Schlumberger

Company: Whiting Oil and Gas Corporation

Well: Wolf 12L-0103

Field: Wildcat

County: Weld State: Colorado

Platform Express

Array Induction

with Linear Correlation

Location:	SWNW, Sec. 12, T10N, R59W		Elev.:	K.B.	4971.50 ft
	SHL: 2558' FNL x 619' FWL			G.L.	4953.00 ft
	Lat/Long: 40.852931/-103.934714			D.F.	4970.50 ft
	Permanent Datum:	Ground Level	Elev.:		4953.00 f
	Log Measured From:	Kelly Bushing	18.50 ft		above Perm.Datum
	Drilling Measured From:	Kelly Bushing			

County:	Field:	Location:	Well:	Company:
Weld	Wildcat	SWNW, Sec. 12, T10N, R59W	Wolf 12L-0103	Whiting Oil and Gas Corporation

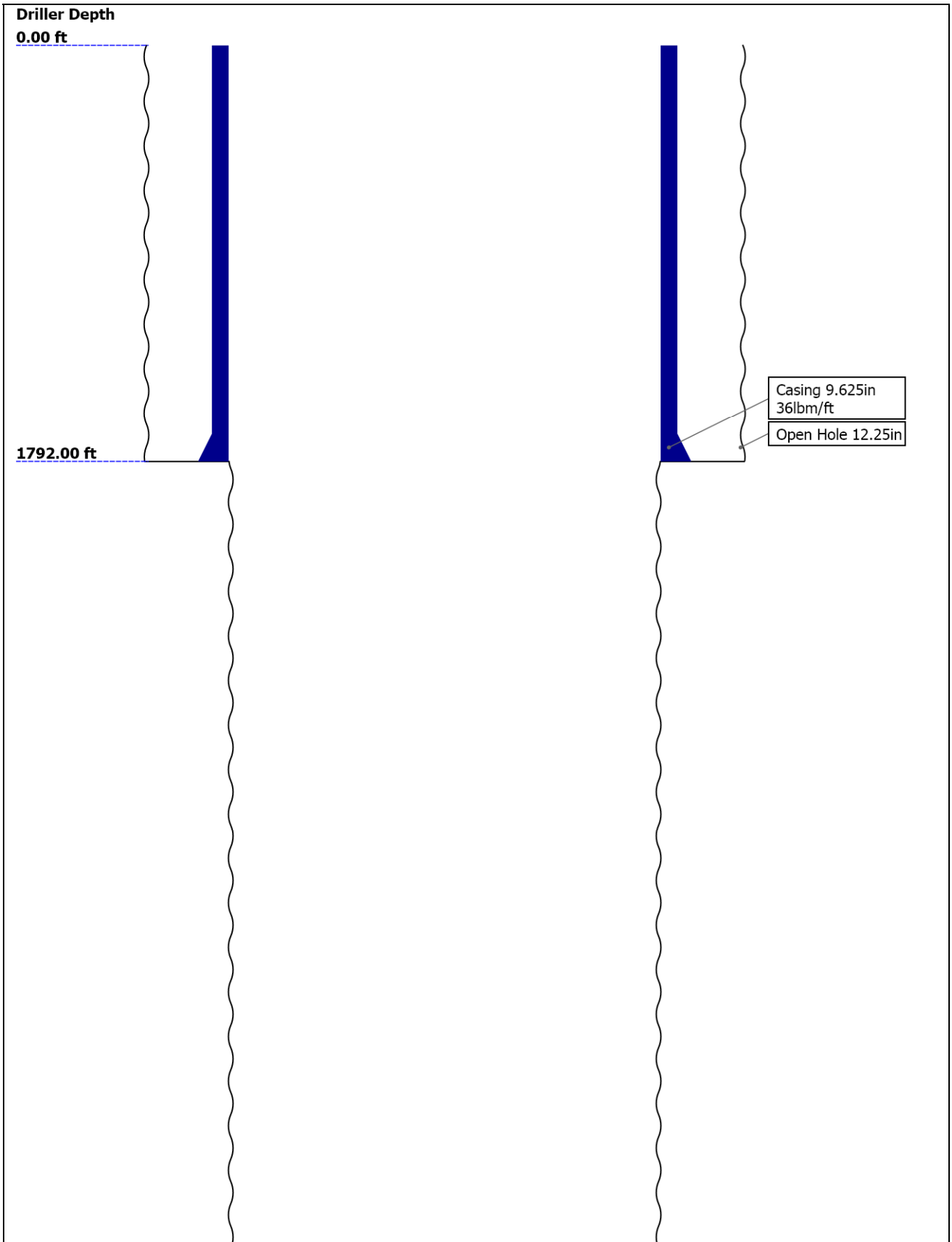
API Serial No.	Section:	Township:	Range:
05-123-39421-0000	12	10N	59W

Logging Date		30-Aug-2014			
Run Number		One			
Depth Driller		6700.00 ft			
Schlumberger Depth		6624.00 ft			
Bottom Log Interval		6624.00 ft			
Top Log Interval		18.00 ft			
Casing Driller Size @ Depth		9.625 in @ 1792.00 ft			
Casing Schlumberger		1794 ft			
Bit Size		8.75 in			
Type Fluid In Hole		Polymer			
MUD Density	Viscosity	9.3 lbm/gal	44 s		
MUD Fluid Loss	PH	6.8 cm3	8.5		
MUD Source of Sample		Shale Shakers			
RM @ Meas Temp		1.21 ohm.m @ 75.4 degF			
RMF @ Meas Temp		0.91 ohm.m @ 75.4 degF			
RMC @ Meas Temp		1.51 ohm.m @ 75.4 degF			
Source RMF	RMC	Calculated	Calculated		
RM @ BHT	RMF @ BHT	0.51 @ 190	0.38 @ 190		
Max Recorded Temperatures		190 degF			
Circulation Stopped Time		30-Aug-2014	15:00:00		
Logger on Bottom Time		30-Aug-2014	18:00:47		
Unit Number	Location:	9108	Fort Morgan, CO		
Recorded By		Elizabeth Wilson			
Witnessed By		BJ Honeycutt / Matt Taylor			

Disclaimer

Contents

Well Sketch



Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	12.25	8.75				
Top Driller (ft)	0	1792				
Top Logger (ft)	0	1792				
Bottom Driller (ft)	1792	6700				
Bottom Logger (ft)	1792	6624				
Casing						
Size (in)	9.625					
Weight (lbm/ft)	36					
Inner Diameter (in)	8.921					
Grade	N/A					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	1792					
Bottom Logger (ft)	1794					

Borehole Fluids

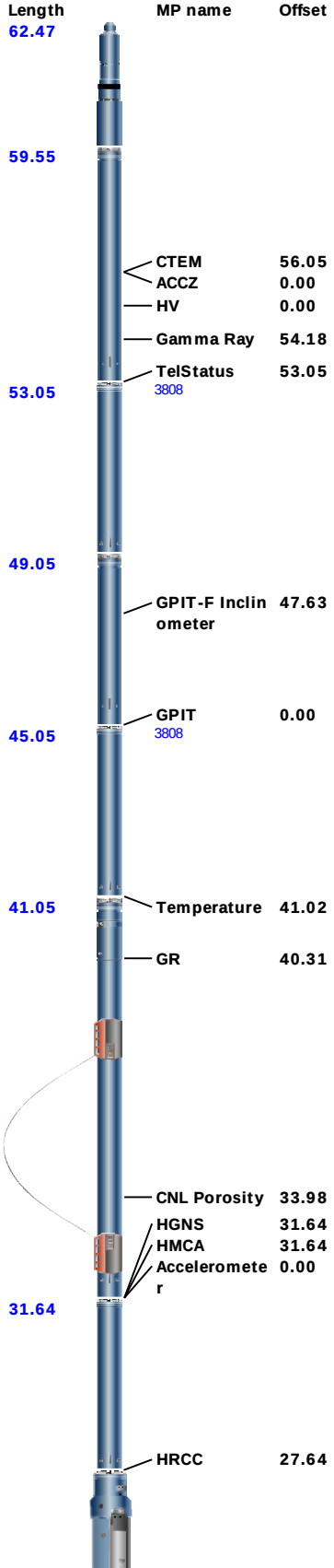
Parameter(unit)	One					
Fluid Type	Water					
Fluid Name	Polymer					
Max Recorded Temperatures (degF)	190					
Source of Sample	Shale Shakers					
Salinity (ppm)	1000					
Density (lbm/gal)	9.3					
Funnel Viscosity (s)	44					
Fluid Loss (cm3)	6.8					
PH	8.5					
Date/Time Circulation Stopped	30-Aug-2014 15:00:00					
Date Logger on Bottom	30-Aug-2014					
Time Logger on Bottom	18:00:47					
Source RMF	Calculated					
RMC	Calculated					
RM @ Meas Temp (ohm.m@degF)	1.21 @ 75.4					
RMF @ Meas Temp (ohm.m@degF)	0.91 @ 75.4					

RMC @ Meas Temp (ohm.m@degF)	1.51 @ 75.4					
RM @ BHT (ohm.m@degF)	0.51 @ 190					
RMF @ BHT (ohm.m@degF)	0.38 @ 190					
RMC @ BHT (ohm.m@degF)	0.63 @ 190					
Total Solid (%)	5					
High Gravity Solids (%)						

Remarks and Equipment Summary

One: Toolstring

Equip name	Length	MP name	Offset
LEH-QT:2552	**62.47**		
LEH-QT:2552			
EDTC-B:9296	**59.55**		
EDTH-B:9347			
EDTG-B:79498			
EDTC-B:9296			
		CTEM	**56.05**
		ACCZ	**0.00**
		HV	**0.00**
		Gamma Ray	**54.18**
		TelStatus	**53.05**
Weight[2]	**53.05**	3808	
GPIT-F:2953	**49.05**		
GPIH-B			
DHRU-F:2953			
GPIC-F:2953			
		GPIT-F Inclinometer	**47.63**
		GPIT	**0.00**
Weight[1]	**45.05**	3808	
HGNS-H:4810	**41.05**		
HGNH:3912			
NPV-N			
NSR-F:5069			
HMCA-H			
HGNS-H:4810			
HACCZ-H:6305			
		Temperature	**41.02**
		GR	**40.31**
		CNL Porosity	**33.98**
		HGNS	**31.64**
		HMCA	**31.64**
		Accelerometer	**0.00**
HDRS-H:3911	**31.64**		
ECH-MEB:3949			
HRCC-H:4923			
HRMS-H:3911			
Long Spacing:28736			
Short Spacing:28736			
GPV-Q			
Backscatter:28736			
GSR-J:5094			
HRGD-H:3933			
		HRCC	**27.64**



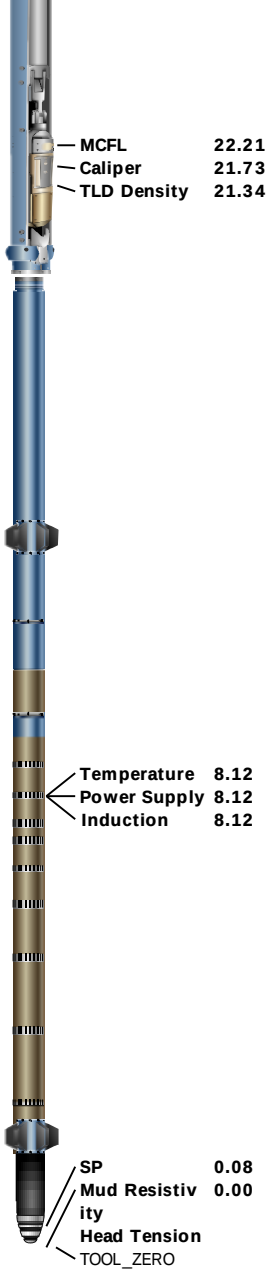
One: Remarks

Toolstring ran as per tool sketch

TLD caliper calibrated to casing ID of 8.921"

Crew: Alonzo Carrera, David Marquez

Thank you for choosing Schlumberger Wireline Services



Lengths are in ft
Maximum Outer Diameter = 7.000 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Depth Summary

	One		
Depth Measuring Device			
Type	IDW-JA		
Serial Number	5916		
Calibration Date	24-Mar-2014		
Calibrator Serial Number			
Calibration Cable Type	7-46 PXS		
Wheel Correction 1	-6		
Wheel Correction 2	-3		
Tension Device			
Type	CMTD-B/A		
Serial Number	1919		
Calibration Date	28-Jul-2014		
Calibrator Serial Number	78135A		
Number of Calibration Points	10		
Calibration Root Mean Square Error	17		
Calibration Peak Error	26		
Logging Cable			

Logging Cable

Type	7-46A-XS
Serial Number	U711142
Length	21000.00 ft
Conveyance Type	Wireline
Rig Type	Land

One:Depth Control Parameters

Log Sequence	First Log In the Well
Rig Up Length At Surface	
Rig Up Length At Bottom	
Rig Up Length Correction	
Stretch Correction	7.00 ft
Tool Zero Check At Surface	

Depth Control Remarks

All Schlumberger depth policies and procedures followed

IDW used as primary depth reference

Z-chart used as secondary depth reference

Survey Record

Survey Calculation

Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	True North	Total Correction Formula :	Magnetic Dec

Rig Location

Latitude :	40.873983 degrees	Longitude :	-103.93184 degrees

Tie In Point

Measured Depth:	0.00 ft	Inclination:	0.00 deg	Azimuth:	0.00 deg
True Vertical Depth:	0.00 ft	North Displacement:	0.00 ft	East Displacement:	0.00 ft

Survey Quality Index

9 : Manual — 28 : Tie-In Point

Survey Correction Index

0 : No correction

Survey Description Index

0 : Not Flagged Survey

Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/ -S (ft)	E/ -W (ft)	Closure (ft)	at Azim (deg)	DLS deg/100ft	Tool Type	QI	CI	DI
1	0.00	0.00	0.00	- - - -	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP	28	0	0
2	500.00	0.60	129.60	500.00	499.99	-1.67	-1.67	2.02	2.62	129.60	0.12	Other	9	0	0
3	972.00	0.80	146.60	472.00	971.96	-5.99	-5.99	5.74	8.30	136.27	0.06	Other	9	0	0
4	1530.00	1.10	176.70	558.00	1529.88	-14.59	-14.59	8.19	16.73	150.71	0.10	Other	9	0	0
5	1760.00	1.40	176.80	230.00	1759.83	-19.60	-19.60	8.47	21.36	156.63	0.13	Other	9	0	0
6	1811.00	1.30	168.40	51.00	1810.81	-20.79	-20.79	8.62	22.51	157.48	0.43	Other	9	0	0
7	1905.00	3.40	131.90	94.00	1904.73	-23.70	-23.70	10.91	26.08	155.28	2.64	Other	9	0	0
8	1999.00	5.30	125.30	94.00	1998.46	-28.07	-28.07	16.53	32.58	149.51	2.09	Other	9	0	0
9	2093.00	8.40	132.30	94.00	2091.78	-35.20	-35.20	25.15	43.27	144.45	3.41	Other	9	0	0
10	2187.00	10.90	123.80	94.00	2184.44	-44.77	-44.77	37.62	58.46	139.96	3.05	Other	9	0	0
11	2280.00	14.10	118.00	93.00	2275.23	-54.98	-54.98	54.93	77.72	135.02	3.69	Other	9	0	0
12	2374.00	13.30	118.70	94.00	2366.56	-65.55	-65.55	74.53	99.25	131.33	0.87	Other	9	0	0
13	2469.00	12.10	114.80	95.00	2459.23	-74.97	-74.97	93.15	119.59	128.83	1.55	Other	9	0	0
14	2563.00	14.50	119.30	94.00	2550.71	-84.87	-84.87	112.36	140.81	127.06	2.78	Other	9	0	0
15	2658.00	13.90	118.60	95.00	2642.80	-96.15	-96.15	132.75	163.91	125.91	0.66	Other	9	0	0
16	2753.00	13.50	117.30	95.00	2735.10	-106.70	-106.70	152.63	186.22	124.96	0.53	Other	9	0	0
17	2847.00	14.30	123.80	94.00	2826.35	-118.19	-118.19	172.02	208.73	124.49	1.87	Other	9	0	0
18	2942.00	14.00	125.30	95.00	2918.47	-131.36	-131.36	191.15	231.92	124.50	0.50	Other	9	0	0
19	3035.00	14.10	124.40	93.00	3008.69	-144.26	-144.26	209.68	254.49	124.53	0.26	Other	9	0	0
20	3130.00	14.10	122.60	95.00	3100.83	-157.03	-157.03	228.98	277.66	124.44	0.46	Other	9	0	0
21	3223.00	13.70	120.60	93.00	3191.10	-168.74	-168.74	248.00	299.97	124.23	0.67	Other	9	0	0
22	3317.00	14.70	131.10	94.00	3282.25	-182.25	-182.25	266.57	322.90	124.36	2.93	Other	9	0	0
23	3410.00	14.30	130.60	93.00	3372.28	-197.48	-197.48	284.18	346.06	124.80	0.45	Other	9	0	0
24	3503.00	14.10	131.10	93.00	3462.44	-212.40	-212.40	301.44	368.77	125.17	0.25	Other	9	0	0
25	3596.00	14.10	128.70	93.00	3552.64	-226.93	-226.93	318.82	391.34	125.44	0.63	Other	9	0	0

26	3690.00	14.90	126.60	94.00	3643.65	-241.29	-241.29	337.46	414.86	125.57	1.02	Other	9	0	0
27	3783.00	15.60	125.20	93.00	3733.37	-255.63	-255.63	357.27	439.30	125.58	0.85	Other	9	0	0
28	3875.00	16.60	125.00	92.00	3821.76	-270.30	-270.30	378.15	464.83	125.56	1.09	Other	9	0	0
29	3968.00	17.40	123.80	93.00	3910.70	-285.66	-285.66	400.59	491.99	125.49	0.94	Other	9	0	0
30	4062.00	17.50	123.00	94.00	4000.37	-301.17	-301.17	424.12	520.18	125.38	0.28	Other	9	0	0
31	4155.00	16.30	122.30	93.00	4089.35	-315.76	-315.76	446.88	547.18	125.24	1.31	Other	9	0	0
32	4250.00	16.10	121.70	95.00	4180.58	-329.81	-329.81	469.35	573.65	125.10	0.27	Other	9	0	0
33	4343.00	16.10	120.90	93.00	4269.94	-343.21	-343.21	491.39	599.38	124.93	0.24	Other	9	0	0
34	4437.00	16.00	120.20	94.00	4360.27	-356.42	-356.42	513.77	625.30	124.75	0.23	Other	9	0	0
35	4531.00	16.10	117.30	94.00	4450.61	-368.91	-368.91	536.55	651.15	124.51	0.86	Other	9	0	0
36	4623.00	15.90	113.20	92.00	4539.05	-379.73	-379.73	559.47	676.15	124.17	1.25	Other	9	0	0
37	4716.00	13.40	110.40	93.00	4629.02	-388.50	-388.50	581.28	699.15	123.76	2.79	Other	9	0	0
38	4809.00	12.20	112.80	93.00	4719.71	-396.07	-396.07	600.44	719.29	123.41	1.41	Other	9	0	0
39	4902.00	10.70	111.70	93.00	4810.85	-403.07	-403.07	617.52	737.43	123.13	1.63	Other	9	0	0
40	4996.00	10.40	112.00	94.00	4903.26	-409.47	-409.47	633.50	754.30	122.88	0.32	Other	9	0	0
41	5089.00	7.80	111.70	93.00	4995.09	-414.95	-414.95	647.15	768.77	122.67	2.80	Other	9	0	0
42	5182.00	7.40	91.40	93.00	5087.28	-417.43	-417.43	659.00	780.09	122.35	2.90	Other	9	0	0
43	5276.00	5.50	75.10	94.00	5180.69	-416.42	-416.42	669.41	788.35	121.88	2.79	Other	9	0	0
44	5369.00	4.10	59.50	93.00	5273.37	-413.59	-413.59	676.58	792.98	121.44	2.05	Other	9	0	0
45	5462.00	1.20	45.10	93.00	5366.26	-411.21	-411.21	680.13	794.78	121.16	3.18	Other	9	0	0
46	5555.00	1.20	20.40	93.00	5459.24	-409.61	-409.61	681.16	794.85	121.02	0.55	Other	9	0	0
47	5649.00	1.20	26.20	94.00	5553.22	-407.81	-407.81	681.94	794.59	120.88	0.13	Other	9	0	0
48	5742.00	1.80	39.30	93.00	5646.19	-405.80	-405.80	683.30	794.72	120.71	0.74	Other	9	0	0
49	5835.00	1.60	7.00	93.00	5739.15	-403.38	-403.38	684.38	794.42	120.52	1.04	Other	9	0	0
50	5928.00	1.60	352.00	93.00	5832.11	-400.81	-400.81	684.36	793.08	120.36	0.45	Other	9	0	0
51	5966.00	1.60	349.30	38.00	5870.10	-399.76	-399.76	684.18	792.42	120.30	0.20	Other	9	0	0
52	5984.00	1.50	351.10	18.00	5888.09	-399.28	-399.28	684.10	792.09	120.27	0.62	Other	9	0	0

One

2" Induction

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
ICV	Integrated Cement Volume	GCSE_UP_PASS, FCD	1178.2	ft3

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

Computation	Description	Version
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	4.0.9433.3000

Tool Elements	Description	Software Version	Firmware Version
AZIS	Array Induction Sonde - Z	4.0.9427.3000	
HRCC-H	HILT High-Resolution Control Cartridge, 150 degC	4.0.9385.3000	2.0
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	4.0.9385.3000	2.0

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[3]:Up	Up	59.61 ft	6641.24 ft	30-Aug-2014 6:23:41 PM	30-Aug-2014 8:11:43 PM	ON	6.77 ft	No

All depths are referenced to toolstring zero

Description: AIT Basic Log Two Format: Log (Import of Kerr McGee 2in Induction) Index Scale: 2 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 31-Aug-2014 02:32:44

Channel	Source	Sampling
AT10	ZAIT-E:AZIS:AZIS	3in
AT60	ZAIT-E:AZIS:AZIS	3in
ATCO60	ZAIT-E:AZIS:AZIS	3in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
GR_CAL	HGNS-H:HGNS-H:HGNS-H	6in
ICV	Borehole	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

Caliper (CALI) HDRS-H
6 in 16

Calibrated Gamma Ray (GR_CAL) HGNS-H
0 gAPI 200

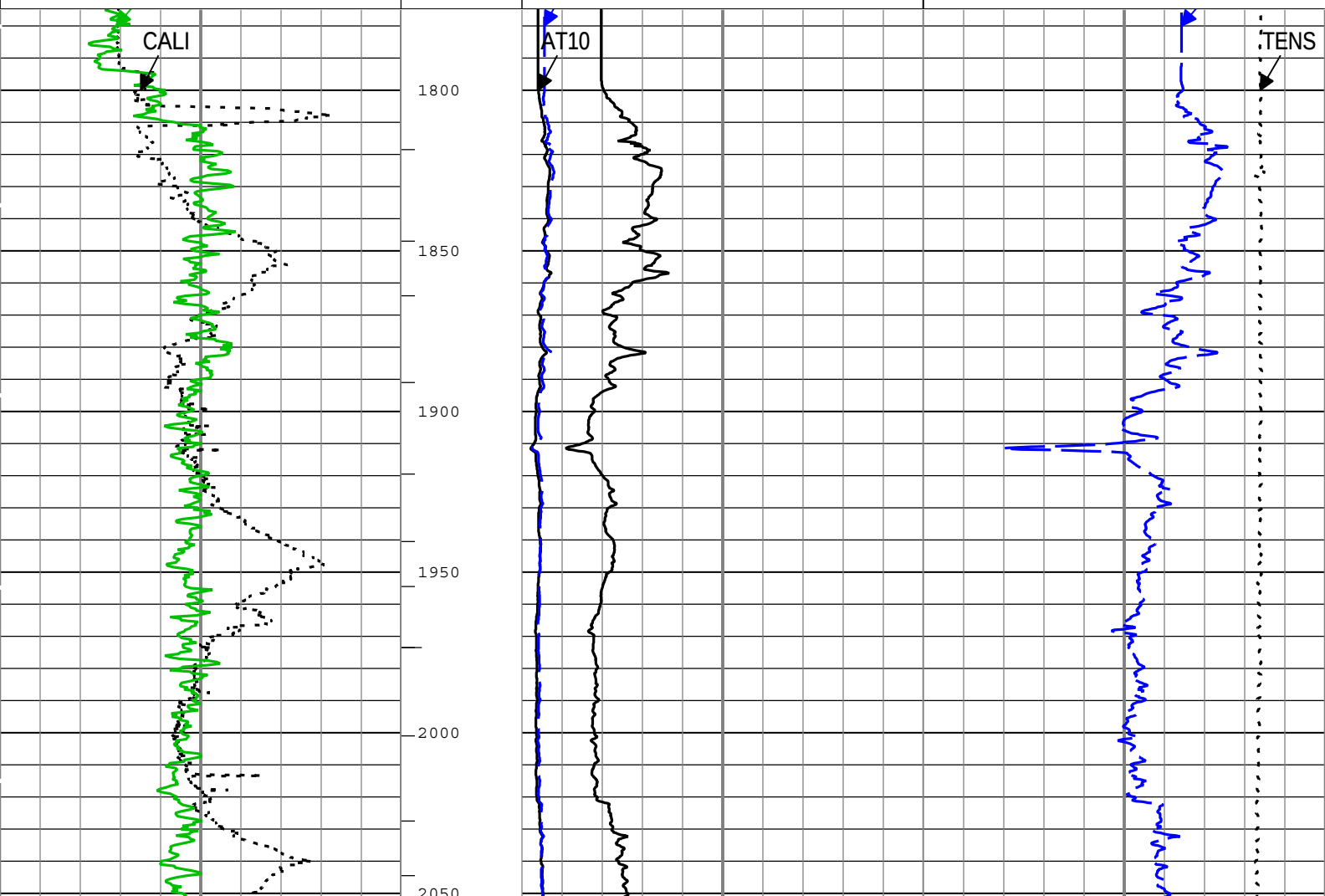
Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E
0 ohm.m 50

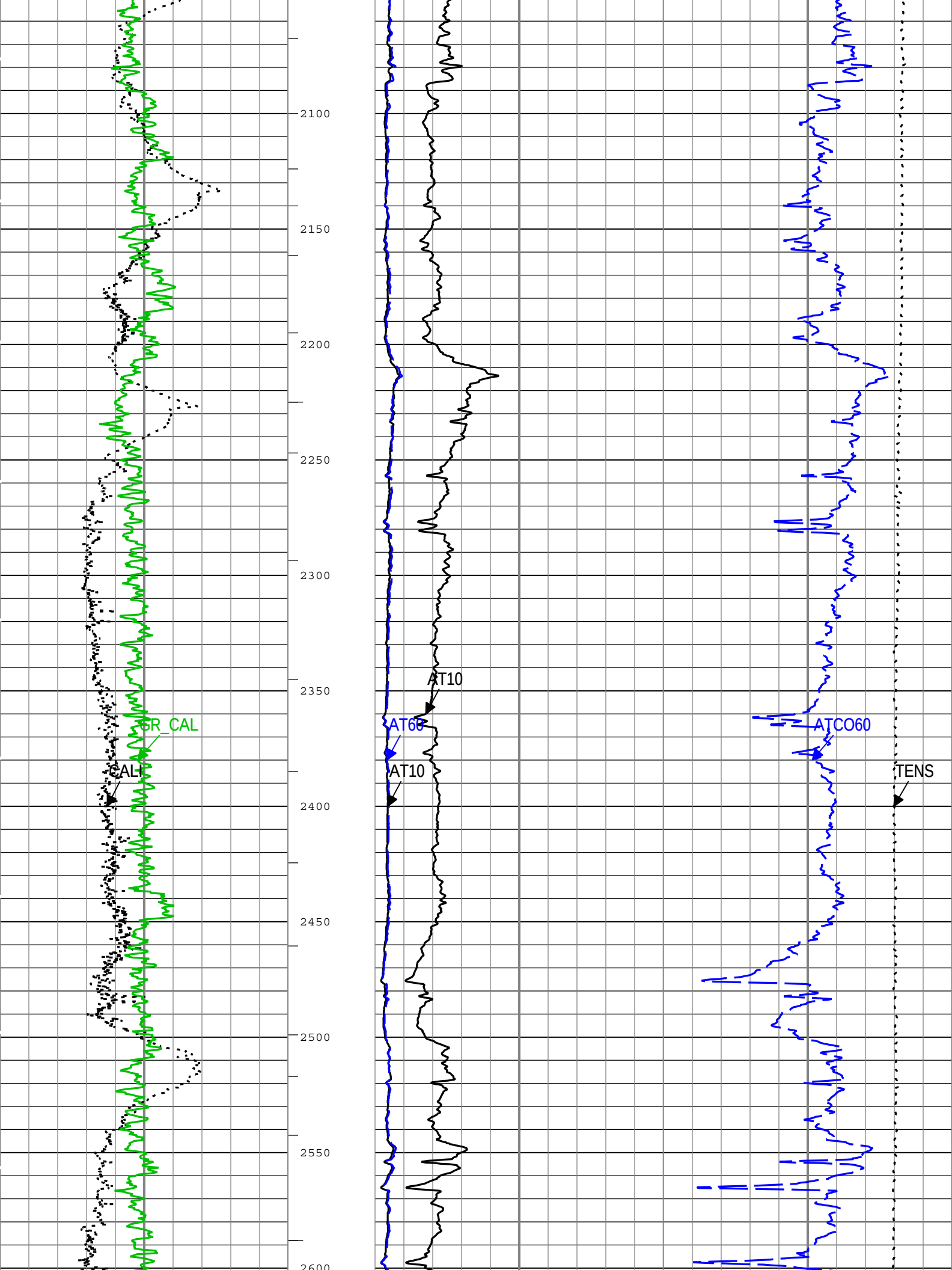
Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E
0 ohm.m 50

Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E
0 ohm.m 10

Cable Tension (TENS)
10000 lbf 0

Array Induction Two Foot Conductivity A60 (ATCO60) ZAIT-E
1000 mS/m 0

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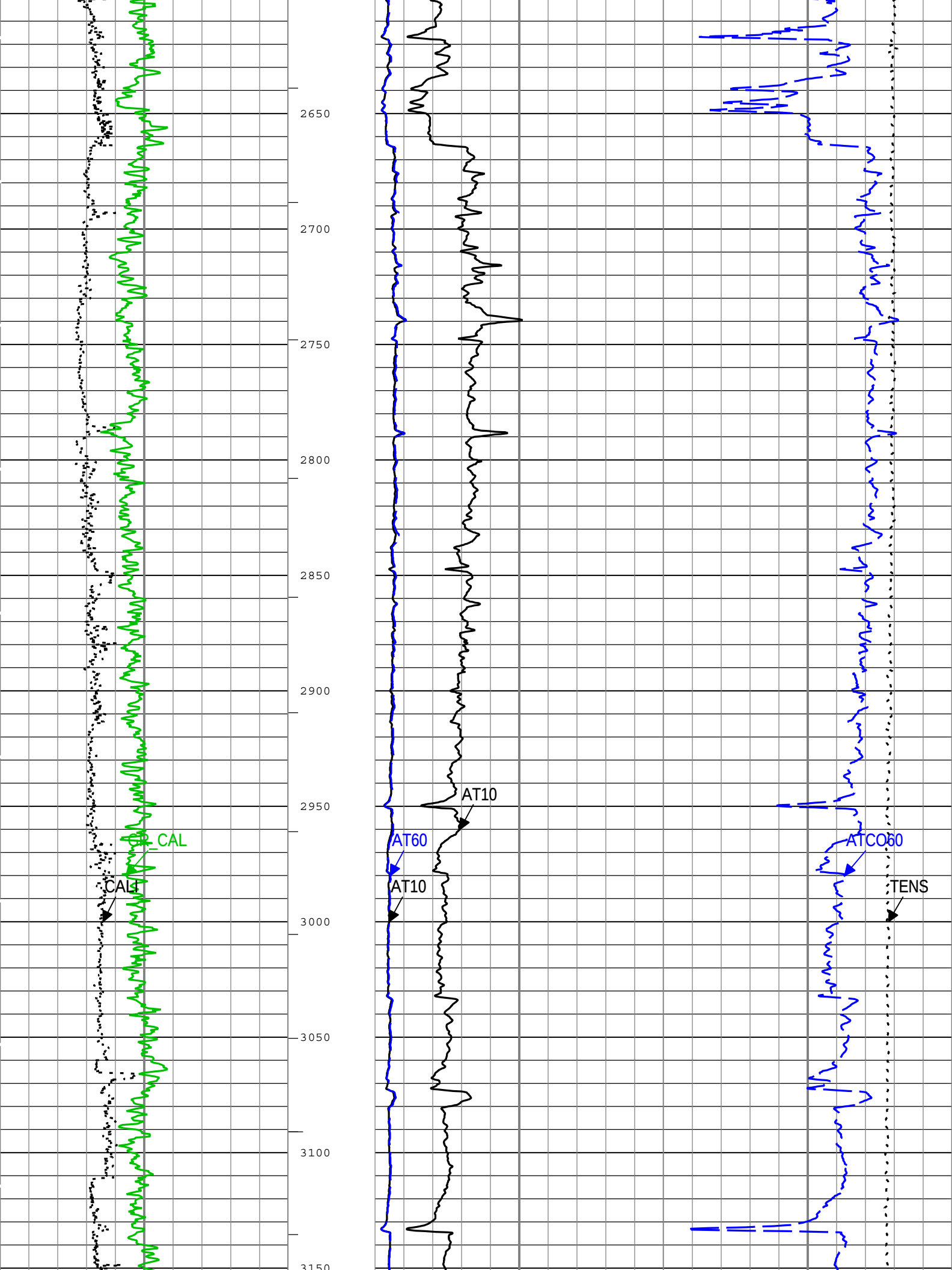
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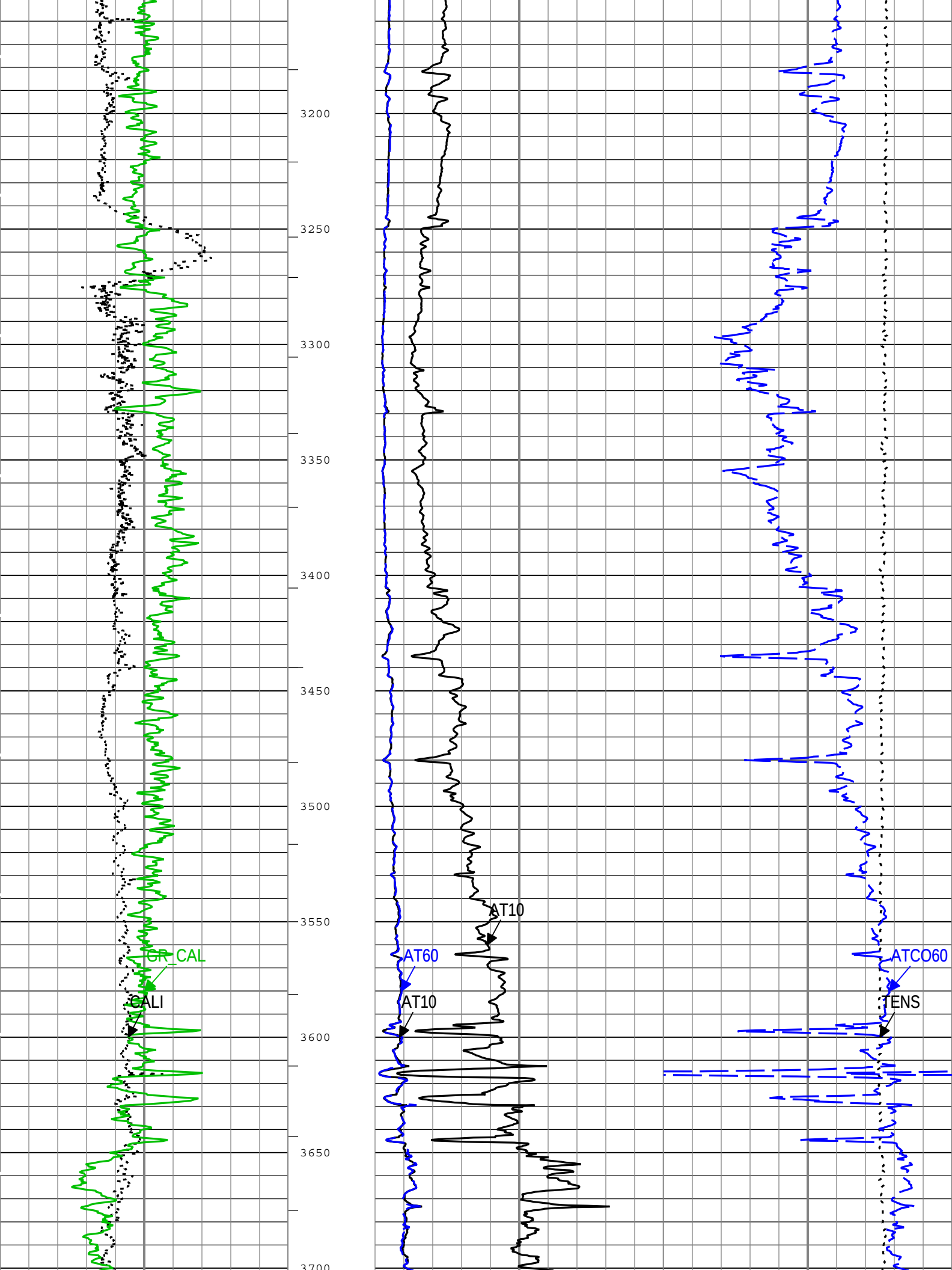
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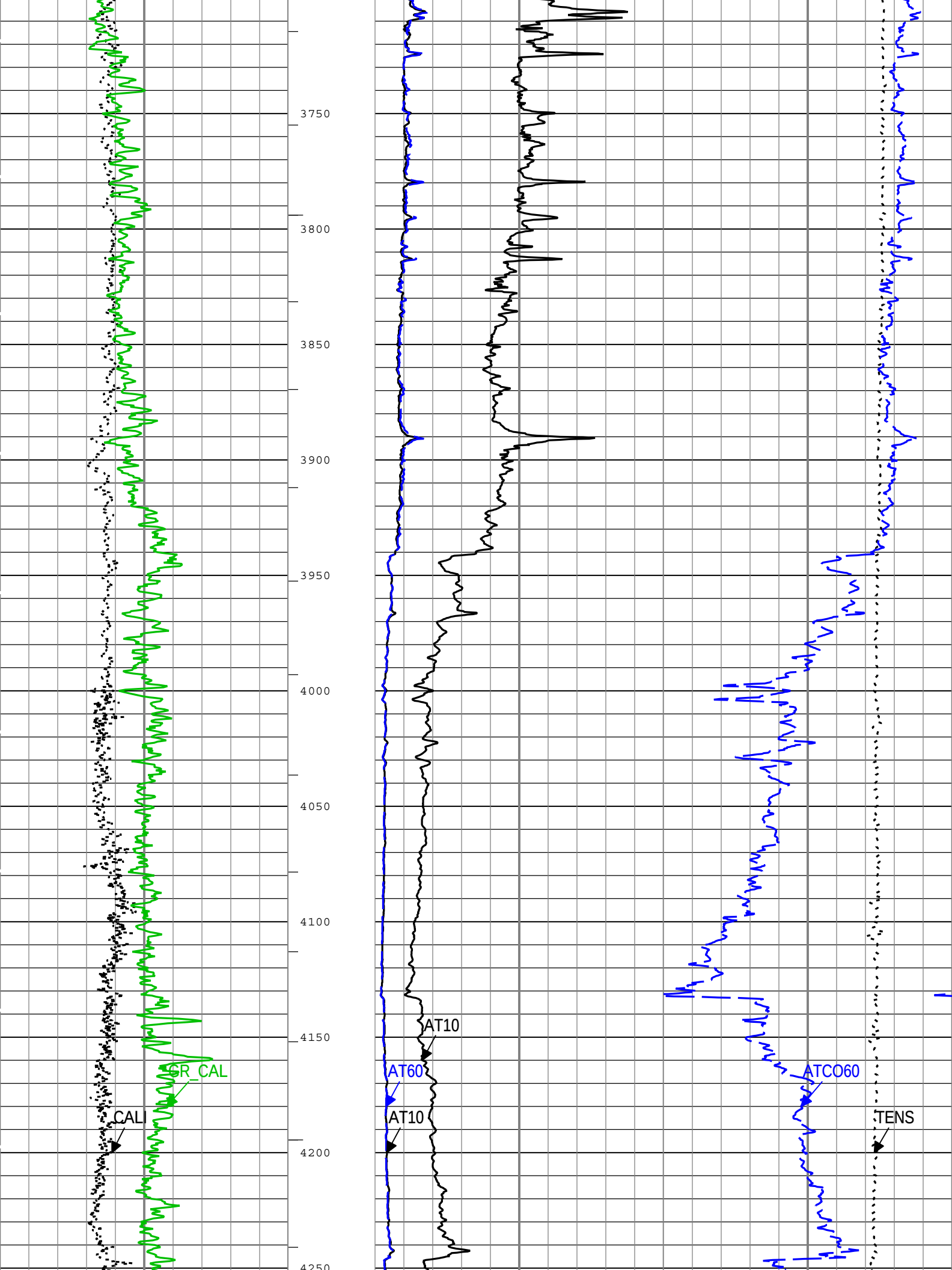
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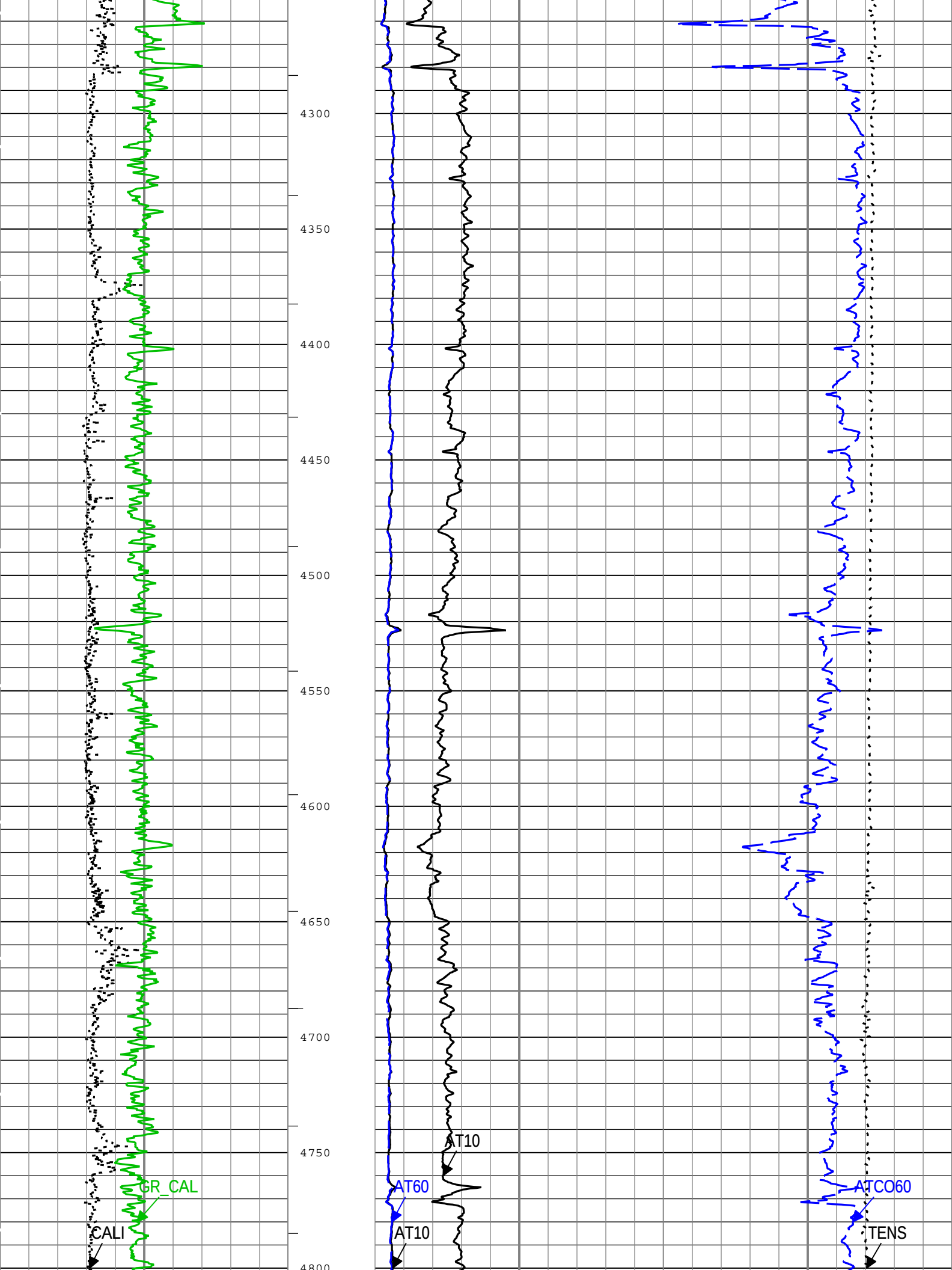
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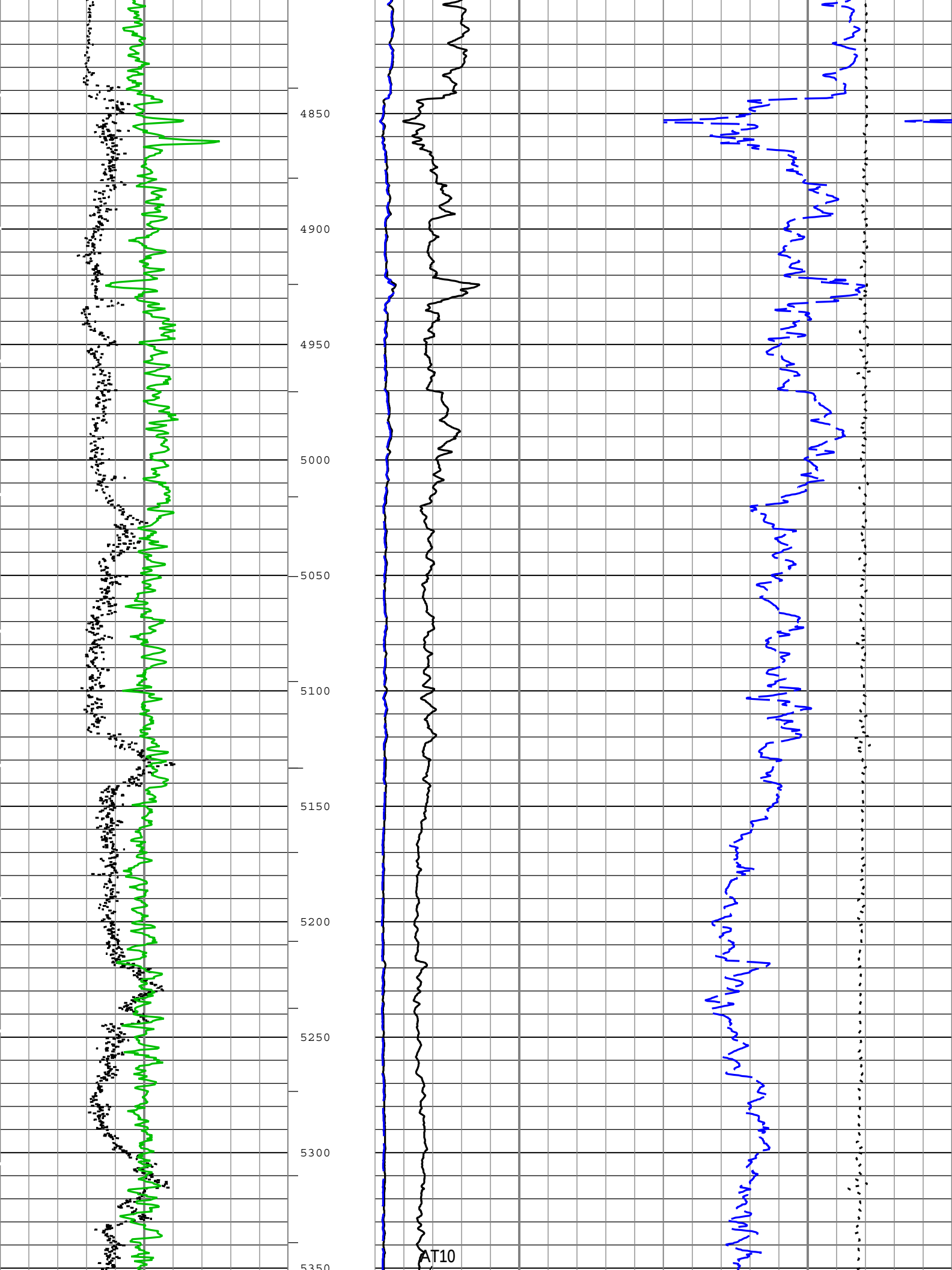
ATCO60
TENS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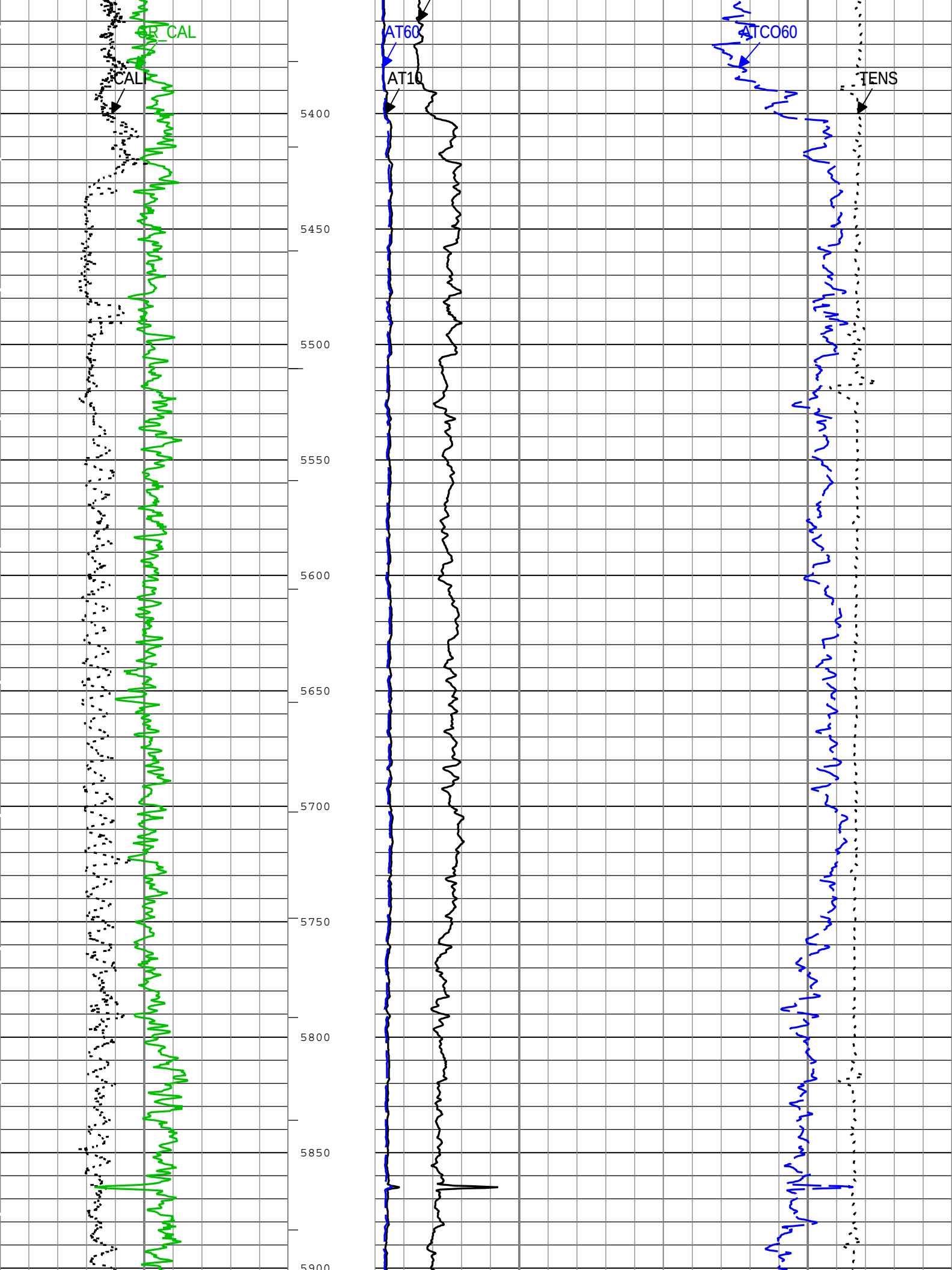
AT10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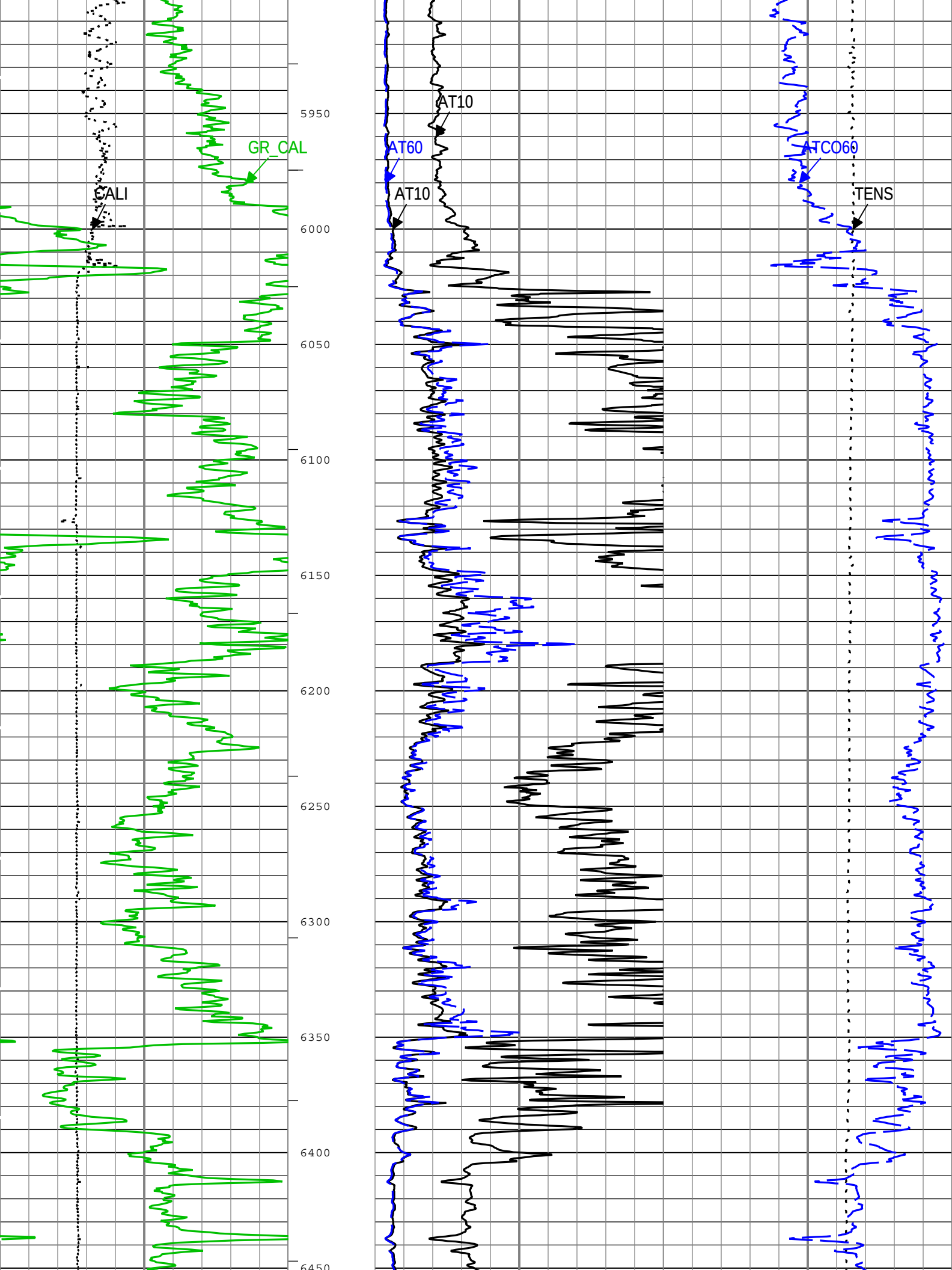
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CALI
AT10
AT60
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ATCO60
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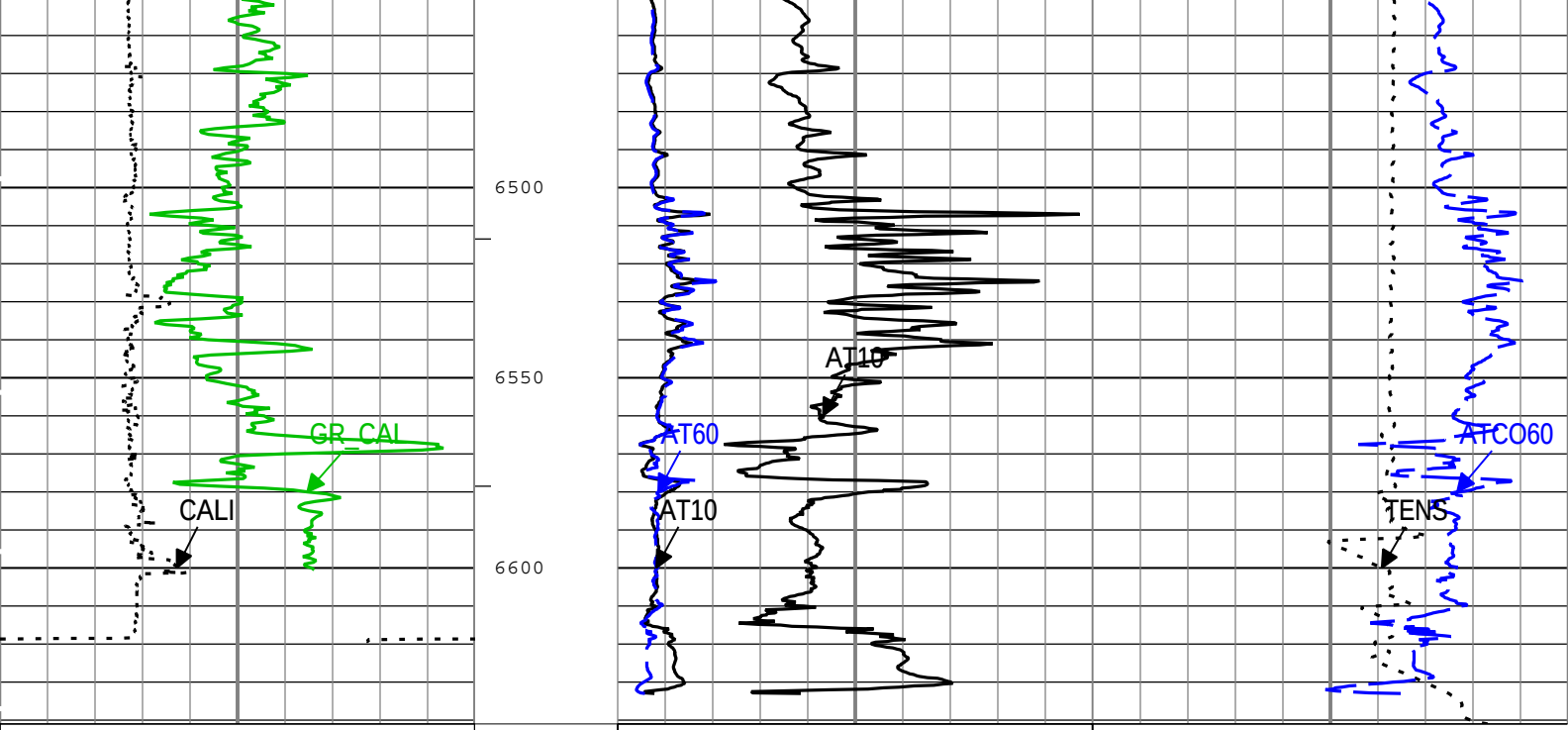


Caliper (CALI) HDRS-H
6 in 16

Calibrated Gamma Ray (GR_CAL) HGNS-H
0 gAPI 200

Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E
0 ohm.m 50

Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E
0 ohm.m 50

Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E
0 ohm.m 10

Cable Tension (TENS)
10000 lbf 0

Array Induction Two Foot Conductivity A60 (ATCO60) ZAIT-E
1000 mS/m 0

TIME_1900 - Time Marked every 60.00 (s)

ICV - Integrated Cement Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

Description: AIT Basic Log Two Format: Log (Import of Kerr McGee 2in Induction) Index Scale: 2 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 31-Aug-2014 02:32:44

Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
ABHME	Array Induction Extended Borehole Correction Mode	ZAIT-E	Compute Standoff	
ACDE	Array Induction Casing Detection Enable	ZAIT-E	Yes	
AROT	Array Induction Rotation Selector	ZAIT-E	North	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	Depth Zoned	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.198	in
CBLO	Casing Bottom (Logger)	WLSESSION	1794	ft
CSODDRL	Casing Outer Diameter - Zoned along driller depths	WLSESSION	9.625	in
DFT	Drilling Fluid Type	Borehole	Water	
FCD	Future Casing (Outer) Diameter	WLSESSION	7	in
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	
USER_LOCB	User-supplied values for Magnetic Flux Density	WLSESSION	53032.22	nT
USER_MDEC	User-supplied values for Magnetic Declination	WLSESSION	8.05	deg
USER_MDIP	User-supplied values for Magnetic Dip Angle	WLSESSION	67.43	deg

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	12.25	1775	1792
BS	8.75	1792	6624

All depth are actual.

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h

One

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
ICV	Integrated Cement Volume	GCSE_UP_PASS, FCD	1178.2	ft3
IHV	Integrated Hole Volume	GCSE_UP_PASS	2473.41	ft3

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

Computation	Description	Version
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	4.0.9433.3000

Tool Elements	Description	Software Version	Firmware Version
AZIS	Array Induction Sonde - Z	4.0.9427.3000	
HRCC-H	HILT High-Resolution Control Cartridge, 150 degC	4.0.9385.3000	2.0
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	4.0.9385.3000	2.0

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[3]:Up	Up	59.61 ft	6641.24 ft	30-Aug-2014 6:23:41 PM	30-Aug-2014 8:11:43 PM	ON	6.77 ft	No

All depths are referenced to toolstring zero

Log

Company:Whiting Oil and Gas Corporation Well:Wolf 12L-0103

One: Log[3]:Up:S010

Description: AIT Basic Log Two Format: Log (KM 5in Induction) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 31-Aug-2014 02:32:46

IHV - Integrated Hole Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

Cable Tension (TENS)

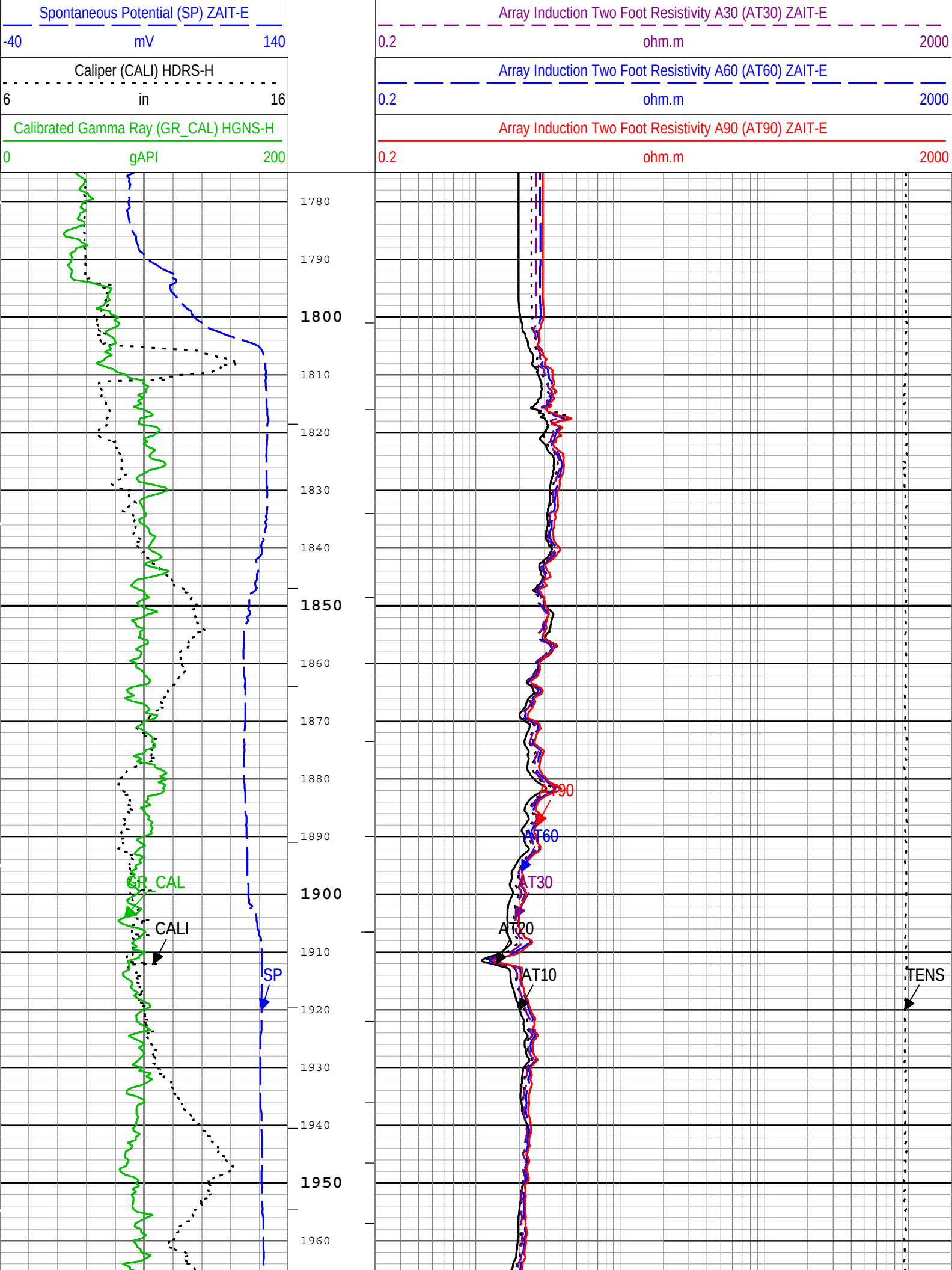
10000 lbf 0

Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E

0.2 ohm.m 2000

Array Induction Two Foot Resistivity A20 (AT20) ZAIT-E

0.2 ohm.m 2000


Spontaneous Potential (SP) ZAIT-E
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mV
140
Caliper (CALI) HDRS-H
6
in
16
Calibrated Gamma Ray (GR_CAL) HGNS-H
0
gAPI
200
Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E
0.2
ohm.m
2000
Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E
0.2
ohm.m
2000
Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E
0.2
ohm.m
2000
1780
1790
1800
1810
1820
1830
1840
1850
1860
1870
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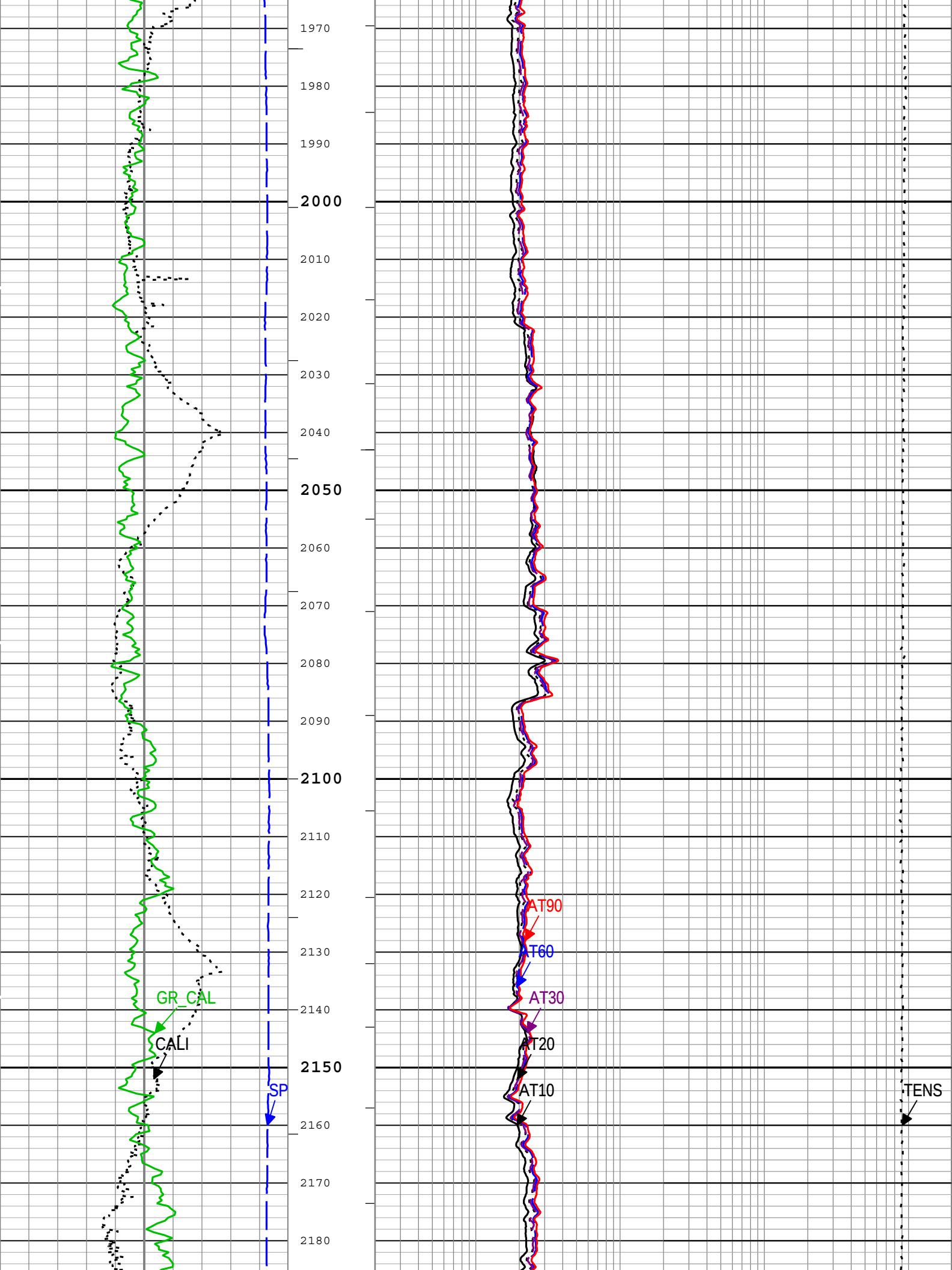
AT10
TENS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AT20
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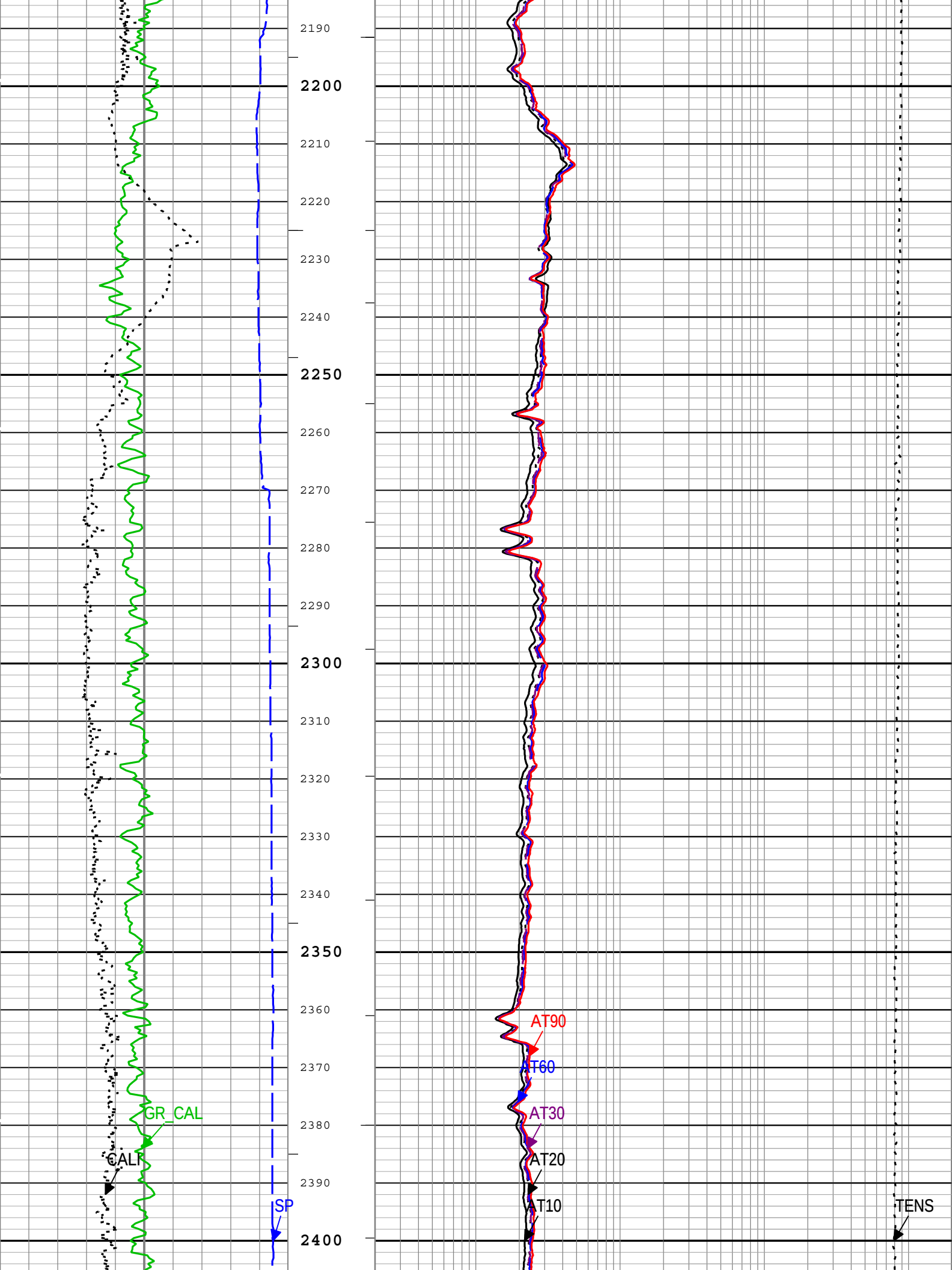
TENS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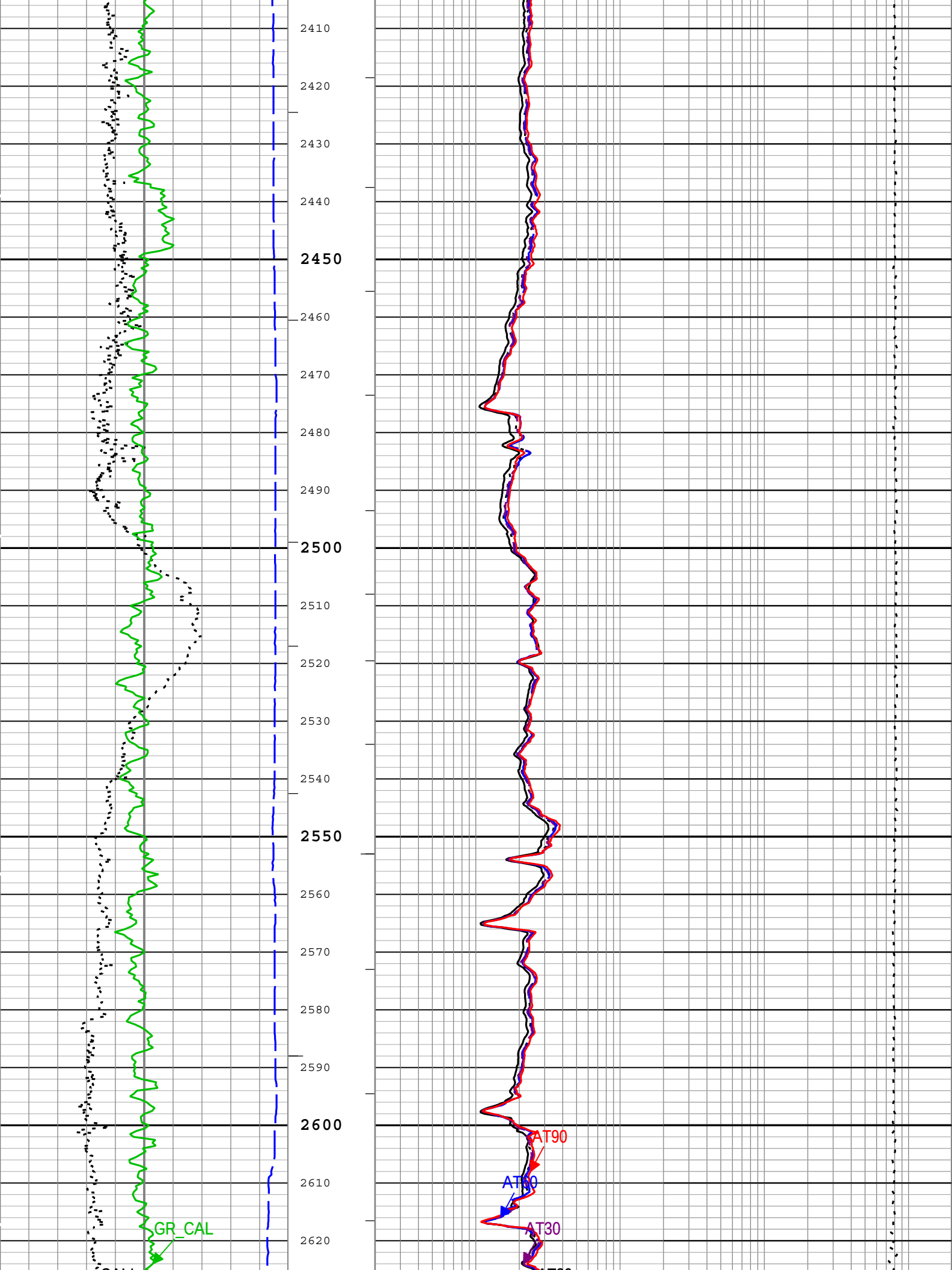
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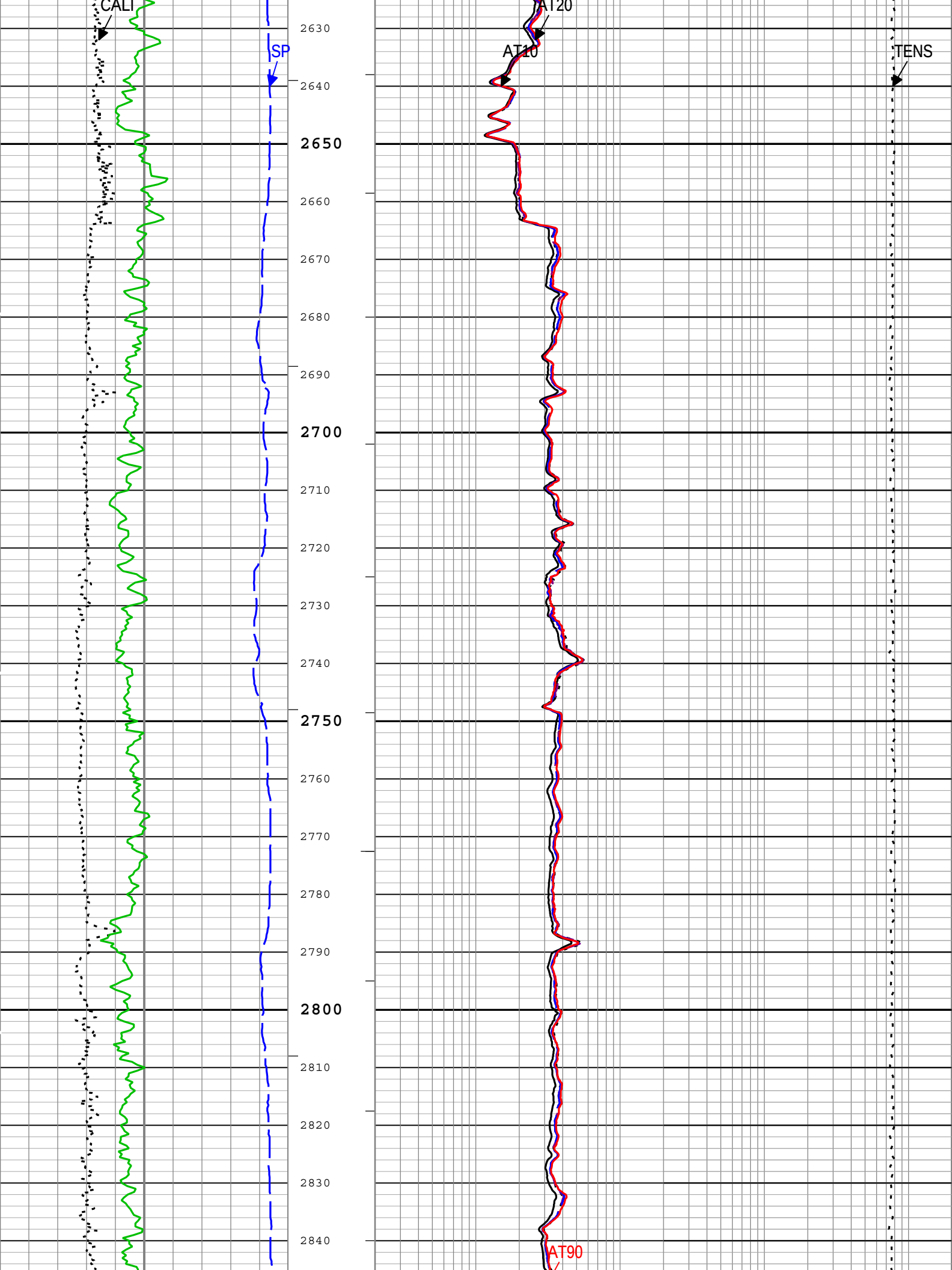
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SP
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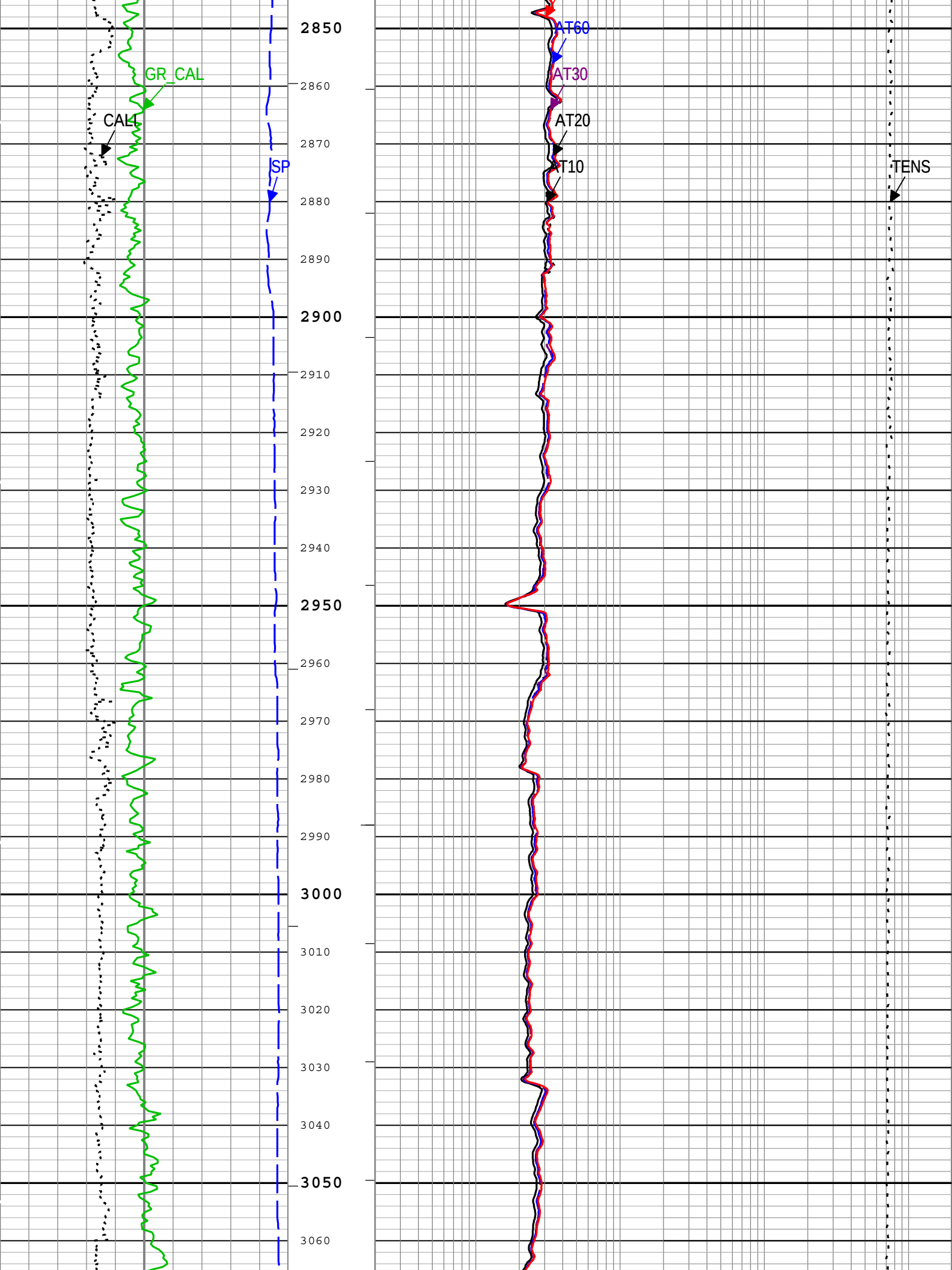
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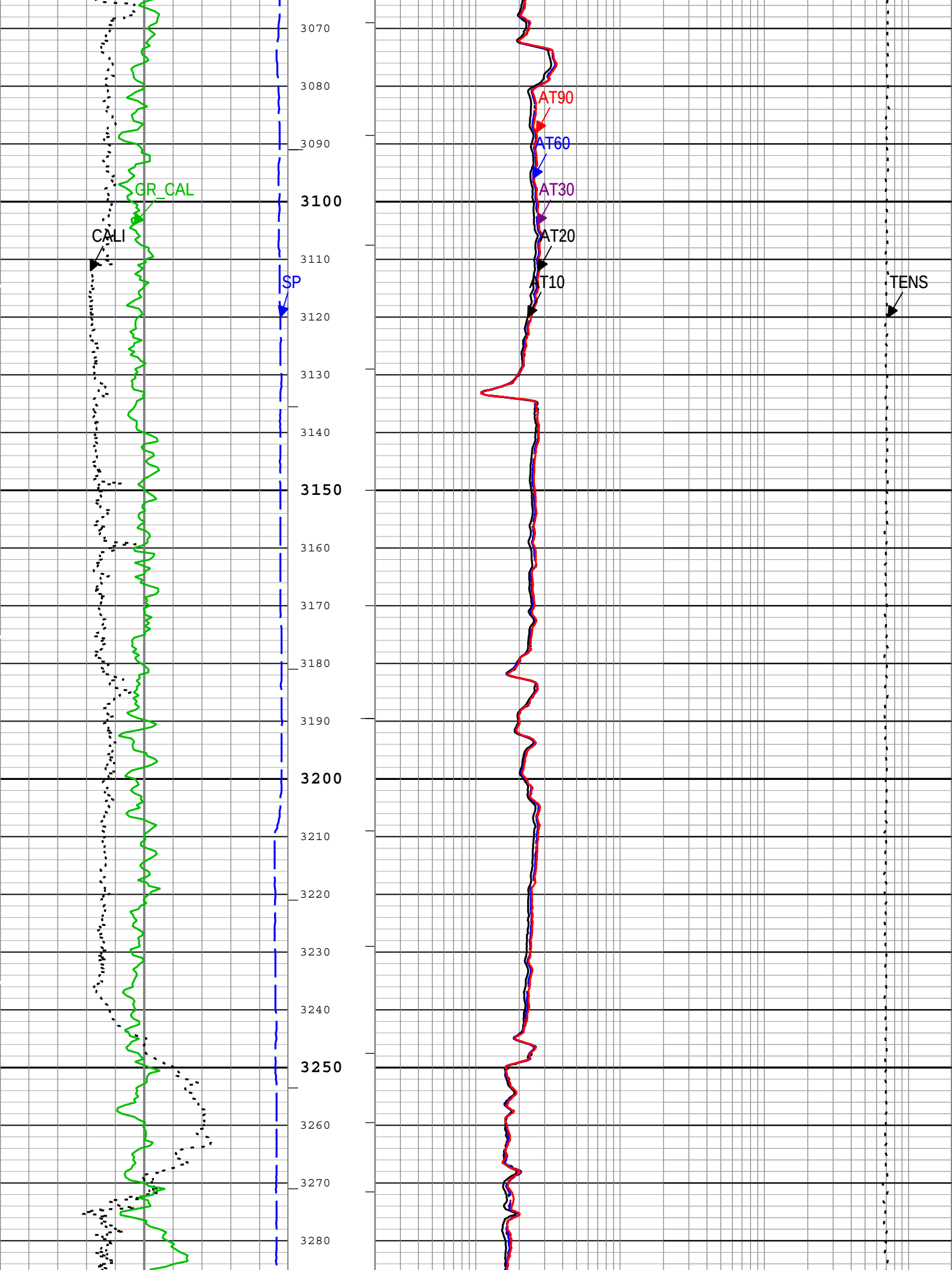
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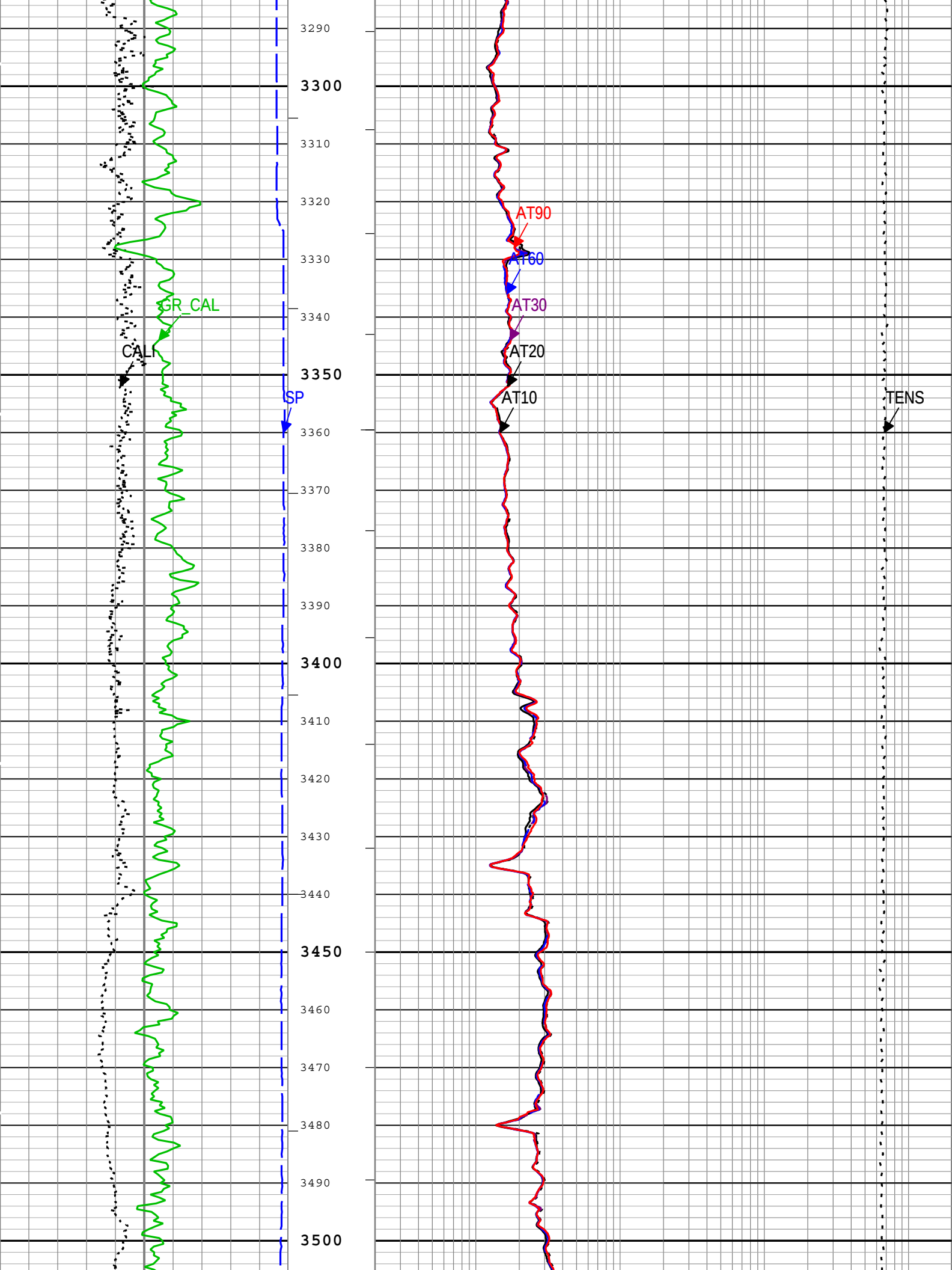
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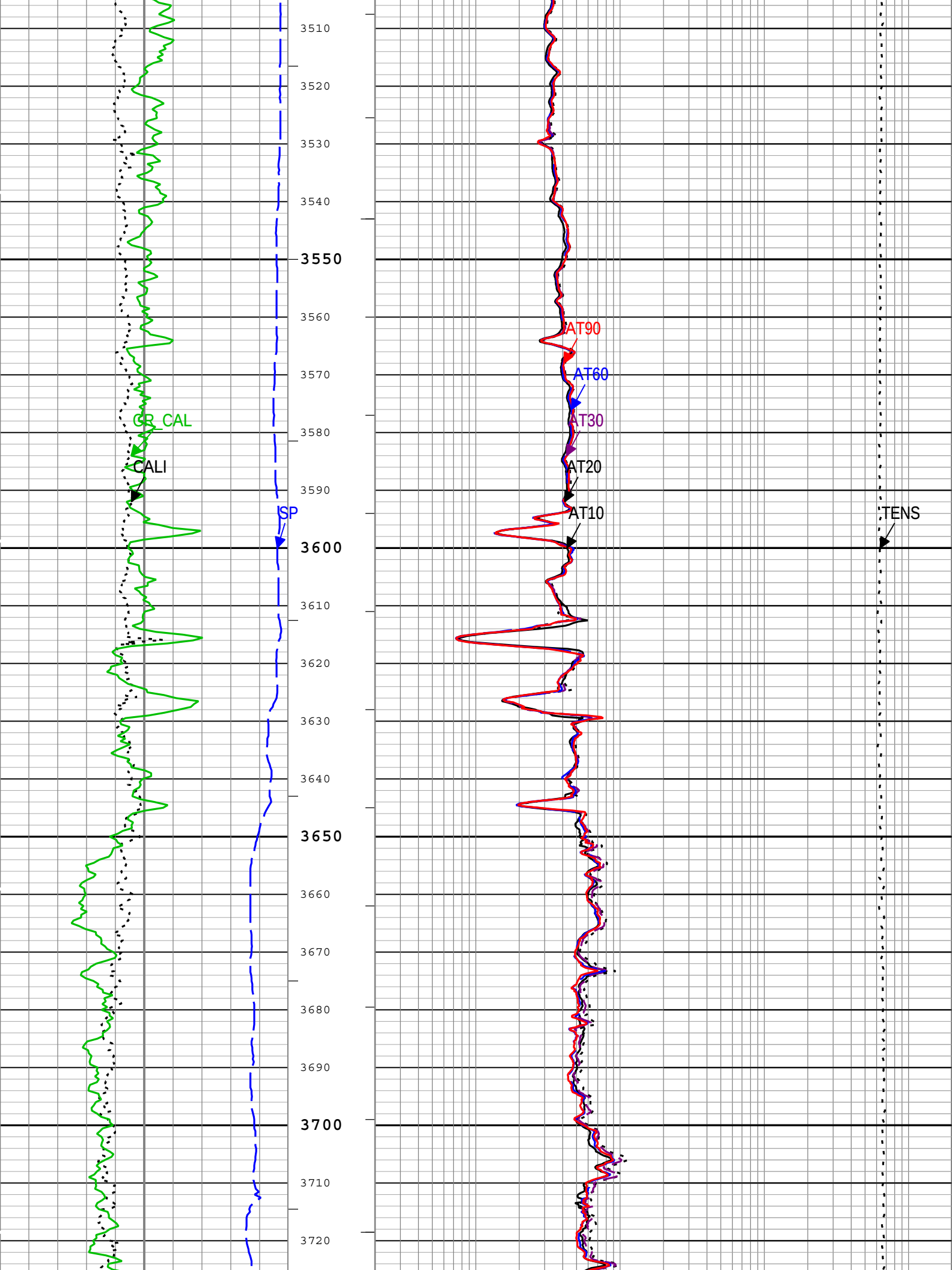
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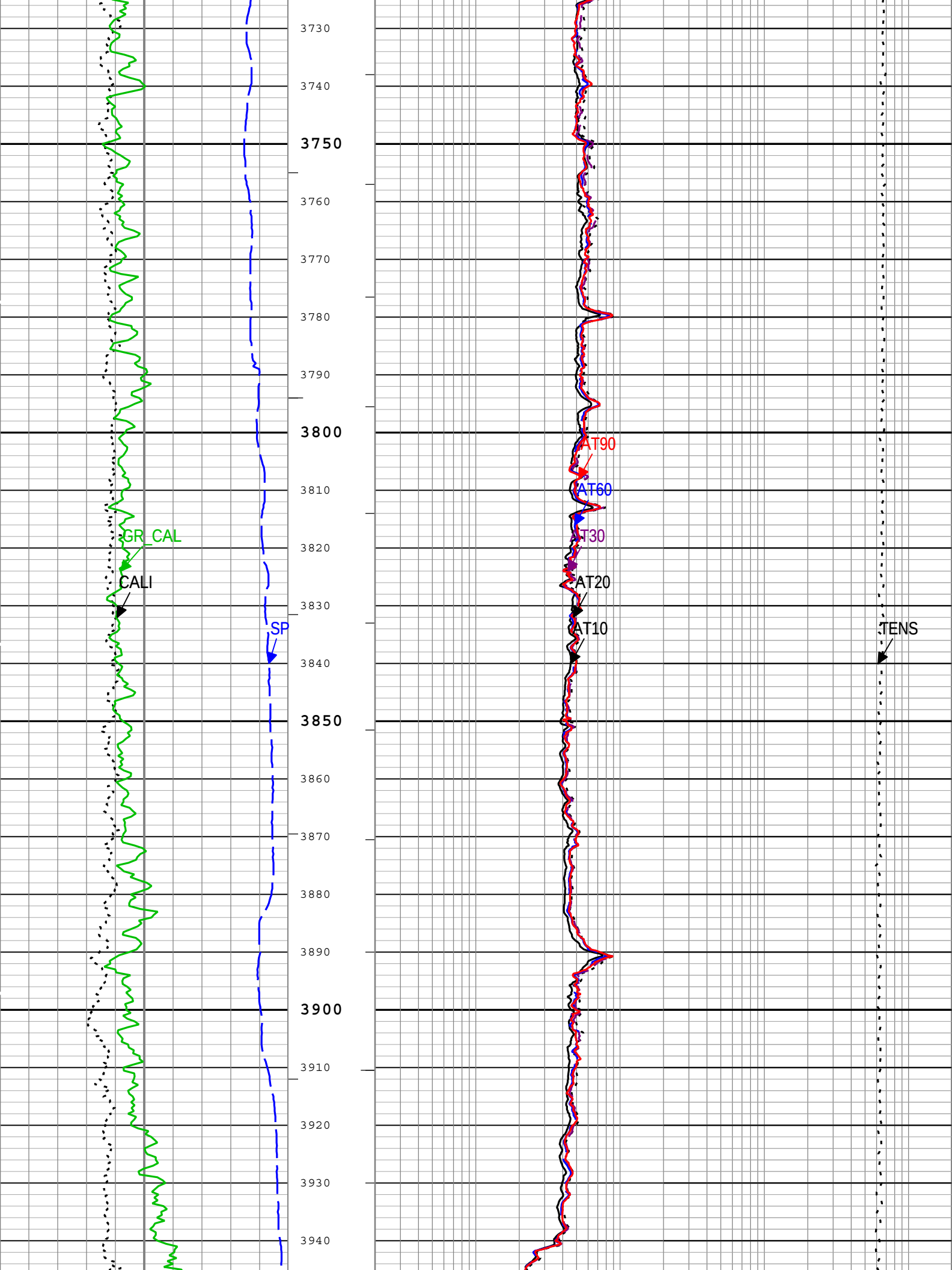
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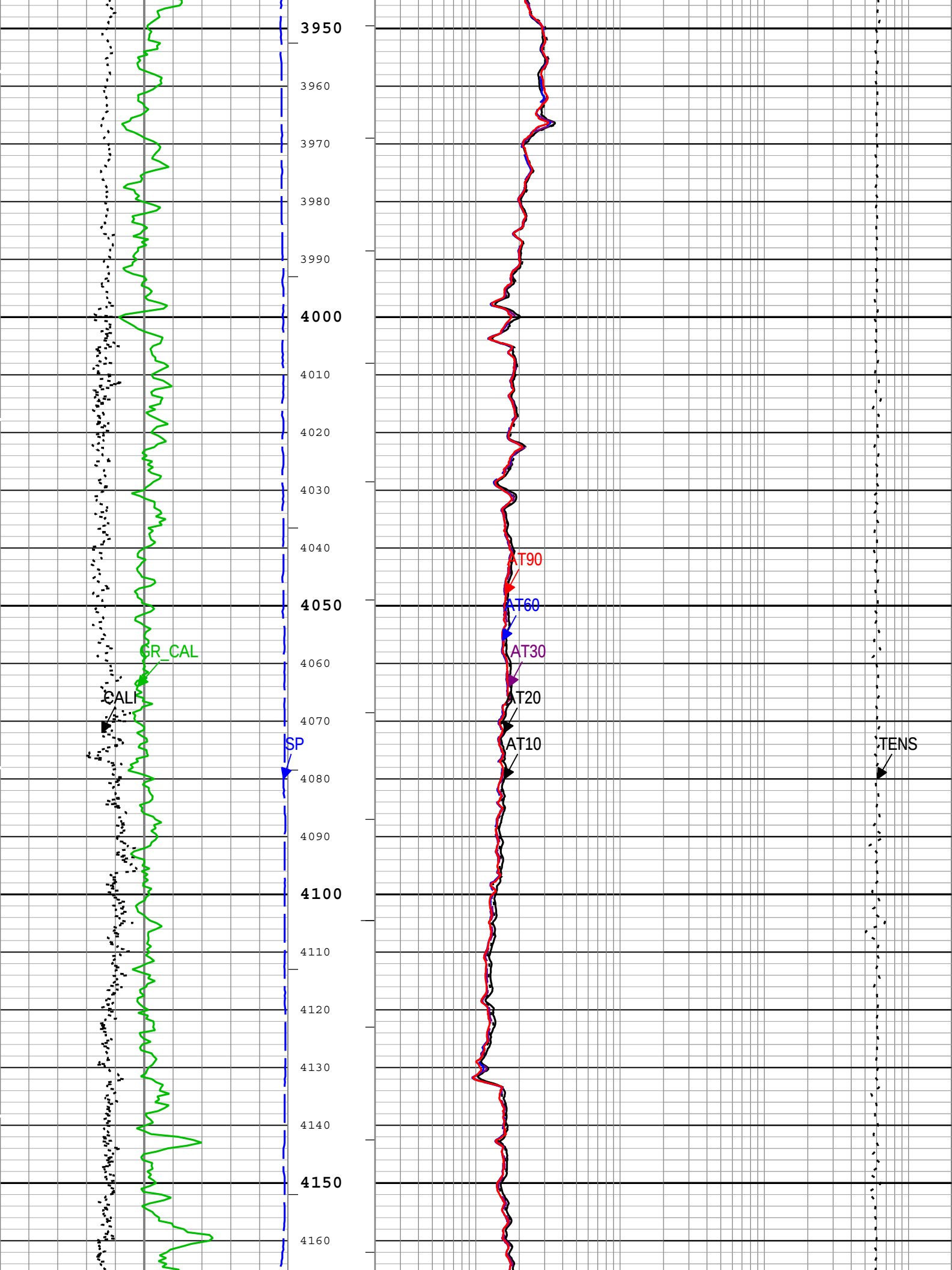
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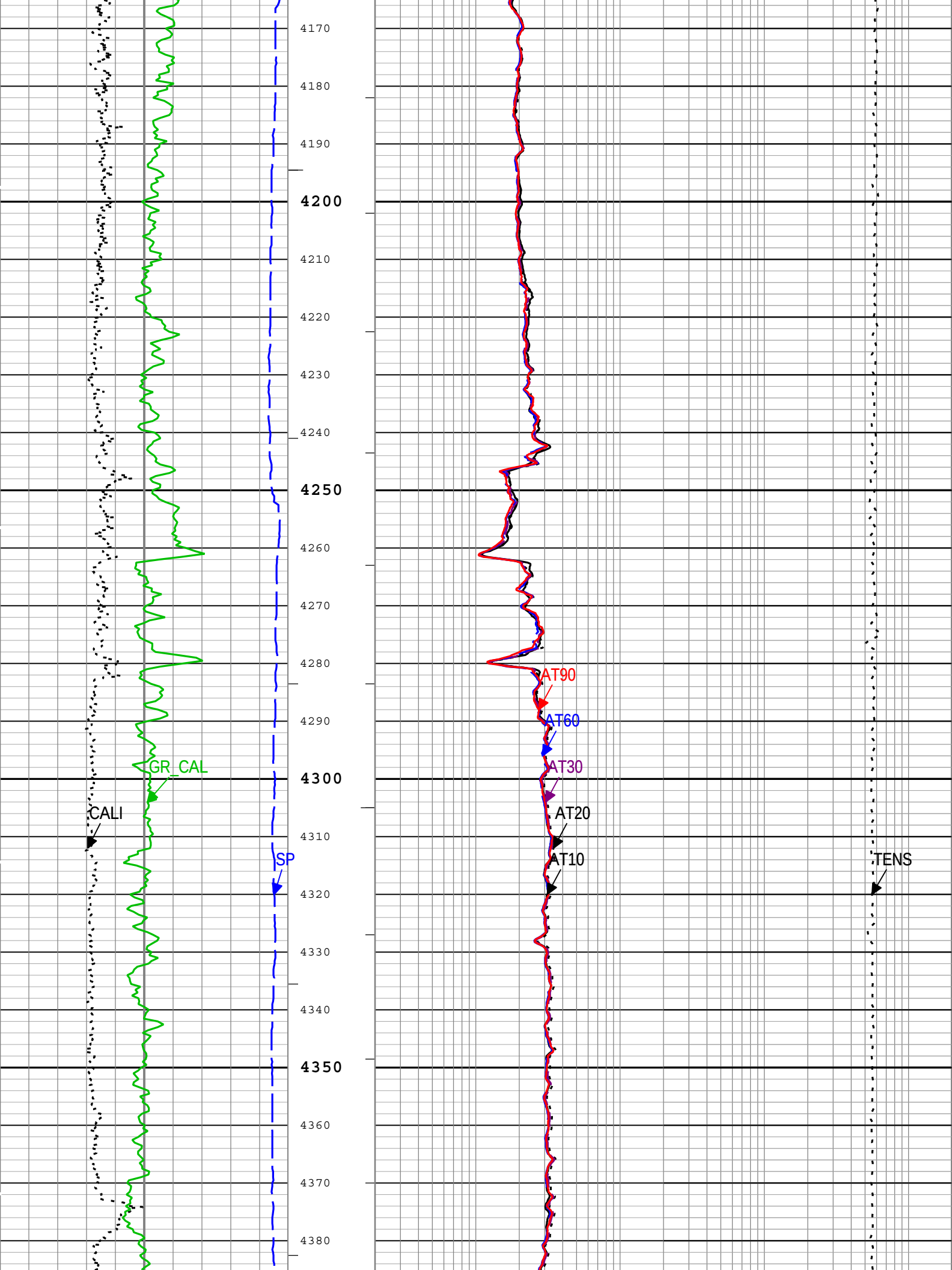
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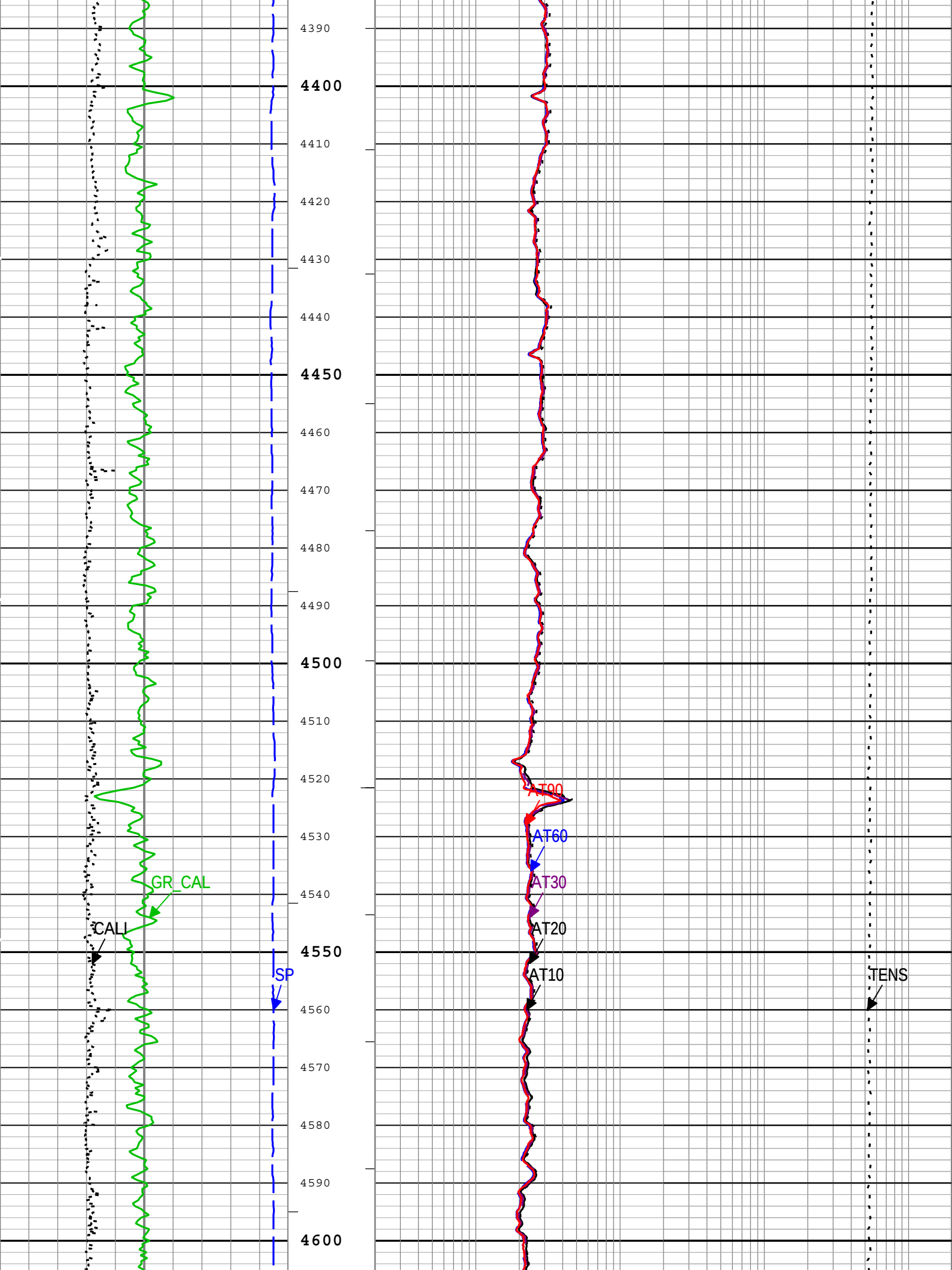
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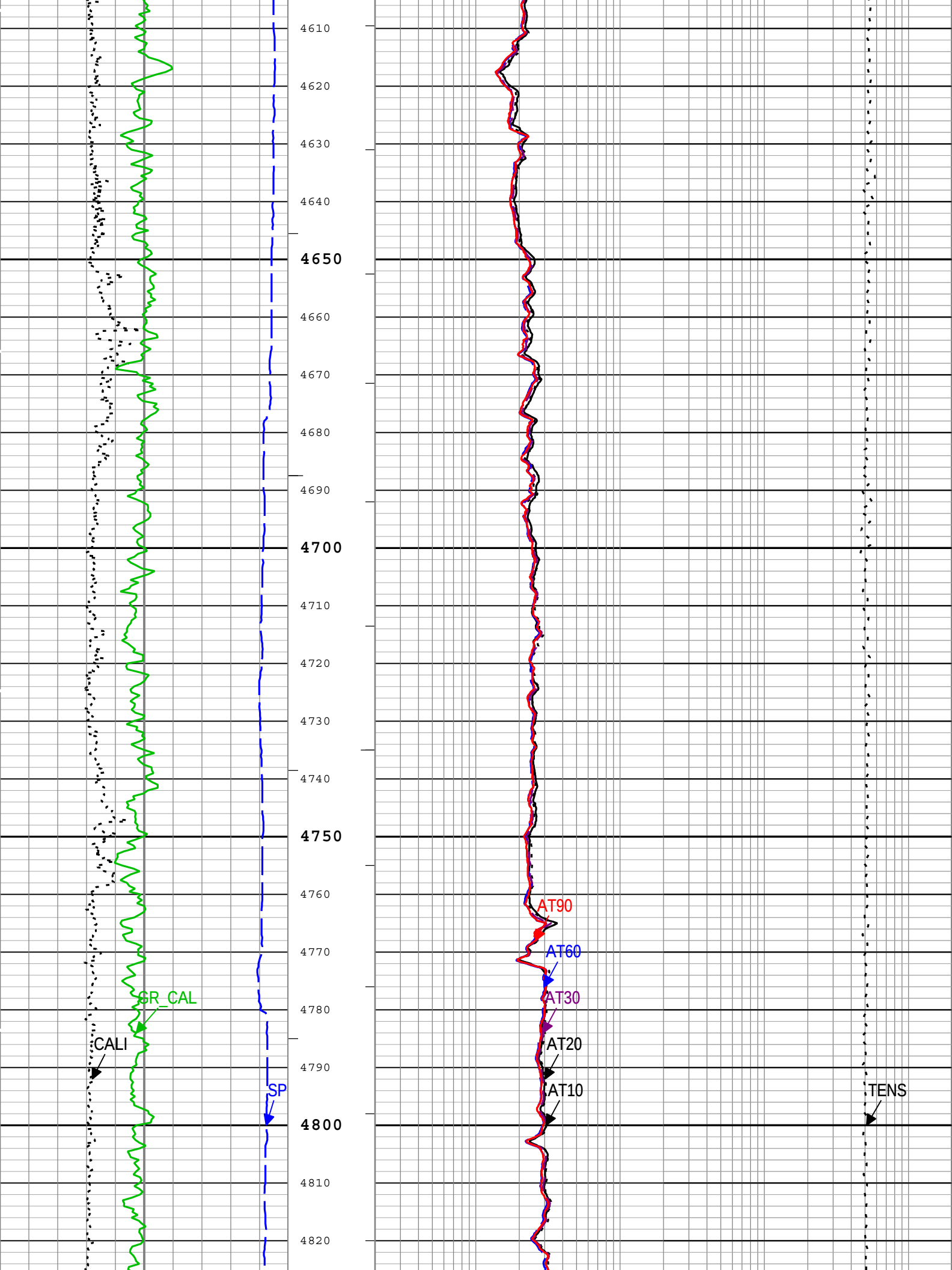
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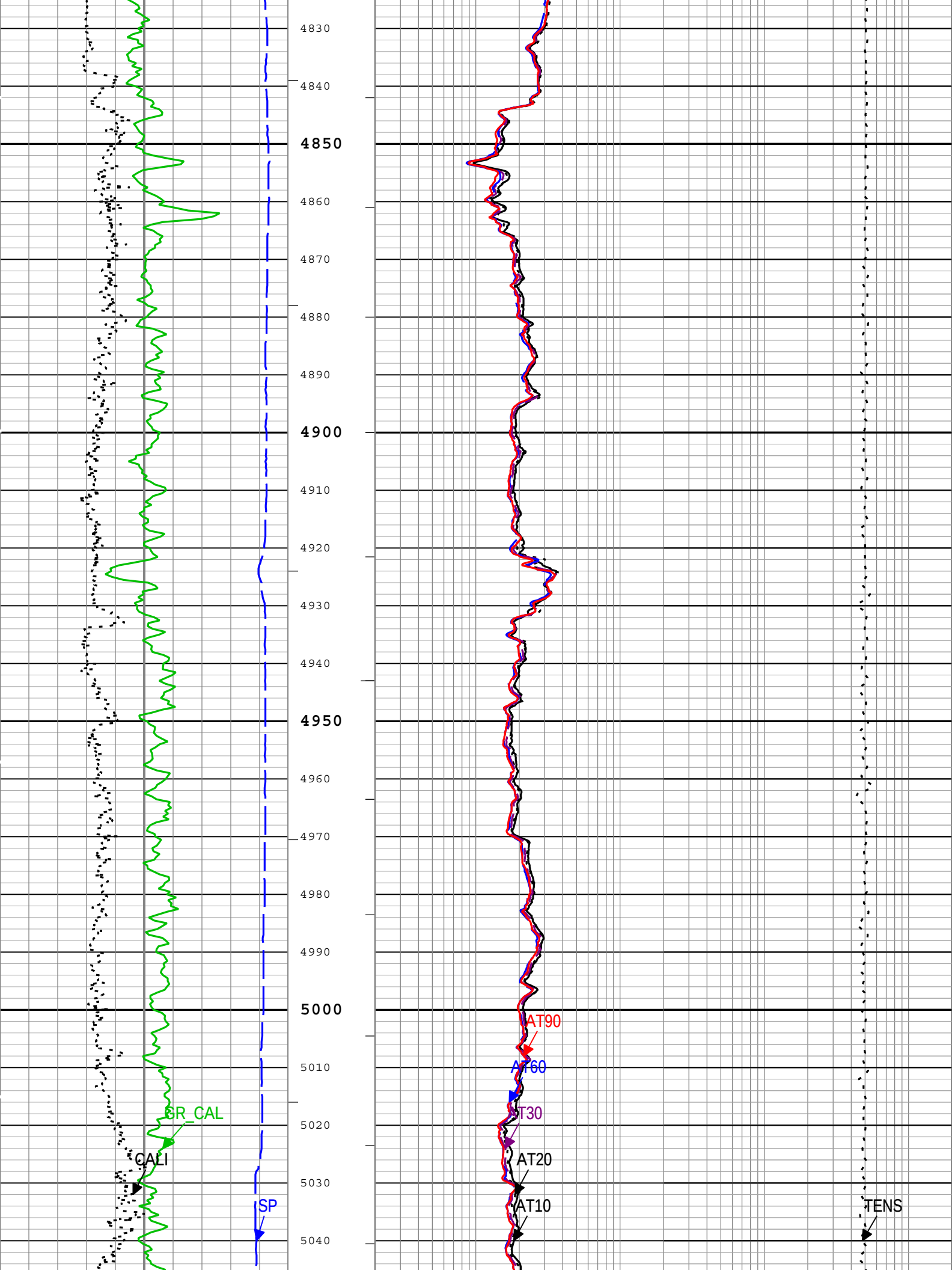
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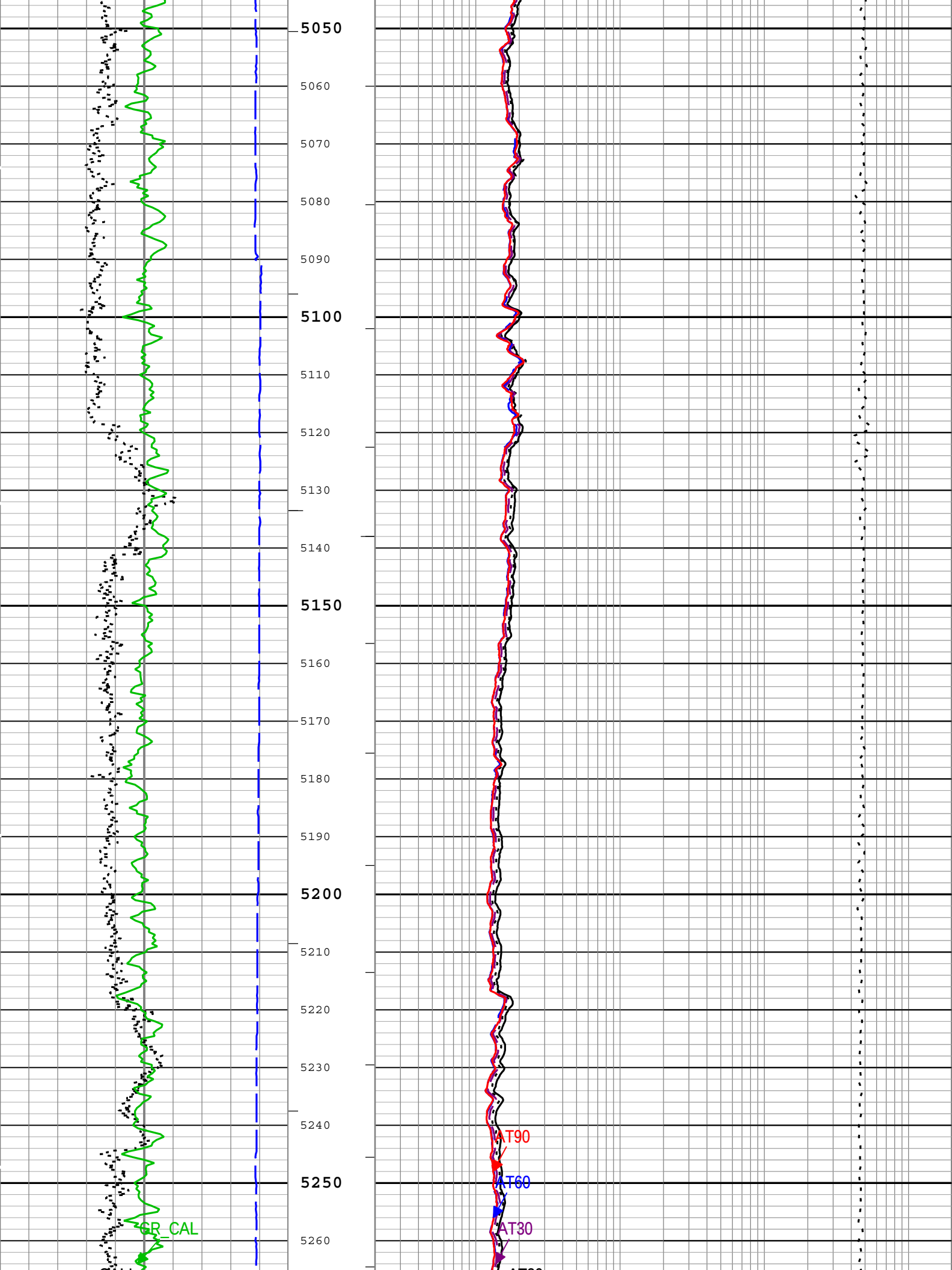
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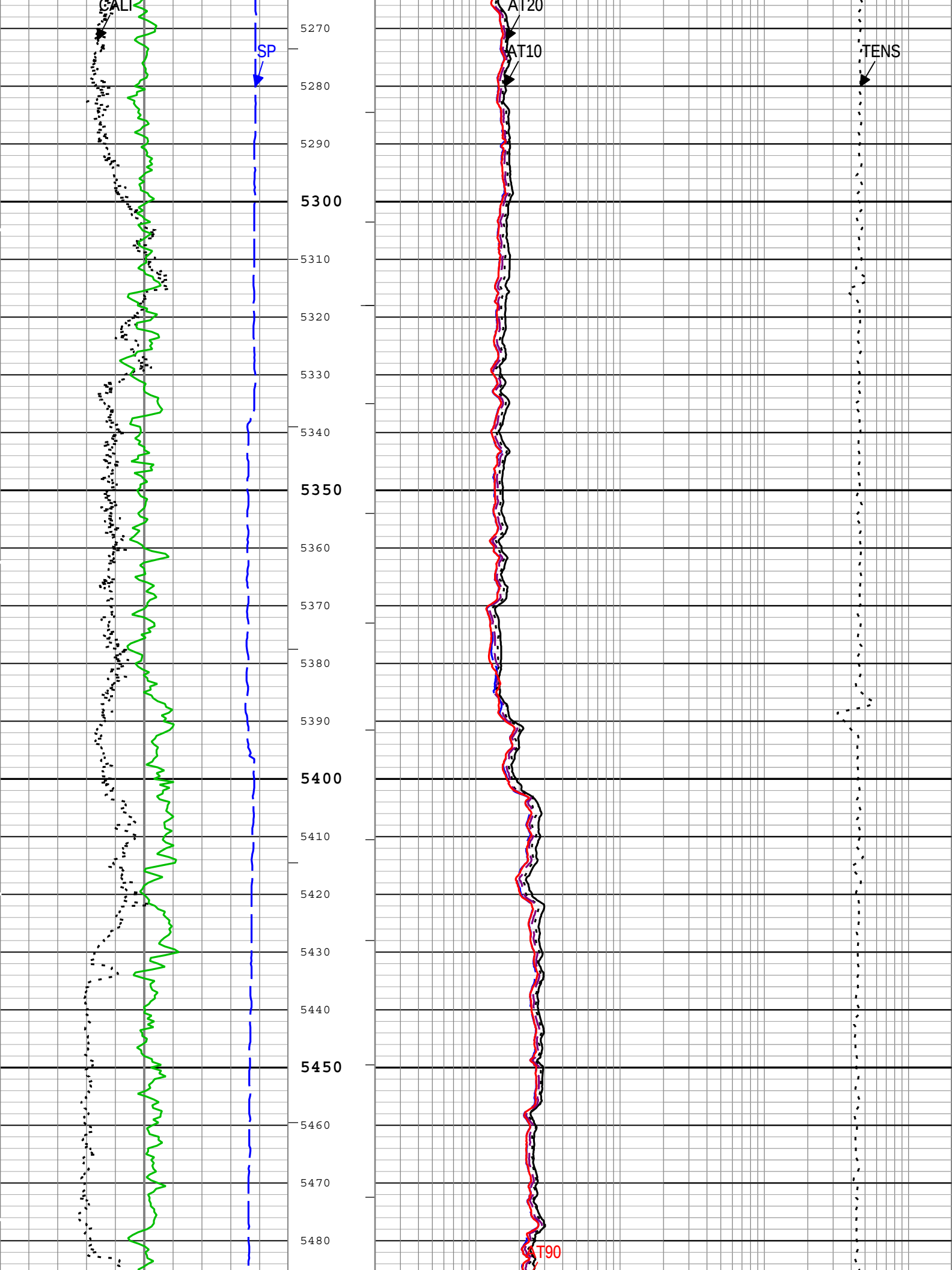
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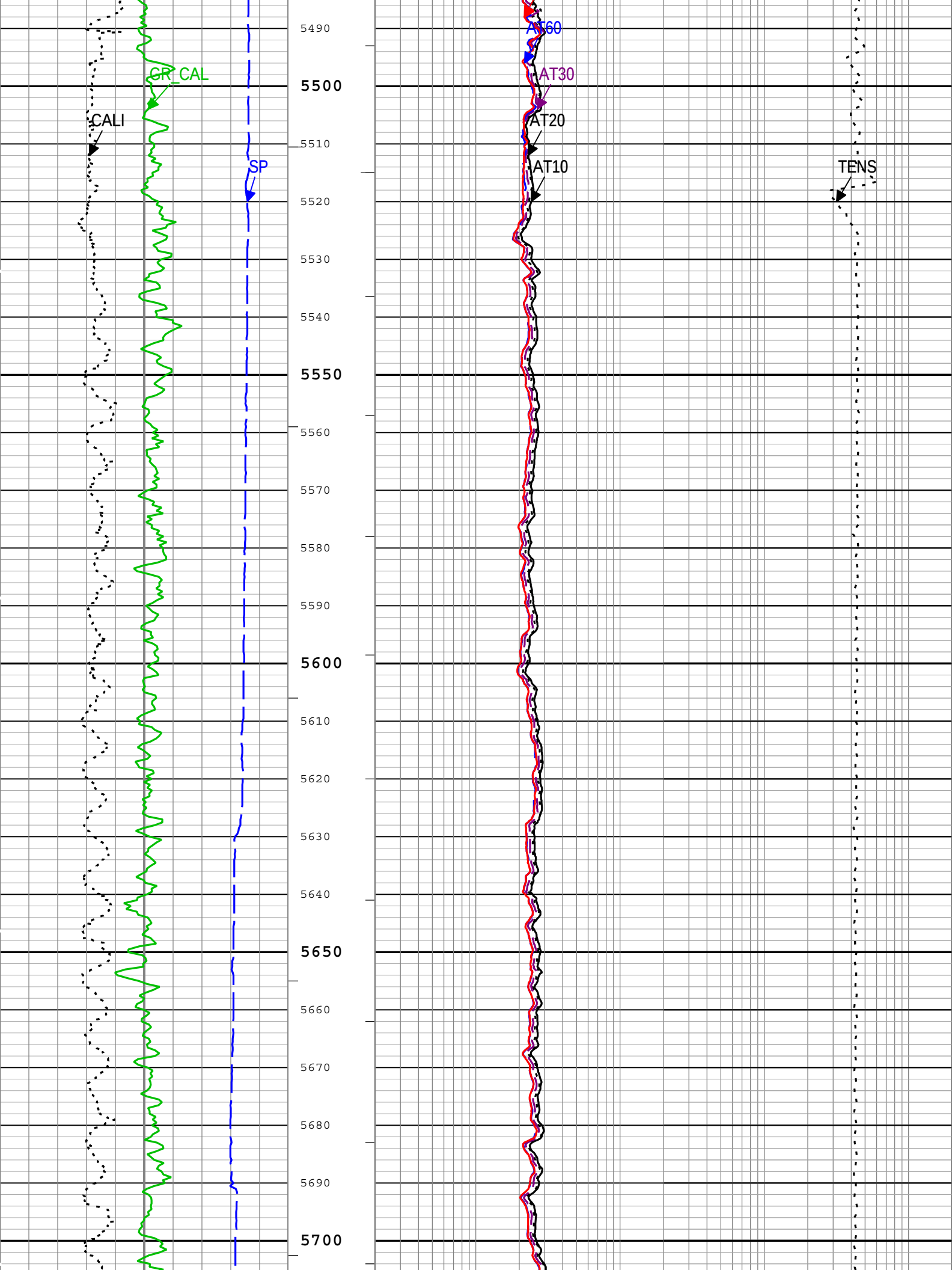
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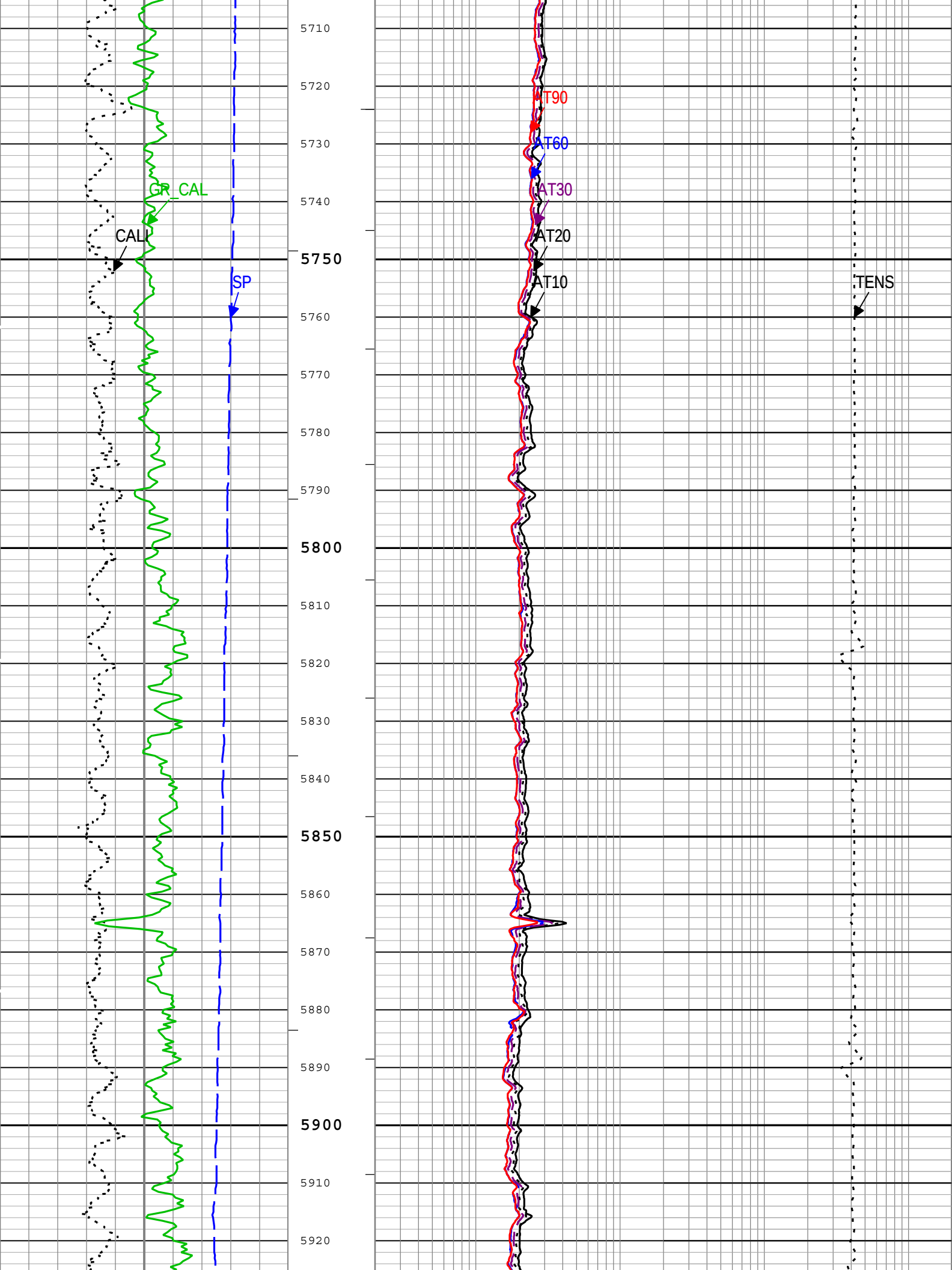
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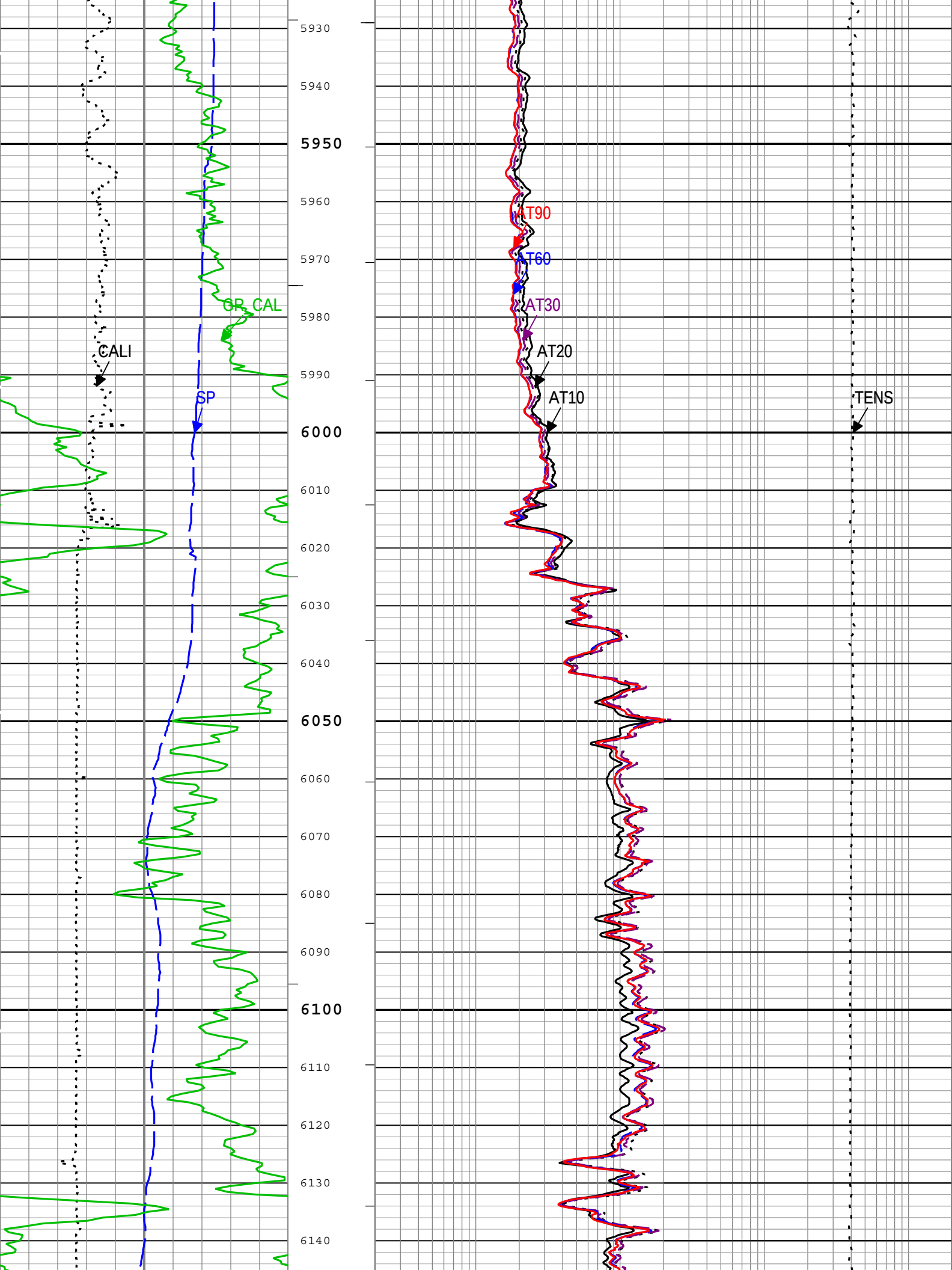
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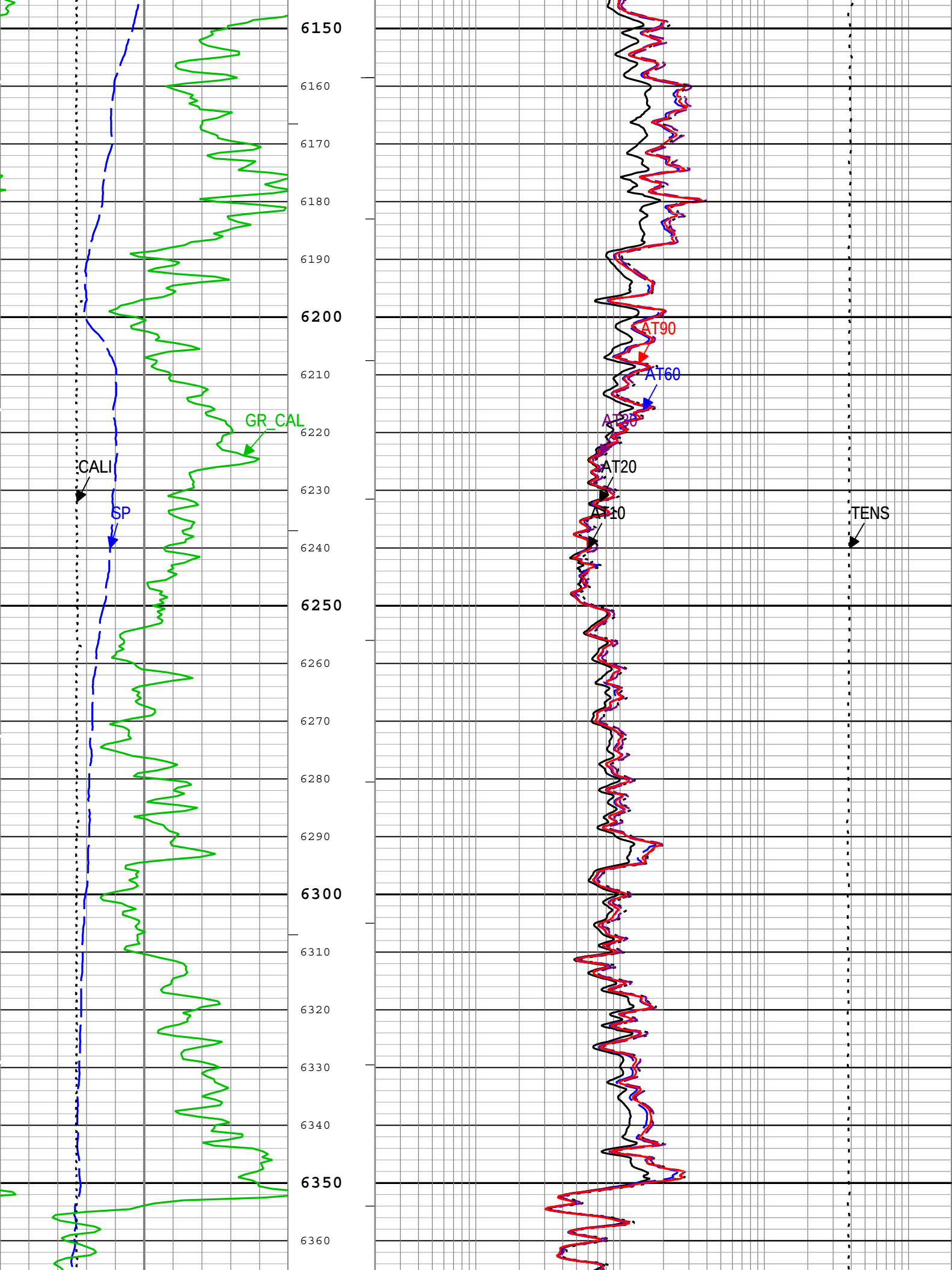
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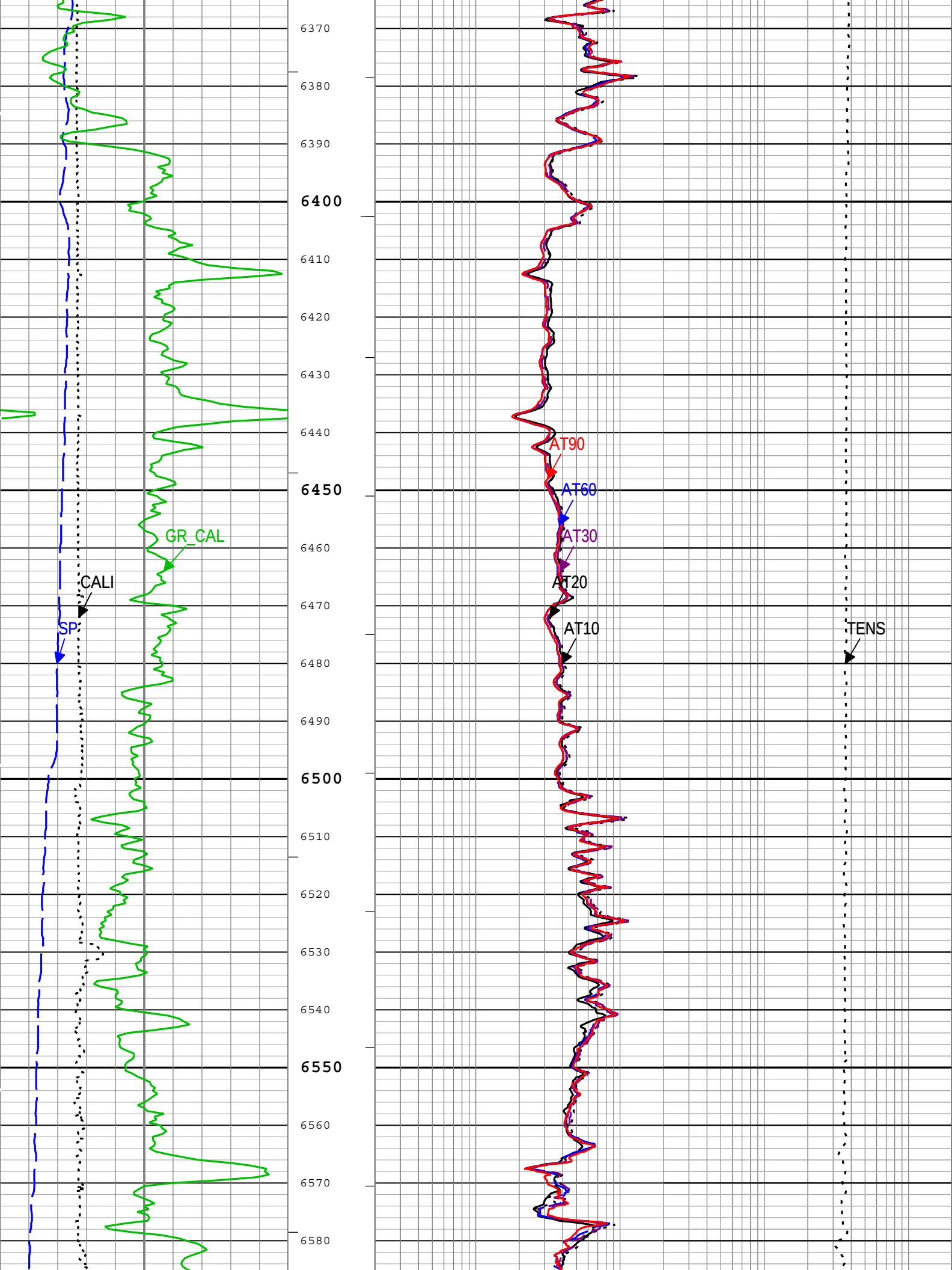
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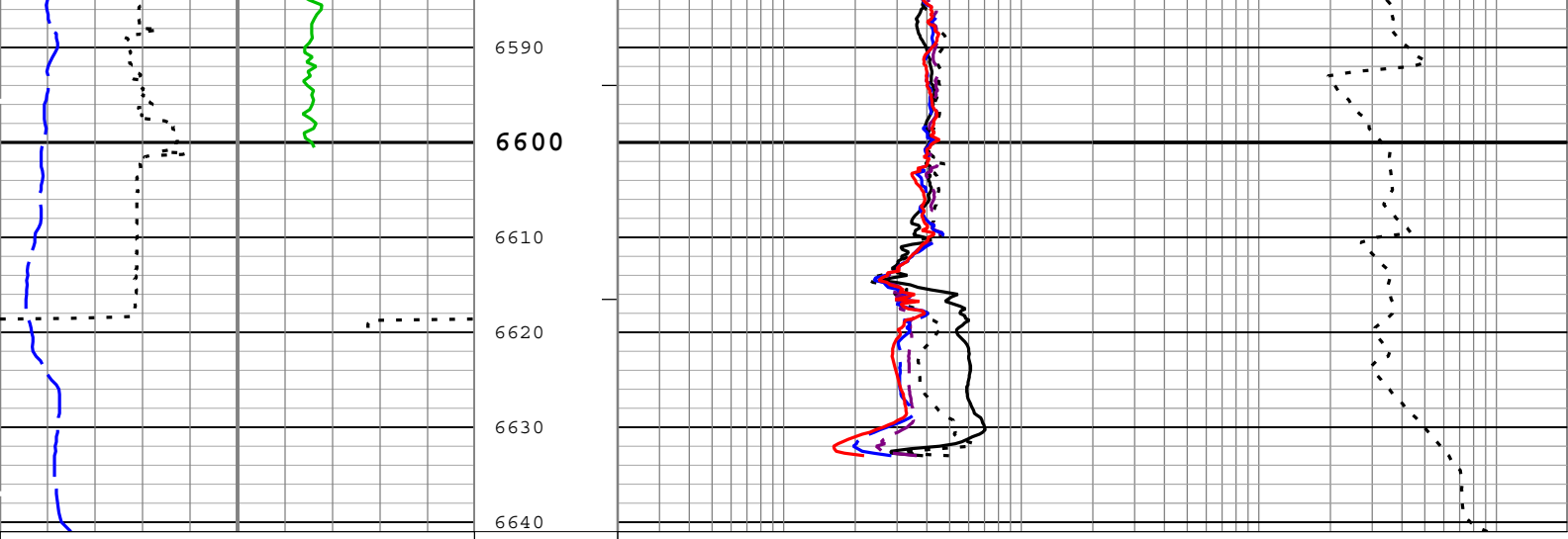


Spontaneous Potential (SP) ZAIT-E
-40 mV 140

Caliper (CALI) HDRS-H
6 in 16

Calibrated Gamma Ray (GR_CAL) HGNS-H
0 gAPI 200

Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E
0.2 ohm.m 2000

Array Induction Two Foot Resistivity A20 (AT20) ZAIT-E
0.2 ohm.m 2000

Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E
0.2 ohm.m 2000

Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E
0.2 ohm.m 2000

Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E
0.2 ohm.m 2000

Cable Tension (TENS)
10000 lbf 0

ICV - Integrated Cement Volume every 100.00 (ft3)
ICV - Integrated Cement Volume every 10.00 (ft3)
TIME_1900 - Time Marked every 60.00 (s)
IHV - Integrated Hole Volume every 100.00 (ft3)
IHV - Integrated Hole Volume every 10.00 (ft3)

Description: AIT Basic Log Two Format: Log (KM 5in Induction) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 31-Aug-2014 02:32:46

Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
ABHME	Array Induction Extended Borehole Correction Mode	ZAIT-E	Compute Standoff	
ACDE	Array Induction Casing Detection Enable	ZAIT-E	Yes	
AROT	Array Induction Rotation Selector	ZAIT-E	North	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	Depth Zoned	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.198	in
CBLO	Casing Bottom (Logger)	WLSESSION	1794	ft
CSODDRL	Casing Outer Diameter - Zoned along driller depths	WLSESSION	9.625	in
DFT	Drilling Fluid Type	Borehole	Water	
FCD	Future Casing (Outer) Diameter	WLSESSION	7	in
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	
SPDR	SP Drift Per Foot	ZAIT-E	0	mV/ft
USER_LOCB	User-supplied values for Magnetic Flux Density	WLSESSION	53032.22	nT

USER_MDEC	User-supplied values for Magnetic Declination	WLSESSION	8.05	deg
USER_MDIP	User-supplied values for Magnetic Dip Angle	WLSESSION	67.43	deg

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	12.25	1775	1792
BS	8.75	1792	6624

All depth are actual.

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h

One

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Repeat[2]:Up	Up	6322.01 ft	6646.28 ft	30-Aug-2014 6:11:02 PM	30-Aug-2014 6:18:13 PM	ON	5.99 ft	No
One	Log[3]:Up	Up	59.61 ft	6641.24 ft	30-Aug-2014 6:23:41 PM	30-Aug-2014 8:11:43 PM	ON	6.77 ft	No

All depths are referenced to toolstring zero

Log

Company:Whiting Oil and Gas Corporation Well:Wolf 12L-0103

One: Log[3]:Up:S010

Description: AIT Basic Log Two Format: Log (KM 5in Induction RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 31-Aug-2014 02:32:48

IHV - Integrated Hole Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

Main To Repeat

Repeat To Main

Cable Tension (TENS)

10000 lbf 0

Main To Repeat

Repeat To Main

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

0.2 ohm.m 2000

Main To Repeat

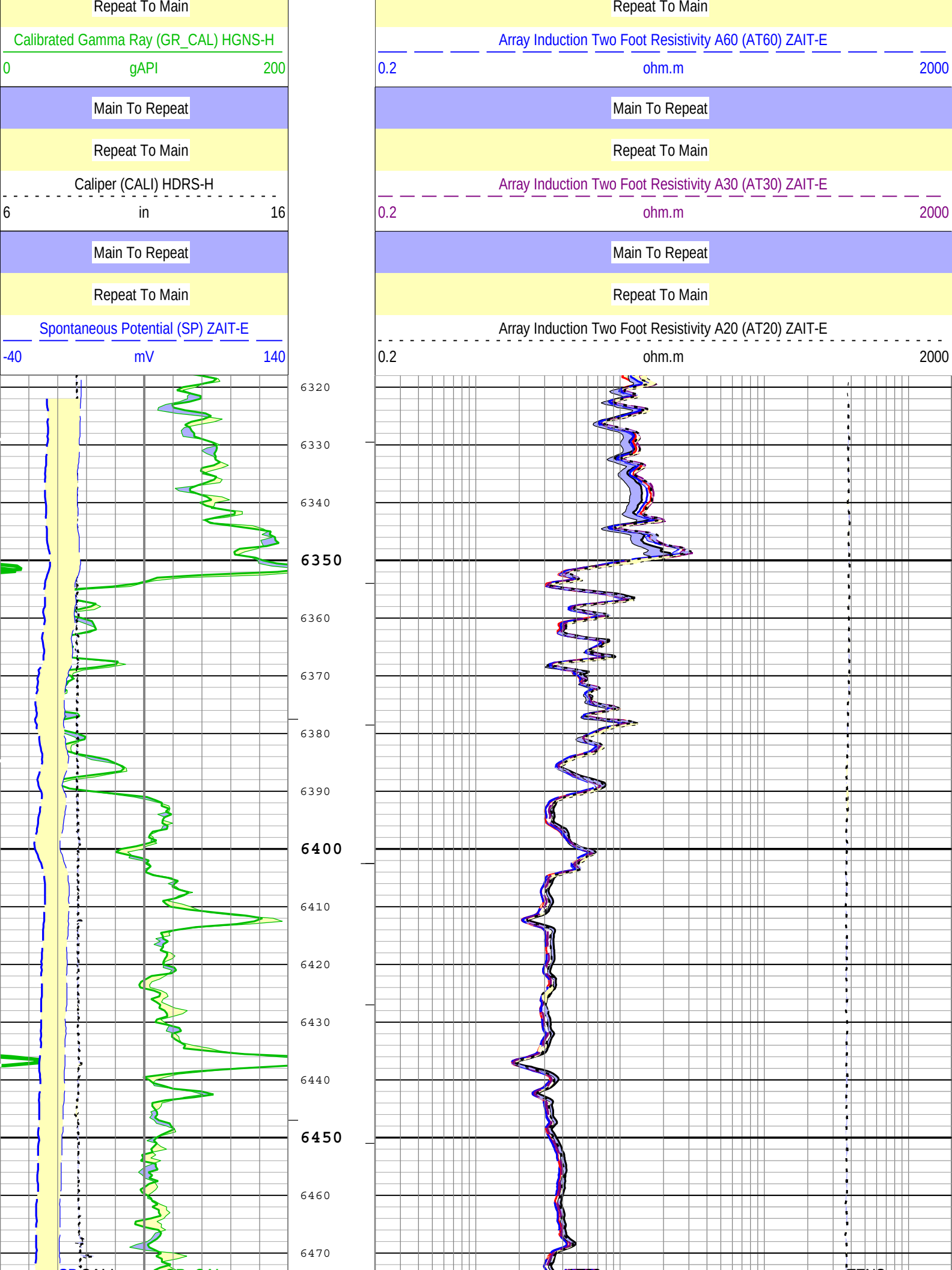
Repeat To Main

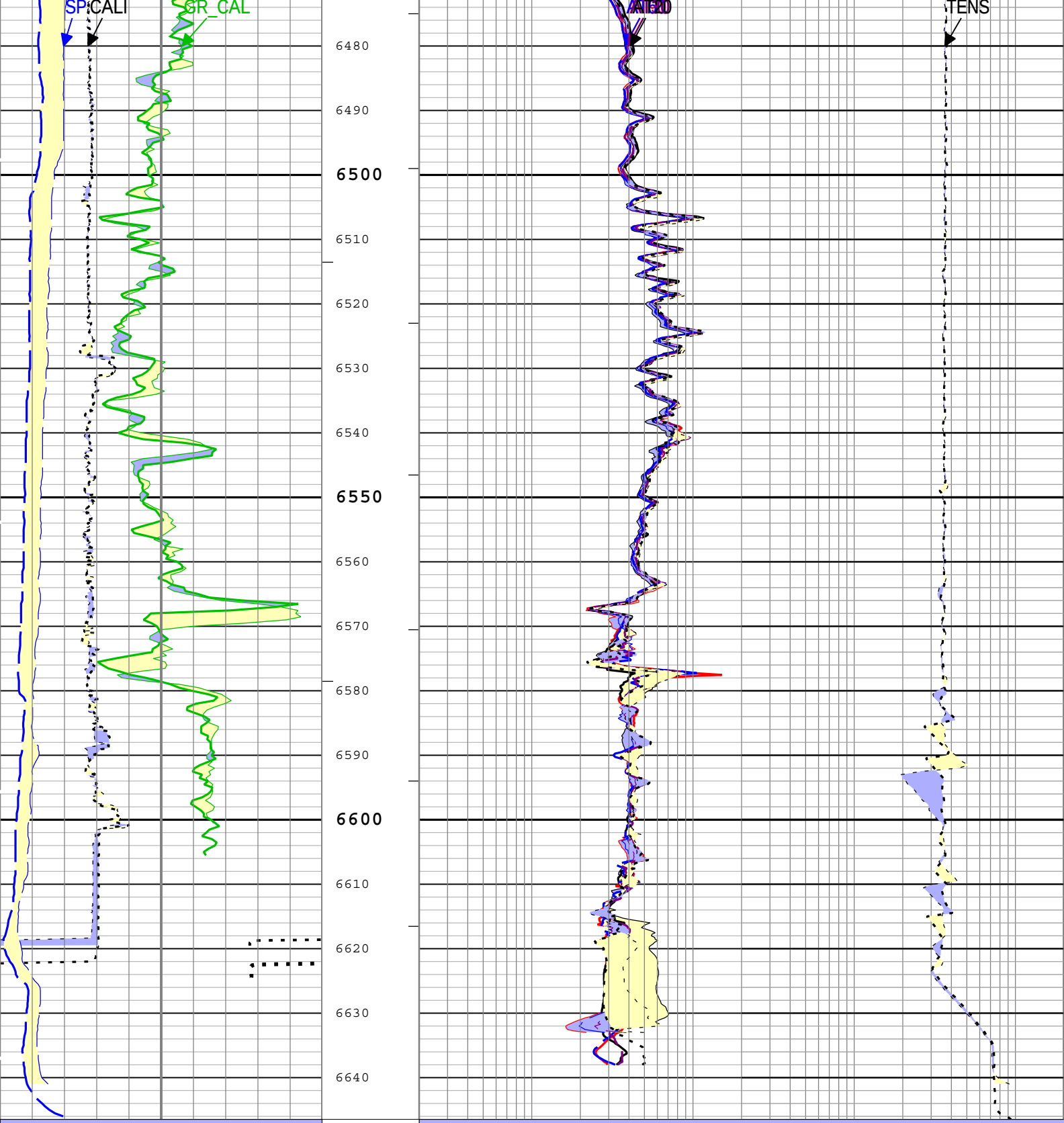
Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E

0.2 ohm.m 2000

Main To Repeat

Main To Repeat


Repeat To Main
Calibrated Gamma Ray (GR_CAL) HGNS-H
0
gAPI
200
Main To Repeat
Repeat To Main
Caliper (CALI) HDRS-H
6
in
16
Main To Repeat
Repeat To Main
Spontaneous Potential (SP) ZAIT-E
-40
mV
140
Repeat To Main
Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E
0.2
ohm.m
2000
Main To Repeat
Repeat To Main
Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E
0.2
ohm.m
2000
Main To Repeat
Repeat To Main
Array Induction Two Foot Resistivity A20 (AT20) ZAIT-E
0.2
ohm.m
2000
6320
6330
6340
6350
6360
6370
6380
6390
6400
6410
6420
6430
6440
6450
6460
6470



Main To Repeat

Repeat To Main

Calibrated Gamma Ray (GR_CAL) HGNS-H

0 gAPI 200

Main To Repeat

Repeat To Main

Caliper (CALI) HDRS-H

Main To Repeat

Repeat To Main

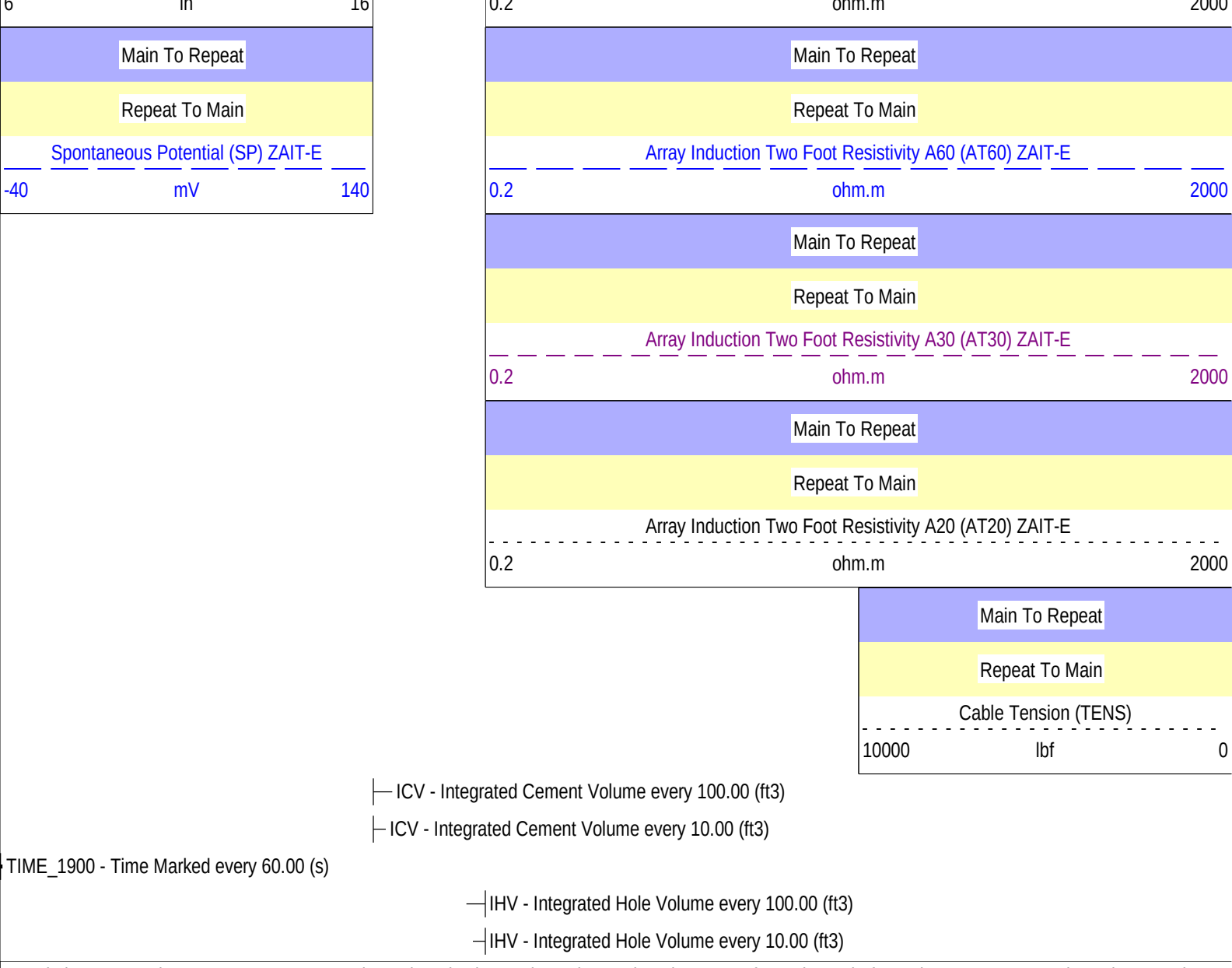
Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E



Description: AIT Basic Log Two Format: Log (KM 5in Induction RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 31-Aug-2014 02:32:48

Calibration Report

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

Primary Equipment :

20 kpi sonde - V8 AZIS 99

AIT Master Calibration - Test Loop Gain

Master (EEPROM): 03:09:36 14-Dec-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Test Loop Gain - 0		Master	1.000	-----	1.011	-----	
Test Loop Phase - 0	deg	Master	0	-----	-0.430	-----	
Test Loop Gain - 1		Master	1.000	-----	0.998	-----	
Test Loop Phase - 1	deg	Master	0	-----	0.422	-----	
Test Loop Gain - 2		Master	1.000	-----	0.999	-----	
Test Loop Phase - 2	deg	Master	0	-----	0.019	-----	
Test Loop Gain - 3		Master	1.000	-----	1.076	-----	
Test Loop Phase - 3	deg	Master	0	-----	-0.073	-----	
Test Loop Gain - 4		Master	1.000	-----	1.061	-----	
Test Loop Phase - 4	deg	Master	0	-----	0.570	-----	
Test Loop Gain - 5		Master	1.000	-----	1.004	-----	
Test Loop Phase - 5	deg	Master	0	-----	0.013	-----	
Test Loop Gain - 6		Master	1.000	-----	0.998	-----	
Test Loop Phase - 6	deg	Master	0	-----	-0.091	-----	
Test Loop Gain - 7		Master	1.000	-----	1.004	-----	

Test Loop Phase - 7	deg	Master	0	-----	0.278	-----		
Test Loop Gain - 8		Master	1.000	-----	1.001	-----		
Test Loop Phase - 8	deg	Master	0	-----	-0.519	-----		
Test Loop Gain - 9		Master	1.000	-----	0.962	-----		
Test Loop Phase - 9	deg	Master	0	-----	0.063	-----		
Test Loop Gain - 10		Master	1.000	-----	1.042	-----		
Test Loop Phase - 10	deg	Master	0	-----	2.148	-----		
Test Loop Gain - 11		Master	1.000	-----	1.029	-----		
Test Loop Phase - 11	deg	Master	0	-----	-0.219	-----		
Test Loop Gain - 12		Master	1.000	-----	0.941	-----		
Test Loop Phase - 12	deg	Master	0	-----	0.426	-----		
Test Loop Gain - 13		Master	1.000	-----	0.961	-----		
Test Loop Phase - 13	deg	Master	0	-----	0.325	-----		
Test Loop Gain - 14		Master	1.000	-----	1.021	-----		
Test Loop Phase - 14	deg	Master	0	-----	-0.022	-----		
Test Loop Gain - 15		Master	1.000	-----	1.016	-----		
Test Loop Phase - 15	deg	Master	0	-----	-1.359	-----		
Test Loop Gain - 16		Master	1.000	-----	1.019	-----		
Test Loop Phase - 16	deg	Master	0	-----	-1.108	-----		
Test Loop Gain - 17		Master	1.000	-----	1.006	-----		
Test Loop Phase - 17	deg	Master	0	-----	-0.446	-----		
Test Loop Gain - 18		Master	1.000	-----	0.947	-----		
Test Loop Phase - 18	deg	Master	0	-----	0.095	-----		
Test Loop Gain - 19		Master	1.000	-----	1.026	-----		
Test Loop Phase - 19	deg	Master	0	-----	1.393	-----		
Test Loop Gain - 20		Master	1.000	-----	1.027	-----		
Test Loop Phase - 20	deg	Master	0	-----	-0.128	-----		
Test Loop Gain - 21		Master	1.000	-----	0.930	-----		
Test Loop Phase - 21	deg	Master	0	-----	0.682	-----		
Test Loop Gain - 22		Master	1.000	-----	0.952	-----		
Test Loop Phase - 22	deg	Master	0	-----	0.582	-----		
Test Loop Gain - 23		Master	1.000	-----	1.018	-----		
Test Loop Phase - 23	deg	Master	0	-----	0.269	-----		
Test Loop Gain - 24		Master	1.000	-----	1.039	-----		
Test Loop Phase - 24	deg	Master	0	-----	-0.917	-----		
Test Loop Gain - 25		Master	1.000	-----	1.047	-----		
Test Loop Phase - 25	deg	Master	0	-----	-0.674	-----		
Test Loop Gain - 26		Master	1.000	-----	1.010	-----		
Test Loop Phase - 26	deg	Master	0	-----	-0.455	-----		
Test Loop Gain - 27		Master	1.000	-----	0.975	-----		
Test Loop Phase - 27	deg	Master	0	-----	1.354	-----		
Test Loop Gain - 28		Master	1.000	-----	1.004	-----		
Test Loop Phase - 28	deg	Master	0	-----	0.797	-----		
Test Loop Gain - 29		Master	1.000	-----	1.026	-----		
Test Loop Phase - 29	deg	Master	0	-----	0.636	-----		
Test Loop Gain - 30		Master	1.000	-----	0.971	-----		
Test Loop Phase - 30	deg	Master	0	-----	1.508	-----		
Test Loop Gain - 31		Master	1.000	-----	0.966	-----		
Test Loop Phase - 31	deg	Master	0	-----	1.665	-----		
Test Loop Gain - 32		Master	1.000	-----	1.014	-----		
Test Loop Phase - 32	deg	Master	0	-----	0.636	-----		
Test Loop Gain - 33		Master	1.000	-----	1.050	-----		
Test Loop Phase - 33	deg	Master	0	-----	1.257	-----		
Test Loop Gain - 34		Master	1.000	-----	1.044	-----		
Test Loop Phase - 34	deg	Master	0	-----	1.580	-----		
Test Loop Gain - 35		Master	1.000	-----	1.004	-----		
Test Loop Phase - 35	deg	Master	0	-----	-0.292	-----		
Test Loop Gain - 36		Master	1.000	-----	0.977	-----		
Test Loop Phase - 36	deg	Master	0	-----	0.135	-----		
Test Loop Gain - 37		Master	1.000	-----	1.010	-----		
Test Loop Phase - 37	deg	Master	0	-----	-0.204	-----		
Test Loop Gain - 38		Master	1.000	-----	1.022	-----		
Test Loop Phase - 38	deg	Master	0	-----	0.374	-----		
Test Loop Gain - 39		Master	1.000	-----	0.970	-----		
Test Loop Phase - 39	deg	Master	0	-----	0.443	-----		

Test Loop Gain - 40		Master	1.000	-----	0.965	-----	
Test Loop Phase - 40	deg	Master	0	-----	0.586	-----	
Test Loop Gain - 41		Master	1.000	-----	1.005	-----	
Test Loop Phase - 41	deg	Master	0	-----	0.614	-----	
Test Loop Gain - 42		Master	1.000	-----	1.047	-----	
Test Loop Phase - 42	deg	Master	0	-----	-0.031	-----	
Test Loop Gain - 43		Master	1.000	-----	1.042	-----	
Test Loop Phase - 43	deg	Master	0	-----	0.135	-----	
Test Loop Gain - 44		Master	1.000	-----	1.000	-----	
Test Loop Phase - 44	deg	Master	0	-----	-0.333	-----	
Test Loop Gain - 45		Master	1.000	-----	1.052	-----	
Test Loop Phase - 45	deg	Master	0	-----	0.026	-----	
Test Loop Gain - 46		Master	1.000	-----	1.081	-----	
Test Loop Phase - 46	deg	Master	0	-----	0.486	-----	
Test Loop Gain - 47		Master	1.000	-----	1.018	-----	
Test Loop Phase - 47	deg	Master	0	-----	-0.177	-----	
Test Loop Gain - 48		Master	1.000	-----	1.036	-----	
Test Loop Phase - 48	deg	Master	0	-----	0.431	-----	
Test Loop Gain - 49		Master	1.000	-----	1.051	-----	
Test Loop Phase - 49	deg	Master	0	-----	0.294	-----	
Test Loop Gain - 50		Master	1.000	-----	1.027	-----	
Test Loop Phase - 50	deg	Master	0	-----	0.175	-----	
Test Loop Gain - 51		Master	1.000	-----	1.031	-----	
Test Loop Phase - 51	deg	Master	0	-----	-0.083	-----	
Test Loop Gain - 52		Master	1.000	-----	1.037	-----	
Test Loop Phase - 52	deg	Master	0	-----	0.005	-----	
Test Loop Gain - 53		Master	1.000	-----	1.015	-----	
Test Loop Phase - 53	deg	Master	0	-----	-0.134	-----	
Test Loop Gain - 54		Master	1.000	-----	1.044	-----	
Test Loop Phase - 54	deg	Master	0	-----	-0.634	-----	
Test Loop Gain - 55		Master	1.000	-----	1.071	-----	
Test Loop Phase - 55	deg	Master	0	-----	-0.285	-----	
Test Loop Gain - 56		Master	1.000	-----	1.016	-----	
Test Loop Phase - 56	deg	Master	0	-----	-0.810	-----	
Test Loop Gain - 57		Master	1.000	-----	1.025	-----	
Test Loop Phase - 57	deg	Master	0	-----	-0.156	-----	
Test Loop Gain - 58		Master	1.000	-----	1.039	-----	
Test Loop Phase - 58	deg	Master	0	-----	-0.189	-----	
Test Loop Gain - 59		Master	1.000	-----	1.021	-----	
Test Loop Phase - 59	deg	Master	0	-----	-0.361	-----	
Test Loop Gain - 60		Master	1.000	-----	1.026	-----	
Test Loop Phase - 60	deg	Master	0	-----	-0.948	-----	
Test Loop Gain - 61		Master	1.000	-----	1.033	-----	
Test Loop Phase - 61	deg	Master	0	-----	-0.884	-----	
Test Loop Gain - 62		Master	1.000	-----	1.016	-----	
Test Loop Phase - 62	deg	Master	0	-----	-1.036	-----	
Test Loop Gain - 63		Master	1.000	-----	1.050	-----	
Test Loop Phase - 63	deg	Master	0	-----	0.049	-----	
Test Loop Gain - 64		Master	1.000	-----	1.035	-----	
Test Loop Phase - 64	deg	Master	0	-----	0.782	-----	
Test Loop Gain - 65		Master	1.000	-----	1.036	-----	
Test Loop Phase - 65	deg	Master	0	-----	0.193	-----	
Test Loop Gain - 66		Master	1.000	-----	1.075	-----	
Test Loop Phase - 66	deg	Master	0	-----	0.406	-----	
Test Loop Gain - 67		Master	1.000	-----	1.044	-----	
Test Loop Phase - 67	deg	Master	0	-----	0.233	-----	
Test Loop Gain - 68		Master	1.000	-----	1.025	-----	
Test Loop Phase - 68	deg	Master	0	-----	0.391	-----	
Test Loop Gain - 69		Master	1.000	-----	1.027	-----	
Test Loop Phase - 69	deg	Master	0	-----	-0.215	-----	
Test Loop Gain - 70		Master	1.000	-----	1.029	-----	
Test Loop Phase - 70	deg	Master	0	-----	-0.177	-----	
Test Loop Gain - 71		Master	1.000	-----	1.017	-----	
Test Loop Phase - 71	deg	Master	0	-----	-0.094	-----	
Test Loop Gain - 72		Master	1.000	-----	1.028	-----	

Test Loop Phase - 72	deg	Master	0	-----	-0.720	-----	
Test Loop Gain - 73		Master	1.000	-----	1.012	-----	
Test Loop Phase - 73	deg	Master	0	-----	-0.453	-----	
Test Loop Gain - 74		Master	1.000	-----	1.034	-----	
Test Loop Phase - 74	deg	Master	0	-----	-0.576	-----	
Test Loop Gain - 75		Master	1.000	-----	1.047	-----	
Test Loop Phase - 75	deg	Master	0	-----	-0.294	-----	
Test Loop Gain - 76		Master	1.000	-----	1.018	-----	
Test Loop Phase - 76	deg	Master	0	-----	-0.364	-----	
Test Loop Gain - 77		Master	1.000	-----	1.021	-----	
Test Loop Phase - 77	deg	Master	0	-----	-0.228	-----	
Test Loop Gain - 78		Master	1.000	-----	1.008	-----	
Test Loop Phase - 78	deg	Master	0	-----	-1.068	-----	
Test Loop Gain - 79		Master	1.000	-----	1.011	-----	
Test Loop Phase - 79	deg	Master	0	-----	-1.050	-----	
Test Loop Gain - 80		Master	1.000	-----	1.019	-----	
Test Loop Phase - 80	deg	Master	0	-----	-0.902	-----	
Test Loop Gain - 81		Master	1.000	-----	1.015	-----	
Test Loop Phase - 81	deg	Master	0	-----	-0.076	-----	
Test Loop Gain - 82		Master	1.000	-----	1.015	-----	
Test Loop Phase - 82	deg	Master	0	-----	-0.150	-----	
Test Loop Gain - 83		Master	1.000	-----	1.025	-----	
Test Loop Phase - 83	deg	Master	0	-----	0.063	-----	
Test Loop Gain - 84		Master	1.000	-----	1.027	-----	
Test Loop Phase - 84	deg	Master	0	-----	-0.071	-----	
Test Loop Gain - 85		Master	1.000	-----	1.014	-----	
Test Loop Phase - 85	deg	Master	0	-----	0.165	-----	
Test Loop Gain - 86		Master	1.000	-----	1.012	-----	
Test Loop Phase - 86	deg	Master	0	-----	0.194	-----	
Test Loop Gain - 87		Master	1.000	-----	1.042	-----	
Test Loop Phase - 87	deg	Master	0	-----	-0.408	-----	
Test Loop Gain - 88		Master	1.000	-----	1.033	-----	
Test Loop Phase - 88	deg	Master	0	-----	0.024	-----	
Test Loop Gain - 89		Master	1.000	-----	1.025	-----	
Test Loop Phase - 89	deg	Master	0	-----	-0.273	-----	
Test Loop Gain - 90		Master	1.000	-----	0.999	-----	
Test Loop Phase - 90	deg	Master	0	-----	-0.638	-----	
Test Loop Gain - 91		Master	1.000	-----	1.001	-----	
Test Loop Phase - 91	deg	Master	0	-----	-0.680	-----	
Test Loop Gain - 92		Master	1.000	-----	1.019	-----	
Test Loop Phase - 92	deg	Master	0	-----	-0.525	-----	
Test Loop Gain - 93		Master	1.000	-----	1.012	-----	
Test Loop Phase - 93	deg	Master	0	-----	-0.333	-----	
Test Loop Gain - 94		Master	1.000	-----	0.999	-----	
Test Loop Phase - 94	deg	Master	0	-----	-0.135	-----	
Test Loop Gain - 95		Master	1.000	-----	1.004	-----	
Test Loop Phase - 95	deg	Master	0	-----	-0.106	-----	
Test Loop Gain - 96		Master	1.000	-----	1.027	-----	
Test Loop Phase - 96	deg	Master	0	-----	-0.645	-----	
Test Loop Gain - 97		Master	1.000	-----	1.016	-----	
Test Loop Phase - 97	deg	Master	0	-----	-0.409	-----	
Test Loop Gain - 98		Master	1.000	-----	1.013	-----	
Test Loop Phase - 98	deg	Master	0	-----	-0.946	-----	
Test Loop Gain - 99		Master	1.000	-----	1.005	-----	
Test Loop Phase - 99	deg	Master	0	-----	-0.163	-----	
Test Loop Gain - 100		Master	1.000	-----	1.025	-----	
Test Loop Phase - 100	deg	Master	0	-----	0.004	-----	
Test Loop Gain - 101		Master	1.000	-----	1.010	-----	
Test Loop Phase - 101	deg	Master	0	-----	-0.592	-----	
Test Loop Gain - 102		Master	1.000	-----	1.012	-----	
Test Loop Phase - 102	deg	Master	0	-----	0.142	-----	
Test Loop Gain - 103		Master	1.000	-----	1.012	-----	
Test Loop Phase - 103	deg	Master	0	-----	0.112	-----	
Test Loop Gain - 104		Master	1.000	-----	0.979	-----	
Test Loop Phase - 104	deg	Master	0	-----	0.311	-----	

Test Loop Gain - 105		Master	1.000	-----	1.002	-----
Test Loop Phase - 105	deg	Master	0	-----	-0.626	-----
Test Loop Gain - 106		Master	1.000	-----	0.999	-----
Test Loop Phase - 106	deg	Master	0	-----	-0.581	-----
Test Loop Gain - 107		Master	1.000	-----	1.012	-----
Test Loop Phase - 107	deg	Master	0	-----	-0.318	-----
Test Loop Gain - 108		Master	1.000	-----	0.985	-----
Test Loop Phase - 108	deg	Master	0	-----	-0.714	-----
Test Loop Gain - 109		Master	1.000	-----	1.006	-----
Test Loop Phase - 109	deg	Master	0	-----	-0.636	-----
Test Loop Gain - 110		Master	1.000	-----	0.926	-----
Test Loop Phase - 110	deg	Master	0	-----	-0.935	-----
Test Loop Gain - 111		Master	1.000	-----	0.992	-----
Test Loop Phase - 111	deg	Master	0	-----	-0.370	-----
Test Loop Gain - 112		Master	1.000	-----	0.991	-----
Test Loop Phase - 112	deg	Master	0	-----	-0.394	-----
Test Loop Gain - 113		Master	1.000	-----	0.906	-----
Test Loop Phase - 113	deg	Master	0	-----	-0.382	-----
Test Loop Gain - 114		Master	1.000	-----	0.967	-----
Test Loop Phase - 114	deg	Master	0	-----	-1.323	-----
Test Loop Gain - 115		Master	1.000	-----	0.961	-----
Test Loop Phase - 115	deg	Master	0	-----	-1.313	-----
Test Loop Gain - 116		Master	1.000	-----	1.008	-----
Test Loop Phase - 116	deg	Master	0	-----	-0.811	-----

AIT Master Calibration - Sonde Error Correction

Master (EEPROM): 03:09:36 14-Dec-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Sonde Error Correction Real - 0	mS/m	Master	-----	-2899.500	112.225	3339.700
Sonde Error Correction Quad - 0		Master	-----	-41397.000	4084.254	55036.000
Sonde Error Correction Real - 1	mS/m	Master	-----	-2921.000	32.314	3318.200
Sonde Error Correction Quad - 1		Master	-----	-42973.000	3870.522	53460.000
Sonde Error Correction Real - 2	mS/m	Master	-----	-2357.400	-1371.772	-506.600
Sonde Error Correction Quad - 2		Master	-----	-5751.600	2053.553	6763.000
Sonde Error Correction Real - 3	mS/m	Master	-----	-556.300	7.974	481.900
Sonde Error Correction Quad - 3		Master	-----	-9896.500	1674.891	13364.000
Sonde Error Correction Real - 4	mS/m	Master	-----	-447.400	27.868	590.800
Sonde Error Correction Quad - 4		Master	-----	-10406.000	1224.680	12854.000
Sonde Error Correction Real - 5	mS/m	Master	-----	21.600	183.689	406.200
Sonde Error Correction Quad - 5		Master	-----	-2452.800	-200.176	2452.800
Sonde Error Correction Real - 6	mS/m	Master	-----	-139.400	-3.820	145.000
Sonde Error Correction Quad - 6		Master	-----	-3193.800	720.794	5195.000
Sonde Error Correction Real - 7	mS/m	Master	-----	-108.800	13.458	175.600
Sonde Error Correction Quad - 7		Master	-----	-3994.000	380.669	4394.800
Sonde Error Correction Real - 8	mS/m	Master	-----	-81.900	2.780	76.900
Sonde Error Correction Quad - 8		Master	-----	-919.800	129.375	876.000
Sonde Error Correction Real - 9	mS/m	Master	-----	-687.200	-319.268	-32.600
Sonde Error Correction Quad - 9		Master	-----	-1224.100	173.069	1567.500
Sonde Error Correction Real - 10	mS/m	Master	-----	-841.300	-237.248	926.900
Sonde Error Correction Quad - 10		Master	-----	-26207.000	3748.008	24836.000
Sonde Error Correction Real - 11	mS/m	Master	-----	-385.000	-7.641	334.800
Sonde Error Correction Quad - 11		Master	-----	-8870.400	-41.885	10729.000
Sonde Error Correction Real - 12	mS/m	Master	-----	-941.900	80.631	826.300
Sonde Error Correction Quad - 12		Master	-----	-23951.000	-2779.682	27092.000
Sonde Error Correction Real - 13	mS/m	Master	-----	-693.800	-348.755	-26.000
Sonde Error Correction Quad - 13		Master	-----	-1468.500	-245.052	1323.100
Sonde Error Correction Real - 14	mS/m	Master	-----	-326.700	12.191	393.100
Sonde Error Correction Quad - 14		Master	-----	-9467.400	265.345	10132.000
Sonde Error Correction Real - 15	mS/m	Master	-----	-324.300	-5.534	249.300
Sonde Error Correction Quad - 15		Master	-----	-13751.000	-1043.635	17634.000
Sonde Error Correction Real - 16	mS/m	Master	-----	-214.800	-1.124	358.800
Sonde Error Correction Quad - 16		Master	-----	-17844.000	-761.020	13540.000
Sonde Error Correction Real - 17	mS/m	Master	-----	-49.100	37.845	135.700
Sonde Error Correction Quad - 17		Master	-----	-897.000	-110.966	1120.400
Sonde Error Correction Real - 18	mS/m	Master	-----	-344.500	-121.385	54.500

Sonde Error Correction Quad - 18		Master	-----	-651.100	6.150	672.100	
Sonde Error Correction Real - 19	mS/m	Master	-----	-294.600	-78.150	327.400	
Sonde Error Correction Quad - 19		Master	-----	-12891.000	1840.327	12222.000	
Sonde Error Correction Real - 20	mS/m	Master	-----	-128.800	-1.715	117.200	
Sonde Error Correction Quad - 20		Master	-----	-4425.900	-22.977	5344.100	
Sonde Error Correction Real - 21	mS/m	Master	-----	-332.100	30.451	289.900	
Sonde Error Correction Quad - 21		Master	-----	-11783.000	-1373.616	13330.000	
Sonde Error Correction Real - 22	mS/m	Master	-----	-354.800	-148.952	64.800	
Sonde Error Correction Quad - 22		Master	-----	-773.500	-176.345	549.700	
Sonde Error Correction Real - 23	mS/m	Master	-----	-111.400	4.404	134.600	
Sonde Error Correction Quad - 23		Master	-----	-4715.700	134.590	5054.300	
Sonde Error Correction Real - 24	mS/m	Master	-----	-196.800	-9.221	188.400	
Sonde Error Correction Quad - 24		Master	-----	-6819.500	-521.469	8738.500	
Sonde Error Correction Real - 25	mS/m	Master	-----	-166.400	1.316	218.800	
Sonde Error Correction Quad - 25		Master	-----	-8849.300	-386.176	6708.700	
Sonde Error Correction Real - 26	mS/m	Master	-----	-22.000	8.719	34.400	
Sonde Error Correction Quad - 26		Master	-----	-468.300	-80.321	531.300	
Sonde Error Correction Real - 27	mS/m	Master	-----	-136.000	-23.656	82.000	
Sonde Error Correction Quad - 27		Master	-----	-1294.700	204.746	1788.900	
Sonde Error Correction Real - 28	mS/m	Master	-----	-256.100	125.539	264.100	
Sonde Error Correction Quad - 28		Master	-----	-9974.600	-3112.764	9816.400	
Sonde Error Correction Real - 29	mS/m	Master	-----	-123.200	8.469	131.800	
Sonde Error Correction Quad - 29		Master	-----	-3318.000	453.806	3724.000	
Sonde Error Correction Real - 30	mS/m	Master	-----	-238.100	-68.772	282.100	
Sonde Error Correction Quad - 30		Master	-----	-10490.000	1579.178	9301.500	
Sonde Error Correction Real - 31	mS/m	Master	-----	-136.000	-20.546	82.000	
Sonde Error Correction Quad - 31		Master	-----	-1047.000	144.335	2036.600	
Sonde Error Correction Real - 32	mS/m	Master	-----	-104.800	7.640	150.200	
Sonde Error Correction Quad - 32		Master	-----	-3528.100	-268.106	3513.900	
Sonde Error Correction Real - 33	mS/m	Master	-----	-203.400	-10.522	137.600	
Sonde Error Correction Quad - 33		Master	-----	-6312.100	522.858	7550.300	
Sonde Error Correction Real - 34	mS/m	Master	-----	-152.100	9.857	188.900	
Sonde Error Correction Quad - 34		Master	-----	-7387.300	-37.342	6475.100	
Sonde Error Correction Real - 35	mS/m	Master	-----	87.100	119.938	160.700	
Sonde Error Correction Quad - 35		Master	-----	-569.100	10.692	466.900	
Sonde Error Correction Real - 36	mS/m	Master	-----	-98.300	-43.519	24.700	
Sonde Error Correction Quad - 36		Master	-----	-758.300	-9.058	791.100	
Sonde Error Correction Real - 37	mS/m	Master	-----	-102.200	22.138	107.000	
Sonde Error Correction Quad - 37		Master	-----	-4976.900	-1560.762	4905.700	
Sonde Error Correction Real - 38	mS/m	Master	-----	-29.500	9.153	44.500	
Sonde Error Correction Quad - 38		Master	-----	-1658.100	229.567	1862.900	
Sonde Error Correction Real - 39	mS/m	Master	-----	-97.900	-10.348	111.300	
Sonde Error Correction Quad - 39		Master	-----	-5239.100	796.718	4643.500	
Sonde Error Correction Real - 40	mS/m	Master	-----	-98.300	-39.955	24.700	
Sonde Error Correction Quad - 40		Master	-----	-646.000	-48.933	903.400	
Sonde Error Correction Real - 41	mS/m	Master	-----	-30.100	4.289	43.900	
Sonde Error Correction Quad - 41		Master	-----	-1761.800	-134.054	1759.200	
Sonde Error Correction Real - 42	mS/m	Master	-----	-147.000	8.032	125.200	
Sonde Error Correction Quad - 42		Master	-----	-3194.900	260.666	3794.500	
Sonde Error Correction Real - 43	mS/m	Master	-----	-133.200	6.653	139.000	
Sonde Error Correction Quad - 43		Master	-----	-3719.800	-15.869	3269.600	
Sonde Error Correction Real - 44	mS/m	Master	-----	46.500	49.679	71.300	
Sonde Error Correction Quad - 44		Master	-----	-231.700	55.392	278.900	
Sonde Error Correction Real - 45	mS/m	Master	-----	-68.200	-20.905	10.600	
Sonde Error Correction Quad - 45		Master	-----	-424.400	-13.488	836.400	
Sonde Error Correction Real - 46	mS/m	Master	-----	-209.000	-36.836	222.000	
Sonde Error Correction Quad - 46		Master	-----	-8856.000	1092.933	8698.800	
Sonde Error Correction Real - 47	mS/m	Master	-----	-79.100	-4.168	65.300	
Sonde Error Correction Quad - 47		Master	-----	-1582.400	-75.839	2189.600	
Sonde Error Correction Real - 48	mS/m	Master	-----	-222.200	38.118	208.800	
Sonde Error Correction Quad - 48		Master	-----	-8669.800	-1314.495	8885.000	
Sonde Error Correction Real - 49	mS/m	Master	-----	-67.500	-21.340	11.300	
Sonde Error Correction Quad - 49		Master	-----	-483.300	140.984	777.500	
Sonde Error Correction Real - 50	mS/m	Master	-----	-61.900	4.237	82.500	

Sonde Error Correction Quad - 50		Master	-----	-1972.600	-263.990	1799.400	
Sonde Error Correction Real - 51	mS/m	Master	-----	-69.600	-3.661	57.800	
Sonde Error Correction Quad - 51		Master	-----	-3010.100	-180.968	3497.900	
Sonde Error Correction Real - 52	mS/m	Master	-----	-52.400	14.422	75.000	
Sonde Error Correction Quad - 52		Master	-----	-3659.900	-573.709	2848.100	
Sonde Error Correction Real - 53	mS/m	Master	-----	37.300	55.162	73.300	
Sonde Error Correction Quad - 53		Master	-----	-180.700	-6.470	179.500	
Sonde Error Correction Real - 54	mS/m	Master	-----	-99.500	-62.226	-29.900	
Sonde Error Correction Quad - 54		Master	-----	-309.400	-49.891	376.500	
Sonde Error Correction Real - 55	mS/m	Master	-----	-25.400	-8.382	26.800	
Sonde Error Correction Quad - 55		Master	-----	-4426.300	545.046	4351.300	
Sonde Error Correction Real - 56	mS/m	Master	-----	-24.000	-1.653	23.200	
Sonde Error Correction Quad - 56		Master	-----	-798.900	-42.745	1099.900	
Sonde Error Correction Real - 57	mS/m	Master	-----	-25.400	7.447	26.800	
Sonde Error Correction Quad - 57		Master	-----	-4335.900	-653.299	4441.700	
Sonde Error Correction Real - 58	mS/m	Master	-----	-99.000	-60.324	-29.400	
Sonde Error Correction Quad - 58		Master	-----	-426.900	26.371	426.900	
Sonde Error Correction Real - 59	mS/m	Master	-----	-21.400	0.243	25.800	
Sonde Error Correction Quad - 59		Master	-----	-992.100	-133.017	906.700	
Sonde Error Correction Real - 60	mS/m	Master	-----	-17.700	-1.891	15.100	
Sonde Error Correction Quad - 60		Master	-----	-1518.500	-95.619	1750.900	
Sonde Error Correction Real - 61	mS/m	Master	-----	-13.800	4.240	19.000	
Sonde Error Correction Quad - 61		Master	-----	-1836.100	-286.006	1433.300	
Sonde Error Correction Real - 62	mS/m	Master	-----	20.900	30.904	42.100	
Sonde Error Correction Quad - 62		Master	-----	-80.900	4.348	93.000	
Sonde Error Correction Real - 63	mS/m	Master	-----	-52.100	-24.132	-2.700	
Sonde Error Correction Quad - 63		Master	-----	-101.900	243.107	649.900	
Sonde Error Correction Real - 64	mS/m	Master	-----	-147.800	23.091	133.400	
Sonde Error Correction Quad - 64		Master	-----	-6054.100	-571.801	6480.300	
Sonde Error Correction Real - 65	mS/m	Master	-----	-38.200	-3.705	27.000	
Sonde Error Correction Quad - 65		Master	-----	-414.600	131.273	740.600	
Sonde Error Correction Real - 66	mS/m	Master	-----	-134.200	-15.490	147.000	
Sonde Error Correction Quad - 66		Master	-----	-6421.000	590.020	6113.400	
Sonde Error Correction Real - 67	mS/m	Master	-----	-50.900	-21.065	-1.500	
Sonde Error Correction Quad - 67		Master	-----	-120.200	213.334	631.600	
Sonde Error Correction Real - 68	mS/m	Master	-----	-28.200	-1.546	37.000	
Sonde Error Correction Quad - 68		Master	-----	-564.900	-5.755	590.300	
Sonde Error Correction Real - 69	mS/m	Master	-----	-25.200	-3.653	23.200	
Sonde Error Correction Quad - 69		Master	-----	-1131.800	240.973	1562.200	
Sonde Error Correction Real - 70	mS/m	Master	-----	-20.500	4.294	27.900	
Sonde Error Correction Quad - 70		Master	-----	-1454.700	-52.431	1239.300	
Sonde Error Correction Real - 71	mS/m	Master	-----	16.900	23.494	30.100	
Sonde Error Correction Quad - 71		Master	-----	-63.200	38.011	82.600	
Sonde Error Correction Real - 72	mS/m	Master	-----	-55.800	-33.514	-15.800	
Sonde Error Correction Quad - 72		Master	-----	-157.900	41.616	247.900	
Sonde Error Correction Real - 73	mS/m	Master	-----	-18.200	3.507	16.800	
Sonde Error Correction Quad - 73		Master	-----	-2989.700	-283.664	3198.300	
Sonde Error Correction Real - 74	mS/m	Master	-----	-10.300	-0.378	7.900	
Sonde Error Correction Quad - 74		Master	-----	-207.500	64.283	369.500	
Sonde Error Correction Real - 75	mS/m	Master	-----	-15.900	-1.707	19.100	
Sonde Error Correction Quad - 75		Master	-----	-3168.900	295.962	3019.100	
Sonde Error Correction Real - 76	mS/m	Master	-----	-54.200	-31.749	-14.200	
Sonde Error Correction Quad - 76		Master	-----	-145.800	27.916	239.000	
Sonde Error Correction Real - 77	mS/m	Master	-----	-8.400	-0.544	9.800	
Sonde Error Correction Quad - 77		Master	-----	-281.700	-3.979	295.300	
Sonde Error Correction Real - 78	mS/m	Master	-----	-6.900	2.787	11.100	
Sonde Error Correction Quad - 78		Master	-----	-567.100	117.502	775.900	
Sonde Error Correction Real - 79	mS/m	Master	-----	-8.000	2.964	10.000	
Sonde Error Correction Quad - 79		Master	-----	-725.700	-25.694	617.300	
Sonde Error Correction Real - 80	mS/m	Master	-----	11.700	16.043	20.700	
Sonde Error Correction Quad - 80		Master	-----	-59.500	12.848	59.500	
Sonde Error Correction Real - 81	mS/m	Master	-----	-83.200	-50.120	-16.600	
Sonde Error Correction Quad - 81		Master	-----	-9.500	226.240	460.300	
Sonde Error Correction Real - 82	mS/m	Master	-----	-61.200	-3.815	62.000	
Sonde Error Correction Quad - 82		Master	-----	-2224.900	154.705	2288.500	

Sonde Error Correction Real - 83	mS/m	Master	-----	-28.400	-1.235	22.200	
Sonde Error Correction Quad - 83		Master	-----	-365.200	-10.637	423.200	
Sonde Error Correction Real - 84	mS/m	Master	-----	-60.600	6.525	62.600	
Sonde Error Correction Quad - 84		Master	-----	-2297.100	-214.467	2216.300	
Sonde Error Correction Real - 85	mS/m	Master	-----	-82.600	-47.908	-16.000	
Sonde Error Correction Quad - 85		Master	-----	-25.500	204.756	444.300	
Sonde Error Correction Real - 86	mS/m	Master	-----	-22.400	-1.274	28.200	
Sonde Error Correction Quad - 86		Master	-----	-402.000	-23.192	386.400	
Sonde Error Correction Real - 87	mS/m	Master	-----	-18.000	3.866	19.000	
Sonde Error Correction Quad - 87		Master	-----	-577.000	-183.644	598.000	
Sonde Error Correction Real - 88	mS/m	Master	-----	-17.000	2.836	20.000	
Sonde Error Correction Quad - 88		Master	-----	-572.200	-70.887	602.800	
Sonde Error Correction Real - 89	mS/m	Master	-----	1.100	8.626	17.100	
Sonde Error Correction Quad - 89		Master	-----	-91.000	128.242	292.000	
Sonde Error Correction Real - 90	mS/m	Master	-----	-76.900	-50.787	-23.100	
Sonde Error Correction Quad - 90		Master	-----	-92.000	56.876	166.200	
Sonde Error Correction Real - 91	mS/m	Master	-----	-7.800	-0.823	8.200	
Sonde Error Correction Quad - 91		Master	-----	-1134.100	80.898	1163.100	
Sonde Error Correction Real - 92	mS/m	Master	-----	-7.600	-0.681	3.800	
Sonde Error Correction Quad - 92		Master	-----	-188.100	-7.393	217.300	
Sonde Error Correction Real - 93	mS/m	Master	-----	-6.900	1.907	9.100	
Sonde Error Correction Quad - 93		Master	-----	-1167.200	-108.587	1130.000	
Sonde Error Correction Real - 94	mS/m	Master	-----	-76.100	-48.905	-22.300	
Sonde Error Correction Quad - 94		Master	-----	-77.500	44.810	159.300	
Sonde Error Correction Real - 95	mS/m	Master	-----	-5.700	-0.148	5.700	
Sonde Error Correction Quad - 95		Master	-----	-207.400	-14.643	198.000	
Sonde Error Correction Real - 96	mS/m	Master	-----	-6.200	2.435	8.000	
Sonde Error Correction Quad - 96		Master	-----	-293.700	-92.223	298.500	
Sonde Error Correction Real - 97	mS/m	Master	-----	-6.400	2.250	7.800	
Sonde Error Correction Quad - 97		Master	-----	-288.600	-36.420	303.600	
Sonde Error Correction Real - 98	mS/m	Master	-----	7.900	12.804	17.100	
Sonde Error Correction Quad - 98		Master	-----	-98.100	12.965	108.700	
Sonde Error Correction Real - 99	mS/m	Master	-----	-115.300	-61.612	-25.100	
Sonde Error Correction Quad - 99		Master	-----	-320.800	24.253	514.200	
Sonde Error Correction Real - 100	mS/m	Master	-----	-25.100	2.521	26.300	
Sonde Error Correction Quad - 100		Master	-----	-873.400	-70.622	971.400	
Sonde Error Correction Real - 101	mS/m	Master	-----	-29.900	-6.184	24.900	
Sonde Error Correction Quad - 101		Master	-----	-159.400	48.049	167.800	
Sonde Error Correction Real - 102	mS/m	Master	-----	-23.600	1.659	27.800	
Sonde Error Correction Quad - 102		Master	-----	-1014.100	57.958	830.700	
Sonde Error Correction Real - 103	mS/m	Master	-----	-116.400	-61.505	-26.200	
Sonde Error Correction Quad - 103		Master	-----	-325.400	1.897	509.600	
Sonde Error Correction Real - 104	mS/m	Master	-----	-26.500	-5.938	28.300	
Sonde Error Correction Quad - 104		Master	-----	-155.400	44.802	171.800	
Sonde Error Correction Real - 105	mS/m	Master	-----	-12.100	4.684	20.500	
Sonde Error Correction Quad - 105		Master	-----	-336.400	81.814	317.000	
Sonde Error Correction Real - 106	mS/m	Master	-----	-15.100	2.102	17.500	
Sonde Error Correction Quad - 106		Master	-----	-331.600	62.083	321.800	
Sonde Error Correction Real - 107	mS/m	Master	-----	-21.900	-9.301	2.700	
Sonde Error Correction Quad - 107		Master	-----	-290.900	3.389	338.500	
Sonde Error Correction Real - 108	mS/m	Master	-----	-113.300	-63.811	-26.700	
Sonde Error Correction Quad - 108		Master	-----	-103.600	96.484	355.900	
Sonde Error Correction Real - 109	mS/m	Master	-----	-8.000	-0.129	9.000	
Sonde Error Correction Quad - 109		Master	-----	-441.900	-33.978	491.300	
Sonde Error Correction Real - 110	mS/m	Master	-----	-9.800	-2.295	6.400	
Sonde Error Correction Quad - 110		Master	-----	-74.700	17.777	74.300	
Sonde Error Correction Real - 111	mS/m	Master	-----	-7.600	1.754	9.400	
Sonde Error Correction Quad - 111		Master	-----	-511.900	31.528	421.300	
Sonde Error Correction Real - 112	mS/m	Master	-----	-113.300	-64.394	-26.700	
Sonde Error Correction Quad - 112		Master	-----	-81.800	87.431	353.600	
Sonde Error Correction Real - 113	mS/m	Master	-----	-8.900	-1.587	7.300	
Sonde Error Correction Quad - 113		Master	-----	-71.000	17.933	78.000	
Sonde Error Correction Real - 114	mS/m	Master	-----	-2.300	4.861	7.700	
Sonde Error Correction Quad - 114		Master	-----	-167.300	41.694	158.300	
Sonde Error Correction Real - 115	mS/m	Master	-----	-4.900	2.669	5.100	

Sonde Error Correction Quad - 115		Master	-----	-165.400	31.242	160.200
Sonde Error Correction Real - 116	mS/m	Master	-----	-9.600	-7.322	-2.600
Sonde Error Correction Quad - 116		Master	-----	-117.000	37.999	207.400

AIT Shop Check - Master - Shop Sonde Error Correction Difference

Master (EEPROM): 11:47:19 25-Jan-2014 Expired by 127 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Sonde Error Corr Dif Real - 0	mS/m	Master	-----	-1422.350	222.763	1422.350
Sonde Error Corr Dif Quad - 0		Master	-----	-33895.770	3661.904	33895.770
Sonde Error Corr Dif Real - 1	mS/m	Master	-----	-1422.350	407.473	1422.350
Sonde Error Corr Dif Quad - 1		Master	-----	-33895.770	11015.150	33895.770
Sonde Error Corr Dif Real - 2	mS/m	Master	-----	-58.960	-1383.609	58.960
Sonde Error Corr Dif Quad - 2		Master	-----	-512.790	2082.122	512.790
Sonde Error Corr Dif Real - 3	mS/m	Master	-----	-278.130	23.933	278.130
Sonde Error Corr Dif Quad - 3		Master	-----	-14228.720	2461.547	14228.720
Sonde Error Corr Dif Real - 4	mS/m	Master	-----	-278.130	150.737	278.130
Sonde Error Corr Dif Quad - 4		Master	-----	-14228.720	-1023.817	14228.720
Sonde Error Corr Dif Real - 5	mS/m	Master	-----	-22.330	184.158	22.330
Sonde Error Corr Dif Quad - 5		Master	-----	-214.990	-198.229	214.990
Sonde Error Corr Dif Real - 6	mS/m	Master	-----	-93.730	5.226	93.730
Sonde Error Corr Dif Quad - 6		Master	-----	-5616.320	499.306	5616.320
Sonde Error Corr Dif Real - 7	mS/m	Master	-----	-93.730	46.860	93.730
Sonde Error Corr Dif Quad - 7		Master	-----	-5616.320	1463.174	5616.320
Sonde Error Corr Dif Real - 8	mS/m	Master	-----	-12.700	2.583	12.700
Sonde Error Corr Dif Quad - 8		Master	-----	-58.980	121.169	58.980
Sonde Error Corr Dif Real - 9	mS/m	Master	-----	-38.430	-315.359	38.430
Sonde Error Corr Dif Quad - 9		Master	-----	-525.260	170.289	525.260
Sonde Error Corr Dif Real - 10	mS/m	Master	-----	-322.050	-245.235	322.050
Sonde Error Corr Dif Quad - 10		Master	-----	-10299.530	3919.626	10299.530
Sonde Error Corr Dif Real - 11	mS/m	Master	-----	-183.710	10.023	183.710
Sonde Error Corr Dif Quad - 11		Master	-----	-7941.350	-613.975	7941.350
Sonde Error Corr Dif Real - 12	mS/m	Master	-----	-322.050	82.157	322.050
Sonde Error Corr Dif Quad - 12		Master	-----	-10299.530	-2921.062	10299.530
Sonde Error Corr Dif Real - 13	mS/m	Master	-----	-38.430	-344.285	38.430
Sonde Error Corr Dif Quad - 13		Master	-----	-525.260	-257.122	525.260
Sonde Error Corr Dif Real - 14	mS/m	Master	-----	-183.710	77.771	183.710
Sonde Error Corr Dif Quad - 14		Master	-----	-7941.350	-171.239	7941.350
Sonde Error Corr Dif Real - 15	mS/m	Master	-----	-131.160	-15.178	131.160
Sonde Error Corr Dif Quad - 15		Master	-----	-10322.010	-1831.784	10322.010
Sonde Error Corr Dif Real - 16	mS/m	Master	-----	-131.160	-6.263	131.160
Sonde Error Corr Dif Quad - 16		Master	-----	-10322.010	-1526.757	10322.010
Sonde Error Corr Dif Real - 17	mS/m	Master	-----	-10.520	37.662	10.520
Sonde Error Corr Dif Quad - 17		Master	-----	-106.620	-108.651	106.620
Sonde Error Corr Dif Real - 18	mS/m	Master	-----	-38.650	-120.193	38.650
Sonde Error Corr Dif Quad - 18		Master	-----	-259.430	6.942	259.430
Sonde Error Corr Dif Real - 19	mS/m	Master	-----	-120.810	-80.107	120.810
Sonde Error Corr Dif Quad - 19		Master	-----	-5070.680	1925.772	5070.680
Sonde Error Corr Dif Real - 20	mS/m	Master	-----	-56.450	3.826	56.450
Sonde Error Corr Dif Quad - 20		Master	-----	-3970.410	-307.837	3970.410
Sonde Error Corr Dif Real - 21	mS/m	Master	-----	-120.810	29.837	120.810
Sonde Error Corr Dif Quad - 21		Master	-----	-5070.680	-1444.651	5070.680
Sonde Error Corr Dif Real - 22	mS/m	Master	-----	-38.650	-147.685	38.650
Sonde Error Corr Dif Quad - 22		Master	-----	-259.430	-180.423	259.430
Sonde Error Corr Dif Real - 23	mS/m	Master	-----	-56.450	22.930	56.450
Sonde Error Corr Dif Quad - 23		Master	-----	-3970.410	-81.200	3970.410
Sonde Error Corr Dif Real - 24	mS/m	Master	-----	-71.000	-11.190	71.000
Sonde Error Corr Dif Quad - 24		Master	-----	-5118.910	-915.069	5118.910
Sonde Error Corr Dif Real - 25	mS/m	Master	-----	-71.000	2.351	71.000
Sonde Error Corr Dif Quad - 25		Master	-----	-5118.910	-767.849	5118.910
Sonde Error Corr Dif Real - 26	mS/m	Master	-----	-4.790	8.421	4.790
Sonde Error Corr Dif Quad - 26		Master	-----	-55.660	-78.929	55.660
Sonde Error Corr Dif Real - 27	mS/m	Master	-----	-73.800	-22.378	73.800
Sonde Error Corr Dif Quad - 27		Master	-----	-352.850	175.747	352.850
Sonde Error Corr Dif Real - 28	mS/m	Master	-----	-159.880	137.853	159.880
Sonde Error Corr Dif Quad - 28		Master	-----	-6824.670	-3507.436	6824.670

Sonde Error Corr Dif Real - 29	mS/m	Master	-----	-69.240	6.999	69.240	
Sonde Error Corr Dif Quad - 29		Master	-----	-2661.290	962.876	2661.290	
Sonde Error Corr Dif Real - 30	mS/m	Master	-----	-159.880	-86.220	159.880	
Sonde Error Corr Dif Quad - 30		Master	-----	-6824.670	1957.961	6824.670	
Sonde Error Corr Dif Real - 31	mS/m	Master	-----	-73.800	-19.590	73.800	
Sonde Error Corr Dif Quad - 31		Master	-----	-352.850	96.258	352.850	
Sonde Error Corr Dif Real - 32	mS/m	Master	-----	-69.240	36.589	69.240	
Sonde Error Corr Dif Quad - 32		Master	-----	-2661.290	-498.376	2661.290	
Sonde Error Corr Dif Real - 33	mS/m	Master	-----	-58.940	-18.509	58.940	
Sonde Error Corr Dif Quad - 33		Master	-----	-2490.890	918.361	2490.890	
Sonde Error Corr Dif Real - 34	mS/m	Master	-----	-58.940	13.372	58.940	
Sonde Error Corr Dif Quad - 34		Master	-----	-2490.890	-181.743	2490.890	
Sonde Error Corr Dif Real - 35	mS/m	Master	-----	-8.280	119.548	8.280	
Sonde Error Corr Dif Quad - 35		Master	-----	-9138.350	11.097	9138.350	
Sonde Error Corr Dif Real - 36	mS/m	Master	-----	-75.280	-43.774	75.280	
Sonde Error Corr Dif Quad - 36		Master	-----	-175.090	-23.207	175.090	
Sonde Error Corr Dif Real - 37	mS/m	Master	-----	-50.660	23.304	50.660	
Sonde Error Corr Dif Quad - 37		Master	-----	-3386.630	-1757.764	3386.630	
Sonde Error Corr Dif Real - 38	mS/m	Master	-----	-22.870	8.799	22.870	
Sonde Error Corr Dif Quad - 38		Master	-----	-1332.130	484.581	1332.130	
Sonde Error Corr Dif Real - 39	mS/m	Master	-----	-50.660	-14.209	50.660	
Sonde Error Corr Dif Quad - 39		Master	-----	-3386.630	985.353	3386.630	
Sonde Error Corr Dif Real - 40	mS/m	Master	-----	-75.280	-40.418	75.280	
Sonde Error Corr Dif Quad - 40		Master	-----	-175.090	-72.115	175.090	
Sonde Error Corr Dif Real - 41	mS/m	Master	-----	-22.870	12.648	22.870	
Sonde Error Corr Dif Quad - 41		Master	-----	-1332.130	-246.266	1332.130	
Sonde Error Corr Dif Real - 42	mS/m	Master	-----	-46.710	6.914	46.710	
Sonde Error Corr Dif Quad - 42		Master	-----	-1250.020	457.289	1250.020	
Sonde Error Corr Dif Real - 43	mS/m	Master	-----	-46.710	6.670	46.710	
Sonde Error Corr Dif Quad - 43		Master	-----	-1250.020	-88.723	1250.020	
Sonde Error Corr Dif Real - 44	mS/m	Master	-----	-3.760	49.347	3.760	
Sonde Error Corr Dif Quad - 44		Master	-----	-25.880	55.785	25.880	
Sonde Error Corr Dif Real - 45	mS/m	Master	-----	-17.300	-19.647	17.300	
Sonde Error Corr Dif Quad - 45		Master	-----	-176.360	-17.413	176.360	
Sonde Error Corr Dif Real - 46	mS/m	Master	-----	-124.190	-32.300	124.190	
Sonde Error Corr Dif Quad - 46		Master	-----	-4733.690	964.254	4733.690	
Sonde Error Corr Dif Real - 47	mS/m	Master	-----	-40.710	0.472	40.710	
Sonde Error Corr Dif Quad - 47		Master	-----	-1317.910	-4.680	1317.910	
Sonde Error Corr Dif Real - 48	mS/m	Master	-----	-124.190	33.789	124.190	
Sonde Error Corr Dif Quad - 48		Master	-----	-4733.690	-1190.814	4733.690	
Sonde Error Corr Dif Real - 49	mS/m	Master	-----	-17.300	-20.521	17.300	
Sonde Error Corr Dif Quad - 49		Master	-----	-176.360	134.336	176.360	
Sonde Error Corr Dif Real - 50	mS/m	Master	-----	-40.710	16.334	40.710	
Sonde Error Corr Dif Quad - 50		Master	-----	-1317.910	-351.696	1317.910	
Sonde Error Corr Dif Real - 51	mS/m	Master	-----	-21.650	-2.278	21.650	
Sonde Error Corr Dif Quad - 51		Master	-----	-1487.450	-249.438	1487.450	
Sonde Error Corr Dif Real - 52	mS/m	Master	-----	-21.650	14.234	21.650	
Sonde Error Corr Dif Quad - 52		Master	-----	-1487.450	-595.744	1487.450	
Sonde Error Corr Dif Real - 53	mS/m	Master	-----	-6.870	54.415	6.870	
Sonde Error Corr Dif Quad - 53		Master	-----	-22.760	-1.633	22.760	
Sonde Error Corr Dif Real - 54	mS/m	Master	-----	-14.160	-61.840	14.160	
Sonde Error Corr Dif Quad - 54		Master	-----	-88.850	-51.466	88.850	
Sonde Error Corr Dif Real - 55	mS/m	Master	-----	-19.500	-7.430	19.500	
Sonde Error Corr Dif Quad - 55		Master	-----	-2367.930	481.226	2367.930	
Sonde Error Corr Dif Real - 56	mS/m	Master	-----	-17.070	1.109	17.070	
Sonde Error Corr Dif Quad - 56		Master	-----	-661.990	-8.460	661.990	
Sonde Error Corr Dif Real - 57	mS/m	Master	-----	-19.500	6.162	19.500	
Sonde Error Corr Dif Quad - 57		Master	-----	-2367.930	-591.383	2367.930	
Sonde Error Corr Dif Real - 58	mS/m	Master	-----	-14.160	-60.009	14.160	
Sonde Error Corr Dif Quad - 58		Master	-----	-88.850	23.397	88.850	
Sonde Error Corr Dif Real - 59	mS/m	Master	-----	-17.070	3.651	17.070	
Sonde Error Corr Dif Quad - 59		Master	-----	-661.990	-176.331	661.990	
Sonde Error Corr Dif Real - 60	mS/m	Master	-----	-11.090	-1.710	11.090	
Sonde Error Corr Dif Quad - 60		Master	-----	-742.280	-130.481	742.280	
Sonde Error Corr Dif Real - 61	mS/m	Master	-----	-11.090	4.375	11.090	

Sonde Error Corr Dif Quad - 61		Master	-----	-742.280	-298.028	742.280	
Sonde Error Corr Dif Real - 62	mS/m	Master	-----	-3.800	30.365	3.800	
Sonde Error Corr Dif Quad - 62		Master	-----	-13.370	6.655	13.370	
Sonde Error Corr Dif Real - 63	mS/m	Master	-----	-12.070	-23.217	12.070	
Sonde Error Corr Dif Quad - 63		Master	-----	-90.680	236.160	90.680	
Sonde Error Corr Dif Real - 64	mS/m	Master	-----	-43.670	13.029	43.670	
Sonde Error Corr Dif Quad - 64		Master	-----	-1646.130	-314.628	1646.130	
Sonde Error Corr Dif Real - 65	mS/m	Master	-----	-24.500	-1.777	24.500	
Sonde Error Corr Dif Quad - 65		Master	-----	-477.700	155.791	477.700	
Sonde Error Corr Dif Real - 66	mS/m	Master	-----	-43.670	-8.215	43.670	
Sonde Error Corr Dif Quad - 66		Master	-----	-1646.130	321.872	1646.130	
Sonde Error Corr Dif Real - 67	mS/m	Master	-----	-12.070	-20.524	12.070	
Sonde Error Corr Dif Quad - 67		Master	-----	-90.680	205.998	90.680	
Sonde Error Corr Dif Real - 68	mS/m	Master	-----	-24.500	2.629	24.500	
Sonde Error Corr Dif Quad - 68		Master	-----	-477.700	24.614	477.700	
Sonde Error Corr Dif Real - 69	mS/m	Master	-----	-12.430	-2.522	12.430	
Sonde Error Corr Dif Quad - 69		Master	-----	-622.540	180.283	622.540	
Sonde Error Corr Dif Real - 70	mS/m	Master	-----	-12.430	3.142	12.430	
Sonde Error Corr Dif Quad - 70		Master	-----	-622.540	14.970	622.540	
Sonde Error Corr Dif Real - 71	mS/m	Master	-----	-3.560	23.002	3.560	
Sonde Error Corr Dif Quad - 71		Master	-----	-10.290	40.259	10.290	
Sonde Error Corr Dif Real - 72	mS/m	Master	-----	-8.900	-33.446	8.900	
Sonde Error Corr Dif Quad - 72		Master	-----	-50.090	37.815	50.090	
Sonde Error Corr Dif Real - 73	mS/m	Master	-----	-8.150	1.939	8.150	
Sonde Error Corr Dif Quad - 73		Master	-----	-815.430	-155.768	815.430	
Sonde Error Corr Dif Real - 74	mS/m	Master	-----	-12.270	1.026	12.270	
Sonde Error Corr Dif Quad - 74		Master	-----	-242.090	76.376	242.090	
Sonde Error Corr Dif Real - 75	mS/m	Master	-----	-8.150	-1.108	8.150	
Sonde Error Corr Dif Quad - 75		Master	-----	-815.430	163.004	815.430	
Sonde Error Corr Dif Real - 76	mS/m	Master	-----	-8.900	-31.732	8.900	
Sonde Error Corr Dif Quad - 76		Master	-----	-50.090	24.543	50.090	
Sonde Error Corr Dif Real - 77	mS/m	Master	-----	-12.270	1.184	12.270	
Sonde Error Corr Dif Quad - 77		Master	-----	-242.090	11.356	242.090	
Sonde Error Corr Dif Real - 78	mS/m	Master	-----	-6.910	2.930	6.910	
Sonde Error Corr Dif Quad - 78		Master	-----	-309.500	87.124	309.500	
Sonde Error Corr Dif Real - 79	mS/m	Master	-----	-6.910	3.061	6.910	
Sonde Error Corr Dif Quad - 79		Master	-----	-309.500	6.902	309.500	
Sonde Error Corr Dif Real - 80	mS/m	Master	-----	-2.270	15.646	2.270	
Sonde Error Corr Dif Quad - 80		Master	-----	-5.950	14.130	5.950	
Sonde Error Corr Dif Real - 81	mS/m	Master	-----	-14.820	-49.763	14.820	
Sonde Error Corr Dif Quad - 81		Master	-----	-41.940	229.451	41.940	
Sonde Error Corr Dif Real - 82	mS/m	Master	-----	-26.750	-1.485	26.750	
Sonde Error Corr Dif Quad - 82		Master	-----	-1113.920	63.016	1113.920	
Sonde Error Corr Dif Real - 83	mS/m	Master	-----	-22.910	-0.240	22.910	
Sonde Error Corr Dif Quad - 83		Master	-----	-425.640	-44.671	425.640	
Sonde Error Corr Dif Real - 84	mS/m	Master	-----	-26.750	4.056	26.750	
Sonde Error Corr Dif Quad - 84		Master	-----	-1113.920	-120.759	1113.920	
Sonde Error Corr Dif Real - 85	mS/m	Master	-----	-14.820	-47.336	14.820	
Sonde Error Corr Dif Quad - 85		Master	-----	-41.940	205.636	41.940	
Sonde Error Corr Dif Real - 86	mS/m	Master	-----	-22.910	-0.517	22.910	
Sonde Error Corr Dif Quad - 86		Master	-----	-425.640	-40.151	425.640	
Sonde Error Corr Dif Real - 87	mS/m	Master	-----	-17.620	4.296	17.620	
Sonde Error Corr Dif Quad - 87		Master	-----	-619.330	-244.688	619.330	
Sonde Error Corr Dif Real - 88	mS/m	Master	-----	-17.620	2.740	17.620	
Sonde Error Corr Dif Quad - 88		Master	-----	-619.330	-34.802	619.330	
Sonde Error Corr Dif Real - 89	mS/m	Master	-----	-3.910	8.285	3.910	
Sonde Error Corr Dif Quad - 89		Master	-----	-9.470	128.576	9.470	
Sonde Error Corr Dif Real - 90	mS/m	Master	-----	-11.240	-51.027	11.240	
Sonde Error Corr Dif Quad - 90		Master	-----	-18.450	59.120	18.450	
Sonde Error Corr Dif Real - 91	mS/m	Master	-----	-6.130	-0.480	6.130	
Sonde Error Corr Dif Quad - 91		Master	-----	-563.230	34.625	563.230	
Sonde Error Corr Dif Real - 92	mS/m	Master	-----	-13.750	0.372	13.750	
Sonde Error Corr Dif Quad - 92		Master	-----	-215.560	-25.586	215.560	
Sonde Error Corr Dif Real - 93	mS/m	Master	-----	-6.130	1.207	6.130	

Sonde Error Corr Dif Real - 93		Master	-----	-563.230	-60.715	563.230	
Sonde Error Corr Dif Real - 94	mS/m	Master	-----	-11.240	-48.998	11.240	
Sonde Error Corr Dif Quad - 94		Master	-----	-18.450	45.902	18.450	
Sonde Error Corr Dif Real - 95	mS/m	Master	-----	-13.750	0.459	13.750	
Sonde Error Corr Dif Quad - 95		Master	-----	-215.560	-24.545	215.560	
Sonde Error Corr Dif Real - 96	mS/m	Master	-----	-9.770	2.135	9.770	
Sonde Error Corr Dif Quad - 96		Master	-----	-316.930	-123.489	316.930	
Sonde Error Corr Dif Real - 97	mS/m	Master	-----	-9.770	2.463	9.770	
Sonde Error Corr Dif Quad - 97		Master	-----	-316.930	-19.370	316.930	
Sonde Error Corr Dif Real - 98	mS/m	Master	-----	-2.110	12.359	2.110	
Sonde Error Corr Dif Quad - 98		Master	-----	-7.370	13.518	7.370	
Sonde Error Corr Dif Real - 99	mS/m	Master	-----	-15.930	-61.710	15.930	
Sonde Error Corr Dif Quad - 99		Master	-----	-35.540	26.053	35.540	
Sonde Error Corr Dif Real - 100	mS/m	Master	-----	-22.000	2.768	22.000	
Sonde Error Corr Dif Quad - 100		Master	-----	-562.650	-69.622	562.650	
Sonde Error Corr Dif Real - 101	mS/m	Master	-----	-29.210	-3.803	29.210	
Sonde Error Corr Dif Quad - 101		Master	-----	-209.850	51.263	209.850	
Sonde Error Corr Dif Real - 102	mS/m	Master	-----	-22.000	0.756	22.000	
Sonde Error Corr Dif Quad - 102		Master	-----	-562.650	58.896	562.650	
Sonde Error Corr Dif Real - 103	mS/m	Master	-----	-15.930	-61.606	15.930	
Sonde Error Corr Dif Quad - 103		Master	-----	-35.540	2.273	35.540	
Sonde Error Corr Dif Real - 104	mS/m	Master	-----	-29.210	-3.898	29.210	
Sonde Error Corr Dif Quad - 104		Master	-----	-209.850	43.159	209.850	
Sonde Error Corr Dif Real - 105	mS/m	Master	-----	-23.810	3.907	23.810	
Sonde Error Corr Dif Quad - 105		Master	-----	-232.790	97.008	232.790	
Sonde Error Corr Dif Real - 106	mS/m	Master	-----	-23.810	1.732	23.810	
Sonde Error Corr Dif Quad - 106		Master	-----	-232.790	74.321	232.790	
Sonde Error Corr Dif Real - 107	mS/m	Master	-----	-10.690	-9.029	10.690	
Sonde Error Corr Dif Quad - 107		Master	-----	-19.320	2.487	19.320	
Sonde Error Corr Dif Real - 108	mS/m	Master	-----	-9.300	-64.332	9.300	
Sonde Error Corr Dif Quad - 108		Master	-----	-21.950	96.867	21.950	
Sonde Error Corr Dif Real - 109	mS/m	Master	-----	-8.990	-0.108	8.990	
Sonde Error Corr Dif Quad - 109		Master	-----	-293.930	-32.932	293.930	
Sonde Error Corr Dif Real - 110	mS/m	Master	-----	-16.850	-0.369	16.850	
Sonde Error Corr Dif Quad - 110		Master	-----	-94.980	19.568	94.980	
Sonde Error Corr Dif Real - 111	mS/m	Master	-----	-8.990	1.084	8.990	
Sonde Error Corr Dif Quad - 111		Master	-----	-293.930	31.612	293.930	
Sonde Error Corr Dif Real - 112	mS/m	Master	-----	-9.300	-64.701	9.300	
Sonde Error Corr Dif Quad - 112		Master	-----	-21.950	88.098	21.950	
Sonde Error Corr Dif Real - 113	mS/m	Master	-----	-16.850	-0.693	16.850	
Sonde Error Corr Dif Quad - 113		Master	-----	-94.980	17.327	94.980	
Sonde Error Corr Dif Real - 114	mS/m	Master	-----	-14.210	4.531	14.210	
Sonde Error Corr Dif Quad - 114		Master	-----	-112.060	48.645	112.060	
Sonde Error Corr Dif Real - 115	mS/m	Master	-----	-14.210	2.891	14.210	
Sonde Error Corr Dif Quad - 115		Master	-----	-112.060	35.673	112.060	
Sonde Error Corr Dif Real - 116	mS/m	Master	-----	-1.760	-7.255	1.760	
Sonde Error Corr Dif Quad - 116		Master	-----	-10.880	37.438	10.880	

AIT Mud Calibration - Mud Calibration Gain

Master (EEPROM): 11:47:19 25-Jan-2014 Expired by 127 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Coarse Gain		Master	1.000	0.800	0.850	1.200
Fine Gain		Master	1.000	0.800	0.852	1.200

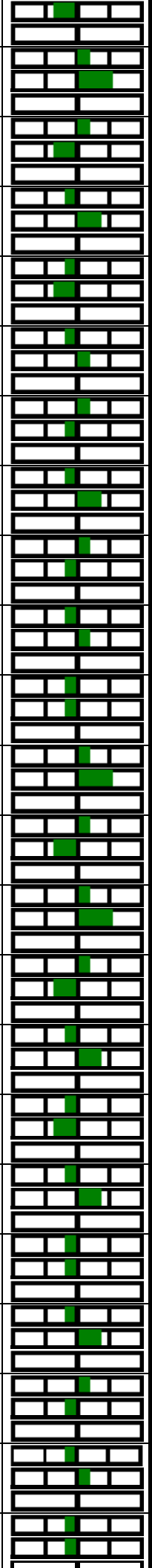
AIT Electronics Check - Thru Calibration Check

Master (EEPROM): 03:09:36 14-Dec-2012 Expired by 534 days Before (Measured): 18:50:04 29-Aug-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Thru Cal Mag - 0	V	Master	-----	0.874	1.504	2.038
		Before	-----	0.874	1.971	2.038
		Before-Master	-----	-----	0.467	-----
Thru Cal Phase - 0	deg	Master	-----	-180.000	12.300	180.000
		Before	-----	-180.000	-118.174	180.000
		Before-Master	-----	-----	-130.474	-----
Thru Cal Mag - 1	V	Master	-----	0.874	1.525	2.038
		Before	-----	0.874	1.979	2.038
		Before-Master	-----	-----	0.454	-----

Thru Cal Phase - 1	deg	Master	-----	-180.000	11.991	180.000
		Before	-----	-180.000	-120.446	180.000
		Before-Master	-----	-----	-132.437	-----
Thru Cal Mag - 2	V	Master	-----	0.874	1.443	2.038
		Before	-----	0.874	1.855	2.038
		Before-Master	-----	-----	0.412	-----
Thru Cal Phase - 2	deg	Master	-----	-180.000	-0.074	180.000
		Before	-----	-180.000	-116.775	180.000
		Before-Master	-----	-----	-116.701	-----
Thru Cal Mag - 3	V	Master	-----	2.011	3.456	4.693
		Before	-----	2.011	4.528	4.693
		Before-Master	-----	-----	1.072	-----
Thru Cal Phase - 3	deg	Master	-----	-180.000	5.909	180.000
		Before	-----	-180.000	-122.767	180.000
		Before-Master	-----	-----	-128.676	-----
Thru Cal Mag - 4	V	Master	-----	2.011	3.504	4.693
		Before	-----	2.011	4.545	4.693
		Before-Master	-----	-----	1.041	-----
Thru Cal Phase - 4	deg	Master	-----	-180.000	5.606	180.000
		Before	-----	-180.000	-125.043	180.000
		Before-Master	-----	-----	-130.649	-----
Thru Cal Mag - 5	V	Master	-----	2.011	3.315	4.693
		Before	-----	2.011	4.261	4.693
		Before-Master	-----	-----	0.946	-----
Thru Cal Phase - 5	deg	Master	-----	-180.000	-6.456	180.000
		Before	-----	-180.000	-121.370	180.000
		Before-Master	-----	-----	-114.914	-----
Thru Cal Mag - 6	V	Master	-----	1.608	2.770	3.752
		Before	-----	1.608	3.630	3.752
		Before-Master	-----	-----	0.860	-----
Thru Cal Phase - 6	deg	Master	-----	-180.000	6.507	180.000
		Before	-----	-180.000	-123.345	180.000
		Before-Master	-----	-----	-129.852	-----
Thru Cal Mag - 7	V	Master	-----	1.608	2.809	3.752
		Before	-----	1.608	3.646	3.752
		Before-Master	-----	-----	0.837	-----
Thru Cal Phase - 7	deg	Master	-----	-180.000	6.190	180.000
		Before	-----	-180.000	-125.626	180.000
		Before-Master	-----	-----	-131.816	-----
Thru Cal Mag - 8	V	Master	-----	1.608	2.659	3.752
		Before	-----	1.608	3.419	3.752
		Before-Master	-----	-----	0.760	-----
Thru Cal Phase - 8	deg	Master	-----	-180.000	-5.901	180.000
		Before	-----	-180.000	-121.975	180.000
		Before-Master	-----	-----	-116.074	-----
Thru Cal Mag - 9	V	Master	-----	1.174	1.894	2.739
		Before	-----	1.174	2.302	2.739
		Before-Master	-----	-----	0.408	-----
Thru Cal Phase - 9	deg	Master	-----	-180.000	1.931	180.000
		Before	-----	-180.000	-35.088	180.000
		Before-Master	-----	-----	-37.019	-----
Thru Cal Mag - 10	V	Master	-----	1.174	1.903	2.739
		Before	-----	1.174	2.333	2.739
		Before-Master	-----	-----	0.430	-----
Thru Cal Phase - 10	deg	Master	-----	-180.000	4.301	180.000
		Before	-----	-180.000	-35.531	180.000
		Before-Master	-----	-----	-39.832	-----
Thru Cal Mag - 11	V	Master	-----	1.174	1.891	2.739
		Before	-----	1.174	2.097	2.739
		Before-Master	-----	-----	0.206	-----
Thru Cal Phase - 11	deg	Master	-----	-180.000	-1.440	180.000
		Before	-----	-180.000	-31.322	180.000
		Before-Master	-----	-----	-29.882	-----
Thru Cal Mag - 12	V	Master	-----	2.122	3.612	4.951
		Before	-----	2.122	4.733	4.951
		Before-Master	-----	-----	1.121	-----
Thru Cal Phase - 12	deg	Master	-----	-180.000	12.280	180.000

		Before	-----	-180.000	-118.537	180.000	
		Before-Master	-----	-----	-130.817	-----	
Thru Cal Mag - 13	V	Master	-----	2.122	3.663	4.951	
		Before	-----	2.122	4.752	4.951	
		Before-Master	-----	-----	1.089	-----	
Thru Cal Phase - 13	deg	Master	-----	-180.000	11.995	180.000	
		Before	-----	-180.000	-120.872	180.000	
		Before-Master	-----	-----	-132.867	-----	
Thru Cal Mag - 14	V	Master	-----	2.122	3.467	4.951	
		Before	-----	2.122	4.460	4.951	
		Before-Master	-----	-----	0.993	-----	
Thru Cal Phase - 14	deg	Master	-----	-180.000	-0.038	180.000	
		Before	-----	-180.000	-117.173	180.000	
		Before-Master	-----	-----	-117.135	-----	
Thru Cal Mag - 15	V	Master	-----	1.860	3.042	4.340	
		Before	-----	1.860	3.700	4.340	
		Before-Master	-----	-----	0.658	-----	
Thru Cal Phase - 15	deg	Master	-----	-180.000	1.940	180.000	
		Before	-----	-180.000	-35.359	180.000	
		Before-Master	-----	-----	-37.299	-----	
Thru Cal Mag - 16	V	Master	-----	1.860	3.056	4.340	
		Before	-----	1.860	3.738	4.340	
		Before-Master	-----	-----	0.682	-----	
Thru Cal Phase - 16	deg	Master	-----	-180.000	4.321	180.000	
		Before	-----	-180.000	-35.909	180.000	
		Before-Master	-----	-----	-40.230	-----	
Thru Cal Mag - 17	V	Master	-----	1.860	3.038	4.340	
		Before	-----	1.860	3.368	4.340	
		Before-Master	-----	-----	0.330	-----	
Thru Cal Phase - 17	deg	Master	-----	-180.000	-1.427	180.000	
		Before	-----	-180.000	-31.691	180.000	
		Before-Master	-----	-----	-30.264	-----	
Thru Cal Mag - 18	V	Master	-----	0.562	0.957	1.310	
		Before	-----	0.562	1.254	1.310	
		Before-Master	-----	-----	0.297	-----	
Thru Cal Phase - 18	deg	Master	-----	-180.000	12.184	180.000	
		Before	-----	-180.000	-117.780	180.000	
		Before-Master	-----	-----	-129.964	-----	
Thru Cal Mag - 19	V	Master	-----	0.562	0.969	1.310	
		Before	-----	0.562	1.257	1.310	
		Before-Master	-----	-----	0.288	-----	
Thru Cal Phase - 19	deg	Master	-----	-180.000	11.951	180.000	
		Before	-----	-180.000	-120.125	180.000	
		Before-Master	-----	-----	-132.076	-----	
Thru Cal Mag - 20	V	Master	-----	0.562	0.915	1.310	
		Before	-----	0.562	1.178	1.310	
		Before-Master	-----	-----	0.263	-----	
Thru Cal Phase - 20	deg	Master	-----	-180.000	-0.044	180.000	
		Before	-----	-180.000	-116.369	180.000	
		Before-Master	-----	-----	-116.325	-----	
Thru Cal Mag - 21	V	Master	-----	2.449	4.039	5.714	
		Before	-----	2.449	4.906	5.714	
		Before-Master	-----	-----	0.867	-----	
Thru Cal Phase - 21	deg	Master	-----	-180.000	-1.380	180.000	
		Before	-----	-180.000	-37.682	180.000	
		Before-Master	-----	-----	-36.302	-----	
Thru Cal Mag - 22	V	Master	-----	2.449	4.059	5.714	
		Before	-----	2.449	4.974	5.714	
		Before-Master	-----	-----	0.915	-----	
Thru Cal Phase - 22	deg	Master	-----	-180.000	0.995	180.000	
		Before	-----	-180.000	-38.129	180.000	
		Before-Master	-----	-----	-39.124	-----	
Thru Cal Mag - 23	V	Master	-----	2.449	4.034	5.714	
		Before	-----	2.449	4.470	5.714	
		Before-Master	-----	-----	0.436	-----	
Thru Cal Phase - 23	deg	Master	-----	-180.000	-4.749	180.000	
		Before	-----	-180.000	-33.916	180.000	
		Before-Master	-----	-----	-29.167	-----	



		Before-Master	-----	-----	-29.167	-----
Thru Cal Mag - 24	V	Master	-----	0.817	1.390	1.907
		Before	-----	0.817	1.821	1.907
		Before-Master	-----	-----	0.431	-----
Thru Cal Phase - 24	deg	Master	-----	-180.000	5.848	180.000
		Before	-----	-180.000	-123.264	180.000
		Before-Master	-----	-----	-129.112	-----
Thru Cal Mag - 25	V	Master	-----	0.817	1.407	1.907
		Before	-----	0.817	1.825	1.907
		Before-Master	-----	-----	0.418	-----
Thru Cal Phase - 25	deg	Master	-----	-180.000	5.603	180.000
		Before	-----	-180.000	-125.580	180.000
		Before-Master	-----	-----	-131.183	-----
Thru Cal Mag - 26	V	Master	-----	0.817	1.329	1.907
		Before	-----	0.817	1.710	1.907
		Before-Master	-----	-----	0.381	-----
Thru Cal Phase - 26	deg	Master	-----	-180.000	-6.404	180.000
		Before	-----	-180.000	-121.864	180.000
		Before-Master	-----	-----	-115.460	-----
Thru Cal Mag - 27	V	Master	-----	2.449	4.039	5.714
		Before	-----	2.449	4.911	5.714
		Before-Master	-----	-----	0.872	-----
Thru Cal Phase - 27	deg	Master	-----	-180.000	-1.390	180.000
		Before	-----	-180.000	-37.586	180.000
		Before-Master	-----	-----	-36.196	-----
Thru Cal Mag - 28	V	Master	-----	2.449	4.059	5.714
		Before	-----	2.449	4.961	5.714
		Before-Master	-----	-----	0.902	-----
Thru Cal Phase - 28	deg	Master	-----	-180.000	0.989	180.000
		Before	-----	-180.000	-38.140	180.000
		Before-Master	-----	-----	-39.129	-----
Thru Cal Mag - 29	V	Master	-----	2.449	4.034	5.714
		Before	-----	2.449	4.471	5.714
		Before-Master	-----	-----	0.437	-----
Thru Cal Phase - 29	deg	Master	-----	-180.000	-4.763	180.000
		Before	-----	-180.000	-33.920	180.000
		Before-Master	-----	-----	-29.157	-----
Thru Cal Mag - 30	V	Master	-----	0.817	1.390	1.907
		Before	-----	0.817	1.820	1.907
		Before-Master	-----	-----	0.430	-----
Thru Cal Phase - 30	deg	Master	-----	-180.000	5.837	180.000
		Before	-----	-180.000	-123.261	180.000
		Before-Master	-----	-----	-129.098	-----
Thru Cal Mag - 31	V	Master	-----	0.817	1.407	1.907
		Before	-----	0.817	1.825	1.907
		Before-Master	-----	-----	0.418	-----
Thru Cal Phase - 31	deg	Master	-----	-180.000	5.608	180.000
		Before	-----	-180.000	-125.612	180.000
		Before-Master	-----	-----	-131.220	-----
Thru Cal Mag - 32	V	Master	-----	0.817	1.329	1.907
		Before	-----	0.817	1.710	1.907
		Before-Master	-----	-----	0.381	-----
Thru Cal Phase - 32	deg	Master	-----	-180.000	-6.408	180.000
		Before	-----	-180.000	-121.867	180.000
		Before-Master	-----	-----	-115.459	-----
Thru Cal Mag - 33	V	Master	-----	0.732	1.165	1.708
		Before	-----	0.732	1.416	1.708
		Before-Master	-----	-----	0.251	-----
Thru Cal Phase - 33	deg	Master	-----	-180.000	-1.136	180.000
		Before	-----	-180.000	-38.740	180.000
		Before-Master	-----	-----	-37.604	-----
Thru Cal Mag - 34	V	Master	-----	0.732	1.167	1.708
		Before	-----	0.732	1.430	1.708
		Before-Master	-----	-----	0.263	-----
Thru Cal Phase - 34	deg	Master	-----	-180.000	1.266	180.000
		Before	-----	-180.000	-39.174	180.000
		Before-Master	-----	-----	-40.440	-----
Thru Cal Mag - 35	V	Master	-----	0.732	1.155	1.708

		Before	-----	0.732	1.281	1.708
		Before-Master	-----	-----	0.126	-----
Thru Cal Phase - 35	deg	Master	-----	-180.000	-4.465	180.000
		Before	-----	-180.000	-34.949	180.000
		Before-Master	-----	-----	-30.484	-----
Thru Cal Mag - 36	V	Master	-----	0.981	1.644	2.289
		Before	-----	0.981	2.155	2.289
		Before-Master	-----	-----	0.511	-----
Thru Cal Phase - 36	deg	Master	-----	-180.000	6.438	180.000
		Before	-----	-180.000	-124.260	180.000
		Before-Master	-----	-----	-130.698	-----
Thru Cal Mag - 37	V	Master	-----	0.981	1.665	2.289
		Before	-----	0.981	2.160	2.289
		Before-Master	-----	-----	0.495	-----
Thru Cal Phase - 37	deg	Master	-----	-180.000	6.193	180.000
		Before	-----	-180.000	-126.574	180.000
		Before-Master	-----	-----	-132.767	-----
Thru Cal Mag - 38	V	Master	-----	0.981	1.573	2.289
		Before	-----	0.981	2.024	2.289
		Before-Master	-----	-----	0.451	-----
Thru Cal Phase - 38	deg	Master	-----	-180.000	-5.811	180.000
		Before	-----	-180.000	-122.859	180.000
		Before-Master	-----	-----	-117.048	-----
Thru Cal Mag - 39	V	Master	-----	0.878	1.400	2.049
		Before	-----	0.878	1.703	2.049
		Before-Master	-----	-----	0.303	-----
Thru Cal Phase - 39	deg	Master	-----	-180.000	-1.155	180.000
		Before	-----	-180.000	-38.493	180.000
		Before-Master	-----	-----	-37.338	-----
Thru Cal Mag - 40	V	Master	-----	0.878	1.402	2.049
		Before	-----	0.878	1.715	2.049
		Before-Master	-----	-----	0.313	-----
Thru Cal Phase - 40	deg	Master	-----	-180.000	1.247	180.000
		Before	-----	-180.000	-39.035	180.000
		Before-Master	-----	-----	-40.282	-----
Thru Cal Mag - 41	V	Master	-----	0.878	1.388	2.049
		Before	-----	0.878	1.539	2.049
		Before-Master	-----	-----	0.151	-----
Thru Cal Phase - 41	deg	Master	-----	-180.000	-4.476	180.000
		Before	-----	-180.000	-34.805	180.000
		Before-Master	-----	-----	-30.329	-----
Thru Cal Mag - 42	V	Master	-----	1.412	2.374	3.294
		Before	-----	1.412	3.109	3.294
		Before-Master	-----	-----	0.735	-----
Thru Cal Phase - 42	deg	Master	-----	-180.000	6.395	180.000
		Before	-----	-180.000	-123.645	180.000
		Before-Master	-----	-----	-130.040	-----
Thru Cal Mag - 43	V	Master	-----	1.412	2.403	3.294
		Before	-----	1.412	3.118	3.294
		Before-Master	-----	-----	0.715	-----
Thru Cal Phase - 43	deg	Master	-----	-180.000	6.166	180.000
		Before	-----	-180.000	-125.994	180.000
		Before-Master	-----	-----	-132.160	-----
Thru Cal Mag - 44	V	Master	-----	1.412	2.270	3.294
		Before	-----	1.412	2.922	3.294
		Before-Master	-----	-----	0.652	-----
Thru Cal Phase - 44	deg	Master	-----	-180.000	-5.856	180.000
		Before	-----	-180.000	-122.248	180.000
		Before-Master	-----	-----	-116.392	-----

AIT Electronics Check - Auxiliary Measurments Reference Check

Master (EEPROM): 03:09:36 14-Dec-2012 Expired by 534 days Before (Measured): 18:50:04 29-Aug-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
SPA Zero	mV	Master		-0.050	0.000	0.050
		Before		-50.000	-1.537	50.000
		Before-Master	-----	-----	-1.537	-----
SPA Plus	mV	Master		0.757	0.000	0.915

		Before		756.500	842.207	915.400	
		Before-Master	-----	-----	842.207	-----	
Temperature Zero	V	Master		-0.050	0.000	0.050	
		Before		-0.050	-0.003	0.050	
		Before-Master	-----	-----	-0.003	-----	
Temperature Plus	V	Master		0.880	0.000	1.076	
		Before		0.880	0.988	1.076	
		Before-Master	-----	-----	0.988	-----	
Voltage Zero	V	Master		-0.100	0.000	0.100	
		Before		-0.100	-0.008	0.100	
		Before-Master	-----	-----	-0.008	-----	
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): 03:09:36 14-Dec-2012 Expired by 534 days Before (Measured): 18:50:04 29-Aug-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Power Supply - 0	V	Master	-----	-14.000	-13.037	-12.000	
		Before	-----	-14.000	-13.043	-12.000	
		Before-Master	-----	-----	-0.006	-----	
Power Supply - 1	V	Master	-----	12.000	13.037	14.000	
		Before	-----	12.000	13.043	14.000	
		Before-Master	-----	-----	0.006	-----	
Power Supply - 2	V	Master	-----	-14.000	-13.024	-12.000	
		Before	-----	-14.000	-13.020	-12.000	
		Before-Master	-----	-----	0.004	-----	
Power Supply - 3	V	Master	-----	12.000	12.972	14.000	
		Before	-----	12.000	12.979	14.000	
		Before-Master	-----	-----	0.007	-----	
Power Supply - 4	V	Master	-----	15.000	18.129	31.000	
		Before	-----	15.000	18.840	31.000	
		Before-Master	-----	-----	0.711	-----	
Power Supply - 5	V	Master	-----	1.600	1.811	2.000	
		Before	-----	1.600	1.812	2.000	
		Before-Master	-----	-----	0.001	-----	
Power Supply - 6	V	Master	-----	2.200	2.487	2.800	
		Before	-----	2.200	2.489	2.800	
		Before-Master	-----	-----	0.002	-----	
Power Supply - 7	V	Master	-----	3.000	3.265	3.700	
		Before	-----	3.000	3.265	3.700	
		Before-Master	-----	-----	0.000	-----	
Power Supply - 8	V	Master	-----	4.500	4.967	5.600	
		Before	-----	4.500	4.969	5.600	
		Before-Master	-----	-----	0.002	-----	
Power Supply - 9	V	Master	-----	0.100	0.187	0.400	
		Before	-----	0.100	0.389	0.400	
		Before-Master	-----	-----	0.202	-----	
Power Supply - 10	V	Master	-----	0.100	0.192	0.400	
		Before	-----	0.100	0.381	0.400	
		Before-Master	-----	-----	0.189	-----	

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 4810

Auxiliary Equipment :

Calibration Parameter :

Water Temperature

Housing Size

JIG-BKG (Jig minus background reference) 165

HGNS Accelerometer Calibration - Accelerometer Accumulations

Before:

Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement - 0	ft/s2	Before	-----	-----	-----	-----	

HGNS Neutron Calibration - HGNS Neutron Accumulations

Before (Measured): 18:41:44 29-Aug-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Before	0	5.0	25.7	40.0	
Far Zero Measurement	1/s	Before	0	5.0	26.8	40.0	
Near Plus Measurement - 0	1/s	Before	-----	-----	-----	-----	
Far Plus Measurement - 0	1/s	Before	-----	-----	-----	-----	
Near Corrected Plus Measurement - 0	1/s	Before	-----	-----	-----	-----	
Far Corrected Plus Measurement - 0	1/s	Before	-----	-----	-----	-----	

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured): 18:49:47 29-Aug-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	82.9	120.0	
RGR Plus Measurement	gAPI	Before	185.4	157.1	177.0	206.3	
GR Calibration Gain		Before	0.89	0.80	0.93	1.05	

Company:	Whiting Oil and Gas Corporation
Well:	Wolf 12L-0103
Field:	Wildcat
County:	Weld
State:	Colorado

Schlumberger

Platform Express
Array Induction
with Linear Correlation