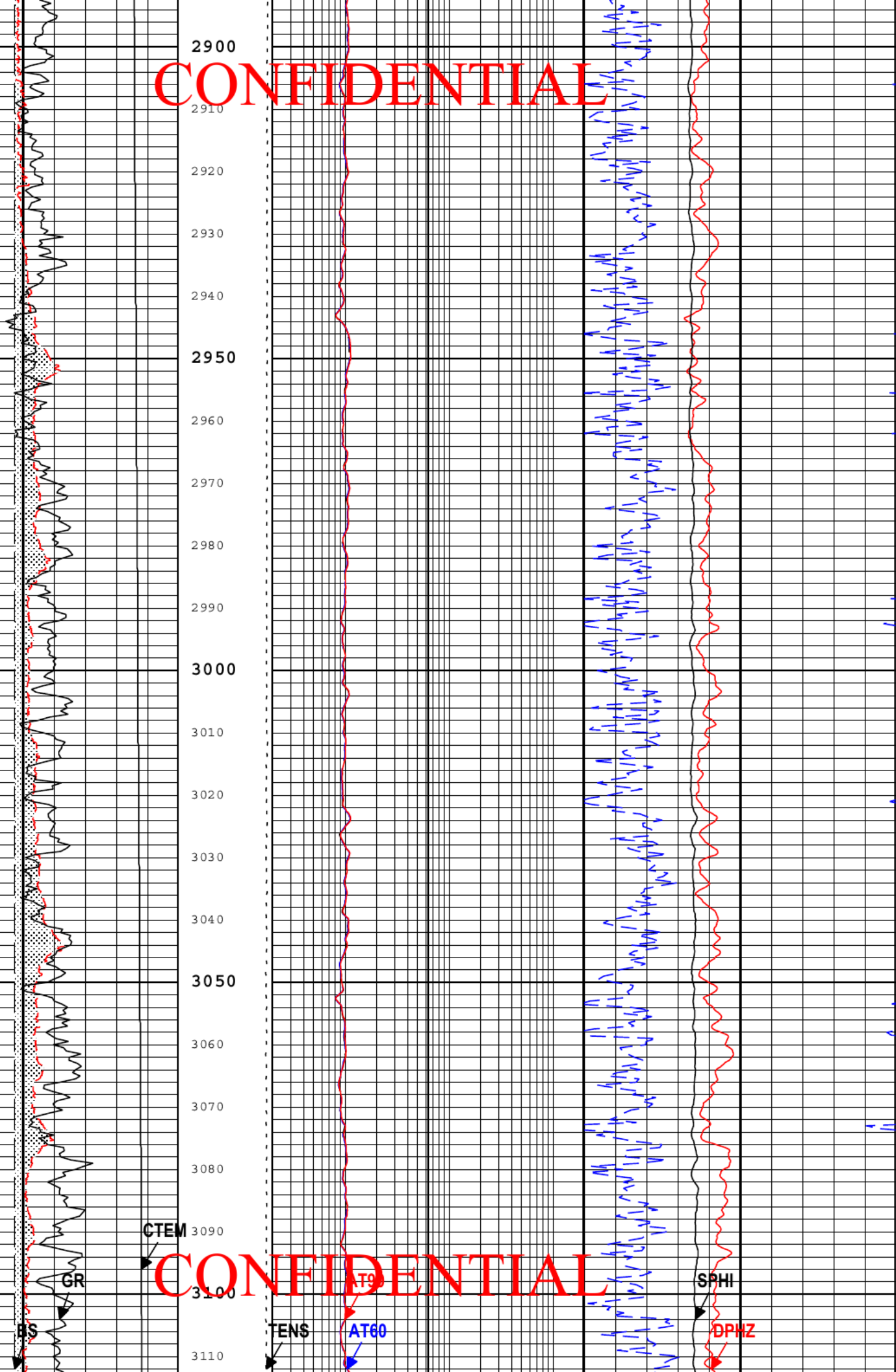
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2900

2910

2920

2930

2940

2950

2960

2970

2980

2990

3000

3010

3020

3030

3040

3050

3060

3070

3080

CTEM

3090

GR

3100

FS

TENS

3110

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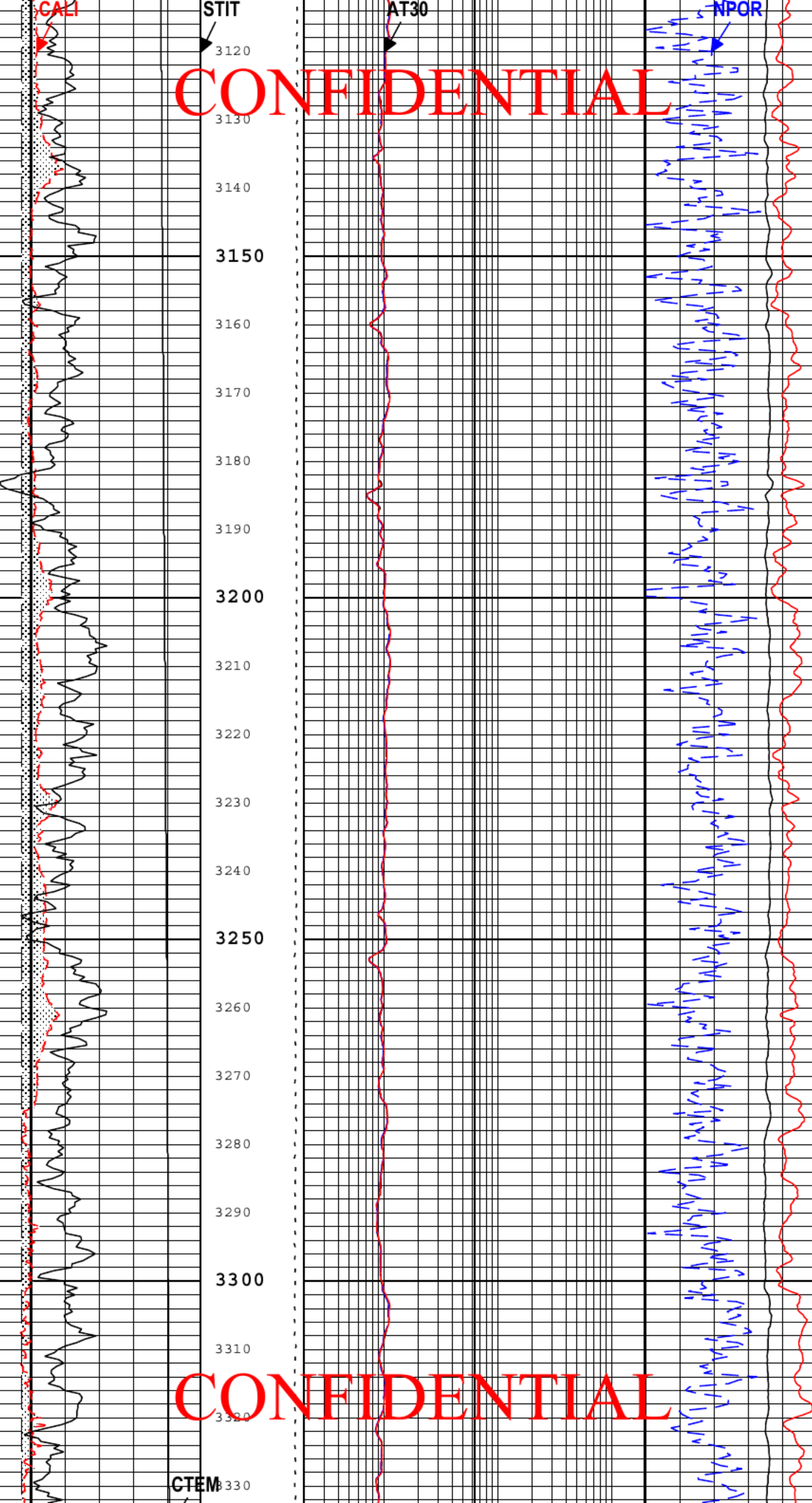
AT9

AT60

SPHI

DPHZ

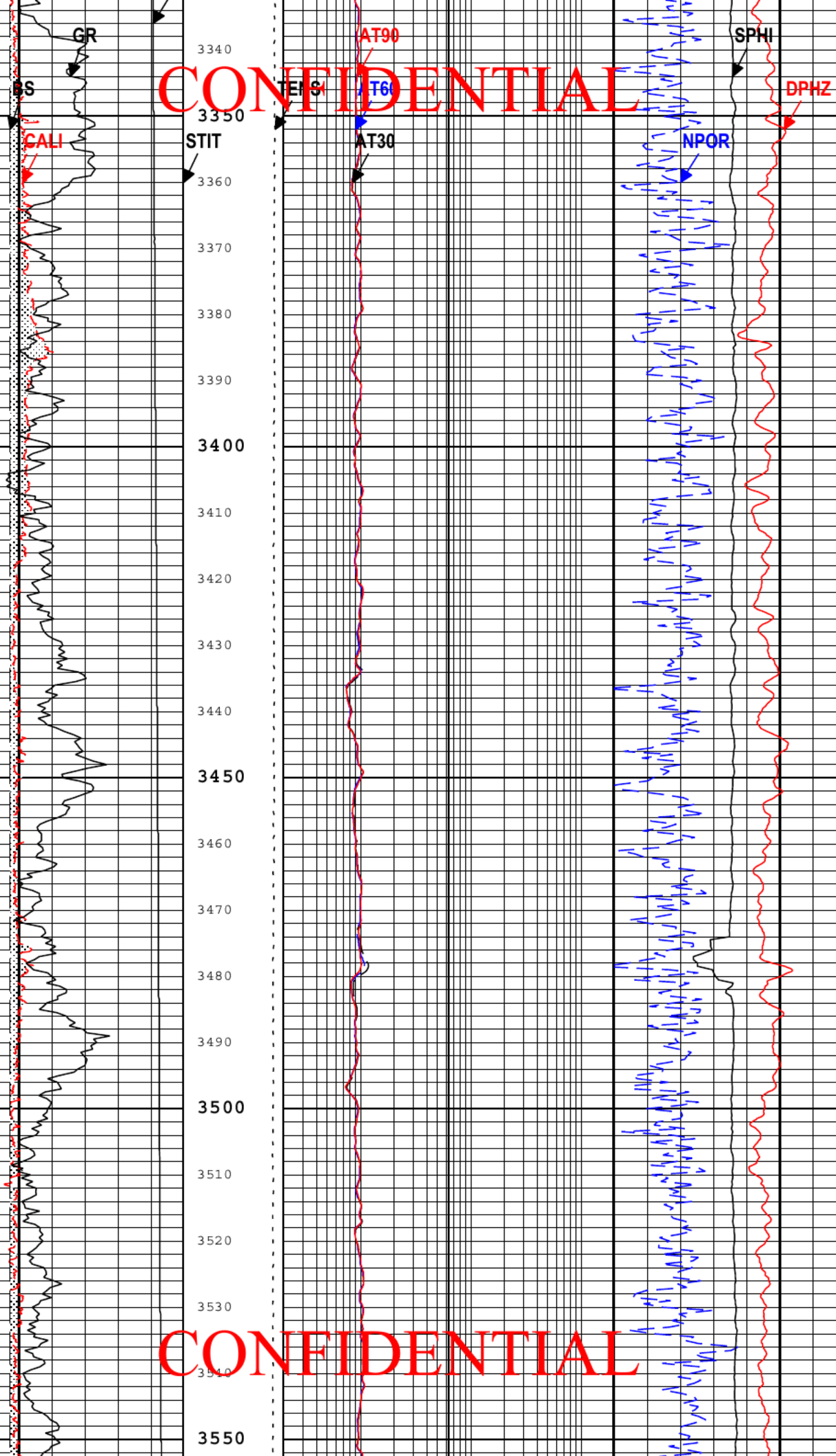
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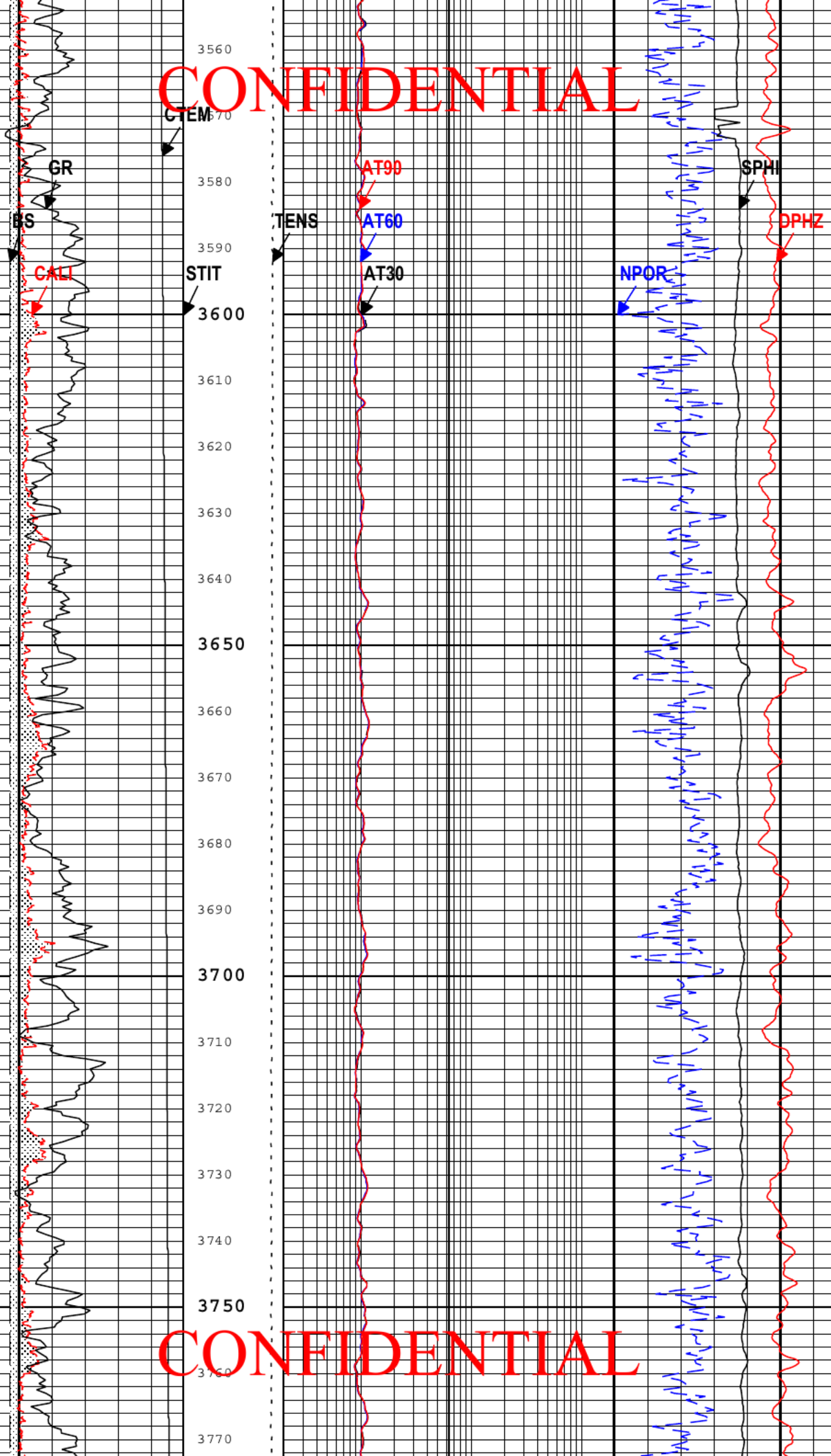
CTEM 330

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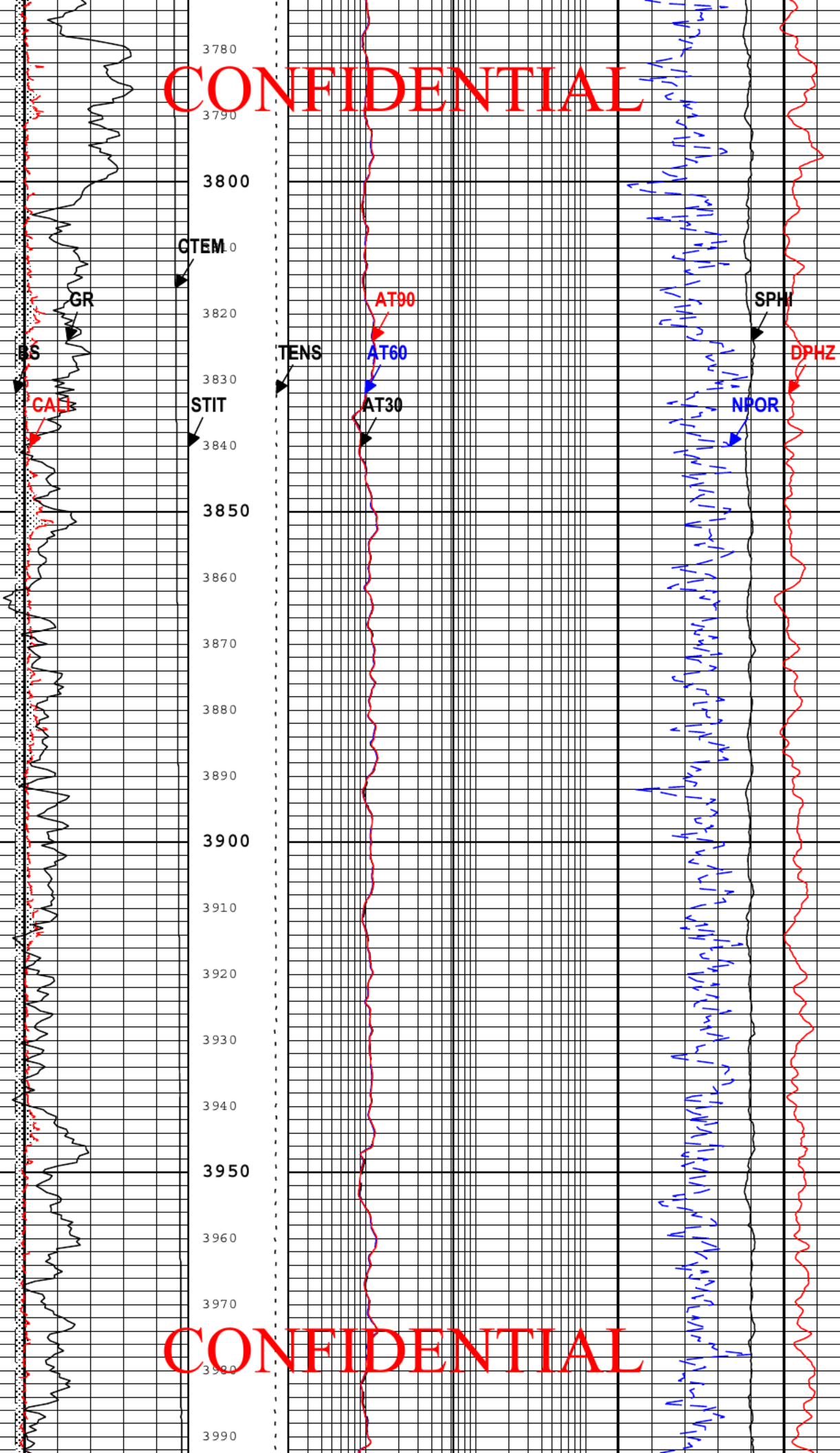
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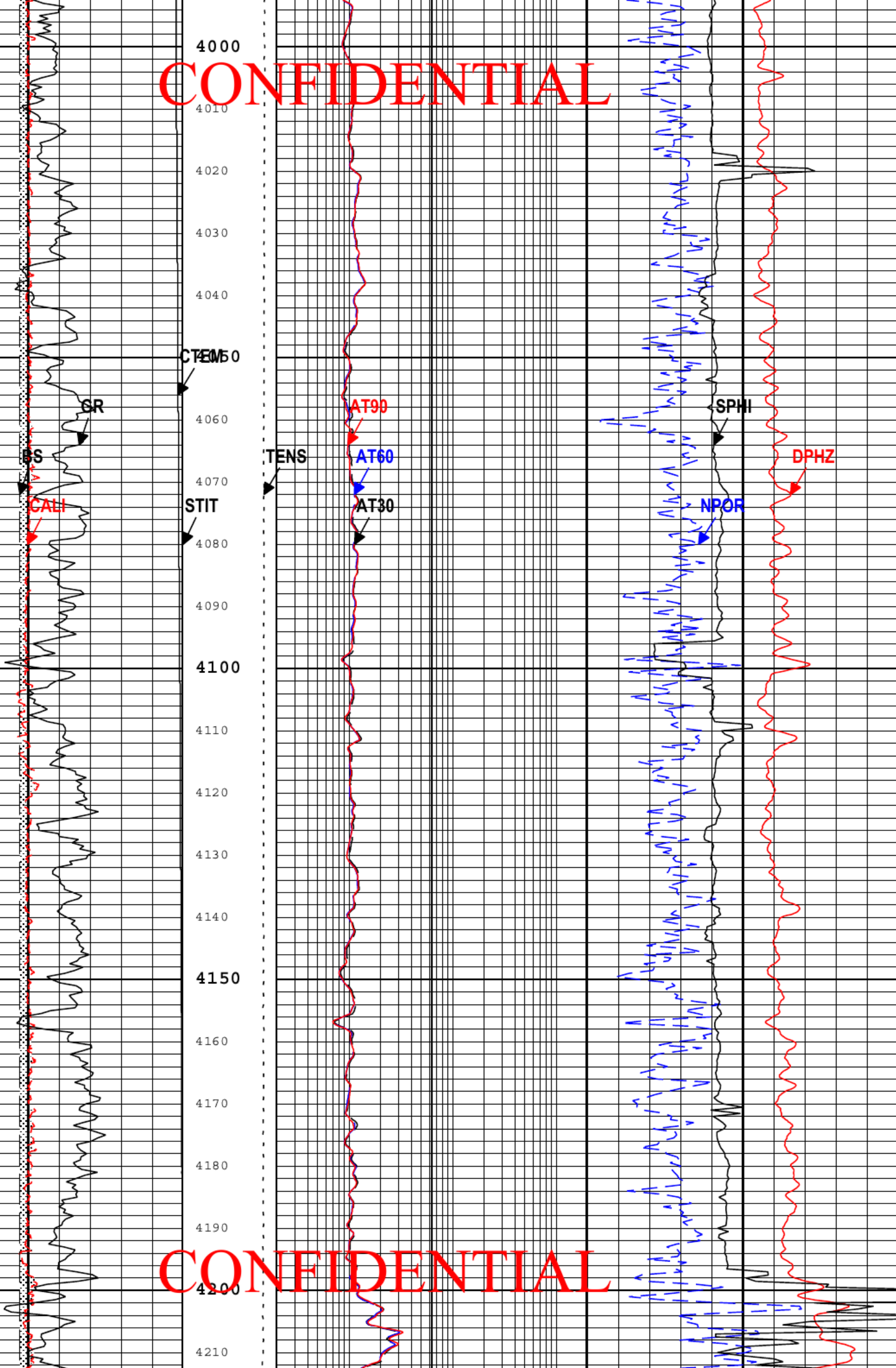
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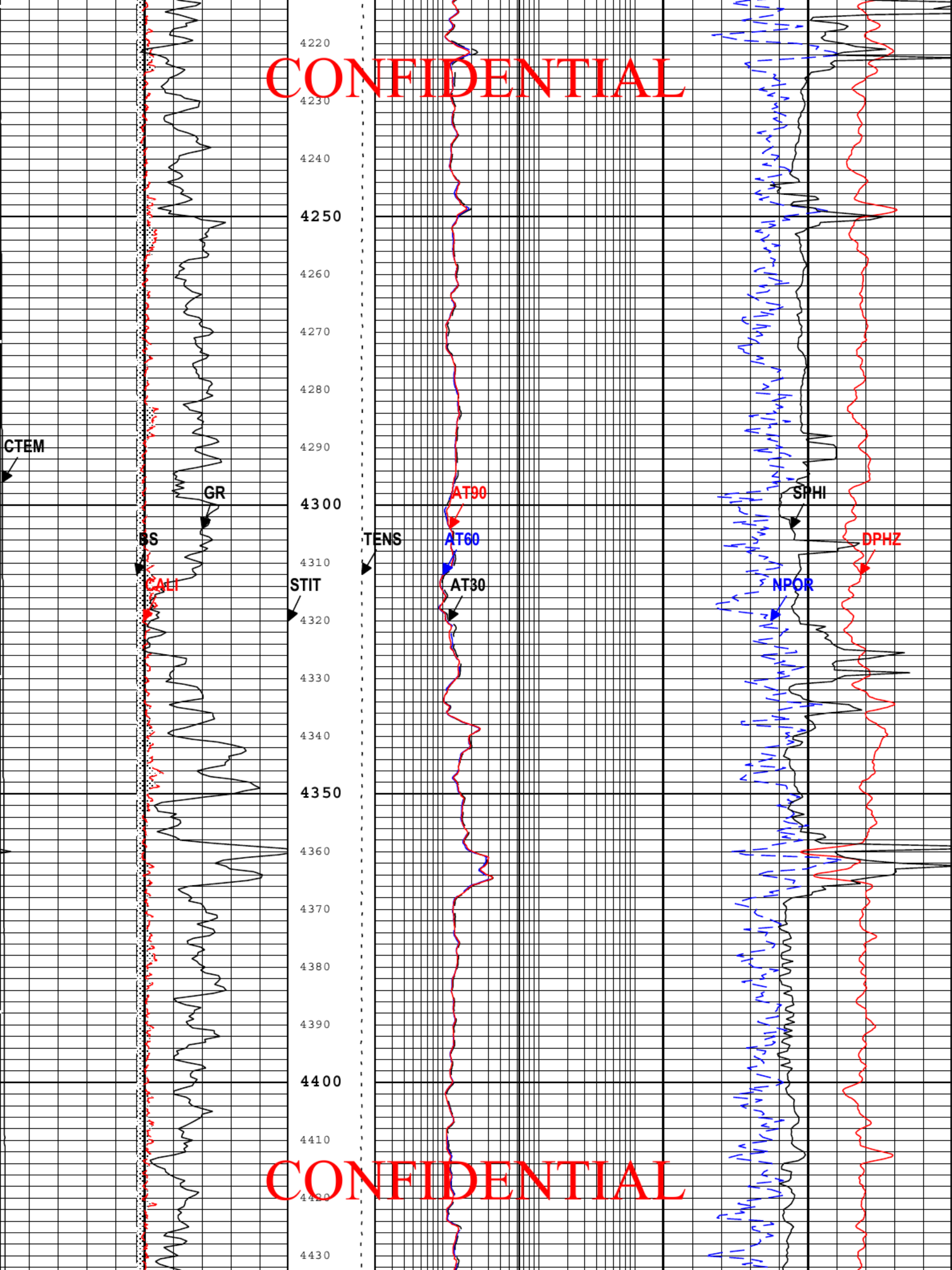
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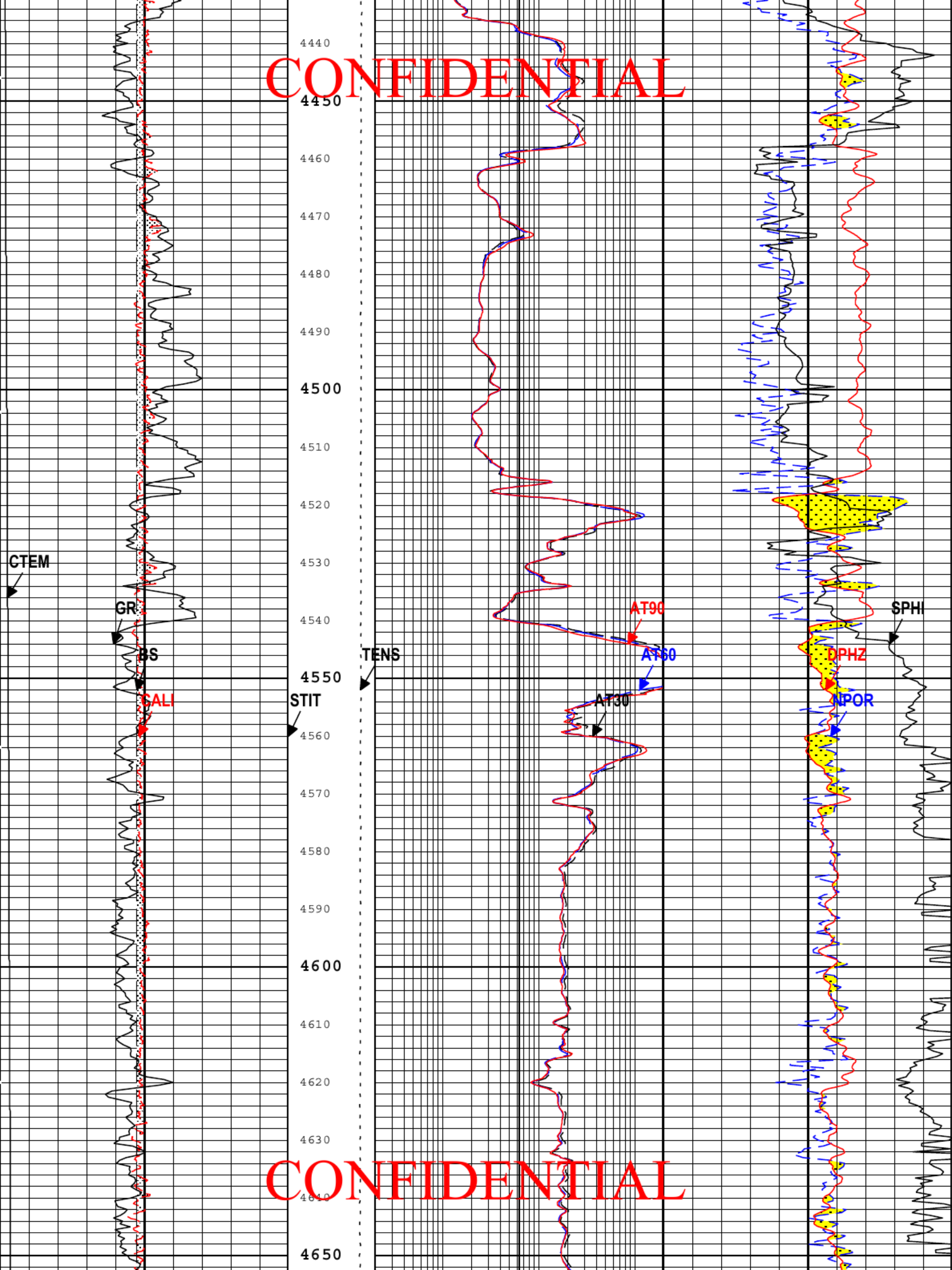


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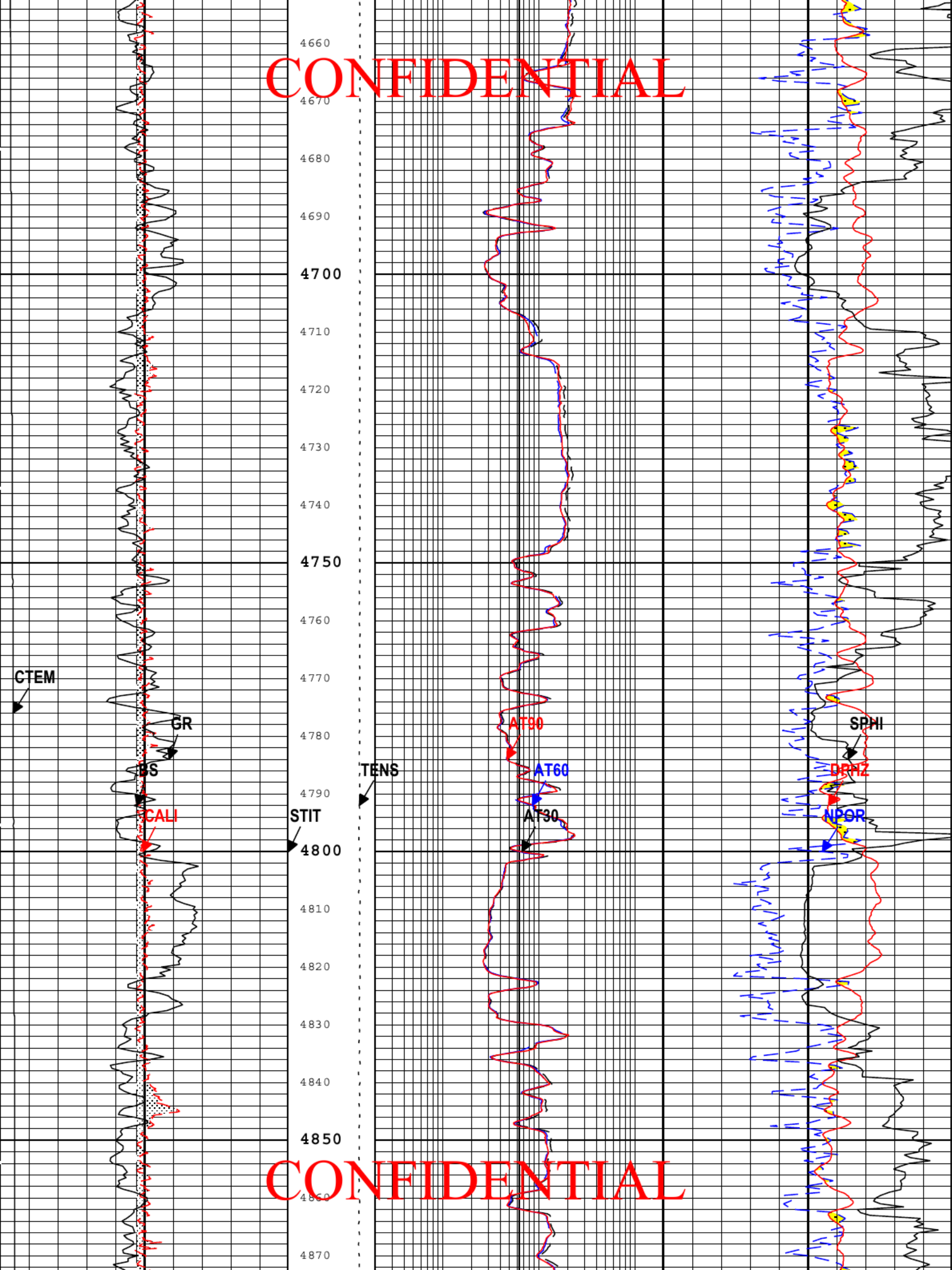


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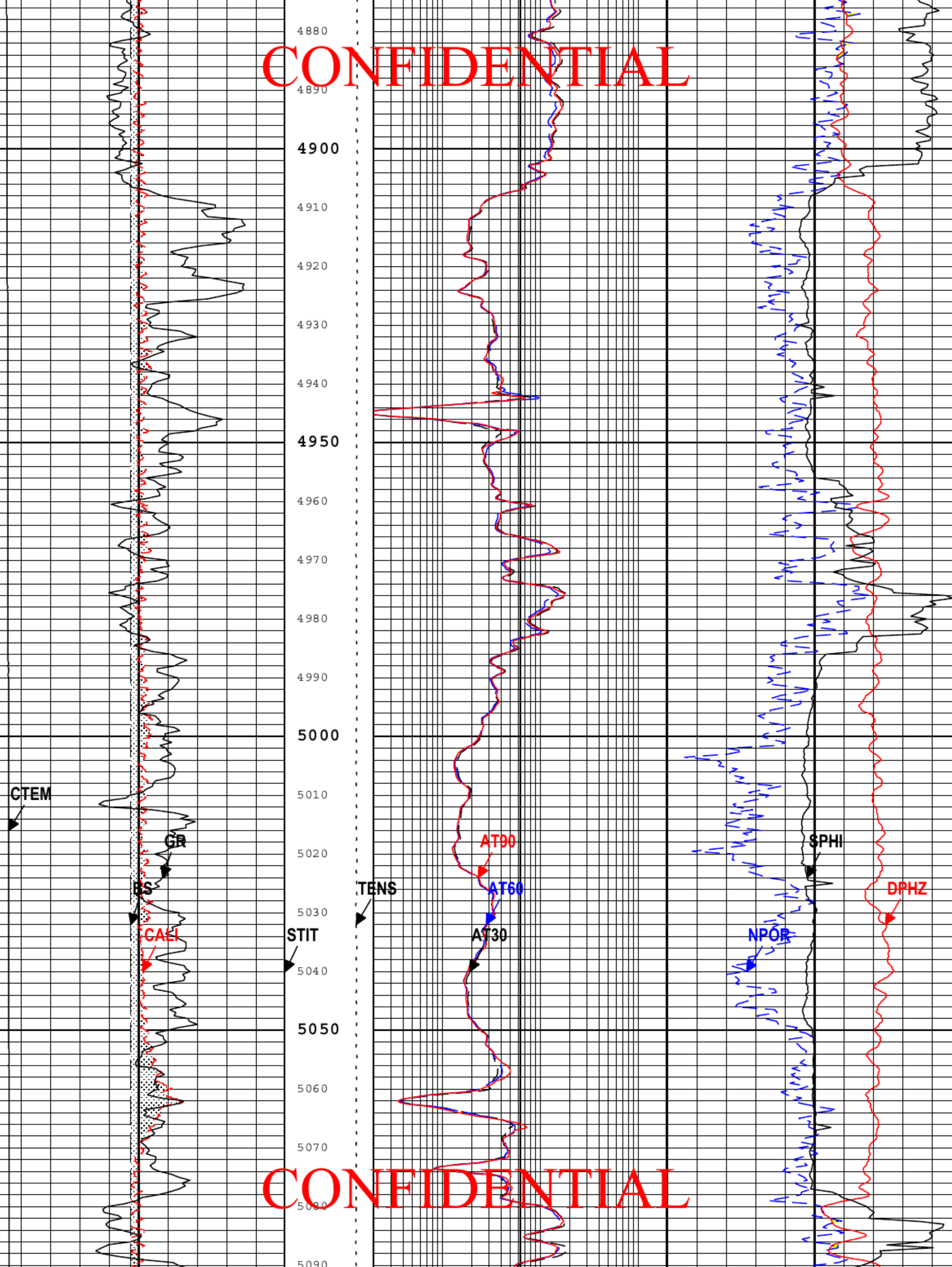


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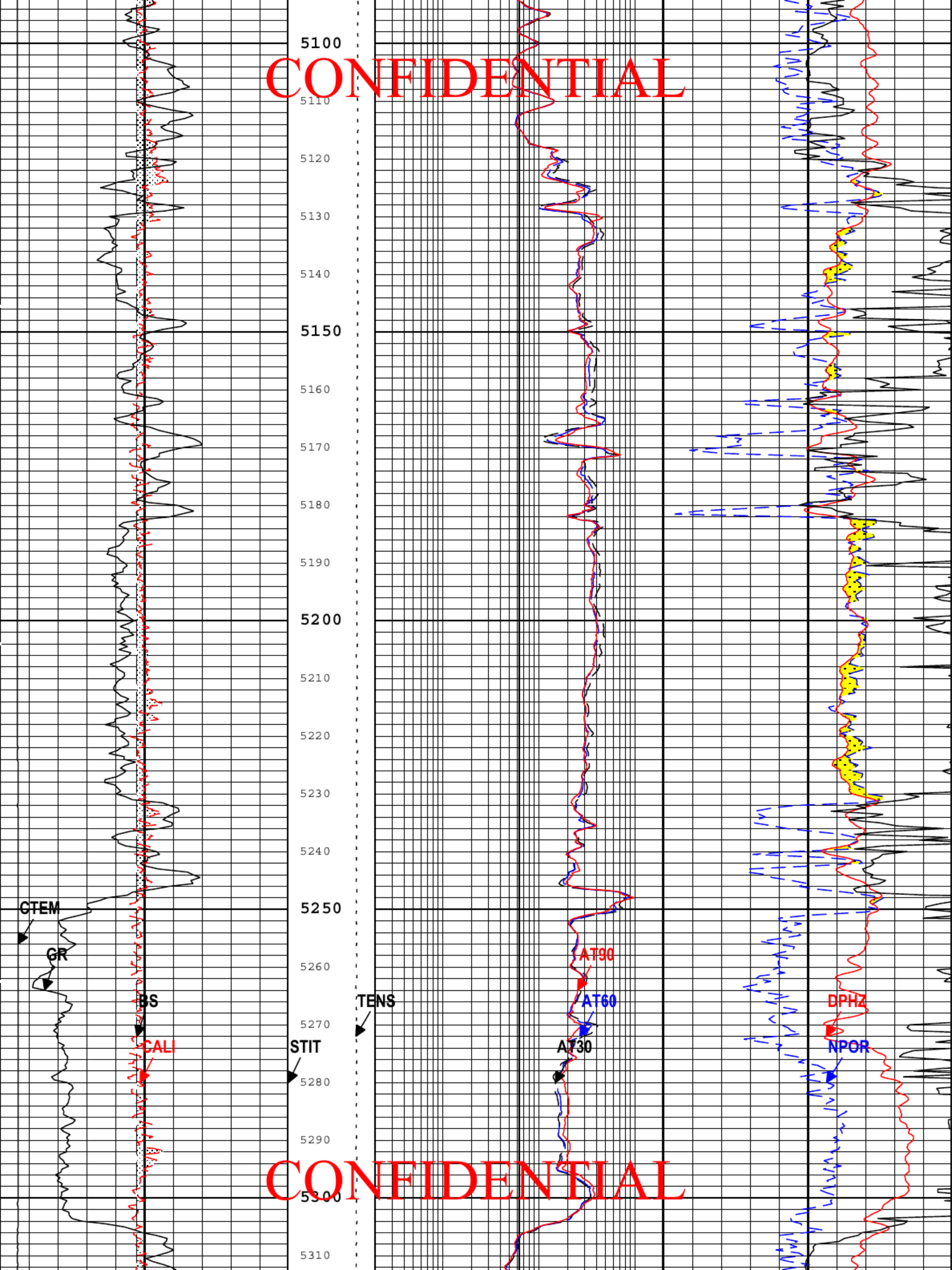
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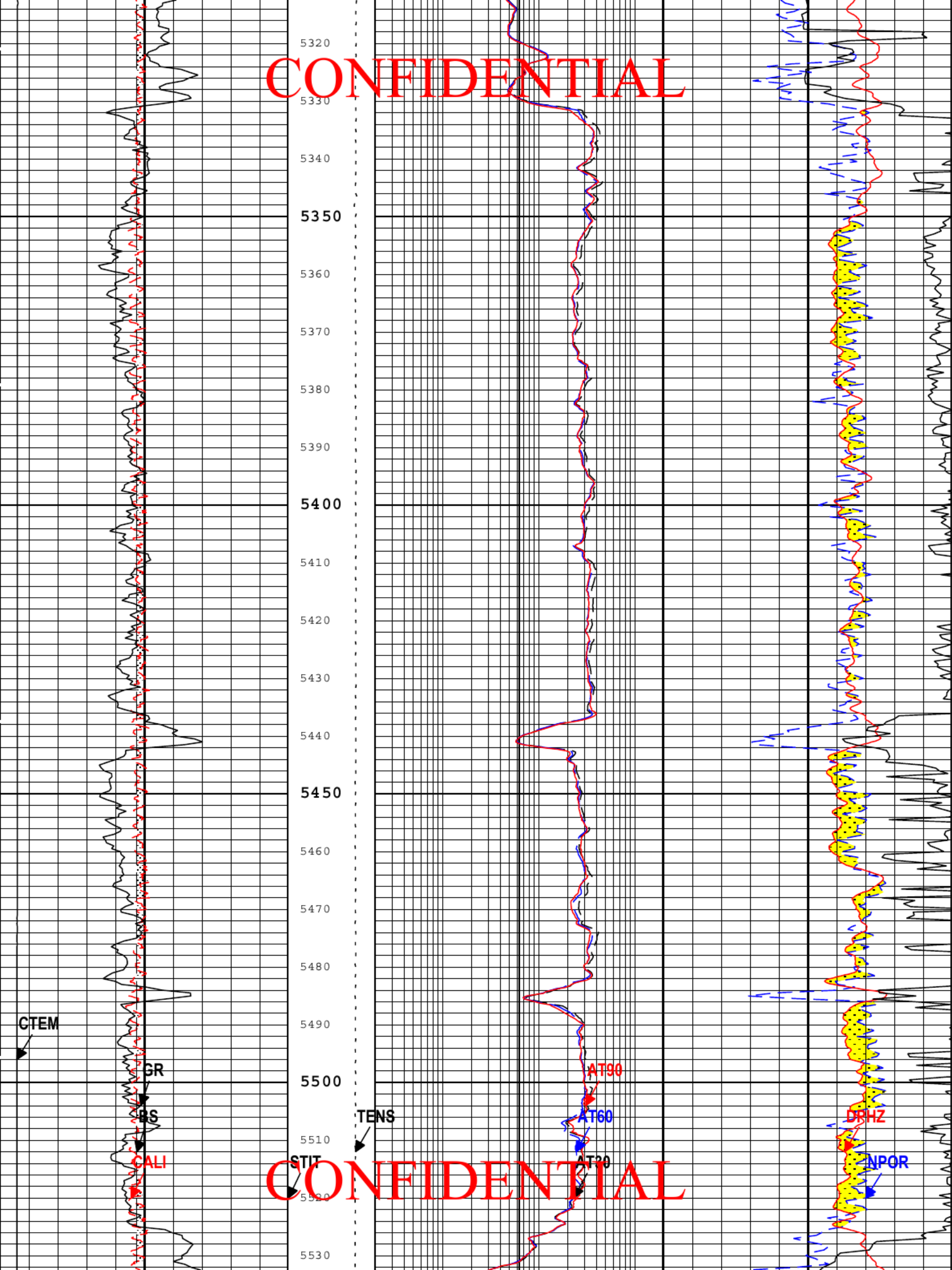
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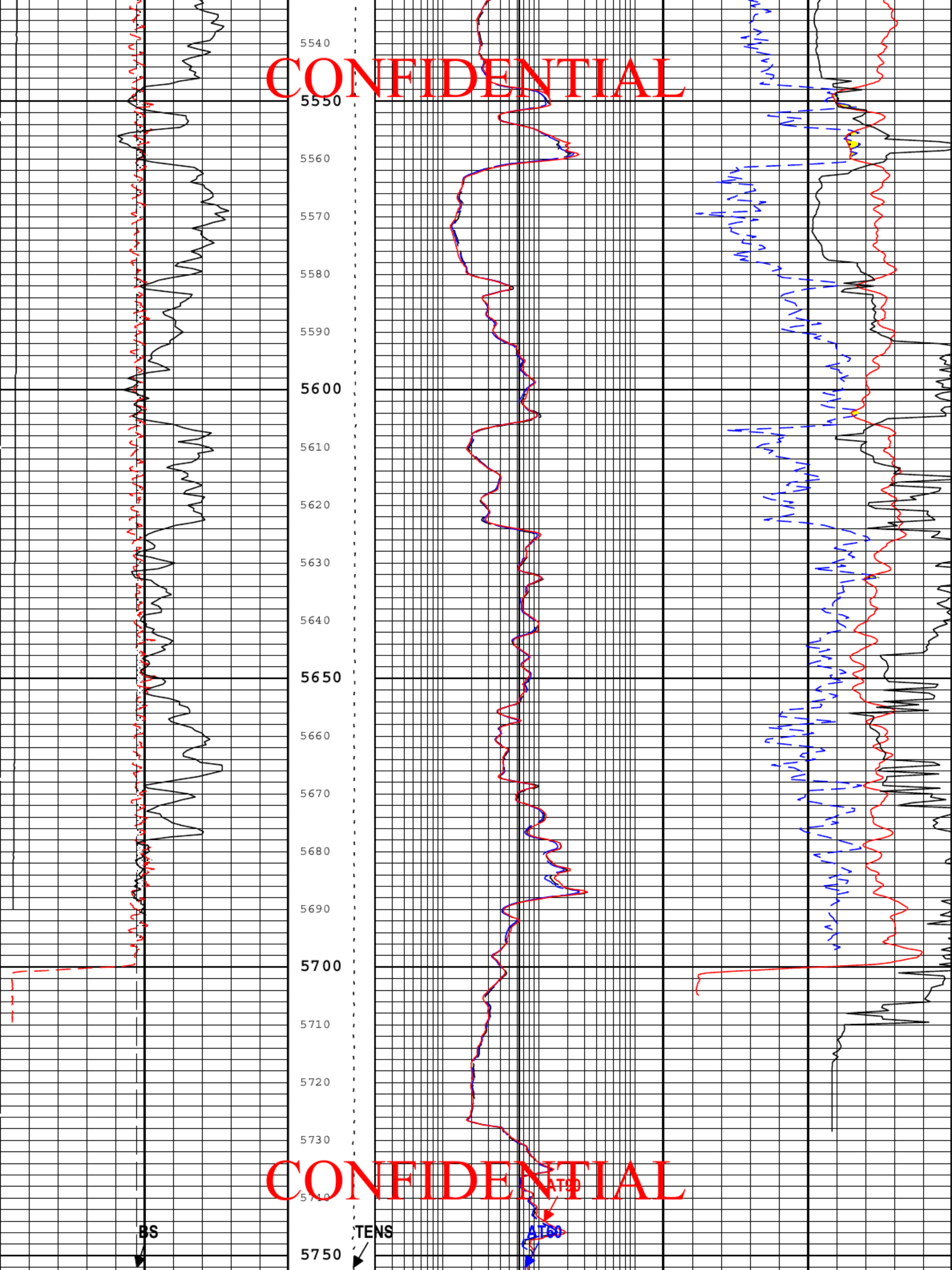
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BS

TENS

5750

AT90

AT50

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Area from BS to Cali	
Caliper (CALI) HDRS-H	4 in 14
Gamma Ray (GR) HGNS-H	0 gAPI 150
Cartridge Temperature (CTEM) HGNS-H	20 degF 220

Stuck Tool Indicator, Total (STIT)	0 ft 50
Cable Tension (TENS)	8000 lbf 2000

Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E	0.2 ohm.m 200
Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E	0.2 ohm.m 200
Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E	0.2 ohm.m 200

Crossover		
Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H	0.6 ft3/ft3	0
Standard Resolution Density Porosity (DPHZ) HDRS-H	0.6 ft3/ft3	0
Sonic Porosity (SPHI) DSLT-H	0.6 ft3/ft3	0

TIME\_1900 - Time Marked every 60.00 (s)

Description: Format: Log ( Combo\_Fax ) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Aug-2014 17:50:08

## Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
AAPL	Array Induction Answer Product Level(Depth Log/View only)	ZAIT-E	Radial	
ABHME	Array Induction Extended Borehole Correction Mode	ZAIT-E	Compute All	
ACDE	Array Induction Casing Detection Enable	ZAIT-E	No	
AIOC	Array Induction Inclinometry Offset Count	ZAIT-E	0	
AISS	Array Induction Inclinometry Data Source Selector	ZAIT-E	Auto	
AMSG	Auxiliary Minimum Sliding Gate	DSLTH	140	us
ANGDR	Array Induction No Inclinometry Default Rotation	ZAIT-E	0	deg
AOFFX	X Accelerometer Offset	GPIT-F	0	ft/s2
AOFFY	Y Accelerometer Offset	GPIT-F	0	ft/s2
AOFFZ	Z Accelerometer Offset	GPIT-F	0	ft/s2
AROT	Array Induction Rotation Selector	ZAIT-E	North	
ASTA	Array Induction Tool Standoff	ZAIT-E	0.125	in
ATSE	Array Induction Temperature Selection(Sonde Error Correction)	ZAIT-E	Internal	
BARI	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	232.5	degF
BS	Bit Size	WLSESSION	8.75	in
BSAL	Borehole Salinity	Borehole	110000	ppm
BSCO	Borehole Salinity Correction Option	HGNS-H	No	
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.228	in
CBLG	CBL Gate Width	DSLTH	45	us
CBLO	Casing Bottom (Logger)	WLSESSION	1124.5	ft
CCCO	Casing & Cement Thickness Correction Option	HGNS-H	No	
CDEN	Cement Density	HGNS-H	2	g/cm3
CDTS	Correction for Delta-T Shale, Empirical	Borehole	100	us/ft
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DETE	Delta-T Detection	DSLTH	E2	
DFD	Drilling Fluid Density	Borehole	9.3	lbm/gal
DFT	Drilling Fluid Type	Borehole	Oil	
DHC	Density Hole Correction	HDRS-H	Bit Size	
DTCM	Delta-T Computation Mode	DSLTH	Full	

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DTF	Delta-T Fluid	Borehole	189	us/ft
DTM	Delta-T Matrix	Borehole	56	us/ft
FD	Fluid Density	Borehole	1	g/cm3
FOFFX	X Magnetometer Offset	GPIT-F	0	mT
FOFFY	Y Magnetometer Offset	GPIT-F	0	mT
FOFFZ	Z Magnetometer Offset	GPIT-F	0	mT
FSAL	Formation Salinity	Borehole	0	ppm
FSCO	Formation Salinity Correction Option	HGNS-H	No	
GCLF	Coal-Like Formation	HDRS-H	No	
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GR_MULTIPLIER	Gamma Ray Multiplier	HGNS-H	1	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	REMS	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
ICMO	Inclinometry Computation Mode	GPIT-F	Automatic Selection	
LOG_SPEED_RNG	Logging Speed Range	GPIT-F	Normal (600 ft/h - 3600 ft/h)	
MAHTR	Manual High Threshold Reference for first arrival detection	DSLTH-H	120	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
MCCO	Mud Cake Correction Option	HGNS-H	No	
MDEN	Matrix Density for Density Porosity	Borehole	2.65	g/cm3
MNHTR	Minimum High Threshold Reference for first arrival detection	DSLTH-H	100	
MWCO	Mud Weight Correction Option	HGNS-H	No	
NAAC	Switch for the correction of formation activation by the APS	HDRS-H	Off	
NMSG	Near Minimum Sliding Gate	DSLTH-H	Time Zoned	us
NMXG	Near Maximum Sliding Gate	DSLTH-H	950	us
NPRM	HRDD Nuclear Processing Mode	HDRS-H	Standard Resolution	
NTCO	HRDD Nuclear Temperature Correction Option	HDRS-H	On	
NUMP	Number of Detection Passes	DSLTH-H	2	
PADT	Presentation Allow Disallow Threshold	GPIT-F	0.5	deg
PTCO	Pressure Temperature Correction Option	HGNS-H	Yes	
SFAF	Sonic Formation Attenuation Factor	DSLTH-H	3.25	dB/ft
SGAD	Sliding Gate Status	DSLTH-H	On	
SGCL	Sliding Gate Closing Delta-T	DSLTH-H	130	us/ft
SGCW	Sliding Gate Closing Width	DSLTH-H	25	us
SGDT	Sliding Gate Delta-T	DSLTH-H	55	us/ft
SGW	Sliding Gate Width	DSLTH-H	110	us
SLEV	Signal Level for AGC	DSLTH-H	5000	mV
SOCN	Standoff Distance	HGNS-H	0.125	in
SOCO	Standoff Correction Option	HGNS-H	Yes	
SPFS	Sonic Porosity Formula	Borehole	Raymer-Hunt	
SPSO	Sonic Porosity Source	DSLTH-H	DT	
TD	Total Measured Depth	Borehole	5576	ft
TPOS	Tool Position: Centered or Eccentered	HGNS-H	Eccentered	
USER_LOCB	User-supplied values for Magnetic Flux Density	WLSESSION	52978.52	nT
USER_MDEC	User-supplied values for Magnetic Declination	WLSESSION	13.96	deg
USER_MDIP	User-supplied values for Magnetic Dip Angle	WLSESSION	6.54	deg

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Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth ( ft )	Stop Depth ( ft )

NMSG	450	20-Aug-2014 15:38:08	20-Aug-2014 15:59:00	5767.98	4561.89
NMSG	475	20-Aug-2014 15:59:00	20-Aug-2014 15:59:28	4561.89	4534.82
NMSG	460	20-Aug-2014 15:59:28	20-Aug-2014 16:00:00	4534.82	4474.87
NMSG	475	20-Aug-2014 16:00:00	20-Aug-2014 16:05:00	4474.87	4213.62
NMSG	500	20-Aug-2014 16:05:00	20-Aug-2014 16:07:15	4213.62	4083.08
NMSG	475	20-Aug-2014 16:07:15	20-Aug-2014 16:07:35	4083.08	4063.79
NMSG	525	20-Aug-2014 16:07:35	20-Aug-2014 16:35:00	4063.79	2450.22
NMSG	500	20-Aug-2014 16:35:00	20-Aug-2014 16:47:30	2450.22	1715.92
NMSG	600	20-Aug-2014 16:47:30	20-Aug-2014 16:52:40	1715.92	1408.45
NMSG	625	20-Aug-2014 16:52:40	20-Aug-2014 16:54:00	1408.45	1329.07
NMSG	600	20-Aug-2014 16:54:00	20-Aug-2014 17:08:36	1329.07	239.03

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All depth are at tool zero.

### Tool Control Parameters

Parameter	Description	Tool	Value	Unit
DDEL	Digitizing Delay	DSLTH	0	us
DSLTH_MODE	DSLTH Acquisition Mode	DSLTH	BHC	
DSLTH_RATE	DSLTH Firing Rate	DSLTH	15 Hz	
DTFS	DSLTH Telemetry Frame Size	DSLTH	536	
DWCO	Digitizer Word Count	DSLTH	250	
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H	1	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h
NDTC	Nuclear Dead Time Correction	HDRS-H	On	
NPUC	Nuclear Pile-Up Correction	HDRS-H	On	
SDTH	Switch Down Threshold	DSLTH	20000	
SGAI	Selectable Acquisition Gain	DSLTH	Auto	
STSO_HRDD	Temperature Source for the Density Algorithm	HDRS-H	HET data channel	
SUTH	Switch Up Threshold	DSLTH	1000	
WMOD	Waveform Firing Mode	DSLTH	Full	

ONE

Repeat

### Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Repeat[2]:Up	Up	4971.69 ft	5760.64 ft	20-Aug-2014 3:03:07 PM	20-Aug-2014 3:29:32 PM	ON	2.08 ft	No
ONE	Main[3]:Up	Up	239.03 ft	5767.98 ft	20-Aug-2014 3:38:08 PM	20-Aug-2014 5:08:36 PM	ON	2.35 ft	No

All depths are referenced to toolstring zero

### Log

Company: Alta Mesa Services    Well: Kauffman #1-9  
ONE: Main[3]:Up:S091

Description: Format: Log ( Combo\_Fax RA )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 22-Aug-2014 17:50:11

TIME\_1900 - Time Marked every 60.00 (s)

Main To Repeat	Main To Repeat	Main To Repeat
Repeat To Main	Repeat To Main	Repeat To Main

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Main To Repeat  
Repeat To Main

Array Induction Two Foot Resistivity A90  
(AT90) ZAIT-E

Enhanced Thermal Neutron Porosity in  
Selected Lithology (NPOR) HGNS-H

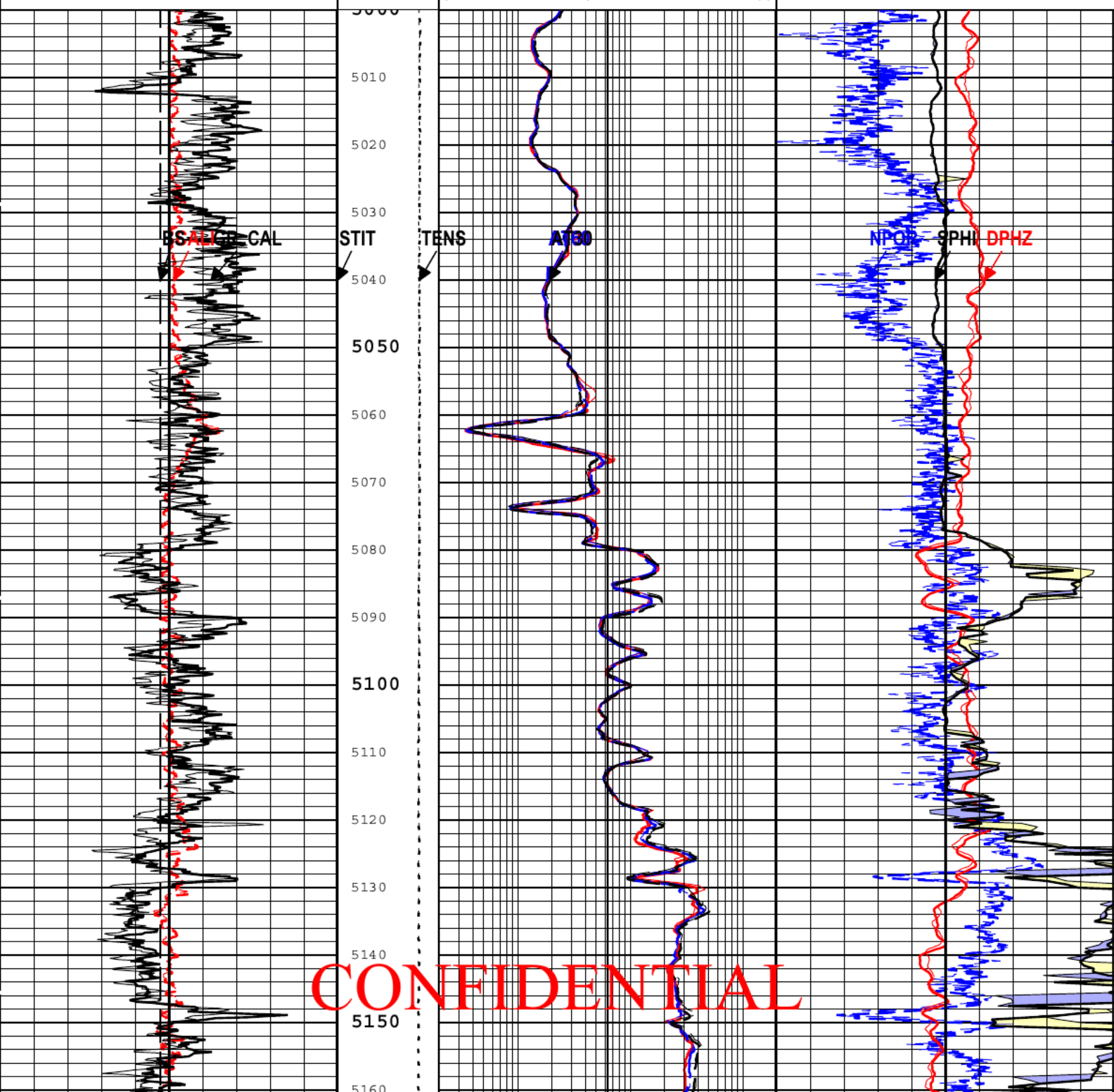
4	in	14
Main To Repeat		
Repeat To Main		
Bit Size (BS)		
4	in	14
Main To Repeat		
Repeat To Main		
Calibrated Gamma Ray (GR_CAL) HGNS-H		
0	gAPI	150

Stuck Tool Indicator Total (STIT)		
0	ft	50
Main To Repeat		
Repeat To Main		
Cable Tension (TENS)		
8000 lbf	2000	

Main To Repeat		
Repeat To Main		
Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E		
0.2	ohm.m	200
Main To Repeat		
Repeat To Main		
Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E		
0.2	ohm.m	200

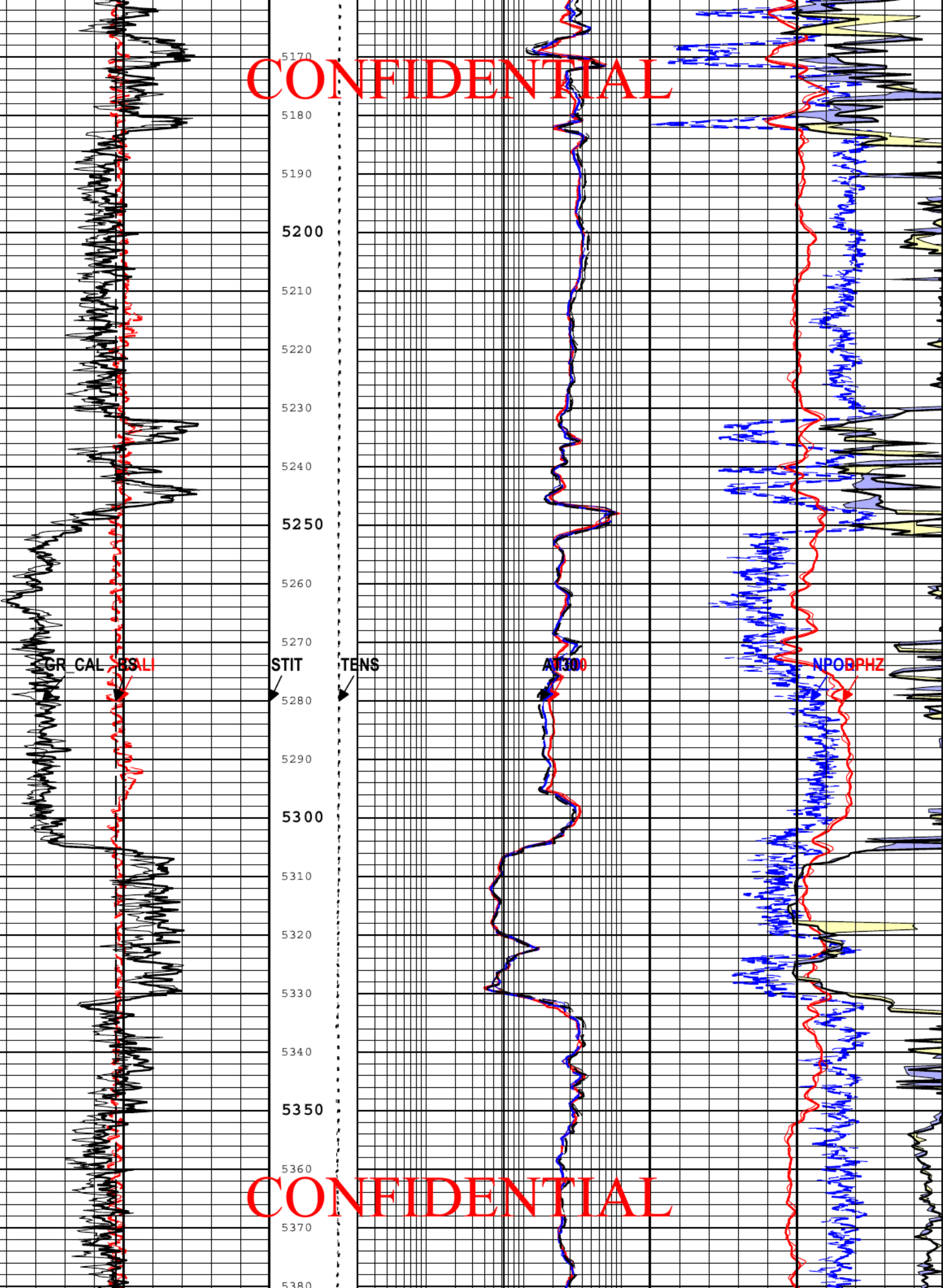
0.6	ft3/ft3	0
Main To Repeat		
Repeat To Main		
Standard Resolution Density Porosity (DPHZ) HDRS-H		
0.6	ft3/ft3	-0.15
Main To Repeat		
Repeat To Main		
Sonic Porosity (SPHI) DSLT-H		
0.6	ft3/ft3	0

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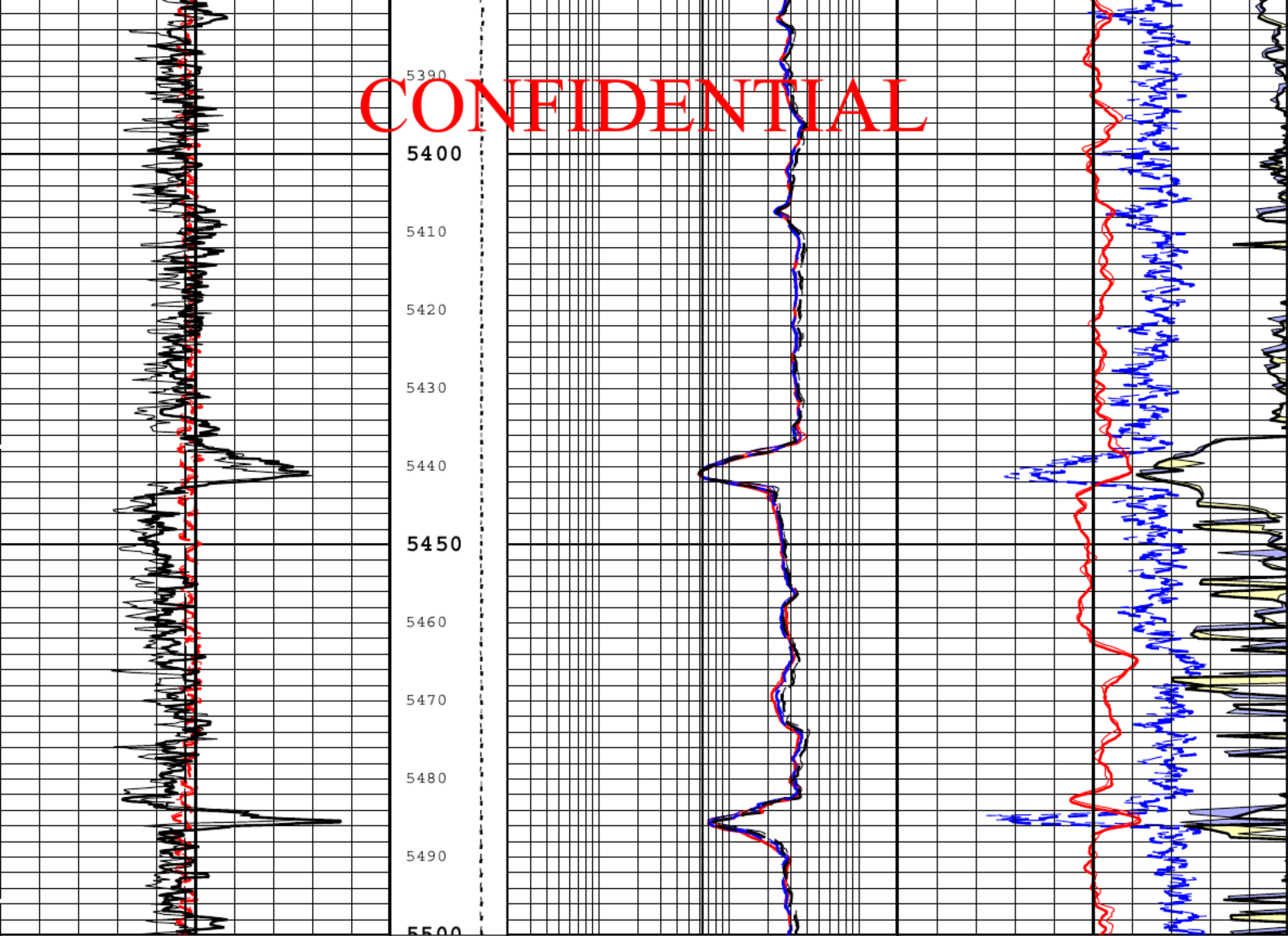
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Main To Repeat Repeat To Main Caliper (CALI) HDRS-H 4 in 14	Main To Repeat Repeat To Main Stuck Tool Indicator, Total (STIT) 0 ft 50	Main To Repeat Repeat To Main Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E 0.2 ohm.m 200	Main To Repeat Repeat To Main Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H 0.6 ft3/ft3 0
Main To Repeat Repeat To Main Bit Size (BS) 4 in 14	Main To Repeat Repeat To Main Cable Tension (TENS) 8000 lbf 2000	Main To Repeat Repeat To Main Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E 0.2 ohm.m 200	Main To Repeat Repeat To Main Standard Resolution Density Porosity (DPHZ) HDRS-H 0.6 ft3/ft3 -0.15
Main To Repeat Repeat To Main Calibrated Gamma Ray (GR_CAL) HGNS-H 0 gAPI 150		Main To Repeat Repeat To Main Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E 0.2 ohm.m 200	Main To Repeat Repeat To Main Sonic Porosity (SPHI) DSLT-H 0.6 ft3/ft3 0

TIME\_1900 - Time Marked every 60.00 (s)

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Description: Format: Log ( Combo\_Fax RA ) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Aug-2014 17:50:11

ZAIT-E (Array Induction Tool - ZE) Calibration - Run ONE

Primary Equipment :

20 kpi sonde - V8

ATIS

35

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AIT Master Calibration - Test Loop Gain

Master (EEPROM): 15:00:33 03-Jan-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
Test Loop Gain - 0		Master	1.000	----	1.003	----		
Test Loop Phase - 0	deg	Master	0	----	-0.759	----		
Test Loop Gain - 1		Master	1.000	----	0.993	----		
Test Loop Phase - 1	deg	Master	0	----	3.671	----		
Test Loop Gain - 2		Master	1.000	----	0.993	----		
Test Loop Phase - 2	deg	Master	0	----	0.087	----		
Test Loop Gain - 3		Master	1.000	----	1.071	----		
Test Loop Phase - 3	deg	Master	0	----	-0.547	----		
Test Loop Gain - 4		Master	1.000	----	1.063	----		
Test Loop Phase - 4	deg	Master	0	----	-0.236	----		
Test Loop Gain - 5		Master	1.000	----	0.999	----		
Test Loop Phase - 5	deg	Master	0	----	0.064	----		
Test Loop Gain - 6		Master	1.000	----	1.000	----		
Test Loop Phase - 6	deg	Master	0	----	-0.131	----		
Test Loop Gain - 7		Master	1.000	----	1.002	----		
Test Loop Phase - 7	deg	Master	0	----	0.573	----		
Test Loop Gain - 8		Master	1.000	----	0.997	----		
Test Loop Phase - 8	deg	Master	0	----	-0.477	----		
Test Loop Gain - 9		Master	1.000	----	0.954	----		
Test Loop Phase - 9	deg	Master	0	----	0.184	----		
Test Loop Gain - 10		Master	1.000	----	0.982	----		
Test Loop Phase - 10	deg	Master	0	----	1.973	----		
Test Loop Gain - 11		Master	1.000	----	1.022	----		
Test Loop Phase - 11	deg	Master	0	----	0.148	----		
Test Loop Gain - 12		Master	1.000	----	0.972	----		
Test Loop Phase - 12	deg	Master	0	----	0.962	----		
Test Loop Gain - 13		Master	1.000	----	0.966	----		
Test Loop Phase - 13	deg	Master	0	----	0.441	----		
Test Loop Gain - 14		Master	1.000	----	1.012	----		
Test Loop Phase - 14	deg	Master	0	----	0.129	----		
Test Loop Gain - 15		Master	1.000	----	1.015	----		
Test Loop Phase - 15	deg	Master	0	----	-0.427	----		
Test Loop Gain - 16		Master	1.000	----	1.012	----		
Test Loop Phase - 16	deg	Master	0	----	0.008	----		
Test Loop Gain - 17		Master	1.000	----	1.002	----		
Test Loop Phase - 17	deg	Master	0	----	-0.405	----		
Test Loop Gain - 18		Master	1.000	----	0.943	----		
Test Loop Phase - 18	deg	Master	0	----	0.062	----		
Test Loop Gain - 19		Master	1.000	----	0.970	----		
Test Loop Phase - 19	deg	Master	0	----	1.209	----		
Test Loop Gain - 20		Master	1.000	----	1.022	----		
Test Loop Phase - 20	deg	Master	0	----	0.063	----		
Test Loop Gain - 21		Master	1.000	----	0.961	----		
Test Loop Phase - 21	deg	Master	0	----	0.721	----		
Test Loop Gain - 22		Master	1.000	----	0.956	----		
Test Loop Phase - 22	deg	Master	0	----	0.560	----		
Test Loop Gain - 23		Master	1.000	----	1.010	----		
Test Loop Phase - 23	deg	Master	0	----	0.314	----		
Test Loop Gain - 24		Master	1.000	----	1.037	----		
Test Loop Phase - 24	deg	Master	0	----	-0.398	----		
Test Loop Gain - 25		Master	1.000	----	1.038	----		
Test Loop Phase - 25	deg	Master	0	----	-0.074	----		
Test Loop Gain - 26		Master	1.000	----	1.005	----		
Test Loop Phase - 26	deg	Master	0	----	-0.389	----		
Test Loop Gain - 27		Master	1.000	----	0.978	----		
Test Loop Phase - 27	deg	Master	0	----	1.199	----		
Test Loop Gain - 28		Master	1.000	----	0.956	----		

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Test Loop Phase - 28		deg	Master	0	----	0.590	----		
Test Loop Gain - 29			Master	1.000	----	1.020	----		
Test Loop Phase - 29		deg	Master	0	----	0.548	----		
Test Loop Gain - 30			Master	0.0	----	1.004	----		
Test Loop Phase - 30		deg	Master	0	----	0.884	----		
Test Loop Gain - 31			Master	1.000	----	0.948	----		
Test Loop Phase - 31		deg	Master	0	----	1.361	----		
Test Loop Gain - 32			Master	1.000	----	1.007	----		
Test Loop Phase - 32		deg	Master	0	----	-0.133	----		
Test Loop Gain - 33			Master	1.000	----	1.043	----		
Test Loop Phase - 33		deg	Master	0	----	1.220	----		
Test Loop Gain - 34			Master	1.000	----	1.043	----		
Test Loop Phase - 34		deg	Master	0	----	1.069	----		
Test Loop Gain - 35			Master	1.000	----	1.001	----		
Test Loop Phase - 35		deg	Master	0	----	-0.230	----		
Test Loop Gain - 36			Master	1.000	----	0.979	----		
Test Loop Phase - 36		deg	Master	0	----	0.078	----		
Test Loop Gain - 37			Master	1.000	----	0.959	----		
Test Loop Phase - 37		deg	Master	0	----	-0.205	----		
Test Loop Gain - 38			Master	1.000	----	1.015	----		
Test Loop Phase - 38		deg	Master	0	----	0.280	----		
Test Loop Gain - 39			Master	1.000	----	1.000	----		
Test Loop Phase - 39		deg	Master	0	----	0.206	----		
Test Loop Gain - 40			Master	1.000	----	0.948	----		
Test Loop Phase - 40		deg	Master	0	----	0.363	----		
Test Loop Gain - 41			Master	1.000	----	1.000	----		
Test Loop Phase - 41		deg	Master	0	----	0.182	----		
Test Loop Gain - 42			Master	1.000	----	1.042	----		
Test Loop Phase - 42		deg	Master	0	----	0.046	----		
Test Loop Gain - 43			Master	1.000	----	1.042	----		
Test Loop Phase - 43		deg	Master	0	----	-0.021	----		
Test Loop Gain - 44			Master	1.000	----	0.998	----		
Test Loop Phase - 44		deg	Master	0	----	-0.215	----		
Test Loop Gain - 45			Master	1.000	----	1.044	----		
Test Loop Phase - 45		deg	Master	0	----	0.113	----		
Test Loop Gain - 46			Master	1.000	----	1.021	----		
Test Loop Phase - 46		deg	Master	0	----	0.628	----		
Test Loop Gain - 47			Master	1.000	----	1.014	----		
Test Loop Phase - 47		deg	Master	0	----	-0.093	----		
Test Loop Gain - 48			Master	1.000	----	1.067	----		
Test Loop Phase - 48		deg	Master	0	----	0.627	----		
Test Loop Gain - 49			Master	1.000	----	1.039	----		
Test Loop Phase - 49		deg	Master	0	----	0.420	----		
Test Loop Gain - 50			Master	1.000	----	1.022	----		
Test Loop Phase - 50		deg	Master	0	----	0.369	----		
Test Loop Gain - 51			Master	1.000	----	1.026	----		
Test Loop Phase - 51		deg	Master	0	----	-0.107	----		
Test Loop Gain - 52			Master	1.000	----	1.028	----		
Test Loop Phase - 52		deg	Master	0	----	-0.042	----		
Test Loop Gain - 53			Master	1.000	----	1.009	----		
Test Loop Phase - 53		deg	Master	0	----	-0.082	----		
Test Loop Gain - 54			Master	1.000	----	1.035	----		
Test Loop Phase - 54		deg	Master	0	----	-0.614	----		
Test Loop Gain - 55			Master	1.000	----	1.011	----		
Test Loop Phase - 55		deg	Master	0	----	-0.378	----		
Test Loop Gain - 56			Master	1.000	----	1.010	----		
Test Loop Phase - 56		deg	Master	0	----	-0.799	----		
Test Loop Gain - 57			Master	1.000	----	1.055	----		
Test Loop Phase - 57		deg	Master	0	----	-0.152	----		
Test Loop Gain - 58			Master	1.000	----	1.027	----		
Test Loop Phase - 58		deg	Master	0	----	-0.169	----		
Test Loop Gain - 59			Master	1.000	----	1.015	----		
Test Loop Phase - 59		deg	Master	0	----	-0.320	----		
Test Loop Gain - 60			Master	1.000	----	1.022	----		
Test Loop Phase - 60		deg	Master	0	----	-0.886	----		

Test Loop Gain - 61		Master	1.000	----	1.025	----	
Test Loop Phase - 61	deg	Master	0	----	-0.848	----	
Test Loop Gain - 62		Master	1.000	----	1.011	----	
Test Loop Phase - 62	deg	Master	0	----	-0.977	----	
Test Loop Gain - 63		Master	1.000	----	1.049	----	
Test Loop Phase - 63	deg	Master	0	----	0.138	----	
Test Loop Gain - 64		Master	1.000	----	1.067	----	
Test Loop Phase - 64	deg	Master	0	----	0.642	----	
Test Loop Gain - 65		Master	1.000	----	1.029	----	
Test Loop Phase - 65	deg	Master	0	----	0.192	----	
Test Loop Gain - 66		Master	1.000	----	1.030	----	
Test Loop Phase - 66	deg	Master	0	----	0.978	----	
Test Loop Gain - 67		Master	1.000	----	1.043	----	
Test Loop Phase - 67	deg	Master	0	----	0.404	----	
Test Loop Gain - 68		Master	1.000	----	1.020	----	
Test Loop Phase - 68	deg	Master	0	----	0.251	----	
Test Loop Gain - 69		Master	1.000	----	1.025	----	
Test Loop Phase - 69	deg	Master	0	----	-0.347	----	
Test Loop Gain - 70		Master	1.000	----	1.025	----	
Test Loop Phase - 70	deg	Master	0	----	-0.195	----	
Test Loop Gain - 71		Master	1.000	----	1.013	----	
Test Loop Phase - 71	deg	Master	0	----	-0.068	----	
Test Loop Gain - 72		Master	1.000	----	1.025	----	
Test Loop Phase - 72	deg	Master	0	----	-0.723	----	
Test Loop Gain - 73		Master	1.000	----	1.042	----	
Test Loop Phase - 73	deg	Master	0	----	-0.515	----	
Test Loop Gain - 74		Master	1.000	----	1.027	----	
Test Loop Phase - 74	deg	Master	0	----	-0.601	----	
Test Loop Gain - 75		Master	1.000	----	1.007	----	
Test Loop Phase - 75	deg	Master	0	----	-0.128	----	
Test Loop Gain - 76		Master	1.000	----	1.015	----	
Test Loop Phase - 76	deg	Master	0	----	-0.331	----	
Test Loop Gain - 77		Master	1.000	----	1.015	----	
Test Loop Phase - 77	deg	Master	0	----	-0.320	----	
Test Loop Gain - 78		Master	1.000	----	1.009	----	
Test Loop Phase - 78	deg	Master	0	----	-1.059	----	
Test Loop Gain - 79		Master	1.000	----	1.010	----	
Test Loop Phase - 79	deg	Master	0	----	-0.992	----	
Test Loop Gain - 80		Master	1.000	----	1.017	----	
Test Loop Phase - 80	deg	Master	0	----	-0.828	----	
Test Loop Gain - 81		Master	1.000	----	1.022	----	
Test Loop Phase - 81	deg	Master	0	----	-0.085	----	
Test Loop Gain - 82		Master	1.000	----	1.028	----	
Test Loop Phase - 82	deg	Master	0	----	-0.636	----	
Test Loop Gain - 83		Master	1.000	----	1.018	----	
Test Loop Phase - 83	deg	Master	0	----	0.124	----	
Test Loop Gain - 84		Master	1.000	----	1.033	----	
Test Loop Phase - 84	deg	Master	0	----	-0.772	----	
Test Loop Gain - 85		Master	1.000	----	1.010	----	
Test Loop Phase - 85	deg	Master	0	----	-0.037	----	
Test Loop Gain - 86		Master	1.000	----	1.006	----	
Test Loop Phase - 86	deg	Master	0	----	-0.002	----	
Test Loop Gain - 87		Master	1.000	----	1.037	----	
Test Loop Phase - 87	deg	Master	0	----	-0.298	----	
Test Loop Gain - 88		Master	1.000	----	1.031	----	
Test Loop Phase - 88	deg	Master	0	----	-0.016	----	
Test Loop Gain - 89		Master	1.000	----	1.025	----	
Test Loop Phase - 89	deg	Master	0	----	-0.215	----	
Test Loop Gain - 90		Master	1.000	----	1.009	----	
Test Loop Phase - 90	deg	Master	0	----	-0.698	----	
Test Loop Gain - 91		Master	1.000	----	1.011	----	
Test Loop Phase - 91	deg	Master	0	----	-0.791	----	
Test Loop Gain - 92		Master	1.000	----	1.012	----	
Test Loop Phase - 92	deg	Master	0	----	-0.484	----	
Test Loop Gain - 93		Master	1.000	----	1.017	----	



Test Loop Gain - 93		Master	1.000	----	1.017	----	
Test Loop Phase - 93	deg	Master	0	----	-0.683	----	
Test Loop Gain - 94		Master	1.000	----	0.999	----	
Test Loop Phase - 94	deg	Master	0	----	-0.321	----	
Test Loop Gain - 95		Master	1.000	----	1.001	----	
Test Loop Phase - 95	deg	Master	0	----	-0.168	----	
Test Loop Gain - 96		Master	1.000	----	1.019	----	
Test Loop Phase - 96	deg	Master	0	----	-0.603	----	
Test Loop Gain - 97		Master	1.000	----	1.015	----	
Test Loop Phase - 97	deg	Master	0	----	-0.448	----	
Test Loop Gain - 98		Master	1.000	----	1.011	----	
Test Loop Phase - 98	deg	Master	0	----	-0.868	----	
Test Loop Gain - 99		Master	1.000	----	1.008	----	
Test Loop Phase - 99	deg	Master	0	----	-0.034	----	
Test Loop Gain - 100		Master	1.000	----	0.979	----	
Test Loop Phase - 100	deg	Master	0	----	0.858	----	
Test Loop Gain - 101		Master	1.000	----	0.993	----	
Test Loop Phase - 101	deg	Master	0	----	-0.729	----	
Test Loop Gain - 102		Master	1.000	----	1.009	----	
Test Loop Phase - 102	deg	Master	0	----	1.360	----	
Test Loop Gain - 103		Master	1.000	----	1.017	----	
Test Loop Phase - 103	deg	Master	0	----	-0.014	----	
Test Loop Gain - 104		Master	1.000	----	0.966	----	
Test Loop Phase - 104	deg	Master	0	----	0.215	----	
Test Loop Gain - 105		Master	1.000	----	0.994	----	
Test Loop Phase - 105	deg	Master	0	----	-0.365	----	
Test Loop Gain - 106		Master	1.000	----	0.992	----	
Test Loop Phase - 106	deg	Master	0	----	-0.557	----	
Test Loop Gain - 107		Master	1.000	----	1.012	----	
Test Loop Phase - 107	deg	Master	0	----	-0.131	----	
Test Loop Gain - 108		Master	1.000	----	0.988	----	
Test Loop Phase - 108	deg	Master	0	----	-0.640	----	
Test Loop Gain - 109		Master	1.000	----	0.977	----	
Test Loop Phase - 109	deg	Master	0	----	-0.443	----	
Test Loop Gain - 110		Master	1.000	----	0.920	----	
Test Loop Phase - 110	deg	Master	0	----	-1.199	----	
Test Loop Gain - 111		Master	1.000	----	0.988	----	
Test Loop Phase - 111	deg	Master	0	----	0.043	----	
Test Loop Gain - 112		Master	1.000	----	0.997	----	
Test Loop Phase - 112	deg	Master	0	----	-0.421	----	
Test Loop Gain - 113		Master	1.000	----	0.897	----	
Test Loop Phase - 113	deg	Master	0	----	-0.392	----	
Test Loop Gain - 114		Master	1.000	----	0.955	----	
Test Loop Phase - 114	deg	Master	0	----	-1.131	----	
Test Loop Gain - 115		Master	1.000	----	0.953	----	
Test Loop Phase - 115	deg	Master	0	----	-1.228	----	
Test Loop Gain - 116		Master	1.000	----	1.003	----	
Test Loop Phase - 116	deg	Master	0	----	-0.651	----	

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### AIT Master Calibration - Sonde Error Correction

Master (EEPROM): 15:00:33 03-Jan-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Sonde Error Correction Real - 0	mS/m	Master	----	-2899.500	509.919	3339.700	
Sonde Error Correction Quad - 0		Master	----	-41397.000	12629.460	55036.000	
Sonde Error Correction Real - 1	mS/m	Master	----	-2921.000	-197.033	3318.200	
Sonde Error Correction Quad - 1		Master	----	-42973.000	5668.007	53460.000	
Sonde Error Correction Real - 2	mS/m	Master	----	-2357.400	-1373.993	-506.600	
Sonde Error Correction Quad - 2		Master	----	-5751.600	1508.160	6763.000	
Sonde Error Correction Real - 3	mS/m	Master	----	-556.300	-11.676	481.900	
Sonde Error Correction Quad - 3		Master	----	-9896.500	2870.278	13364.000	
Sonde Error Correction Real - 4	mS/m	Master	----	-417.400	15.522	590.800	
Sonde Error Correction Quad - 4		Master	----	-10106.000	692.752	12854.000	
Sonde Error Correction Real - 5	mS/m	Master	----	21.600	189.702	406.200	
Sonde Error Correction Quad - 5		Master	----	-2452.800	50.737	2452.800	
Sonde Error Correction Real - 6	mS/m	Master	----	-139.400	1.402	145.000	
Sonde Error Correction Quad - 6		Master	----	-3193.800	908.392	5195.000	

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Sonde Error Correction Quad - 7		Master	-----	-3994.000	146.064	4394.800	
Sonde Error Correction Real - 7	mS/m	Master	-----	-108.800	0.212	175.600	
Sonde Error Correction Quad - 8		Master	-----	-81.900	-0.835	76.900	
Sonde Error Correction Real - 8	mS/m	Master	-----	-919.800	-81.401	876.000	
Sonde Error Correction Quad - 9		Master	-----	-687.200	325.449	-32.600	
Sonde Error Correction Real - 9	mS/m	Master	-----	-1224.100	308.864	1567.500	
Sonde Error Correction Quad - 10		Master	-----	-841.300	57.778	926.900	
Sonde Error Correction Real - 10	mS/m	Master	-----	-26207.000	-1045.539	24836.000	
Sonde Error Correction Quad - 11		Master	-----	-385.000	-15.563	334.800	
Sonde Error Correction Real - 11	mS/m	Master	-----	-8870.400	720.790	10729.000	
Sonde Error Correction Quad - 12		Master	-----	-941.900	-51.911	826.300	
Sonde Error Correction Real - 12	mS/m	Master	-----	-23951.000	1208.956	27092.000	
Sonde Error Correction Quad - 13		Master	-----	-693.800	-318.840	-26.000	
Sonde Error Correction Real - 13	mS/m	Master	-----	-1468.500	-384.355	1323.100	
Sonde Error Correction Quad - 14		Master	-----	-326.700	31.985	393.100	
Sonde Error Correction Real - 14	mS/m	Master	-----	-9467.400	-376.148	10132.000	
Sonde Error Correction Quad - 15		Master	-----	-324.300	-18.920	249.300	
Sonde Error Correction Real - 15	mS/m	Master	-----	-13751.000	848.559	17634.000	
Sonde Error Correction Quad - 16		Master	-----	-214.800	71.998	358.800	
Sonde Error Correction Real - 16	mS/m	Master	-----	-17844.000	-1642.532	13540.000	
Sonde Error Correction Quad - 17		Master	-----	-49.100	36.430	135.700	
Sonde Error Correction Real - 17	mS/m	Master	-----	-897.000	32.552	1120.400	
Sonde Error Correction Quad - 18		Master	-----	-344.500	-135.452	54.500	
Sonde Error Correction Real - 18	mS/m	Master	-----	-651.100	93.899	672.100	
Sonde Error Correction Quad - 19		Master	-----	-294.600	20.477	327.400	
Sonde Error Correction Real - 19	mS/m	Master	-----	-12891.000	-512.729	12222.000	
Sonde Error Correction Quad - 20		Master	-----	-128.800	-7.904	117.200	
Sonde Error Correction Real - 20	mS/m	Master	-----	-4425.900	355.793	5344.100	
Sonde Error Correction Quad - 21		Master	-----	-332.100	-16.728	289.900	
Sonde Error Correction Real - 21	mS/m	Master	-----	-11783.000	600.878	13330.000	
Sonde Error Correction Quad - 22		Master	-----	-354.800	-131.356	64.800	
Sonde Error Correction Real - 22	mS/m	Master	-----	-773.500	-252.647	549.700	
Sonde Error Correction Quad - 23		Master	-----	-111.400	14.157	134.600	
Sonde Error Correction Real - 23	mS/m	Master	-----	-4715.700	-181.735	5054.300	
Sonde Error Correction Quad - 24		Master	-----	-196.800	-18.212	188.400	
Sonde Error Correction Real - 24	mS/m	Master	-----	-6819.500	414.685	8738.500	
Sonde Error Correction Quad - 25		Master	-----	-166.400	41.421	218.800	
Sonde Error Correction Real - 25	mS/m	Master	-----	-8849.300	-816.386	6708.700	
Sonde Error Correction Quad - 26		Master	-----	-22.000	7.819	34.400	
Sonde Error Correction Real - 26	mS/m	Master	-----	-468.300	-8.180	531.300	
Sonde Error Correction Quad - 27		Master	-----	-136.000	-31.496	82.000	
Sonde Error Correction Real - 27	mS/m	Master	-----	-1294.700	174.931	1788.900	
Sonde Error Correction Quad - 28		Master	-----	-256.100	-39.207	264.100	
Sonde Error Correction Real - 28	mS/m	Master	-----	-9974.600	1102.530	9816.400	
Sonde Error Correction Quad - 29		Master	-----	-123.200	21.169	131.800	
Sonde Error Correction Real - 29	mS/m	Master	-----	-3318.000	-301.597	3724.000	
Sonde Error Correction Quad - 30		Master	-----	-238.100	106.269	282.100	
Sonde Error Correction Real - 30	mS/m	Master	-----	-10490.000	-2946.473	9301.500	
Sonde Error Correction Quad - 31		Master	-----	-136.000	-58.670	82.000	
Sonde Error Correction Real - 31	mS/m	Master	-----	-1047.000	384.146	2036.600	
Sonde Error Correction Quad - 32		Master	-----	-104.800	10.504	150.200	
Sonde Error Correction Real - 32	mS/m	Master	-----	-3528.100	-141.073	3513.900	
Sonde Error Correction Quad - 33		Master	-----	-203.400	-53.343	137.600	
Sonde Error Correction Real - 33	mS/m	Master	-----	-6312.100	1553.595	7550.300	
Sonde Error Correction Quad - 34		Master	-----	-152.100	50.711	188.900	
Sonde Error Correction Real - 34	mS/m	Master	-----	-7387.300	-1384.238	6475.100	
Sonde Error Correction Quad - 35		Master	-----	87.100	120.953	160.700	
Sonde Error Correction Real - 35	mS/m	Master	-----	-569.100	-89.844	466.900	
Sonde Error Correction Quad - 36		Master	-----	-98.300	-49.348	24.700	
Sonde Error Correction Real - 36	mS/m	Master	-----	-758.300	-33.935	791.100	
Sonde Error Correction Quad - 37		Master	-----	-112.200	8.696	107.000	
Sonde Error Correction Real - 37	mS/m	Master	-----	-4976.900	554.736	4905.700	
Sonde Error Correction Quad - 38		Master	-----	-29.500	12.851	44.500	
Sonde Error Correction Real - 38	mS/m	Master	-----	-1658.100	-149.128	1862.900	

Sonde Error Correction Real - 39	mS/m	Master	-----	-97.900	25.833	111.300	
Sonde Error Correction Quad - 39		Master	-----	-5239.100	-1464.473	4643.500	
Sonde Error Correction Real - 40	mS/m	Master	-----	-98.300	-62.899	24.700	
Sonde Error Correction Quad - 40		Master	-----	-630.000	76.463	903.400	
Sonde Error Correction Real - 41	mS/m	Master	-----	-10.100	0.758	43.900	
Sonde Error Correction Quad - 41		Master	-----	-1761.800	-68.908	1759.200	
Sonde Error Correction Real - 42	mS/m	Master	-----	-147.000	-2.972	125.200	
Sonde Error Correction Quad - 42		Master	-----	-3194.900	770.312	3794.500	
Sonde Error Correction Real - 43	mS/m	Master	-----	-133.200	13.910	139.000	
Sonde Error Correction Quad - 43		Master	-----	-3719.800	-685.099	3269.600	
Sonde Error Correction Real - 44	mS/m	Master	-----	46.500	49.742	71.300	
Sonde Error Correction Quad - 44		Master	-----	-231.700	8.467	278.900	
Sonde Error Correction Real - 45	mS/m	Master	-----	-68.200	-23.879	10.600	
Sonde Error Correction Quad - 45		Master	-----	-424.400	145.474	836.400	
Sonde Error Correction Real - 46	mS/m	Master	-----	-209.000	52.056	222.000	
Sonde Error Correction Quad - 46		Master	-----	-8856.000	-1509.861	8698.800	
Sonde Error Correction Real - 47	mS/m	Master	-----	-79.100	-7.134	65.300	
Sonde Error Correction Quad - 47		Master	-----	-1582.400	418.882	2189.600	
Sonde Error Correction Real - 48	mS/m	Master	-----	-222.200	-46.683	208.800	
Sonde Error Correction Quad - 48		Master	-----	-8669.800	1382.925	8885.000	
Sonde Error Correction Real - 49	mS/m	Master	-----	-67.500	-21.888	11.300	
Sonde Error Correction Quad - 49		Master	-----	-483.300	59.662	777.500	
Sonde Error Correction Real - 50	mS/m	Master	-----	-61.900	10.621	82.500	
Sonde Error Correction Quad - 50		Master	-----	-1972.600	-133.704	1799.400	
Sonde Error Correction Real - 51	mS/m	Master	-----	-69.600	-6.722	57.800	
Sonde Error Correction Quad - 51		Master	-----	-3010.100	512.956	3497.900	
Sonde Error Correction Real - 52	mS/m	Master	-----	-52.400	7.277	75.000	
Sonde Error Correction Quad - 52		Master	-----	-3659.900	-238.114	2848.100	
Sonde Error Correction Real - 53	mS/m	Master	-----	37.300	60.082	73.300	
Sonde Error Correction Quad - 53		Master	-----	-180.700	22.679	179.500	
Sonde Error Correction Real - 54	mS/m	Master	-----	-99.500	-63.030	-29.900	
Sonde Error Correction Quad - 54		Master	-----	-309.400	26.108	376.500	
Sonde Error Correction Real - 55	mS/m	Master	-----	-25.400	8.382	26.800	
Sonde Error Correction Quad - 55		Master	-----	-4426.300	-748.899	4351.300	
Sonde Error Correction Real - 56	mS/m	Master	-----	-24.000	-1.141	23.200	
Sonde Error Correction Quad - 56		Master	-----	-798.900	209.001	1099.900	
Sonde Error Correction Real - 57	mS/m	Master	-----	-25.400	-5.649	26.800	
Sonde Error Correction Quad - 57		Master	-----	-4335.900	690.634	4441.700	
Sonde Error Correction Real - 58	mS/m	Master	-----	-99.000	-60.007	-29.400	
Sonde Error Correction Quad - 58		Master	-----	-426.900	-17.347	426.900	
Sonde Error Correction Real - 59	mS/m	Master	-----	-21.400	-0.144	25.800	
Sonde Error Correction Quad - 59		Master	-----	-992.100	-69.774	906.700	
Sonde Error Correction Real - 60	mS/m	Master	-----	-17.700	3.284	15.100	
Sonde Error Correction Quad - 60		Master	-----	-1518.500	251.146	1750.900	
Sonde Error Correction Real - 61	mS/m	Master	-----	-13.800	3.095	19.000	
Sonde Error Correction Quad - 61		Master	-----	-1836.100	-116.850	1433.300	
Sonde Error Correction Real - 62	mS/m	Master	-----	20.900	33.768	42.100	
Sonde Error Correction Quad - 62		Master	-----	-80.900	13.759	93.000	
Sonde Error Correction Real - 63	mS/m	Master	-----	-52.100	-27.361	-2.700	
Sonde Error Correction Quad - 63		Master	-----	-101.900	220.608	649.900	
Sonde Error Correction Real - 64	mS/m	Master	-----	-147.800	-18.591	133.400	
Sonde Error Correction Quad - 64		Master	-----	-6054.100	507.646	6480.300	
Sonde Error Correction Real - 65	mS/m	Master	-----	-38.200	-3.167	27.000	
Sonde Error Correction Quad - 65		Master	-----	-414.600	112.700	740.600	
Sonde Error Correction Real - 66	mS/m	Master	-----	-134.200	16.204	147.000	
Sonde Error Correction Quad - 66		Master	-----	-6421.000	-460.814	6113.400	
Sonde Error Correction Real - 67	mS/m	Master	-----	-50.900	-27.718	-1.500	
Sonde Error Correction Quad - 67		Master	-----	-120.200	189.049	631.600	
Sonde Error Correction Real - 68	mS/m	Master	-----	-28.200	4.313	37.000	
Sonde Error Correction Quad - 68		Master	-----	564.900	54.486	590.300	
Sonde Error Correction Real - 69	mS/m	Master	-----	-5.200	-1.859	23.200	
Sonde Error Correction Quad - 69		Master	-----	-1131.800	108.690	1562.200	
Sonde Error Correction Real - 70	mS/m	Master	-----	-20.500	3.246	27.900	
Sonde Error Correction Quad - 70		Master	-----	-1454.700	-48.186	1239.300	
Sonde Error Correction Real - 71	mS/m	Master	-----	16.900	23.901	30.100	

Sonde Error Correction Quad - 71		Master	----	-63.200	30.905	82.600	
Sonde Error Correction Real - 72	mS/m	Master	----	-55.800	-35.004	-15.800	
Sonde Error Correction Quad - 72		Master	----	-157.900	41.806	247.900	
Sonde Error Correction Real - 73	mS/m	Master	----	-8.200	-2.787	16.800	
Sonde Error Correction Quad - 73		Master	----	-2389.700	249.963	3198.300	
Sonde Error Correction Real - 74	mS/m	Master	----	-10.300	-1.881	7.900	
Sonde Error Correction Quad - 74		Master	----	-207.500	54.210	369.500	
Sonde Error Correction Real - 75	mS/m	Master	----	-15.900	3.618	19.100	
Sonde Error Correction Quad - 75		Master	----	-3168.900	-226.530	3019.100	
Sonde Error Correction Real - 76	mS/m	Master	----	-54.200	-34.617	-14.200	
Sonde Error Correction Quad - 76		Master	----	-145.800	30.366	239.000	
Sonde Error Correction Real - 77	mS/m	Master	----	-8.400	-1.329	9.800	
Sonde Error Correction Quad - 77		Master	----	-281.700	26.038	295.300	
Sonde Error Correction Real - 78	mS/m	Master	----	-6.900	3.775	11.100	
Sonde Error Correction Quad - 78		Master	----	-567.100	80.121	775.900	
Sonde Error Correction Real - 79	mS/m	Master	----	-8.000	2.794	10.000	
Sonde Error Correction Quad - 79		Master	----	-725.700	-24.033	617.300	
Sonde Error Correction Real - 80	mS/m	Master	----	11.700	15.546	20.700	
Sonde Error Correction Quad - 80		Master	----	-59.500	10.506	59.500	
Sonde Error Correction Real - 81	mS/m	Master	----	-83.200	-50.648	-16.600	
Sonde Error Correction Quad - 81		Master	----	-9.500	192.406	460.300	
Sonde Error Correction Real - 82	mS/m	Master	----	-61.200	-6.708	62.000	
Sonde Error Correction Quad - 82		Master	----	-2224.900	472.938	2288.500	
Sonde Error Correction Real - 83	mS/m	Master	----	-28.400	-1.680	22.200	
Sonde Error Correction Quad - 83		Master	----	-365.200	40.484	423.200	
Sonde Error Correction Real - 84	mS/m	Master	----	-60.600	3.312	62.600	
Sonde Error Correction Quad - 84		Master	----	-2297.100	-471.983	2216.300	
Sonde Error Correction Real - 85	mS/m	Master	----	-82.600	-48.929	-16.000	
Sonde Error Correction Quad - 85		Master	----	-25.500	182.427	444.300	
Sonde Error Correction Real - 86	mS/m	Master	----	-22.400	3.846	28.200	
Sonde Error Correction Quad - 86		Master	----	-402.000	33.375	386.400	
Sonde Error Correction Real - 87	mS/m	Master	----	-18.000	-0.046	19.000	
Sonde Error Correction Quad - 87		Master	----	-577.000	35.728	598.000	
Sonde Error Correction Real - 88	mS/m	Master	----	-17.000	1.084	20.000	
Sonde Error Correction Quad - 88		Master	----	-572.200	-2.552	602.800	
Sonde Error Correction Real - 89	mS/m	Master	----	1.100	8.929	17.100	
Sonde Error Correction Quad - 89		Master	----	-91.000	132.446	292.000	
Sonde Error Correction Real - 90	mS/m	Master	----	-76.900	-50.796	-23.100	
Sonde Error Correction Quad - 90		Master	----	-92.000	42.145	166.200	
Sonde Error Correction Real - 91	mS/m	Master	----	-7.800	0.860	8.200	
Sonde Error Correction Quad - 91		Master	----	-1134.100	232.753	1163.100	
Sonde Error Correction Real - 92	mS/m	Master	----	-7.600	-1.950	3.800	
Sonde Error Correction Quad - 92		Master	----	-188.100	18.818	217.300	
Sonde Error Correction Real - 93	mS/m	Master	----	-6.900	0.014	9.100	
Sonde Error Correction Quad - 93		Master	----	-1167.200	-230.758	1130.000	
Sonde Error Correction Real - 94	mS/m	Master	----	-76.100	-48.216	-22.300	
Sonde Error Correction Quad - 94		Master	----	-77.500	37.558	159.300	
Sonde Error Correction Real - 95	mS/m	Master	----	-5.700	-1.222	5.700	
Sonde Error Correction Quad - 95		Master	----	-207.400	13.406	198.000	
Sonde Error Correction Real - 96	mS/m	Master	----	-6.200	2.718	8.000	
Sonde Error Correction Quad - 96		Master	----	-293.700	15.235	298.500	
Sonde Error Correction Real - 97	mS/m	Master	----	-6.400	2.100	7.800	
Sonde Error Correction Quad - 97		Master	----	-288.600	0.338	303.600	
Sonde Error Correction Real - 98	mS/m	Master	----	7.900	12.470	17.100	
Sonde Error Correction Quad - 98		Master	----	-98.100	15.676	108.700	
Sonde Error Correction Real - 99	mS/m	Master	----	-115.300	-63.331	-25.100	
Sonde Error Correction Quad - 99		Master	----	-320.800	56.129	514.200	
Sonde Error Correction Real - 100	mS/m	Master	----	-25.100	4.110	26.300	
Sonde Error Correction Quad - 100		Master	----	-873.400	-87.088	971.400	
Sonde Error Correction Real - 101	mS/m	Master	----	-9.900	-0.455	24.900	
Sonde Error Correction Quad - 101		Master	----	-159.400	27.321	167.800	
Sonde Error Correction Real - 102	mS/m	Master	----	-23.600	-5.093	27.800	
Sonde Error Correction Quad - 102		Master	----	-1014.100	26.305	830.700	
Sonde Error Correction Real - 103	mS/m	Master	----	-116.400	-65.039	-26.200	
Sonde Error Correction Quad - 103		Master	----	-325.400	14.486	509.600	

Sonde Error Correction Real - 104	mS/m	Master	----	-26.500	6.495	28.300	
Sonde Error Correction Quad - 104		Master	----	-155.400	32.739	171.800	
Sonde Error Correction Real - 105	mS/m	Master	----	-12.100	3.349	20.500	
Sonde Error Correction Quad - 105		Master	----	-336.400	-32.824	317.000	
Sonde Error Correction Real - 106	mS/m	Master	----	-5.100	1.422	17.500	
Sonde Error Correction Quad - 106		Master	----	-331.600	-136.029	321.800	
Sonde Error Correction Real - 107	mS/m	Master	----	-21.900	-8.949	2.700	
Sonde Error Correction Quad - 107		Master	----	-290.900	5.664	338.500	
Sonde Error Correction Real - 108	mS/m	Master	----	-113.300	-62.578	-26.700	
Sonde Error Correction Quad - 108		Master	----	-103.600	109.272	355.900	
Sonde Error Correction Real - 109	mS/m	Master	----	-8.000	1.994	9.000	
Sonde Error Correction Quad - 109		Master	----	-441.900	-48.449	491.300	
Sonde Error Correction Real - 110	mS/m	Master	----	-9.800	-2.251	6.400	
Sonde Error Correction Quad - 110		Master	----	-74.700	9.395	74.300	
Sonde Error Correction Real - 111	mS/m	Master	----	-7.600	-0.634	9.400	
Sonde Error Correction Quad - 111		Master	----	-511.900	20.227	421.300	
Sonde Error Correction Real - 112	mS/m	Master	----	-113.300	-63.009	-26.700	
Sonde Error Correction Quad - 112		Master	----	-81.800	90.862	353.600	
Sonde Error Correction Real - 113	mS/m	Master	----	-8.900	-1.244	7.300	
Sonde Error Correction Quad - 113		Master	----	-71.000	12.499	78.000	
Sonde Error Correction Real - 114	mS/m	Master	----	-2.300	4.052	7.700	
Sonde Error Correction Quad - 114		Master	----	-167.300	-16.336	158.300	
Sonde Error Correction Real - 115	mS/m	Master	----	-4.900	1.152	5.100	
Sonde Error Correction Quad - 115		Master	----	-165.400	-65.933	160.200	
Sonde Error Correction Real - 116	mS/m	Master	----	-9.600	-7.145	-2.600	
Sonde Error Correction Quad - 116		Master	----	-117.000	38.439	207.400	

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**AIT Shop Check - Master - Shop Sonde Error Correction Difference**

Master (EEPROM): 15:06:33 03-Jan-2013 Expired by 503 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Sonde Error Corr Dif Real - 0	mS/m	Master	----	-1422.350	-0.181	1422.350	
Sonde Error Corr Dif Quad - 0		Master	----	-33895.770	-8.194	33895.770	
Sonde Error Corr Dif Real - 1	mS/m	Master	----	-1422.350	9.629	1422.350	
Sonde Error Corr Dif Quad - 1		Master	----	-33895.770	-19.345	33895.770	
Sonde Error Corr Dif Real - 2	mS/m	Master	----	-58.960	0.043	58.960	
Sonde Error Corr Dif Quad - 2		Master	----	-512.790	-0.285	512.790	
Sonde Error Corr Dif Real - 3	mS/m	Master	----	-278.130	0.091	278.130	
Sonde Error Corr Dif Quad - 3		Master	----	-14228.720	-1.672	14228.720	
Sonde Error Corr Dif Real - 4	mS/m	Master	----	-278.130	2.066	278.130	
Sonde Error Corr Dif Quad - 4		Master	----	-14228.720	-3.252	14228.720	
Sonde Error Corr Dif Real - 5	mS/m	Master	----	-22.330	-0.054	22.330	
Sonde Error Corr Dif Quad - 5		Master	----	-214.990	0.084	214.990	
Sonde Error Corr Dif Real - 6	mS/m	Master	----	-93.730	0.039	93.730	
Sonde Error Corr Dif Quad - 6		Master	----	-5616.320	0.138	5616.320	
Sonde Error Corr Dif Real - 7	mS/m	Master	----	-93.730	0.837	93.730	
Sonde Error Corr Dif Quad - 7		Master	----	-5616.320	0.238	5616.320	
Sonde Error Corr Dif Real - 8	mS/m	Master	----	-12.700	-0.061	12.700	
Sonde Error Corr Dif Quad - 8		Master	----	-58.980	-0.002	58.980	
Sonde Error Corr Dif Real - 9	mS/m	Master	----	-38.430	0.034	38.430	
Sonde Error Corr Dif Quad - 9		Master	----	-525.260	-0.201	525.260	
Sonde Error Corr Dif Real - 10	mS/m	Master	----	-322.050	-0.256	322.050	
Sonde Error Corr Dif Quad - 10		Master	----	-10299.530	-0.018	10299.530	
Sonde Error Corr Dif Real - 11	mS/m	Master	----	-183.710	0.104	183.710	
Sonde Error Corr Dif Quad - 11		Master	----	-7941.350	0.598	7941.350	
Sonde Error Corr Dif Real - 12	mS/m	Master	----	-322.050	-0.129	322.050	
Sonde Error Corr Dif Quad - 12		Master	----	-10299.530	-0.055	10299.530	
Sonde Error Corr Dif Real - 13	mS/m	Master	----	-38.430	0.078	38.430	
Sonde Error Corr Dif Quad - 13		Master	----	-525.260	-0.287	525.260	
Sonde Error Corr Dif Real - 14	mS/m	Master	----	-183.710	1.209	183.710	
Sonde Error Corr Dif Quad - 14		Master	----	-7941.350	0.450	7941.350	
Sonde Error Corr Dif Real - 15	mS/m	Master	----	-131.160	0.110	131.160	
Sonde Error Corr Dif Quad - 15		Master	----	-10322.010	0.577	10322.010	
Sonde Error Corr Dif Real - 16	mS/m	Master	----	-131.160	-0.075	131.160	
Sonde Error Corr Dif Quad - 16		Master	----	-10322.010	0.339	10322.010	
Sonde Error Corr Dif Real - 17	mS/m	Master	----	-10.520	-0.069	10.520	

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Sonde Error Corr Dif Quad - 17		Master	----	-106.620	0.035	106.620	
Sonde Error Corr Dif Real - 18	mS/m	Master	----	-38.650	-0.053	38.650	
Sonde Error Corr Dif Quad - 18		Master	----	-259.430	-0.101	259.430	
Sonde Error Corr Dif Real - 19	mS/m	Master	----	-120.810	-0.039	120.810	
Sonde Error Corr Dif Quad - 19		Master	----	-5070.680	-0.112	5070.680	
Sonde Error Corr Dif Real - 20	mS/m	Master	----	-56.450	0.089	56.450	
Sonde Error Corr Dif Quad - 20		Master	----	-3970.410	0.248	3970.410	
Sonde Error Corr Dif Real - 21	mS/m	Master	----	-120.810	-0.016	120.810	
Sonde Error Corr Dif Quad - 21		Master	----	-5070.680	0.084	5070.680	
Sonde Error Corr Dif Real - 22	mS/m	Master	----	-38.650	-0.021	38.650	
Sonde Error Corr Dif Quad - 22		Master	----	-259.430	0.032	259.430	
Sonde Error Corr Dif Real - 23	mS/m	Master	----	-56.450	0.381	56.450	
Sonde Error Corr Dif Quad - 23		Master	----	-3970.410	0.224	3970.410	
Sonde Error Corr Dif Real - 24	mS/m	Master	----	-71.000	0.059	71.000	
Sonde Error Corr Dif Quad - 24		Master	----	-5118.910	0.243	5118.910	
Sonde Error Corr Dif Real - 25	mS/m	Master	----	-71.000	0.086	71.000	
Sonde Error Corr Dif Quad - 25		Master	----	-5118.910	0.012	5118.910	
Sonde Error Corr Dif Real - 26	mS/m	Master	----	-4.790	-0.030	4.790	
Sonde Error Corr Dif Quad - 26		Master	----	-55.660	0.020	55.660	
Sonde Error Corr Dif Real - 27	mS/m	Master	----	-73.800	-0.134	73.800	
Sonde Error Corr Dif Quad - 27		Master	----	-352.850	-0.208	352.850	
Sonde Error Corr Dif Real - 28	mS/m	Master	----	-159.880	-0.077	159.880	
Sonde Error Corr Dif Quad - 28		Master	----	-6824.670	-0.035	6824.670	
Sonde Error Corr Dif Real - 29	mS/m	Master	----	-69.240	-0.002	69.240	
Sonde Error Corr Dif Quad - 29		Master	----	-2661.290	0.559	2661.290	
Sonde Error Corr Dif Real - 30	mS/m	Master	----	-159.880	0.007	159.880	
Sonde Error Corr Dif Quad - 30		Master	----	-6824.670	0.163	6824.670	
Sonde Error Corr Dif Real - 31	mS/m	Master	----	-73.800	-0.058	73.800	
Sonde Error Corr Dif Quad - 31		Master	----	-352.850	0.048	352.850	
Sonde Error Corr Dif Real - 32	mS/m	Master	----	-69.240	0.571	69.240	
Sonde Error Corr Dif Quad - 32		Master	----	-2661.290	-0.086	2661.290	
Sonde Error Corr Dif Real - 33	mS/m	Master	----	-58.940	-0.152	58.940	
Sonde Error Corr Dif Quad - 33		Master	----	-2490.890	-1.095	2490.890	
Sonde Error Corr Dif Real - 34	mS/m	Master	----	-58.940	0.037	58.940	
Sonde Error Corr Dif Quad - 34		Master	----	-2490.890	-0.077	2490.890	
Sonde Error Corr Dif Real - 35	mS/m	Master	----	-8.280	0.022	8.280	
Sonde Error Corr Dif Quad - 35		Master	----	-9138.350	-0.211	9138.350	
Sonde Error Corr Dif Real - 36	mS/m	Master	----	-75.280	-0.092	75.280	
Sonde Error Corr Dif Quad - 36		Master	----	-175.090	-0.721	175.090	
Sonde Error Corr Dif Real - 37	mS/m	Master	----	-50.660	-0.073	50.660	
Sonde Error Corr Dif Quad - 37		Master	----	-3386.630	-0.015	3386.630	
Sonde Error Corr Dif Real - 38	mS/m	Master	----	-22.870	0.116	22.870	
Sonde Error Corr Dif Quad - 38		Master	----	-1332.130	0.177	1332.130	
Sonde Error Corr Dif Real - 39	mS/m	Master	----	-50.660	-0.090	50.660	
Sonde Error Corr Dif Quad - 39		Master	----	-3386.630	0.006	3386.630	
Sonde Error Corr Dif Real - 40	mS/m	Master	----	-75.280	0.080	75.280	
Sonde Error Corr Dif Quad - 40		Master	----	-175.090	0.482	175.090	
Sonde Error Corr Dif Real - 41	mS/m	Master	----	-22.870	0.230	22.870	
Sonde Error Corr Dif Quad - 41		Master	----	-1332.130	-0.129	1332.130	
Sonde Error Corr Dif Real - 42	mS/m	Master	----	-46.710	-0.014	46.710	
Sonde Error Corr Dif Quad - 42		Master	----	-1250.020	-0.549	1250.020	
Sonde Error Corr Dif Real - 43	mS/m	Master	----	-46.710	0.044	46.710	
Sonde Error Corr Dif Quad - 43		Master	----	-1250.020	-0.131	1250.020	
Sonde Error Corr Dif Real - 44	mS/m	Master	----	-3.760	0.014	3.760	
Sonde Error Corr Dif Quad - 44		Master	----	-25.880	-0.086	25.880	
Sonde Error Corr Dif Real - 45	mS/m	Master	----	-17.300	-0.228	17.300	
Sonde Error Corr Dif Quad - 45		Master	----	-176.360	0.221	176.360	
Sonde Error Corr Dif Real - 46	mS/m	Master	----	-124.190	0.037	124.190	
Sonde Error Corr Dif Quad - 46		Master	----	-4733.690	0.043	4733.690	
Sonde Error Corr Dif Real - 47	mS/m	Master	----	-40.710	-0.192	40.710	
Sonde Error Corr Dif Quad - 47		Master	----	-1317.910	1.459	1317.910	
Sonde Error Corr Dif Real - 48	mS/m	Master	----	-124.190	0.017	124.190	
Sonde Error Corr Dif Quad - 48		Master	----	-4733.690	-0.135	4733.690	
Sonde Error Corr Dif Real - 49	mS/m	Master	----	-17.300	-0.026	17.300	
Sonde Error Corr Dif Quad - 49		Master	----	-176.360	0.598	176.360	

Sonde Error Corr Dif Quad - 50	mS/m	Master	----	-40.710	0.302	40.710	
Sonde Error Corr Dif Quad - 50		Master	----	-1317.910	-1.206	1317.910	
Sonde Error Corr Dif Real - 51	mS/m	Master	----	-21.650	-0.125	21.650	
Sonde Error Corr Dif Quad - 51		Master	----	-1487.450	6.237	1487.450	
Sonde Error Corr Dif Real - 52	mS/m	Master	----	-21.650	0.132	21.650	
Sonde Error Corr Dif Quad - 52		Master	----	-1487.450	-2.797	1487.450	
Sonde Error Corr Dif Real - 53	mS/m	Master	----	-6.870	0.044	6.870	
Sonde Error Corr Dif Quad - 53		Master	----	-22.760	-0.235	22.760	
Sonde Error Corr Dif Real - 54	mS/m	Master	----	-14.160	-0.032	14.160	
Sonde Error Corr Dif Quad - 54		Master	----	-88.850	0.187	88.850	
Sonde Error Corr Dif Real - 55	mS/m	Master	----	-19.500	-0.084	19.500	
Sonde Error Corr Dif Quad - 55		Master	----	-2367.930	-0.006	2367.930	
Sonde Error Corr Dif Real - 56	mS/m	Master	----	-17.070	0.169	17.070	
Sonde Error Corr Dif Quad - 56		Master	----	-661.990	0.685	661.990	
Sonde Error Corr Dif Real - 57	mS/m	Master	----	-19.500	-0.043	19.500	
Sonde Error Corr Dif Quad - 57		Master	----	-2367.930	0.032	2367.930	
Sonde Error Corr Dif Real - 58	mS/m	Master	----	-14.160	-0.051	14.160	
Sonde Error Corr Dif Quad - 58		Master	----	-88.850	0.297	88.850	
Sonde Error Corr Dif Real - 59	mS/m	Master	----	-17.070	0.152	17.070	
Sonde Error Corr Dif Quad - 59		Master	----	-661.990	-0.333	661.990	
Sonde Error Corr Dif Real - 60	mS/m	Master	----	-11.090	0.044	11.090	
Sonde Error Corr Dif Quad - 60		Master	----	-742.280	3.069	742.280	
Sonde Error Corr Dif Real - 61	mS/m	Master	----	-11.090	0.006	11.090	
Sonde Error Corr Dif Quad - 61		Master	----	-742.280	-1.463	742.280	
Sonde Error Corr Dif Real - 62	mS/m	Master	----	-3.800	0.005	3.800	
Sonde Error Corr Dif Quad - 62		Master	----	-13.370	-0.083	13.370	
Sonde Error Corr Dif Real - 63	mS/m	Master	----	-12.070	-0.078	12.070	
Sonde Error Corr Dif Quad - 63		Master	----	-90.680	-0.219	90.680	
Sonde Error Corr Dif Real - 64	mS/m	Master	----	-43.670	-0.144	43.670	
Sonde Error Corr Dif Quad - 64		Master	----	-1646.130	0.087	1646.130	
Sonde Error Corr Dif Real - 65	mS/m	Master	----	-24.500	0.014	24.500	
Sonde Error Corr Dif Quad - 65		Master	----	-477.700	-1.127	477.700	
Sonde Error Corr Dif Real - 66	mS/m	Master	----	-43.670	0.039	43.670	
Sonde Error Corr Dif Quad - 66		Master	----	-1646.130	0.143	1646.130	
Sonde Error Corr Dif Real - 67	mS/m	Master	----	-12.070	0.118	12.070	
Sonde Error Corr Dif Quad - 67		Master	----	-90.680	0.043	90.680	
Sonde Error Corr Dif Real - 68	mS/m	Master	----	-24.500	-0.194	24.500	
Sonde Error Corr Dif Quad - 68		Master	----	-477.700	0.411	477.700	
Sonde Error Corr Dif Real - 69	mS/m	Master	----	-12.430	0.012	12.430	
Sonde Error Corr Dif Quad - 69		Master	----	-622.540	-1.259	622.540	
Sonde Error Corr Dif Real - 70	mS/m	Master	----	-12.430	0.148	12.430	
Sonde Error Corr Dif Quad - 70		Master	----	-622.540	0.699	622.540	
Sonde Error Corr Dif Real - 71	mS/m	Master	----	-3.560	0.057	3.560	
Sonde Error Corr Dif Quad - 71		Master	----	-10.290	-0.584	10.290	
Sonde Error Corr Dif Real - 72	mS/m	Master	----	-8.900	-0.019	8.900	
Sonde Error Corr Dif Quad - 72		Master	----	-50.090	-0.018	50.090	
Sonde Error Corr Dif Real - 73	mS/m	Master	----	-8.150	-0.009	8.150	
Sonde Error Corr Dif Quad - 73		Master	----	-815.430	0.011	815.430	
Sonde Error Corr Dif Real - 74	mS/m	Master	----	-12.270	0.139	12.270	
Sonde Error Corr Dif Quad - 74		Master	----	-242.090	-0.595	242.090	
Sonde Error Corr Dif Real - 75	mS/m	Master	----	-8.150	-0.035	8.150	
Sonde Error Corr Dif Quad - 75		Master	----	-815.430	0.060	815.430	
Sonde Error Corr Dif Real - 76	mS/m	Master	----	-8.900	-0.061	8.900	
Sonde Error Corr Dif Quad - 76		Master	----	-50.090	0.633	50.090	
Sonde Error Corr Dif Real - 77	mS/m	Master	----	-12.270	0.170	12.270	
Sonde Error Corr Dif Quad - 77		Master	----	-242.090	0.195	242.090	
Sonde Error Corr Dif Real - 78	mS/m	Master	----	-6.910	0.006	6.910	
Sonde Error Corr Dif Quad - 78		Master	----	-309.500	-0.698	309.500	
Sonde Error Corr Dif Real - 79	mS/m	Master	----	-6.910	0.027	6.910	
Sonde Error Corr Dif Quad - 79		Master	----	-309.500	0.273	309.500	
Sonde Error Corr Dif Real - 80	mS/m	Master	----	2.270	0.036	2.270	
Sonde Error Corr Dif Quad - 80		Master	----	-5.950	-0.192	5.950	
Sonde Error Corr Dif Real - 81	mS/m	Master	----	-14.820	-0.087	14.820	
Sonde Error Corr Dif Quad - 81		Master	----	-41.940	0.437	41.940	

Sonde Error Corr Dif Real - 82	mS/m	Master	-----	-26.750	-0.010	26.750	
Sonde Error Corr Dif Quad - 82		Master	-----	-1113.920	0.064	1113.920	
Sonde Error Corr Dif Real - 83	mS/m	Master	-----	-22.910	-0.036	22.910	
Sonde Error Corr Dif Quad - 83		Master	-----	-425.640	-0.434	425.640	
Sonde Error Corr Dif Real - 84	mS/m	Master	-----	-26.750	0.057	26.750	
Sonde Error Corr Dif Quad - 84		Master	-----	-1113.920	0.085	1113.920	
Sonde Error Corr Dif Real - 85	mS/m	Master	-----	-14.820	0.009	14.820	
Sonde Error Corr Dif Quad - 85		Master	-----	-41.940	0.090	41.940	
Sonde Error Corr Dif Real - 86	mS/m	Master	-----	-22.910	0.152	22.910	
Sonde Error Corr Dif Quad - 86		Master	-----	-425.640	-0.276	425.640	
Sonde Error Corr Dif Real - 87	mS/m	Master	-----	-17.620	-0.052	17.620	
Sonde Error Corr Dif Quad - 87		Master	-----	-619.330	-0.405	619.330	
Sonde Error Corr Dif Real - 88	mS/m	Master	-----	-17.620	0.148	17.620	
Sonde Error Corr Dif Quad - 88		Master	-----	-619.330	0.092	619.330	
Sonde Error Corr Dif Real - 89	mS/m	Master	-----	-3.910	0.092	3.910	
Sonde Error Corr Dif Quad - 89		Master	-----	-9.470	-0.745	9.470	
Sonde Error Corr Dif Real - 90	mS/m	Master	-----	-11.240	-0.065	11.240	
Sonde Error Corr Dif Quad - 90		Master	-----	-18.450	0.204	18.450	
Sonde Error Corr Dif Real - 91	mS/m	Master	-----	-6.130	-0.030	6.130	
Sonde Error Corr Dif Quad - 91		Master	-----	-563.230	0.020	563.230	
Sonde Error Corr Dif Real - 92	mS/m	Master	-----	-13.750	0.185	13.750	
Sonde Error Corr Dif Quad - 92		Master	-----	-215.560	-0.226	215.560	
Sonde Error Corr Dif Real - 93	mS/m	Master	-----	-6.130	-0.069	6.130	
Sonde Error Corr Dif Quad - 93		Master	-----	-563.230	0.054	563.230	
Sonde Error Corr Dif Real - 94	mS/m	Master	-----	-11.240	-0.032	11.240	
Sonde Error Corr Dif Quad - 94		Master	-----	-18.450	0.704	18.450	
Sonde Error Corr Dif Real - 95	mS/m	Master	-----	-13.750	0.085	13.750	
Sonde Error Corr Dif Quad - 95		Master	-----	-215.560	-0.003	215.560	
Sonde Error Corr Dif Real - 96	mS/m	Master	-----	-9.770	-0.031	9.770	
Sonde Error Corr Dif Quad - 96		Master	-----	-316.930	0.027	316.930	
Sonde Error Corr Dif Real - 97	mS/m	Master	-----	-9.770	0.026	9.770	
Sonde Error Corr Dif Quad - 97		Master	-----	-316.930	0.058	316.930	
Sonde Error Corr Dif Real - 98	mS/m	Master	-----	-2.110	0.054	2.110	
Sonde Error Corr Dif Quad - 98		Master	-----	-7.370	-0.267	7.370	
Sonde Error Corr Dif Real - 99	mS/m	Master	-----	-15.930	-0.006	15.930	
Sonde Error Corr Dif Quad - 99		Master	-----	-35.540	-1.224	35.540	
Sonde Error Corr Dif Real - 100	mS/m	Master	-----	-22.000	-0.141	22.000	
Sonde Error Corr Dif Quad - 100		Master	-----	-562.650	0.168	562.650	
Sonde Error Corr Dif Real - 101	mS/m	Master	-----	-29.210	0.089	29.210	
Sonde Error Corr Dif Quad - 101		Master	-----	-209.850	-0.384	209.850	
Sonde Error Corr Dif Real - 102	mS/m	Master	-----	-22.000	-0.214	22.000	
Sonde Error Corr Dif Quad - 102		Master	-----	-562.650	-0.117	562.650	
Sonde Error Corr Dif Real - 103	mS/m	Master	-----	-15.930	0.063	15.930	
Sonde Error Corr Dif Quad - 103		Master	-----	-35.540	0.145	35.540	
Sonde Error Corr Dif Real - 104	mS/m	Master	-----	-29.210	0.041	29.210	
Sonde Error Corr Dif Quad - 104		Master	-----	-209.850	-0.360	209.850	
Sonde Error Corr Dif Real - 105	mS/m	Master	-----	-23.810	-0.101	23.810	
Sonde Error Corr Dif Quad - 105		Master	-----	-232.790	-0.020	232.790	
Sonde Error Corr Dif Real - 106	mS/m	Master	-----	-23.810	0.052	23.810	
Sonde Error Corr Dif Quad - 106		Master	-----	-232.790	0.419	232.790	
Sonde Error Corr Dif Real - 107	mS/m	Master	-----	-10.690	0.048	10.690	
Sonde Error Corr Dif Quad - 107		Master	-----	-19.320	-0.023	19.320	
Sonde Error Corr Dif Real - 108	mS/m	Master	-----	-9.300	0.005	9.300	
Sonde Error Corr Dif Quad - 108		Master	-----	-21.950	-0.149	21.950	
Sonde Error Corr Dif Real - 109	mS/m	Master	-----	-8.990	-0.038	8.990	
Sonde Error Corr Dif Quad - 109		Master	-----	-293.930	-0.016	293.930	
Sonde Error Corr Dif Real - 110	mS/m	Master	-----	-16.850	0.130	16.850	
Sonde Error Corr Dif Quad - 110		Master	-----	-94.980	-0.147	94.980	
Sonde Error Corr Dif Real - 111	mS/m	Master	-----	-8.990	-0.019	8.990	
Sonde Error Corr Dif Quad - 111		Master	-----	-293.930	0.039	293.930	
Sonde Error Corr Dif Real - 112	mS/m	Master	-----	-9.300	0.025	9.300	
Sonde Error Corr Dif Quad - 112		Master	-----	-21.950	0.154	21.950	
Sonde Error Corr Dif Real - 113	mS/m	Master	-----	-16.850	0.170	16.850	
Sonde Error Corr Dif Quad - 113		Master	-----	-94.980	-0.141	94.980	
Sonde Error Corr Dif Real - 114	mS/m	Master	-----	-14.210	-0.022	14.210	

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Sonde Error Corr Dif Quad - 114		Master	----	-112.060	-0.122	112.060	
Sonde Error Corr Dif Real - 115	mS/m	Master	----	-14.210	0.021	14.210	
Sonde Error Corr Dif Quad - 115		Master	----	-112.060	0.035	112.060	
Sonde Error Corr Dif Real - 116	mS/m	Master	----	-1.760	-0.018	1.760	
Sonde Error Corr Dif Quad - 116		Master	----	-10.880	0.000	10.880	

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### AIT Mud Calibration - Mud Calibration Gain

Master (EEPROM): 15:06:33 03-Jan-2013 Expired by 503 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Coarse Gain		Master	1.000	0.800	1.114	1.200	
Fine Gain		Master	1.000	0.800	1.114	1.200	

### AIT Electronics Check - Thru Calibration Check

Master (EEPROM): 15:00:33 03-Jan-2013 Expired by 503 days      Before (Measured): 14:11:55 20-Aug-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Thru Cal Mag - 0	V	Master	----	0.874	1.477	2.038	
		Before	----	0.874	1.500	2.038	
		Before-Master	----	----	0.023	----	
Thru Cal Phase - 0	deg	Master	----	-180.000	0.503	180.000	
		Before	----	-180.000	-168.576	180.000	
		Before-Master	----	----	-169.079	----	
Thru Cal Mag - 1	V	Master	----	0.874	1.492	2.038	
		Before	----	0.874	1.543	2.038	
		Before-Master	----	----	0.051	----	
Thru Cal Phase - 1	deg	Master	----	-180.000	4.796	180.000	
		Before	----	-180.000	-160.094	180.000	
		Before-Master	----	----	-164.890	----	
Thru Cal Mag - 2	V	Master	----	0.874	1.453	2.038	
		Before	----	0.874	1.526	2.038	
		Before-Master	----	----	0.073	----	
Thru Cal Phase - 2	deg	Master	----	-180.000	-2.859	180.000	
		Before	----	-180.000	-163.894	180.000	
		Before-Master	----	----	-161.035	----	
Thru Cal Mag - 3	V	Master	----	2.011	3.396	4.693	
		Before	----	2.011	3.449	4.693	
		Before-Master	----	----	0.053	----	
Thru Cal Phase - 3	deg	Master	----	-180.000	4.807	180.000	
		Before	----	-180.000	-162.354	180.000	
		Before-Master	----	----	-167.161	----	
Thru Cal Mag - 4	V	Master	----	2.011	3.429	4.693	
		Before	----	2.011	3.548	4.693	
		Before-Master	----	----	0.119	----	
Thru Cal Phase - 4	deg	Master	----	-180.000	9.111	180.000	
		Before	----	-180.000	-153.874	180.000	
		Before-Master	----	----	-162.985	----	
Thru Cal Mag - 5	V	Master	----	2.011	3.341	4.693	
		Before	----	2.011	3.508	4.693	
		Before-Master	----	----	0.167	----	
Thru Cal Phase - 5	deg	Master	----	-180.000	1.456	180.000	
		Before	----	-180.000	-157.679	180.000	
		Before-Master	----	----	-159.135	----	
Thru Cal Mag - 6	V	Master	----	1.608	2.718	3.752	
		Before	----	1.608	2.761	3.752	
		Before-Master	----	----	0.043	----	
Thru Cal Phase - 6	deg	Master	----	-180.000	5.990	180.000	
		Before	----	-180.000	-162.207	180.000	
		Before-Master	----	----	-168.197	----	
Thru Cal Mag - 7	V	Master	----	1.608	2.746	3.752	
		Before	----	1.608	2.841	3.752	
		Before-Master	----	----	0.095	----	
Thru Cal Phase - 7	deg	Master	----	-180.000	10.285	180.000	
		Before	----	-180.000	-153.729	180.000	
		Before-Master	----	----	-164.014	----	
Thru Cal Mag - 8	V	Master	----	1.608	2.673	3.752	
		Before	----	1.608	2.807	3.752	
		Before-Master	----	----	0.134	----	
Thru Cal Phase - 8	deg	Master	----	-180.000	2.602	180.000	

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		Before	----	-180.000	-157.549	180.000	
		Before-Master	----	----	-160.151	----	
Thru Cal Mag - 9	V	Master	----	1.174	1.910	2.739	
		Before	----	1.174	1.903	2.739	
		Before-Master	----	----	-0.007	----	
Thru Cal Phase - 9	deg	Master	----	-180.000	-2.195	180.000	
		Before	----	-180.000	-71.093	180.000	
		Before-Master	----	----	-68.898	----	
Thru Cal Mag - 10	V	Master	----	1.174	1.894	2.739	
		Before	----	1.174	1.891	2.739	
		Before-Master	----	----	-0.003	----	
Thru Cal Phase - 10	deg	Master	----	-180.000	-0.886	180.000	
		Before	----	-180.000	-66.627	180.000	
		Before-Master	----	----	-65.741	----	
Thru Cal Mag - 11	V	Master	----	1.174	1.908	2.739	
		Before	----	1.174	1.911	2.739	
		Before-Master	----	----	0.003	----	
Thru Cal Phase - 11	deg	Master	----	-180.000	-4.421	180.000	
		Before	----	-180.000	-72.388	180.000	
		Before-Master	----	----	-67.967	----	
Thru Cal Mag - 12	V	Master	----	2.122	3.552	4.951	
		Before	----	2.122	3.606	4.951	
		Before-Master	----	----	0.054	----	
Thru Cal Phase - 12	deg	Master	----	-180.000	0.492	180.000	
		Before	----	-180.000	-168.909	180.000	
		Before-Master	----	----	-169.401	----	
Thru Cal Mag - 13	V	Master	----	2.122	3.588	4.951	
		Before	----	2.122	3.710	4.951	
		Before-Master	----	----	0.122	----	
Thru Cal Phase - 13	deg	Master	----	-180.000	4.822	180.000	
		Before	----	-180.000	-160.467	180.000	
		Before-Master	----	----	-165.289	----	
Thru Cal Mag - 14	V	Master	----	2.122	3.495	4.951	
		Before	----	2.122	3.668	4.951	
		Before-Master	----	----	0.173	----	
Thru Cal Phase - 14	deg	Master	----	-180.000	-2.823	180.000	
		Before	----	-180.000	-164.289	180.000	
		Before-Master	----	----	-161.466	----	
Thru Cal Mag - 15	V	Master	----	1.860	3.064	4.340	
		Before	----	1.860	3.053	4.340	
		Before-Master	----	----	-0.011	----	
Thru Cal Phase - 15	deg	Master	----	-180.000	-2.178	180.000	
		Before	----	-180.000	-71.457	180.000	
		Before-Master	----	----	-69.279	----	
Thru Cal Mag - 16	V	Master	----	1.860	3.039	4.340	
		Before	----	1.860	3.034	4.340	
		Before-Master	----	----	-0.005	----	
Thru Cal Phase - 16	deg	Master	----	-180.000	-0.857	180.000	
		Before	----	-180.000	-66.974	180.000	
		Before-Master	----	----	-66.117	----	
Thru Cal Mag - 17	V	Master	----	1.860	3.061	4.340	
		Before	----	1.860	3.066	4.340	
		Before-Master	----	----	0.005	----	
Thru Cal Phase - 17	deg	Master	----	-180.000	-4.377	180.000	
		Before	----	-180.000	-72.719	180.000	
		Before-Master	----	----	-68.342	----	
Thru Cal Mag - 18	V	Master	----	0.562	0.941	1.310	
		Before	----	0.562	0.955	1.310	
		Before-Master	----	----	0.014	----	
Thru Cal Phase - 18	deg	Master	----	-180.000	0.394	180.000	
		Before	----	-180.000	-168.181	180.000	
		Before-Master	----	----	-168.575	----	
Thru Cal Mag - 19	V	Master	----	0.562	0.949	1.310	
		Before	----	0.562	0.982	1.310	
		Before-Master	----	----	0.033	----	
Thru Cal Phase - 19	deg	Master	----	-180.000	4.733	180.000	
		Before	----	-180.000	-159.753	180.000	
		Before-Master	----	----	124.400	----	

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Thru Cal Mag - 20	V	Master	-----	0.562	0.926	1.310	
		Before	-----	0.562	0.972	1.310	
		Before-Master	-----		-0.046	-----	
Thru Cal Phase - 20	deg	Master	-----	-180.000	-2.925	180.000	
		Before	-----	-180.000	-103.610	180.000	
		Before-Master	-----	-----	-160.685	-----	
Thru Cal Mag - 21	V	Master	-----	2.449	4.085	5.714	
		Before	-----	2.449	4.071	5.714	
		Before-Master	-----	-----	-0.014	-----	
Thru Cal Phase - 21	deg	Master	-----	-180.000	-0.500	180.000	
		Before	-----	-180.000	-68.559	180.000	
		Before-Master	-----	-----	-68.059	-----	
Thru Cal Mag - 22	V	Master	-----	2.449	4.051	5.714	
		Before	-----	2.449	4.046	5.714	
		Before-Master	-----	-----	-0.005	-----	
Thru Cal Phase - 22	deg	Master	-----	-180.000	0.818	180.000	
		Before	-----	-180.000	-64.097	180.000	
		Before-Master	-----	-----	-64.915	-----	
Thru Cal Mag - 23	V	Master	-----	2.449	4.079	5.714	
		Before	-----	2.449	4.089	5.714	
		Before-Master	-----	-----	0.010	-----	
Thru Cal Phase - 23	deg	Master	-----	-180.000	-2.715	180.000	
		Before	-----	-180.000	-69.848	180.000	
		Before-Master	-----	-----	-67.133	-----	
Thru Cal Mag - 24	V	Master	-----	0.817	1.368	1.907	
		Before	-----	0.817	1.389	1.907	
		Before-Master	-----	-----	0.021	-----	
Thru Cal Phase - 24	deg	Master	-----	-180.000	4.758	180.000	
		Before	-----	-180.000	-162.839	180.000	
		Before-Master	-----	-----	-167.597	-----	
Thru Cal Mag - 25	V	Master	-----	0.817	1.381	1.907	
		Before	-----	0.817	1.428	1.907	
		Before-Master	-----	-----	0.047	-----	
Thru Cal Phase - 25	deg	Master	-----	-180.000	9.111	180.000	
		Before	-----	-180.000	-154.395	180.000	
		Before-Master	-----	-----	-163.506	-----	
Thru Cal Mag - 26	V	Master	-----	0.817	1.346	1.907	
		Before	-----	0.817	1.413	1.907	
		Before-Master	-----	-----	0.067	-----	
Thru Cal Phase - 26	deg	Master	-----	-180.000	1.455	180.000	
		Before	-----	-180.000	-158.235	180.000	
		Before-Master	-----	-----	-159.690	-----	
Thru Cal Mag - 27	V	Master	-----	2.449	4.085	5.714	
		Before	-----	2.449	4.071	5.714	
		Before-Master	-----	-----	-0.014	-----	
Thru Cal Phase - 27	deg	Master	-----	-180.000	-0.514	180.000	
		Before	-----	-180.000	-68.585	180.000	
		Before-Master	-----	-----	-68.071	-----	
Thru Cal Mag - 28	V	Master	-----	2.449	4.051	5.714	
		Before	-----	2.449	4.046	5.714	
		Before-Master	-----	-----	-0.005	-----	
Thru Cal Phase - 28	deg	Master	-----	-180.000	0.806	180.000	
		Before	-----	-180.000	-64.106	180.000	
		Before-Master	-----	-----	-64.912	-----	
Thru Cal Mag - 29	V	Master	-----	2.449	4.079	5.714	
		Before	-----	2.449	4.089	5.714	
		Before-Master	-----	-----	0.010	-----	
Thru Cal Phase - 29	deg	Master	-----	-180.000	-2.712	180.000	
		Before	-----	-180.000	-69.840	180.000	
		Before-Master	-----	-----	-67.128	-----	
Thru Cal Mag - 30	V	Master	-----	0.817	1.368	1.907	
		Before	-----	0.817	1.389	1.907	
		Before-Master	-----	-----	0.021	-----	
Thru Cal Phase - 30	deg	Master	-----	-180.000	4.754	180.000	
		Before	-----	-180.000	-162.836	180.000	
		Before-Master	-----	-----	-167.590	-----	
Thru Cal Mag - 31	V	Master	-----	0.817	1.380	1.907	

		Before	----	0.817	1.428	1.907	
		Before-Master	----	----	0.048	----	
Thru Cal Phase - 31	deg	Master	----	-180.000	9.102	180.000	
		Before	----	-180.000	-154.408	180.000	
		Before-Master	----	----	-162.510	----	
Thru Cal Mag - 32	V	Master	----	0.817	1.346	1.907	
		Before	----	0.817	1.413	1.907	
		Before-Master	----	----	0.067	----	
Thru Cal Phase - 32	deg	Master	----	-180.000	1.439	180.000	
		Before	----	-180.000	-158.257	180.000	
		Before-Master	----	----	-159.696	----	
Thru Cal Mag - 33	V	Master	----	0.732	1.177	1.708	
		Before	----	0.732	1.172	1.708	
		Before-Master	----	----	-0.005	----	
Thru Cal Phase - 33	deg	Master	----	-180.000	0.008	180.000	
		Before	----	-180.000	-69.364	180.000	
		Before-Master	----	----	-69.372	----	
Thru Cal Mag - 34	V	Master	----	0.732	1.165	1.708	
		Before	----	0.732	1.163	1.708	
		Before-Master	----	----	-0.002	----	
Thru Cal Phase - 34	deg	Master	----	-180.000	1.353	180.000	
		Before	----	-180.000	-64.898	180.000	
		Before-Master	----	----	-66.251	----	
Thru Cal Mag - 35	V	Master	----	0.732	1.176	1.708	
		Before	----	0.732	1.178	1.708	
		Before-Master	----	----	0.002	----	
Thru Cal Phase - 35	deg	Master	----	-180.000	-2.221	180.000	
		Before	----	-180.000	-70.679	180.000	
		Before-Master	----	----	-68.458	----	
Thru Cal Mag - 36	V	Master	----	0.981	1.618	2.289	
		Before	----	0.981	1.642	2.289	
		Before-Master	----	----	0.024	----	
Thru Cal Phase - 36	deg	Master	----	-180.000	5.972	180.000	
		Before	----	-180.000	-163.069	180.000	
		Before-Master	----	----	-169.041	----	
Thru Cal Mag - 37	V	Master	----	0.981	1.633	2.289	
		Before	----	0.981	1.688	2.289	
		Before-Master	----	----	0.055	----	
Thru Cal Phase - 37	deg	Master	----	-180.000	10.327	180.000	
		Before	----	-180.000	-154.622	180.000	
		Before-Master	----	----	-164.949	----	
Thru Cal Mag - 38	V	Master	----	0.981	1.592	2.289	
		Before	----	0.981	1.671	2.289	
		Before-Master	----	----	0.079	----	
Thru Cal Phase - 38	deg	Master	----	-180.000	2.667	180.000	
		Before	----	-180.000	-158.468	180.000	
		Before-Master	----	----	-161.135	----	
Thru Cal Mag - 39	V	Master	----	0.878	1.415	2.049	
		Before	----	0.878	1.409	2.049	
		Before-Master	----	----	-0.006	----	
Thru Cal Phase - 39	deg	Master	----	-180.000	-0.023	180.000	
		Before	----	-180.000	-69.242	180.000	
		Before-Master	----	----	-69.219	----	
Thru Cal Mag - 40	V	Master	----	0.878	1.400	2.049	
		Before	----	0.878	1.397	2.049	
		Before-Master	----	----	-0.003	----	
Thru Cal Phase - 40	deg	Master	----	-180.000	1.327	180.000	
		Before	----	-180.000	-64.759	180.000	
		Before-Master	----	----	-66.086	----	
Thru Cal Mag - 41	V	Master	----	0.878	1.413	2.049	
		Before	----	0.878	1.415	2.049	
		Before-Master	----	----	0.002	----	
Thru Cal Phase - 41	deg	Master	----	-180.000	-2.220	180.000	
		Before	----	-180.000	-70.517	180.000	
		Before-Master	----	----	-68.297	----	
Thru Cal Mag - 42	V	Master	----	1.412	2.336	3.294	
		Before	----	1.412	2.371	3.294	

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Thru Cal Phase - 42	deg	Before-Master	----	----	0.035	----	
		Master	----	-180.000	5.927	180.000	
		Before	----	-180.000	-162.463	180.000	
Thru Cal Mag - 43		Before-Master	----	----	168.390	----	
		Master	----	1.412	2.357	3.294	
		Before	----	1.412	2.438	3.294	
Thru Cal Phase - 43	deg	Before-Master	----	----	0.081	----	
		Master	----	-180.000	10.277	180.000	
		Before	----	-180.000	-154.034	180.000	
Thru Cal Mag - 44	V	Before-Master	----	----	0.114	----	
		Master	----	1.412	2.299	3.294	
		Before	----	1.412	2.413	3.294	
Thru Cal Phase - 44	deg	Before-Master	----	----	-160.485	----	
		Master	----	-180.000	2.599	180.000	
		Before	----	-180.000	-157.886	180.000	

**AIT Electronics Check - Auxiliary Measurements Reference Check**

Master (EEPROM): 15:00:33 03-Jan-2013 Expired by 503 days Before (Measured): 14:11:55 20-Aug-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
SPA Zero	mV	Master		-0.050	0.000	0.050	
		Before		-50.000	-0.876	50.000	
		Before-Master	----	----	-0.876	----	
SPA Plus	mV	Master		0.757	0.000	0.915	
		Before		756.500	843.122	915.400	
		Before-Master	----	----	843.122	----	
Temperature Zero	V	Master		-0.050	0.000	0.050	
		Before		-0.050	-0.002	0.050	
		Before-Master	----	----	-0.002	----	
Temperature Plus	V	Master		0.880	0.000	1.076	
		Before		0.880	0.989	1.076	
		Before-Master	----	----	0.989	----	
Voltage Zero	V	Master		-0.100	0.000	0.100	
		Before		-0.100	-0.009	0.100	
		Before-Master	----	----	-0.009	----	
Voltage Plus	V	Master		4.500	0.000	5.500	
		Before		4.500	5.014	5.500	
		Before-Master	----	----	5.014	----	

**AIT Electronics Check - Power Supply Check**

Master (EEPROM): 15:00:33 03-Jan-2013 Expired by 503 days Before (Measured): 14:11:55 20-Aug-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Power Supply - 0	V	Master	----	-14.000	-12.944	-12.000	
		Before	----	-14.000	-12.939	-12.000	
		Before-Master	----	----	0.005	----	
Power Supply - 1	V	Master	----	12.000	12.944	14.000	
		Before	----	12.000	12.939	14.000	
		Before-Master	----	----	-0.005	----	
Power Supply - 2	V	Master	----	-14.000	-12.930	-12.000	
		Before	----	-14.000	-12.926	-12.000	
		Before-Master	----	----	0.004	----	
Power Supply - 3	V	Master	----	12.000	12.946	14.000	
		Before	----	12.000	12.941	14.000	
		Before-Master	----	----	-0.005	----	
Power Supply - 4	V	Master	----	15.000	18.496	31.000	
		Before	----	15.000	18.930	31.000	
		Before-Master	----	----	0.434	----	
Power Supply - 5	V	Master	----	1.600	1.813	2.000	
		Before	----	1.600	1.812	2.000	
		Before-Master	----	----	-0.001	----	
Power Supply - 6	V	Master	----	2.200	2.474	2.800	
		Before	----	2.200	2.472	2.800	
		Before-Master	----	----	-0.002	----	
Power Supply - 7	V	Master	----	3.000	3.241	3.700	
		Before	----	3.000	3.239	3.700	
		Before-Master	----	----	-0.002	----	
Power Supply - 8	V	Master	----	4.500	4.949	5.600	
		Before	----	4.500	4.948	5.600	
		Before-Master	----	----	-0.001	----	

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Power Supply - 8	V	Master	-----	4.500	4.946	5.600	
		Before	-----	4.500	4.946	5.600	
		Before-Master	-----	-----	-0.003	-----	
Power Supply - 9	V	Master	-----	0.100	0.171	0.400	
		Before	-----	0.100	0.190	0.400	
		Before-Master	-----	-----	0.019	-----	
Power Supply - 10	V	Master	-----	0.100	0.175	0.400	
		Before	-----	0.100	0.207	0.400	
		Before-Master	-----	-----	0.032	-----	

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**GPIT-F (General-Purpose Inclinometer Tool) Calibration - Run ONE**

Primary Equipment : DHRU-F DHRU-F

**Signals and Temperature Correction for Accelerometers**

Master (EEPROM):		00:00:00 02-Dec-2011					
GPITF_ACCX_MODEL (Master)		GPIT-F Accelero X Model					
		Racx**0			Racx**1		
Temp**0		0.03057			0.0006395		
Temp**1		0.0001867			-8.856E-08		
Temp**2		2.474E-06			5.774E-10		
Temp**3		-1.251E-08			-3.071E-12		
GPITF_ACCY_MODEL (Master)		GPIT-F Accelero Y Model					
		Racy**0			Racy**1		
Temp**0		-0.01107			-0.0006441		
Temp**1		-0.0003966			4.687E-08		
Temp**2		-6.631E-07			-8.29E-11		
Temp**3		9.17E-09			1.388E-12		
GPITF_ACCZ_MODEL (Master)		GPIT-F Accelero Z Model					
		Racz**0			Racz**1		
Temp**0		0.02697			0.0006486		
Temp**1		0.0004911			-7.951E-08		
Temp**2		-1.209E-06			4.412E-10		
Temp**3		-5.24E-10			-2.665E-12		

**Perpendicular Correction for Accelerometers**

Master (EEPROM):		00:00:00 02-Dec-2011					
GPITF_ACC_AXIS_MODE L (Master)		GPIT-F Accelero Axis Model					
	Data**0	Data**1	Data**2	Data**3	Data**4	Data**5	Data**6
Temp**0	-0.0002296	0.0007882	0.001396	0.001186	-0.0003794	-0.0006348	0
Temp**1	-4.289E-06	-8.566E-07	4.331E-06	-2.298E-06	1.267E-06	-3.001E-07	0

**Signals and Temperature Correction for Magnetometer**

Master (EEPROM):		00:00:00 02-Dec-2011					
GPITF_MAGX_MODEL (Master)		GPIT-F Magneto X Model					
		Rmagx**0			Rmagx**1		
Temp**0		214.5			4.878		
Temp**1		-2.16			-0.0002206		
		0.02500			0.02500		

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Temp**2	0.02369	2.657E-06
Temp**3	-0.0001465	-1.092E-08
GPITF_MAGY_MODEL GPIT-F Magneto Y Model (Master)		
	Rmagy**0	Rmagy**1
Temp**0	-451.4	-4.927
Temp**1	9.928	0.0002914
Temp**2	-0.1054	-3.8E-06
Temp**3	0.000482	1.528E-08
GPITF_MAGZ_MODEL GPIT-F Magneto Z Model (Master)		
	Rmagz**0	Rmagz**1
Temp**0	173.9	4.869
Temp**1	-1.439	-0.0002492
Temp**2	0.02127	3.759E-06
Temp**3	-0.0001184	-1.511E-08

<b>Perpendicular Correction for Magnetometer</b>							
Master (EEPROM): 00:00:00 02-Dec-2011							
GPITF_MAG_AXIS_MODE GPIT-F Magneto Axis Model (Master)							
	Data**0	Data**1	Data**2	Data**3	Data**4	Data**5	Data**6
Temp**0	-0.002381	-0.003069	0.0036	0.003415	0.005175	-0.002981	0
Temp**1	-1.274E-06	5.122E-06	-1.226E-05	8.614E-07	-5.779E-06	2.456E-06	0

Master (EEPROM): 00:00:00 30-Nov-2011		
GPITF_ELEC_COEFF1 GPIT-F Electronic Coeff 1 (Master)		
	Data**0	Data**1
Temp**0	-3.024	250.1
Temp**1	0.006361	-0.03625
Temp**2	-7.158E-05	0.0006636
Temp**3	8.221E-07	-3.942E-06
Temp**4	-2.516E-09	6.521E-09

GPITF_ELEC_COEFF2 GPIT-F Electronic Coeff 2 (Master)		
	Data**0	Data**1
Temp**0	-2.523	249.7
Temp**1	0.03611	0.005485
Temp**2	-0.0008021	-0.0001176
Temp**3	7.042E-06	1.373E-06
Temp**4	-1.986E-08	-5.835E-09

GPITF_ELEC_COEFF3 GPIT-F Electronic Coeff 3 (Master)		
	Data**0	Data**1
Temp**0	-4.067	249.7
Temp**1	0.02031	0.0131
Temp**2	-0.0003729	-0.0003053
Temp**3	2.948E-06	2.813E-06
Temp**4	-8.046E-09	-9.092E-09





CBL Adjustment Factor		Before	1.000	0.200	NOT DONE	5.000	
Depth of Before Calibration	ft	Before			NOT DONE		

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## HDRS-H (HILT Density and Rho Sonde, 150 Deg C) Calibration - Fun On

<b>Primary Equipment :</b>							
	HILT High-Resolution Control Cartridge, 150 degC		HRCC-H			4717	
	HILT Resistivity Gamma-Ray Density Device, 150 degC		HRGD-H			4700	
<b>Auxiliary Equipment :</b>							
	HRDD Backscatter Detector		Backscatter				
	HRDD Short Spacing Detector		Short Spacing			27727	
	HRDD Long Spacing Detector		Long Spacing			28642	
	HILT High-Resolution Control Cartridge, 150 degC		HRCC-H			4717	
	HILT High-Resolution Mechanical Sonde, 150 degC		HRMS-H			3969	
	Gamma-Ray Logging Source Pressure Vessel		GPV-Q				
<b>Calibration Parameter :</b>							
	Small Ring Size (Caliper Calibration Small Ring)		8.00				
	Large Ring Size (Caliper Calibration Large Ring)		12.00				

## HDRS Caliper Calibration - Caliper Accumulations

Before (Measured):	17:55:20 20-Aug-2014						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Small Ring	in	Before	8.00	6.00	6.86	10.00	
Large Ring	in	Before	12.00	9.00	11.34	15.00	

## HDRS Density Calibration - Inversion Results

Master (Measured):	12:29:23 08-Aug-2014						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Rho Aluminum	g/cm3	Master	2.596	2.586	2.595	2.606	
Rho Magnesium	g/cm3	Master	1.686	1.676	1.692	1.696	
Pe Aluminum		Master	2.570	2.470	2.509	2.670	
Pe Magnesium		Master	2.650	2.550	2.655	2.750	

## HDRS Density Calibration - Deviation Summary

Master (Measured):	12:29:23 08-Aug-2014						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Average Deviation	%	Master	0	-0.6000	0.2626	0.6000	
BS Max Deviation	%	Master	0	-1.6000	0.5102	1.6000	
SS Average Deviation	%	Master	0	-1.0000	0.6253	1.0000	
SS Max Deviation	%	Master	0	-2.5000	1.1040	2.5000	
LS Average Deviation	%	Master	0	-1.5000	1.1384	1.5000	
LS Max Deviation	%	Master	0	-3.5000	2.1890	3.5000	

## HDRS Density Calibration - Background Summary

Master (Measured):	12:29:23 08-Aug-2014		Before (Measured):	17:57:11 20-Aug-2014			
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000		0.7350		
		Before	0.7350	0.6982	0.7321	0.7717	
		Before-Master	----	----	-0.0029	----	
BS Window Sum	1/s	Master	1		22897		
		Before	22897	21752	22854	24042	
		Before-Master	----	----	-43	----	
SS Window Ratio		Master	1.0000		0.4819		
		Before	0.4819	0.4578	0.4757	0.5060	
		Before-Master	----	----	-0.0062	----	
SS Window Sum	1/s	Master	1		10348		
		Before	10348	9890	10314	10865	
		Before-Master	----	----	-34	----	
LS Window Ratio		Master	1.0000		0.2977		
		Before	0.2977	0.2829	0.2949	0.3126	
		Before-Master	----	----	-0.0028	----	
LS Window Sum	1/s	Master	1		1275		

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	Before	1275	1211	1274	1338	
	Before-Master	-----	-----	-1	-----	

### HDRS Density Calibration - Photo-multiplier High Voltages

Master (Measured):		12:29:23 08-Aug-2014		Before (Measured):		17: 7:11 20-Aug-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Master			1487		
		Before		1000	1523	2400	
		Before-Master	-----	-100	36	100	
SS PM High Voltage	V	Master			1653		
		Before		1000	1650	2400	
		Before-Master	-----	-100	-3	100	
LS PM High Voltage	V	Master			1634		
		Before		1000	1625	2400	
		Before-Master	-----	-100	-9	100	

### HDRS Density Calibration - Crystal Quality Resolutions

Master (Measured):		12:29:23 08-Aug-2014		Before (Measured):		17:57:11 20-Aug-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Master		8.00	11.06	15.00	
		Before		5.00	11.71	25.00	
		Before-Master	-----	-1.00	0.65	1.00	
SS Crystal Resolution	%	Master		7.00	10.88	14.00	
		Before		5.00	10.64	20.00	
		Before-Master	-----	-1.00	-0.24	1.00	
LS Crystal Resolution	%	Master		7.00	9.01	14.00	
		Before		5.00	9.30	20.00	
		Before-Master	-----	-1.00	0.29	1.00	

### HDRS MCFL Calibration - MCFL Accumulations

Before (Measured):		14:13:44 20-Aug-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Main Resistivity	ohm.m	Before	3875	3565	3839	4185	
Deep Resistivity	ohm.m	Before	3830	3524	3805	4136	
Shallow Resistivity	ohm.m	Before	3830	3524	3822	4136	

### HGNS-H (HILT Gamma-Ray and Neutron Sonde, 150 degC) Calibration - Run ONE

Primary Equipment :		HILT Gamma-Ray and Neutron Sonde, 150 degC		HGNS-H		
Auxiliary Equipment :		HGNS Accelerometer, 150 degC		HACCZ-H		5118
		AmBe Neutron Logging Source		NSR-F		687
Calibration Parameter :		Water Temperature				
		Housing Size				
		JIG-BKG (Jig minus background reference)		165		

### HGNS Accelerometer Calibration - Accelerometer Accumulations

Before (Measured):		14:14:02 20-Aug-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.2	31.5	32.1	32.8	

### HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM):		00:00:00 15-May-2006					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Accelerometer Manufacturer		Master			QAT_160		
Accelerometer Reference Temperature	degF	Master		30.2	77.0	122.0	
Accelerometer Coefficients - 0		Master	-----	-----	2900.000	-----	
Accelerometer Coefficients - 1		Master	-----	-----	19.000	-----	
Accelerometer Coefficients - 2		Master	-----	-----	0.002	-----	
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 4		Master	-----	-----	2.747	-----	
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----	

Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 7		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 8		Master	-----	-----	299.100	-----	
Accelerometer Coefficients - 9		Master	-----	-----	0.993	-----	

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**HGNS Neutron Calibration - HGNS Neutron Accumulations**

Master (EEPROM):		13:42:32 21-Jul-2014		Before (Measured):		17:55:30 20-Aug-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Master	0	5.0	27.7	40.0	
		Before	0	5.0	28.0	40.0	
		Before-Master	-----	-4.2	0.3	4.2	
Far Zero Measurement	1/s	Master	0	5.0	28.5	40.0	
		Before	0	5.0	31.9	40.0	
		Before-Master	-----	-4.3	3.4	4.3	
Near Plus Measurement	1/s	Master	6031.0	4700.0	5186.0	6900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
Far Plus Measurement	1/s	Master	2793.0	1900.0	2121.0	2900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
Near Corrected Plus Measurement	1/s	Master		4700.0	5159.0	6900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
Far Corrected Plus Measurement	1/s	Master		1900.0	2093.0	2900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	

**HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations**

Before (Measured):		09:06:44 17-Aug-2014 Expired by 2 days					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	49.2	120.0	
RGR Plus Measurement	gAPI	Before	185.4	157.1	178.0	206.3	
GR Calibration Gain		Before	0.89	0.80	0.93	1.05	

Company:	Alta Mesa Services	<b>Schlumberger</b>
Well:	Kauffman #1-9	
Field:	Willow	
County:	Payette	
State:	Idaho	

Platform Express - Borehole Compensated Sonic - Rt Scanner

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