

Company: Alta Mesa Services LP

Well: DJS Properties 2-14

Field: Willow

County: Payette State: Idaho

Platform Express - Triple Combo

Density - Neutron Porosity - Propagation Resistivity

Sandstone Matrix Print - 2.65 g/cm3

County:	Payette	Location:	Sec. 14, T8N, R4W	Elev.:	K.B. 2502.00 ft
Field:	Willow		SHL: 95' FNL x 2315' FWL		G.L. 2488.00 ft
Location:	DJS Properties 2-14		Lat/Long: 44.038817/-116.78331		D.F. 2501.00 ft
Well:	DJS Properties 2-14	Permanent Datum:		Ground Level	2488.00 f
Company:	Alta Mesa Services LP	Log Measured From:	Kelly Bushing	14.00 ft	above Perm. Datum
		Drilling Measured From:	Kelly Bushing		
		API Serial No.	Section: 14	Township: 8N	Range: 4W
		11-075-20023-0000			
Logging Date	18-Sep-2014				
Run Number	One				
Depth Driller	5500.00 ft				
Schlumberger Depth	5500.00 ft				
Bottom Log Interval	5500.00 ft				
Top Log Interval	20.00 ft				
Casing Driller Size @ Depth	9.625 in @ 1082.00 ft				
Casing Schlumberger	1078 ft				
Bit Size	8.75 in				
Type Fluid	Diesel				
Density	10 lbm/gal				
Viscosity	51 s				
PH					
Source of Sample	N/A				
RM @ Meas Temp	N/A				
RMF @ Meas Temp	N/A				
RM @ Meas Temp	N/A				
Source RMF	N/A				
RM @ BHT	N/A				
RMF @ BHT	N/A				
Max Recorded Temperatures	233 degF				
Circulation Stopped	18-Sep-2014 04:00:00				
Logger on Bottom	18-Sep-2004 12:13:30				
Unit Number	3030				
Recorded By	Elizabeth Wilson				
Witnessed By	Mike McMennamy				

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Disclaimer

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Contents

- | | |
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| <ul style="list-style-type: none"> 1. Header 2. Disclaimer 3. Contents 4. Well Sketch 5. Borehole Size/Casing/Tubing Record 6. Borehole Fluids 7. Remarks and Equipment Summary 8. Depth Summary 9. One Main Pass - Induction <ul style="list-style-type: none"> 9.1 Integration Summary 9.2 Composite Summary 9.3 Log (AIT) 10. One Main Pass - Density <ul style="list-style-type: none"> 10.1 Integration Summary 10.2 Software Version 10.3 Composite Summary 10.4 Log (Dens) | <ul style="list-style-type: none"> 12.1 Integration Summary 12.2 Composite Summary 12.3 Log (Combo_Fax) 12.4 Parameter Listing 13. One 5" Repeat Pass - Triple Combo <ul style="list-style-type: none"> 13.1 Composite Summary 13.2 Log (Combo_Fax RA) 14. One 10" Main Pass - Triple Combo <ul style="list-style-type: none"> 14.1 Integration Summary 14.2 Composite Summary 14.3 Log (Combo_Fax) 14.4 Parameter Listing 15. Calibration Report 16. Tail |
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11. One 1" Main Pass - Triple Combo

11.1 Integration Summary

11.2 Composite Summary

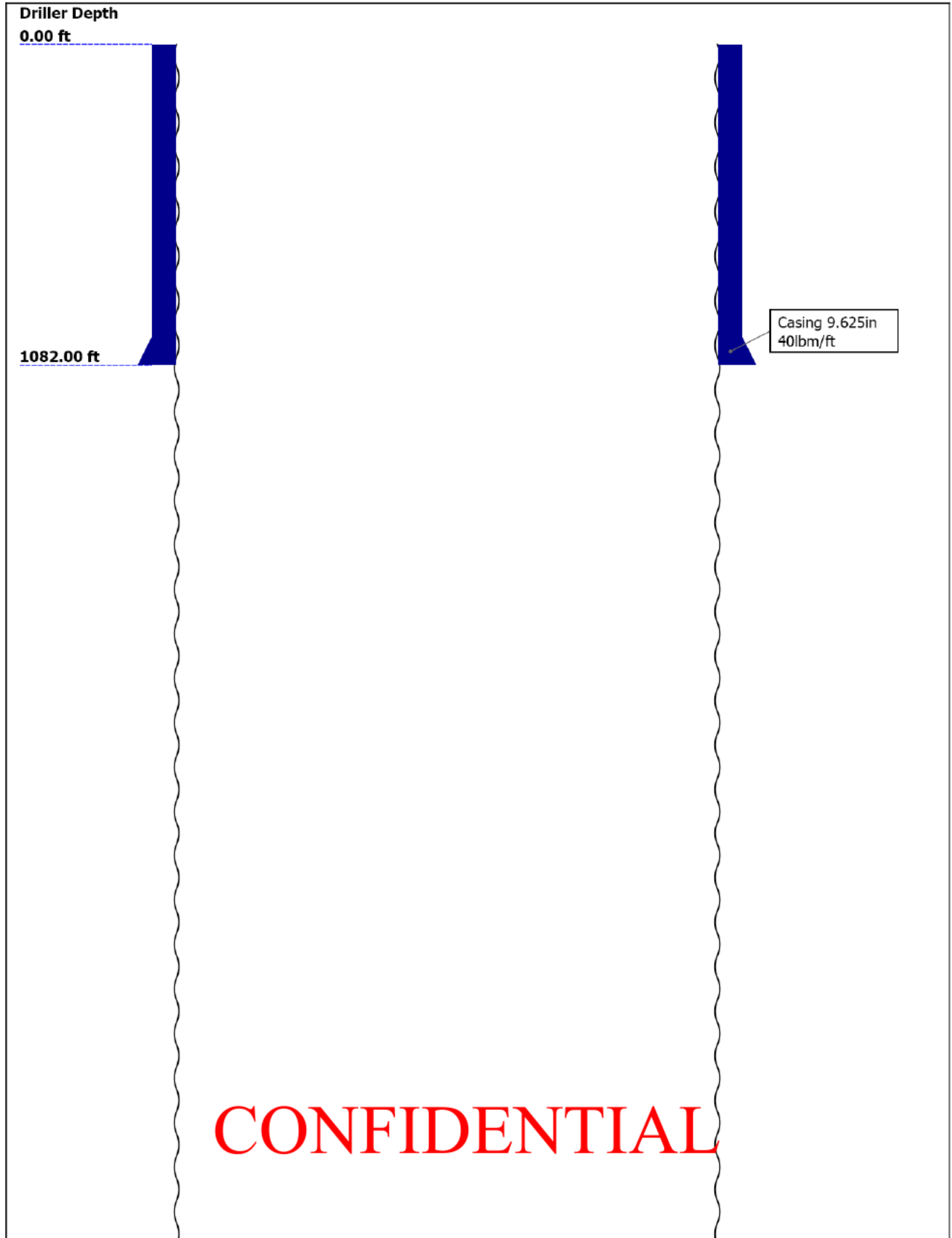
11.3 Log (Combo_Fax)

11.4 Parameter Listing

12. One 5" Main Pass - Triple Combo

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Well Sketch



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Open Hole 8.75in

5500.00 ft

Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	8.75					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	5500					
Bottom Logger (ft)	5500					
Casing						
Size (in)	9.625					
Weight (lbm/ft)	40					
Inner Diameter (in)	8.835					
Grade	J55					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	1082					
Bottom Logger (ft)	1078					

Borehole Fluids


Parameter(unit)	One					
Fluid Type	Oil					
Fluid Name	Diesel					
Max Recorded Temperatures (degF)	233					
Source of Sample	Active Tank					
Salinity (ppm)	277					
Density (lbm/gal)	10					
Funnel Viscosity (s)	51					
Fluid Loss (cm3)						
PH						
Date/Time Circulation Stopped	18-Sep-2014 04:00:00					
Date Logger on Bottom	18-Sep-2004					
Time Logger on Bottom	12:13:30					
Source RMF						
RMC	Pressed					
RM @ Meas Temp (ohm.m@degF)	N/A					
RMF @ Meas Temp (ohm.m@degF)	N/A					

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RMC @ Meas Temp (ohm.m@degF)	N/A				
RM @ BHT (ohm.m@degF)	N/A				
RMF @ BHT (ohm.m@degF)	N/A				
RMC @ BHT (ohm.m@degF)	N/A				
Electricity Stability (V)					
Oil/Water					
Total Solid (%)	14				
High Gravity Solids (%)	4.6				

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Remarks and Equipment Summary

One: Toolstring				One: Remarks	
Equip name	Length	MP name	Offset	Toolstring ran as per tool sketch	
LEH-QT:2473 LEH-QT:2473	112.24			Crew: Derrick Hunter, Gary Lapp	
				Thank you for choosing Schlumberger Wireline Services	
EDTC-B:8593 EDTH-B:8625 EDTG-A:77756 EDTC-B:8593	109.33				
		CTEM	105.82		
		ACCZ	0.00		
		HV	0.00		
		Gamma Ray	103.96		
Weight[2]	102.83	TelStatus	102.83		
GPIT-F:770 GPIH-B:3713 DHRU-F GPIC-F:770	98.83	GPIT-F Inclino- meter	97.41		
Weight[1]	94.83	GPIT	0.00		
HNGS-BA:337 HEH-K:337 HNGS-BA:337	90.83				
		GR	87.84		
HNGC-B:605 HNGH-A:4098 HNGC-B:605	82.63				
		Tel Status	80.88		
HGNS-H:3931 HGNH:3952 NSR-F:5068	79.13	Temperature	79.11		
		GR	78.39		

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GPV-N
HGNS-H:3931
HMCA-H
HACCZ-H:3616

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HDRS-H:3898 69.72

ECH-MEB:3884
HRCC-H:4863
HRMS-H:3898
GSR-J:5416
Short Spacing:278
60
GPV-Q
Backscatter
HRGD-H:3714
Long Spacing

CNL Porosity 72.06
HMCA 69.72
HGNS 69.72
Accelerometer 0.00

HRCC 65.72

MCFL 60.29
Caliper 59.81
TLD Density 59.42

AH-184[2] 57.48

PPC-B[2]:8671 55.48

PPC-B:8671

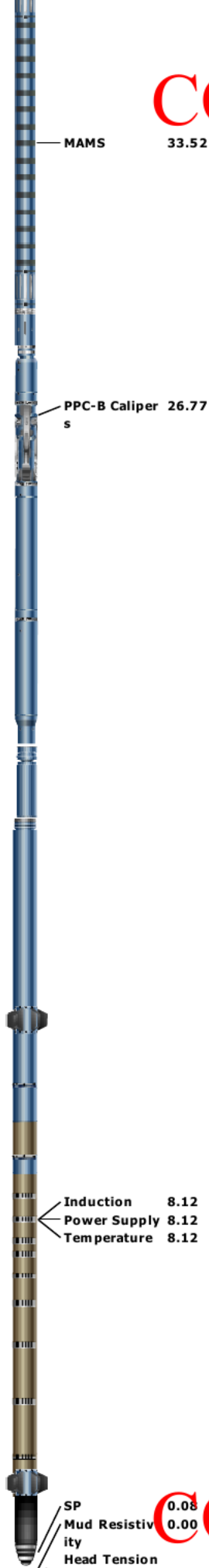
PPC-B Caliper 54.34

MAST-H:8506 48.97

MAPH
MAPC-BA:8023
MAMS-HA:8506

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PPC-B[1]:8007 27.92
PPC-B:8007

PPC-B Caliper 26.77
s

AH-184[1] 21.4

ZAIT-E:93 19.4
AZIS:93
AZRM

Induction 8.12
Power Supply 8.12
Temperature 8.12

SP 0.08
Mud Resistivity 0.00
Head Tension
TOOL_ZERO

Lengths are in ft
Maximum Outer Diameter = 7.000 in
Line: Sensor Location, Value: Gating Offset

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Depth Summary

One **CONFIDENTIAL**

Depth Measuring Device

Type	IDW-B		
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	Land		

One:Depth Control Parameters

Depth Control Remarks

Log Sequence	First Log In the Well	All Schlumberger depth policies and procedures followed
Rig Up Length At Surface		IDW used as primary depth reference
Rig Up Length At Bottom		Z-chart used as secondary depth reference
Rig Up Length Correction		
Stretch Correction		
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	Log[4]:Up	Up	106.39 ft	5510.30 ft	18-Sep-2014 3:16:51 PM	18-Sep-2014 6:24:58 PM	ON	2.43 ft	No

All depths are referenced to toolstring zero

Log

Company:Alta Mesa Services LP

Well:DJS Properties 2-14

One: Log[4]:Up:S033

Description: Format: Log (AIT) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 19-Sep-2014 14:21:22

Channel	Source	Sampling
AF20	ZAIT-E:AZIS:AZIS	3in
AF60	ZAIT-E:AZIS:AZIS	3in
AFCO60	ZAIT-E:AZIS:AZIS	3in
SGR	HNGS-BA:HNGS-BA:HNGS-BA	6in
TIME_1900	WLWorkflow	0.1in

TIME_1900 - Time Marked every 60.00 (s)

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Array Induction Four Foot Resistivity A20
(AF20) ZAIT-E

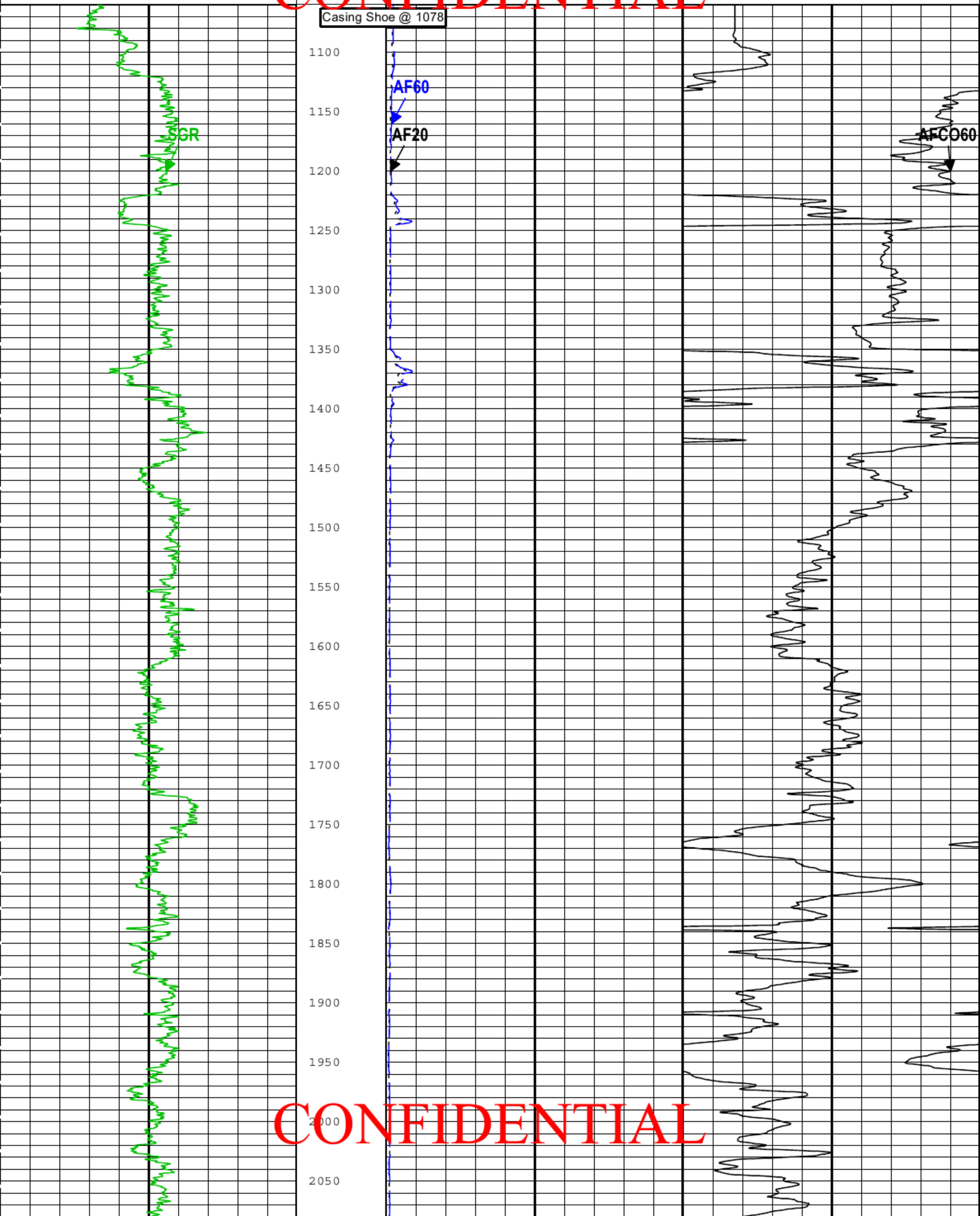
0 ohm.m 100

0 gAPI 50

0 ohm m 100 500

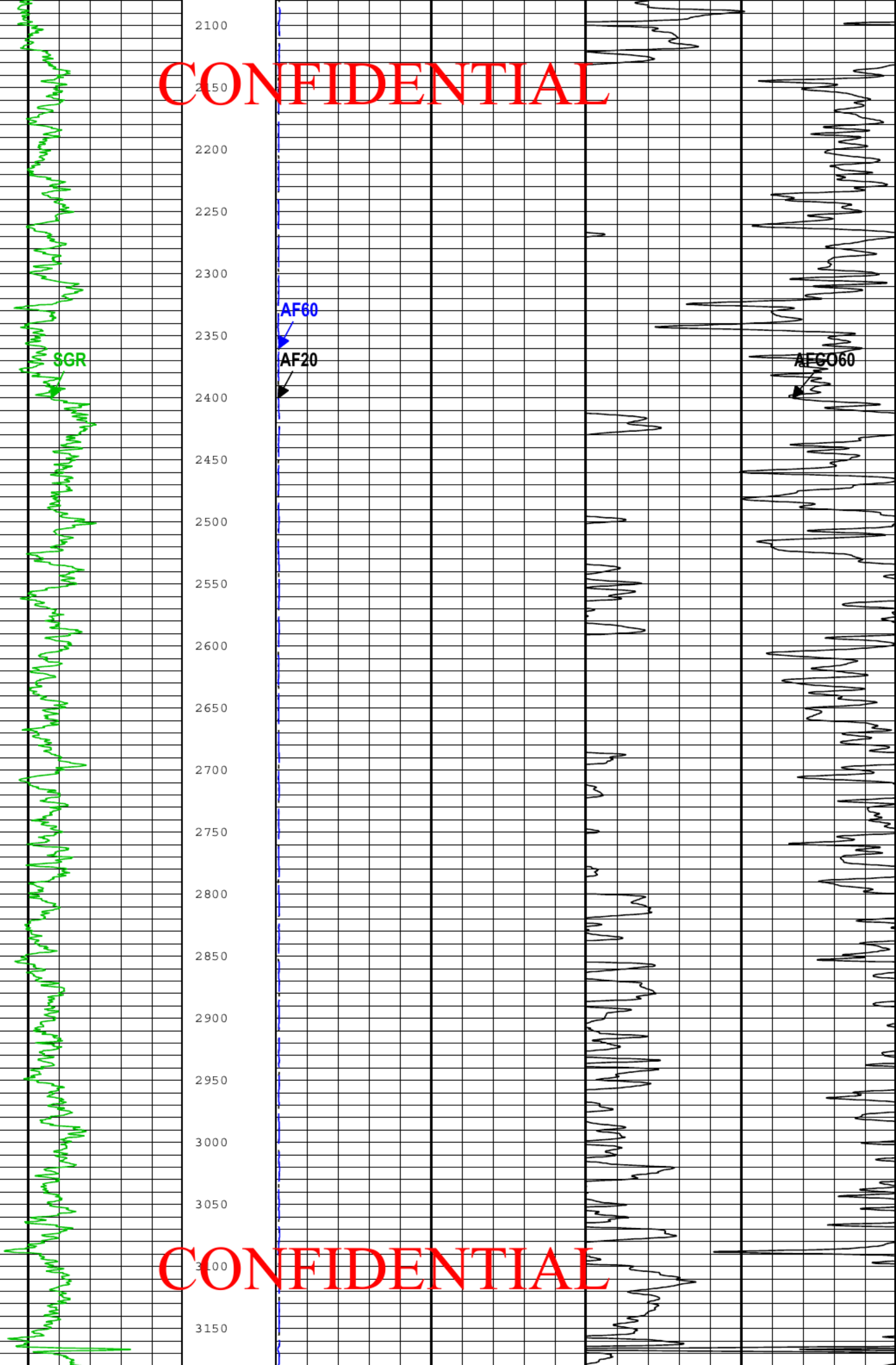
mS/m 0

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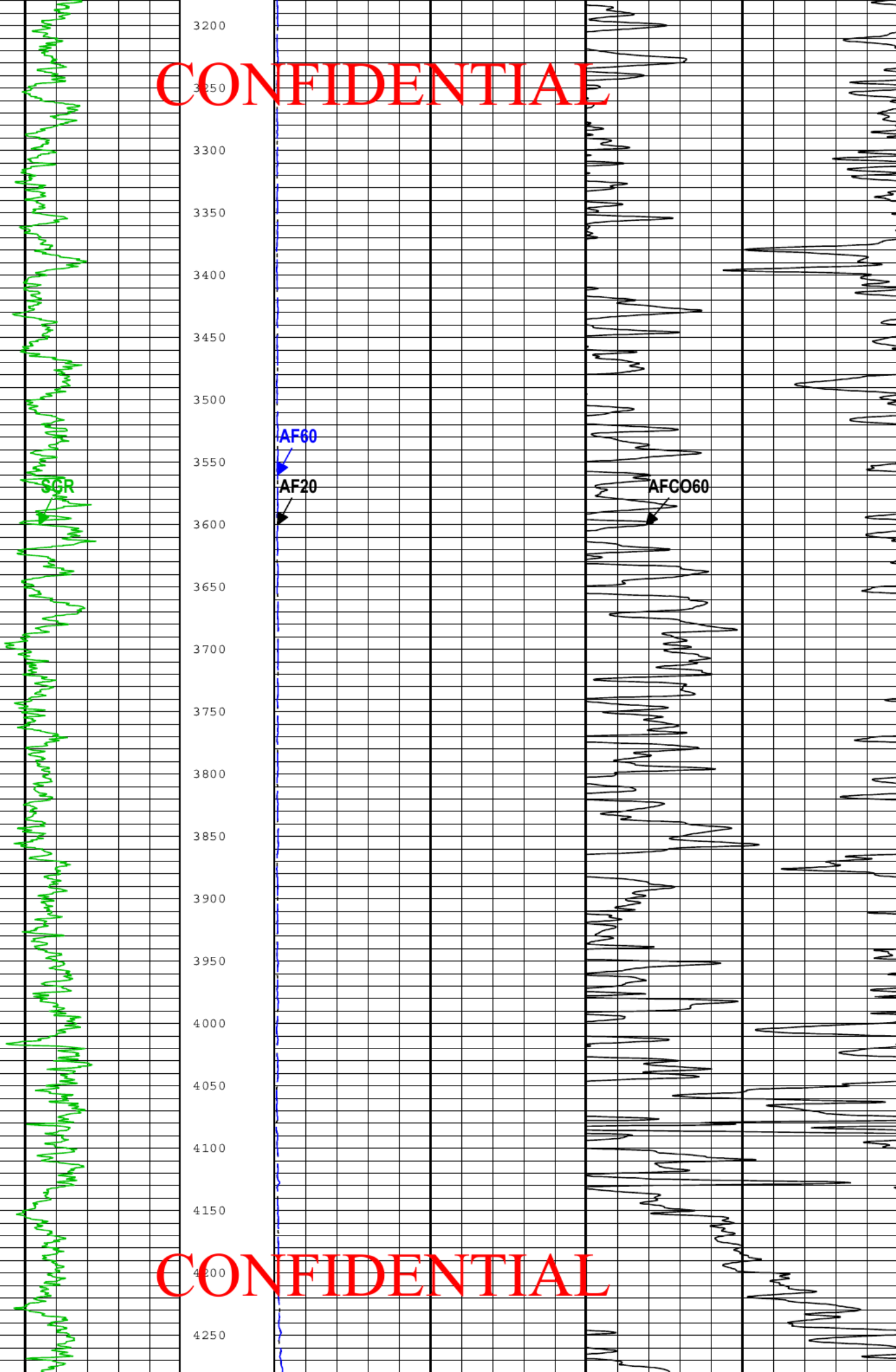
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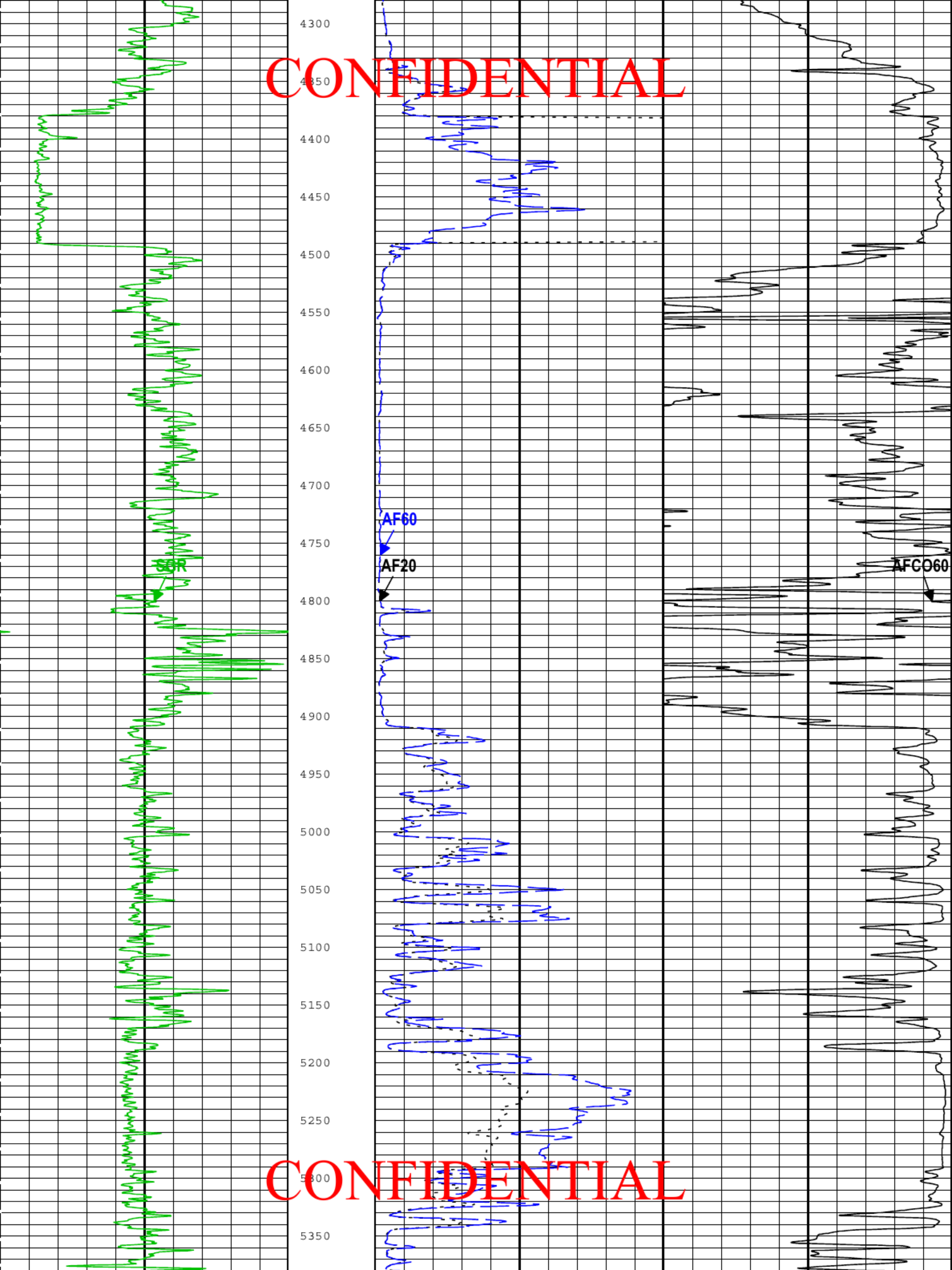
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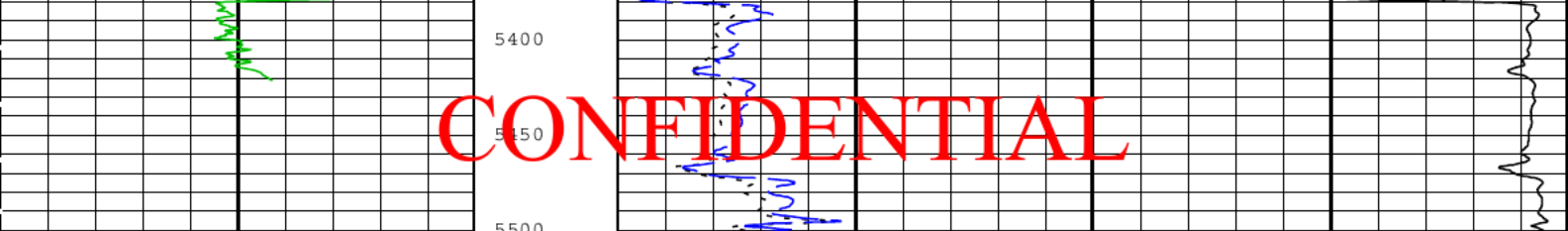
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Spectroscopy Gamma Ray (SGR) HNGS-BA
gAPI 150

Array Induction Four Foot Resistivity A20 (AF20) ZAIT-E
ohm.m 100

Array Induction Four Foot Resistivity A60 (AF60) ZAIT-E
ohm.m 100

Array Induction Four Foot Conductivity A60 (AFCO60) ZAIT-E
mS/m 500

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: 19-Sep-2014 14:21:22

One

Main Pass - Density

Software Version

Acquisition System		Version	
MaxWell		4.0.9163.3000	
Application Patch		Patch-SP-10767_18214-4.0.9163.3001	
		Patch-NPD_CMRTF_SP2-22354-4.0.9434.3002	
Tool Elements	Description	Software Version	Firmware Version
HRCC-H	HILT High-Resolution Control Cartridge, 150 degC	4.0.9385.3000	2.0
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	4.0.9385.3000	3.0
HNGS-BA	HNGS Sonde Element	4.0.9360.3000	2.0

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[4]:Up	Up	106.39 ft	5510.30 ft	18-Sep-2014 3:16:51 PM	18-Sep-2014 6:24:58 PM	ON	2.43 ft	No

All depths are referenced to toolstring zero

Log

Company:Alta Mesa Services LP Well:DJS Properties 2-14
One: Log[4]:Up:S033

Description: Format: Log (Dens) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 19-Sep-2014 14:21:23

Channel	Source	Sampling
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DSOZ	HDRS-H:HRMS-H:HRGD-H	2in
HDRA	HDRS-H:HRMS-H:HRGD-H	2in
PEFZ	HDRS-H:HRMS-H:HRGD-H	2in
RHOZ	HDRS-H:HRMS-H:HRGD-H	2in
SGR	HNGS-BA:HNGS-BA:HNGS-BA	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

TIME_1900 - Time Marked every 60.00 (s)

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		Cable Tension (TENS)	
Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H		10000	lbf 0
Standard Resolution		10	0.25 g/cm3 0.25
		Density Standoff Correction (HDRA) HDRS-H	

Density Standoff (DSOZ) HDRS-H

g/cm3

Caliper (CALI) HDRS-H

Spectroscopy Gamma Ray (SGR) HNGS-B

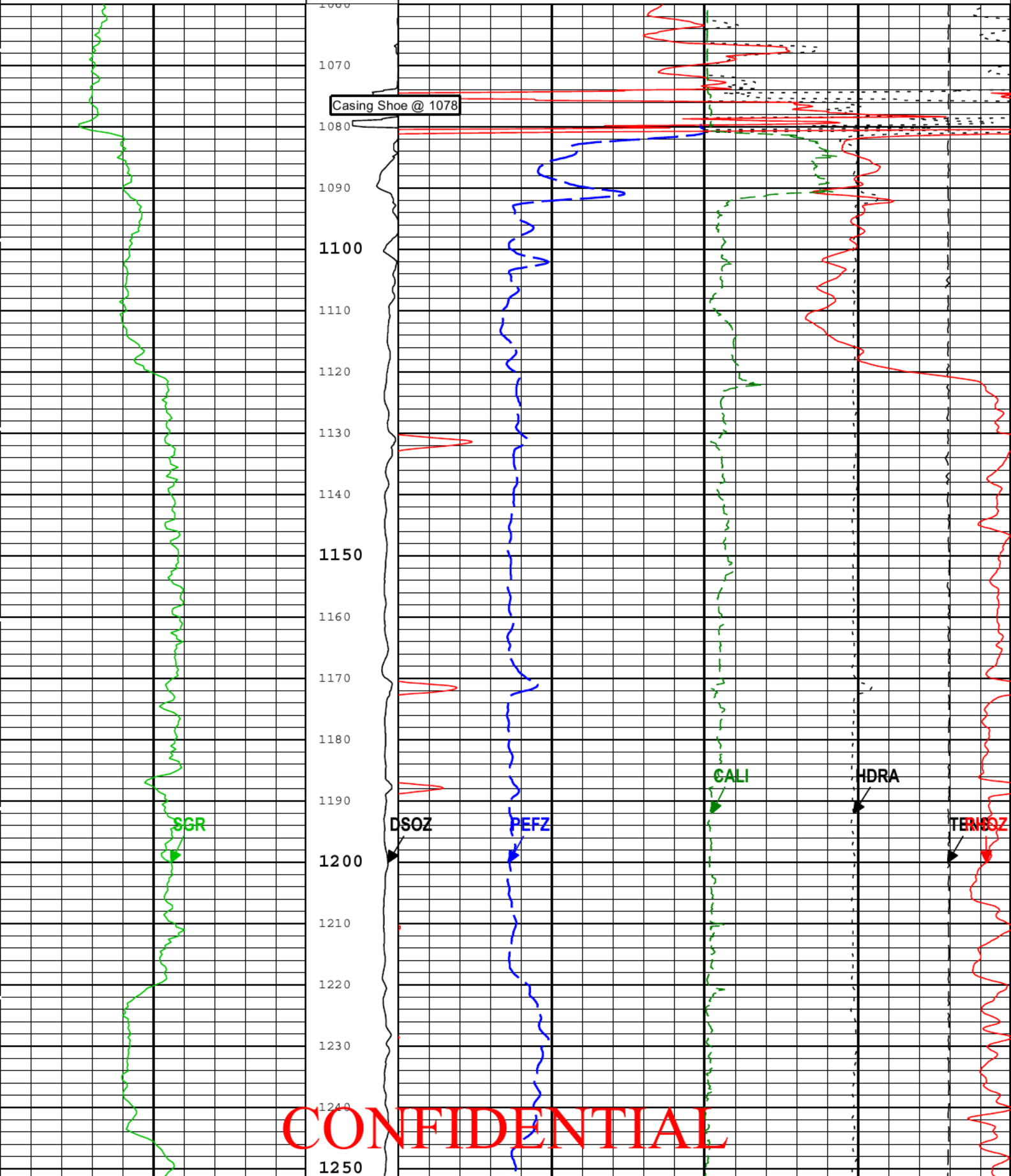
gAPI

150 2 in

in

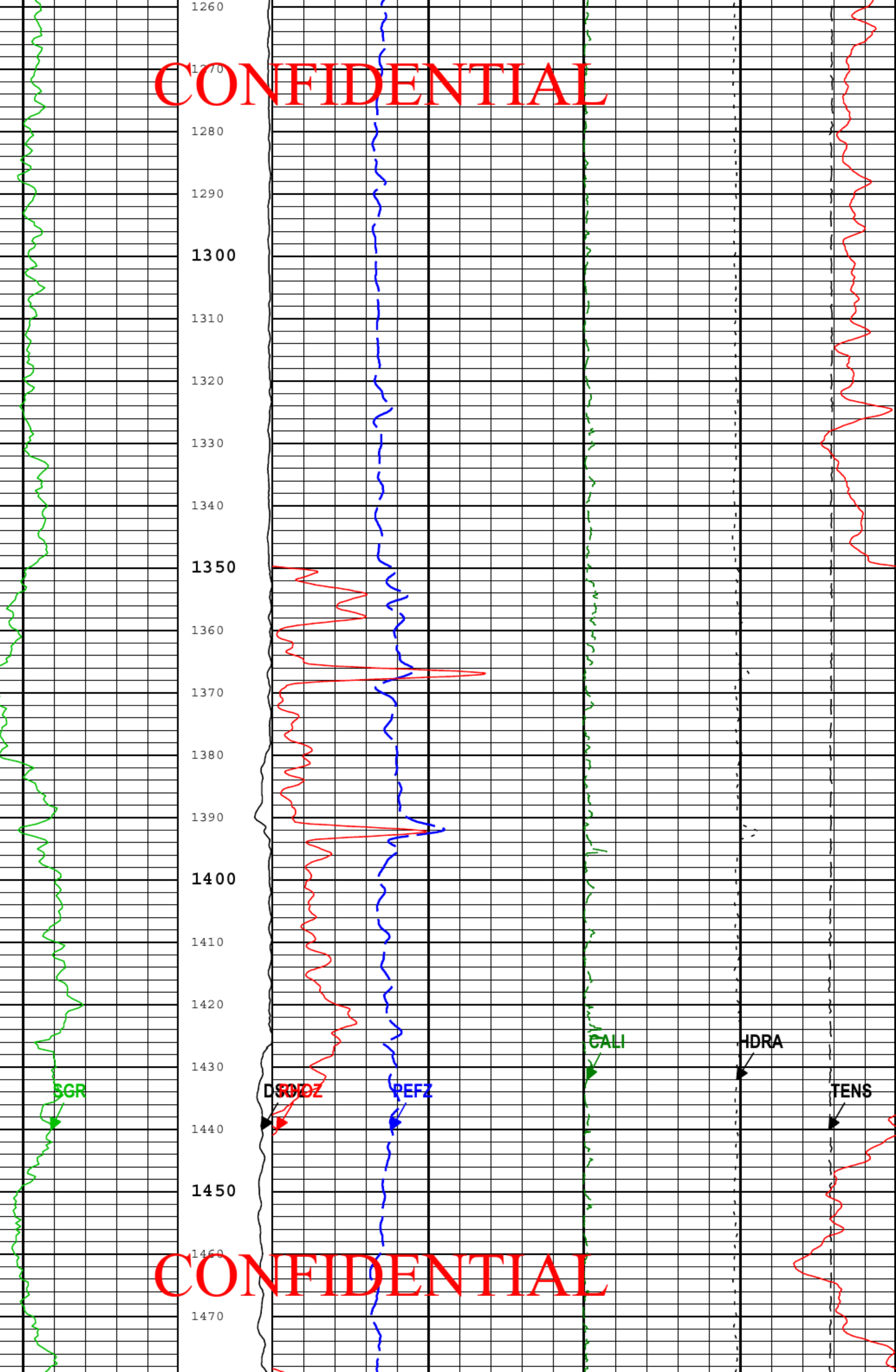
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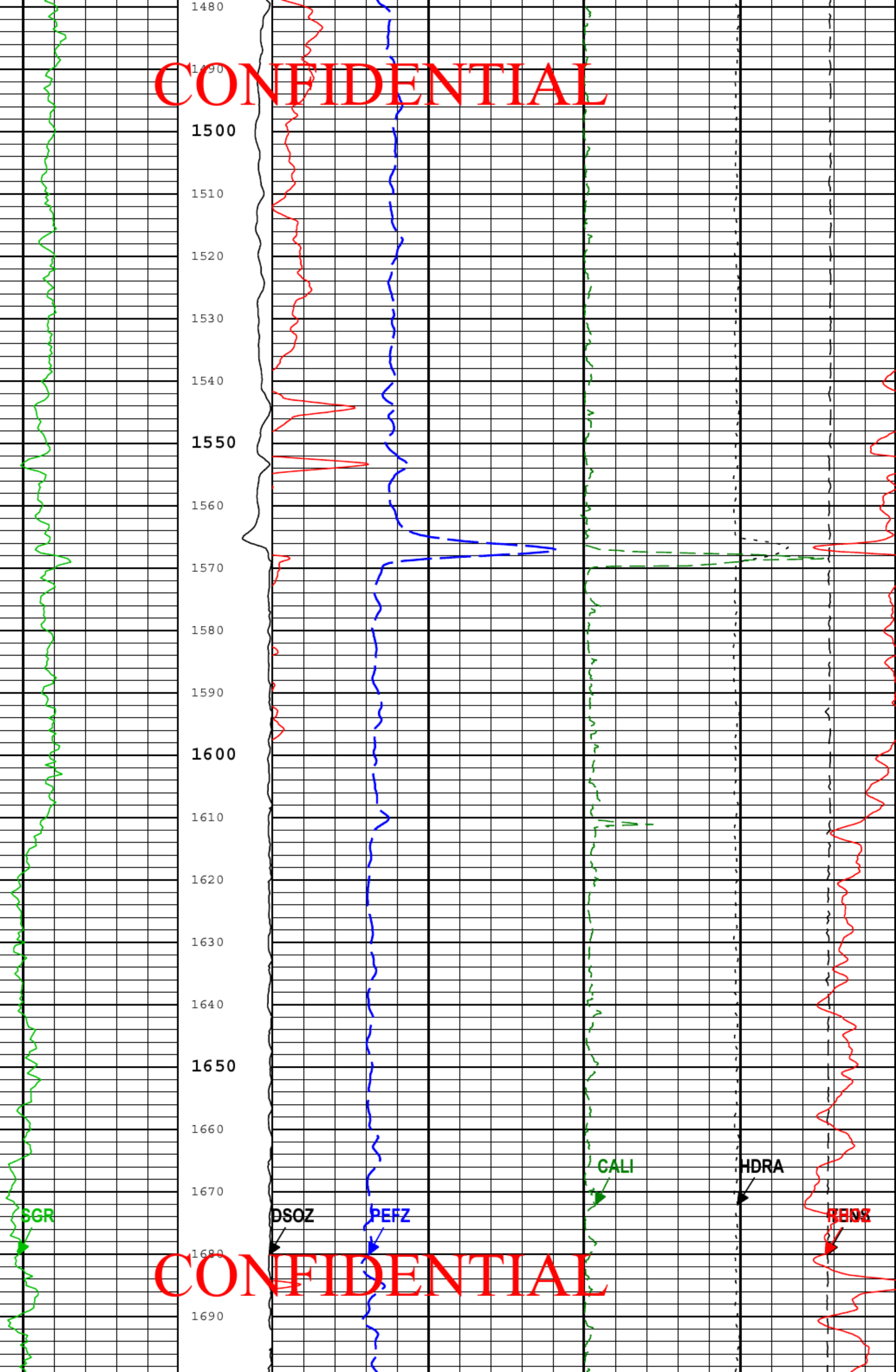
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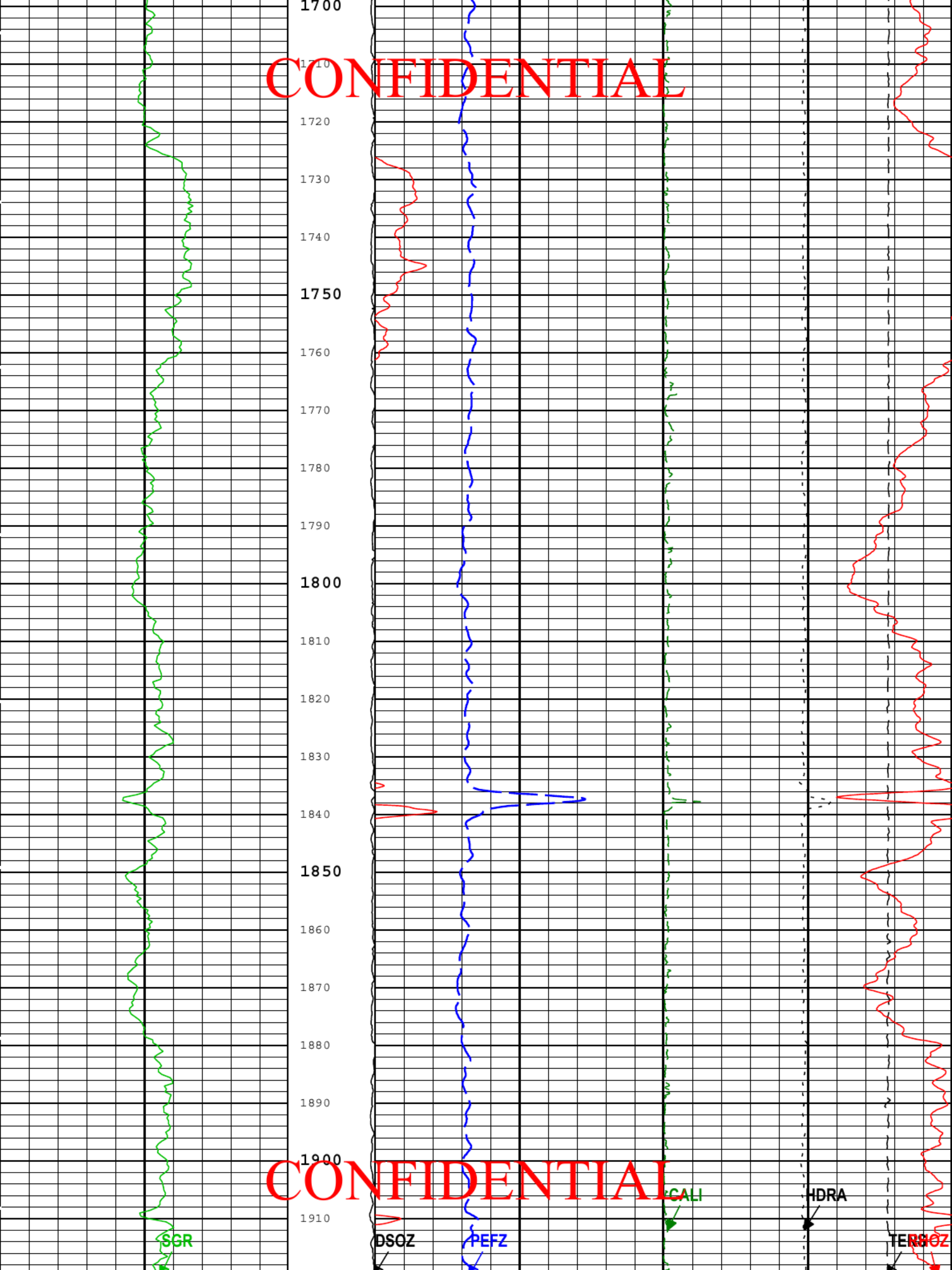
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1700

1710

1720

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1800

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1890

1900

1910

SGR

DSCZ

PEFZ

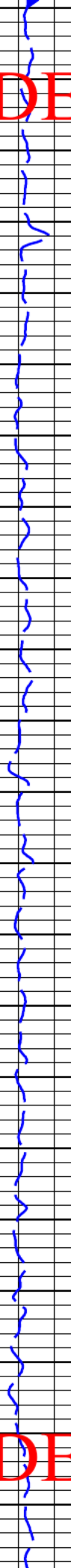
CALI

HDRA

TERRAZ

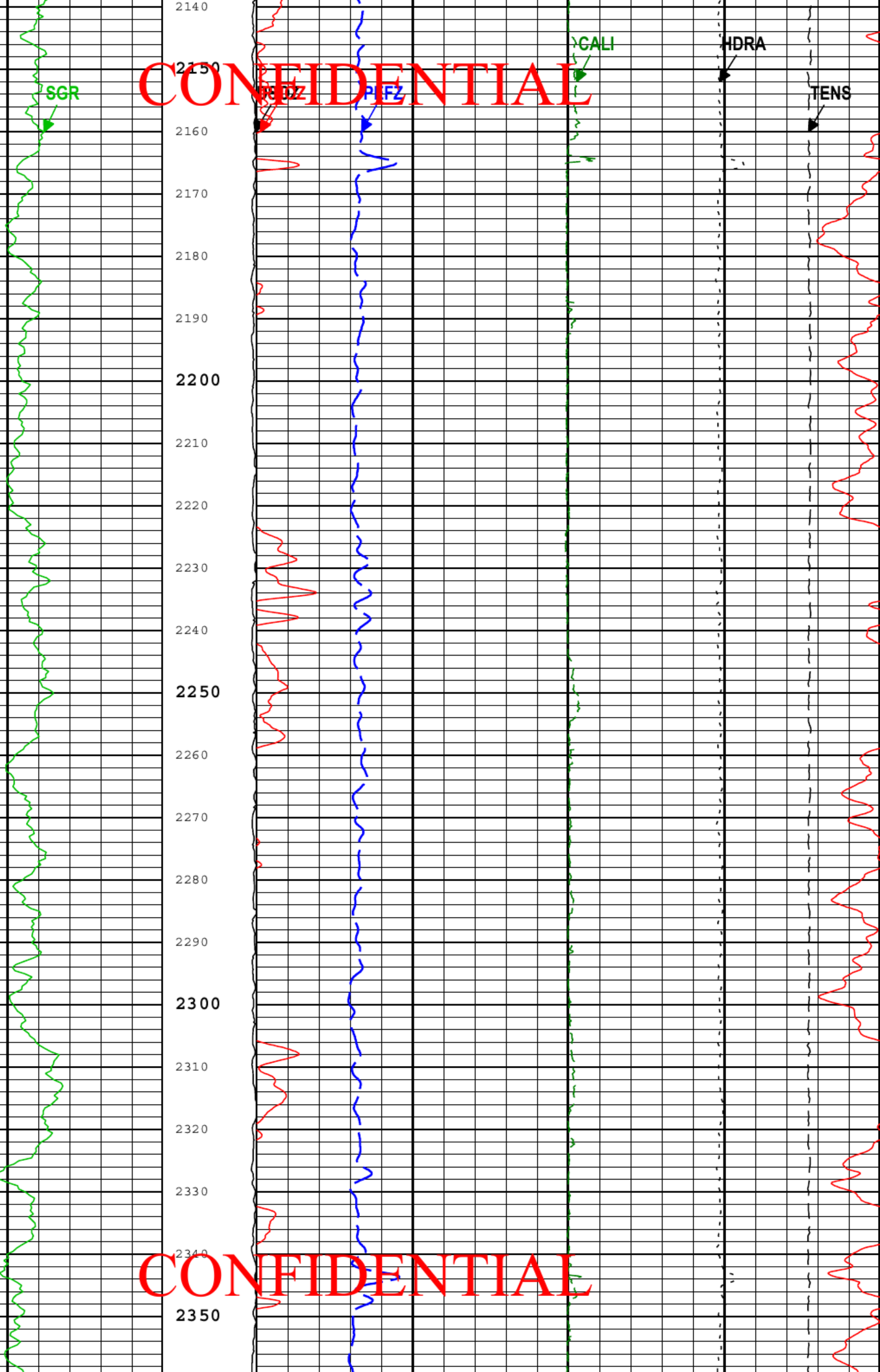
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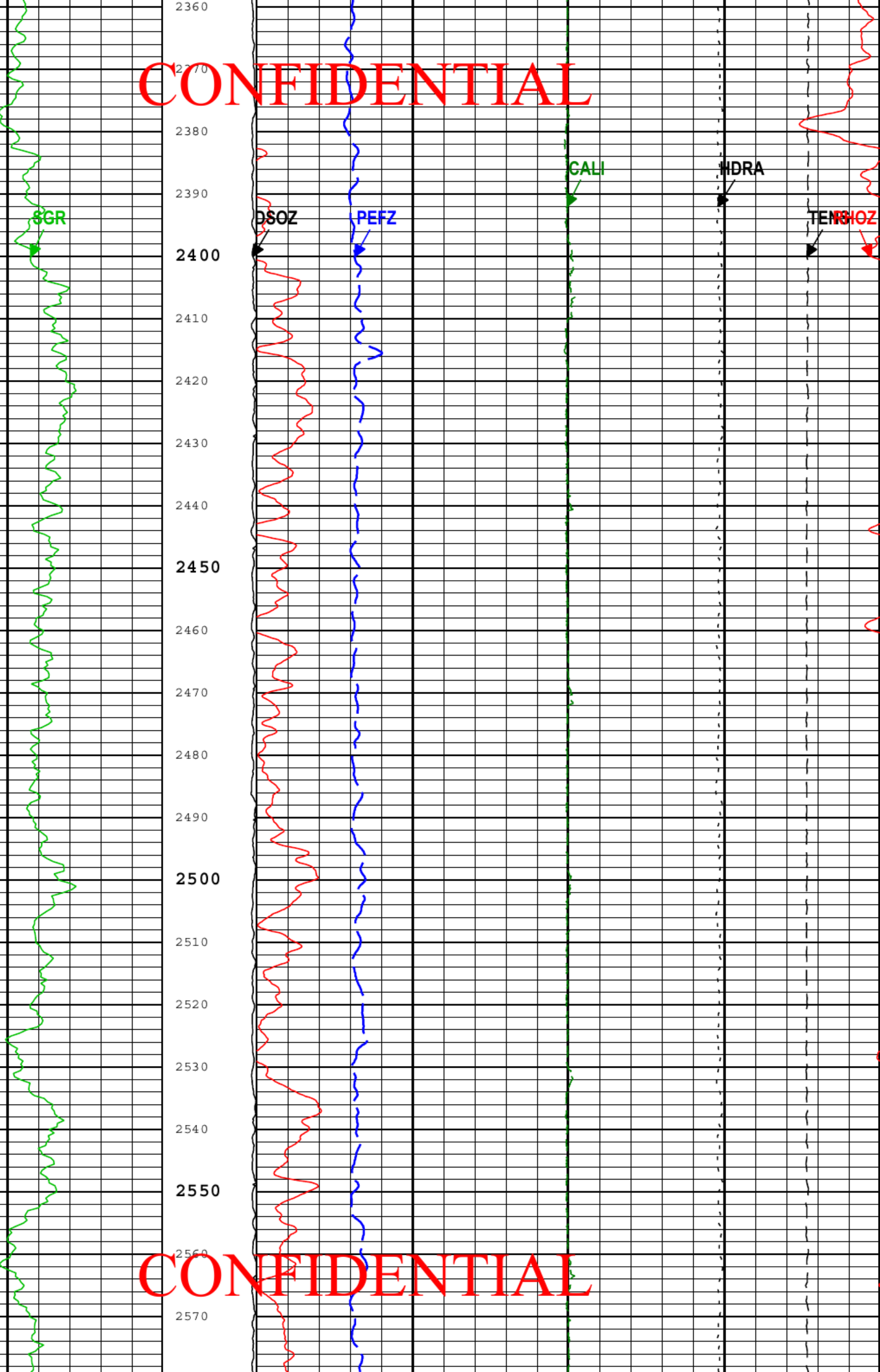
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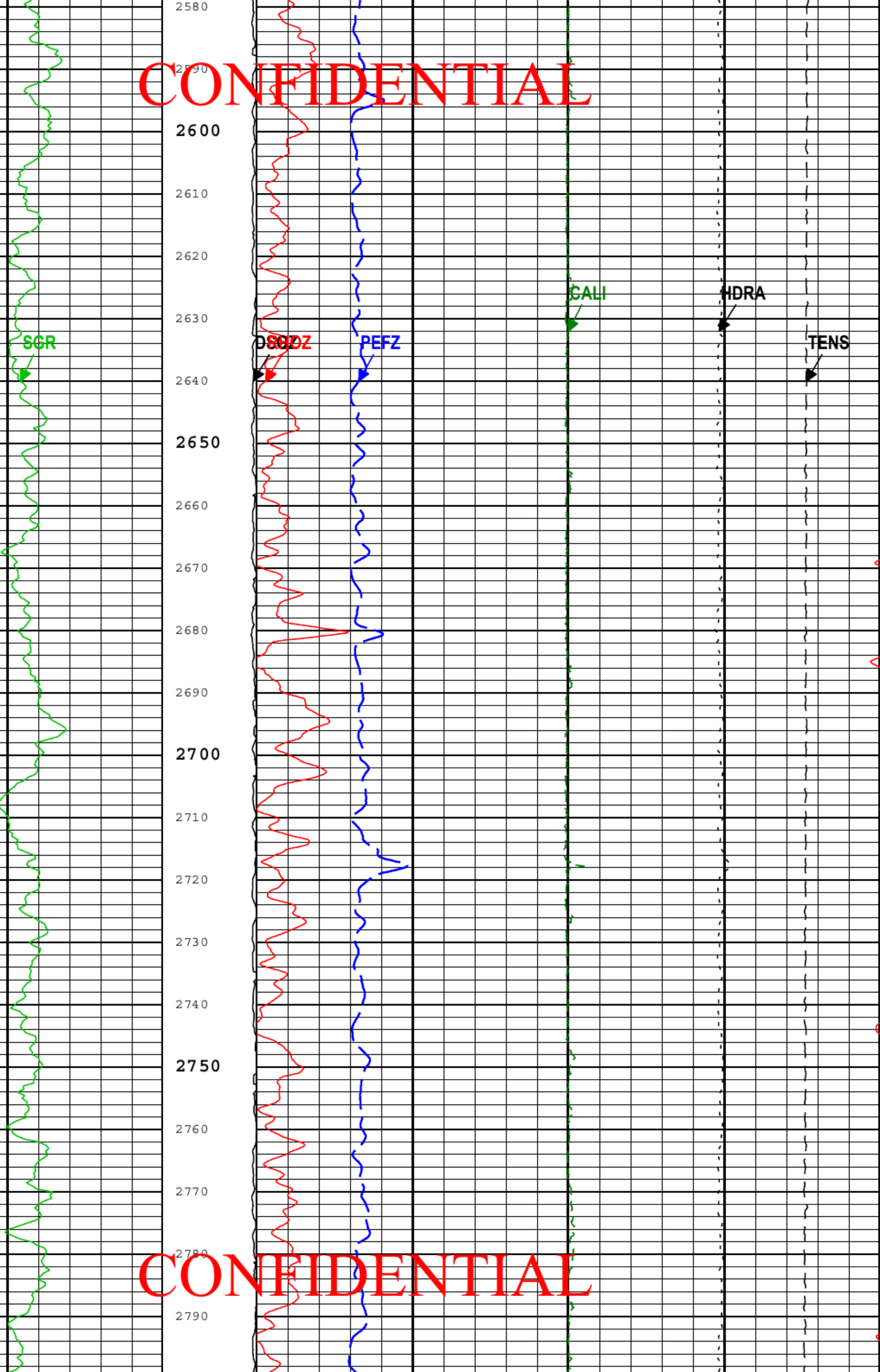
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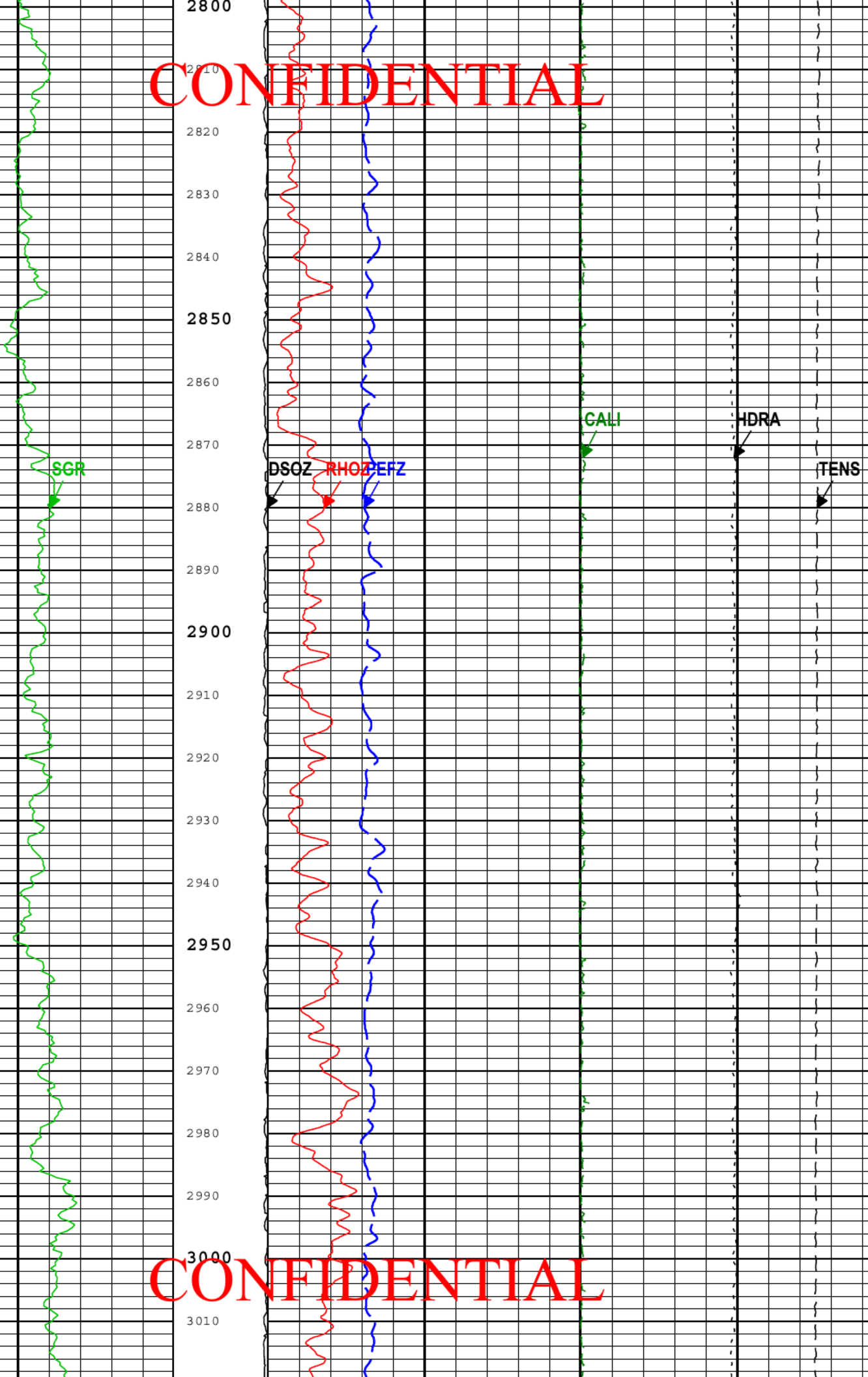
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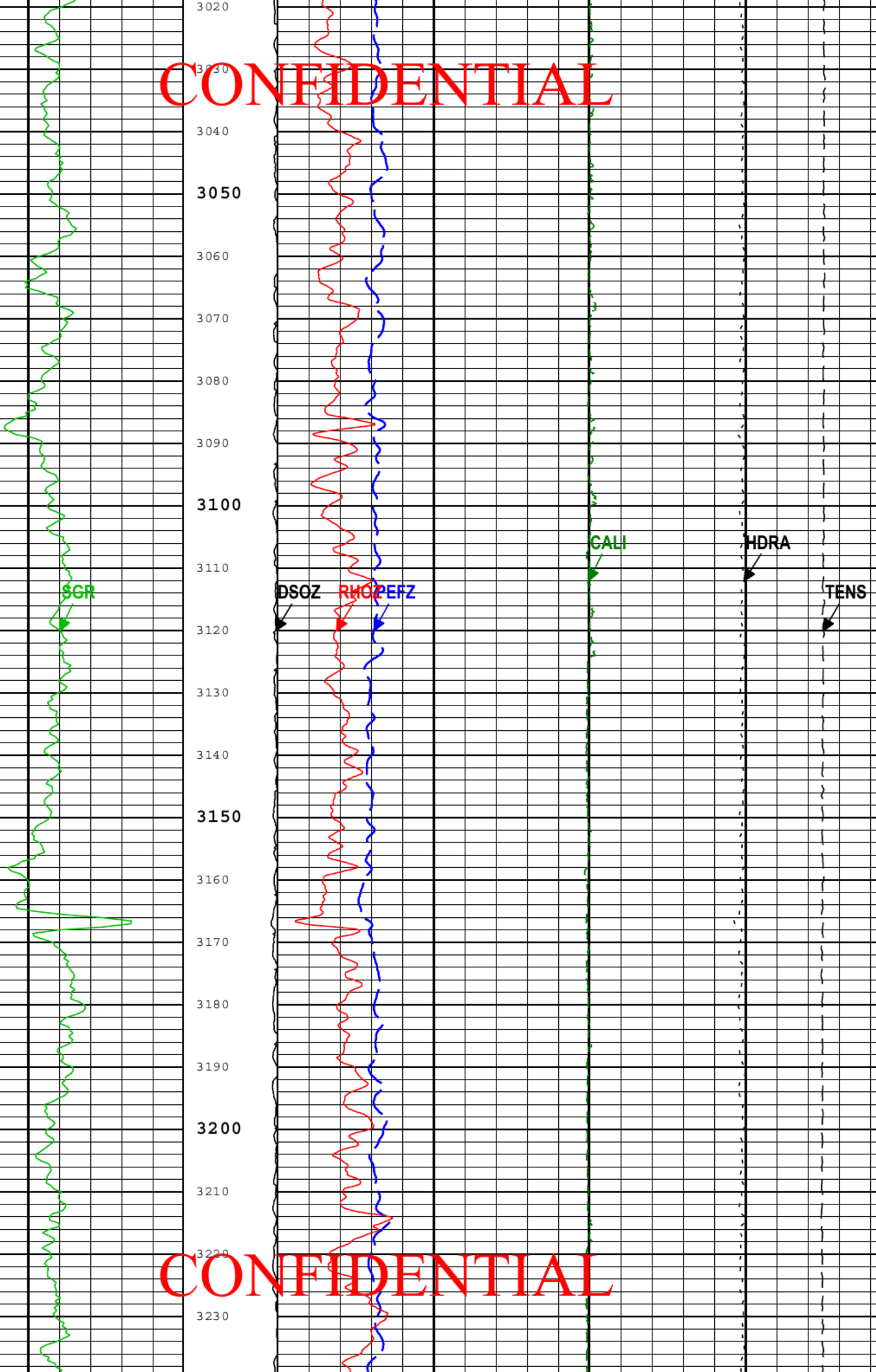
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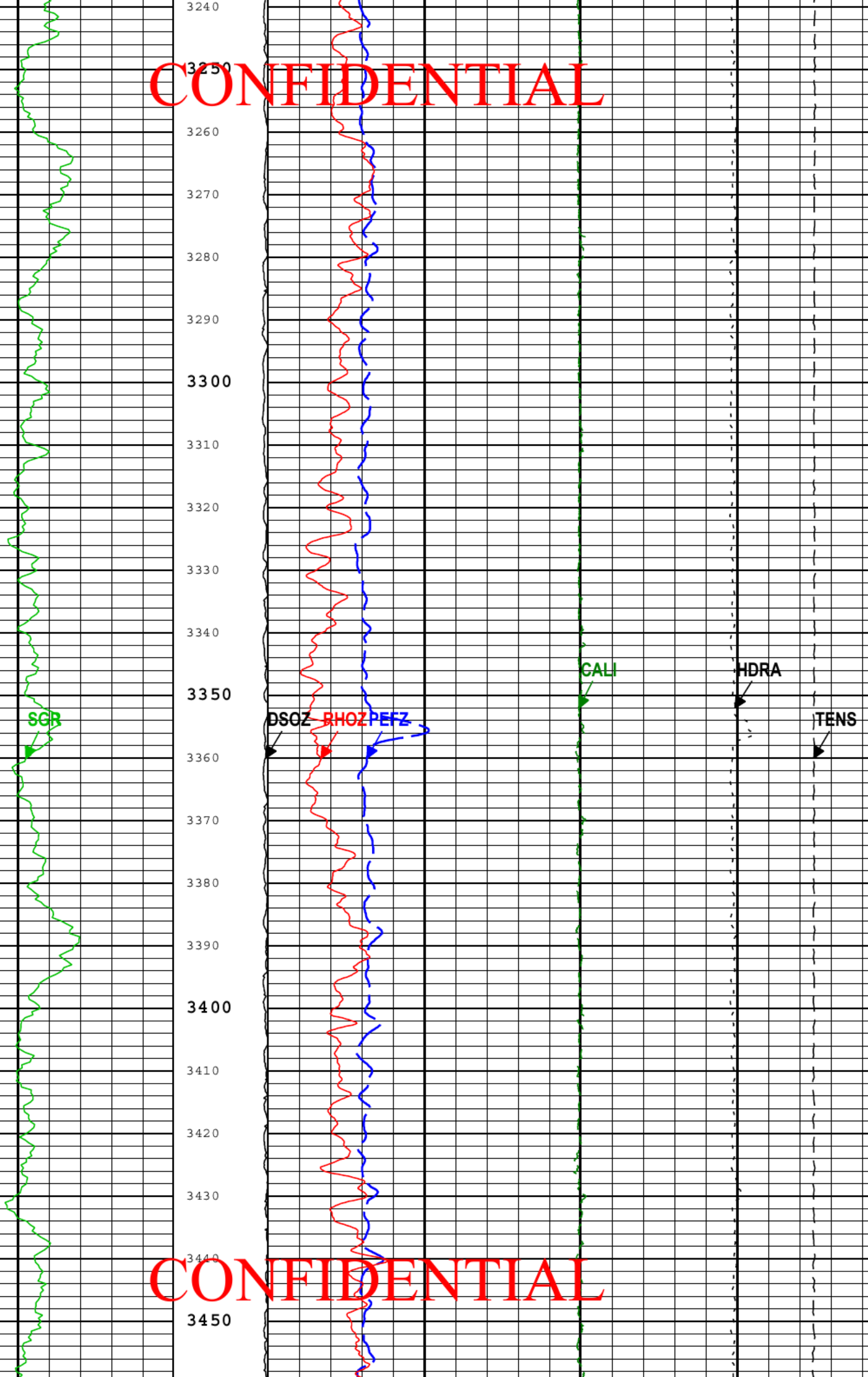
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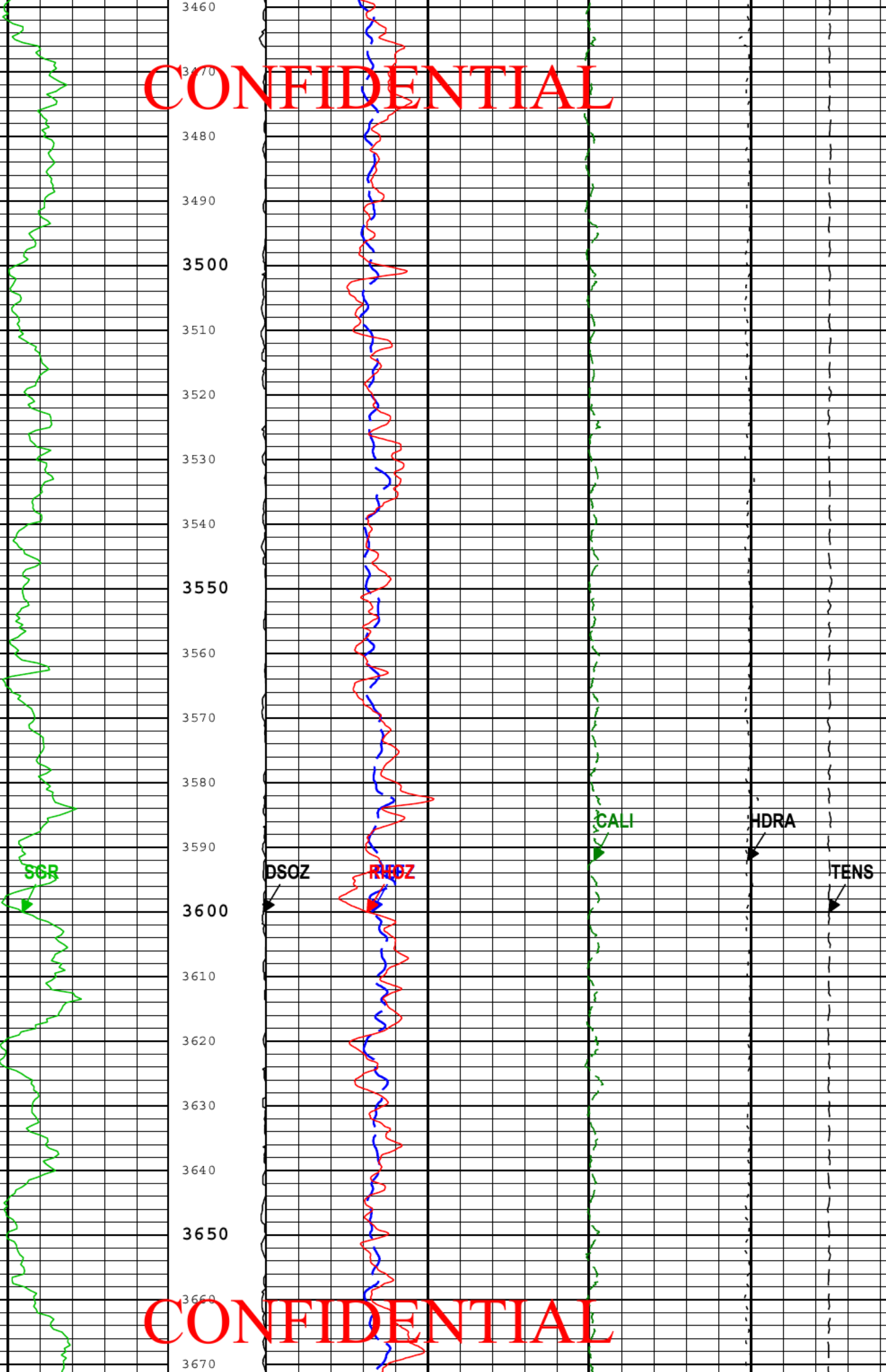
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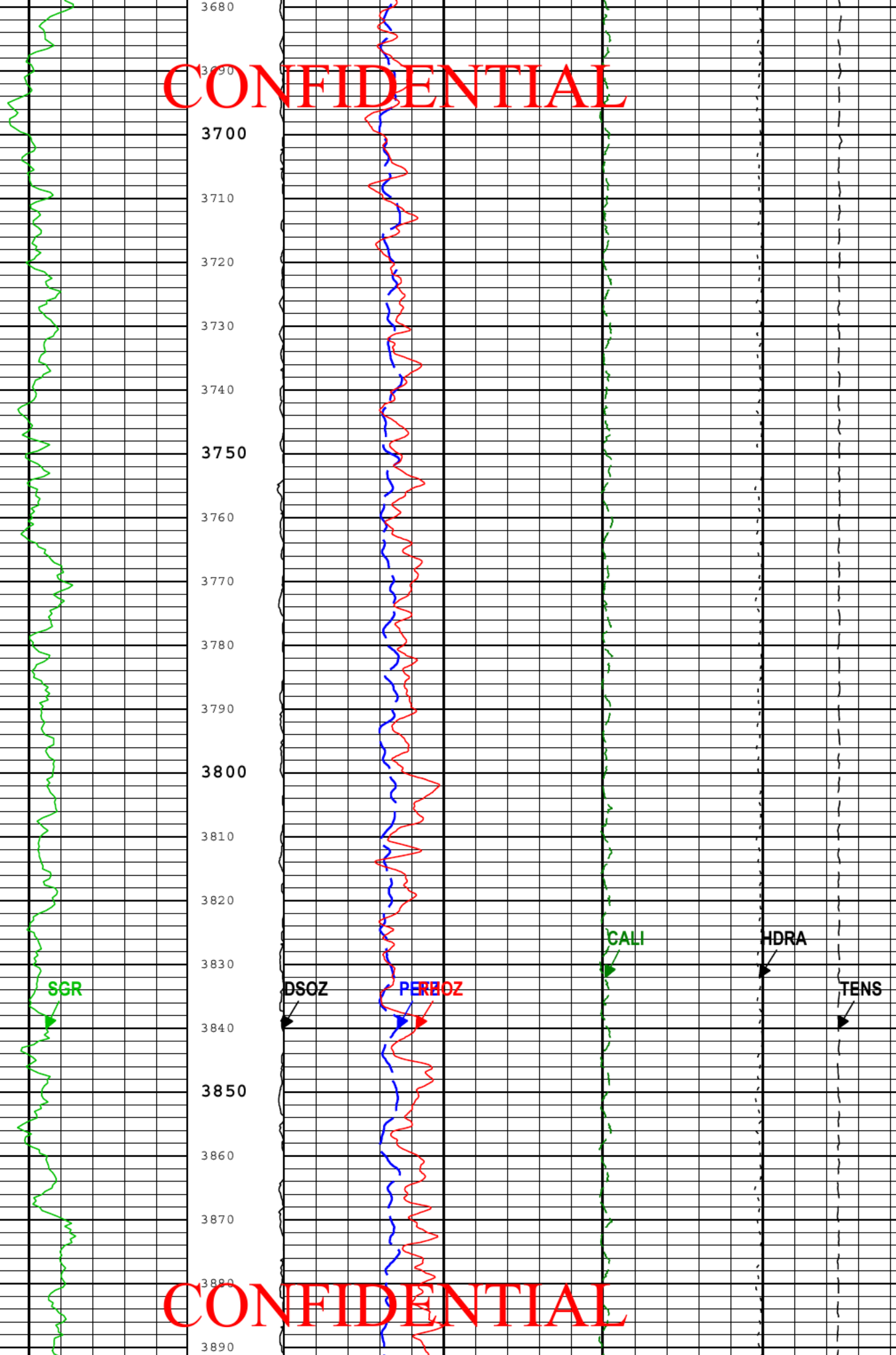
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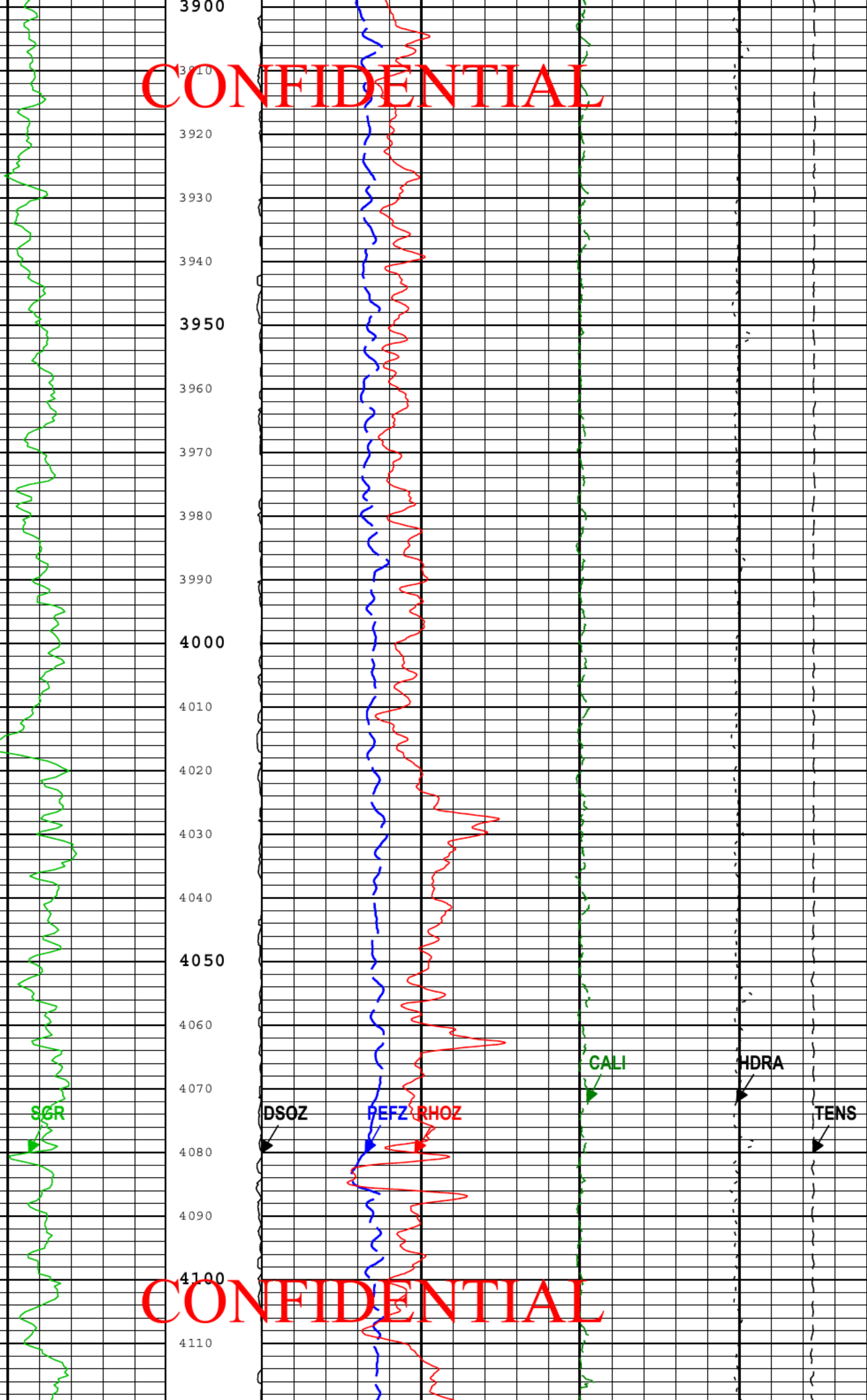
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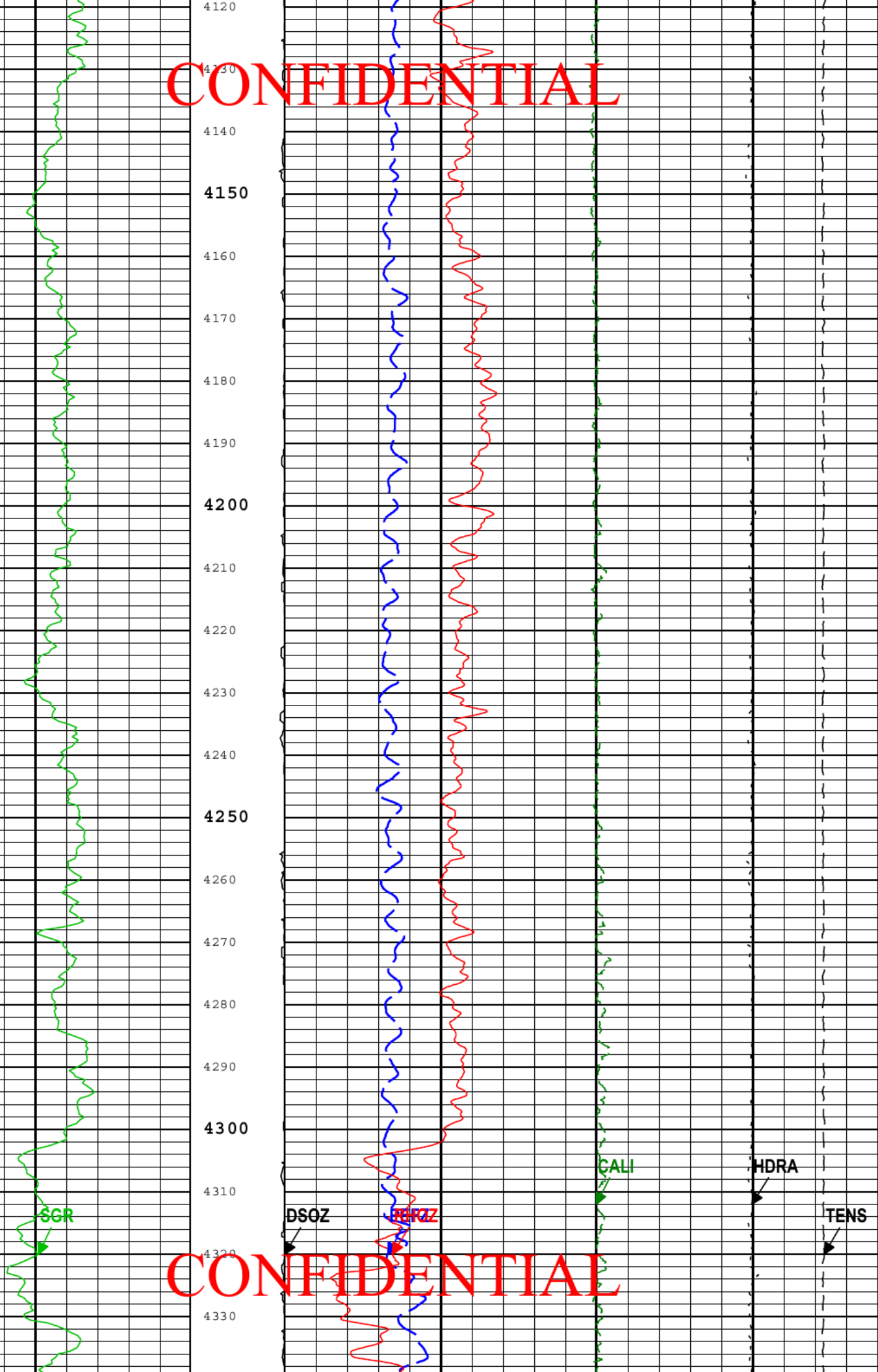
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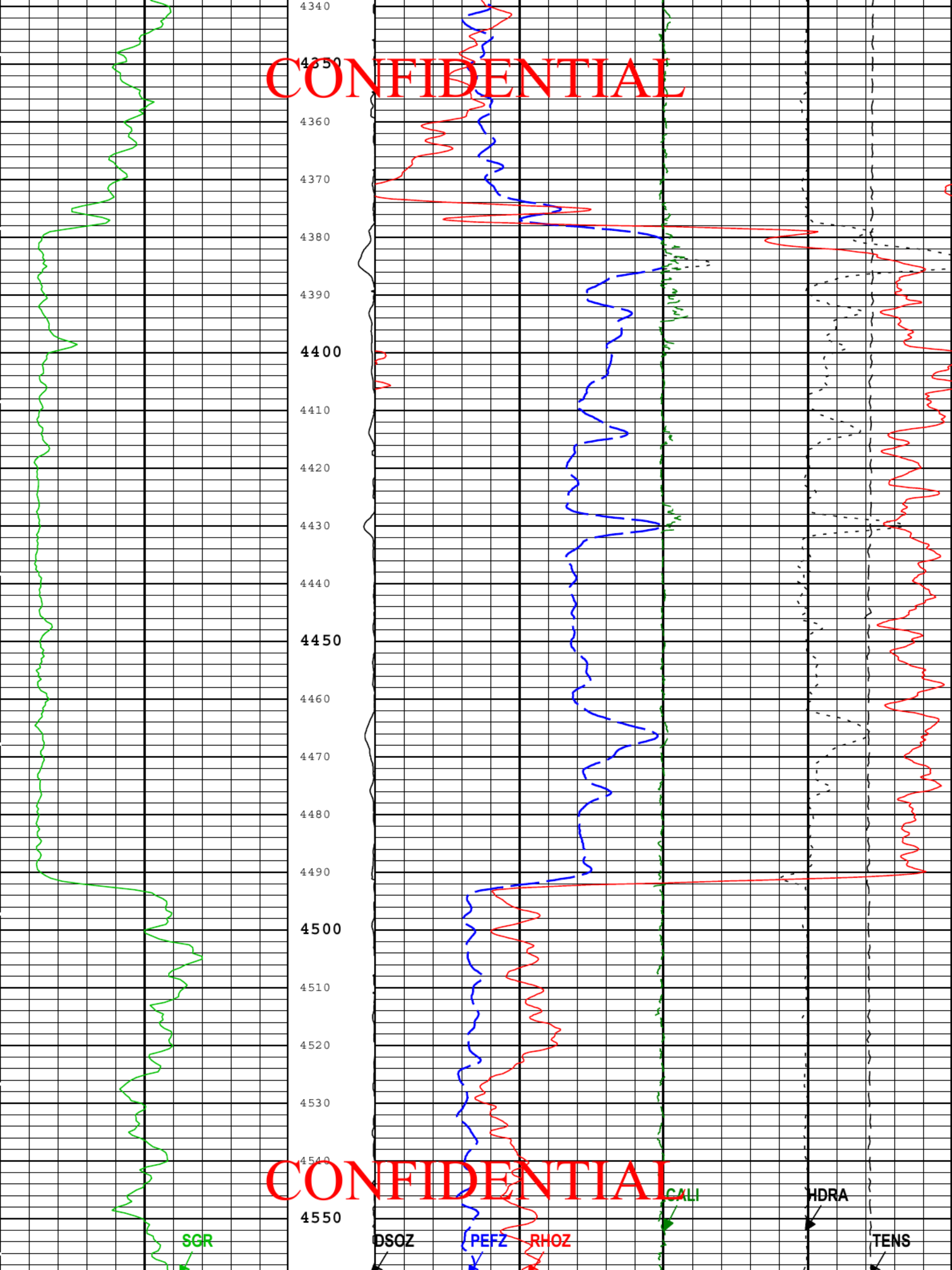
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SGR

DSOZ

PEFZ

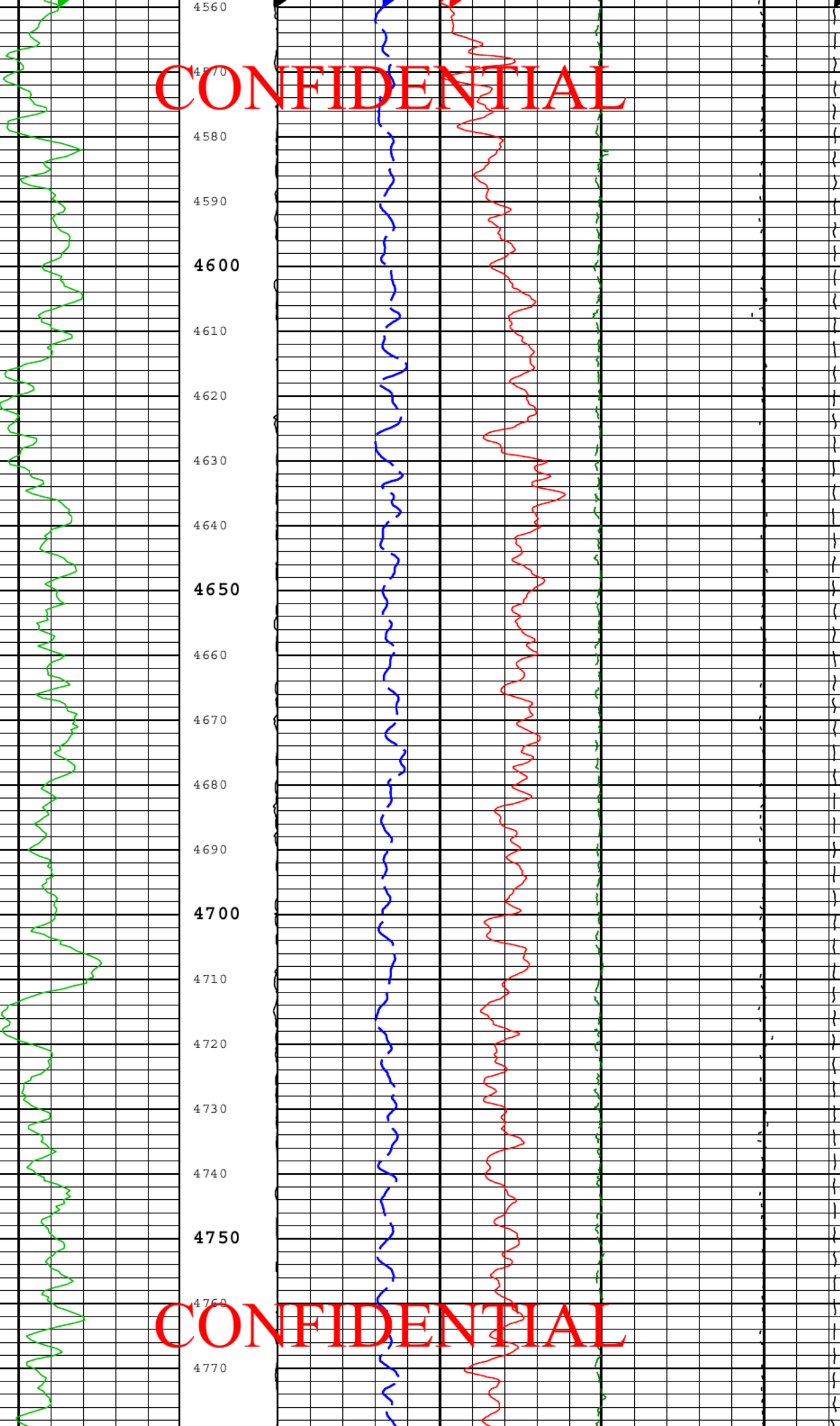
RHOZ

CALI

HDRA

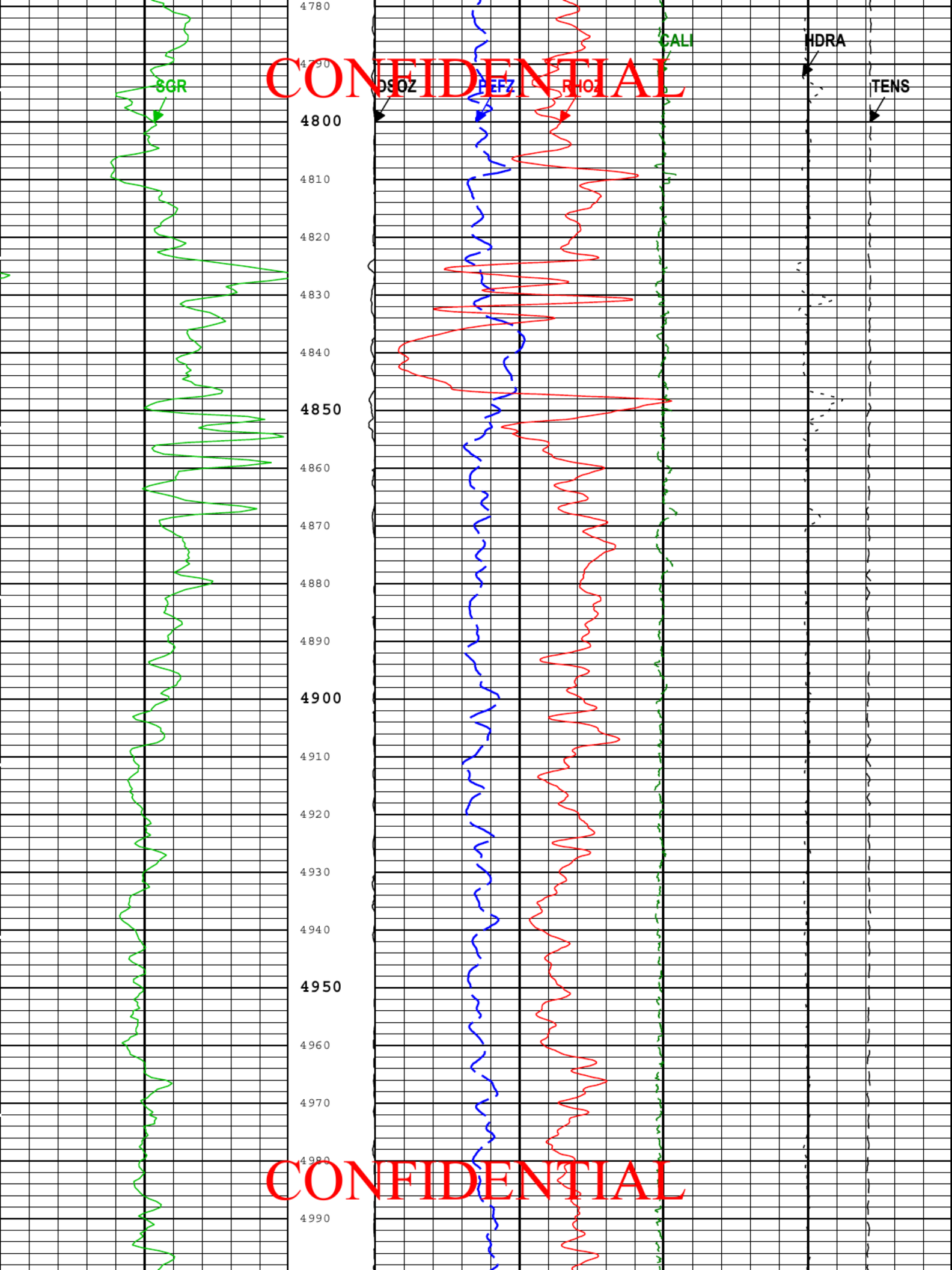
TENS

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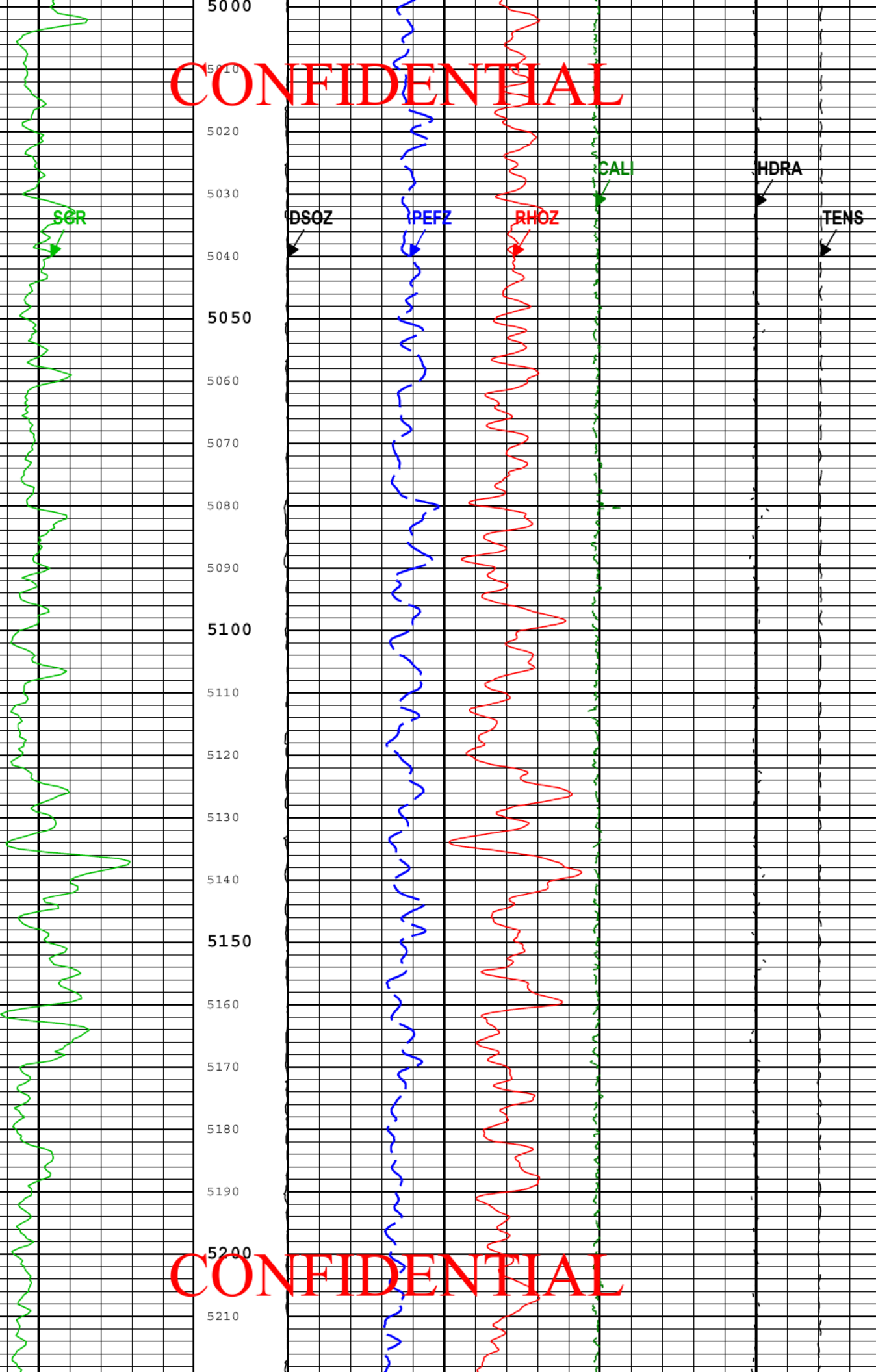
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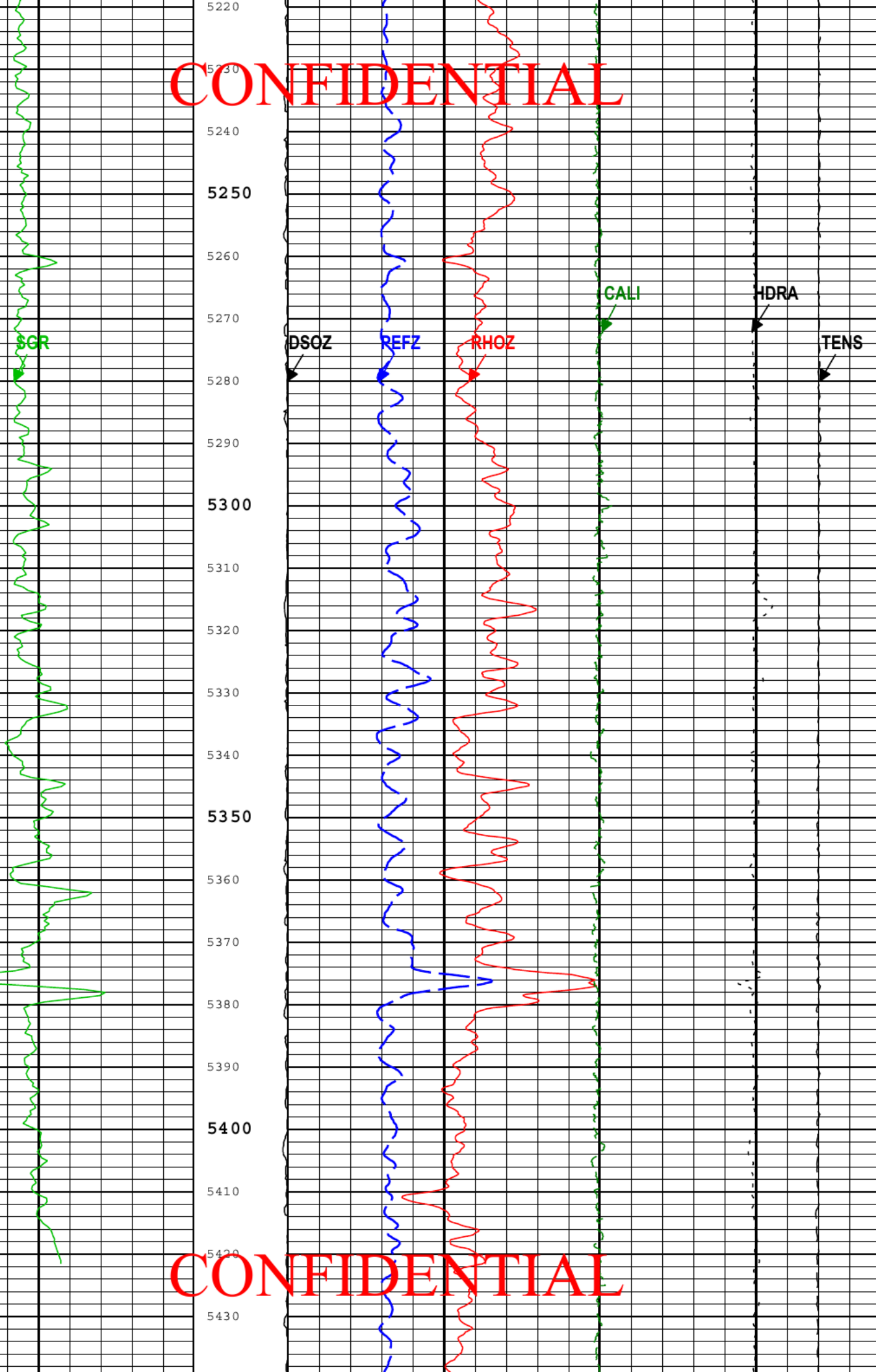
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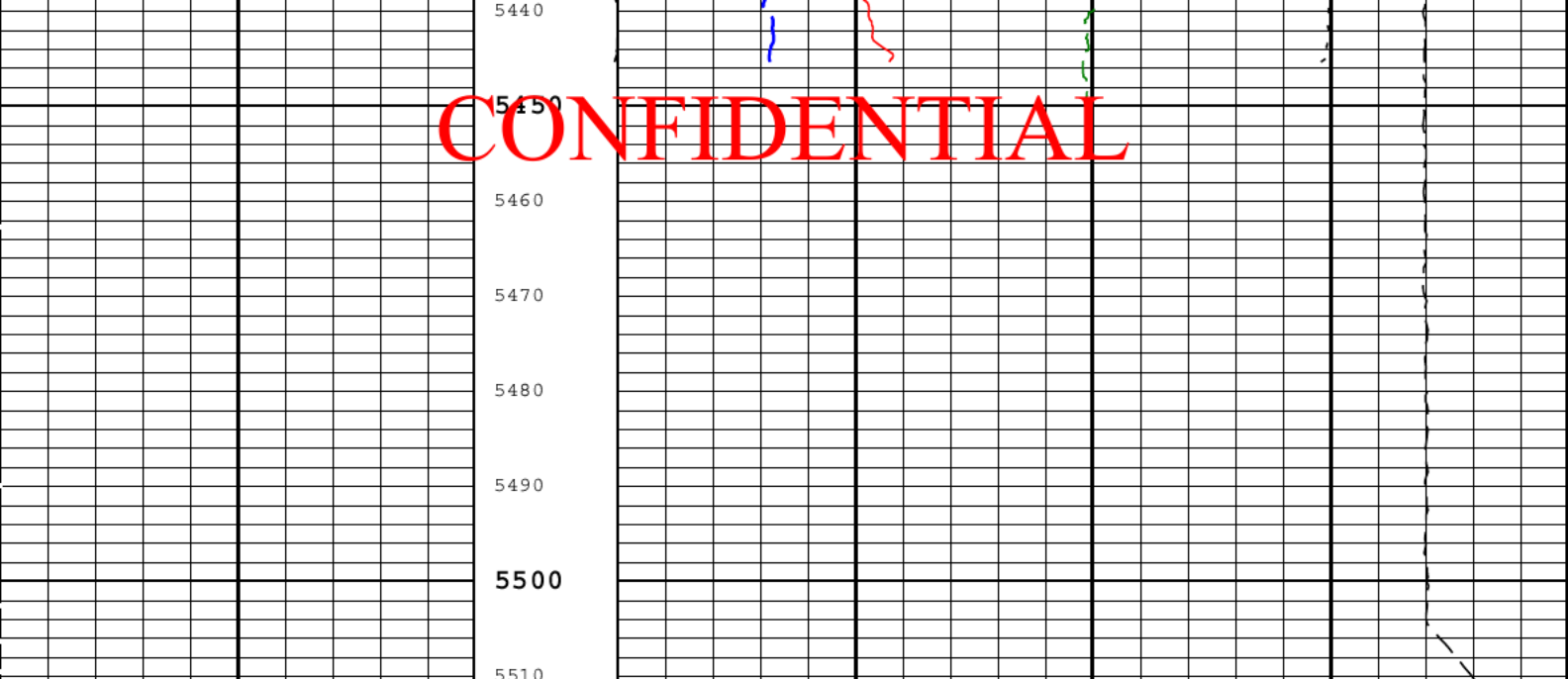
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<p style="color: green; font-weight: bold;">Spectroscopy Gamma Ray (SGR) HNGS-BA</p> <p style="text-align: center;">0 gAPI 150</p>	<p>Standard Resolution Density Standoff (DSOZ) HDRS-H</p> <p style="text-align: center;">2 in 0</p>	<p style="color: red; font-weight: bold;">Standard Resolution Formation Density (RHOZ) HDRS-H</p> <p style="text-align: center;">2 g/cm3 3</p> <hr style="border-top: 1px dashed green;"/> <p style="color: green; font-weight: bold;">Caliper (CALI) HDRS-H</p> <p style="text-align: center;">0 in 17.5</p> <hr style="border-top: 1px dashed blue;"/> <p style="color: blue; font-weight: bold;">Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H</p> <p style="text-align: center;">0 10</p>
		<p style="text-align: center;">Cable Tension (TENS)</p> <p style="text-align: center;">10000 lbf 0</p> <hr style="border-top: 1px dashed black;"/> <p style="text-align: center;">Density Standoff Correction (HDRA) HDRS-H</p> <p style="text-align: center;">-0.25 g/cm3 0.25</p>

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: 19-Sep-2014 14:21:23

Channel Processing Parameters				
Parameter	Description	Tool	Value	Unit
BARI	Barite Mud Presence Flag	Borehole	No	
BHK	Drilling Fluid Potassium Concentration	Borehole	0	%
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	8.75	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.97	in
CBLO	Casing Bottom (Logger)	WLSESSION	1078	ft
DBCC	Barite Constant Correction Flag	HNGS-BA	None	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	10	lbm/gal
DFT	Drilling Fluid Type	Borehole	Oil	
DHC	Density Hole Correction	HDRS-H	Bit Size	
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	
HCRB	Apply Borehole Potassium Correction	HNGS-BA	None	
HEMA	Hematite Presence Flag	Borehole	No	
SGRC	Standard Gamma Ray Correction Flag	HNGS-BA	Yes	

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Tool Control Parameters				
Parameter	Description	Tool	Value	Unit
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h

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Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[4]:Up	Up	106.39 ft	5510.30 ft	18-Sep-2014 3:16:51 PM	18-Sep-2014 6:24:58 PM	ON	2.43 ft	No

All depths are referenced to toolstring zero

Log

Company:Alta Mesa Services LP

Well:DJS Properties 2-14

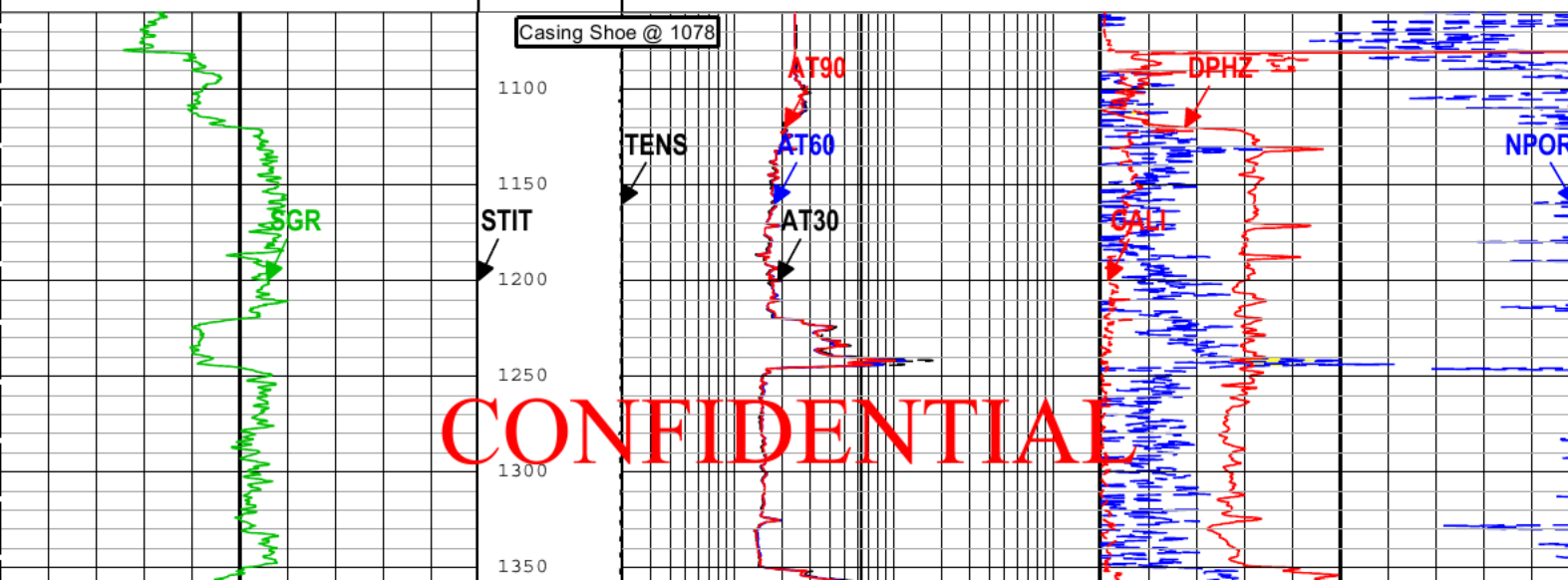
One: Log[4]:Up:S033

Description: Format: Log (Combo_Fax) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 19-Sep-2014 14:21:25

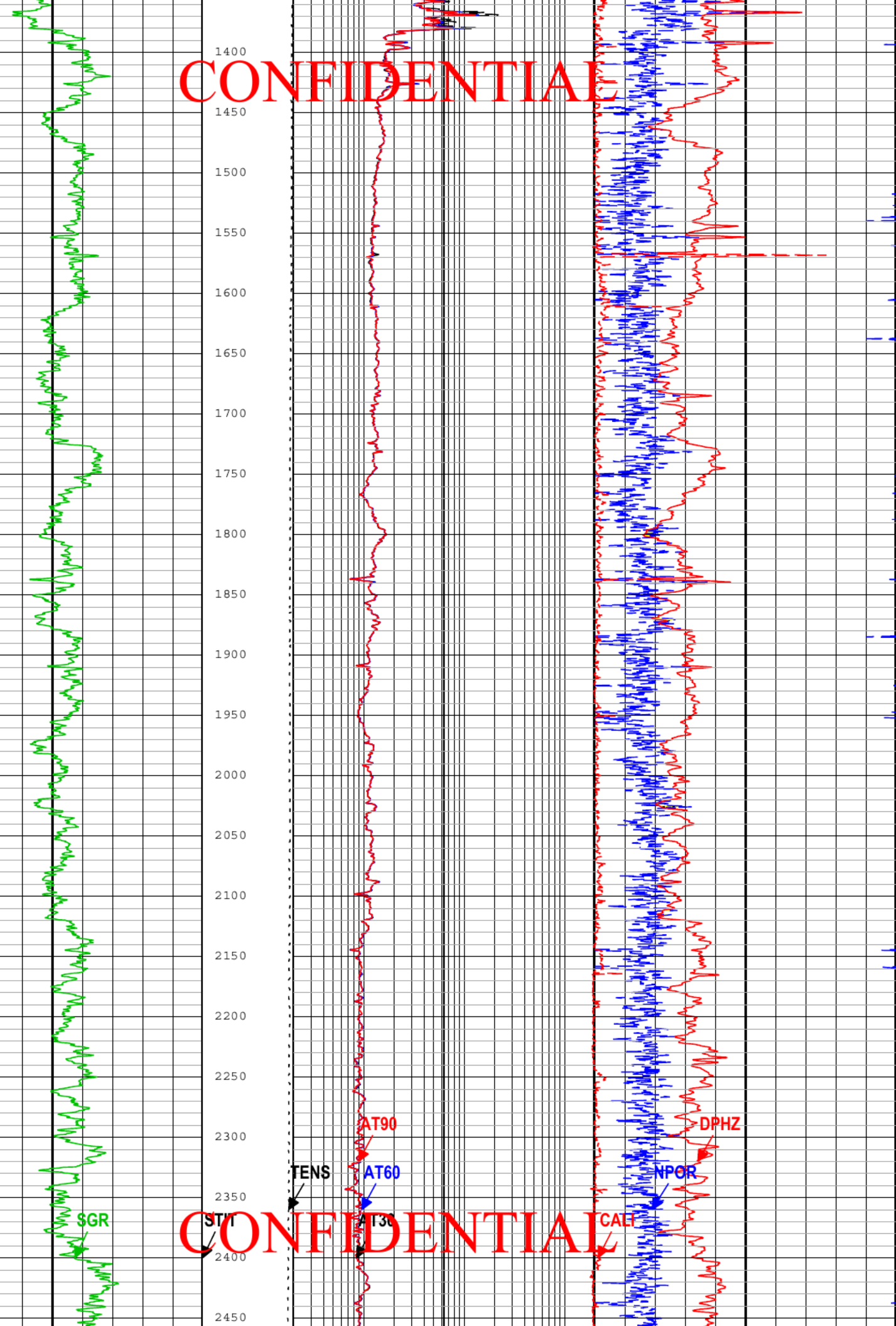
Channel	Source	Sampling
AT30	ZAIT-E:AZIS:AZIS	3in
AT60	ZAIT-E:AZIS:AZIS	3in
AT90	ZAIT-E:AZIS:AZIS	3in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPHZ	HDRS-H:HRMS-H:HRGD-H	2in
NPOR	HGNS-H:HGNS-H:HGNS-H	6in
SGR	HNGS-BA:HNGS-BA:HNGS-BA	6in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

TIME_1900 - Time Marked every 60.00 (s)

Channel	Scale	Unit	Value	Notes
Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E	0.2	ohm.m	200	Crossover
Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E	0.2	ohm.m	200	Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H
Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E	0.2	ohm.m	200	Standard Resolution Density Porosity (DPHZ) HDRS-H
Cable Tension (TENS)	0.2	ohm.m	200	ft3/ft3
Caliper (CALI) HDRS-H	0	in	17.5	
Spectroscopy Gamma Ray (SGR) HNGS-BA	0	gAPI	150	
Stuck Tool Indicator, Total (STIT)	0	ft	50	

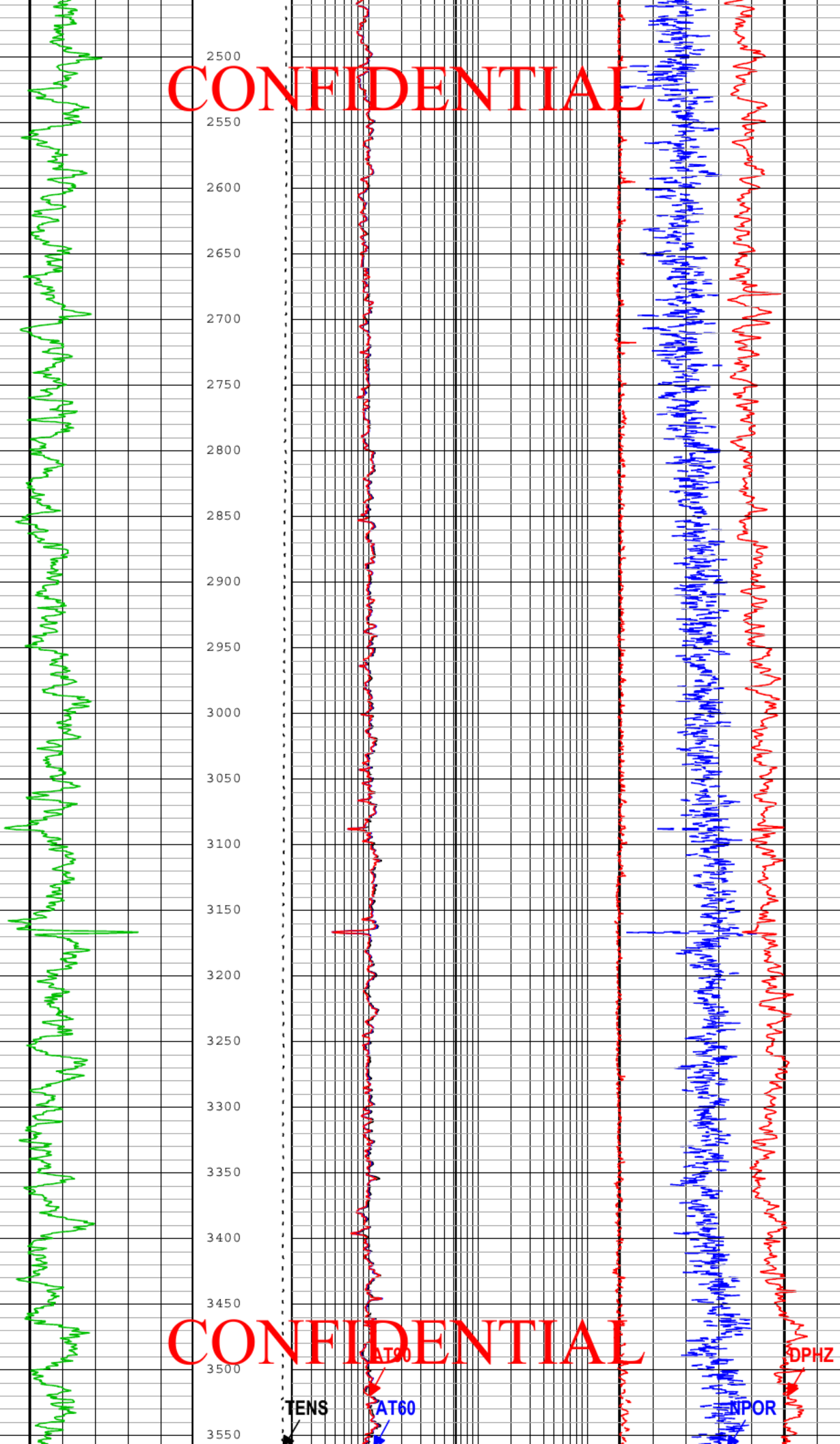


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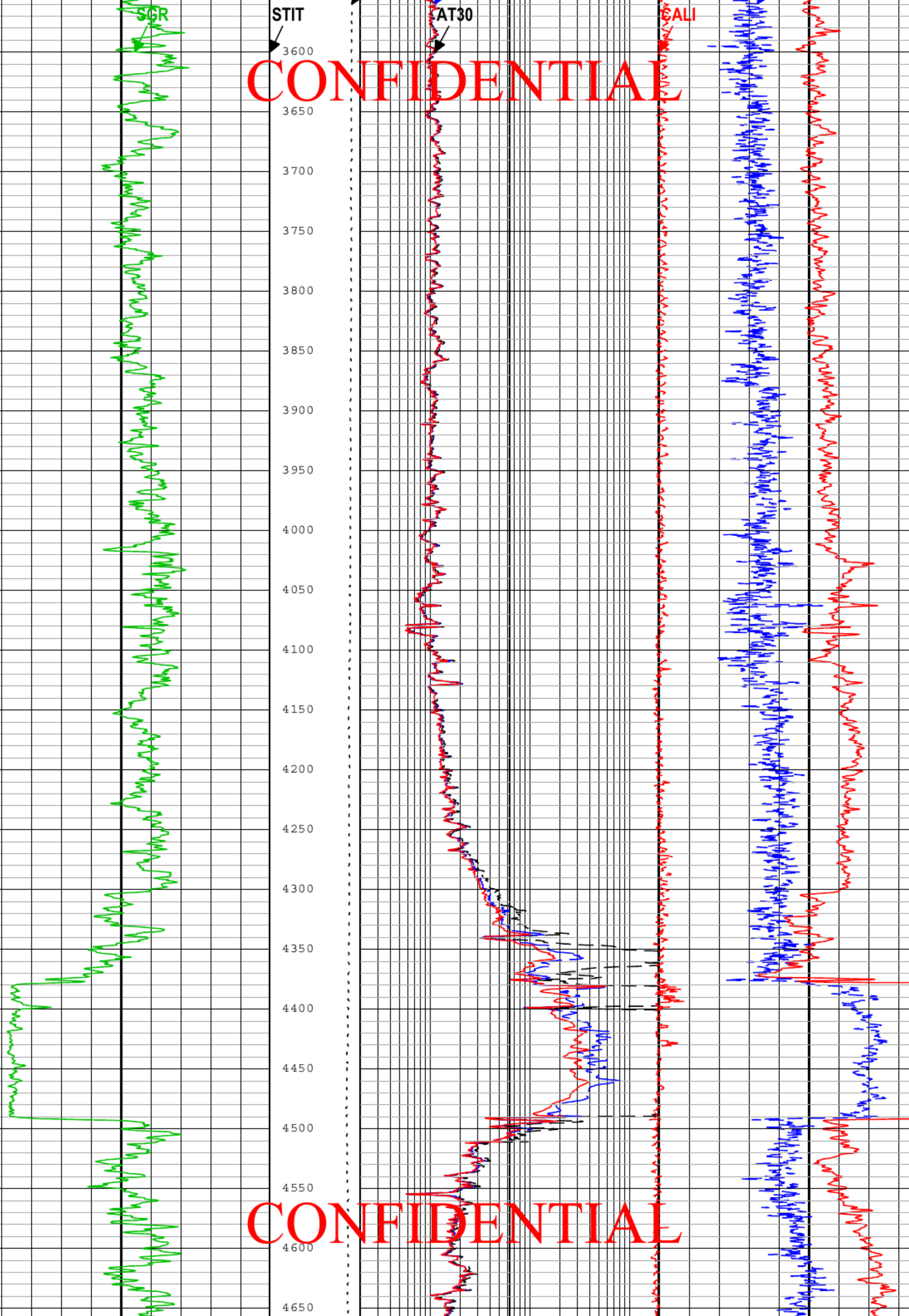
TENS

AT60

INPOR

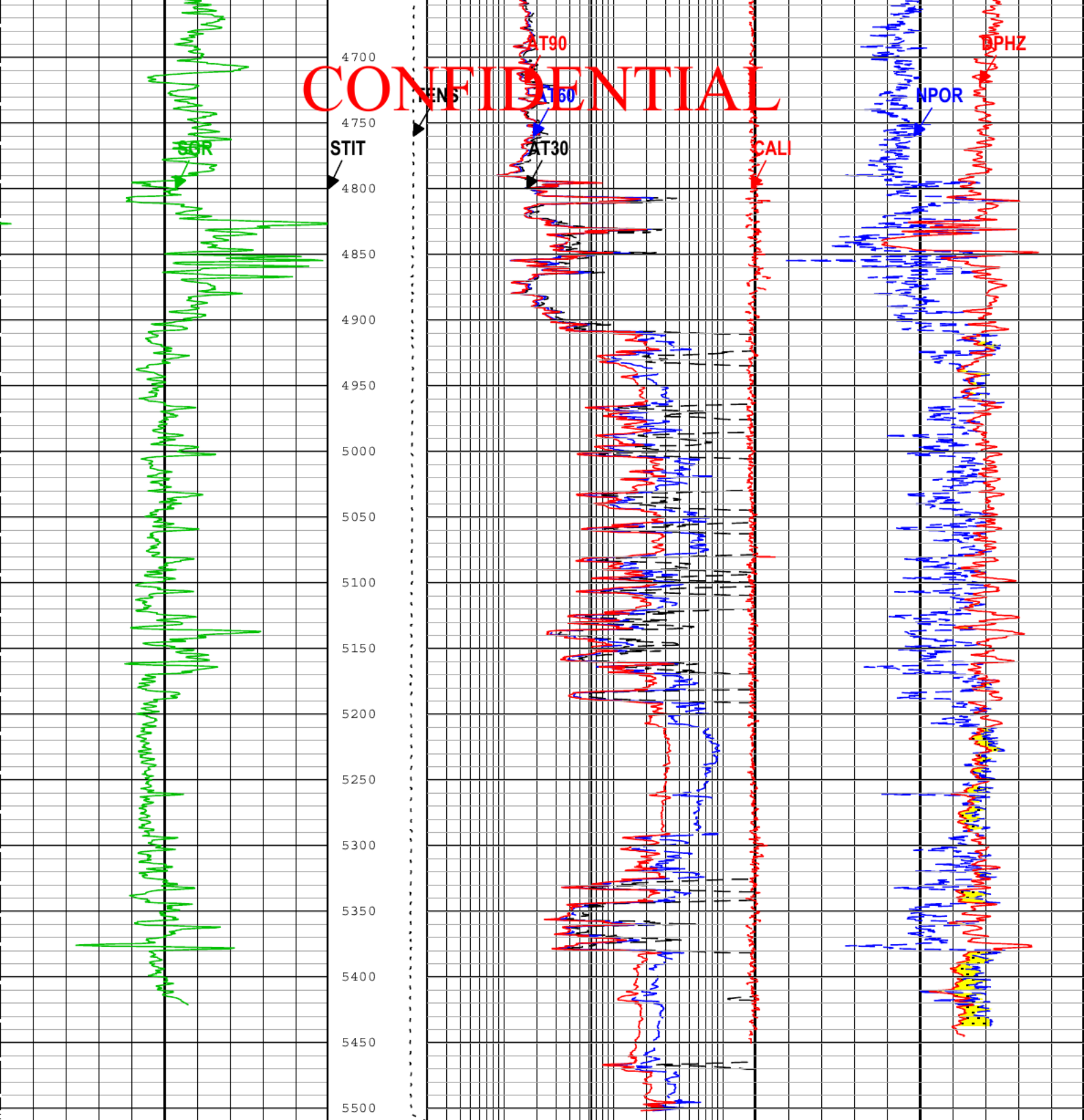
DPHZ

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Spectroscopy Gamma Ray (SGR) HNGS-BA	Stuck Tool Indicator, Total (STIT)	Caliper (CALI) HDRS-H
0 gAPI 150	0 ft 50	0 in 17.5
	Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E	Crossover
Cable Tension (TENS)	0.2 ohm.m 200	Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H
8000 lbf 2000	Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E	0.6 ft3/ft3 0
	0.2 ohm.m 200	Standard Resolution Density Porosity (DPHZ) HDRS-H
	Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E	0.6 ft3/ft3 0

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TIME_1900 - Time Marked every 60.00 (s)

Description: Format: Log (Combo_Fax) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: Measure Depth Creation Date: 19-Sep-2014 14:21:25

Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
ABHME	Array Induction Extended Borehole Correction Mode	ZAIT-E	Compute OBM Plus Dip Normal	
ACDE	Array Induction Casing Detection Enable	ZAIT-E	Yes	
AOFFX	X Accelerometer Offset	GPIT-F	0.86	ft/s2
AOFFY	Y Accelerometer Offset	GPIT-F	0.49	ft/s2
AOFFZ	Z Accelerometer Offset	GPIT-F	-0.03	ft/s2
AROT	Array Induction Rotation Selector	ZAIT-E	North	
ASTA	Array Induction Tool Standoff	ZAIT-E	1	in
BARI	Barite Mud Presence Flag	Borehole	No	
BHK	Drilling Fluid Potassium Concentration	Borehole	0	%
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	233	degF
BS	Bit Size	WLSESSION	8.75	in
BSAL	Borehole Salinity	Borehole	277	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.97	in
CBLO	Casing Bottom (Logger)	WLSESSION	1078	ft
DBCC	Barite Constant Correction Flag	HNGS-BA	None	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	10	lbm/gal
DFT	Drilling Fluid Type	Borehole	Oil	
DHC	Density Hole Correction	HDRS-H	Bit Size	
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
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	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	REMS	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HCRB	Apply Borehole Potassium Correction	HNGS-BA	None	
HEMA	Hematite Presence Flag	Borehole	No	
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)	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.65	g/cm3
SGRC	Standard Gamma Ray Correction Flag	HNGS-BA	Yes	
SOCO	Standoff Correction Option	HGNS-H	Yes	
TD	Total Measured Depth	Borehole	5500	ft
USER_LOCB	User-supplied values for Magnetic Flux Density	WLSESSION	52967.77	nT
USER_MDEC	User-supplied values for Magnetic Declination	WLSESSION	11.94	deg
USER_MDIP	User-supplied values for Magnetic Dip Angle	WLSESSION	67.54	deg

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSSESSION	1000	ft/h

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One

5" Main Pass - Triple Combo

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[4]:Up	Up	106.39 ft	5510.30 ft	18-Sep-2014 3:16:51 PM	18-Sep-2014 6:24:58 PM	ON	2.43 ft	No

All depths are referenced to toolstring zero

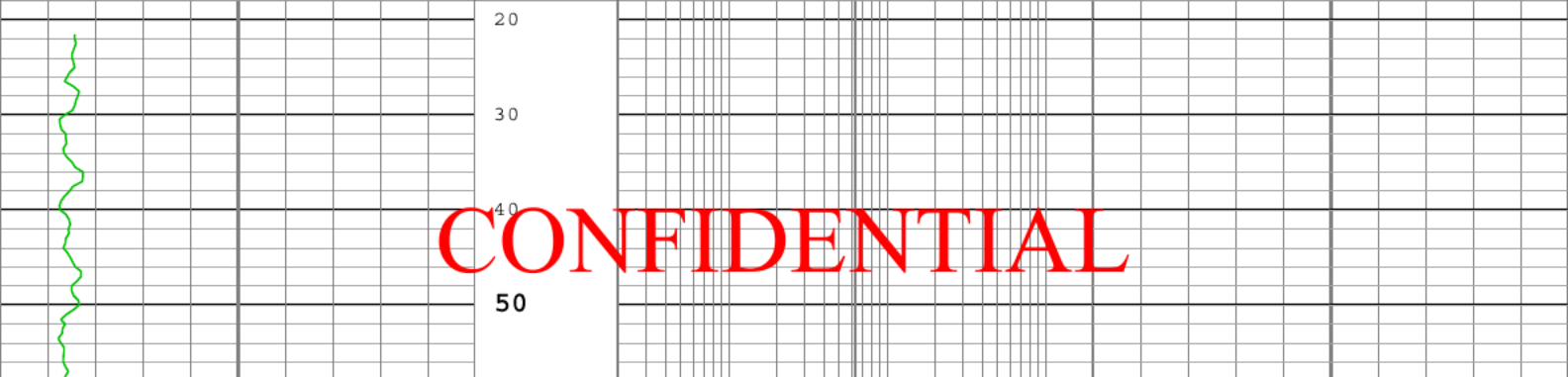
Log	Company: Alta Mesa Services LP Well: DJS Properties 2-14 One: Log[4]:Up:S033
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Description: HGNS standard resolution porosities for Platform Express Format: Log (Combo_Fax) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 19-Sep-2014 14:21:26

Channel	Source	Sampling
AT10	ZAIT-E:AZIS:AZIS	3in
AT30	ZAIT-E:AZIS:AZIS	3in
AT90	ZAIT-E:AZIS:AZIS	3in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPHZ	HDRS-H:HRMS-H:HRGD-H	2in
NPOR	HGNS-H:HGNS-H:HGNS-H	6in
SGR	HNGS-BA:HNGS-BA:HNGS-BA	6in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

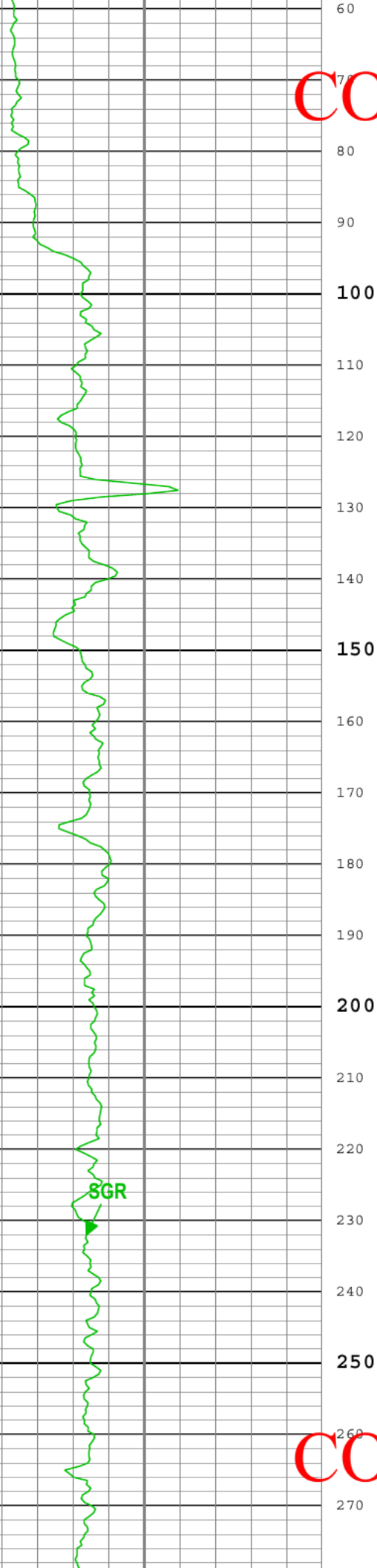
TIME_1900 - Time Marked every 60.00 (s)

		Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E				
		0.2	ohm.m	200	Gas Effect	
		Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E			Standard Resolution Density Porosity (DPHZ) HDRS-H	
		0.2	ohm.m	200	0.6	ft3/ft3
		Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E			Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H	
		0.2	ohm.m	200	0.6	m3/m3
		Caliper (CALI) HDRS-H				
		0			in	17.5



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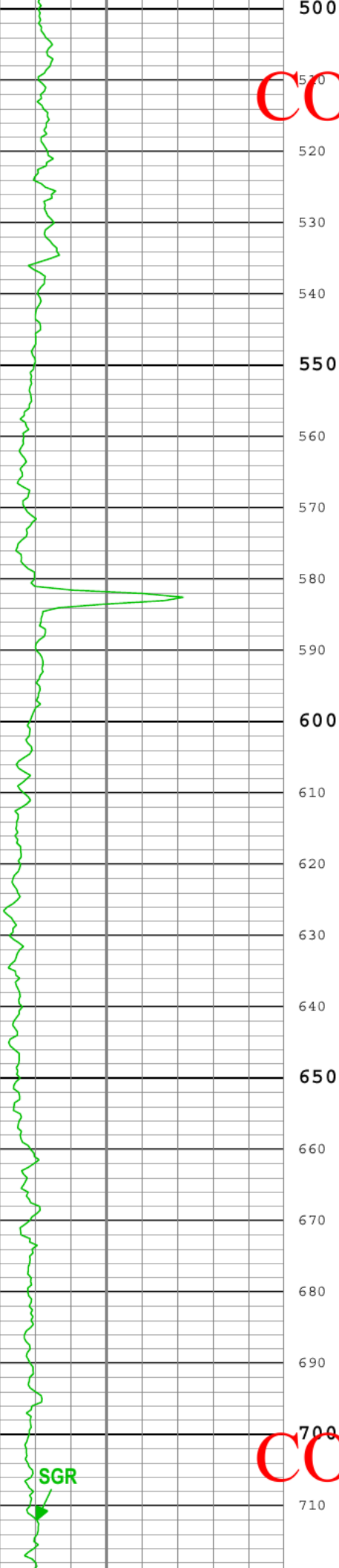
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SGR

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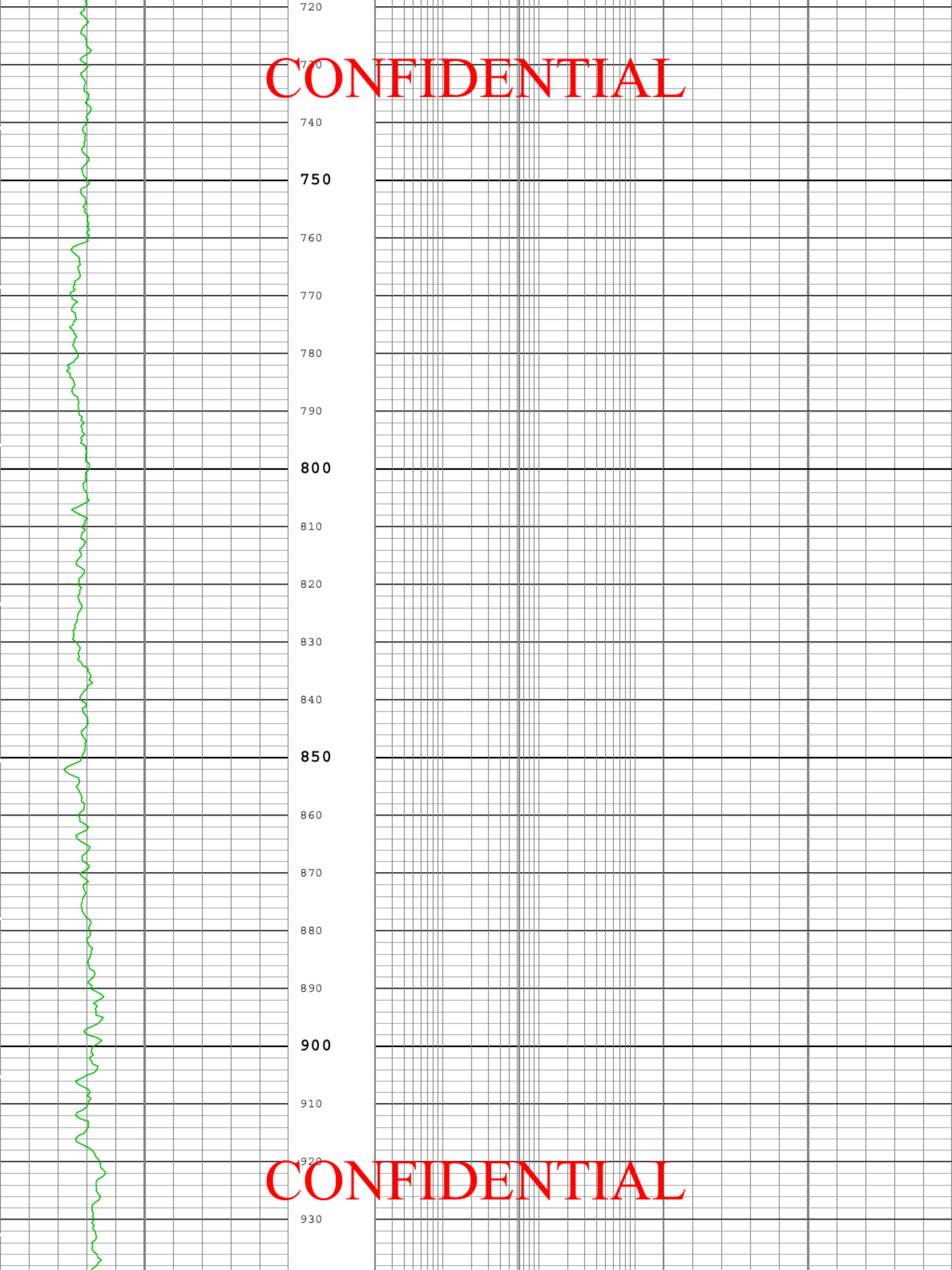
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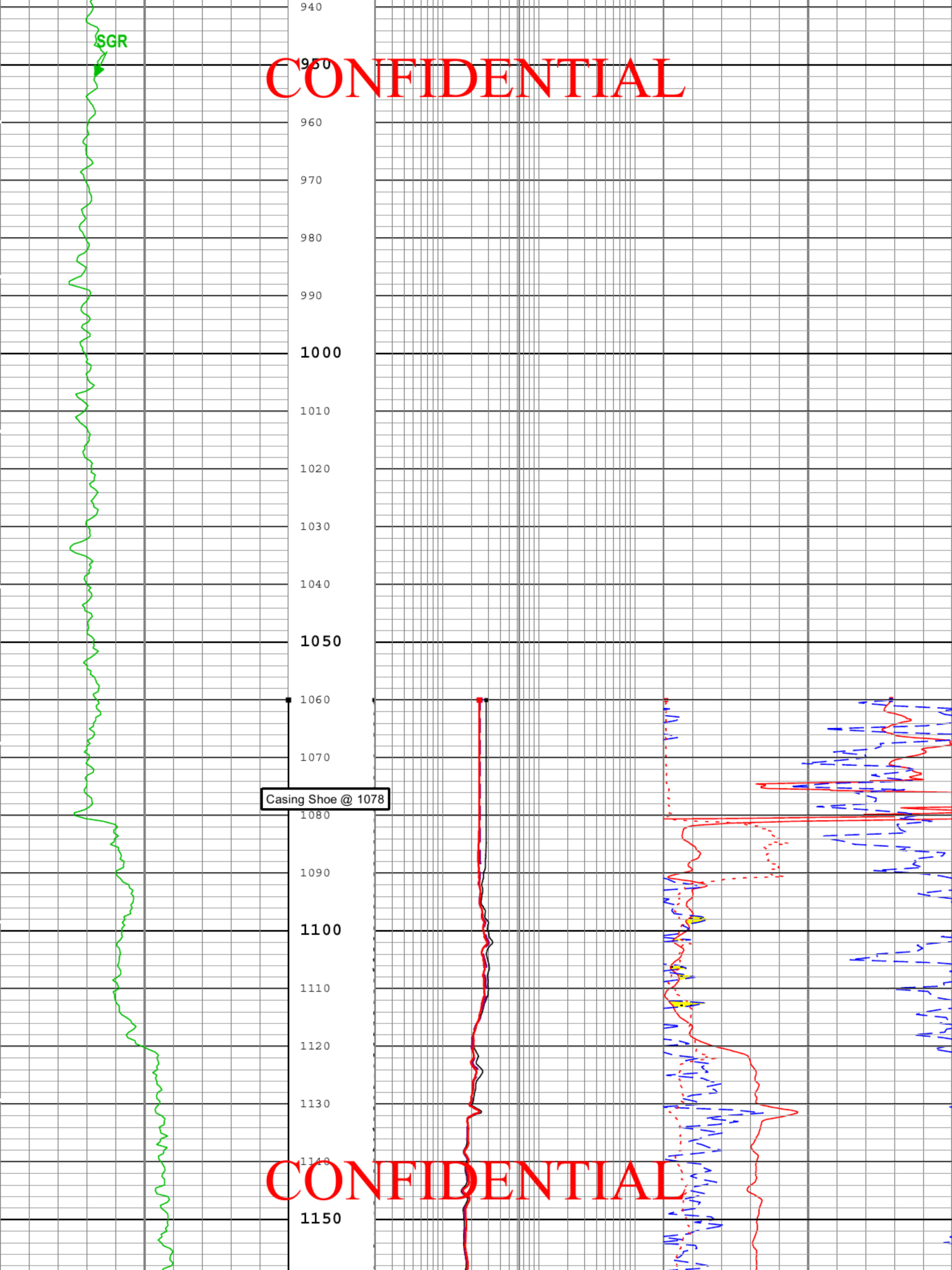


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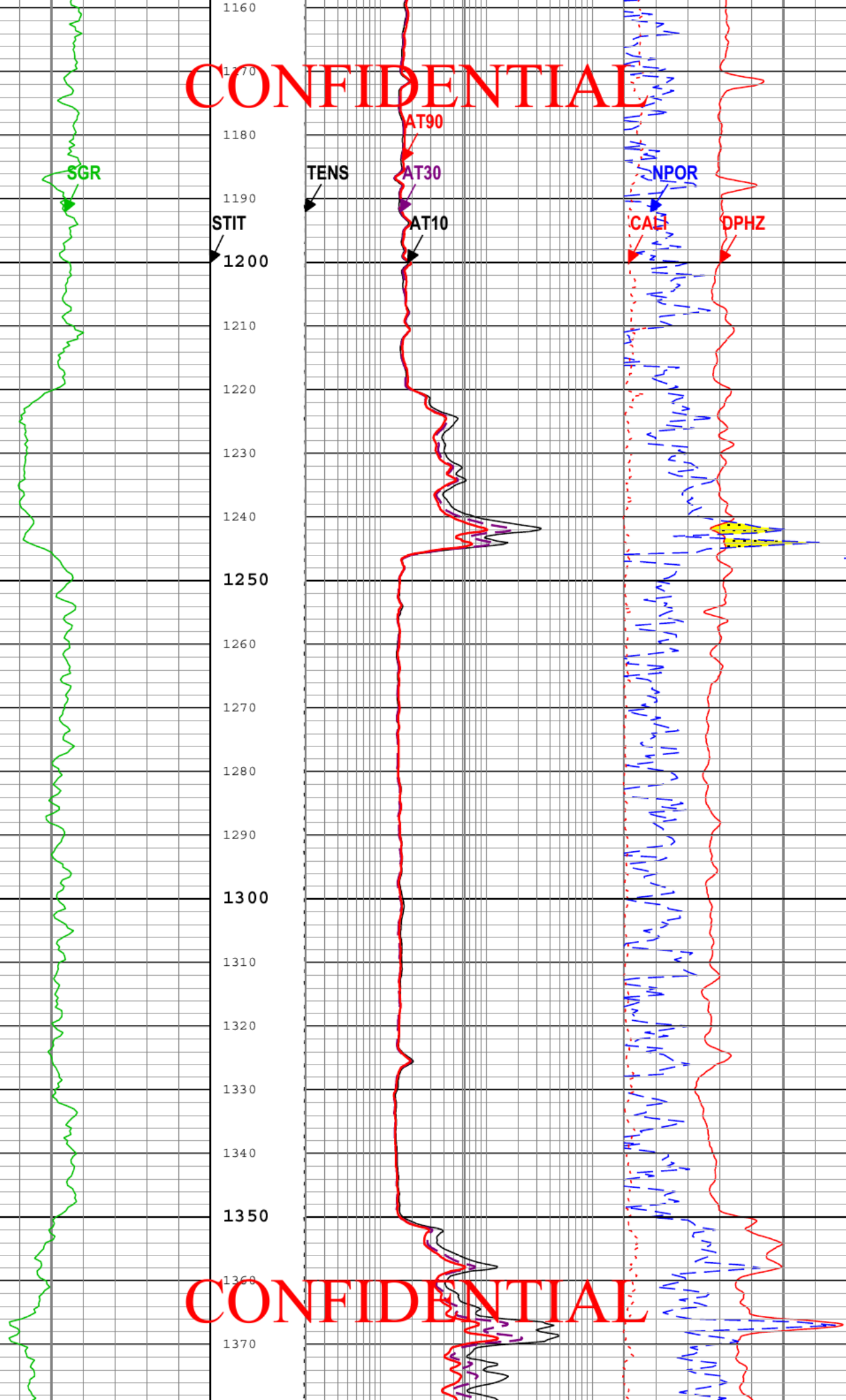
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Casing Shoe @ 1078

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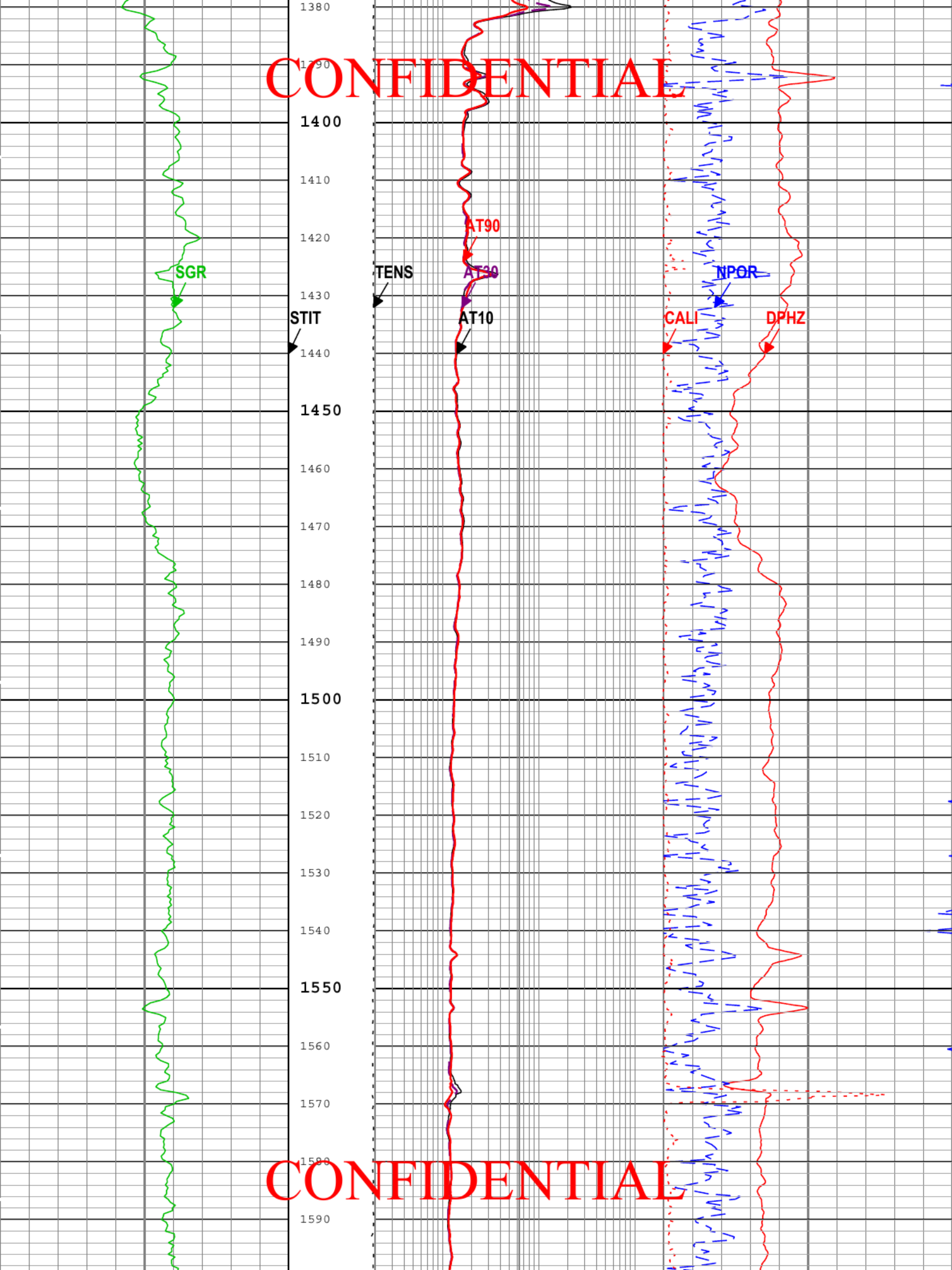


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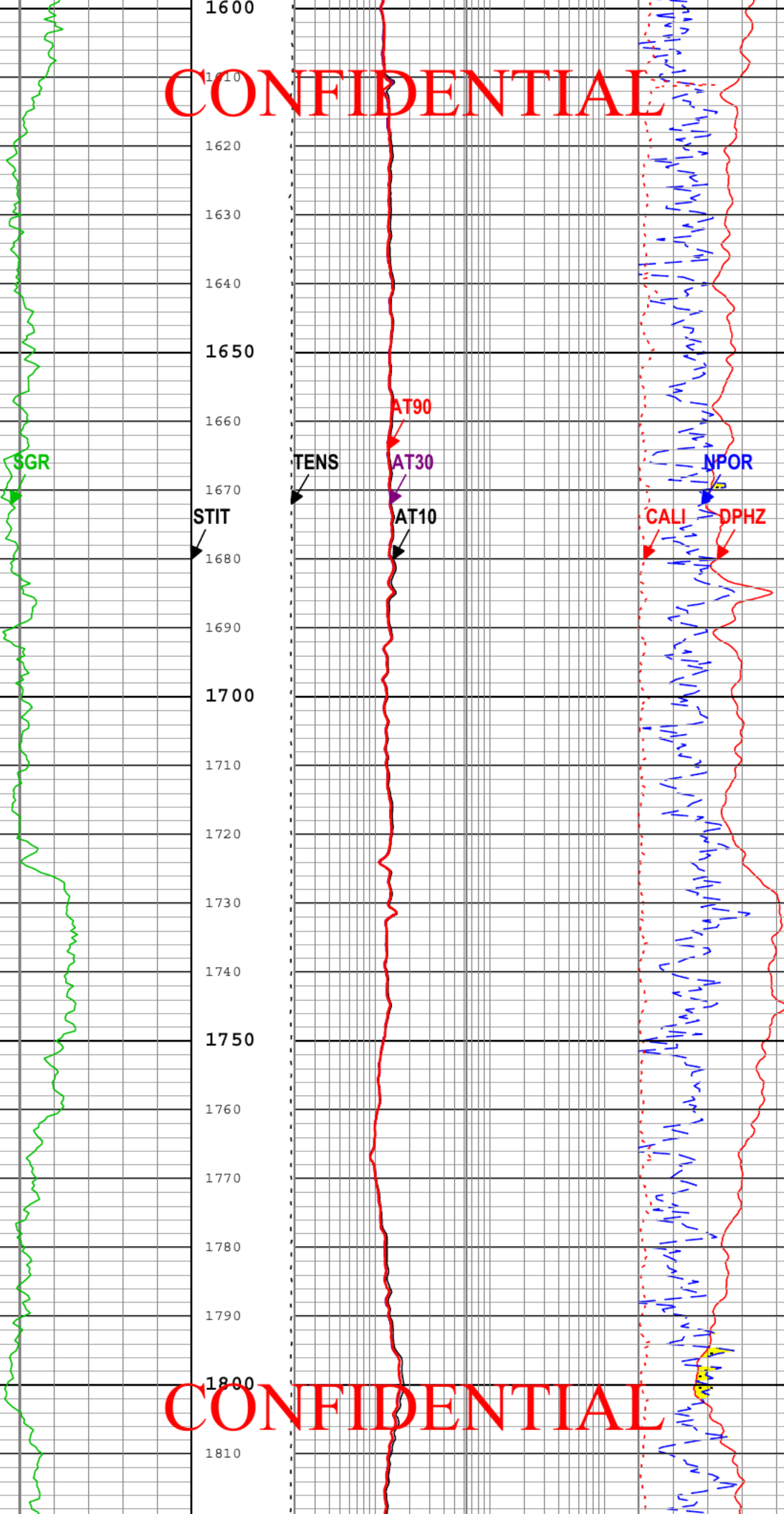
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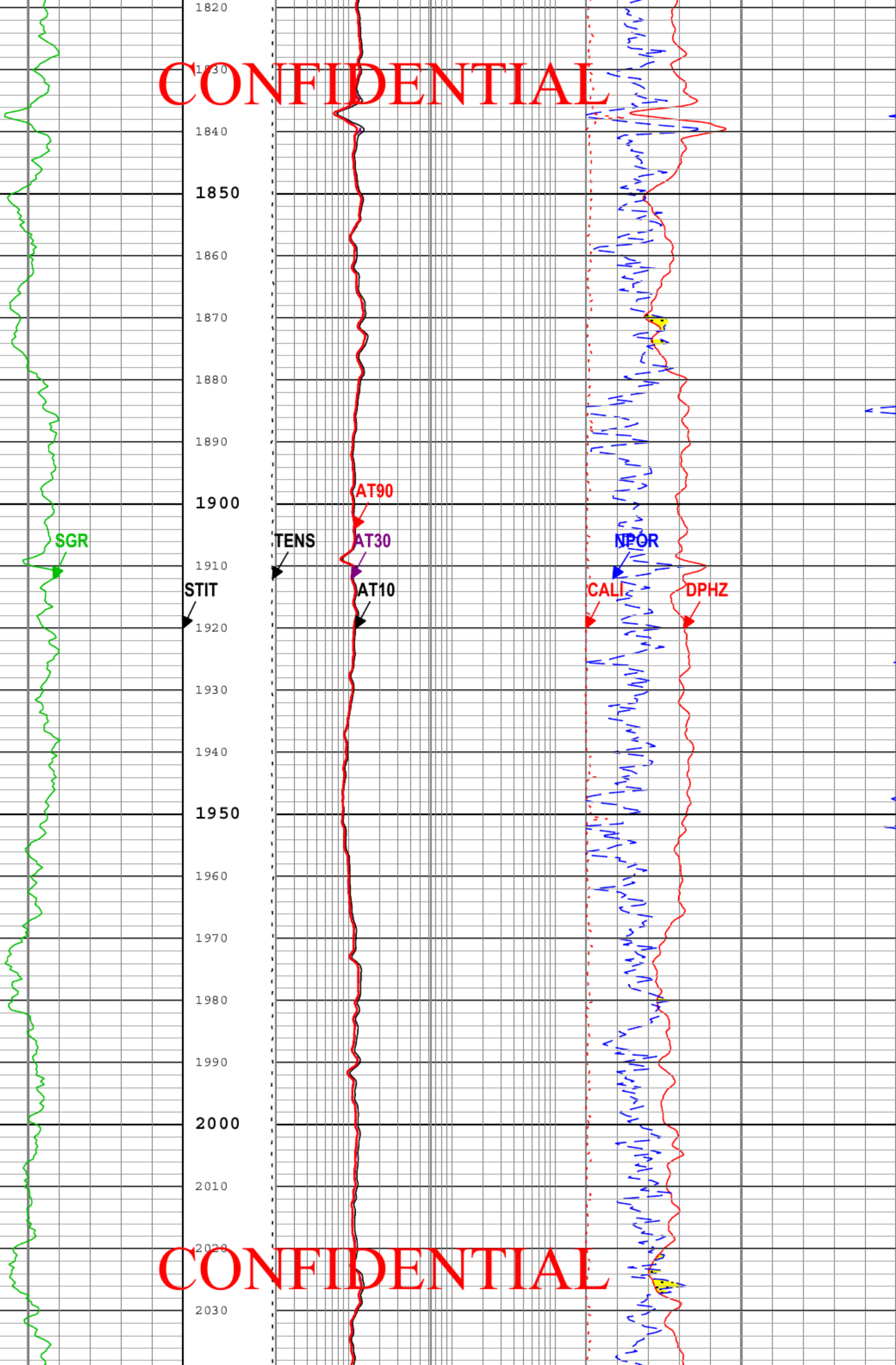
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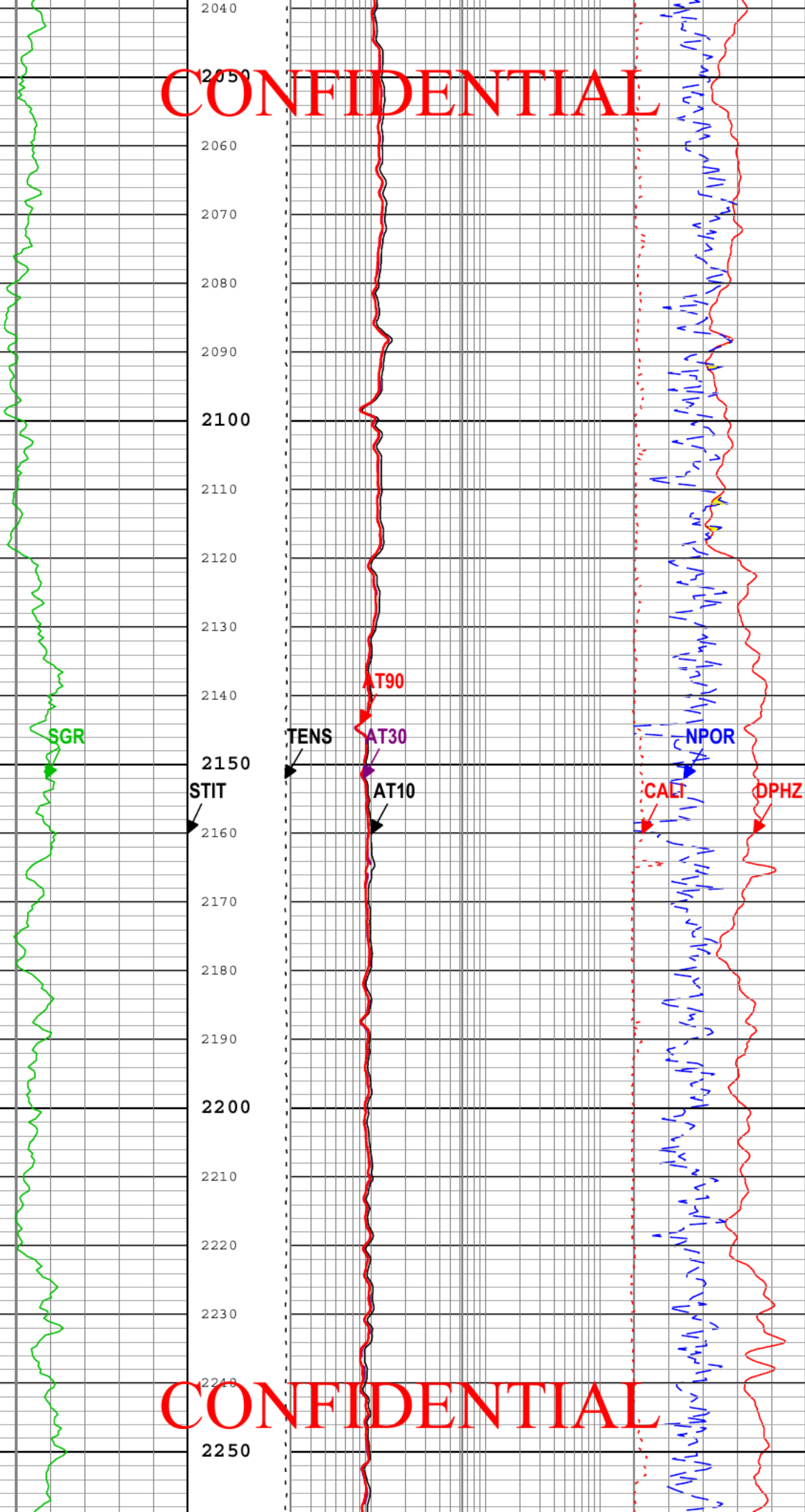
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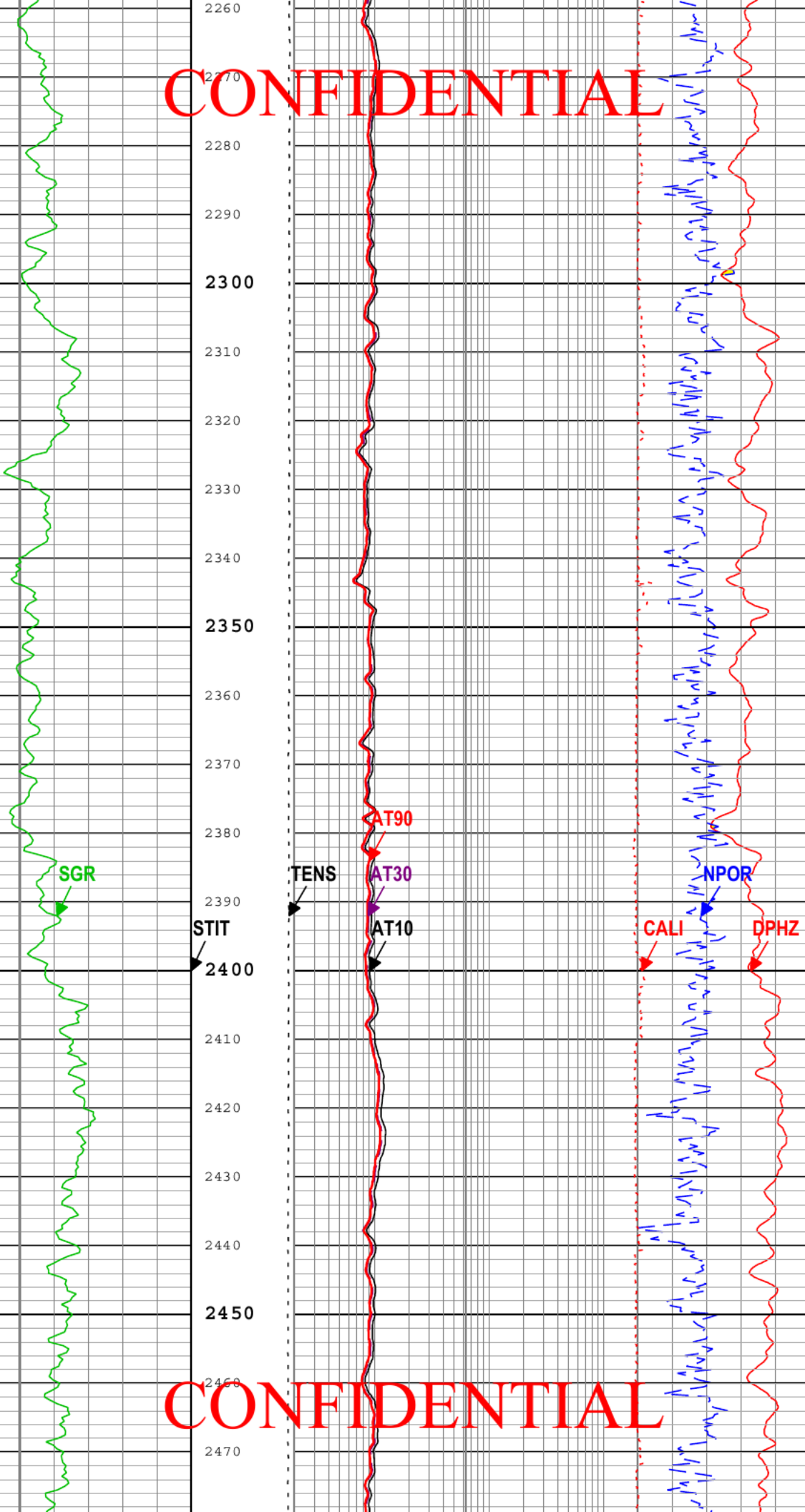
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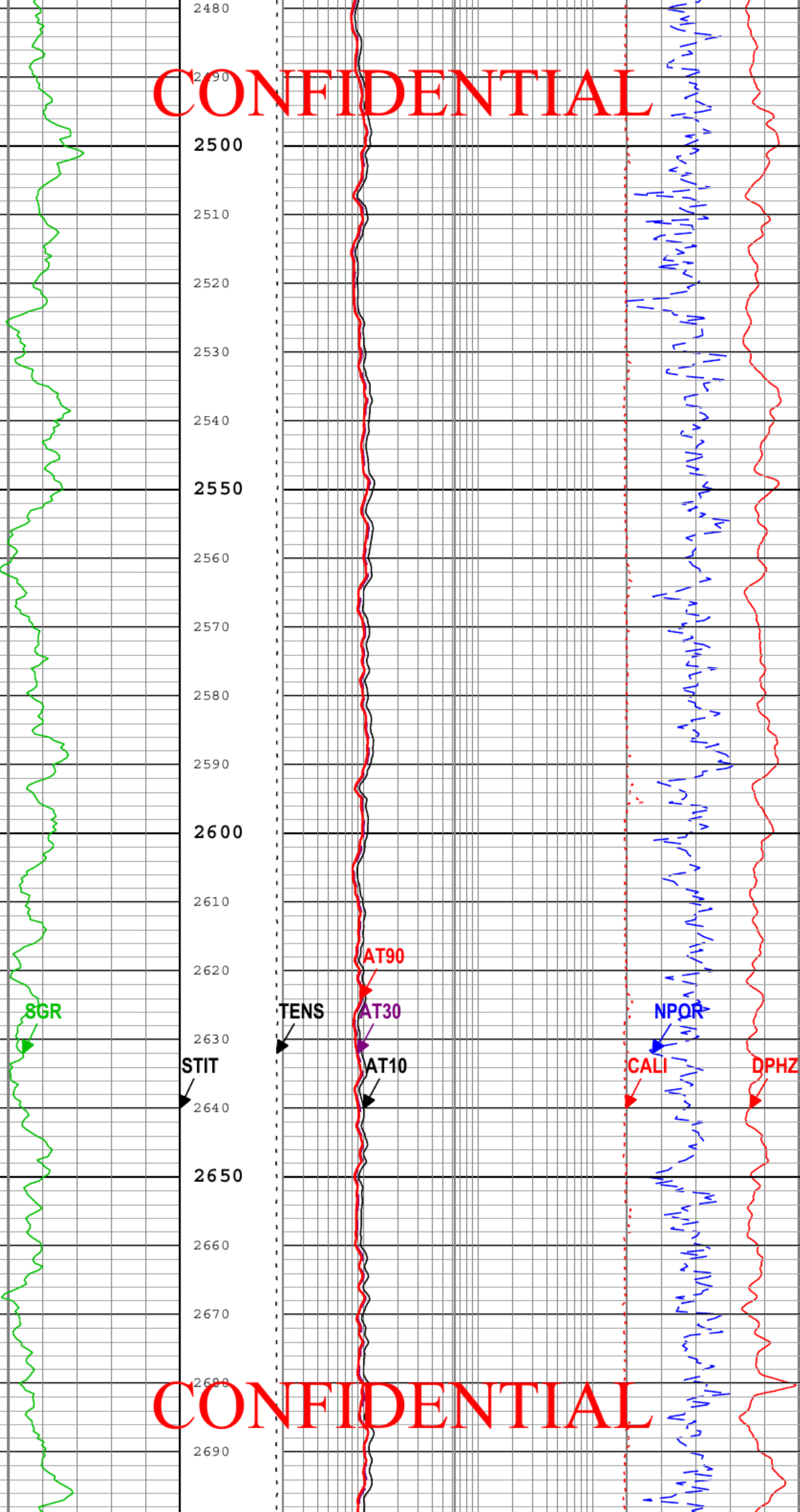
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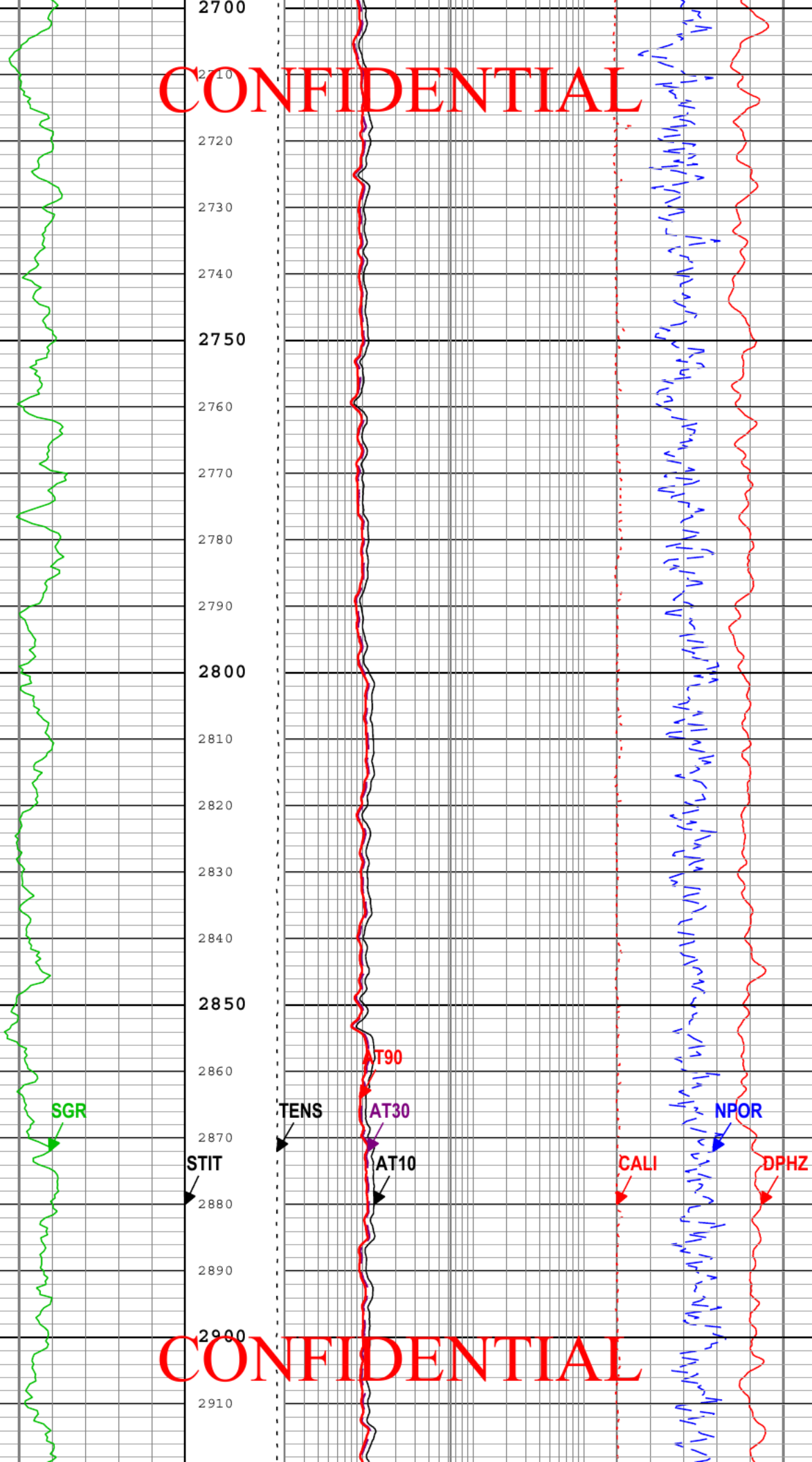
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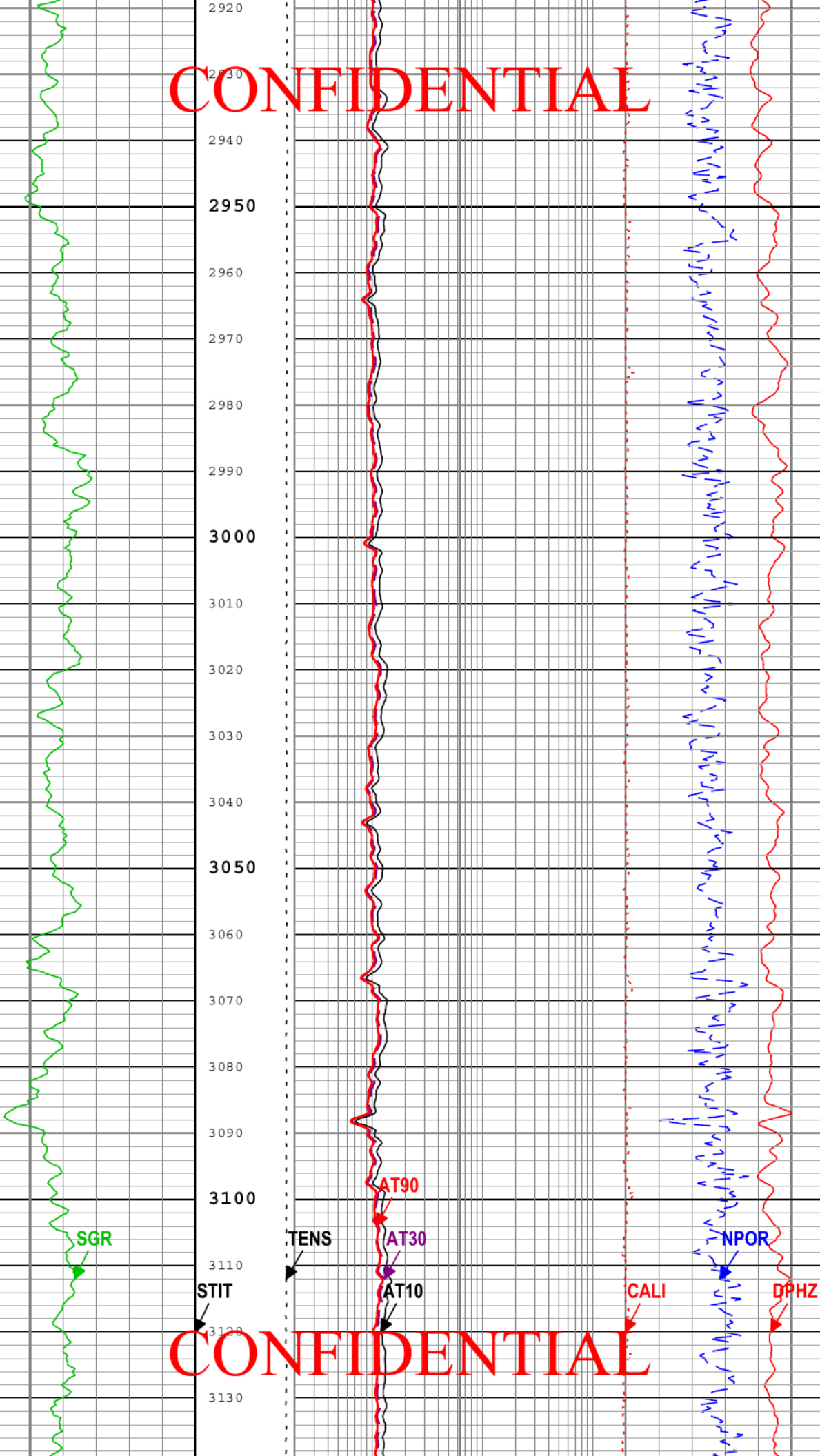
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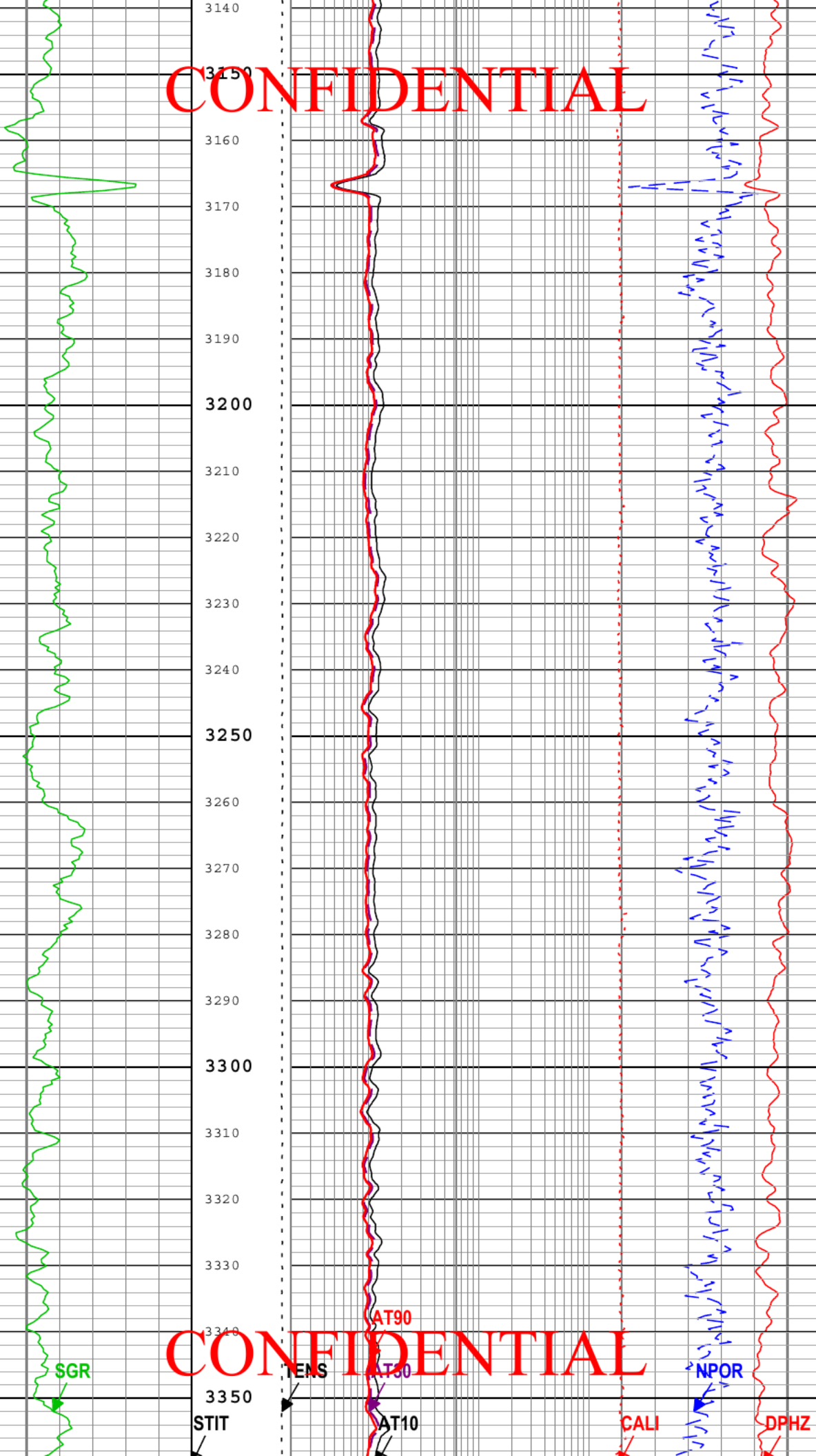
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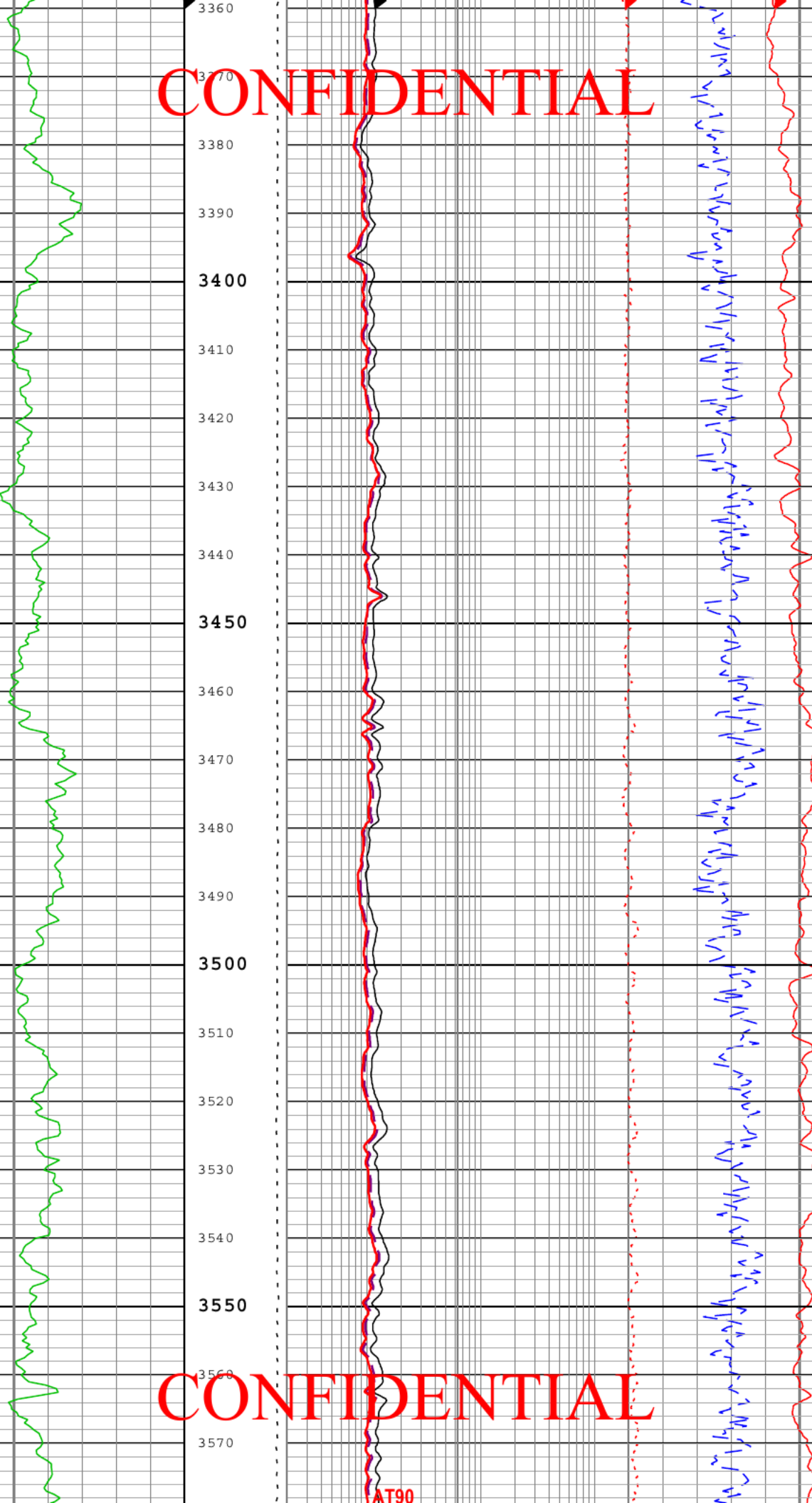
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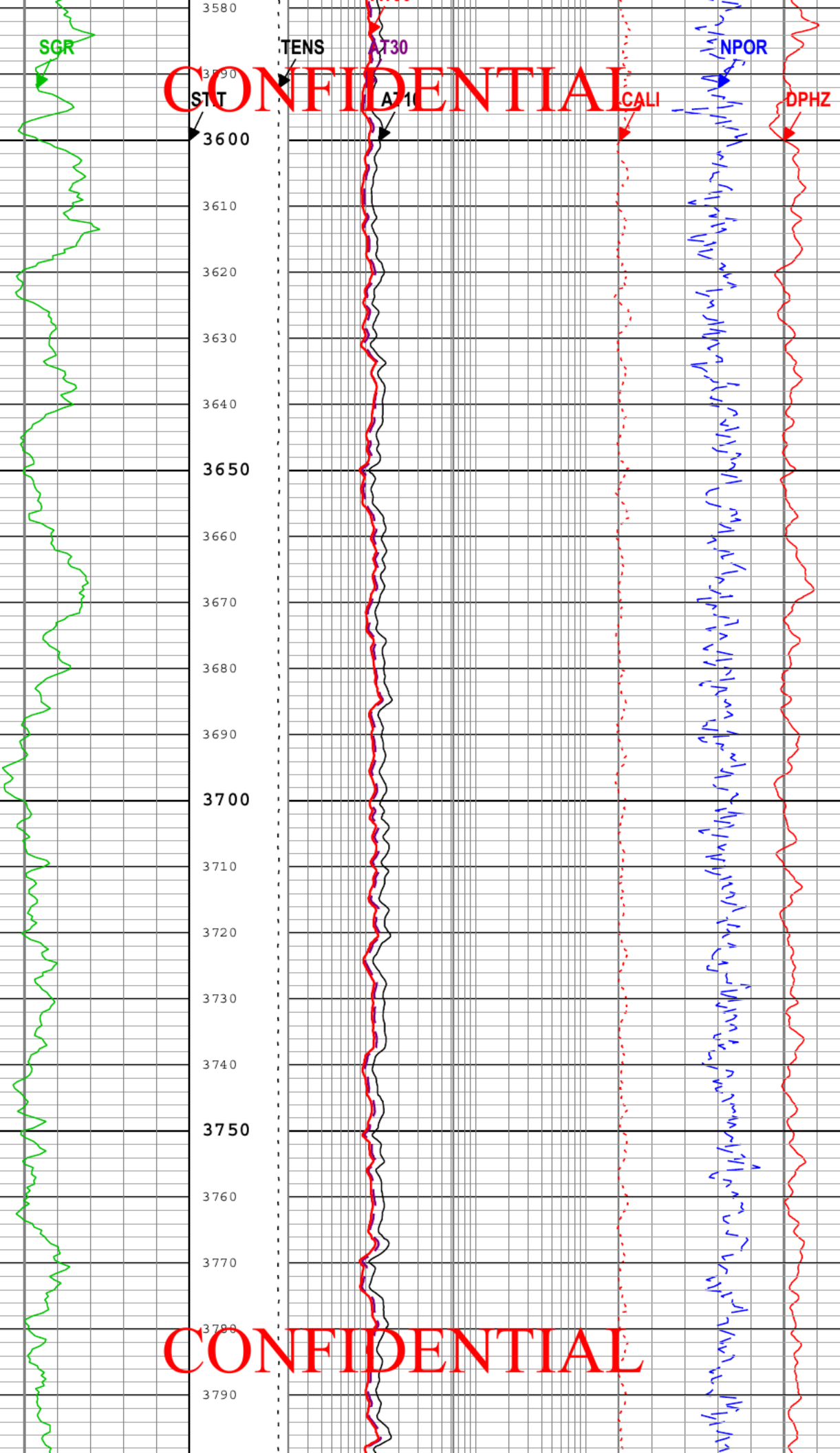
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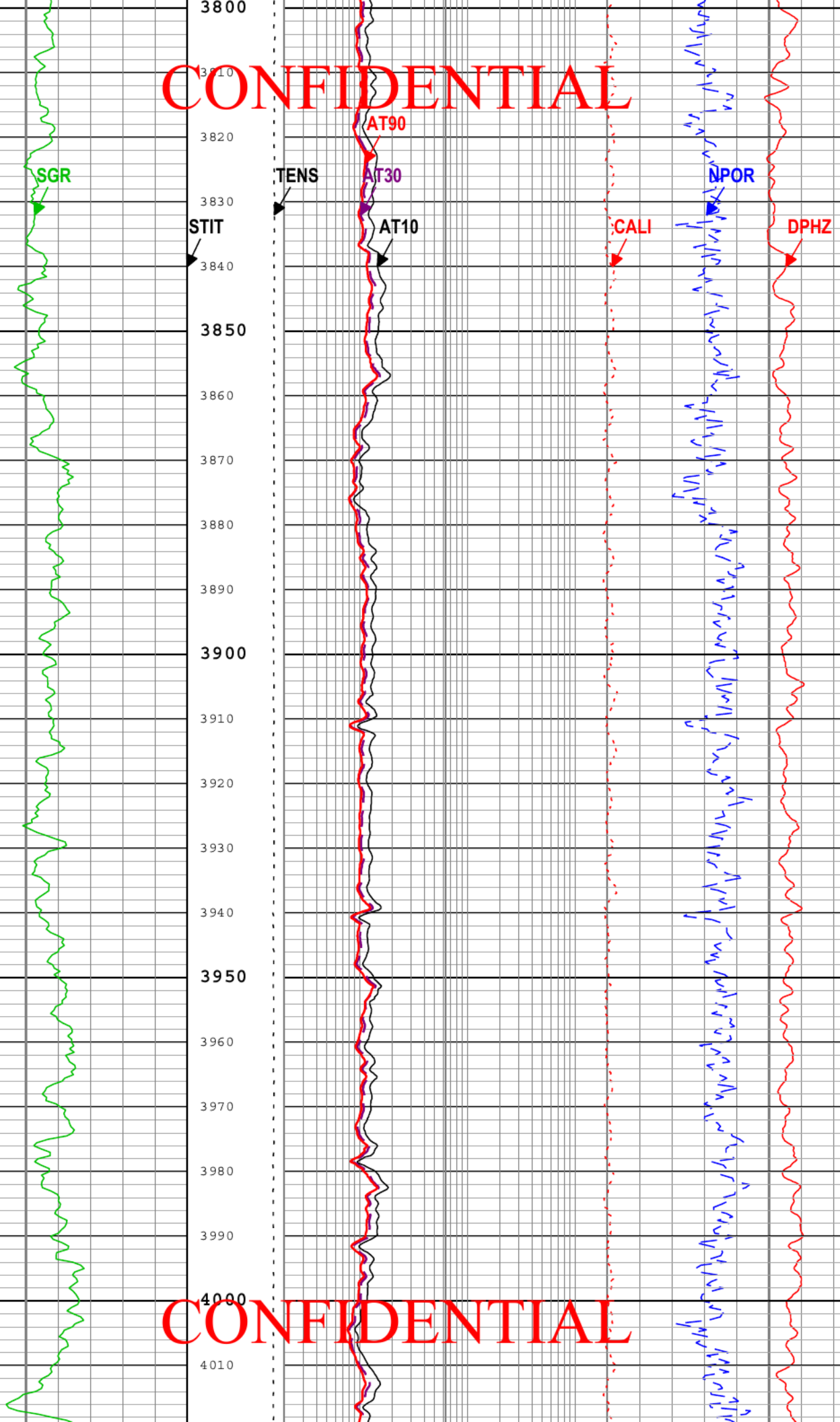
AT90

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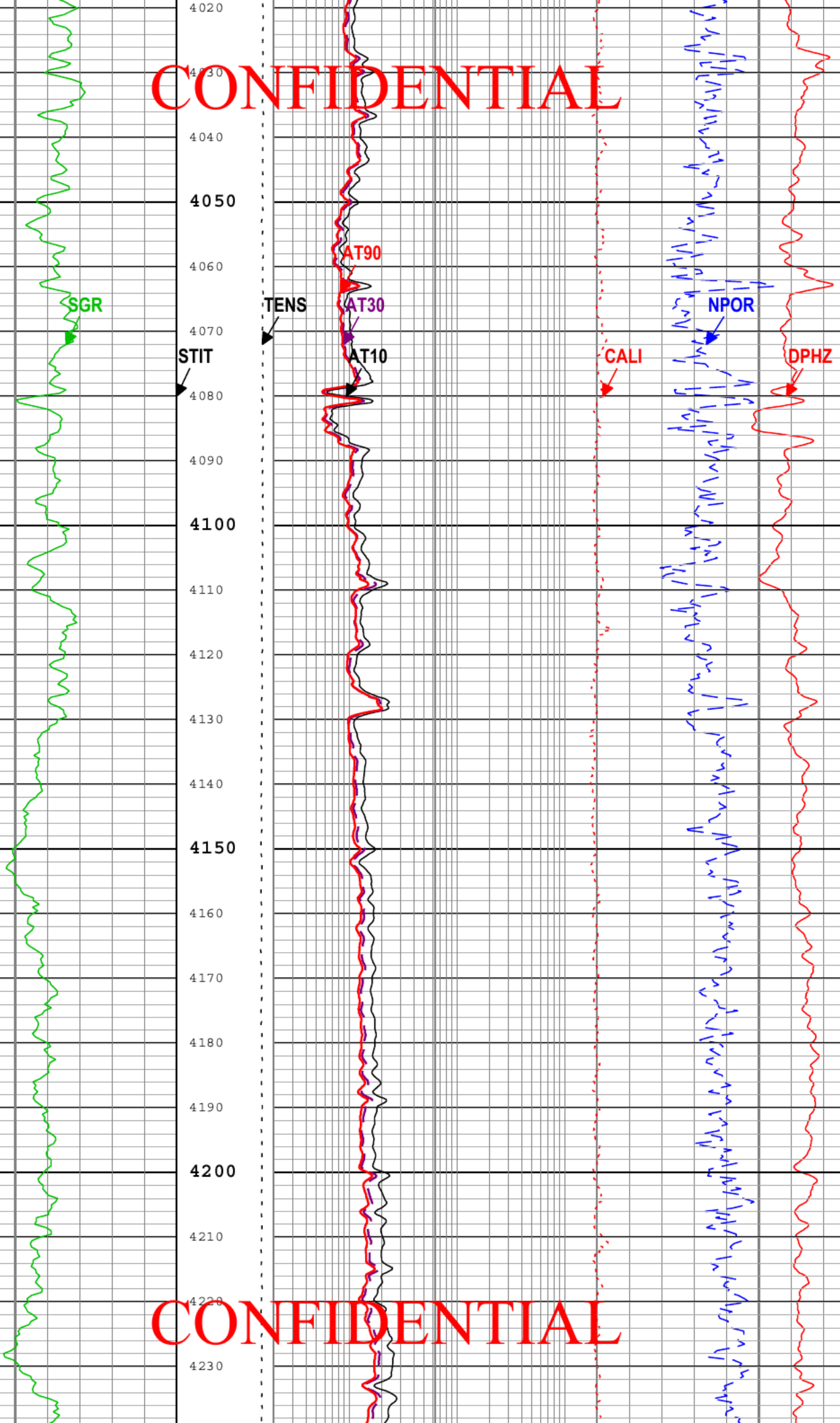
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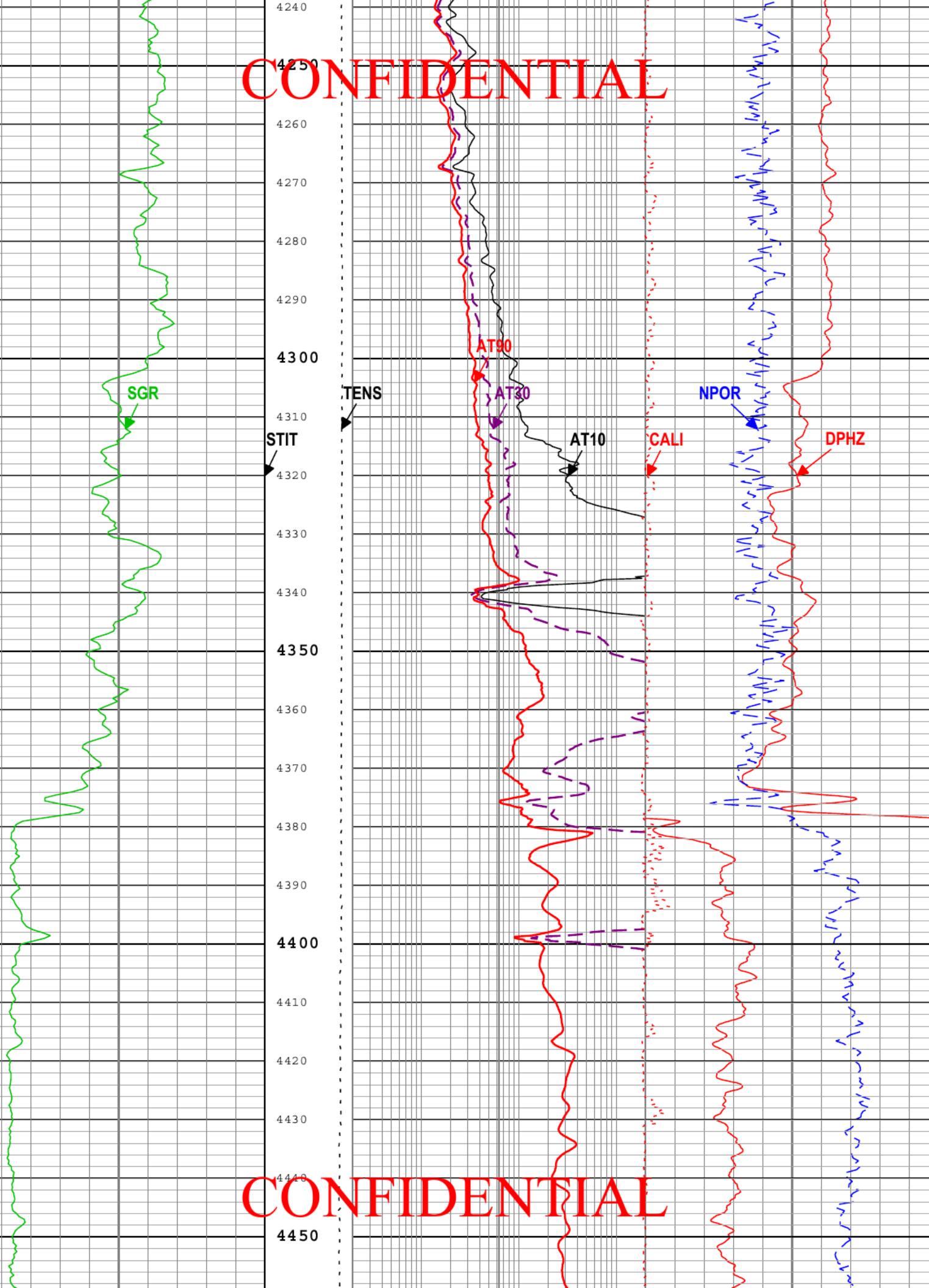
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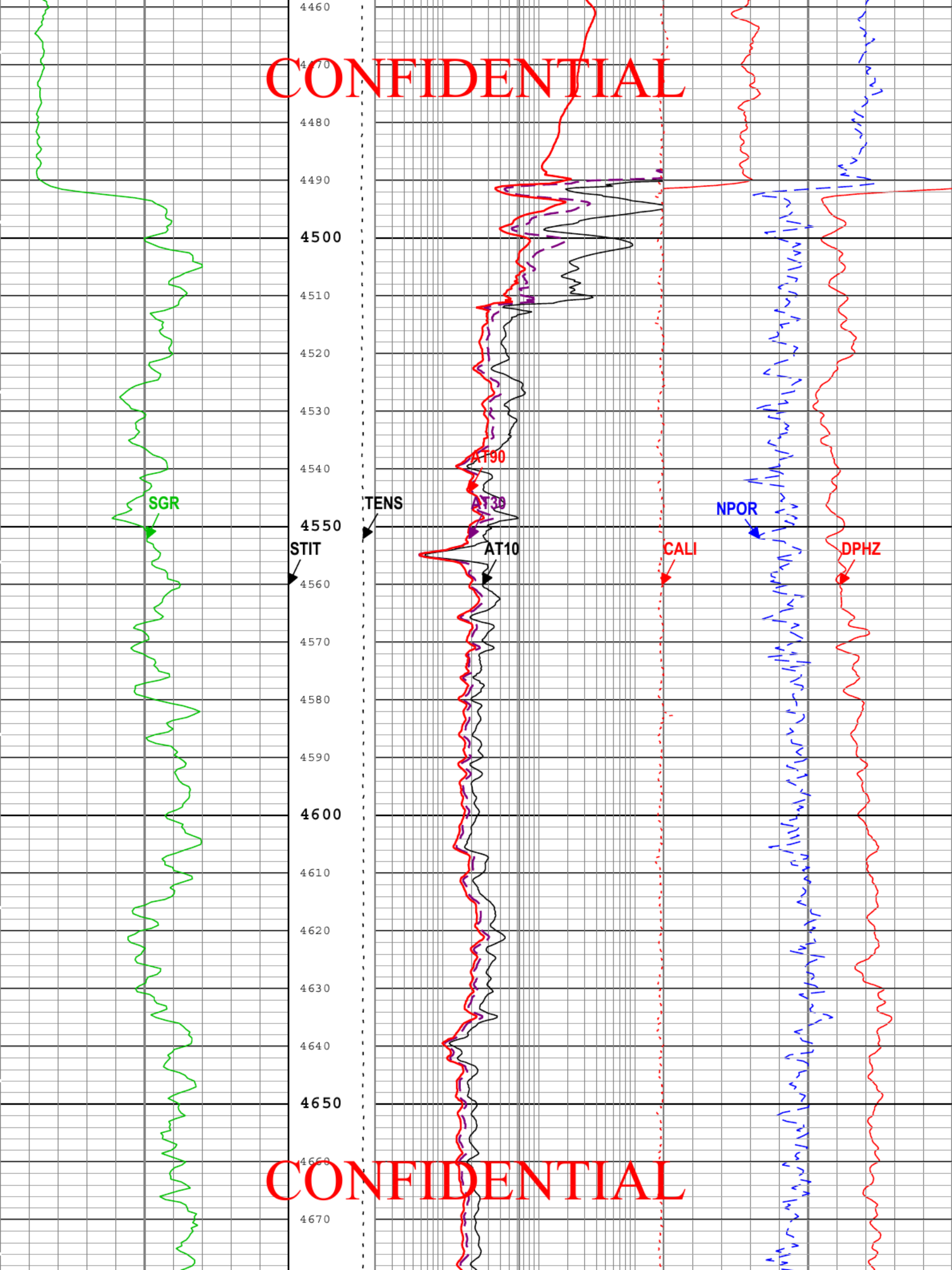
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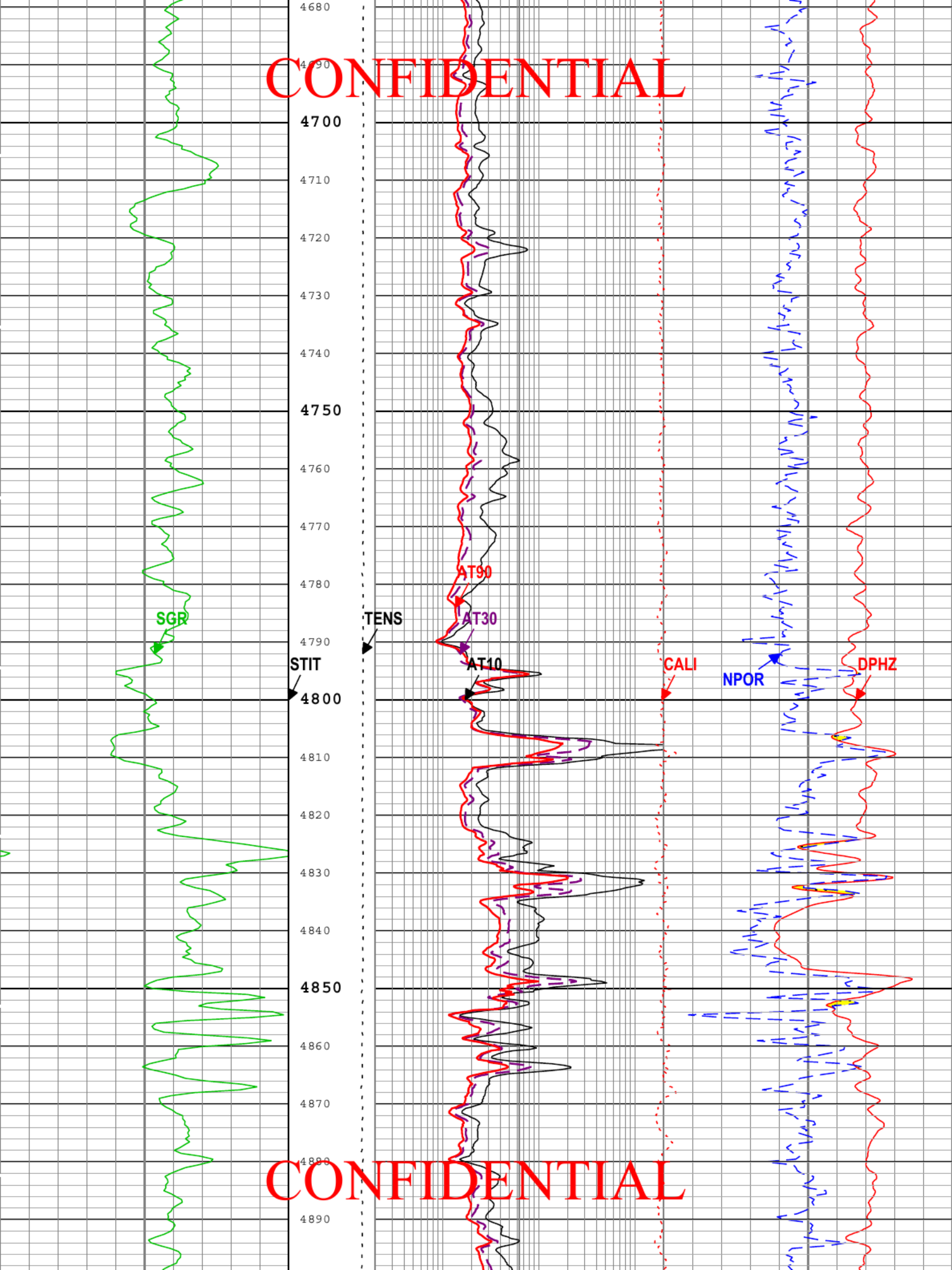
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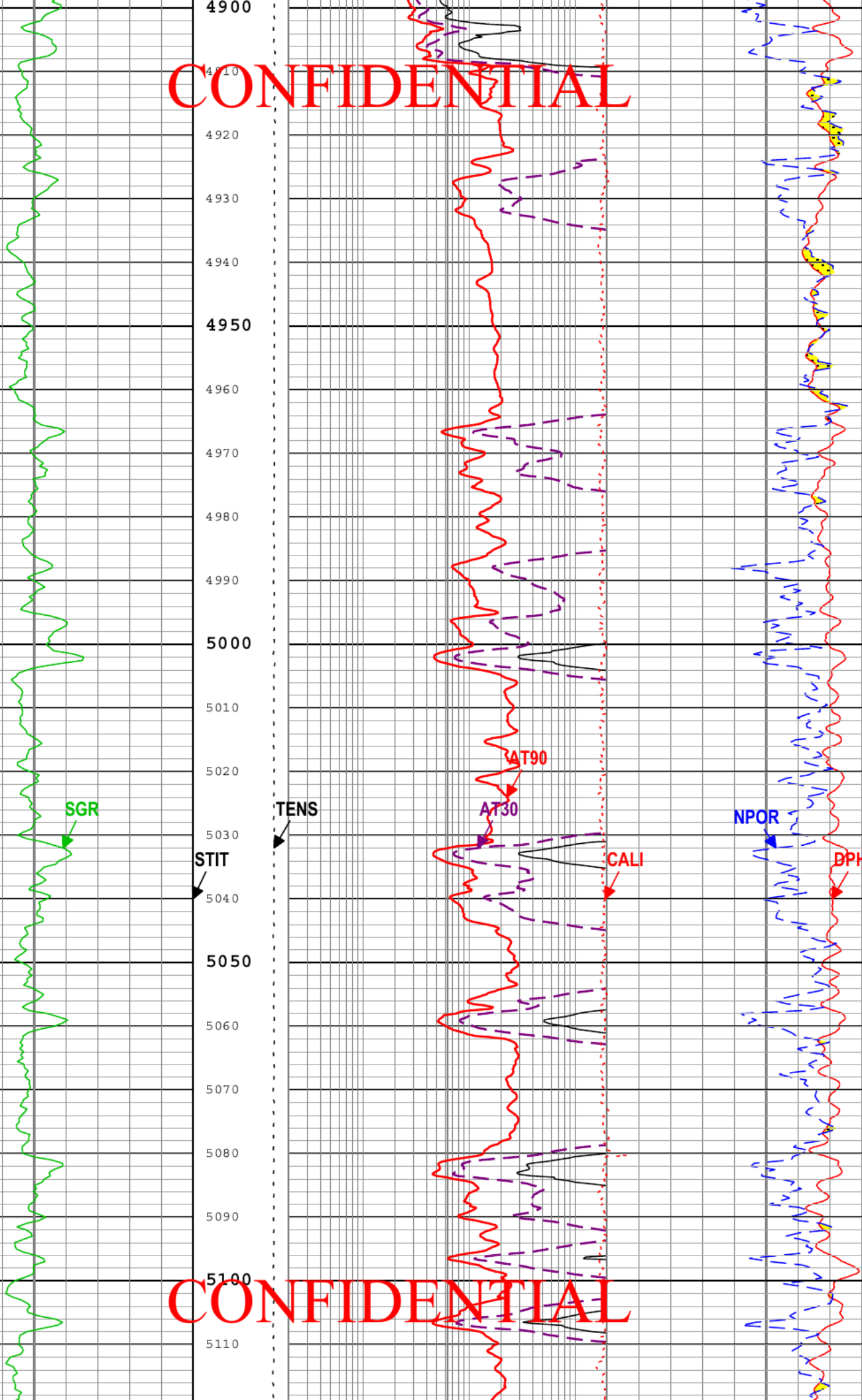
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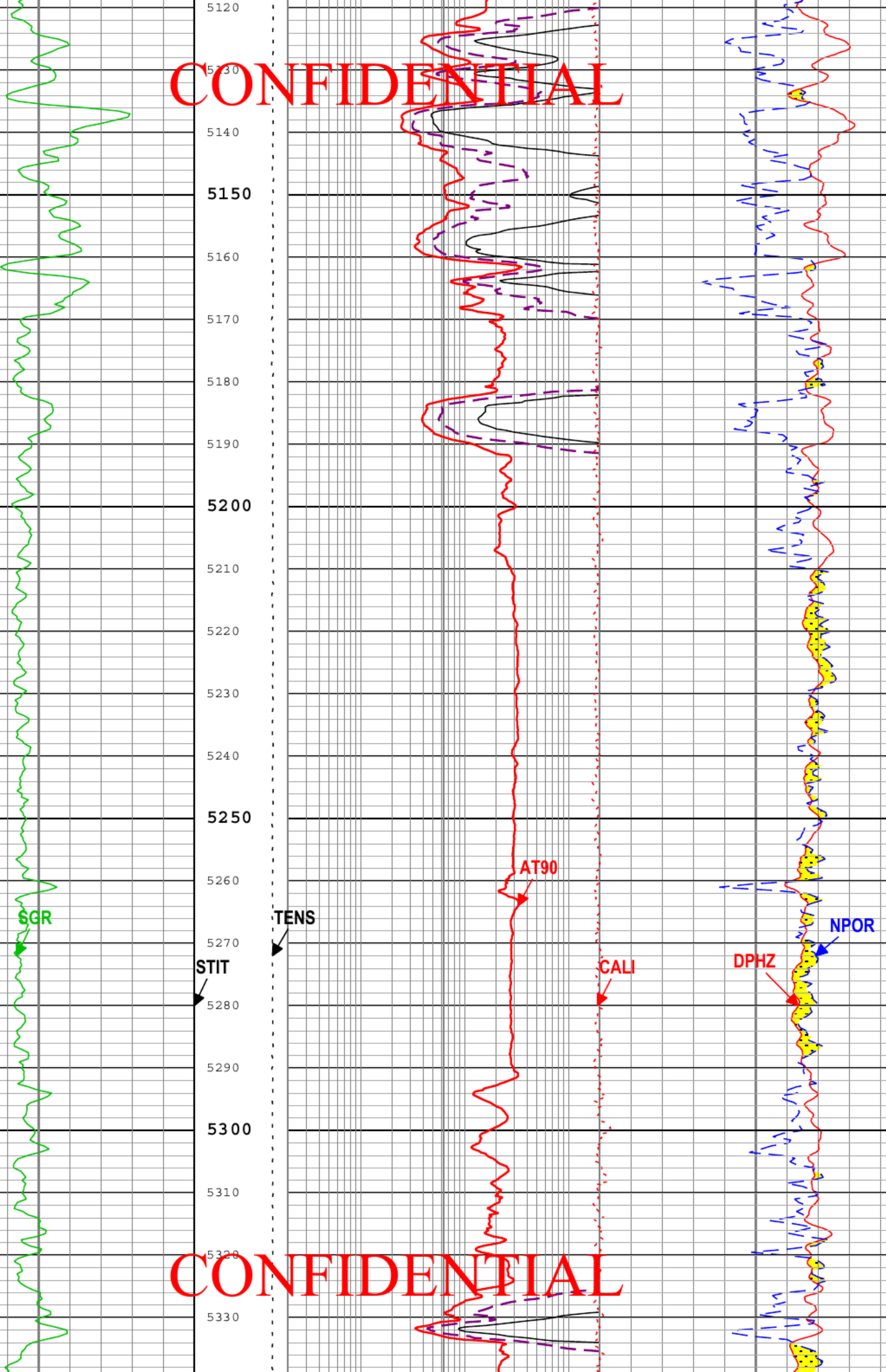
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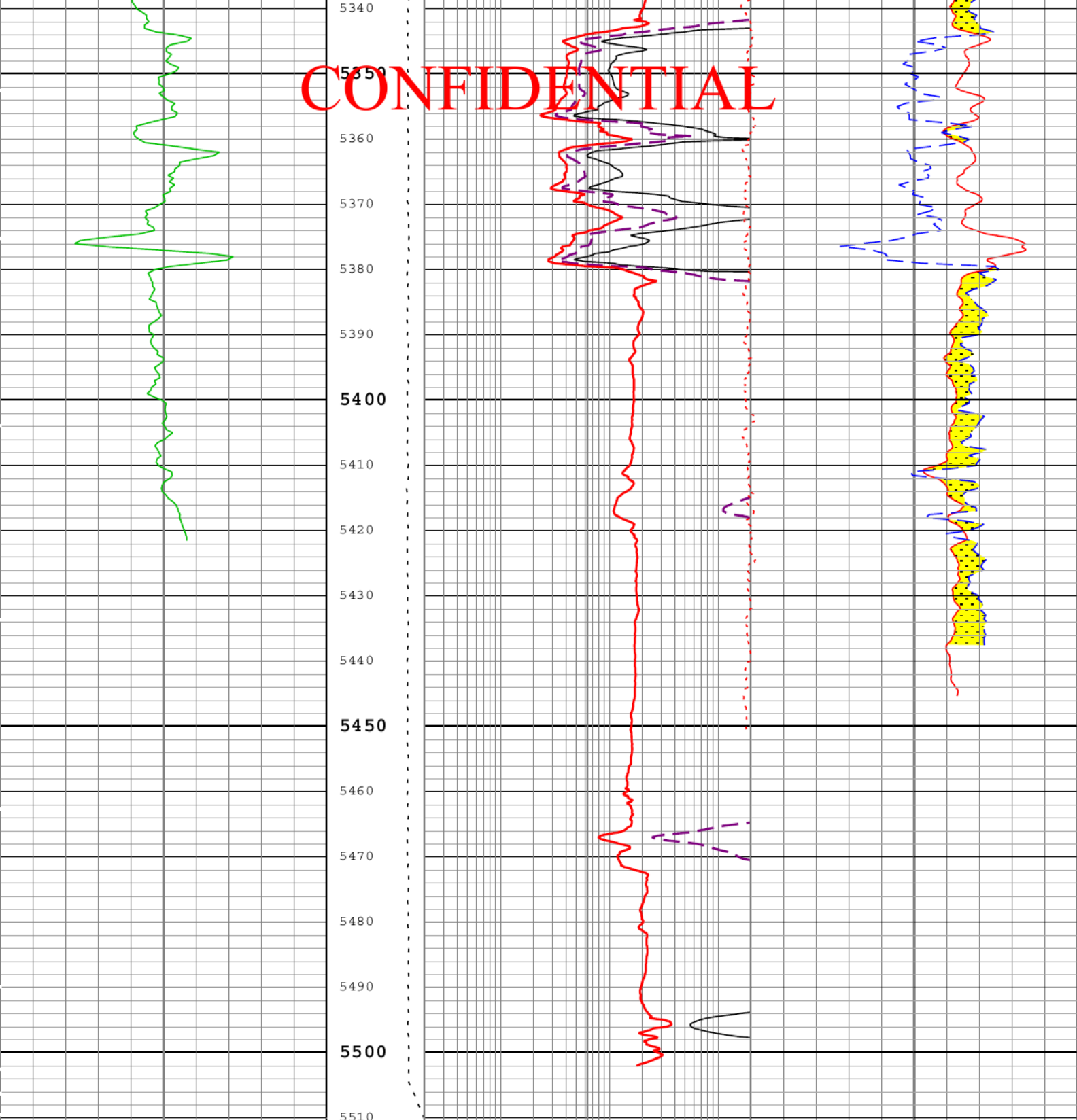
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Spectroscopy Gamma Ray (SGR) HNGS-BA 0 gAPI 150	Stuck Tool Indicator, Total (STIT) 0 ft 50	Caliper (CALI) HDRS-H 0 in 17.5	
	Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E 0.2 ohm.m 200	Gas Effect	
Cable Tension (TENS) 8000 lb 2000	Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E 0.2 ohm.m 200	Standard Resolution Density Porosity (DPHZ) HDRS-H 0.6 ft3/ft3 0	
	Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E 0.2 ohm.m 200	Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H 0.6 m3/m3 0	

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TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format Log (Combo_Fax) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 19-Sep-2014 14:21:26

CONFIDENTIAL**Channel Processing Parameters**

Parameter	Description	Tool	Value	Unit
ABHME	Array Induction Extended Borehole Correction Mode	ZAIT-E	Compute OBM Plus Dip Normal	
ACDE	Array Induction Casing Detection Enable	ZAIT-E	Yes	
AOFFX	X Accelerometer Offset	GPIT-F	0.86	ft/s2
AOFFY	Y Accelerometer Offset	GPIT-F	0.49	ft/s2
AOFFZ	Z Accelerometer Offset	GPIT-F	-0.03	ft/s2
AROT	Array Induction Rotation Selector	ZAIT-E	North	
ASTA	Array Induction Tool Standoff	ZAIT-E	1	in
BARI	Barite Mud Presence Flag	Borehole	No	
BHK	Drilling Fluid Potassium Concentration	Borehole	0	%
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	233	degF
BS	Bit Size	WLSESSION	8.75	in
BSAL	Borehole Salinity	Borehole	277	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.97	in
CBLO	Casing Bottom (Logger)	WLSESSION	1078	ft
DBCC	Barite Constant Correction Flag	HNGS-BA	None	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	10	lbm/gal
DFT	Drilling Fluid Type	Borehole	Oil	
DHC	Density Hole Correction	HDRS-H	Bit Size	
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
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	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	REMS	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HCRB	Apply Borehole Potassium Correction	HNGS-BA	None	
HEMA	Hematite Presence Flag	Borehole	No	
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)	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.65	g/cm3
SGRC	Standard Gamma Ray Correction Flag	HNGS-BA	Yes	
SOCO	Standoff Correction Option	HGNS-H	Yes	
TD	Total Measured Depth	Borehole	5500	ft
USER_LOCB	User-supplied values for Magnetic Field Density	WLSESSION	5.967.77	nT
USER_MDEC	User-supplied values for Magnetic Declination	WLSESSION	13.94	deg
USER_MDIP	User-supplied values for Magnetic Dip Angle	WLSESSION	67.54	deg

CONFIDENTIAL**Tool Control Parameters**

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WTH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h

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One

5" Repeat Pass - Triple Combo

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[3]:Up	Up	5186.50 ft	5512.77 ft	18-Sep-2014 2:49:08 PM	18-Sep-2014 3:08:02 PM	ON	2.08 ft	No
One	Log[4]:Up	Up	106.39 ft	5510.30 ft	18-Sep-2014 3:16:51 PM	18-Sep-2014 6:24:58 PM	ON	2.43 ft	No

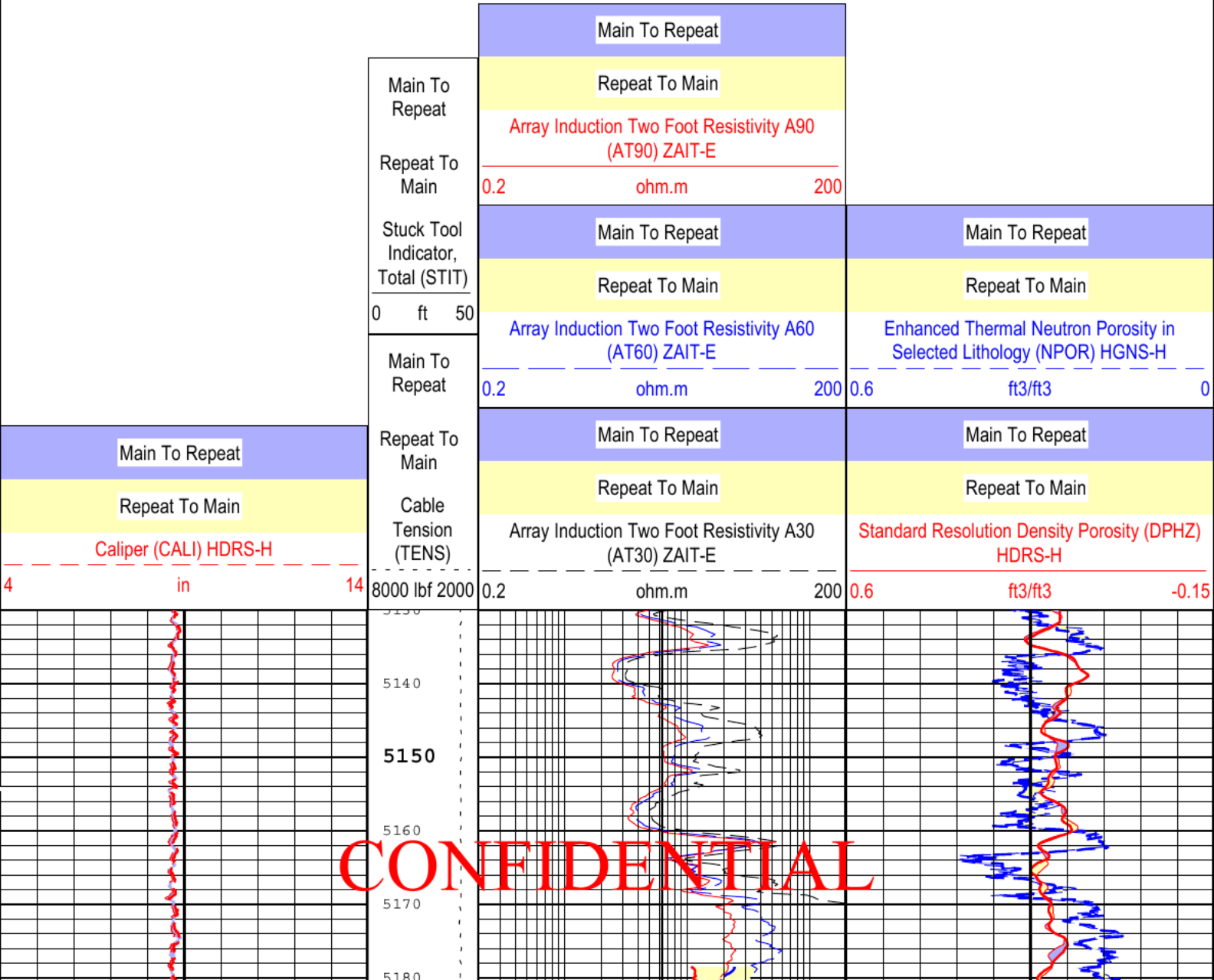
All depths are referenced to toolstring zero

Log

Company: Alta Mesa Services LP Well: DJS Properties 2-14
One: Log[4]:Up:S033

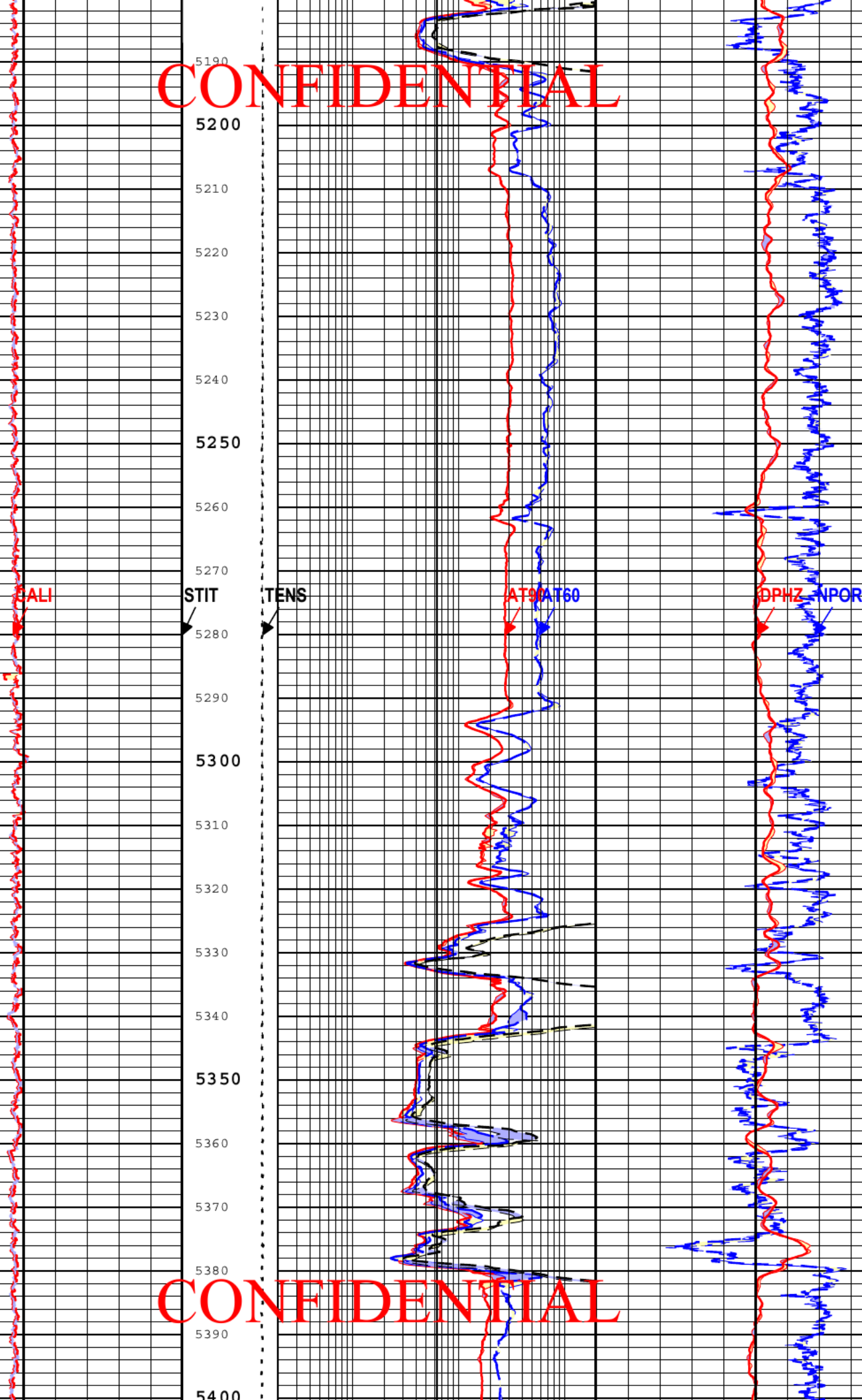
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TIME_1900 - Time Marked every 60.00 (s)



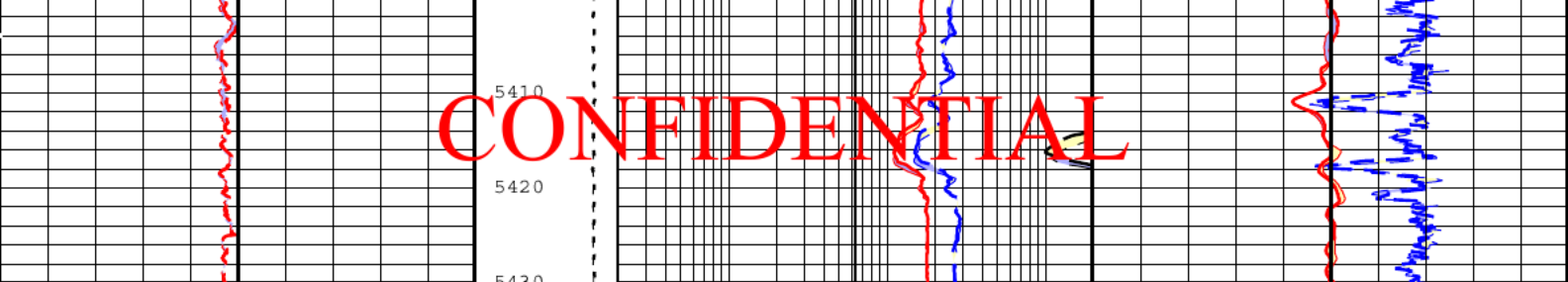
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Main To Repeat	Main To Repeat	Main To Repeat	Main To Repeat
Repeat To Main		Repeat To Main	Repeat To Main
Caliper (CALI) HDRS-H 4 in 14	Repeat To Main	Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E 0.2 ohm.m 200	Enhanced Thermal Neutron Porosity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

TIME_1900 - Time Marked every 60.00 (s)

Description: Format: Log (Combo_Fax RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 19-Sep-2014 14:21:29

One

10" Main Pass - Triple Combo

Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[4]:Up	Up	106.39 ft	5510.30 ft	18-Sep-2014 3:16:51 PM	18-Sep-2014 6:24:58 PM	ON	2.43 ft	No

All depths are referenced to toolstring zero

Log
Company:Alta Mesa Services LP Well:DJS Properties 2-14
One: Log[4]:Up:S033

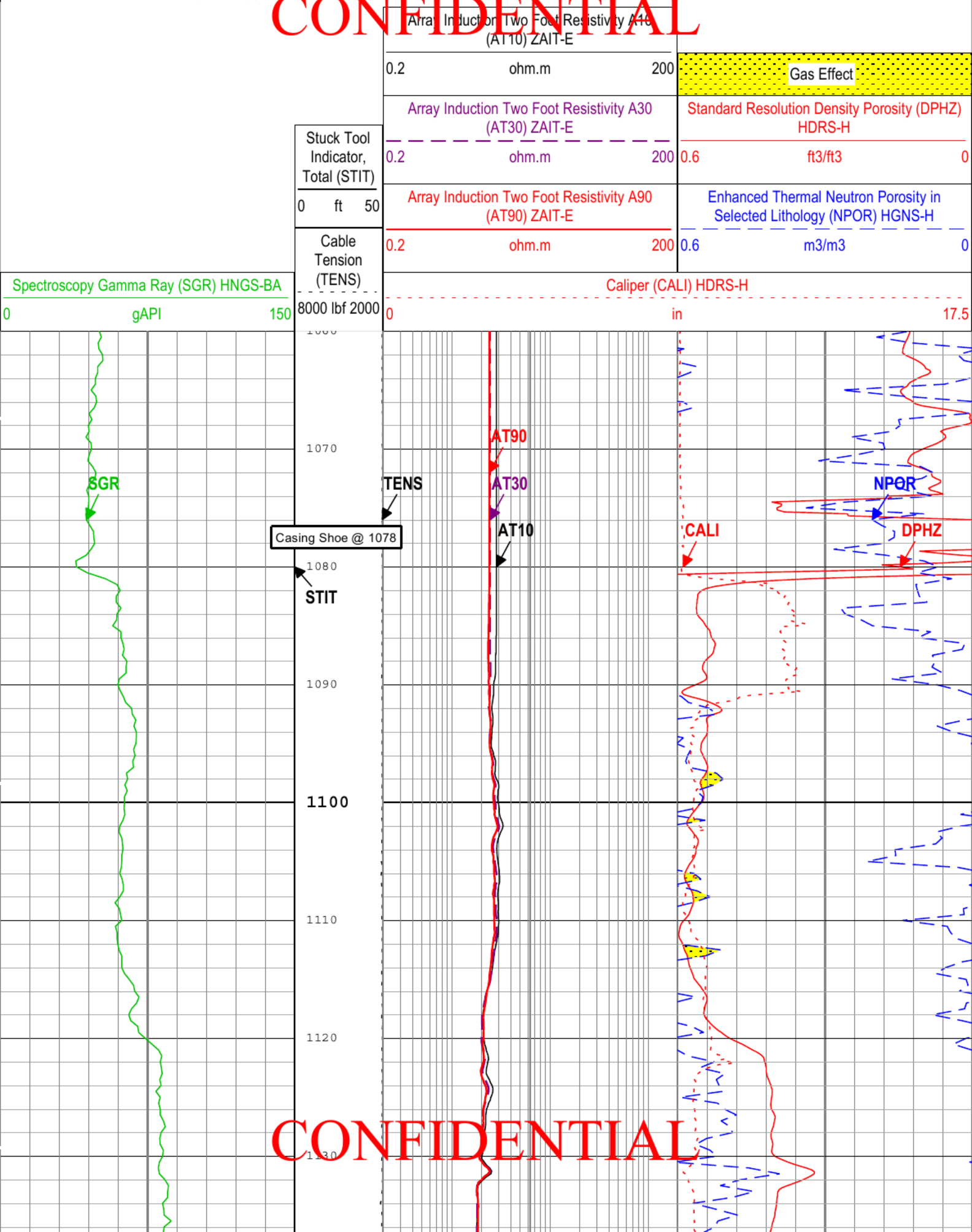
Description: HGNS standard resolution porosities for Platform Express Format: Log (Combo_Fax) Index Scale: 10 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 19-Sep-2014 14:21:30

Channel	Source	Sampling
AT10	ZAIT-E:AZIS:AZIS	3in
AT30	ZAIT-E:AZIS:AZIS	3in
AT90	ZAIT-E:AZIS:AZIS	3in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPHZ	HDRS-H:HRMS-H:HRGD-H	2in
NPOR	HGNS-H:HGNS-H:HGNS-H	6in
SGR	HNGS-BA:HNGS-BA:HNGS-BA	6in
STIT	DepthCorrection	6in
TENS	WI Workflow	6in

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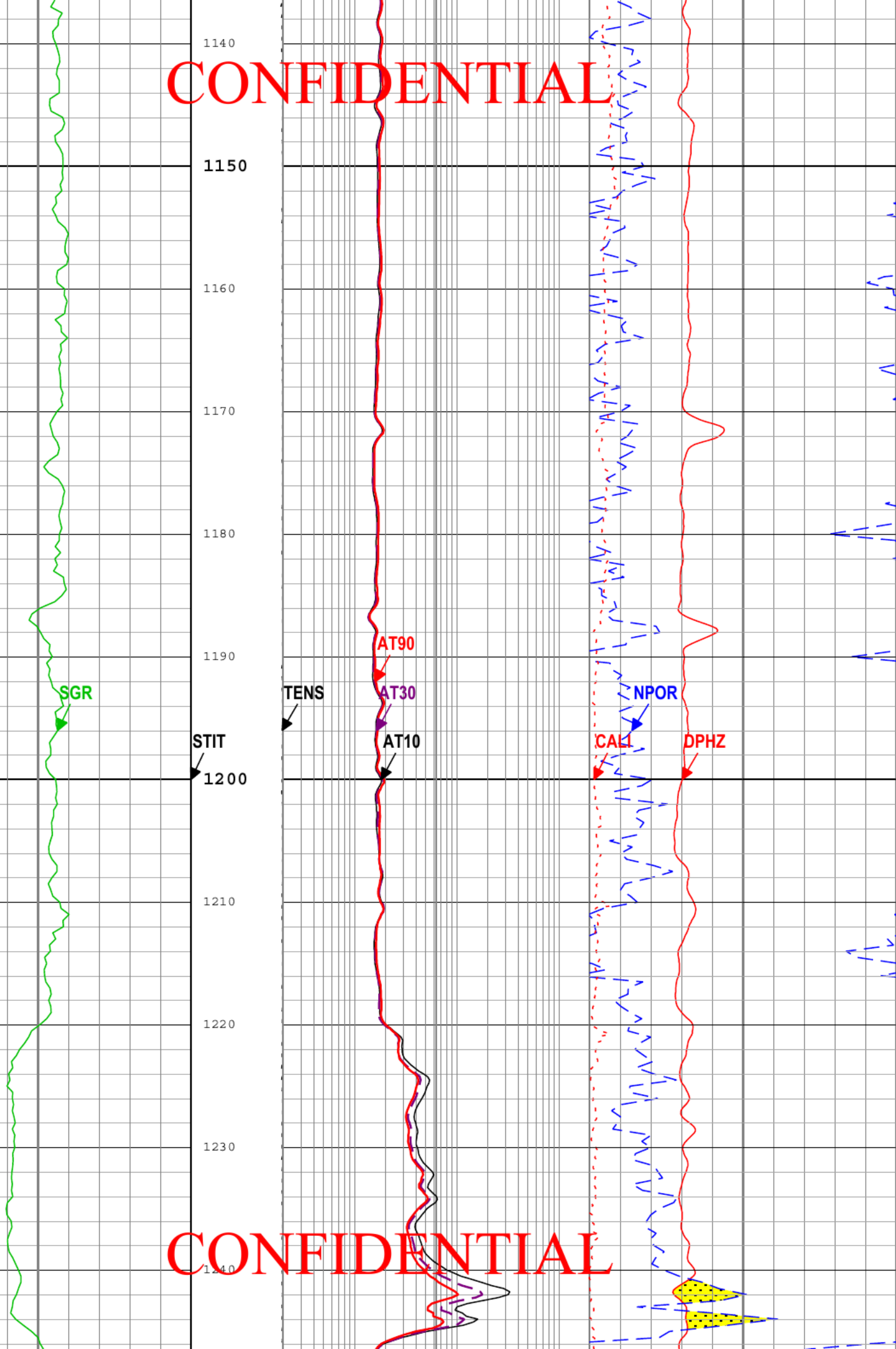
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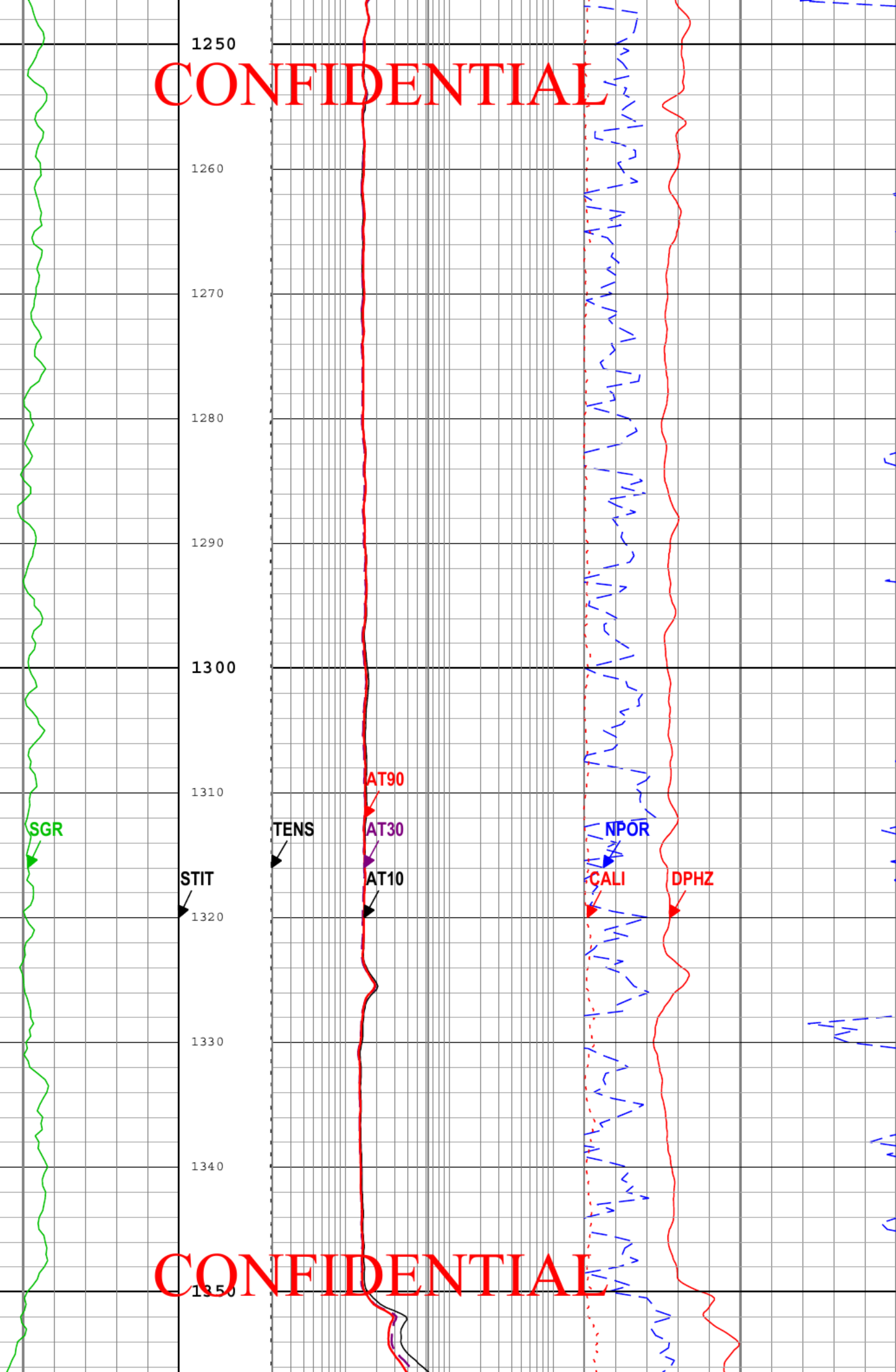
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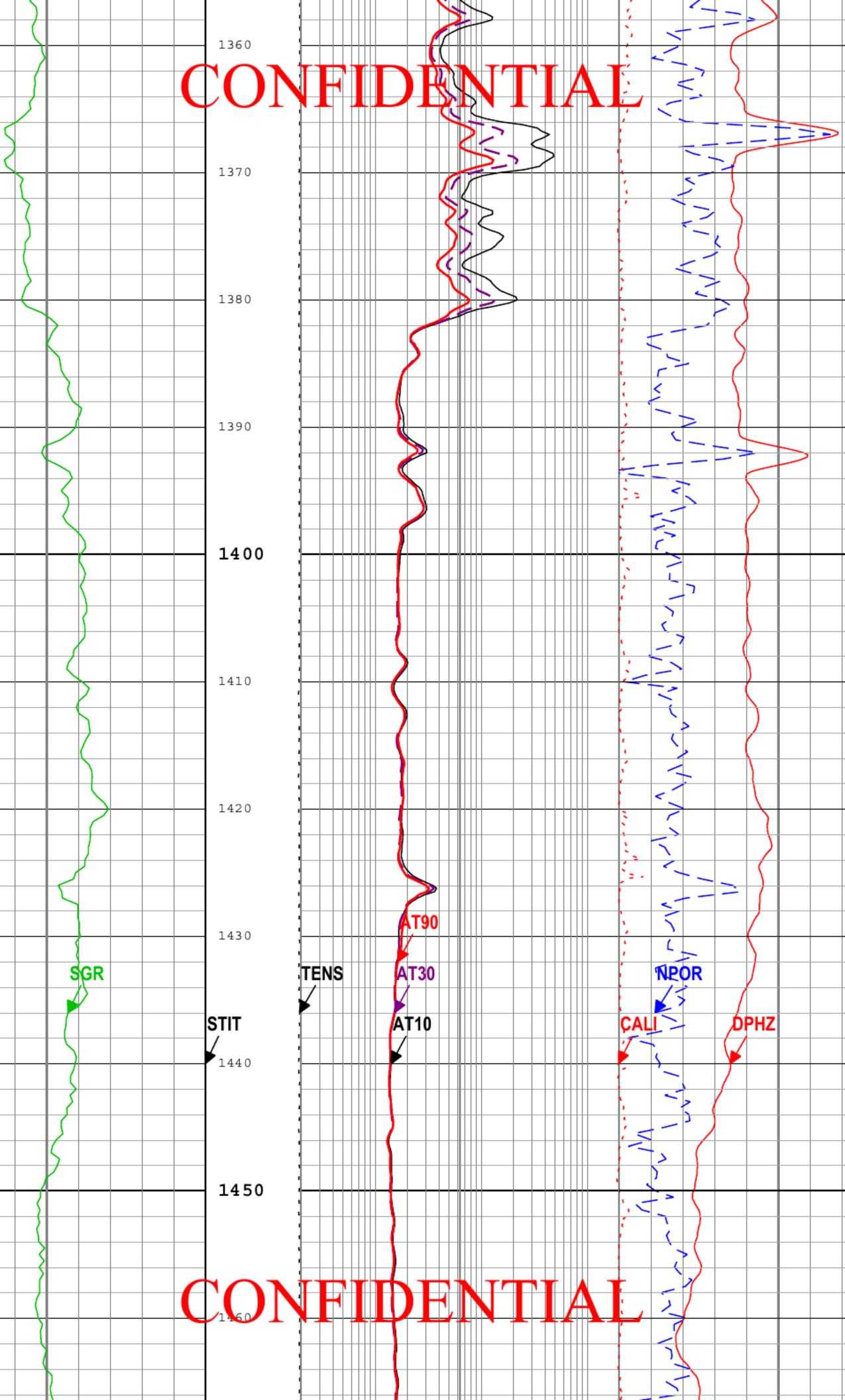
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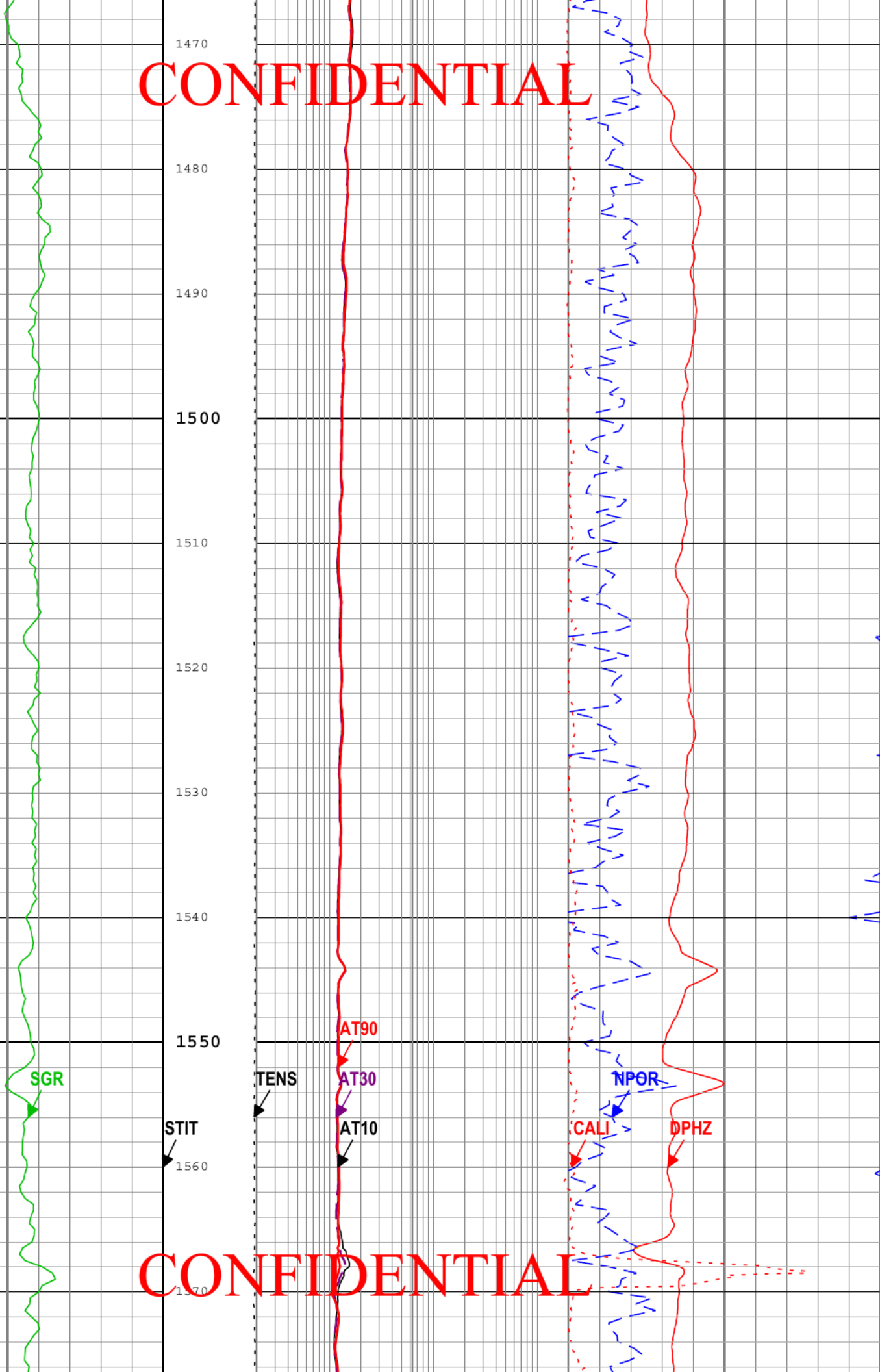
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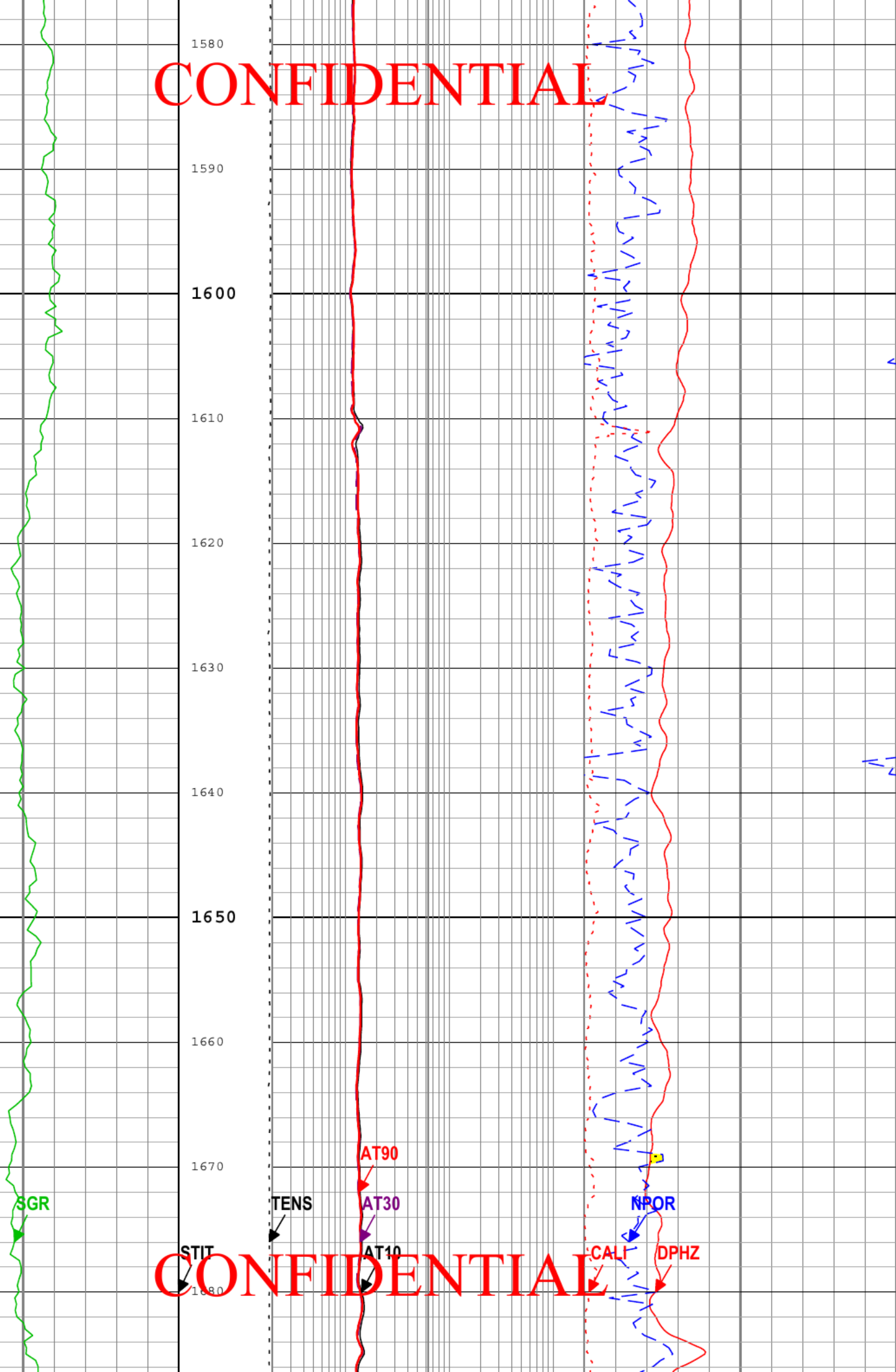
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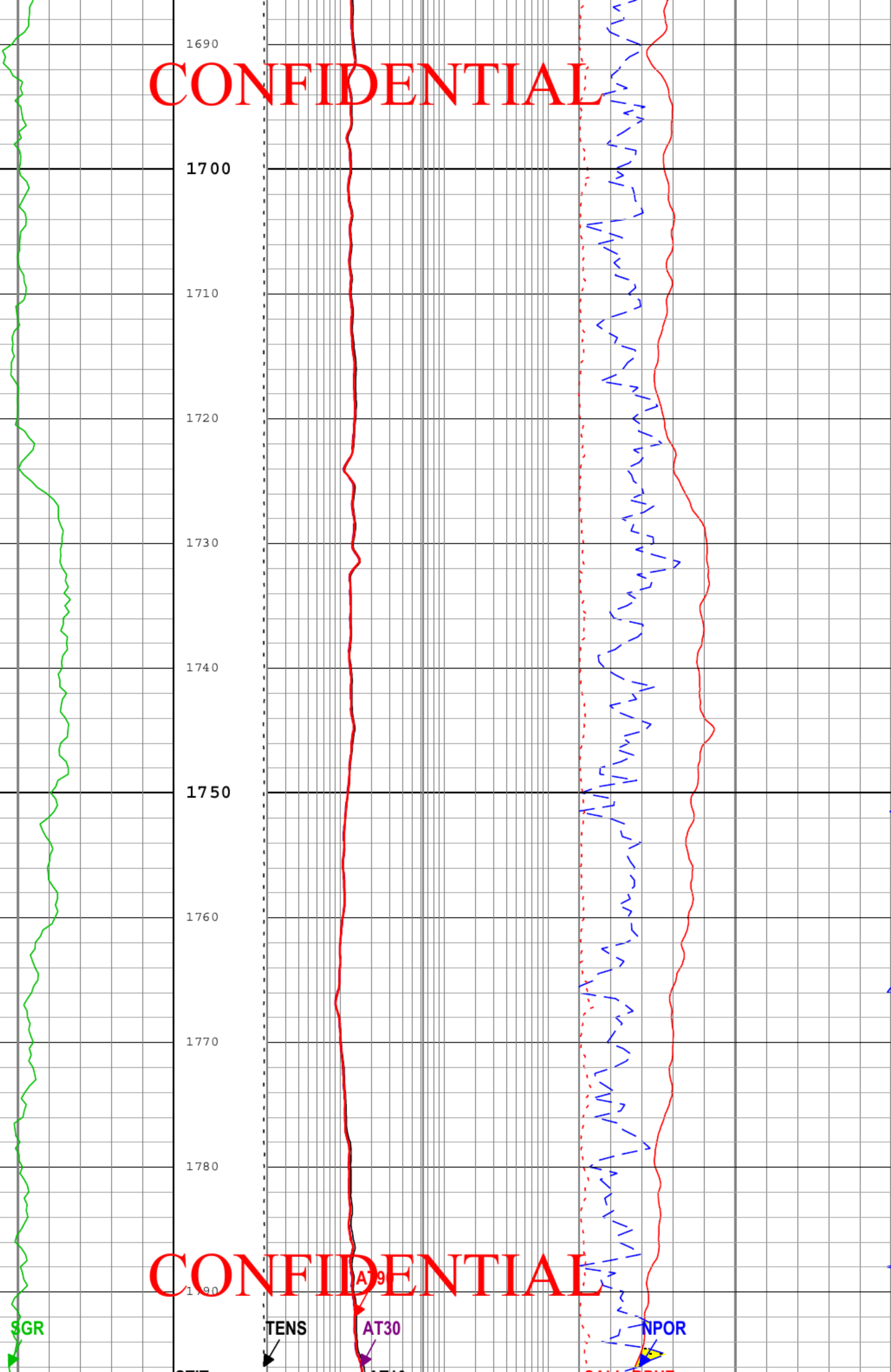
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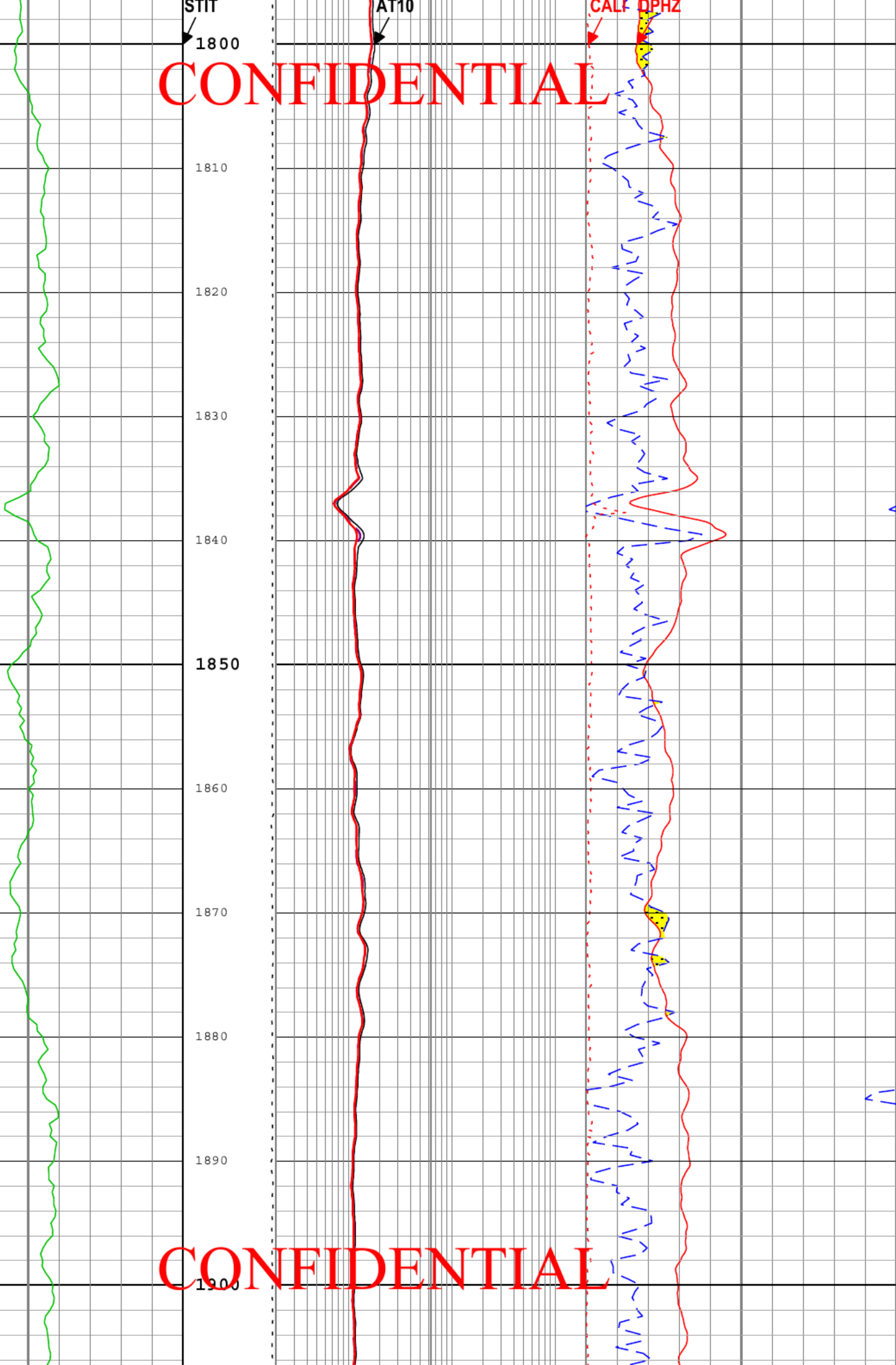
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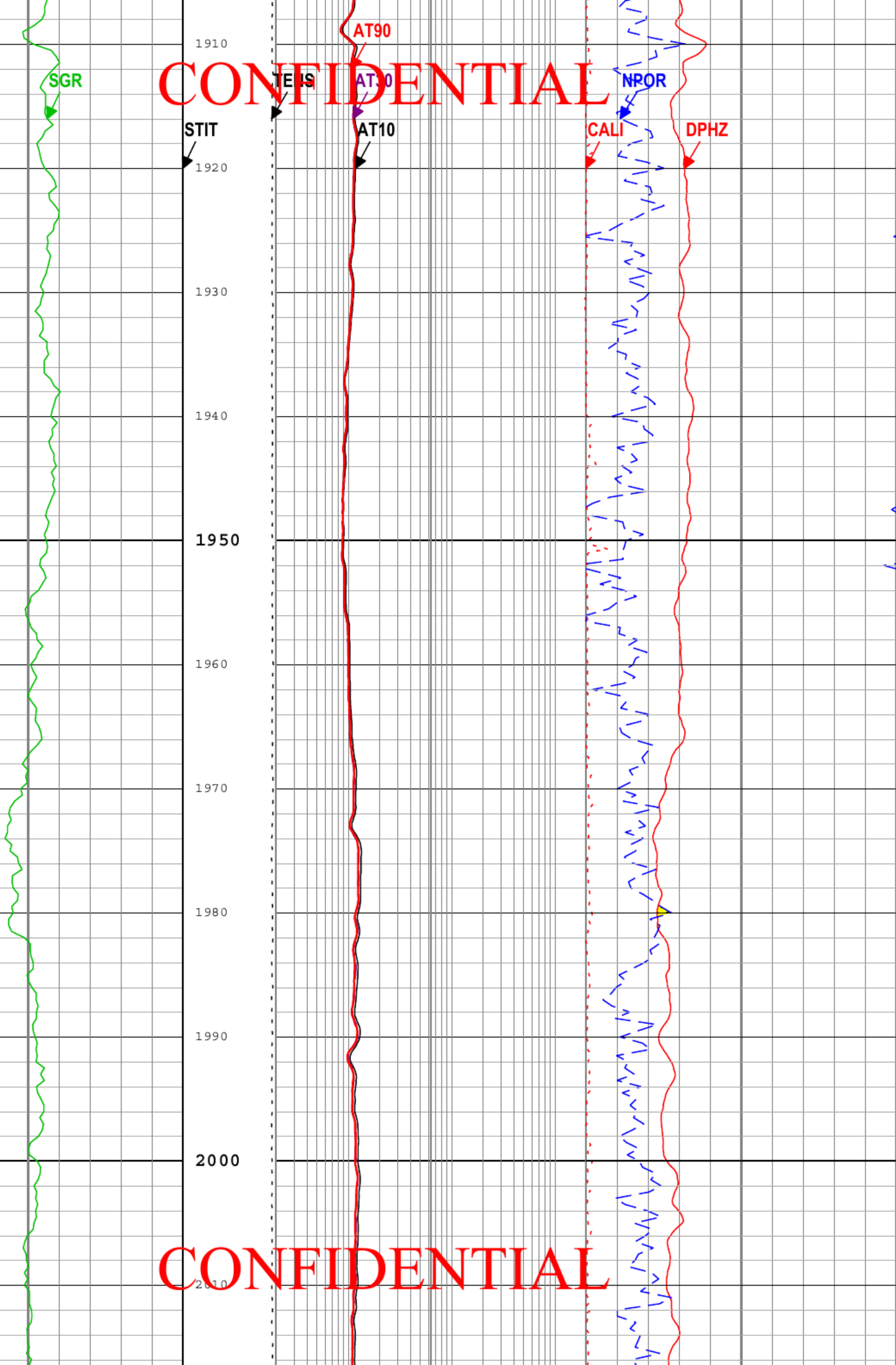
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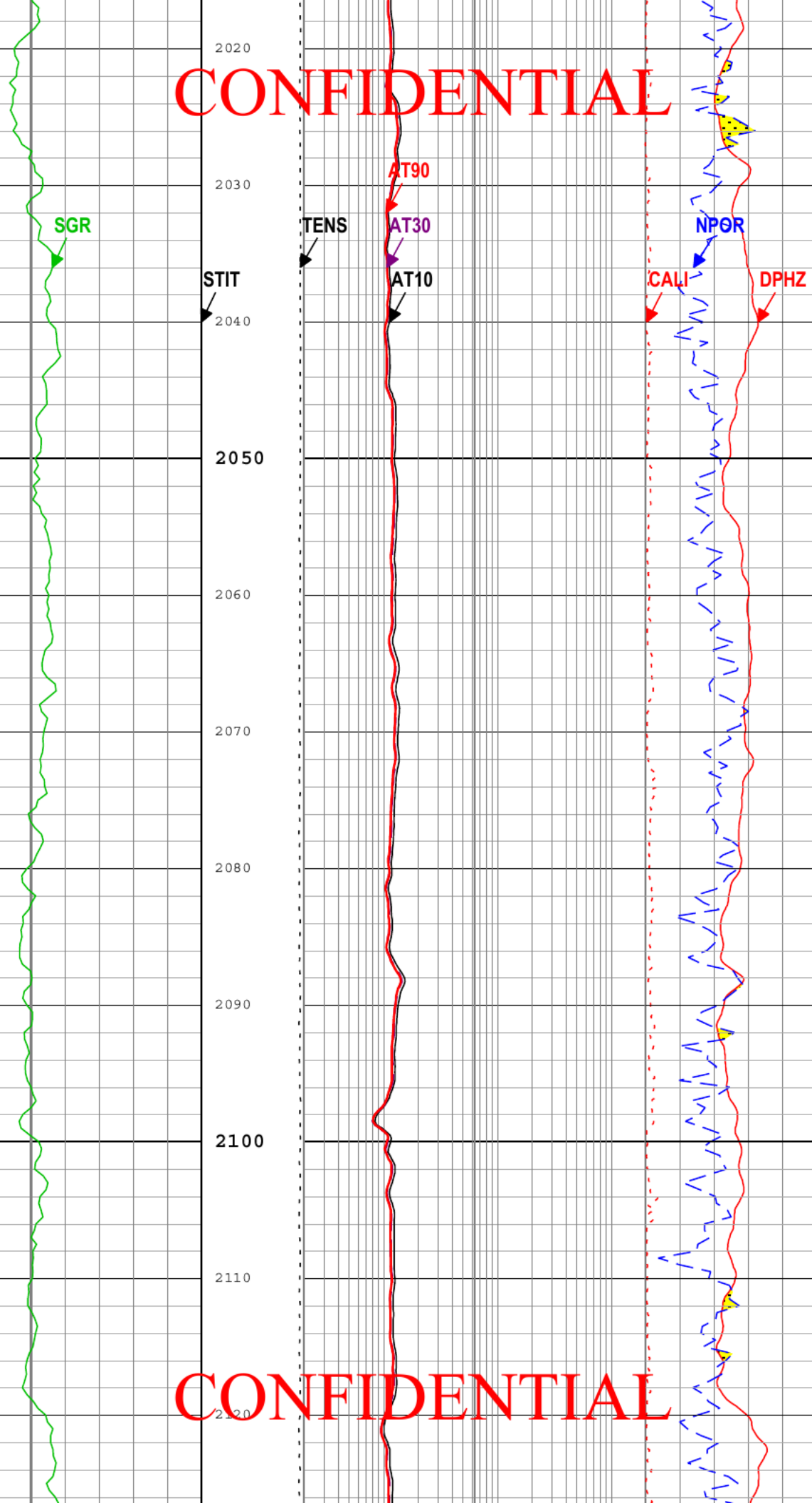
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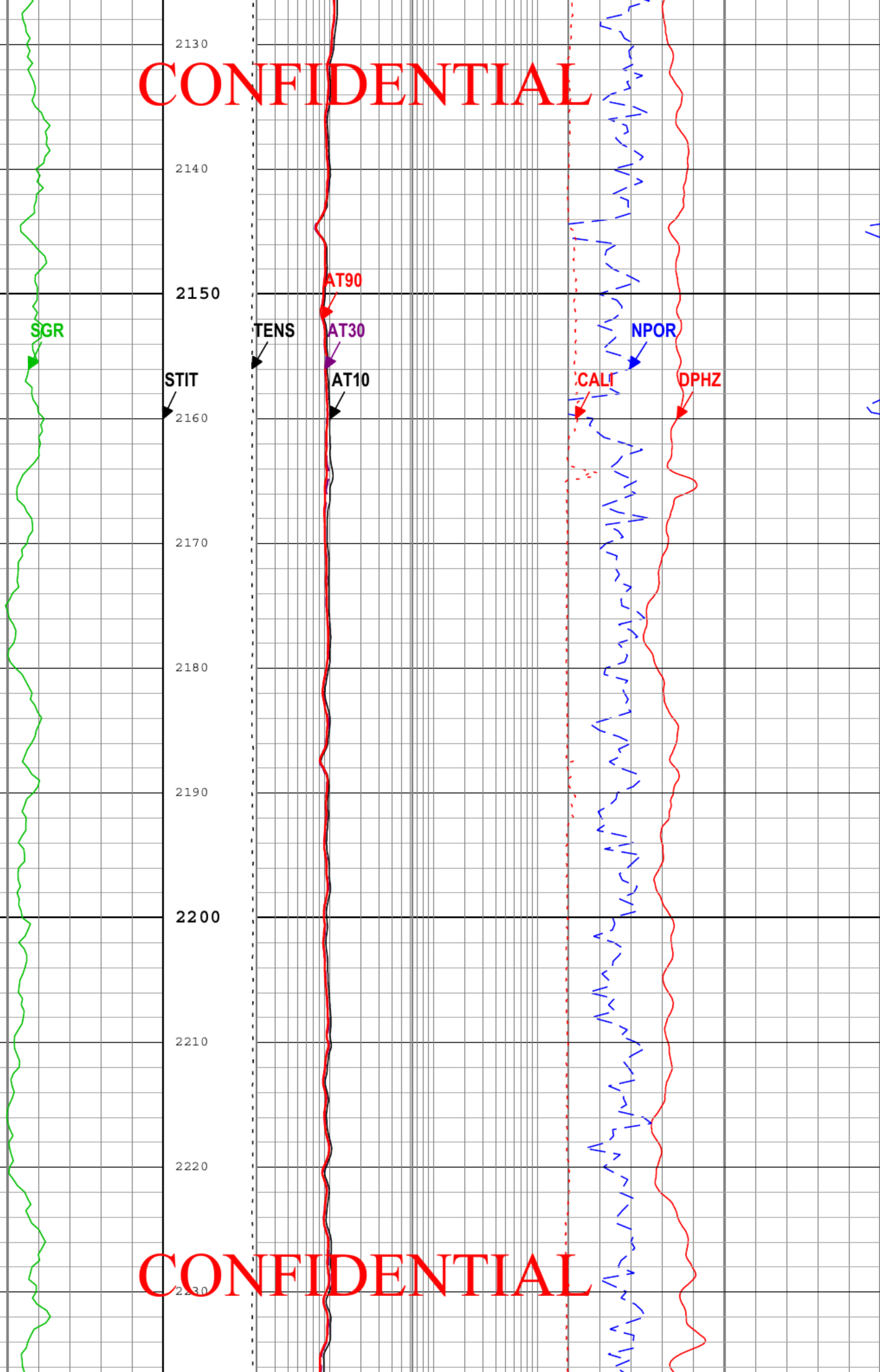
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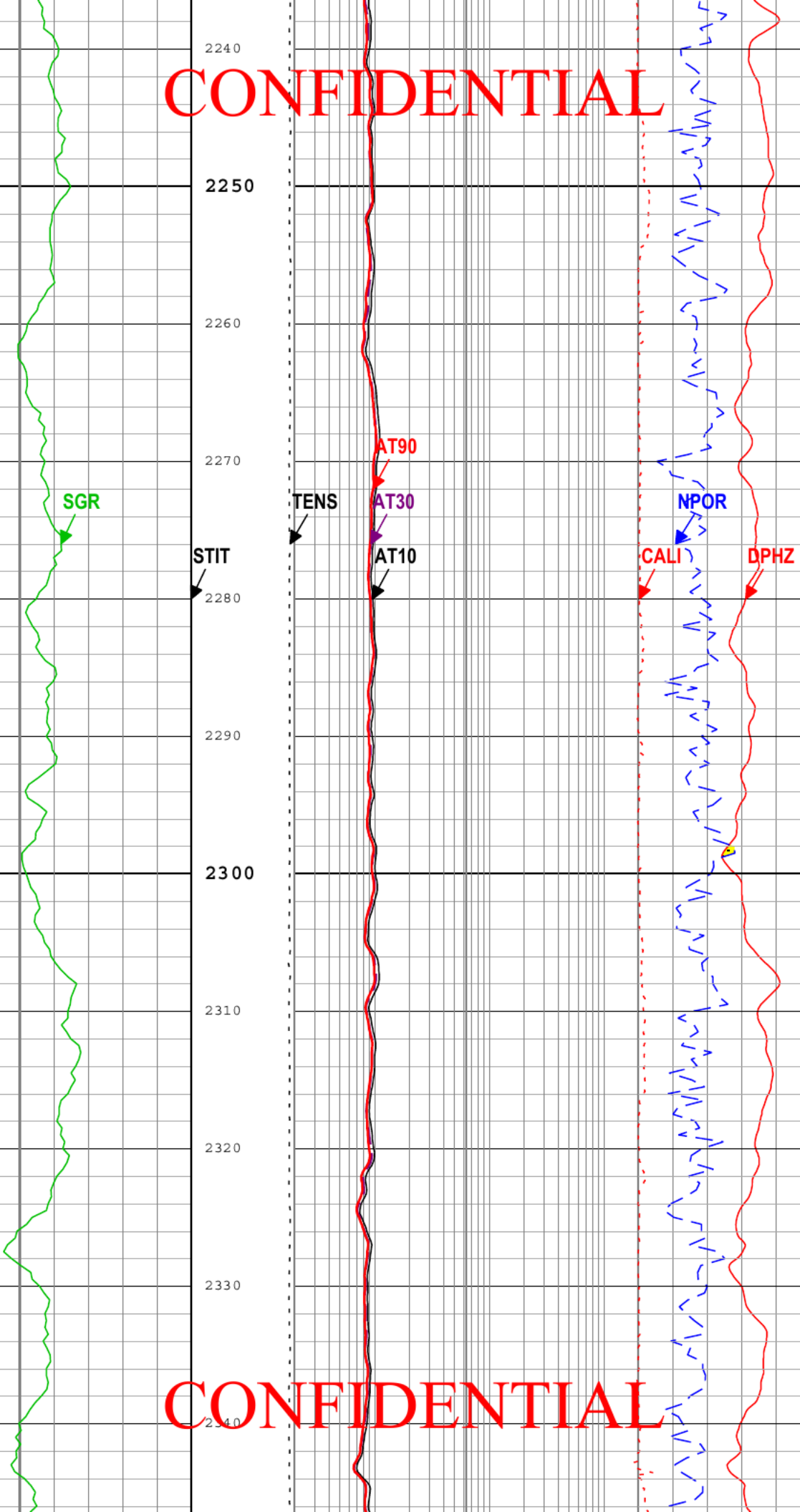
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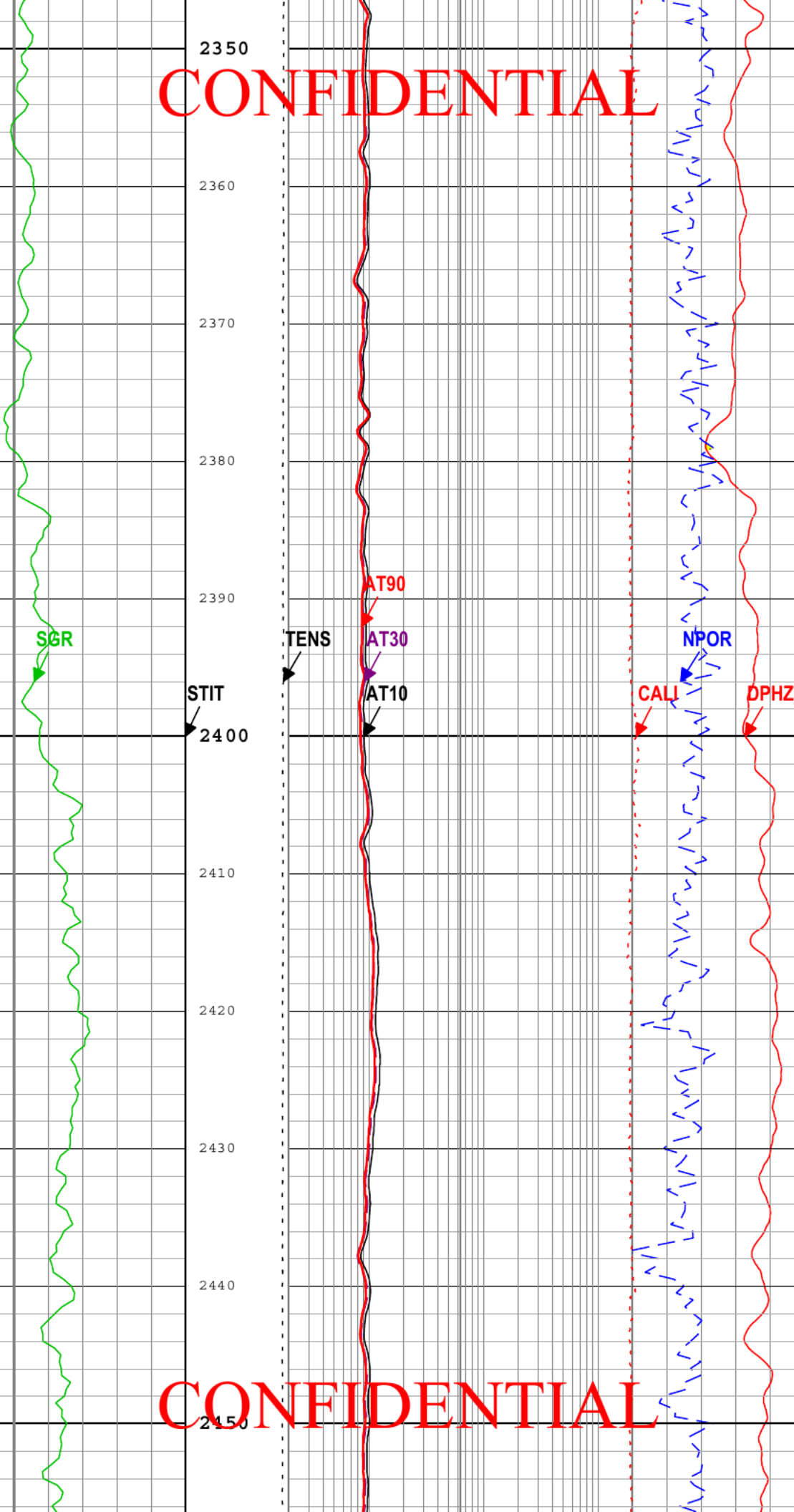
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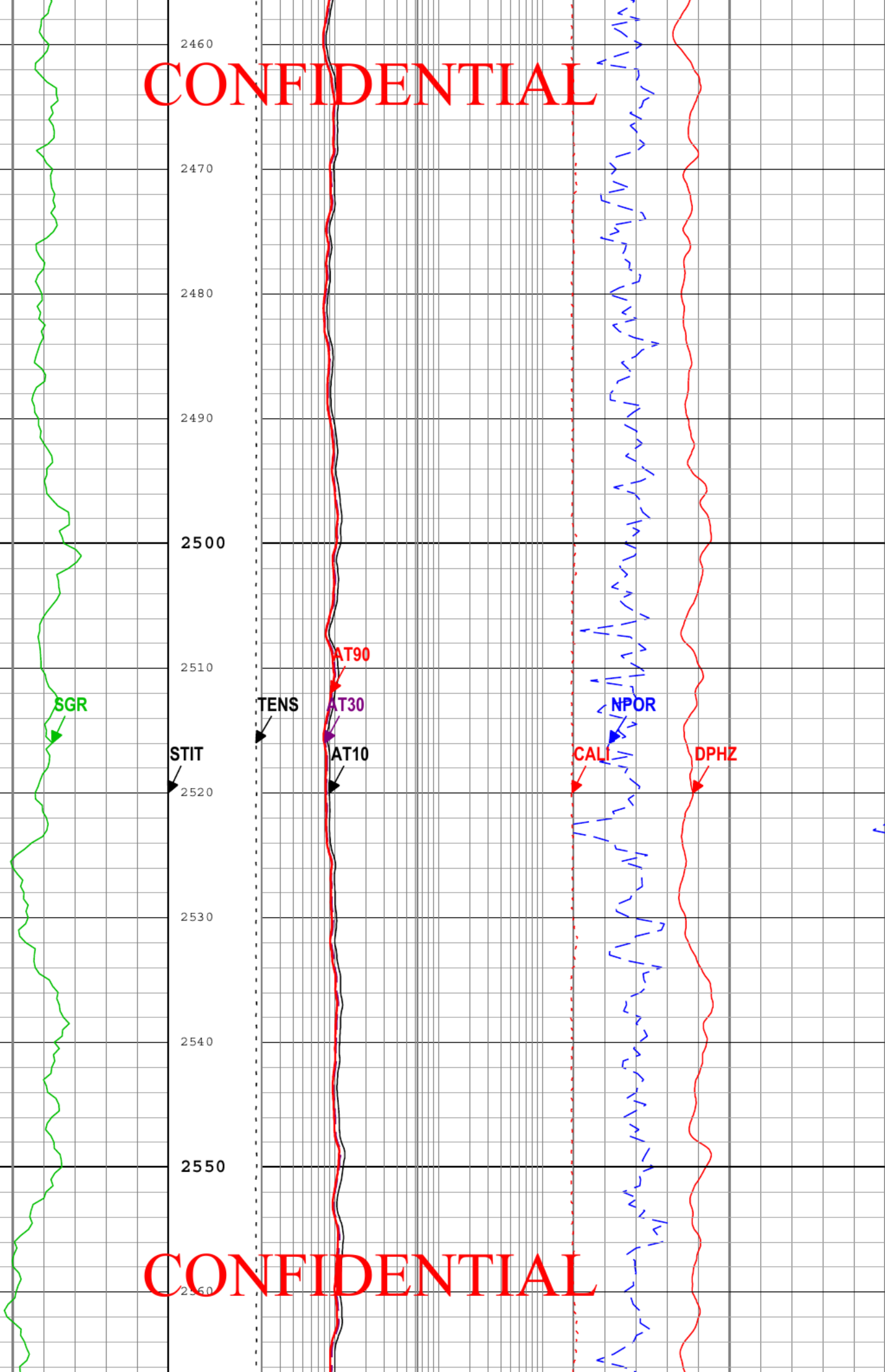
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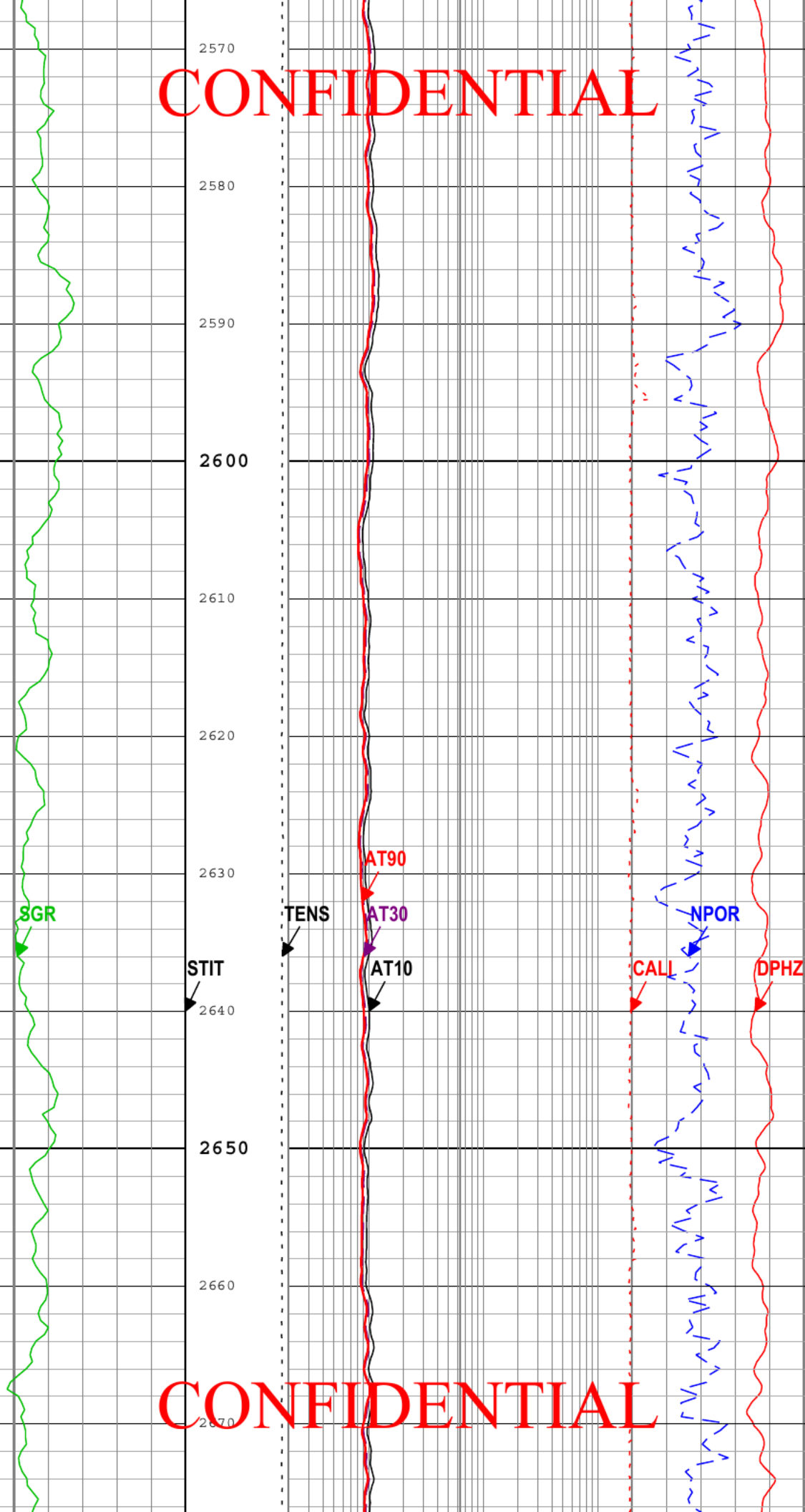
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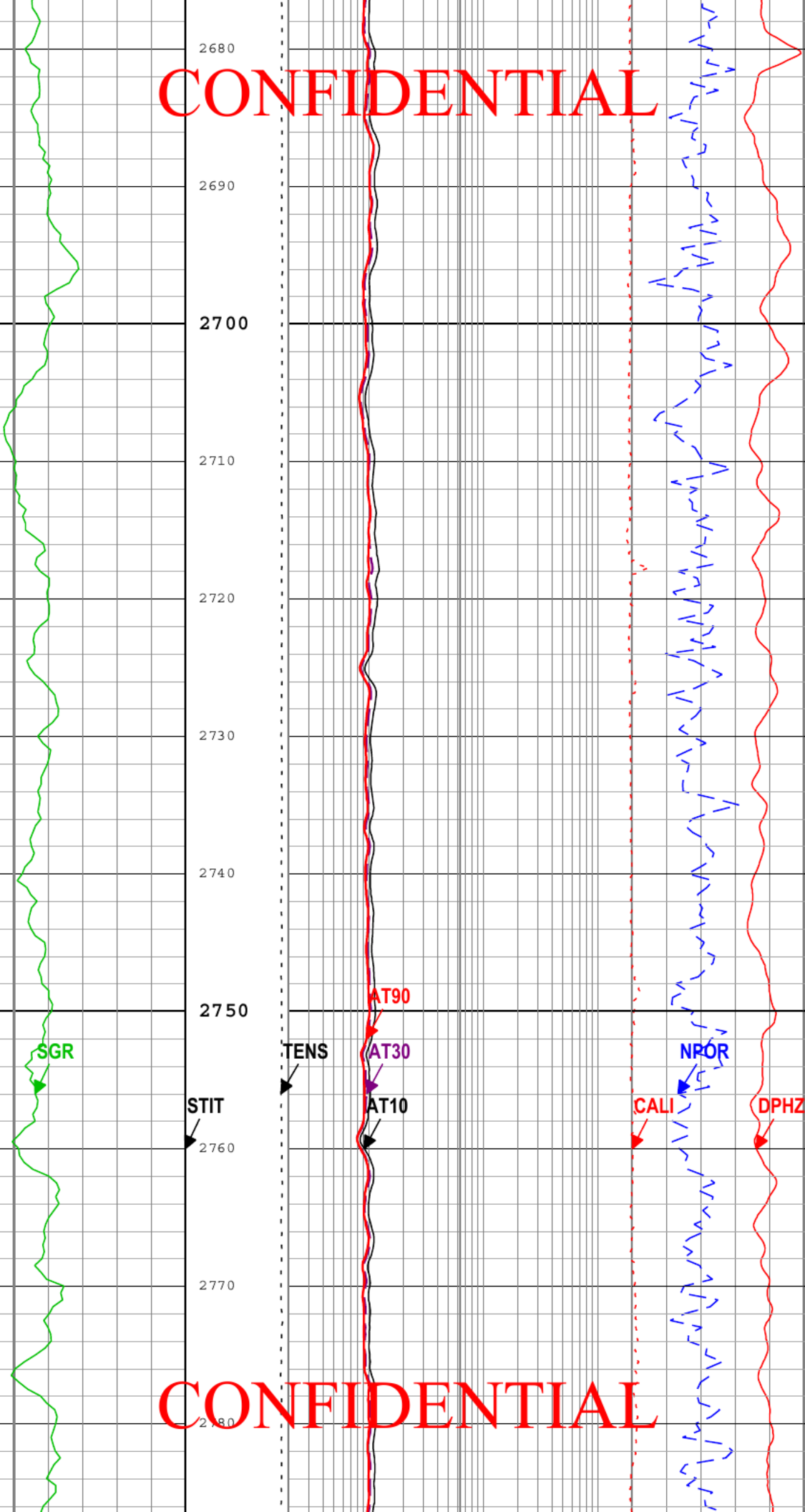
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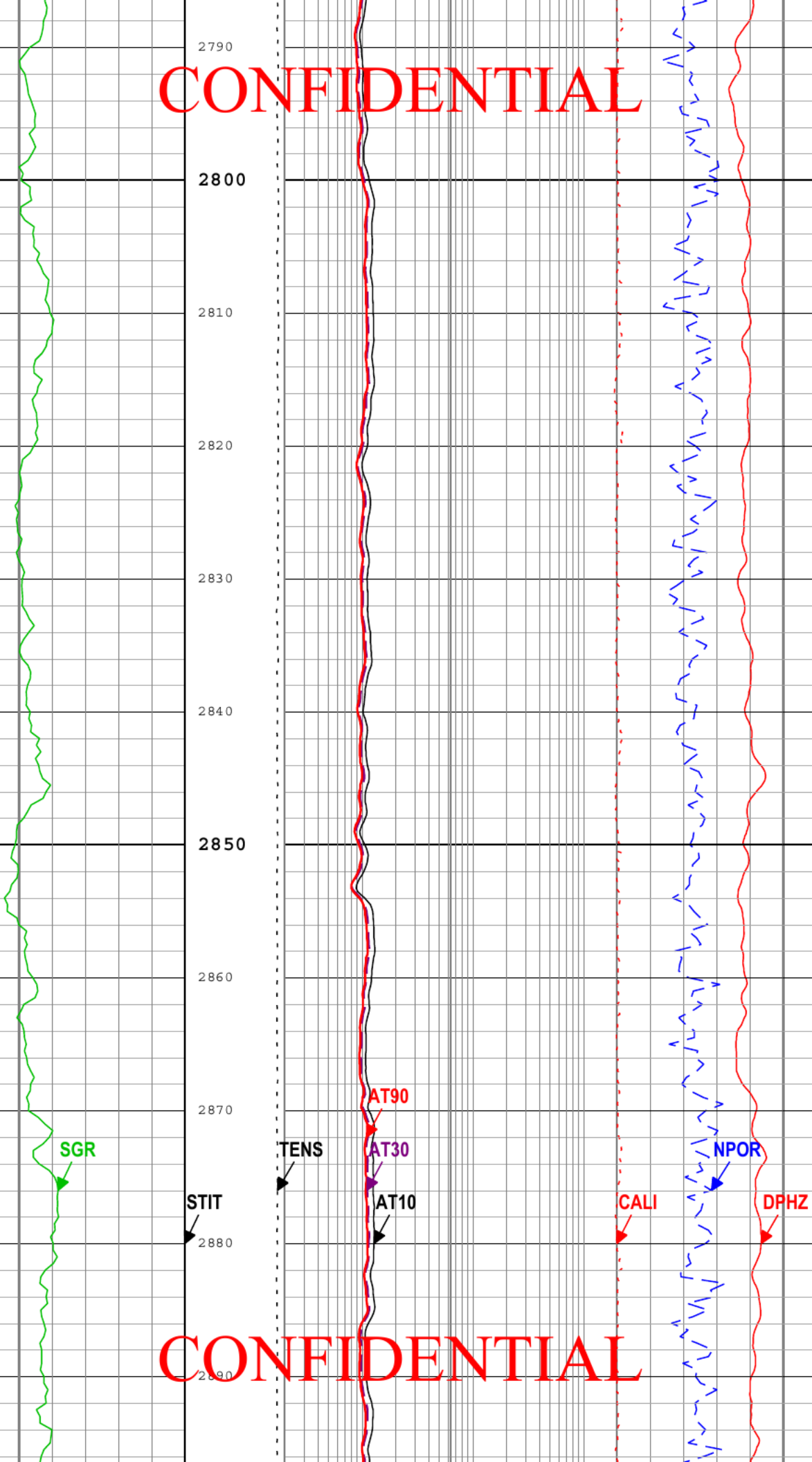
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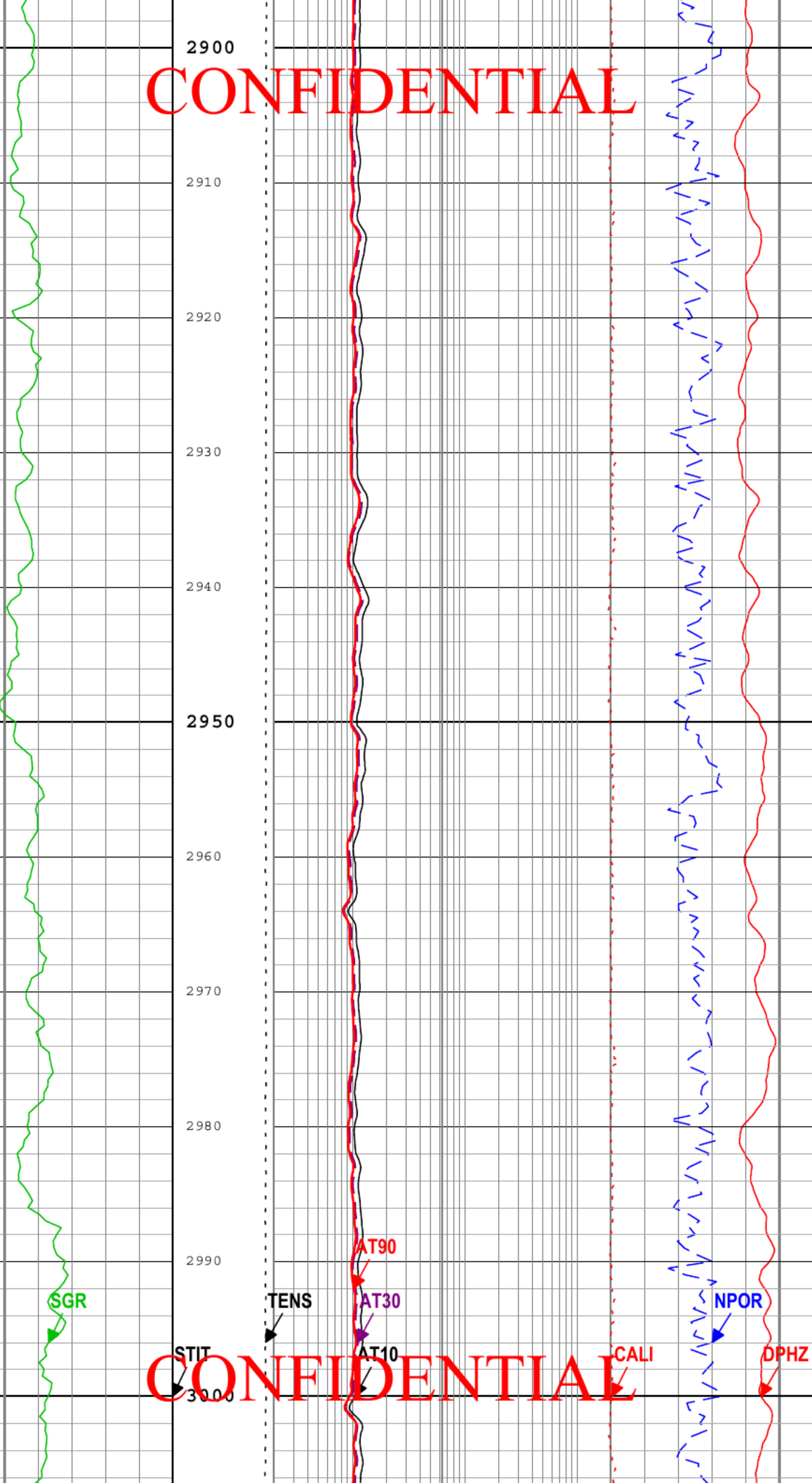
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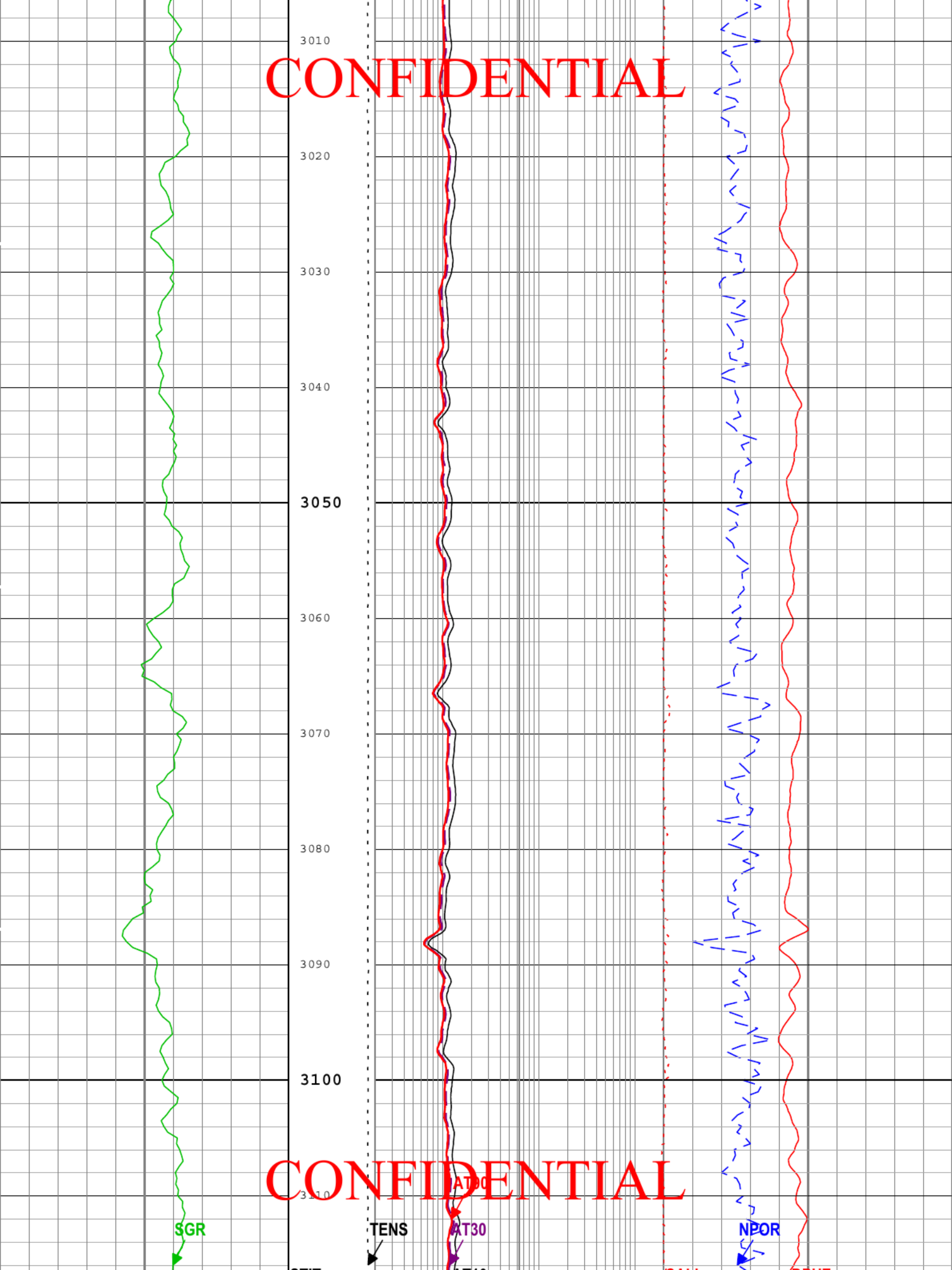
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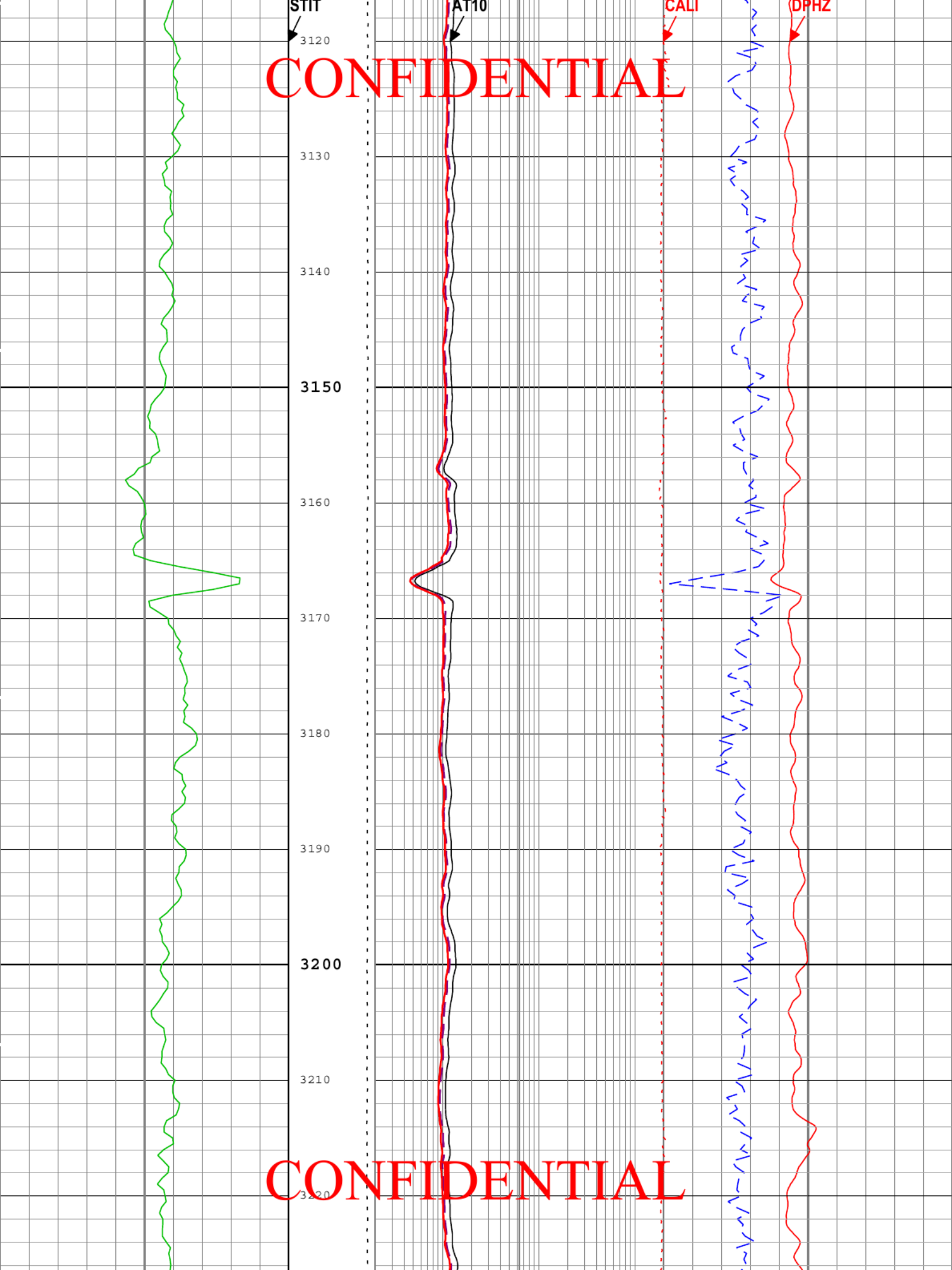
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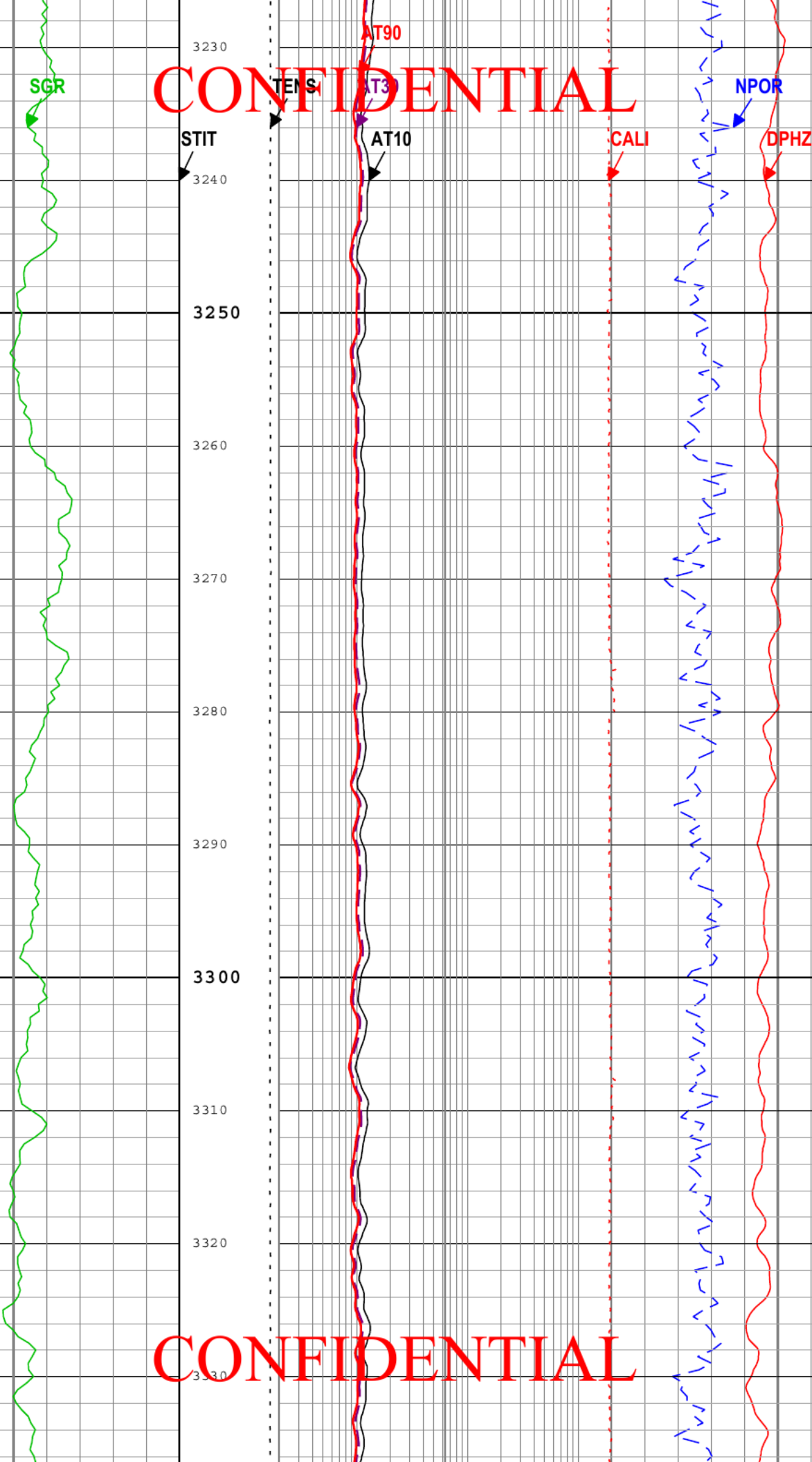


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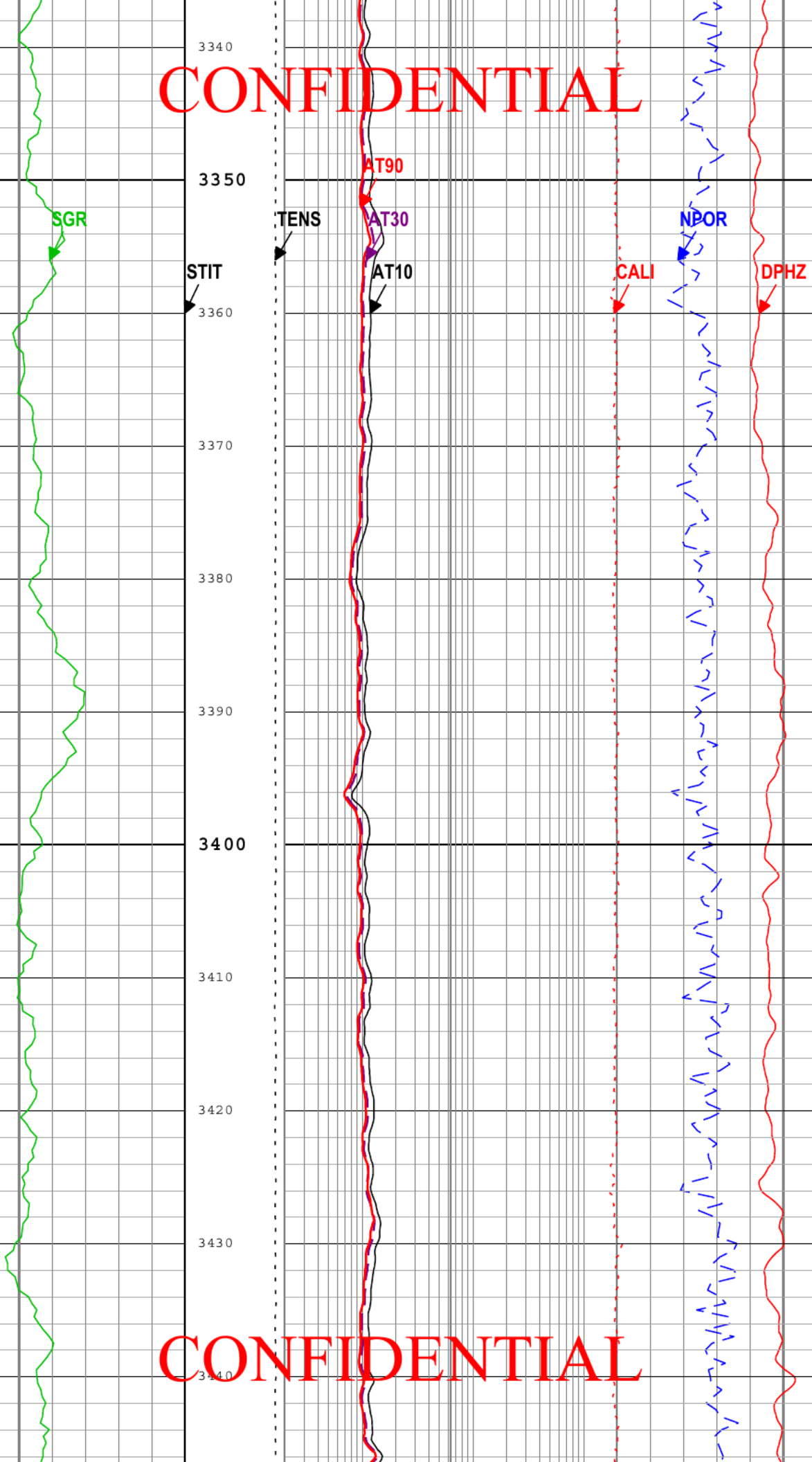
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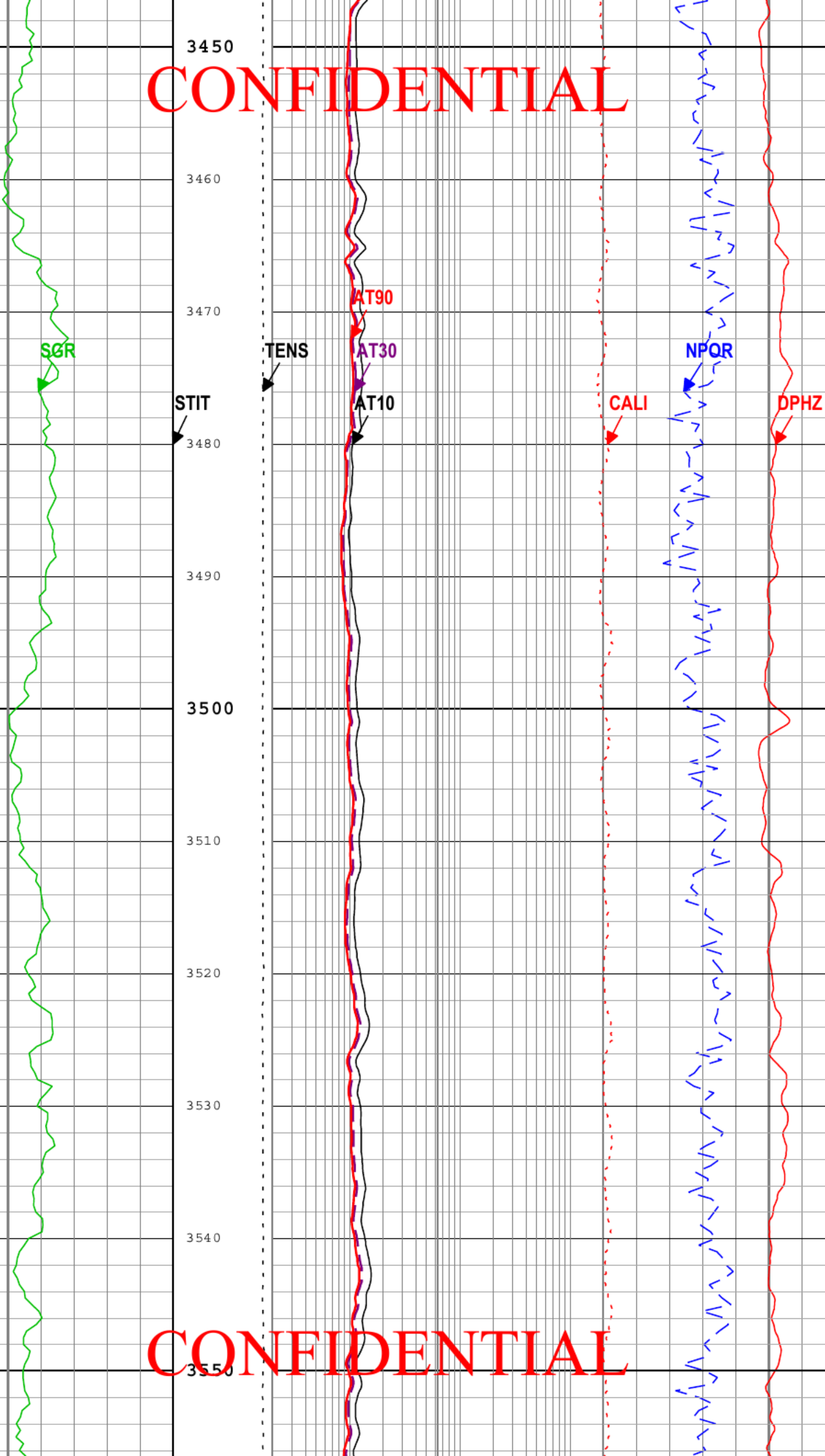
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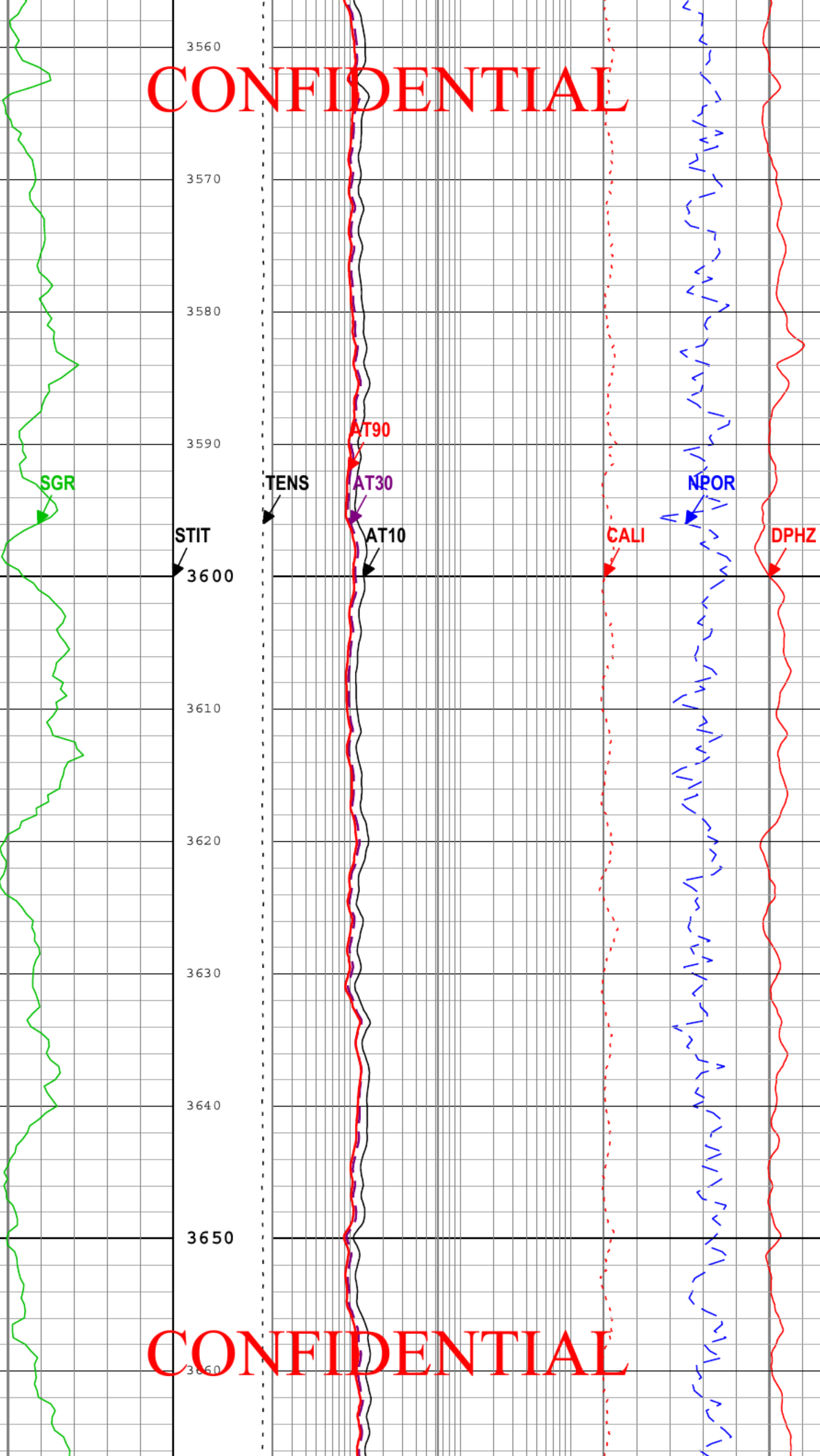
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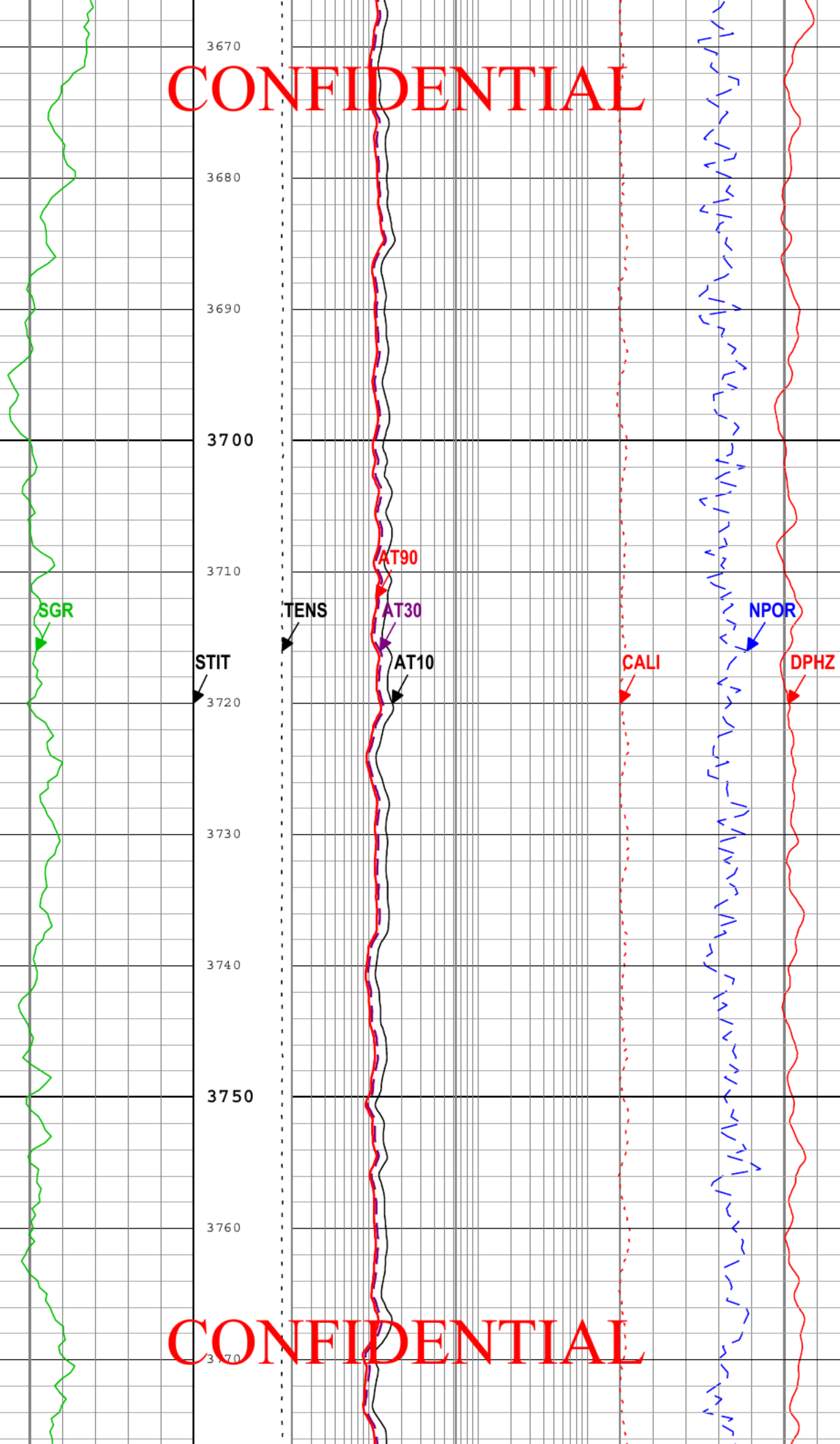
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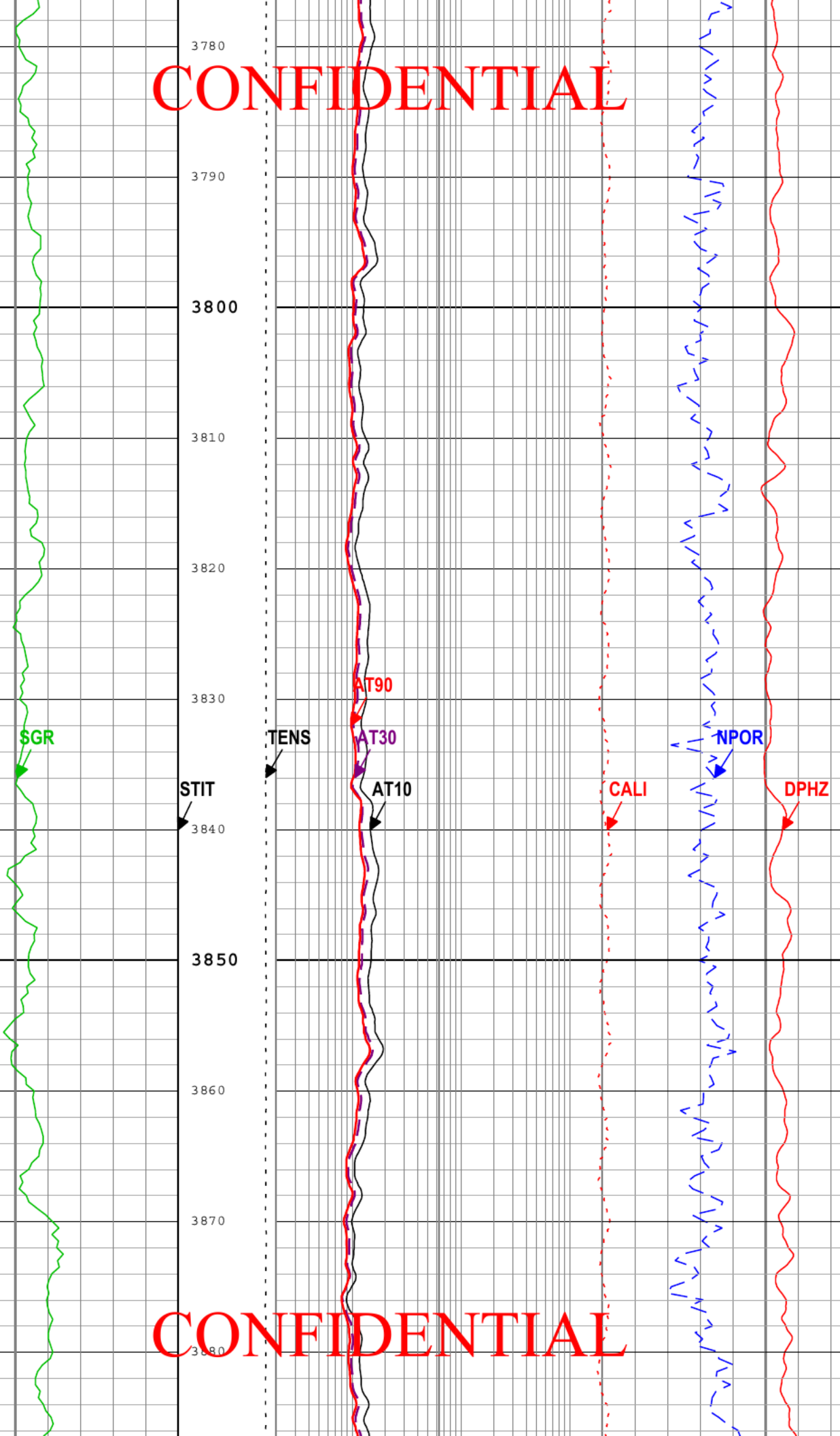
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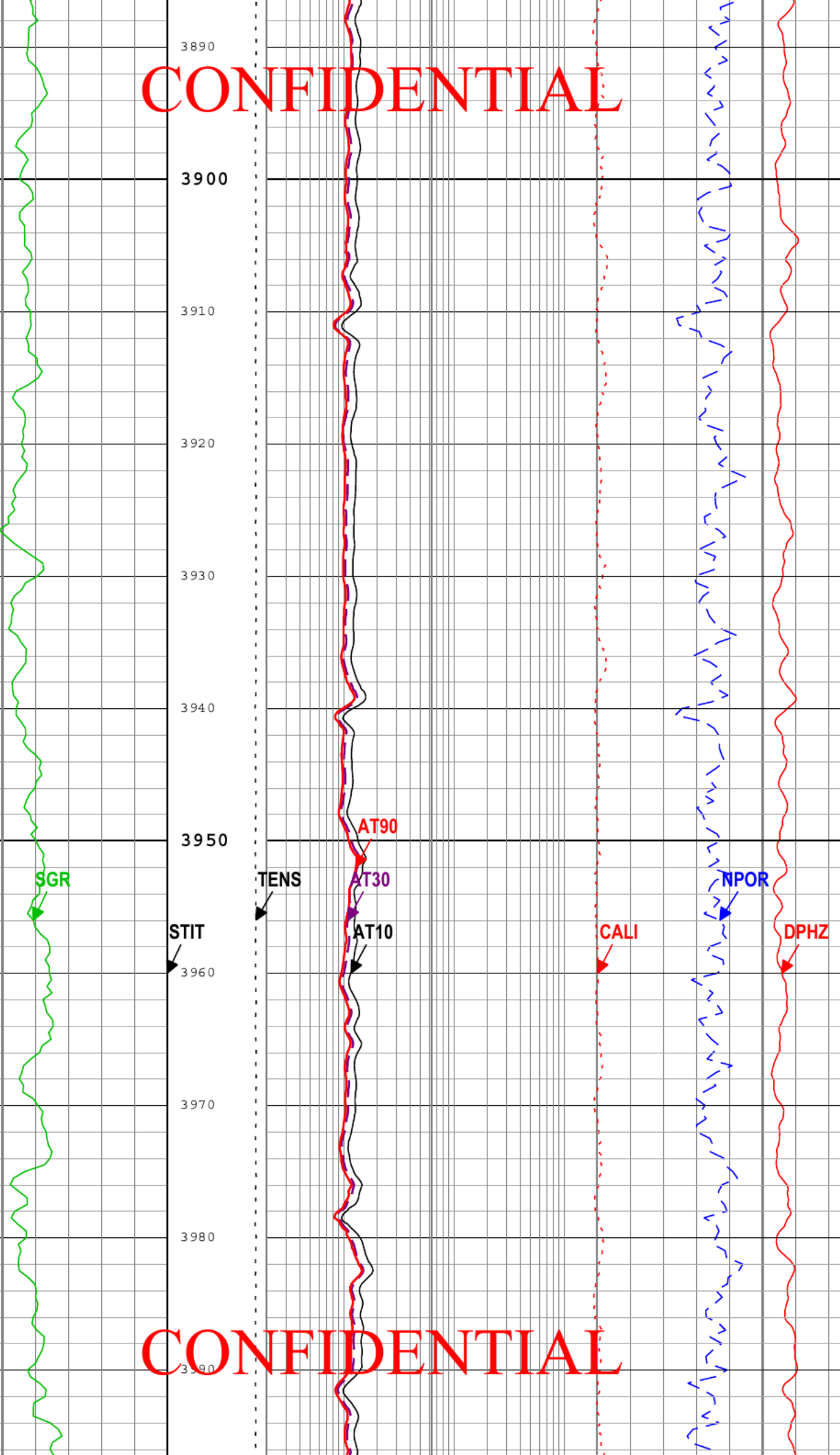
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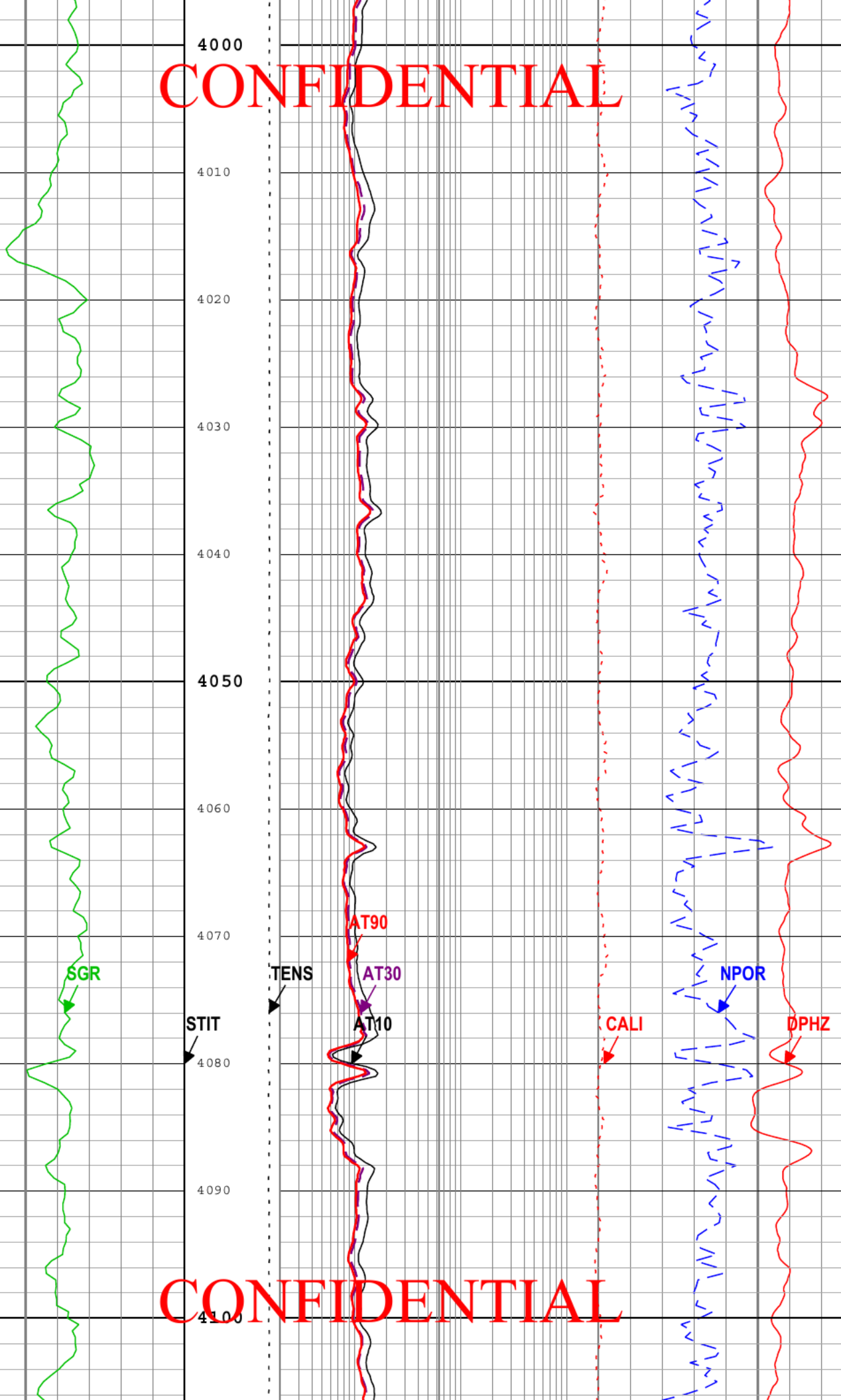
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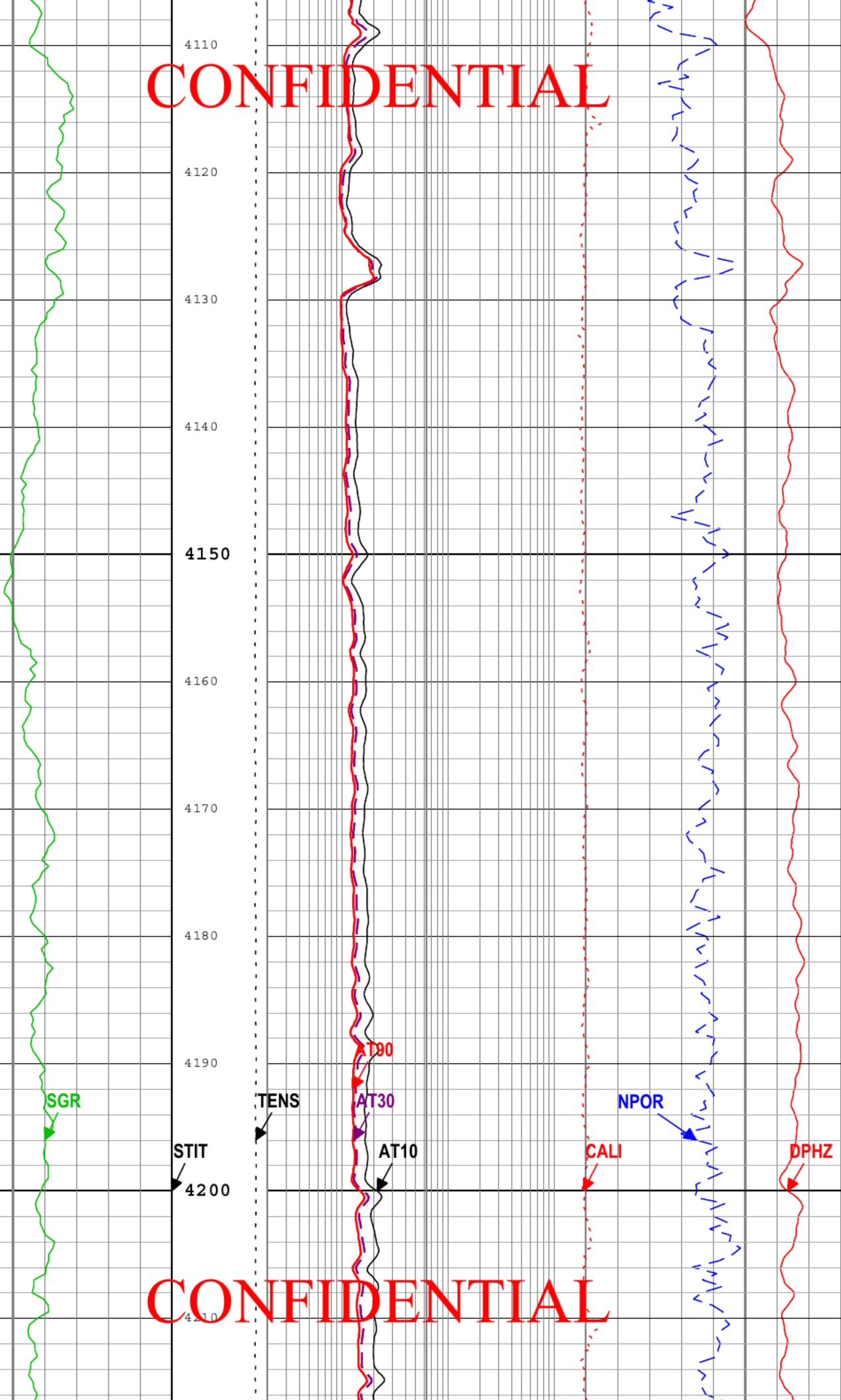
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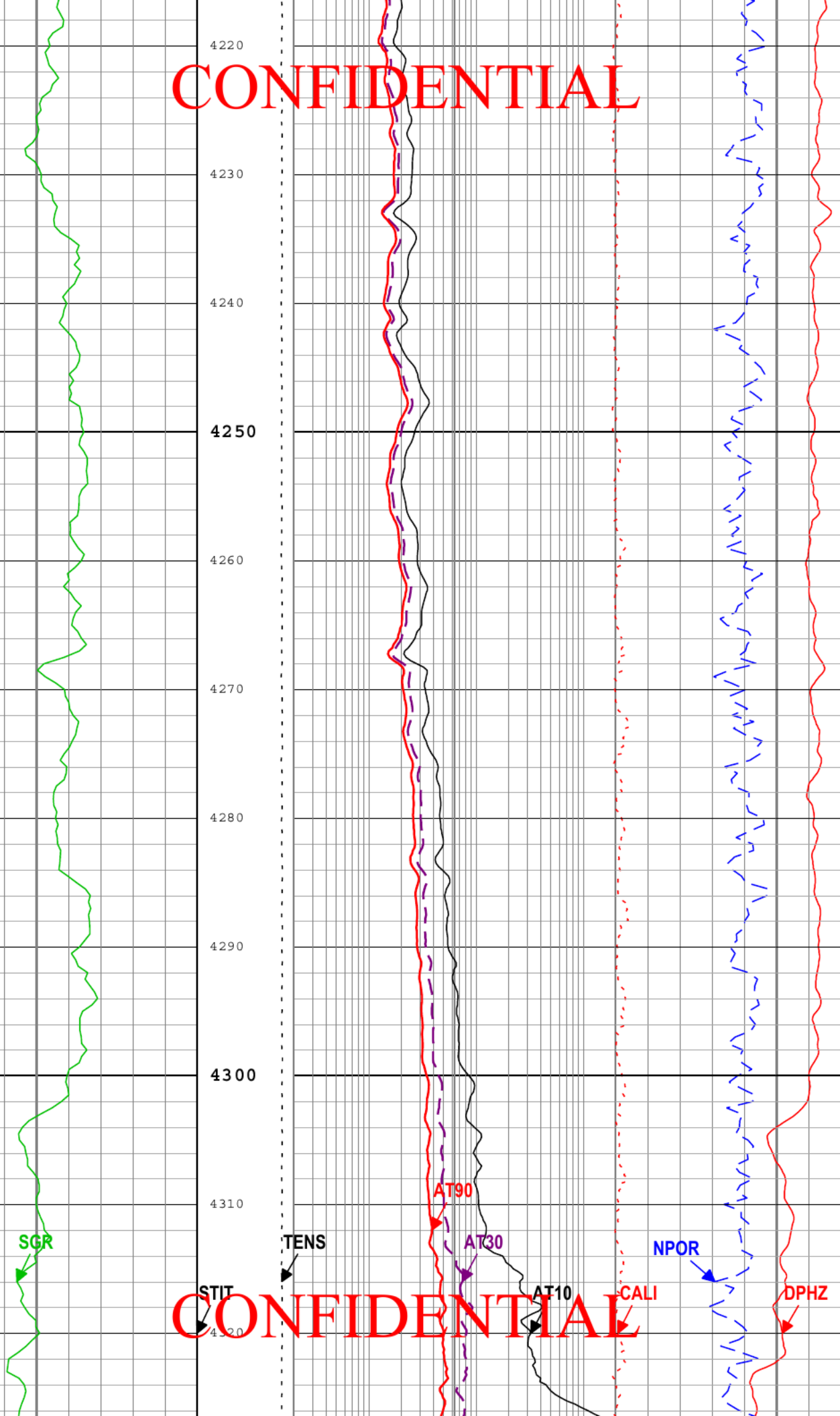
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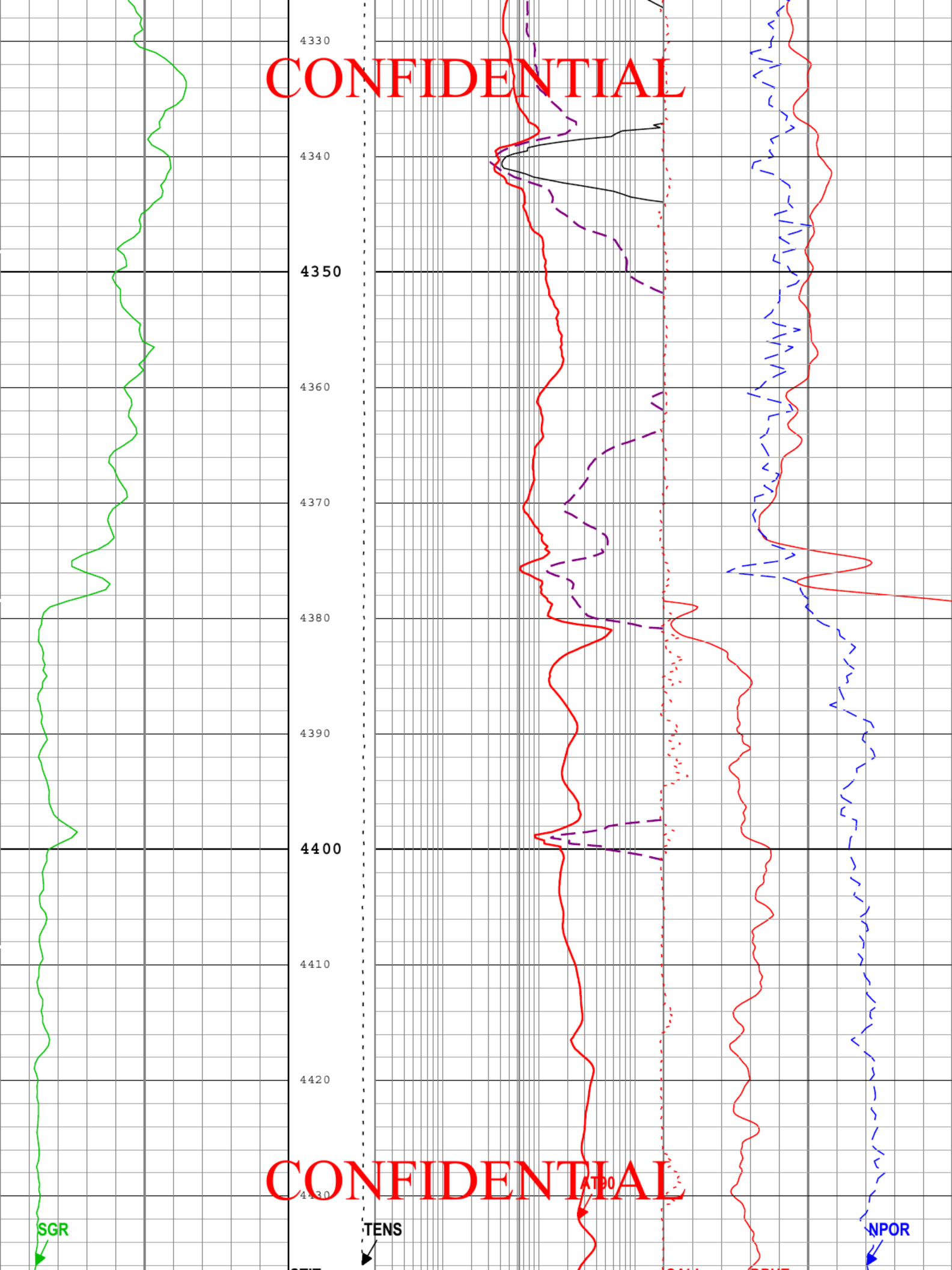
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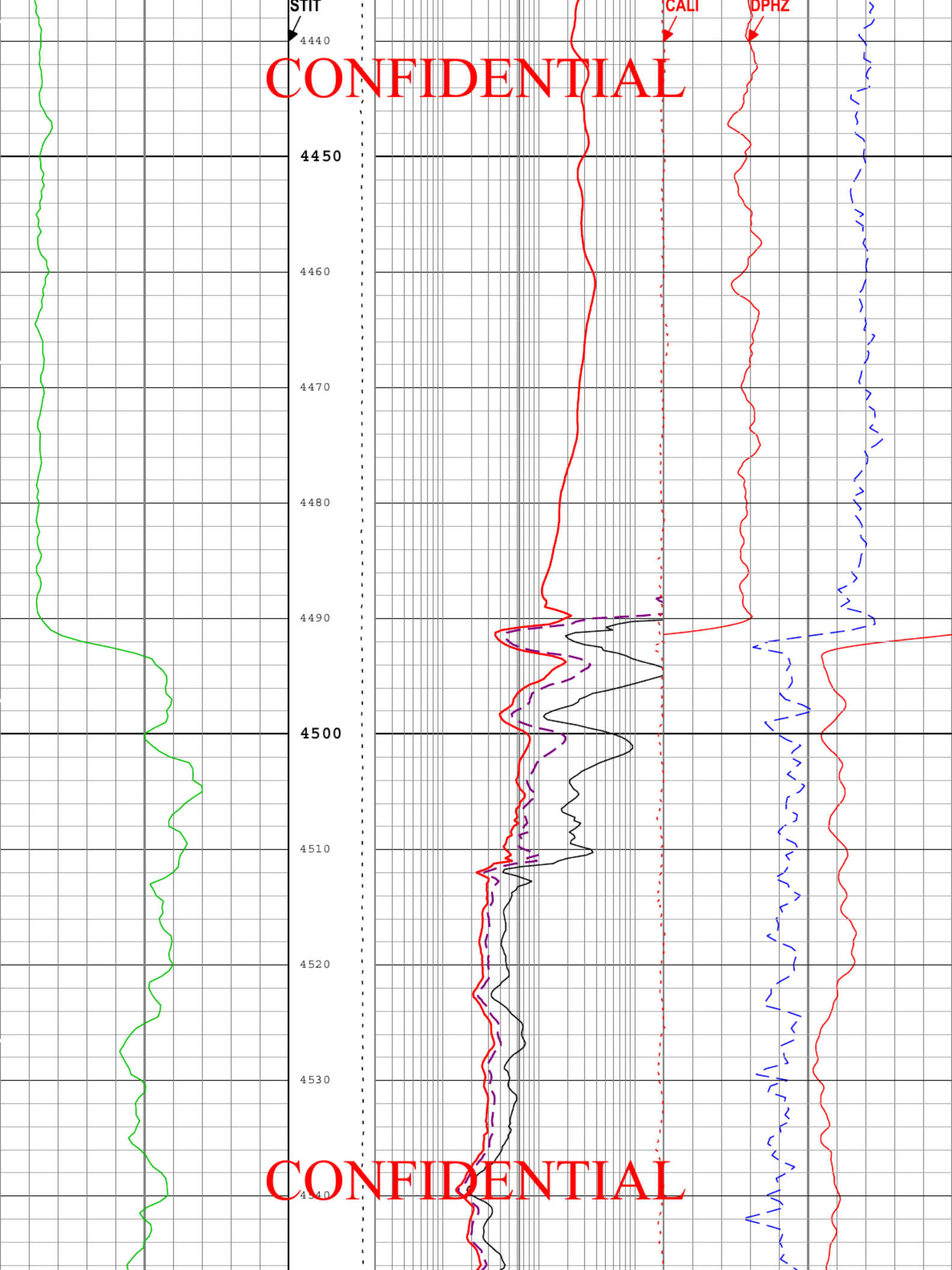
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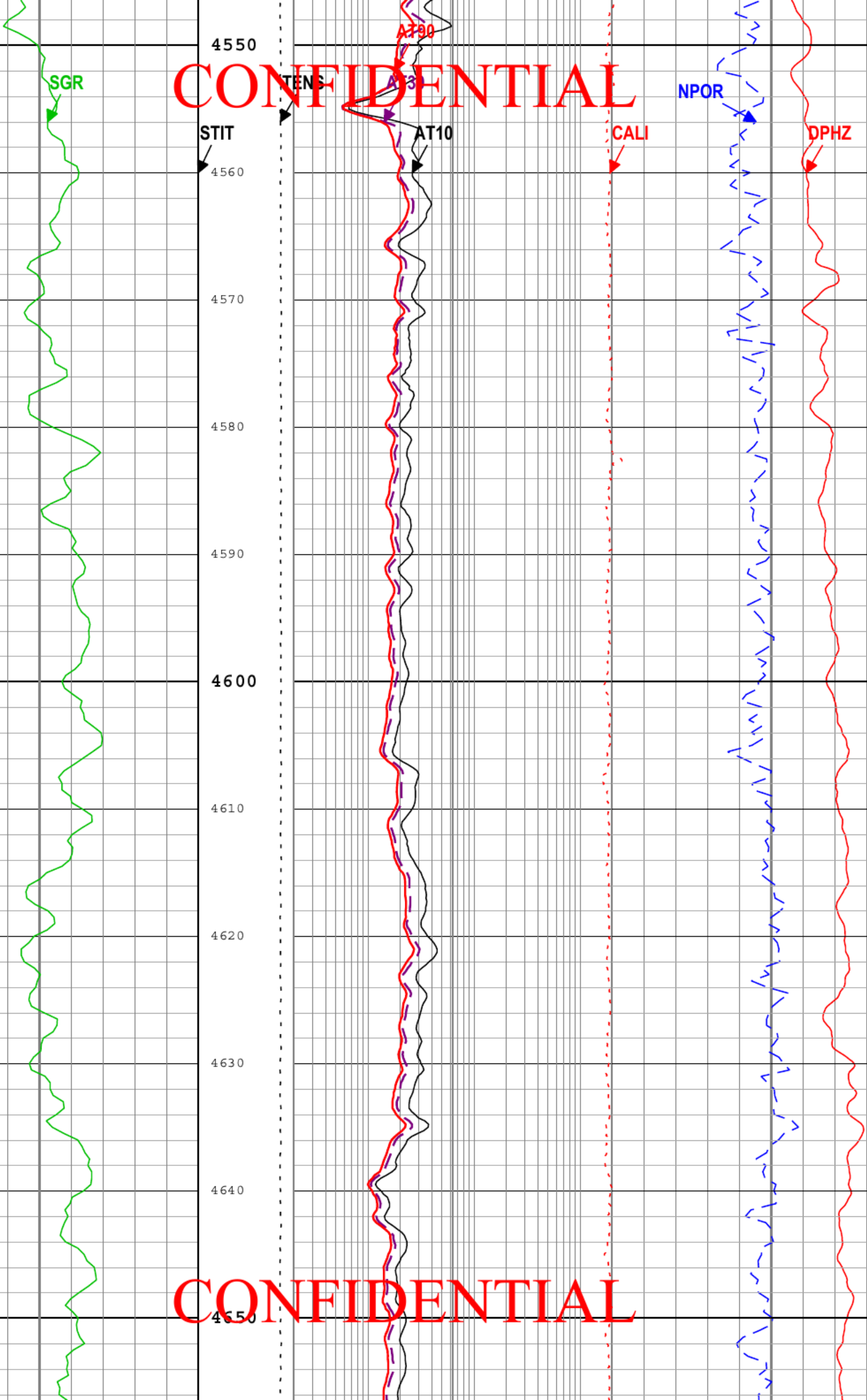


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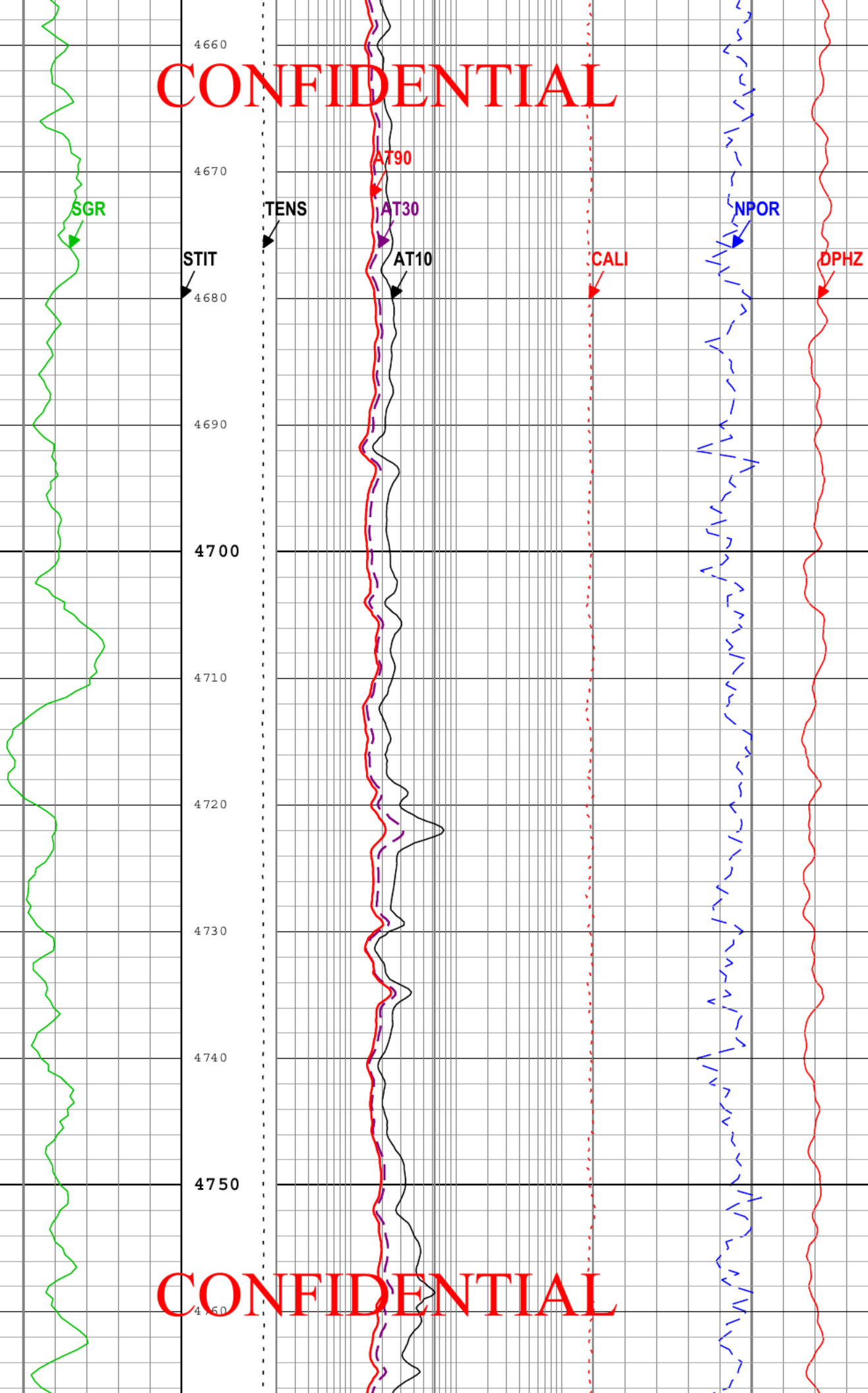
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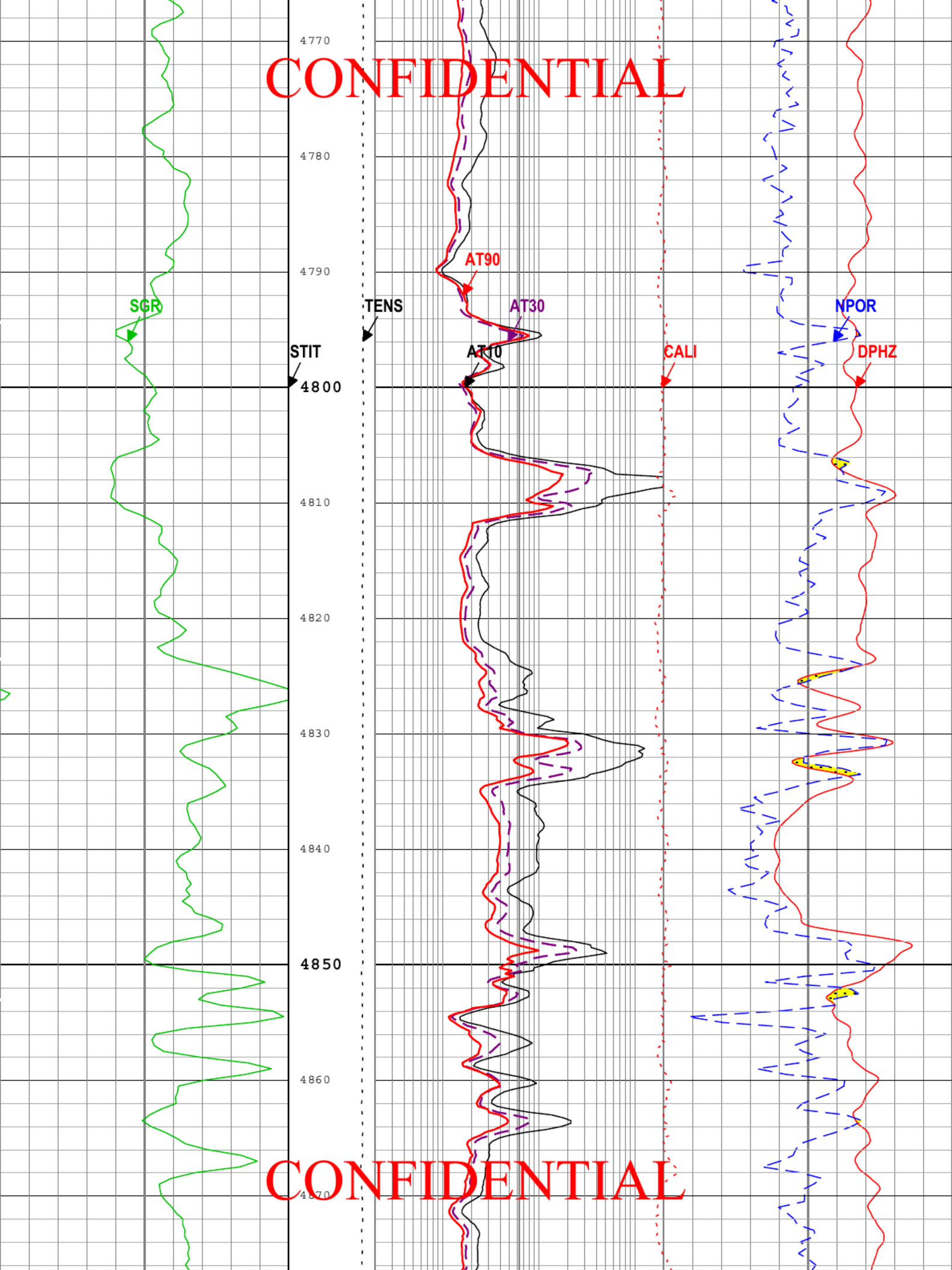
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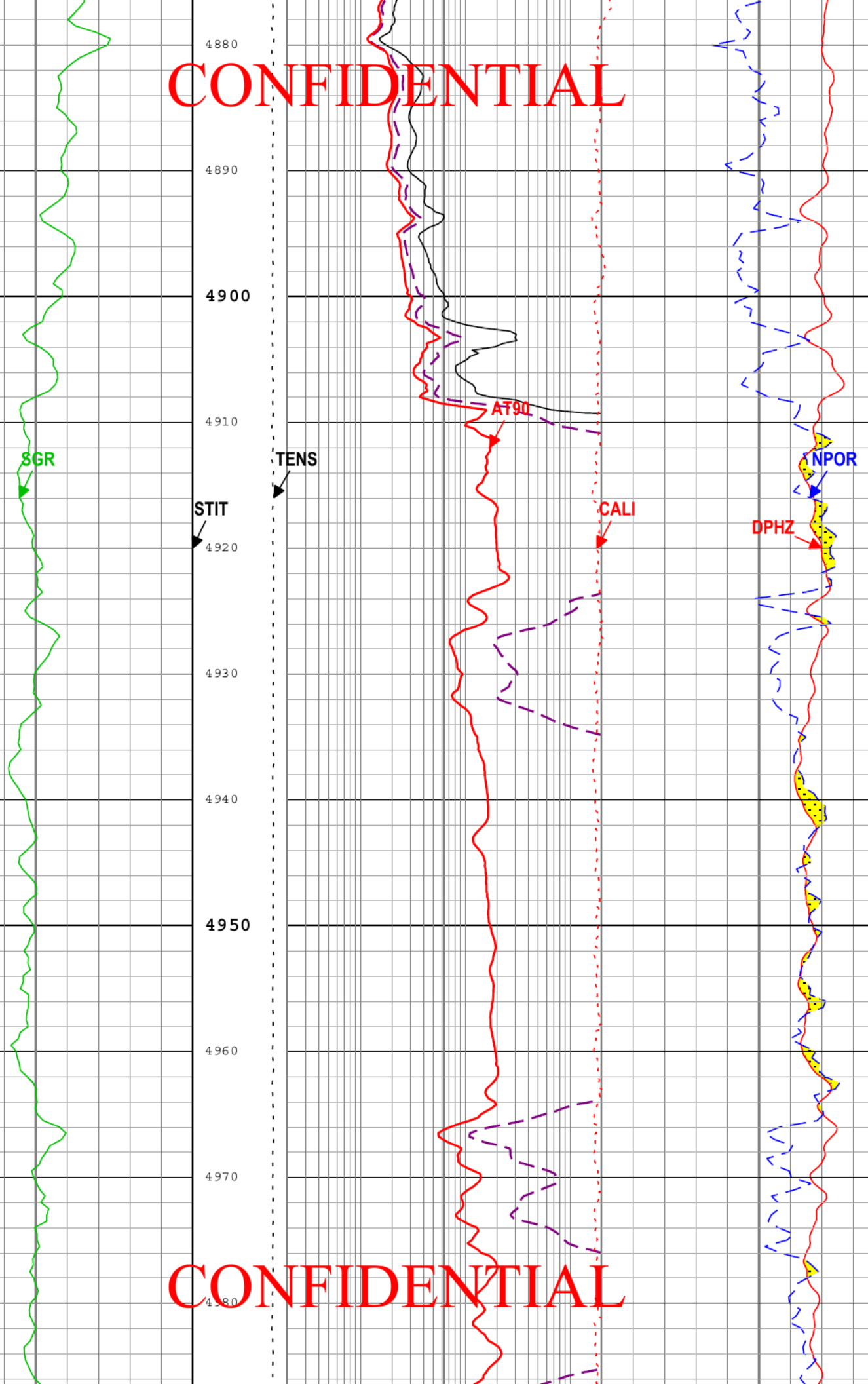
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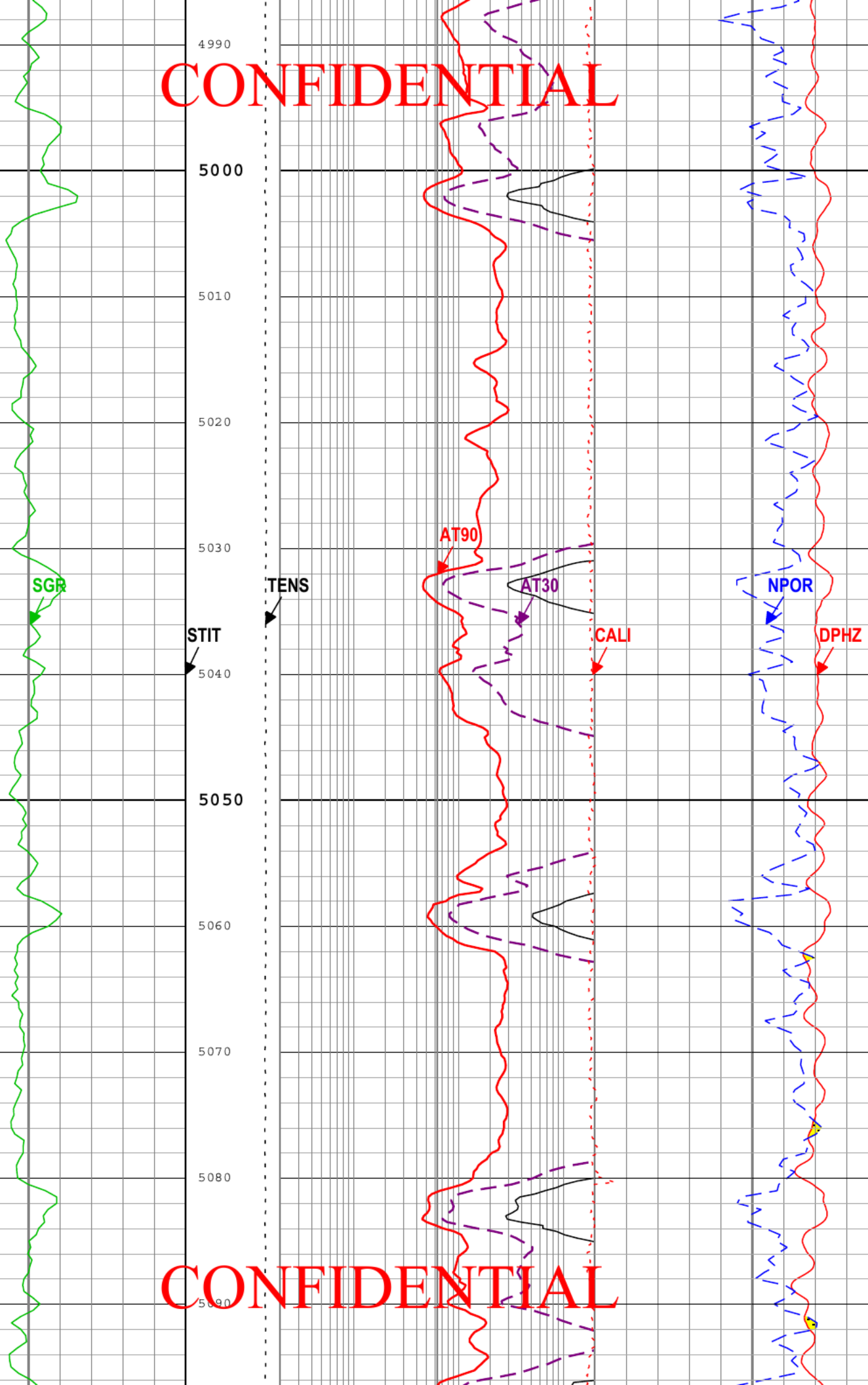
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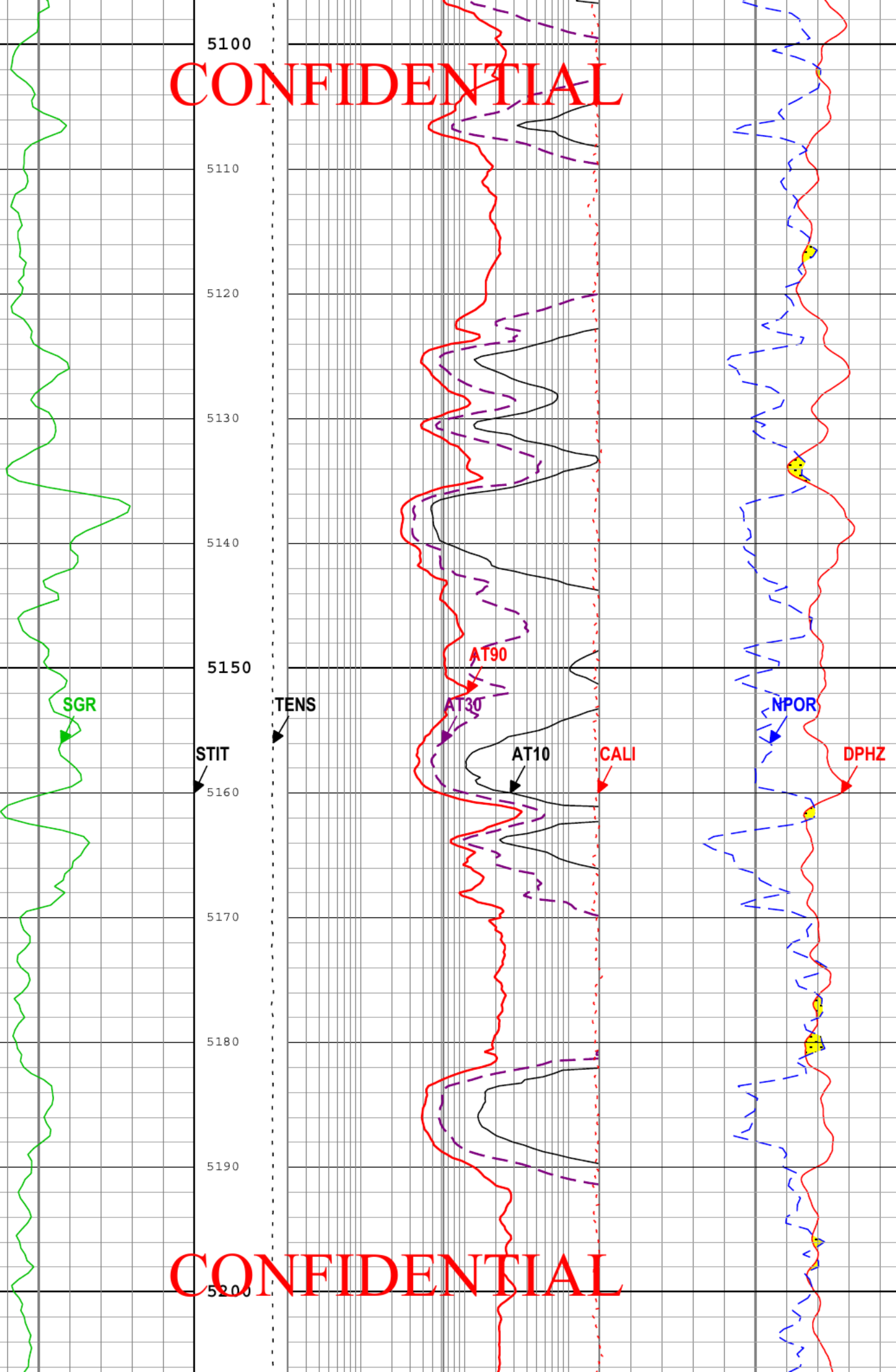
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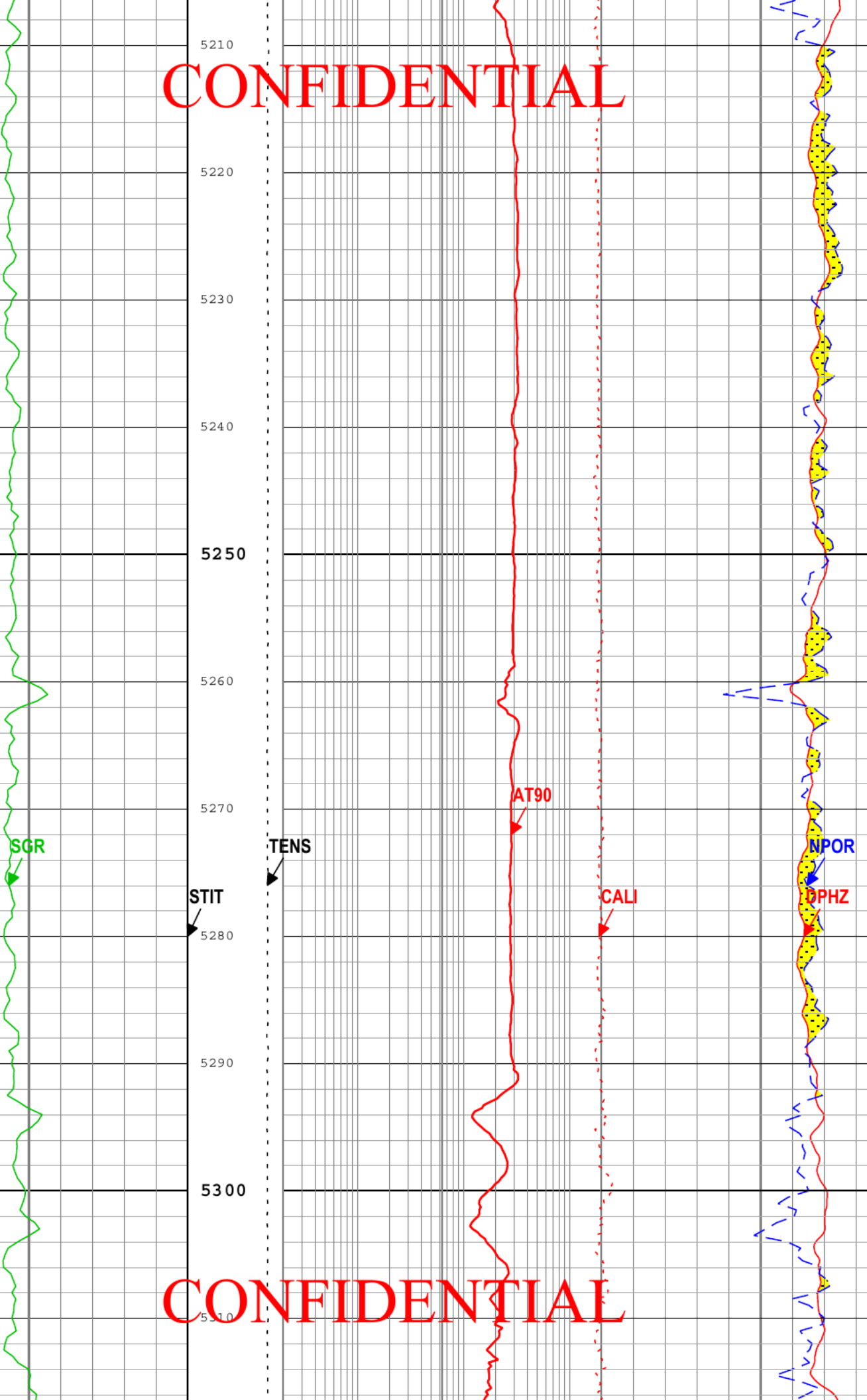
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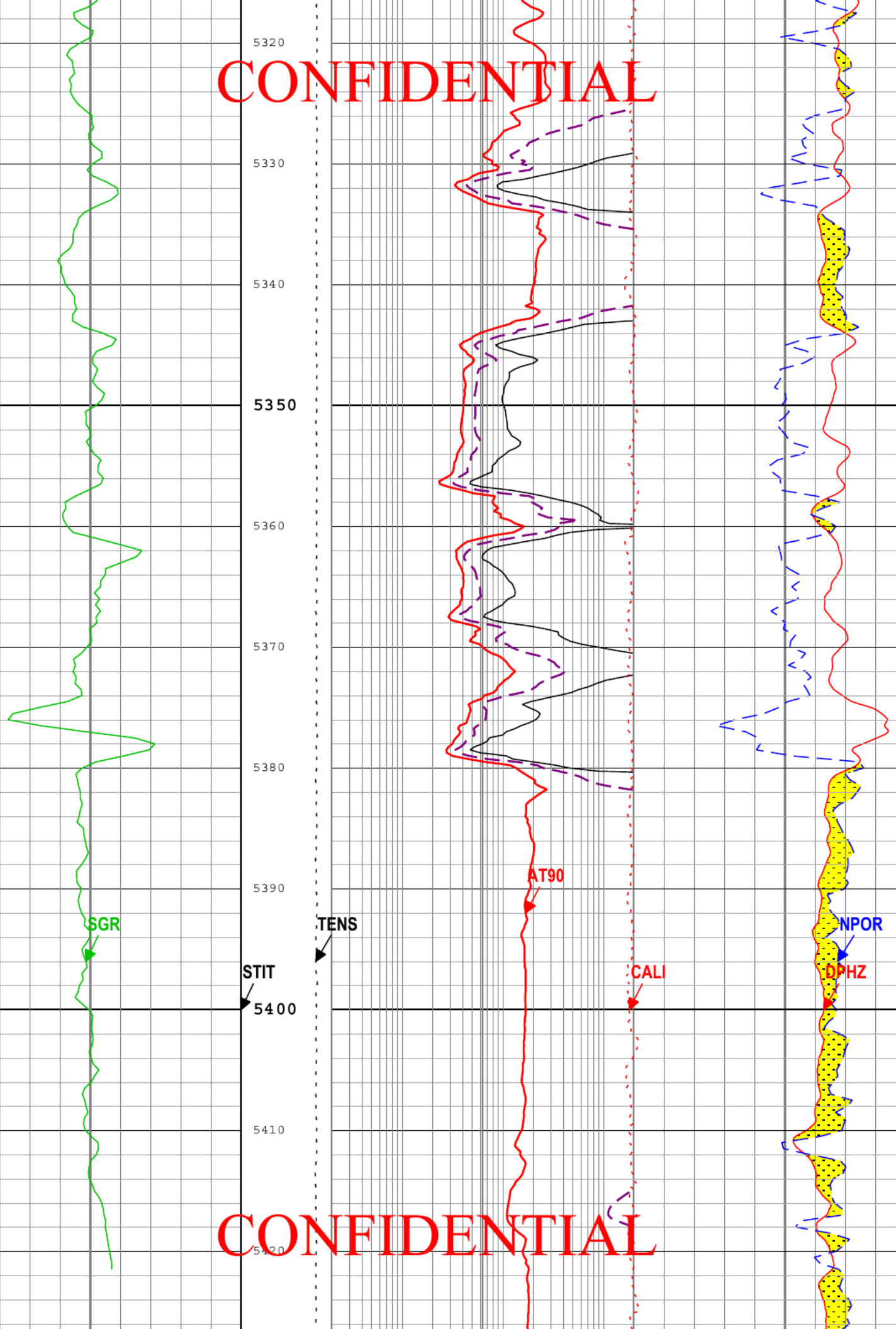
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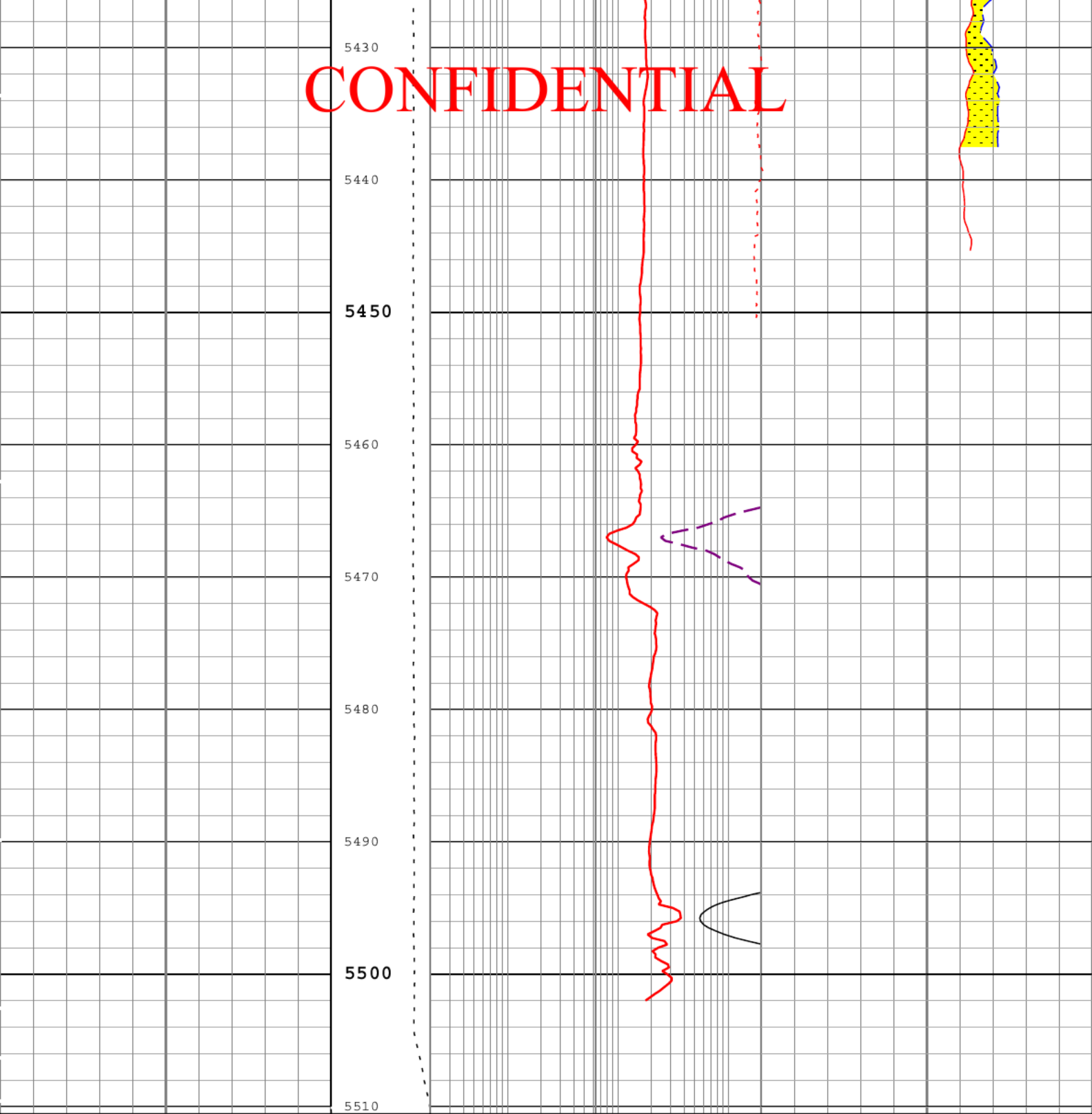
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<p style="color: green;">Spectroscopy Gamma Ray (SGR) HNGS-BA</p> <p style="color: green;">0 gAPI 150</p>	<p>Stuck Tool Indicator, Total (STIT)</p> <p>0 ft 50</p>	<p style="color: red;">Caliper (CALI) HDRS-H</p> <p style="color: red;">0 in 17.5</p>
	<p>Cable Tension (TENS)</p> <p>8000 lbf 2000</p>	<p>Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E</p> <p>0.2 ohm.m 200</p> <p>Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E</p> <p>0.2 ohm.m 200</p> <p>Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E</p> <p>0.2 ohm.m 200</p>
		<p style="background-color: yellow;">Gas Effect</p> <p style="color: red;">Standard Resolution Density Porosity (DPHZ) HDRS-H</p> <p style="color: red;">0.6 ft3/ft3 0</p> <p style="color: blue;">Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H</p> <p style="color: blue;">0.6 m3/m3 0</p>

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TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express - Format: Log - (Combo, Fax) - Index Scale: 10 in per 100 ft Index Unit: ft Index Type:

Measured Depth Creation Date: 19-Sep-2014 14:21:30

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Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
ABHME	Array Induction Extended Borehole Correction Mode	ZAIT-E	Compute OBM Plus Dip Normal	
ACDE	Array Induction Casing Detection Enable	ZAIT-E	Yes	
AOFFX	X Accelerometer Offset	GPIT-F	0.86	ft/s2
AOFFY	Y Accelerometer Offset	GPIT-F	0.49	ft/s2
AOFFZ	Z Accelerometer Offset	GPIT-F	-0.03	ft/s2
AROT	Array Induction Rotation Selector	ZAIT-E	North	
ASTA	Array Induction Tool Standoff	ZAIT-E	1	in
BARI	Barite Mud Presence Flag	Borehole	No	
BHK	Drilling Fluid Potassium Concentration	Borehole	0	%
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	233	degF
BS	Bit Size	WLSESSION	8.75	in
BSAL	Borehole Salinity	Borehole	277	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.97	in
CBLO	Casing Bottom (Logger)	WLSESSION	1078	ft
DBCC	Barite Constant Correction Flag	HNGS-BA	None	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	10	lbm/gal
DFT	Drilling Fluid Type	Borehole	Oil	
DHC	Density Hole Correction	HDRS-H	Bit Size	
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
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	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	REMS	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HCRB	Apply Borehole Potassium Correction	HNGS-BA	None	
HEMA	Hematite Presence Flag	Borehole	No	
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)	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.65	g/cm3
SGRC	Standard Gamma Ray Correction Flag	HNGS-BA	Yes	
SOCO	Standoff Correction Option	HGNS-H	Yes	
TD	Total Measured Depth	Borehole	5500	ft
USER_LOCB	User-supplied values for Magnetic Flux Density	WLSESSION	53967.77	nT
USER_MDEC	User-supplied values for Magnetic Declination	WLSESSION	13.94	deg
USER_MDIP	User-supplied values for Magnetic Dip Angle	WLSESSION	67.54	deg

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Tool Control Parameters

Parameter	Description	Tool	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HRGS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1000	ft/h

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Calibration Report

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

Primary Equipment :
20 kpi sonde - V8
AZIS
93

AIT Electronics Check - Thru Calibration Check

Before (Measured): 13:11:07 18-Sep-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Thru Cal Mag - 0	V	Before	----	0.874	1.577	2.038	
Thru Cal Phase - 0	deg	Before	----	-180.000	-160.856	180.000	
Thru Cal Mag - 1	V	Before	----	0.874	1.579	2.038	
Thru Cal Phase - 1	deg	Before	----	-180.000	-161.038	180.000	
Thru Cal Mag - 2	V	Before	----	0.874	1.516	2.038	
Thru Cal Phase - 2	deg	Before	----	-180.000	-164.285	180.000	
Thru Cal Mag - 3	V	Before	----	2.011	3.639	4.693	
Thru Cal Phase - 3	deg	Before	----	-180.000	-162.625	180.000	
Thru Cal Mag - 4	V	Before	----	2.011	3.643	4.693	
Thru Cal Phase - 4	deg	Before	----	-180.000	-162.803	180.000	
Thru Cal Mag - 5	V	Before	----	2.011	3.498	4.693	
Thru Cal Phase - 5	deg	Before	----	-180.000	-166.055	180.000	
Thru Cal Mag - 6	V	Before	----	1.608	2.902	3.752	
Thru Cal Phase - 6	deg	Before	----	-180.000	-157.105	180.000	
Thru Cal Mag - 7	V	Before	----	1.608	2.905	3.752	
Thru Cal Phase - 7	deg	Before	----	-180.000	-157.287	180.000	
Thru Cal Mag - 8	V	Before	----	1.608	2.789	3.752	
Thru Cal Phase - 8	deg	Before	----	-180.000	-160.543	180.000	
Thru Cal Mag - 9	V	Before	----	1.174	1.915	2.739	
Thru Cal Phase - 9	deg	Before	----	-180.000	-66.118	180.000	
Thru Cal Mag - 10	V	Before	----	1.174	1.908	2.739	
Thru Cal Phase - 10	deg	Before	----	-180.000	-67.225	180.000	
Thru Cal Mag - 11	V	Before	----	1.174	1.871	2.739	
Thru Cal Phase - 11	deg	Before	----	-180.000	-70.408	180.000	
Thru Cal Mag - 12	V	Before	----	2.122	3.791	4.951	
Thru Cal Phase - 12	deg	Before	----	-180.000	-161.211	180.000	
Thru Cal Mag - 13	V	Before	----	2.122	3.794	4.951	
Thru Cal Phase - 13	deg	Before	----	-180.000	-161.414	180.000	
Thru Cal Mag - 14	V	Before	----	2.122	3.643	4.951	
Thru Cal Phase - 14	deg	Before	----	-180.000	-164.673	180.000	
Thru Cal Mag - 15	V	Before	----	1.860	3.073	4.340	
Thru Cal Phase - 15	deg	Before	----	-180.000	-66.496	180.000	
Thru Cal Mag - 16	V	Before	----	1.860	3.063	4.340	
Thru Cal Phase - 16	deg	Before	----	-180.000	-67.590	180.000	
Thru Cal Mag - 17	V	Before	----	1.860	3.003	4.340	
Thru Cal Phase - 17	deg	Before	----	-180.000	-70.754	180.000	
Thru Cal Mag - 18	V	Before	----	0.562	1.001	1.310	
Thru Cal Phase - 18	deg	Before	----	-180.000	-160.424	180.000	
Thru Cal Mag - 19	V	Before	----	0.562	1.004	1.310	
Thru Cal Phase - 19	deg	Before	----	-180.000	-160.659	180.000	
Thru Cal Mag - 20	V	Before	----	0.562	0.964	1.310	
Thru Cal Phase - 20	deg	Before	----	-180.000	-163.934	180.000	
Thru Cal Mag - 21	V	Before	----	2.449	4.105	5.714	
Thru Cal Phase - 21	deg	Before	----	-180.000	-67.020	180.000	
Thru Cal Mag - 22	V	Before	----	2.449	4.083	5.714	
Thru Cal Phase - 22	deg	Before	----	-180.000	-68.125	180.000	
Thru Cal Mag - 23	V	Before	----	2.449	4.003	5.714	
Thru Cal Phase - 23	deg	Before	----	-180.000	-71.288	180.000	
Thru Cal Mag - 24	V	Before	----	0.817	1.474	1.907	
Thru Cal Phase - 24	deg	Before	----	-180.000	-163.154	180.000	

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Thru Cal Mag - 25	V	Before	-----	0.817	1.467	1.907	
Thru Cal Phase - 25	deg	Before	-----	-180.000	-163.242	180.000	
Thru Cal Mag - 26	V	Before	-----	0.817	1.409	1.907	
Thru Cal Phase - 26	deg	Before	-----	-180.000	-166.464	180.000	
Thru Cal Mag - 27	V	Before	-----	2.449	4.105	5.714	
Thru Cal Phase - 27	deg	Before	-----	-180.000	-67.041	180.000	
Thru Cal Mag - 28	V	Before	-----	2.449	4.084	5.714	
Thru Cal Phase - 28	deg	Before	-----	-180.000	-68.130	180.000	
Thru Cal Mag - 29	V	Before	-----	2.449	4.003	5.714	
Thru Cal Phase - 29	deg	Before	-----	-180.000	-71.273	180.000	
Thru Cal Mag - 30	V	Before	-----	0.817	1.474	1.907	
Thru Cal Phase - 30	deg	Before	-----	-180.000	-163.156	180.000	
Thru Cal Mag - 31	V	Before	-----	0.817	1.467	1.907	
Thru Cal Phase - 31	deg	Before	-----	-180.000	-163.243	180.000	
Thru Cal Mag - 32	V	Before	-----	0.817	1.409	1.907	
Thru Cal Phase - 32	deg	Before	-----	-180.000	-166.472	180.000	
Thru Cal Mag - 33	V	Before	-----	0.732	1.177	1.708	
Thru Cal Phase - 33	deg	Before	-----	-180.000	-64.742	180.000	
Thru Cal Mag - 34	V	Before	-----	0.732	1.177	1.708	
Thru Cal Phase - 34	deg	Before	-----	-180.000	-65.934	180.000	
Thru Cal Mag - 35	V	Before	-----	0.732	1.153	1.708	
Thru Cal Phase - 35	deg	Before	-----	-180.000	-69.123	180.000	
Thru Cal Mag - 36	V	Before	-----	0.981	1.725	2.289	
Thru Cal Phase - 36	deg	Before	-----	-180.000	-157.973	180.000	
Thru Cal Mag - 37	V	Before	-----	0.981	1.729	2.289	
Thru Cal Phase - 37	deg	Before	-----	-180.000	-158.232	180.000	
Thru Cal Mag - 38	V	Before	-----	0.981	1.660	2.289	
Thru Cal Phase - 38	deg	Before	-----	-180.000	-161.501	180.000	
Thru Cal Mag - 39	V	Before	-----	0.878	1.414	2.049	
Thru Cal Phase - 39	deg	Before	-----	-180.000	-64.606	180.000	
Thru Cal Mag - 40	V	Before	-----	0.878	1.414	2.049	
Thru Cal Phase - 40	deg	Before	-----	-180.000	-65.782	180.000	
Thru Cal Mag - 41	V	Before	-----	0.878	1.386	2.049	
Thru Cal Phase - 41	deg	Before	-----	-180.000	-68.954	180.000	
Thru Cal Mag - 42	V	Before	-----	1.412	2.490	3.294	
Thru Cal Phase - 42	deg	Before	-----	-180.000	-157.356	180.000	
Thru Cal Mag - 43	V	Before	-----	1.412	2.496	3.294	
Thru Cal Phase - 43	deg	Before	-----	-180.000	-157.615	180.000	
Thru Cal Mag - 44	V	Before	-----	1.412	2.397	3.294	
Thru Cal Phase - 44	deg	Before	-----	-180.000	-160.891	180.000	

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AIT Electronics Check - Auxiliary Measurements Reference Check

Before (Measured): 13:11:07 18-Sep-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
SPA Zero	mV	Before		-50.000	-1.498	50.000	
SPA Plus	mV	Before		756.500	842.601	915.400	
Temperature Zero	V	Before		-0.050	-0.001	0.050	
Temperature Plus	V	Before		0.880	0.989	1.076	
Voltage Zero	V	Before		-0.100	-0.011	0.100	
Voltage Plus	V	Before		4.500	5.012	5.500	

AIT Electronics Check - Power Supply Check

Before (Measured): 13:11:07 18-Sep-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Power Supply - 0	V	Before	-----	-14.000	-13.081	-12.000	
Power Supply - 1	V	Before	-----	12.000	13.081	14.000	
Power Supply - 2	V	Before	-----	-14.000	-12.954	-12.000	
Power Supply - 3	V	Before	-----	12.000	13.061	14.000	
Power Supply - 4	V	Before	-----	15.000	20.070	31.000	
Power Supply - 5	V	Before	-----	1.600	1.815	2.000	
Power Supply - 6	V	Before	-----	2.200	2.485	2.800	
Power Supply - 7	V	Before	-----	3.000	3.262	3.700	
Power Supply - 8	V	Before	-----	4.500	4.957	5.600	
Power Supply - 9	V	Before	-----	0.100	0.240	0.400	
Power Supply - 10	V	Before	-----	0.100	0.235	0.400	
Power Supply - 11	V	Before	-----	0.100	0.224	0.400	

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Power Supply - 12	V	Before	-----	0.100	0.220	0.400	
Power Supply - 13	V	Before	-----	0.100	0.214	0.400	
Power Supply - 14	V	Before	-----	0.100	0.219	0.400	
Power Supply - 15	V	Before	-----	45.000	50.251	55.000	
Power Supply - 16	V	Before	-----	45.000	50.251	55.000	
Power Supply - 17	V	Before	-----	45.000	50.251	55.000	
Power Supply - 18	V	Before	-----	45.000	50.243	55.000	
Power Supply - 19	V	Before	-----	45.000	50.251	55.000	
Power Supply - 20	V	Before	-----	45.000	50.245	55.000	

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PPC-B[1] (Powered Positioning device and Caliper.) Calibration - Run One

Primary Equipment :				PPC-B Element is used for usual logging at wellsite and check/diagnostics.	PPC-B	8007
Auxiliary Equipment :				PPC-B Element is used for usual logging at wellsite and check/diagnostics.	PPC-B	8007
Calibration Parameter :				ZERO_REF (Small Size Ring)	3.500	
				PLUS_REF (Large Size Ring)	8.000	
Equipment Properties :				Caliper Arm Equipment Type for PPC	PPC_CAL_STD	

PPC Check - Downhole Electronics Test

Before (Measured): 13:07:57 18-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Positive Analog Voltage	V	Before		7	8.70264	9	
Minus Analog Voltage	V	Before		-9	-8.746	-7	
Digital Voltage	V	Before		3.15	3.37646	3.45	
Digital Voltage for Analog Digital Converter	V	Before		4.5	5.03086	5.5	
Status Word of Analog Digital Converter Offset		Before		-8	0.833333	8	

PPC Check - Cartridge Temperature Test

Before (Measured): 13:07:57 18-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Cartridge Temperature	degF	Before		-58	103.709	482	

PPC Check - Power Control LVDT Test

Before (Measured): 13:07:57 18-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
LVDT5 Caliper Open Position	in	Before			-1.23169		
LVDT5 Full Power Position	in	Before			1.50439		

PPC Caliper Calibration - PPC CaliCoefficients

Before (EEPROM): 14:37:00 15-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RD1_GAIN		Before	1	0.85	1.04001	1.15	
RD2_GAIN		Before	1	0.85	1.0244	1.15	
RD3_GAIN		Before	1	0.85	1.06904	1.15	
RD4_GAIN		Before	1	0.85	1.0077	1.15	
RD1_OFFSET	in	Before	0	-2.2	-1.6833	2.6	
RD2_OFFSET	in	Before	0	-2.2	-0.296397	2.6	
RD3_OFFSET	in	Before	0	-2.2	-1.7611	2.6	
RD4_OFFSET	in	Before	0	-2.2	0.323074	2.6	

PPC Caliper Calibration - PPC Accumulations

Before (EEPROM): 14:37:00 15-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Caliper 1 Zero Radius	in	Before	3.5	1.2	4.9839	5.6	
Caliper 2 Zero Radius	in	Before	3.5	1.2	3.70596	5.6	
Caliper 3 Zero Radius	in	Before	3.5	1.2	4.92133	5.6	
Caliper 4 Zero Radius	in	Before	3.5	1.2	3.15266	5.6	
Caliper 1 Plus Radius	in	Before	8	6.1	9.31078	9.7	
Caliper 2 Plus Radius	in	Before	8	6.1	8.09877	9.7	
Caliper 3 Plus Radius	in	Before	8	6.1	9.1307	9.7	

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PPC-B[2] (Powered Positioning device and Caliper) Calibration - Run One

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Primary Equipment :		PPC-B Element is used for usual logging at wellsite and check/diagnostics.	PPC-B	8671
Auxiliary Equipment :		PPC-B Element is used for usual logging at wellsite and check/diagnostics.	PPC-B	8671
Calibration Parameter :		ZERO_REF		
		PLUS_REF		
Equipment Properties :		Caliper Arm Equipment Type for PPC	PPC_CAL_STD	

PPC Check - Downhole Electronics Test

Before (Measured):		13:08:00 18-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Positive Analog Voltage	V	Before		7	8.64053	9	<input type="checkbox"/>
Minus Analog Voltage	V	Before		-9	-8.68242	-7	<input type="checkbox"/>
Digital Voltage	V	Before		3.15	3.37402	3.45	<input type="checkbox"/>
Digital Voltage for Analog Digital Converter	V	Before		4.5	5.02324	5.5	<input type="checkbox"/>
Status Word of Analog Digital Converter Offset		Before		-8	0.0555556	8	<input type="checkbox"/>

PPC Check - Cartridge Temperature Test

Before (Measured):		13:08:00 18-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Cartridge Temperature	degF	Before		-58	103.269	482	<input type="checkbox"/>

PPC Check - Power Control LVDT Test

Before (Measured):		13:08:00 18-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
LVDT5 Caliper Open Position	in	Before			-1.2572		<input type="checkbox"/>
LVDT5 Full Power Position	in	Before			-0.583618		<input type="checkbox"/>

PPC Caliper Calibration - PPC CaliCoefficients

Before (Manual Entry):		19:48:41 18-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RD1_GAIN		Before	1	0.85	1.07766	1.15	<input type="checkbox"/>
RD2_GAIN		Before	1	0.85	1.02218	1.15	<input type="checkbox"/>
RD3_GAIN		Before	1	0.85	1.14116	1.15	<input type="checkbox"/>
RD4_GAIN		Before	1	0.85	1.06954	1.15	<input type="checkbox"/>
RD1_OFFSET	in	Before	0	-2.2	-0.07525	2.6	<input type="checkbox"/>
RD2_OFFSET	in	Before	0	-2.2	-0.896365	2.6	<input type="checkbox"/>
RD3_OFFSET	in	Before	0	-2.2	-0.14357	2.6	<input type="checkbox"/>
RD4_OFFSET	in	Before	0	-2.2	-0.733561	2.6	<input type="checkbox"/>

PPC Caliper Calibration - PPC Accumulations

Before (Manual Entry):		19:48:41 18-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Caliper 1 Zero Radius - 0	in	Before	----	----	----	----	<input type="checkbox"/>
Caliper 2 Zero Radius - 0	in	Before	----	----	----	----	<input type="checkbox"/>
Caliper 3 Zero Radius - 0	in	Before	----	----	----	----	<input type="checkbox"/>
Caliper 4 Zero Radius - 0	in	Before	----	----	----	----	<input type="checkbox"/>
Caliper 1 Plus Radius - 0	in	Before	----	----	----	----	<input type="checkbox"/>
Caliper 2 Plus Radius - 0	in	Before	----	----	----	----	<input type="checkbox"/>
Caliper 3 Plus Radius - 0	in	Before	----	----	----	----	<input type="checkbox"/>
Caliper 4 Plus Radius - 0	in	Before	----	----	----	----	<input type="checkbox"/>

HDRS-H (HILT Density and Ryo Sonde, 150 degC) Calibration - Run One

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Primary Equipment :		HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	4863
		HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H	3714
Auxiliary Equipment :				

HRDD Backscatter Detector	Backscatter	
HRDD Long Spacing Detector	Long Spacing	
HRDD Short Spacing Detector	Short Spacing	27860
Cesium 137 Gamma-Ray Logging Source	GSR-J	5416
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	4863
HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H	3898

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Calibration Parameter :

- Small Ring Size
- Large Ring Size

HDRS Caliper Calibration - Caliper Accumulations

Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Small Ring	in	Before			NOT DONE		
Large Ring	in	Before			NOT DONE		

HDRS Density Calibration - Inversion Results

Master (EEPROM): 16:47:40 14-Sep-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Rho Aluminum	g/cm3	Master	2.596	2.586	2.600	2.606	
Rho Magnesium	g/cm3	Master	1.686	1.676	1.687	1.696	
Pe Aluminum		Master	2.570	2.470	2.546	2.670	
Pe Magnesium		Master	2.650	2.550	2.618	2.750	

HDRS Density Calibration - Deviation Summary

Master (EEPROM): 16:47:40 14-Sep-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Average Deviation	%	Master	0	-0.6000	0.3606	0.6000	
BS Max Deviation	%	Master	0	-1.6000	0.7014	1.6000	
SS Average Deviation	%	Master	0	-1.0000	0.4095	1.0000	
SS Max Deviation	%	Master	0	-2.5000	1.3920	2.5000	
LS Average Deviation	%	Master	0	-1.5000	0.6086	1.5000	
LS Max Deviation	%	Master	0	-3.5000	1.3228	3.5000	

HDRS Density Calibration - Background Summary

Master (EEPROM): 16:47:40 14-Sep-2014 Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000		0.7333		
		Before			NOT DONE		
		Before-Master	----	----	----	----	
BS Window Sum	1/s	Master	1		25108		
		Before			NOT DONE		
		Before-Master	----	----	----	----	
SS Window Ratio		Master	1.0000		0.4829		
		Before			NOT DONE		
		Before-Master	----	----	----	----	
SS Window Sum	1/s	Master	1		13441		
		Before			NOT DONE		
		Before-Master	----	----	----	----	
LS Window Ratio		Master	1.0000		0.2969		
		Before			NOT DONE		
		Before-Master	----	----	----	----	
LS Window Sum	1/s	Master	1		1521		
		Before			NOT DONE		
		Before-Master	----	----	----	----	

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM): 16:47:40 14-Sep-2014 Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage		Master	1000		1556	2400	
		Before			NOT DONE		
		Before-Master	----	----	----	----	
SS PM High Voltage	V	Master	1000		1534	2400	
		Before			NOT DONE		
		Before-Master	----	----	----	----	

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LS PM High Voltage	V	Master Before Before-Master	----- ----- -----	1000 ----- -----	1404 ----- -----	2400 ----- -----	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
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HDRS Density Calibration - Crystal Quality Resolution

Master (EEPROM): 16:47:40 14-Sep-2014 Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<input type="checkbox"/>
BS Crystal Resolution	%	Master	-----	5.00	10.63	25.00	<input type="checkbox"/>
		Before	-----	-----	-----	-----	<input type="checkbox"/>
		Before-Master	-----	-----	-----	-----	<input type="checkbox"/>
SS Crystal Resolution	%	Master	-----	5.00	9.60	20.00	<input type="checkbox"/>
		Before	-----	-----	-----	-----	<input type="checkbox"/>
		Before-Master	-----	-----	-----	-----	<input type="checkbox"/>
LS Crystal Resolution	%	Master	-----	5.00	8.75	20.00	<input type="checkbox"/>
		Before	-----	-----	-----	-----	<input type="checkbox"/>
		Before-Master	-----	-----	-----	-----	<input type="checkbox"/>

HDRS MCFL Calibration - MCFL Accumulations

Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<input type="checkbox"/>
Main Resistivity - 0	ohm.m	Before	-----	-----	-----	-----	<input type="checkbox"/>
Deep Resistivity - 0	ohm.m	Before	-----	-----	-----	-----	<input type="checkbox"/>
Shallow Resistivity - 0	ohm.m	Before	-----	-----	-----	-----	<input type="checkbox"/>

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 3931

Auxiliary Equipment :
 HGNS Accelerometer, 150 degC HACCZ-H 3616
 AmBe Neutron Logging Source NSR-F 5068

Calibration Parameter :
 Water Temperature (Calibration Tank Water Temperature) 64.5
 Housing Size (Thermal Housing Size) 3.38
 JIG-BKG

HGNS Accelerometer Calibration - Accelerometer Accumulations

Before (Measured): 13:09:53 18-Sep-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<input type="checkbox"/>
AZ Vertical Measurement	ft/s2	Before	32.2	31.5	32.1	32.8	<input type="checkbox"/>

HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM): 00:00:00 15-Feb-2005

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<input type="checkbox"/>
Accelerometer Manufacturer		Master			QAT_160		<input type="checkbox"/>
Accelerometer Reference Temperature	degF	Master		30.2	77.0	122.0	<input type="checkbox"/>
Accelerometer Coefficients - 0		Master	-----	-----	-2323.000	-----	<input type="checkbox"/>
Accelerometer Coefficients - 1		Master	-----	-----	2.895	-----	<input type="checkbox"/>
Accelerometer Coefficients - 2		Master	-----	-----	0.001	-----	<input type="checkbox"/>
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----	<input type="checkbox"/>
Accelerometer Coefficients - 4		Master	-----	-----	2.764	-----	<input type="checkbox"/>
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----	<input type="checkbox"/>
Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----	<input type="checkbox"/>
Accelerometer Coefficients - 7		Master	-----	-----	0.000	-----	<input type="checkbox"/>
Accelerometer Coefficients - 8		Master	-----	-----	298.500	-----	<input type="checkbox"/>
Accelerometer Coefficients - 9		Master	-----	-----	1.009	-----	<input type="checkbox"/>

HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM): 11:12:08 15-Sep-2014 Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<input type="checkbox"/>
Near Zero Measurement	1/s	Master	0	5.0	27.2	40.0	<input type="checkbox"/>
		Before	-----	-----	-----	-----	<input type="checkbox"/>
		Before-Master	-----	-----	-----	-----	<input type="checkbox"/>
Far Zero Measurement	1/s	Master	0	5.0	28.9	40.0	<input type="checkbox"/>
		Before	-----	-----	-----	-----	<input type="checkbox"/>
		Before-Master	-----	-----	-----	-----	<input type="checkbox"/>

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Near Plus Measurement	1/s	Before-Master Before Before-Master	6031.0 ----- -----	4700.0 ----- -----	5322.0 ----- -----	6900.0 ----- -----	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Far Plus Measurement	1/s	Master Before Before-Master	2900.0 ----- -----	1900.0 ----- -----	2280.0 ----- -----	2900.0 ----- -----	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Near Corrected Plus Measurement	1/s	Master Before Before-Master	----- ----- -----	4700.0 ----- -----	5351.0 ----- -----	6900.0 ----- -----	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Far Corrected Plus Measurement	1/s	Master Before Before-Master	----- ----- -----	1900.0 ----- -----	2289.0 ----- -----	2900.0 ----- -----	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<input type="checkbox"/>	<input type="checkbox"/>
RGR Zero Measurement - 0	gAPI	Before	-----	-----	-----	-----	<input type="checkbox"/>	<input type="checkbox"/>
RGR Plus Measurement	gAPI	Before			NOT DONE		<input type="checkbox"/>	<input type="checkbox"/>
GR Calibration Gain		Before			NOT DONE		<input type="checkbox"/>	<input type="checkbox"/>

Company:	Alta Mesa Services LP	Schlumberger
Well:	DJS Properties 2-14	
Field:	Willow	

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County: Payette

State: Idaho

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Platform Express - Triple Combo

Density - Neutron Porosity - Propagation Resistivity

Sandstone Matrix Print - 2.65 g/cm³

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