

Company: High Sierra Water Services LLC

Well: High Sierra SWD C7B

Field: Wattenberg

County: Weld State: Colorado

Platform Express			
Triple Combo			
with Linear Print			
Location:		Sec. 34, T7N, R63W	
SHL: SESE 425 FSL X 431 FEL		Elev.: K.B. 4732.30 ft	
Permanent Datum:		G.L. 4715.00 ft	
Log Measured From:		D.F. 4731.30 ft	
Drilling Measured From:		above Perm.Datum	
API Serial No.	Section:	Township:	Range:
05-123-34520-0000	34	7N	63W
Logging Date 30-Oct-2013			

Logging Date	30-Oct-2013				
Run Number	TD Run PEX-AIT				
Depth Driller	10163.00 ft				
Schlumberger Depth	10169.00 ft				
Bottom Log Interval	10169.00 ft				
Top Log Interval	8803.00 ft				
Casing Driller Size @ Depth	7 in @ 8803.00 ft				
Casing Schlumberger	8802 ft				
Bit Size	6.125 in				
Type Fluid In Hole	Chemical Gel				
MUD	Density	Viscosity			
	Fluid Loss	PH	11		
	Source of Sample				
RM @ Meas Temp	0.45 ohm.m @ 73 degF				
RMF @ Meas Temp	0.36 ohm.m @ 73 degF				
RMC @ Meas Temp	0.54 ohm.m @ 73 degF				
Source RMF	RMC	Calculated			
RM @ BHT	RMF @ BHT	0.15 @ 233	0.12 @ 233		
Max Recorded Temperatures					
Circulation Stopped	Time	30-Oct-2013		08:00:00	
Logger on Bottom	Time				
Unit Number	Location:	9108	Fort Morgan		
Recorded By	Allison Johnston				
Witnessed By	Louise Kiteley				

Disclaimer

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

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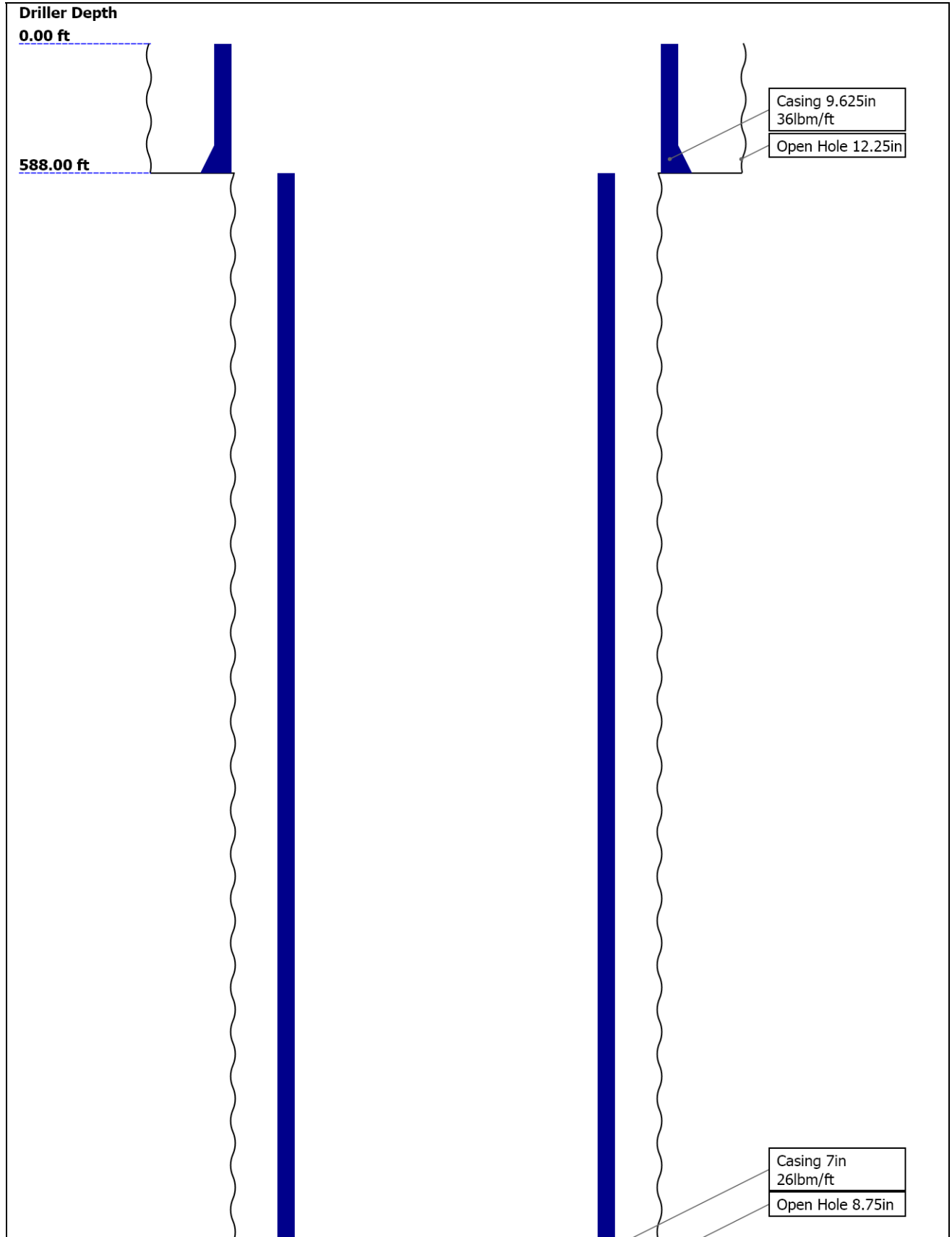
9.4 Log (EMD 5in Triple Combo)

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Well Sketch



8803.00 ft

10163.00 ft

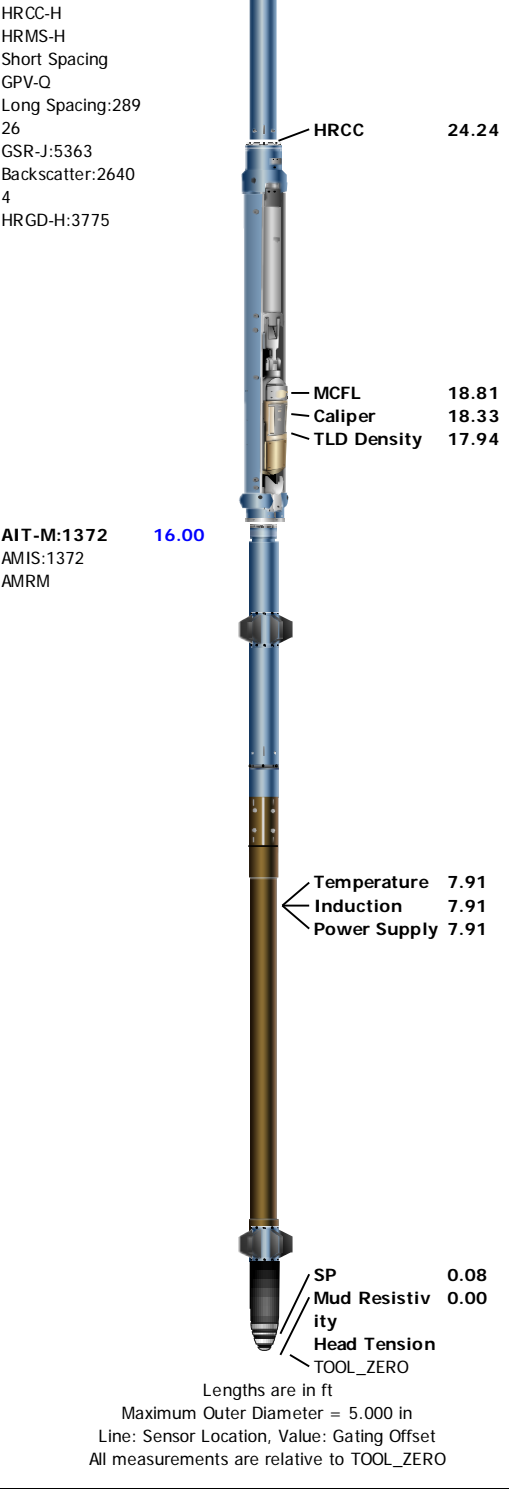
Open Hole 6.125in

Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	12.25	8.75	6.125			
Top Driller (ft)	0	588	8803			
Top Logger (ft)	0	588	8803			
Bottom Driller (ft)	588	8803	10163			
Bottom Logger (ft)	588	8803	10169			
Casing						
Size (in)	9.625	7				
Weight (lbm/ft)	36	26				
Inner Diameter (in)	8.914	6.283				
Grade	N/A	N/A				
Top Driller (ft)	0	588				
Top Logger (ft)	0	588				
Bottom Driller (ft)	588	8803				
Bottom Logger (ft)	588	8802				

Remarks and Equipment Summary

TD Run PEX-AIT: Toolstring				TD Run PEX-AIT: Remarks	
Equip name	Length	MP name	Offset	Toolstring run as per tool sketch.	
LEH-QT	43.57			Calculated on a sandstone matrix from TD to 9900, limestone (2.71 g/cc) from 9900 to 9120'	
LEH-QT				And sandstone matrix (2.68 g/cc) from 9120' to 7" casing shoe.	
DTC-H	40.65	CTEM	39.75	Bowspring not used due to small hole size and client request.	
ECH-KC		HV	0.00		
DTC-H					
HGNS-H	37.65	ToolStatus	37.65		
HGNH		TelStatus	37.65		
NPV-N		Temperature	37.62		
NSR-F:5168		GR	36.91		
HMCA-H					
HGNS-H					
HACCZ-H:5736					
		CNL Porosity	30.57		
		HGNS	28.24		
		HMCA	28.24		
		Acceleromete	0.00		
		r			
HDRS-H	28.24				
ECH-MEB					



Depth Summary

	TD Run PEX-AIT		
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Depth Measuring Device

Type	IDW-B		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Calibration Cable Type			
Wheel Correction 1	1		
Wheel Correction 2	0		

Tension Device

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

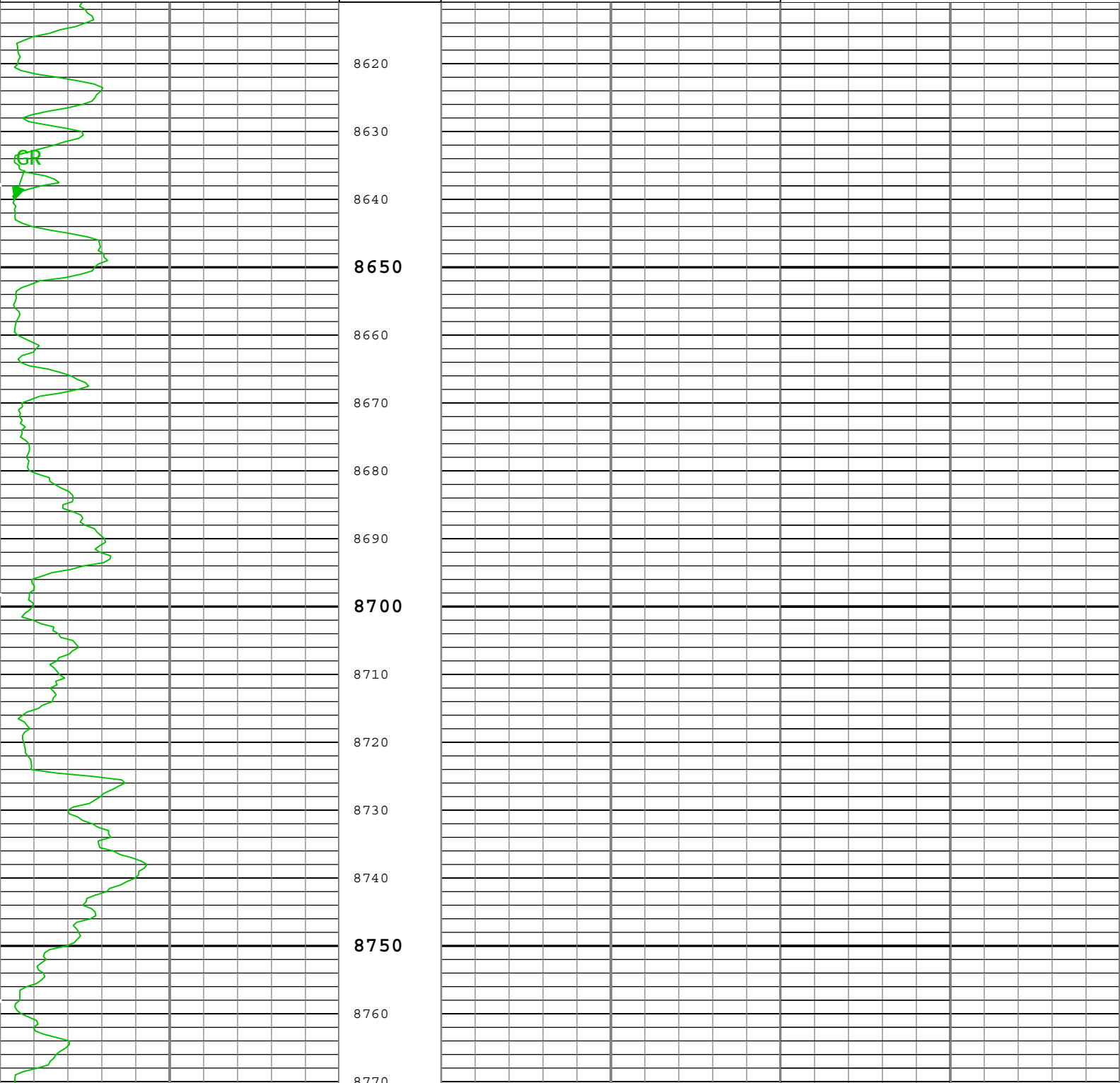
Logging Cable									
Type	7-46A-XS								
Serial Number									
Length	24000.00 ft								
Conveyance Type	Wireline								
Rig Type	Land								
TD Run PEX-AIT:Depth Control Parameters					Depth Control Remarks				
Log Sequence	Subsequent Log In the Well				All Schlumberger depth procedures followed.				
Reference Log Name	Schlumberger Triple Combo				IDW used as primary depth contrtrol, z-chart used as secondary depth reference				
Reference Log Run Number	Run 1				Log correlated to Schlumberger Triple Combo Run 1				
Reference Log Date	22-Oct-2013								
Composite 1									
Software Version									
Acquisition System						Version			
MaxWell						4.0.9163.3000			
Application Patch						Patch-9163-11312-4.0.9163.3002			
Computation		Description					Version		
HENVIR		Computation Ensemble for the HGNS Neutron environmental corrections					4.0.9033.3000		
DepthCorrection		DepthCorrection					4.0.9125.3000		
Tool Elements		Description			Software Version		Firmware Version		
HRCC-H		HILT High-Resolution Control Cartridge, 150 degC			4.0.9033.3000				
HGNS-H		HILT Gamma-Ray and Neutron Sonde, 150 degC			4.0.9033.3000				
HRGD-H		HILT Resistivity Gamma-Ray Density Device, 150 degC			4.0.9033.3000				
AMIS		Array Induction Sonde - M			4.0.9163.3000				
Composite Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
TD Run PEX -AIT	Log[3]:Up	Up	8973.62 ft	10183.33 ft	30-Oct-2013 5:59:35 PM	30-Oct-2013 6:23:39 PM	ON	2.00 ft	Yes
TD Run PEX -AIT	Log[4]:Up	Up	8618.75 ft	9104.82 ft	30-Oct-2013 6:25:13 PM	30-Oct-2013 6:34:19 PM	ON	2.00 ft	Yes
All depths are referenced to toolstring zero									
Log	Company:High Sierra Water Services LLC				Well:High Sierra SWD C7B Composite 1:S002				
Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo Linear) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 02-Nov-2013 18:21:39									
Channel	Source	Sampling							
ASCA	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]	6in							
AT10	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]	3in							
AT30	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]	3in							
AT90	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]	3in							
CALI	HDRS[1]:HRCC-H[1]:HRCC-H[1]	1in							
DPHZ	HDRS[1]:HRMS-H[1]:HRGD-H[1]	2in							
GR	HGNS[1]:HGNS-H[1]:HGNS-H[1]	6in							
NPOR	HGNS[1]:HGNS-H[1]:HGNS-H[1]	6in							
SP	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]	6in							
STIT	DepthCorrection	6in							
TENS	WLWorkflow	6in							
TIME_1900	WLWorkflow	0.1in							
TIME_1900 - Time Markers (0.00 ft)									

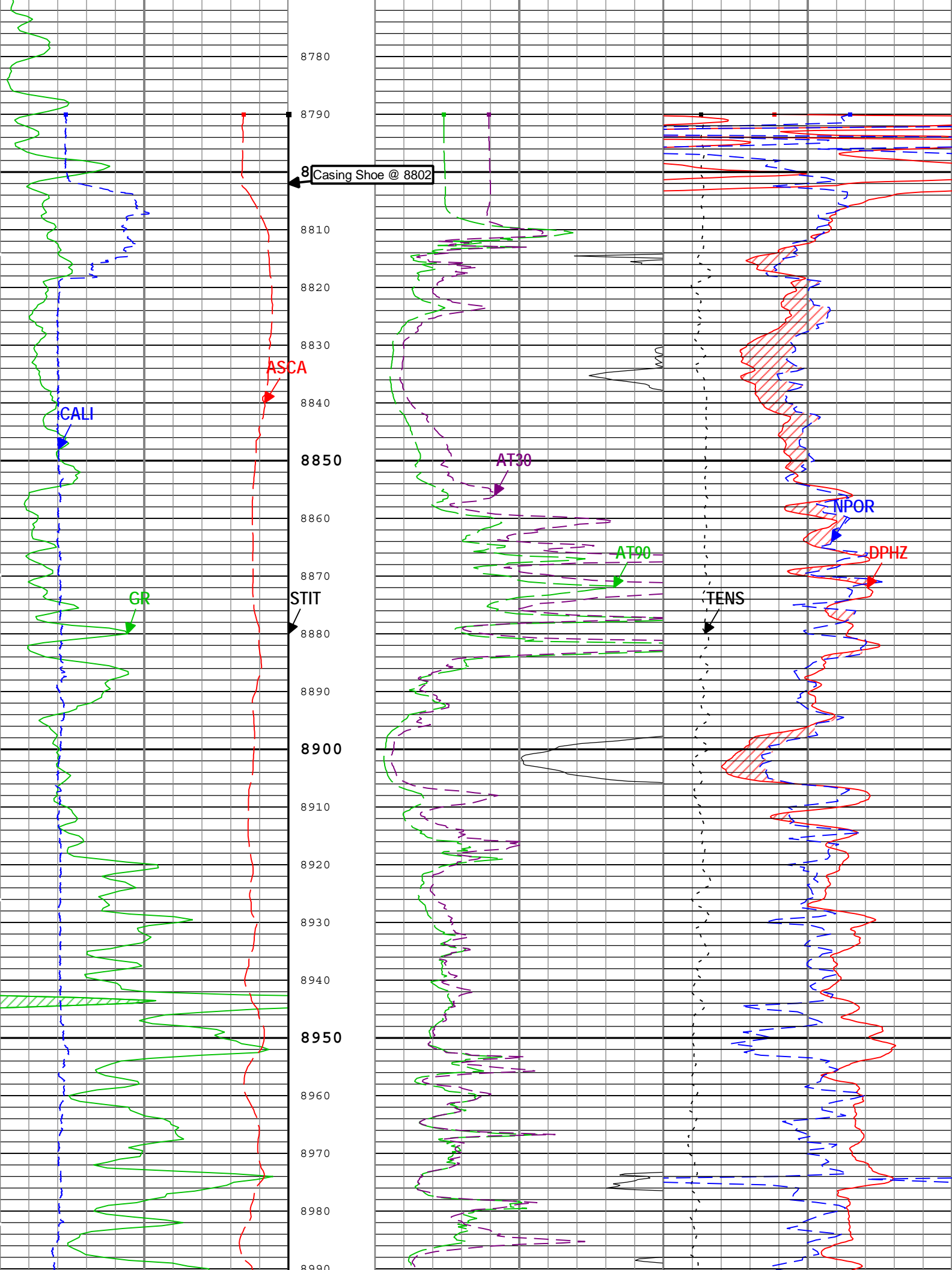
Gamma Ray Back up		
Gamma Ray (GR) HGNS[1]		
0	gAPI	200
Spontaneous Potential (SP) AIT_SpliceGroup[1]		
-100	mV	200
Caliper (CALI) HDRS[1]		
4	in	14
Array Induction SP to Armor Calibrated (ASCA) AIT_SpliceGroup[1]		
-80	mV	20

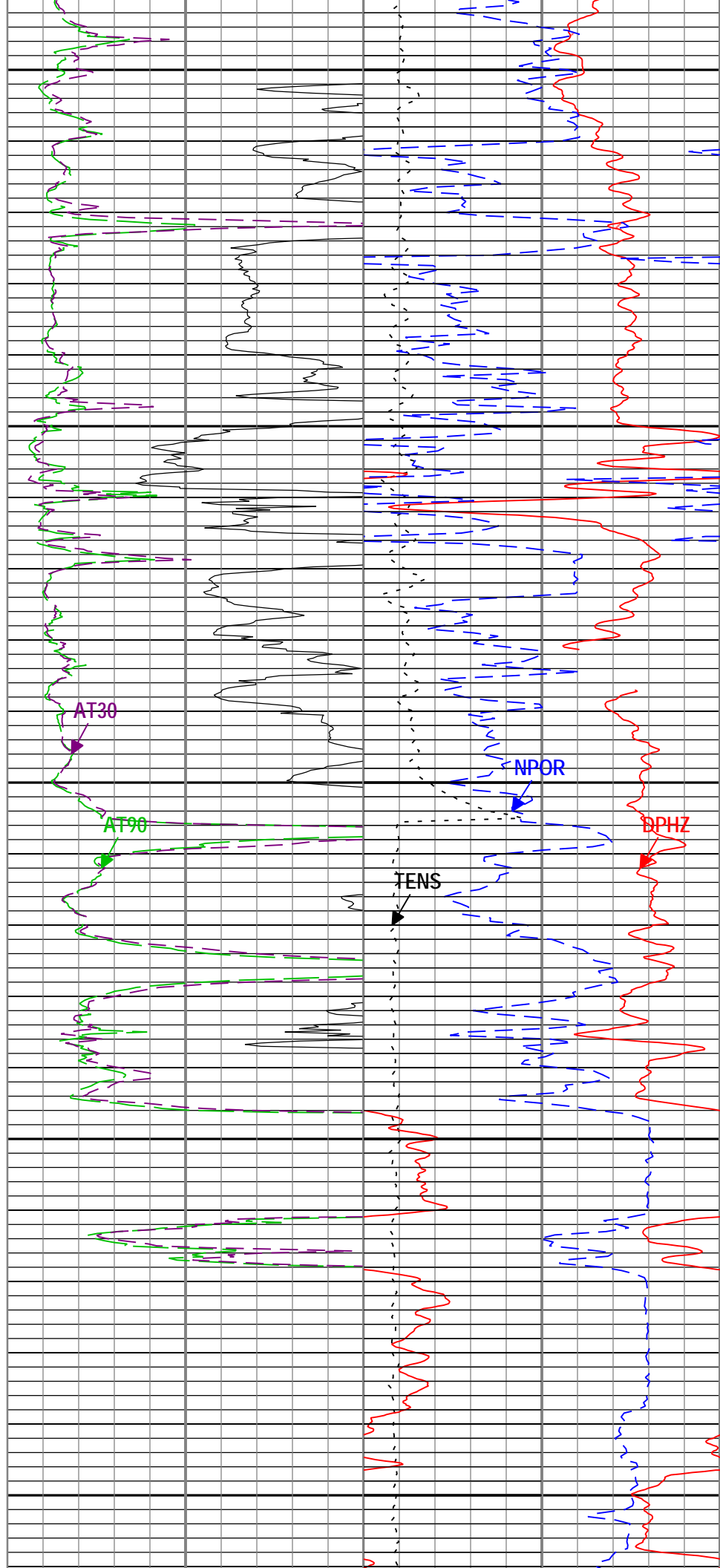
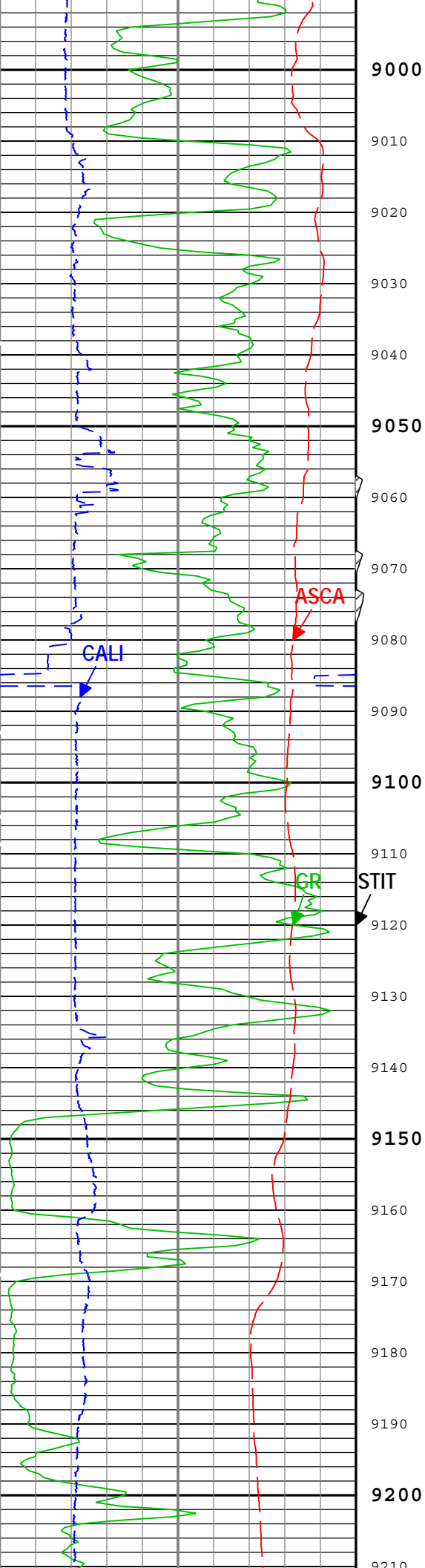
Stuck Tool Indicator, Total (STIT)		
0	ft	50

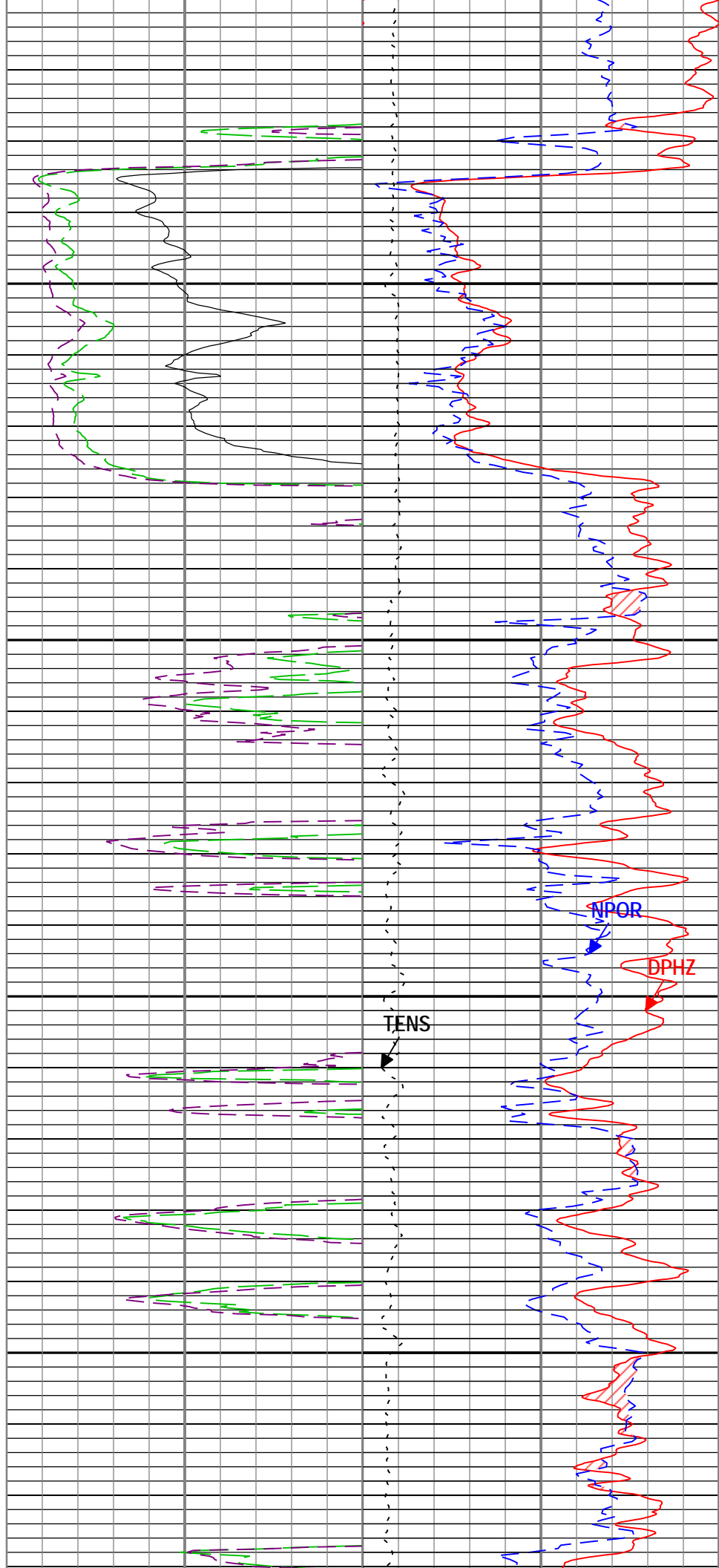
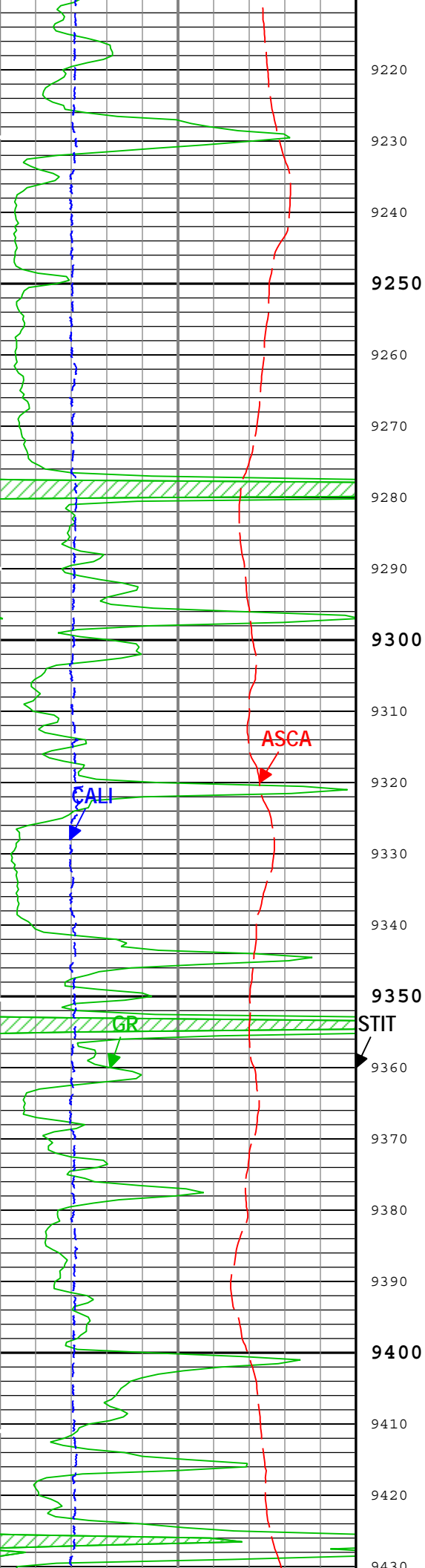
Array Induction Two Foot Resistivity A10 (AT10) AIT_SpliceGroup[1]		
0	ohm.m	10
Array Induction Two Foot Resistivity A90 (AT90) AIT_SpliceGroup[1]		
0	ohm.m	50
Array Induction Two Foot Resistivity A30 (AT30) AIT_SpliceGroup[1]		
0	ohm.m	50

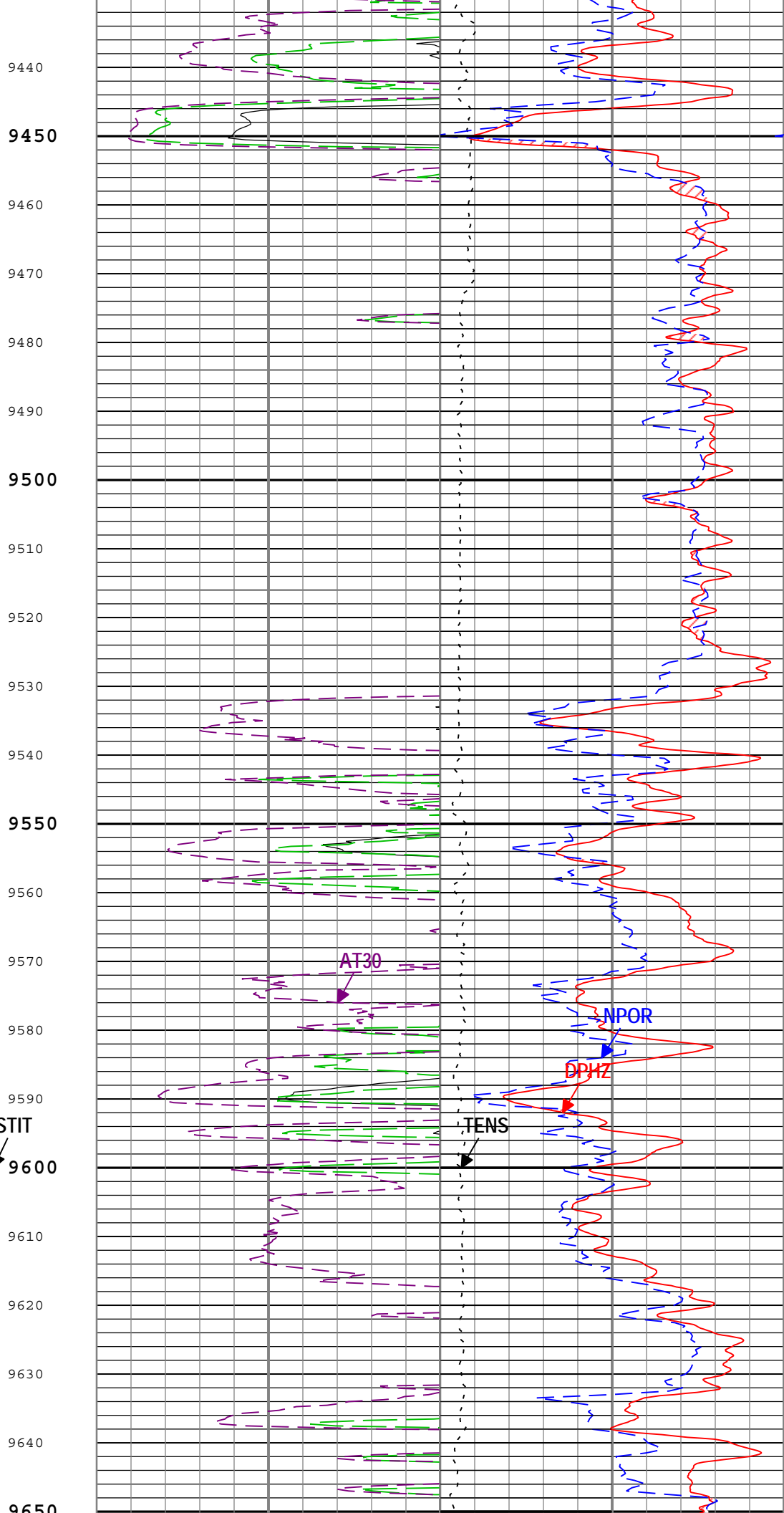
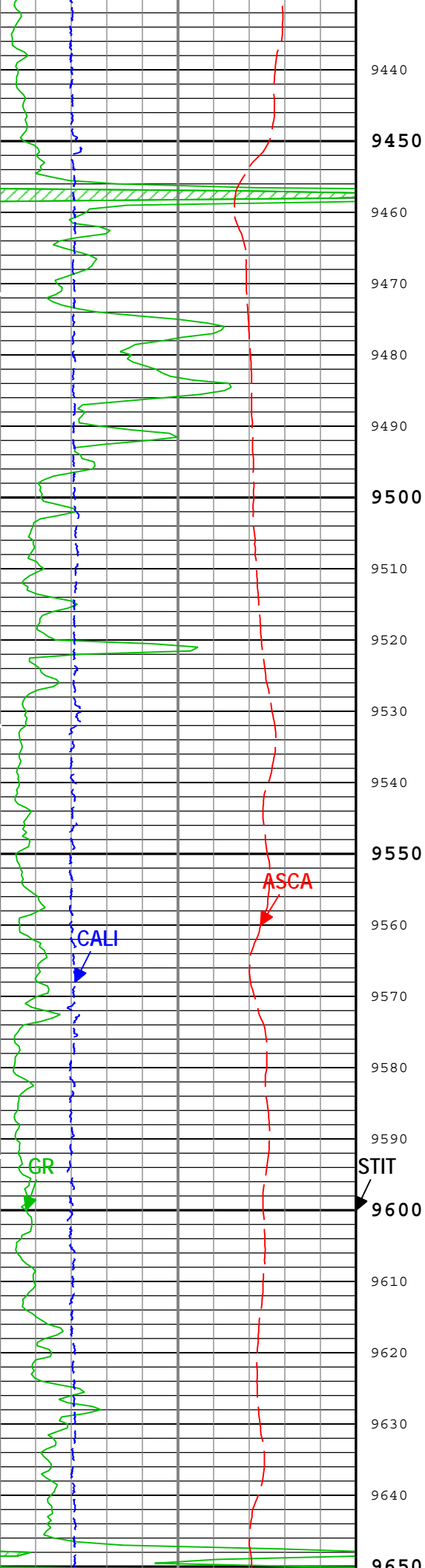
Gas Effect		
NPOR Backup		
Cable Tension (TENS)		
5000	lbf	0
Standard Resolution Density Porosity (DPHZ) HDRS[1]		
0.3	ft3/ft3	-0.1
Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS[1]		
0.3	m3/m3	-0.1

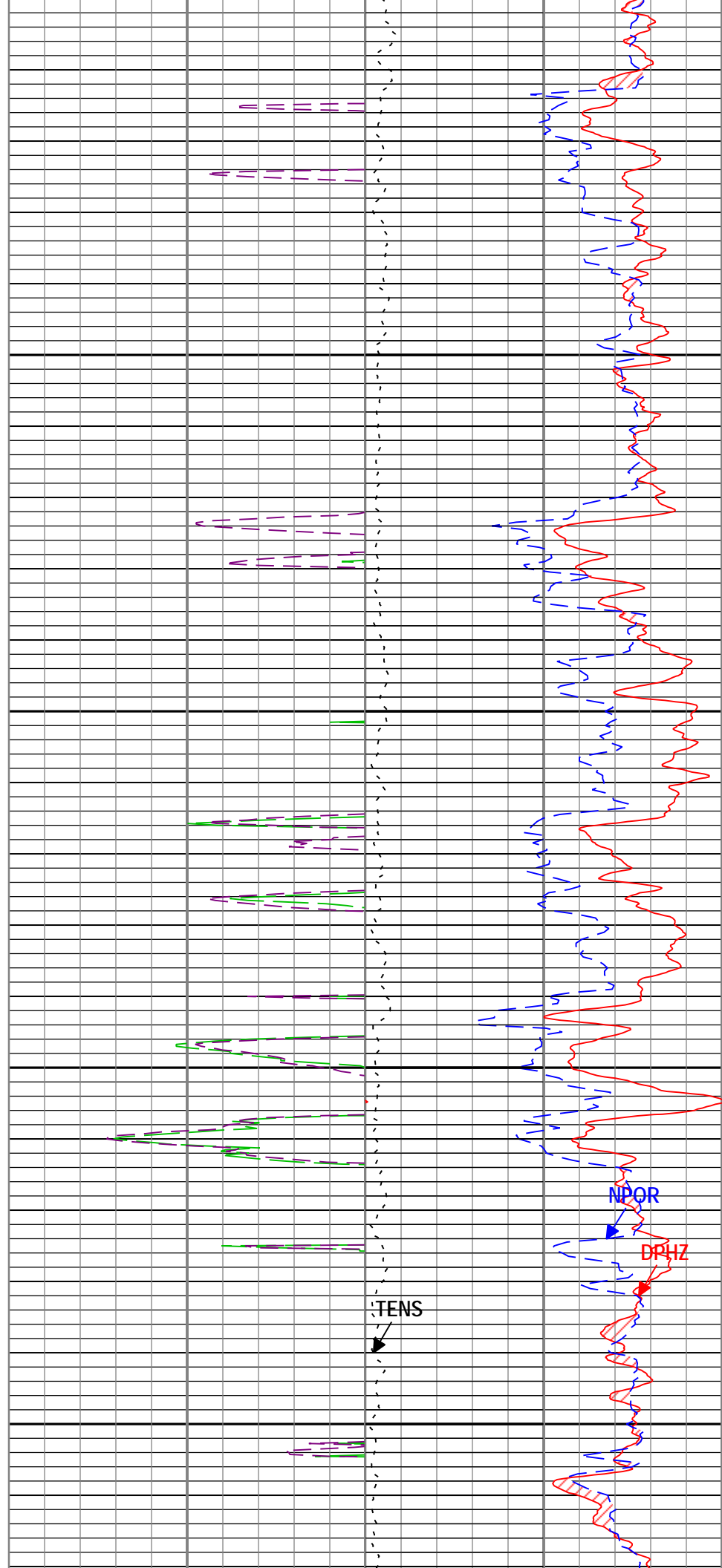
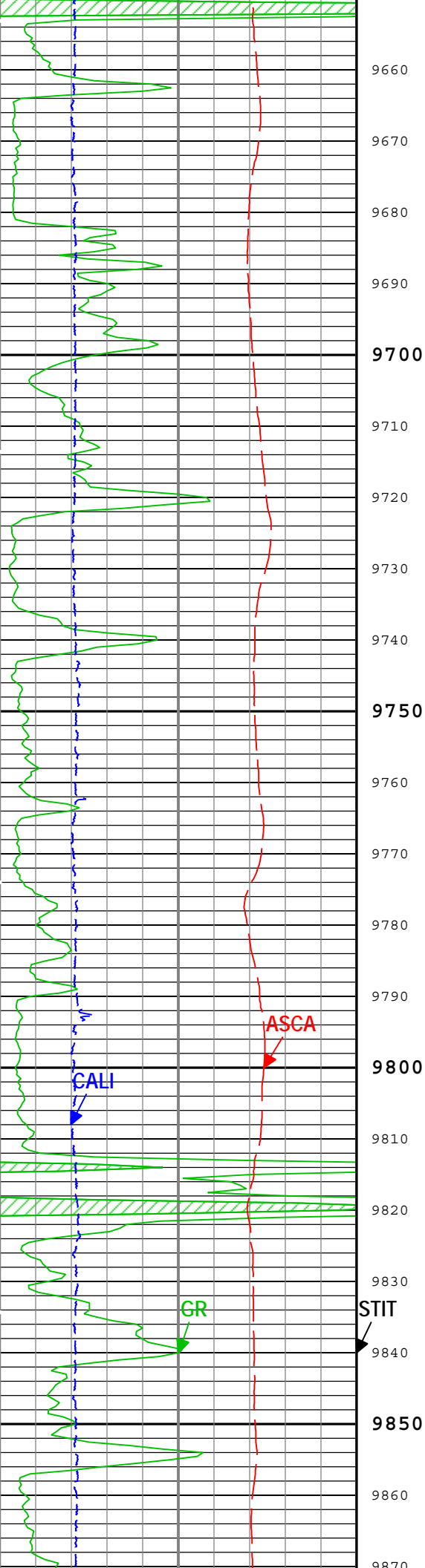


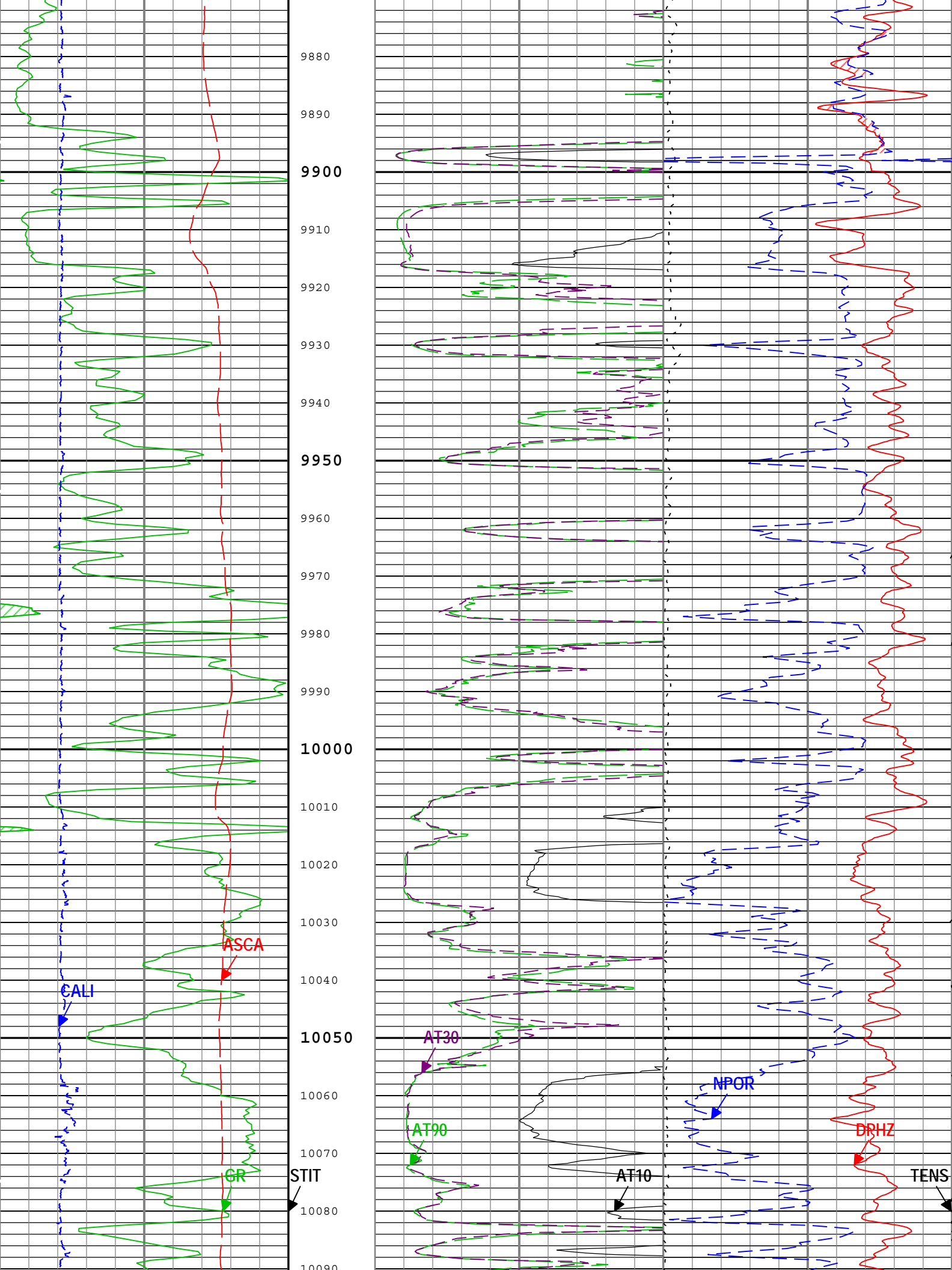


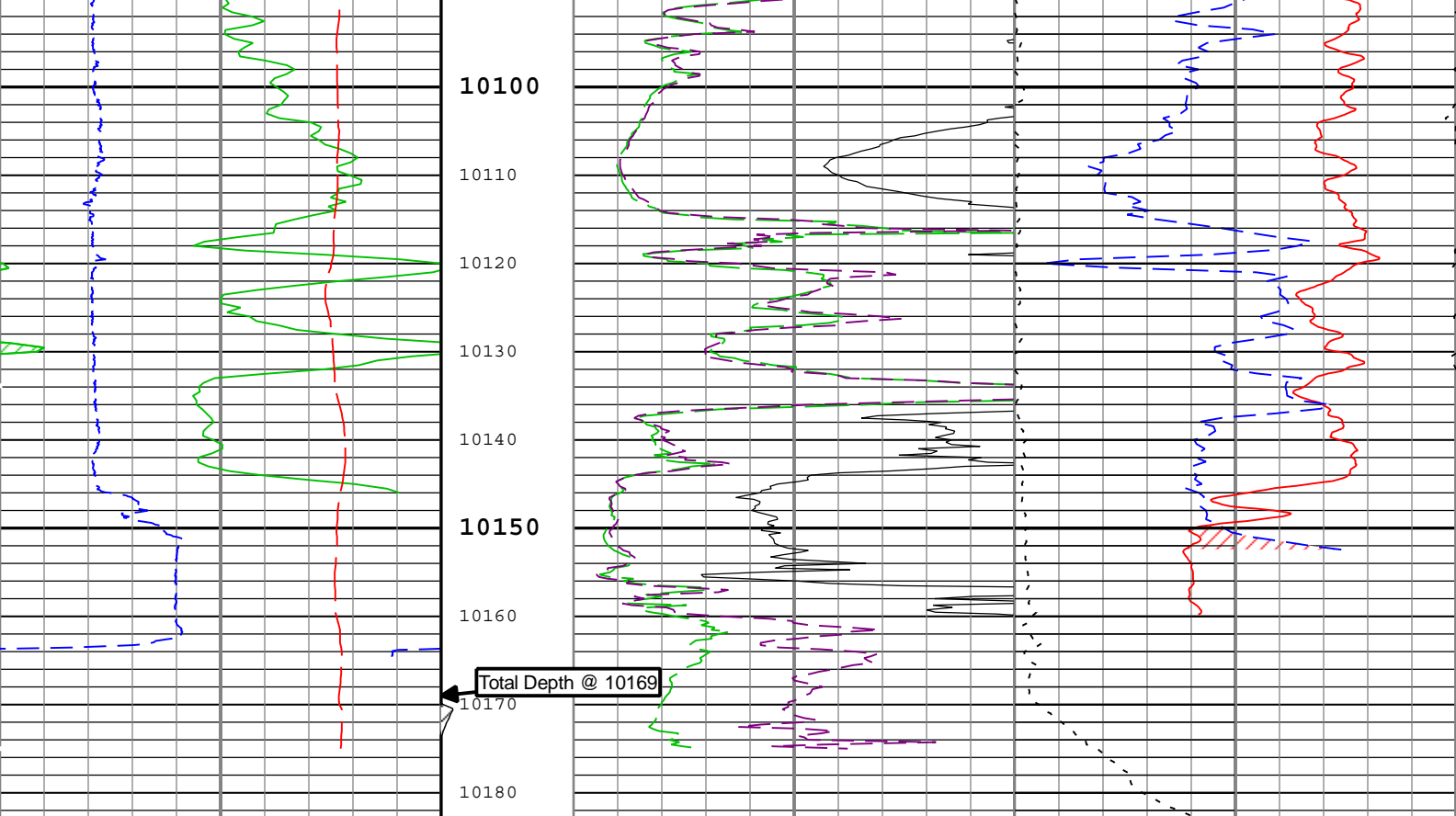












Gamma Ray Back up		Stuck Tool Indicator, Total (STIT)	Array Induction Two Foot Resistivity A10 (AT10) AIT_SpliceGroup[1]		Gas Effect	
Gamma Ray (GR) HGNS[1]			ohm.m		NPOR Backup	
0	gAPI	0	ft	50	5000	lbf
Spontaneous Potential (SP) AIT_SpliceGroup[1]			Array Induction Two Foot Resistivity A90 (AT90) AIT_SpliceGroup[1]		Cable Tension (TENS)	
-100			ohm.m		0	
mV			Array Induction Two Foot Resistivity A30 (AT30) AIT_SpliceGroup[1]		Standard Resolution Density Porosity (DPHZ) HDRS[1]	
200			ohm.m		0.3	
Caliper (CALI) HDRS[1]			0		ft3/ft3	
4			50		-0.1	
in					Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS[1]	
Array Induction SP to Armor Calibrated (ASCA) AIT_SpliceGroup[1]					0.3	
-80					m3/m3	
mV					-0.1	
20						

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo Linear) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 02-Nov-2013 18:21:39

Channel Processing Parameters				
TD Run PEX-AIT: Parameters				
Parameter	Description	Tool	Value	Unit
ABHM	Array Induction Borehole Correction Mode	AIT-M	Compute Standoff	
ACDE	Array Induction Casing Detection Enable	AIT-M	Yes	
ASTA	Array Induction Tool Standoff	AIT-M	0.5	in
BARI	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	233	degF
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	13466.16	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.2	in

CBLO	Casing Bottom (Logger)	WLSESSION	8802	ft
CDEN	Cement Density	HGNS-H	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Chemical Gel	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	0	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	Depth Zoned	
MDEN	Matrix Density for Density Porosity	Borehole	Depth Zoned	g/cm3
MFST	Mud Filtrate Sample Temperature	Borehole	73	degF
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.36	ohm.m
SOCO	Standoff Correction Option	HGNS-H	Yes	
SPDR	SP Drift Per Foot	AIT-M	0	mV/ft
TD	Total Measured Depth	Borehole	10169	ft

TD Run PEX-AITDepth Zoned Parameters			
Parameter	Value	Start (ft)	Stop (ft)
BS	8.75	8611	8803
BS	6.125	8803	10169
MATR	SANDSTONE	8611	9120
MATR	LIMESTONE	9120	9900
MATR	SANDSTONE	9900	10183.33
MDEN	2.68	8611	9120
MDEN	2.71	9120	9900
MDEN	2.68	9900	10183.33
All depth are actual.			

Tool Control Parameters	
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TD Run PEX-AIT: Parameters				
Parameter	Description	Tool	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h

Composite 1				

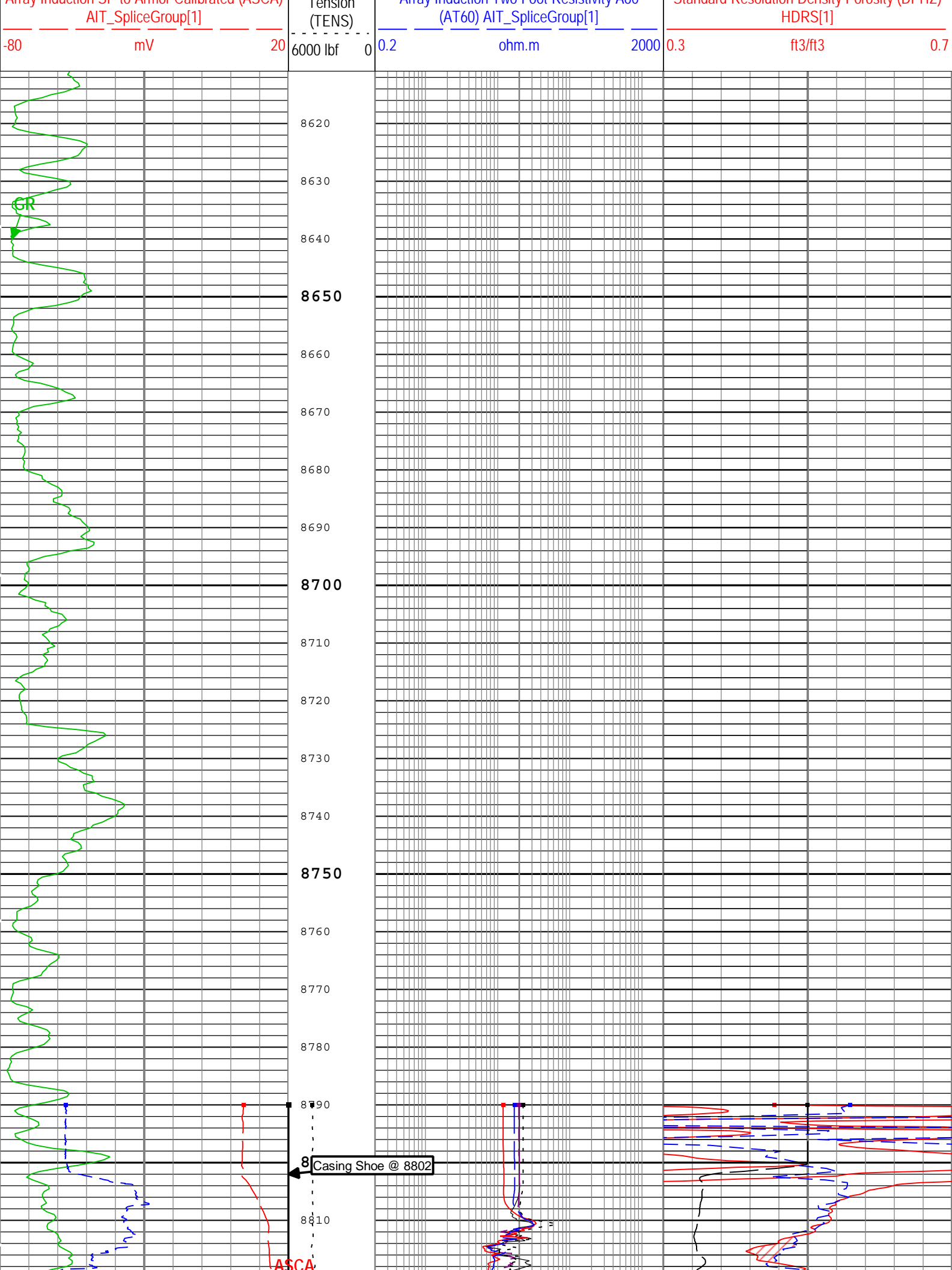
5" Triple Combo				
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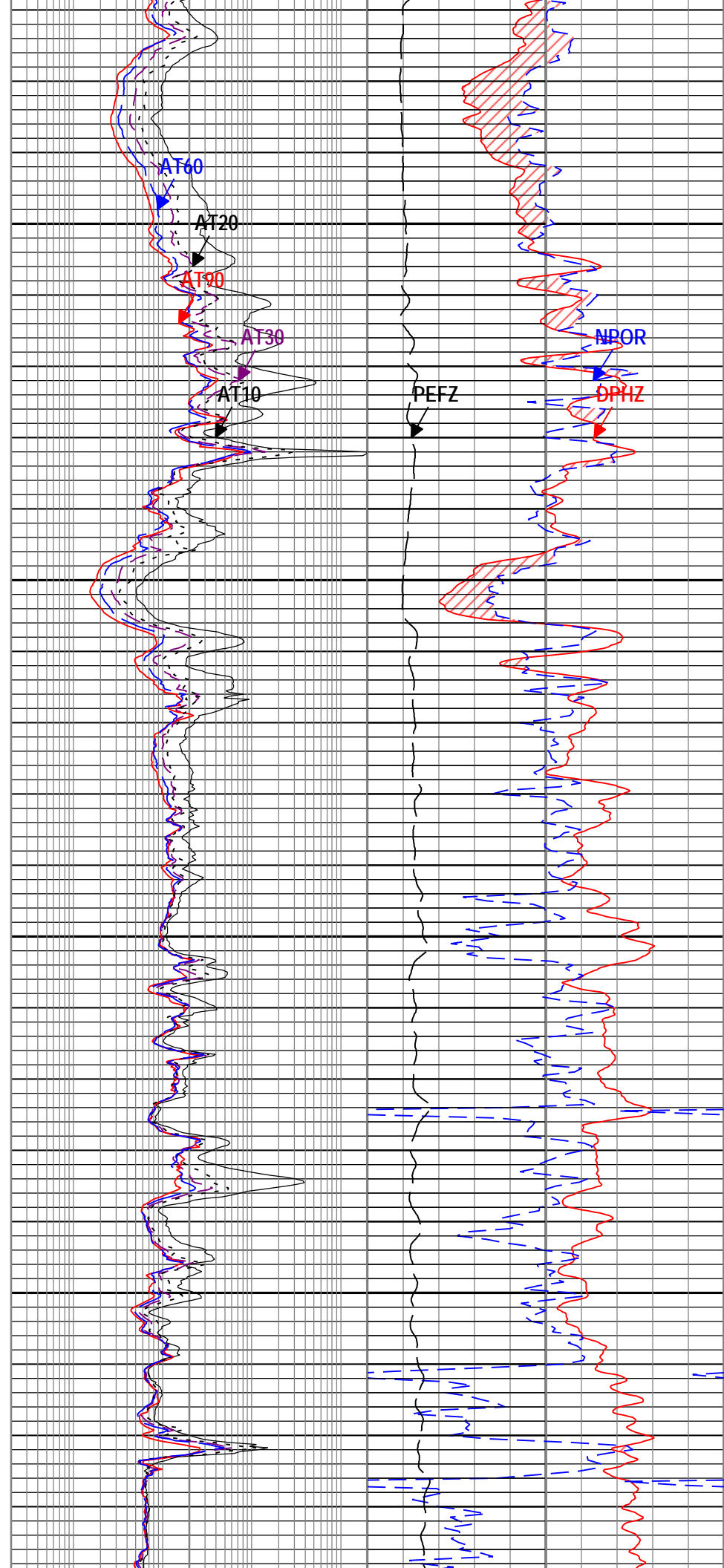
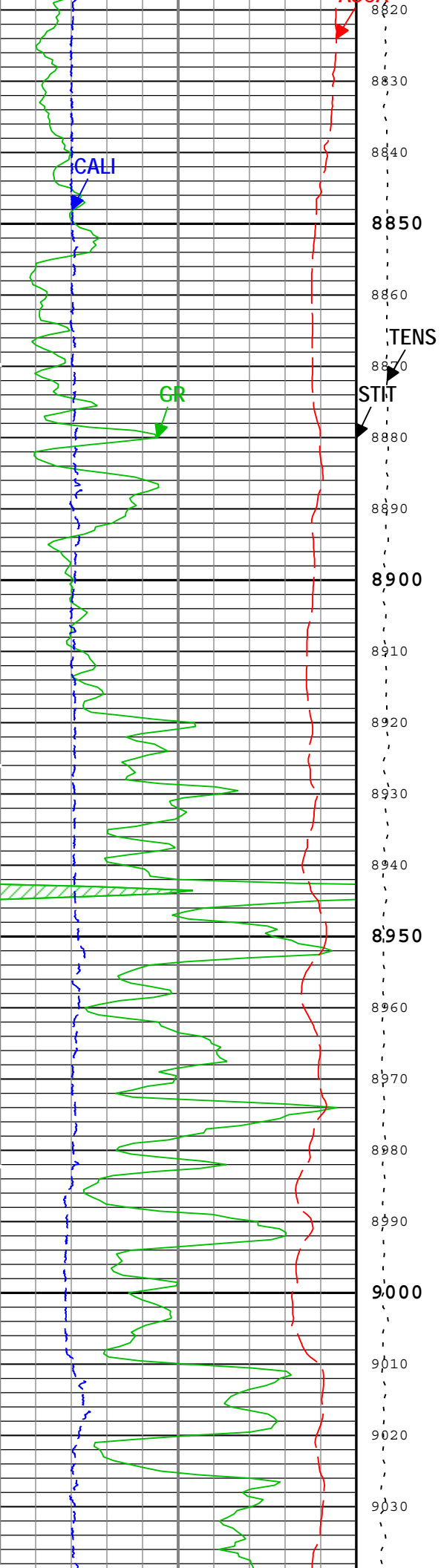
Software Version				
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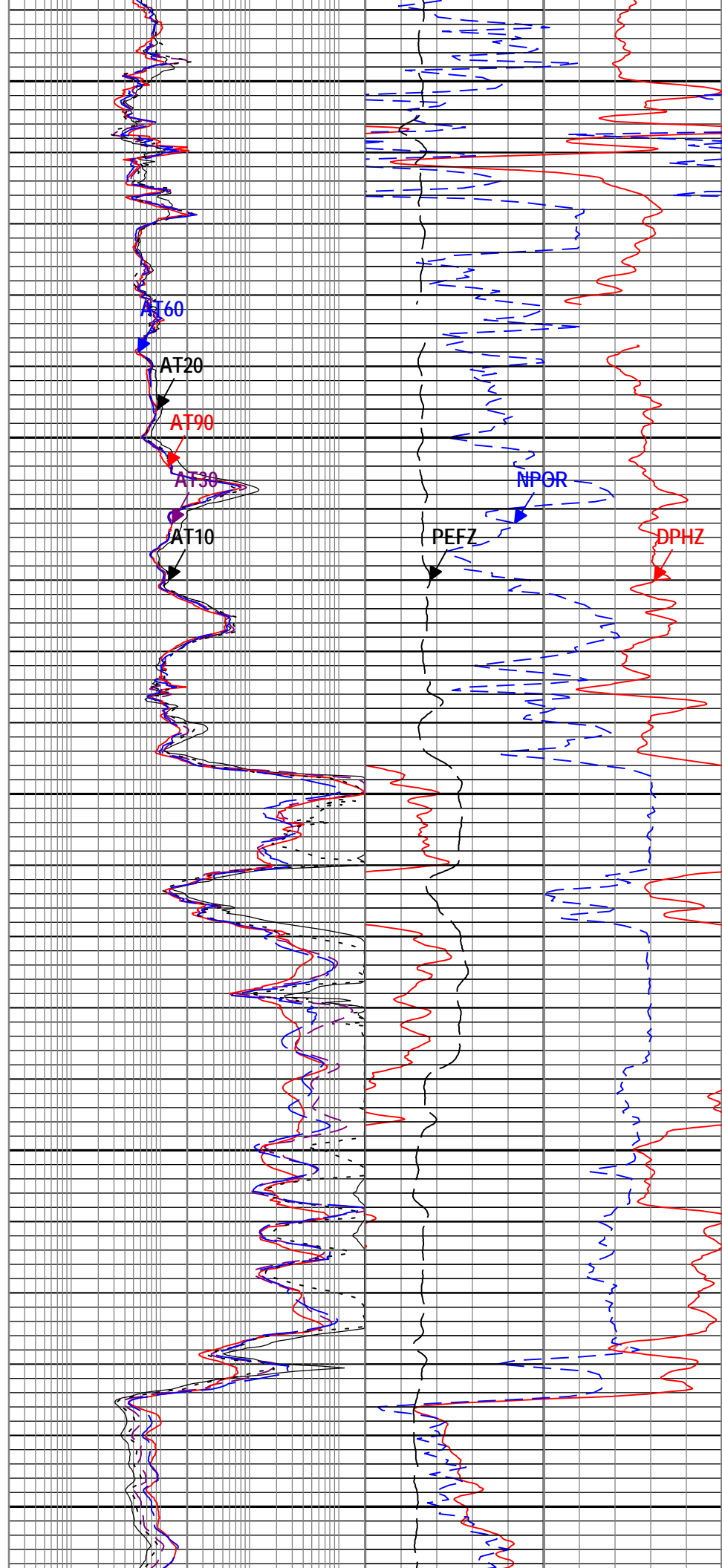
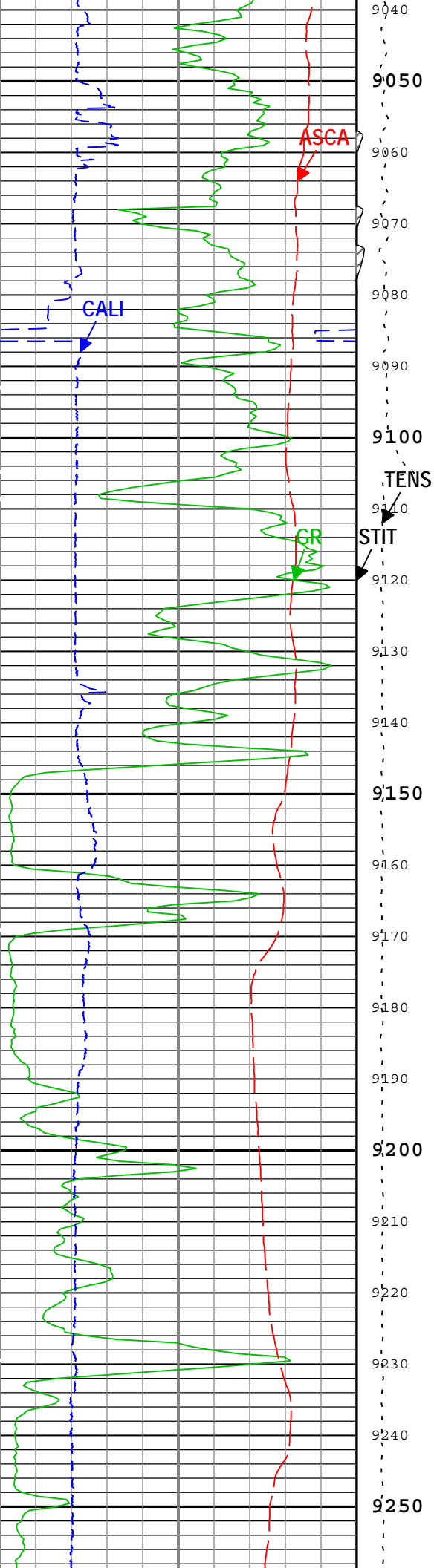
Acquisition System		Version		
MaxWell		4.0.9163.3000		
Application Patch		Patch-9163-11312-4.0.9163.3002		

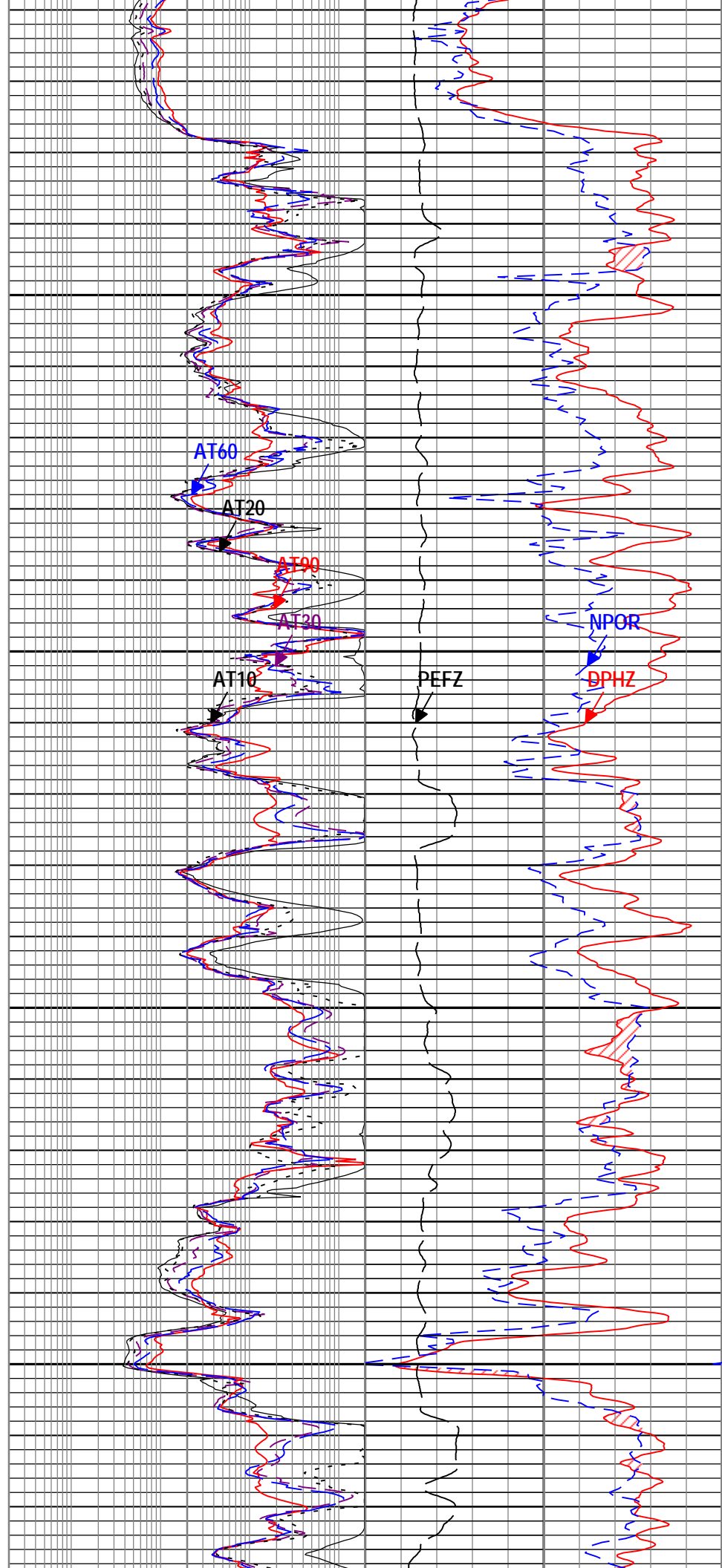
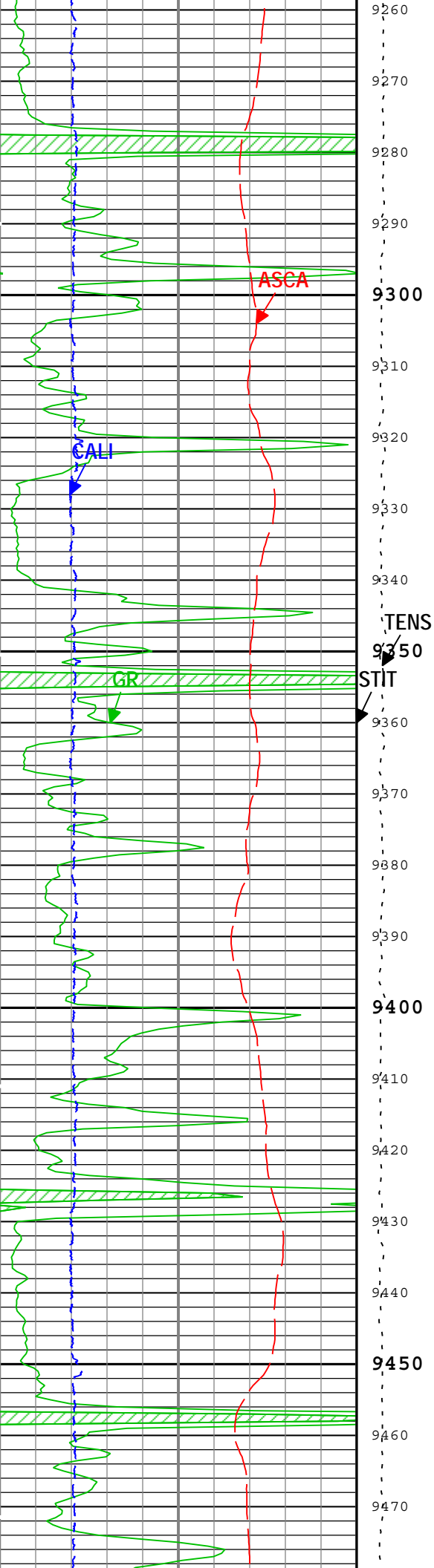
Computation	Description			Version
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections			4.0.9033.3000
DenthCorrection	DenthCorrection			4.0.9125.3000

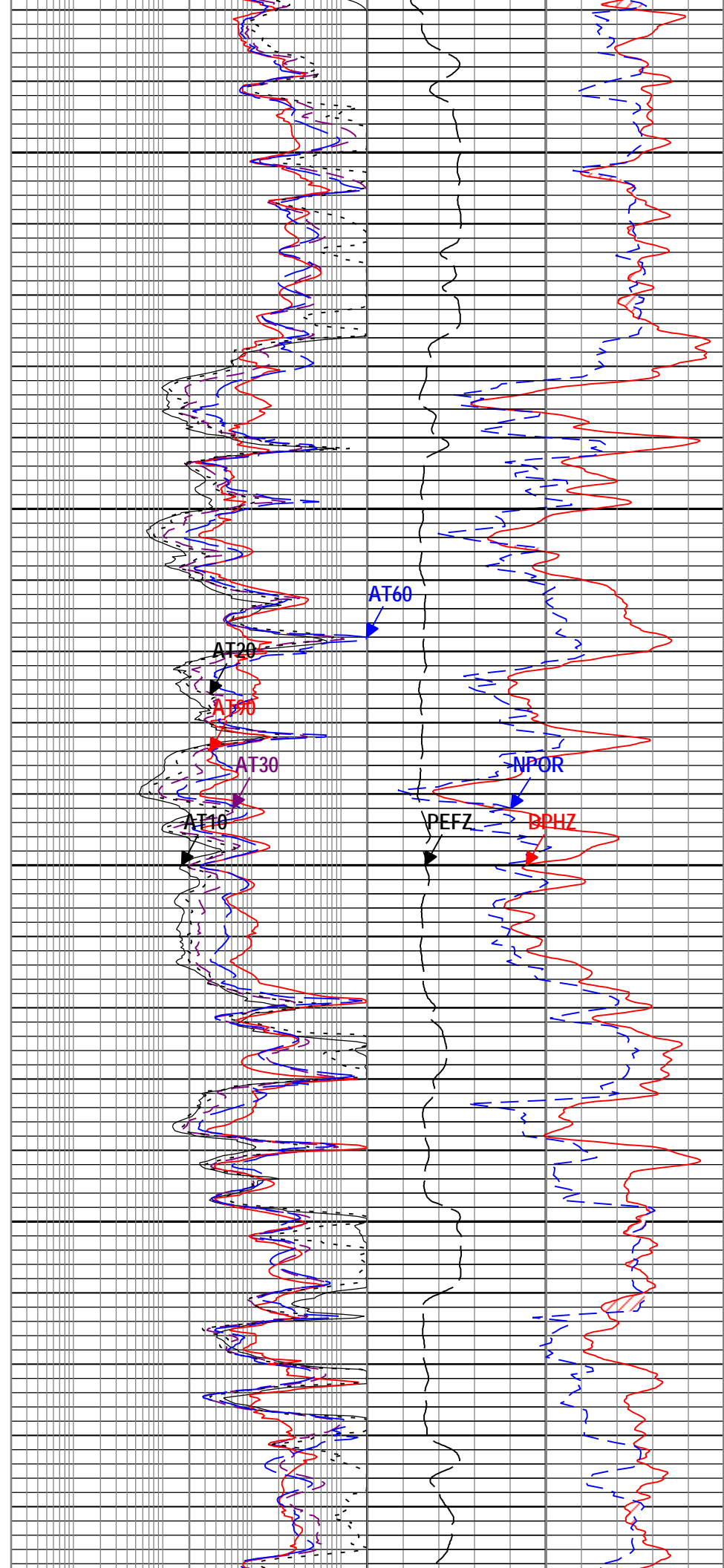
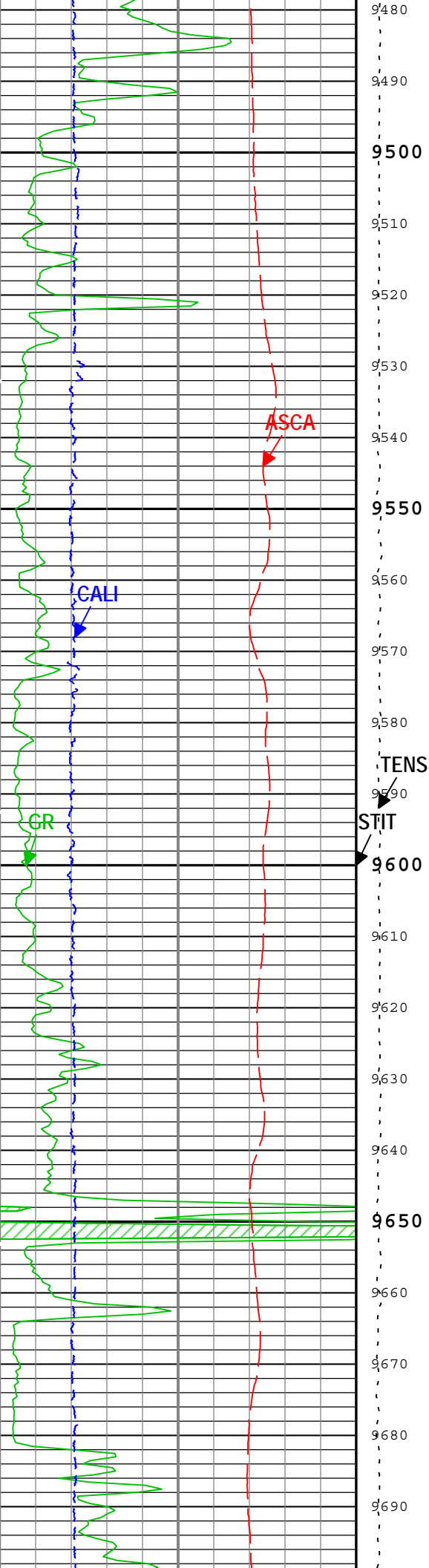
DepthCorrection		DepthCorrection						4.0.9126.3000	
Tool Elements		Description				Software Version		Firmware Version	
HRCC-H		HILT High-Resolution Control Cartridge, 150 degC				4.0.9033.3000			
HRGD-H		HILT Resistivity Gamma-Ray Density Device, 150 degC				4.0.9033.3000			
HGNS-H		HILT Gamma-Ray and Neutron Sonde, 150 degC				4.0.9033.3000			
AMIS		Array Induction Sonde - M				4.0.9163.3000			
Composite Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
TD Run PEX -AIT	Log[3]:Up	Up	8973.62 ft	10183.33 ft	30-Oct-2013 5:59:35 PM	30-Oct-2013 6:23:39 PM	ON	2.00 ft	Yes
TD Run PEX -AIT	Log[4]:Up	Up	8618.75 ft	9104.82 ft	30-Oct-2013 6:25:13 PM	30-Oct-2013 6:34:19 PM	ON	2.00 ft	Yes
All depths are referenced to toolstring zero									
Log	Company:High Sierra Water Services LLC				Well:High Sierra SWD C7B				
Composite 1:S002									
Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo) Index Scale: 5 in per 100 ft Index Unit: ft									
Index Type: Measured Depth Creation Date: 02-Nov-2013 18:21:41									
Channel	Source			Sampling					
ASCA	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]			6in					
AT10	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]			3in					
AT20	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]			3in					
AT30	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]			3in					
AT60	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]			3in					
AT90	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]			3in					
CALI	HDRS[1]:HRCC-H[1]:HRCC-H[1]			1in					
DPHZ	HDRS[1]:HRMS-H[1]:HRGD-H[1]			2in					
GR	HGNS[1]:HGNS-H[1]:HGNS-H[1]			6in					
NPOR	HGNS[1]:HGNS-H[1]:HGNS-H[1]			6in					
PEFZ	HDRS[1]:HRMS-H[1]:HRGD-H[1]			2in					
SP	AIT_SpliceGroup[1]:AMIS[1]:AMIS[1]			6in					
STIT	DepthCorrection			6in					
TENS	WLWorkflow			6in					
TIME_1900	WLWorkflow			0.1in					
TIME_1900 - Time Marked every 60.00 (s)									
Gamma Ray Back up							Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS[1]		
Gamma Ray (GR) HGNS[1]							010		
0	gAPI			200					
Spontaneous Potential (SP) AIT_SpliceGroup[1]							Gas Effect		
-160	mV			40			NPOR Backup		
Caliper (CALI) HDRS[1]							DPHZ Back Up		
4	in			14					
Spontaneous Potential (SP) AIT_SpliceGroup[1]							Standard Resolution Density Porosity (DPHZ) HDRS[1]		
-80	mV			20			0.3ft3/ft3-0.1		
Spontaneous Potential (SP) AIT_SpliceGroup[1]							Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS[1]		
-80	mV			20			0.3m3/m3-0.1		
Array Induction SP to Armor Calibrated (ASCA)							Standard Resolution Density Porosity (DPHZ)		

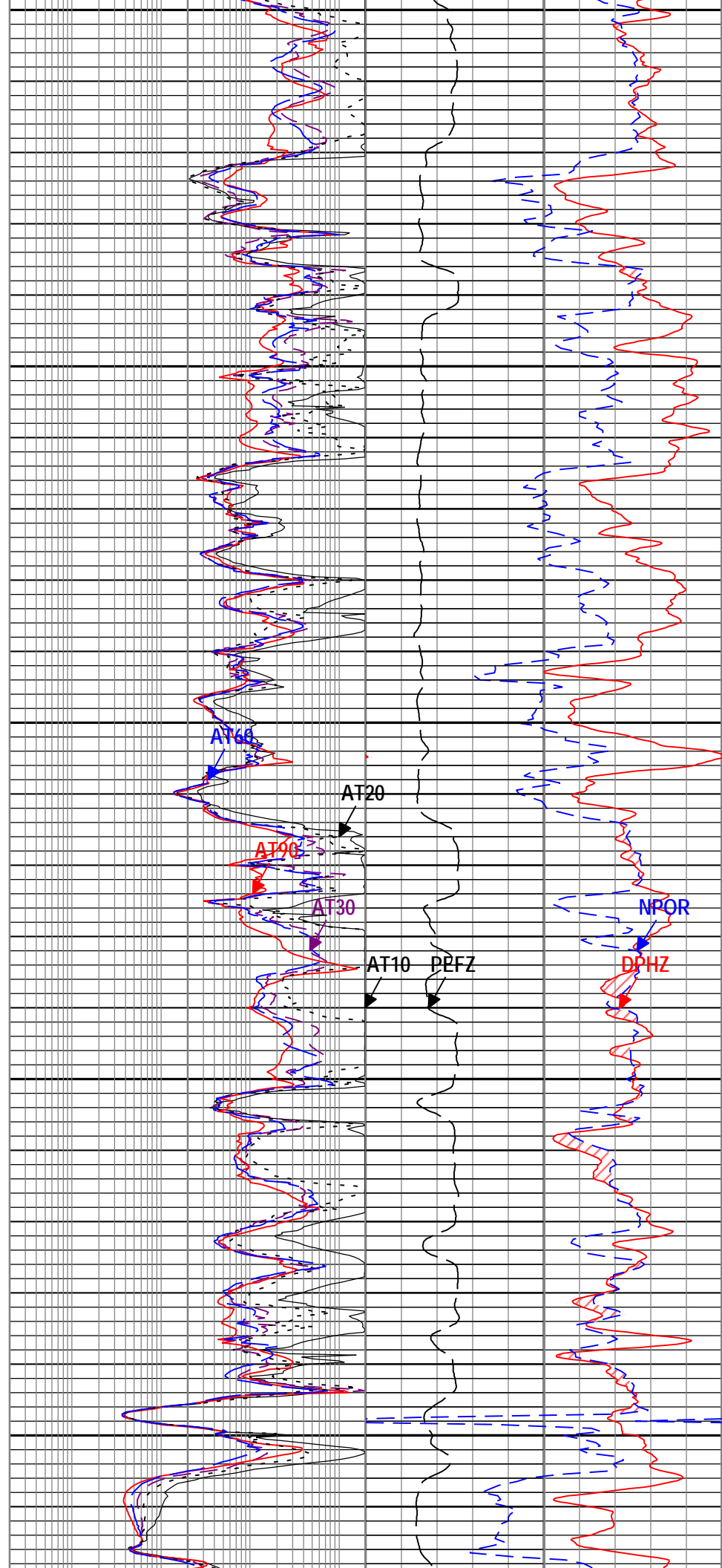
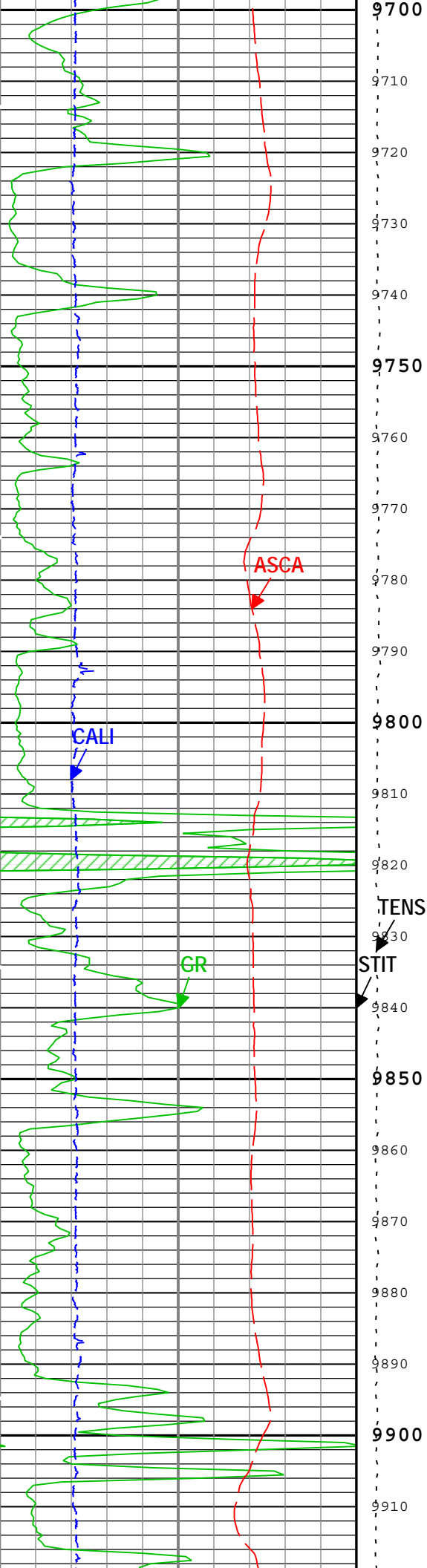


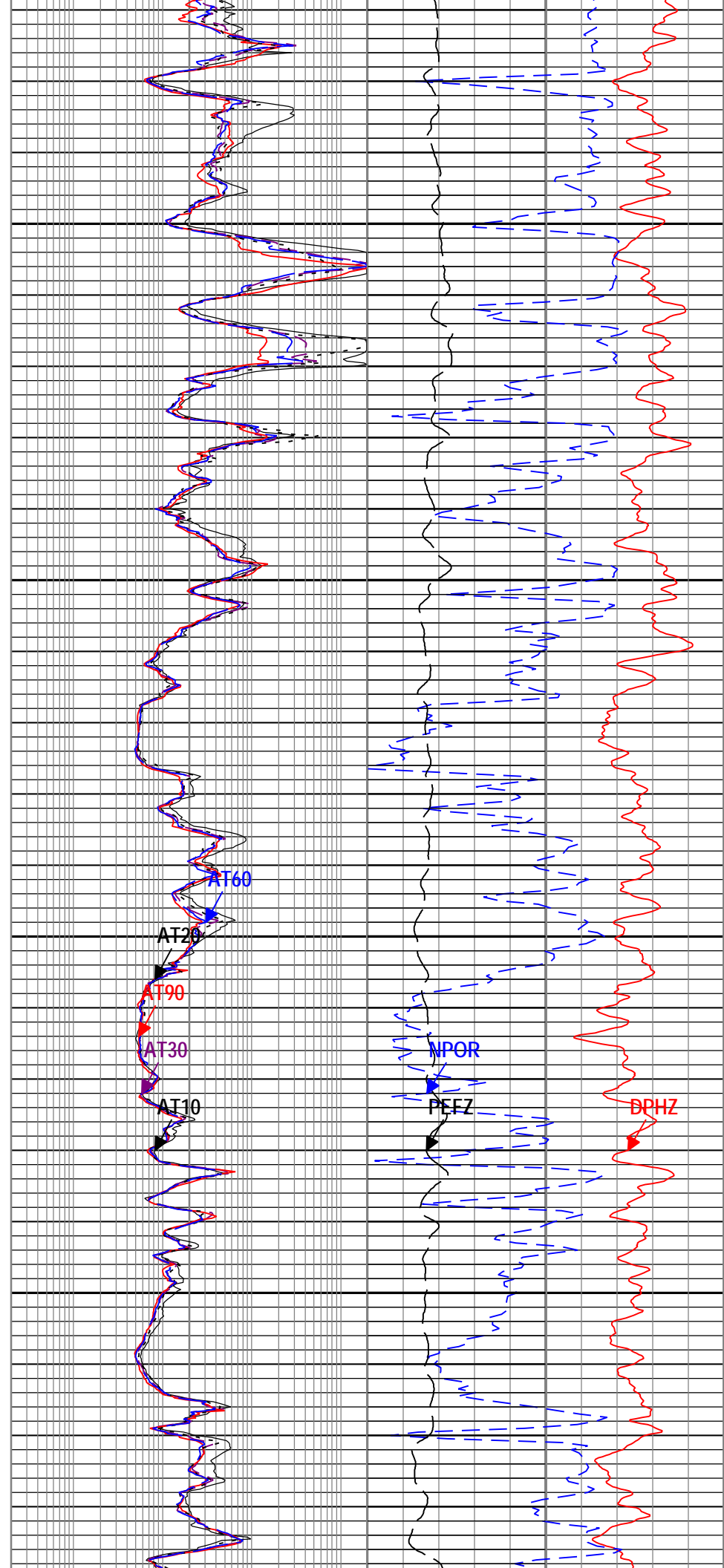
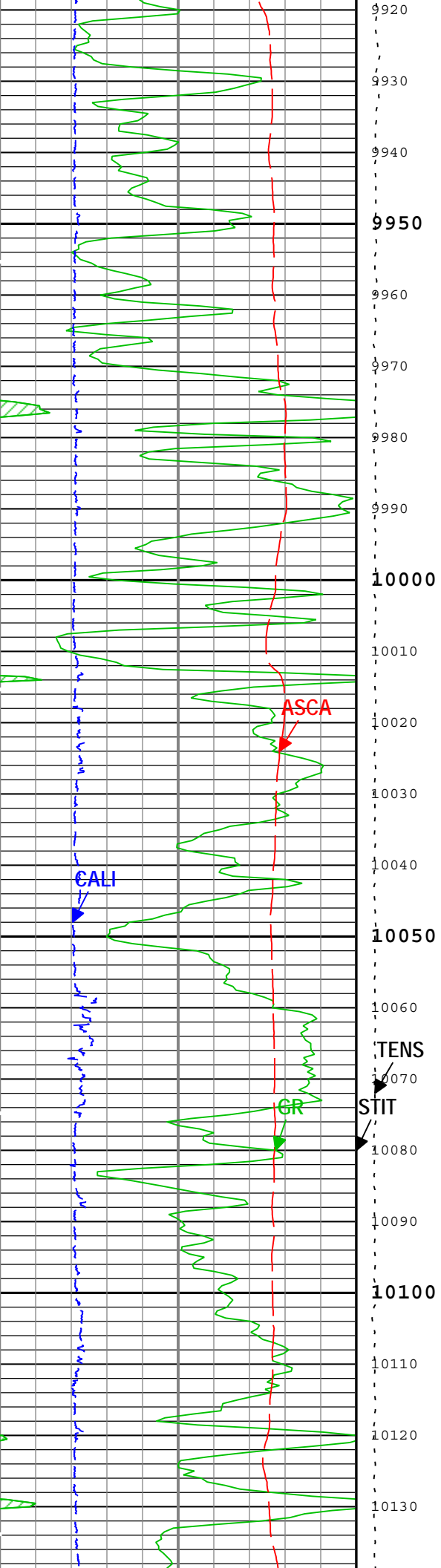


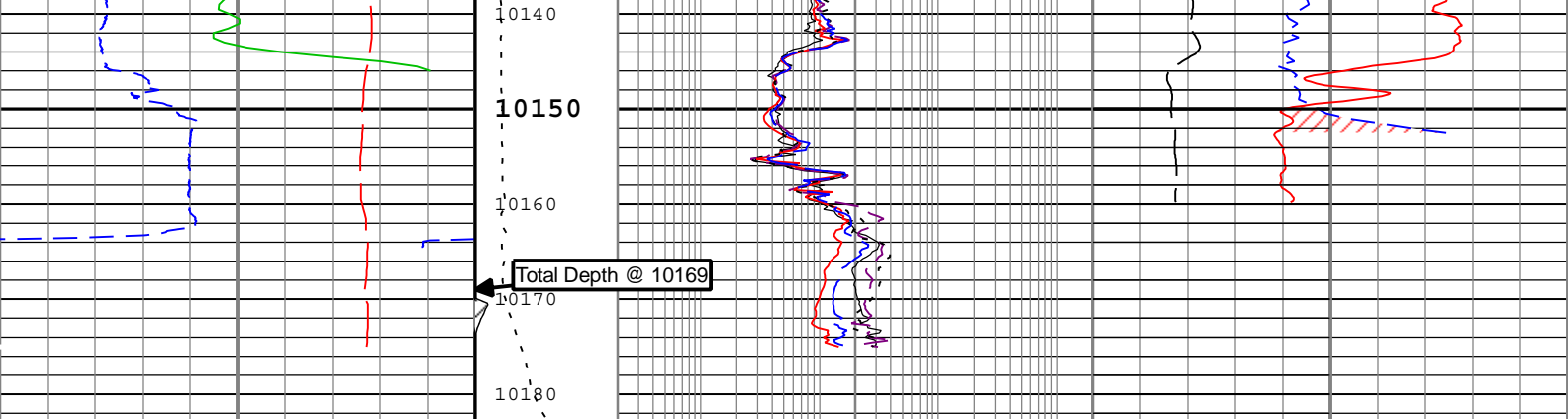












Gamma Ray Back up			Stuck Tool Indicator, Total (STIT)	Array Induction Two Foot Resistivity A10 (AT10) AIT_SpliceGroup[1]			Gas Effect				
Gamma Ray (GR) HGNS[1]				0.2 ohm.m 2000			NPOR Backup				
0	gAPI		200	0	ft	50	DPHZ Back Up				
Spontaneous Potential (SP) AIT_SpliceGroup[1]				Cable Tension (TENS)	Array Induction Two Foot Resistivity A30 (AT30) AIT_SpliceGroup[1]			DPHZ Back Up			
-160 mV 40					0.2 ohm.m 2000			Standard Resolution Density Porosity (DPHZ) HDRS[1]			
Caliper (CALI) HDRS[1]				6000 lbf	0	Array Induction Two Foot Resistivity A90 (AT90) AIT_SpliceGroup[1]			0.3 ft3/ft3 -0.1		
4 in 14				0.2 ohm.m 2000			Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS[1]				
Spontaneous Potential (SP) AIT_SpliceGroup[1]				Array Induction Two Foot Resistivity A20 (AT20) AIT_SpliceGroup[1]			0.3 m3/m3 -0.1				
-80 mV 20				0.2 ohm.m 2000			Standard Resolution Density Porosity (DPHZ) HDRS[1]				
Spontaneous Potential (SP) AIT_SpliceGroup[1]				Array Induction Two Foot Resistivity A60 (AT60) AIT_SpliceGroup[1]			0.3 ft3/ft3 0.7				
-80 mV 20				0.2 ohm.m 2000			Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS[1]				
Array Induction SP to Armor Calibrated (ASCA) AIT_SpliceGroup[1]							0 10				
-80 mV 20											

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo) Index Scale: 5 in per 100 ft Index Unit: ft

Index Type: Measured Depth Creation Date: 02-Nov-2013 18:21:41

Channel Processing Parameters				
TD Run PEX-AIT: Parameters				
Parameter	Description	Tool	Value	Unit
ABHM	Array Induction Borehole Correction Mode	AIT-M	Compute Standoff	
ACDE	Array Induction Casing Detection Enable	AIT-M	Yes	
ASTA	Array Induction Tool Standoff	AIT-M	0.5	in
BARI	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	233	degF
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	13466.16	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.2	in
CBLO	Casing Bottom (Logger)	WLSESSION	8802	ft
CDEN	Cement Density	HGNS-H	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	

DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Chemical Gel	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	0	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	Depth Zoned	
MDEN	Matrix Density for Density Porosity	Borehole	Depth Zoned	g/cm3
MFST	Mud Filtrate Sample Temperature	Borehole	73	degF
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.36	ohm.m
SOCO	Standoff Correction Option	HGNS-H	Yes	
SPDR	SP Drift Per Foot	AIT-M	0	mV/ft
TD	Total Measured Depth	Borehole	10169	ft

TD Run PEX-AITDepth Zoned Parameters			
Parameter	Value	Start (ft)	Stop (ft)
BS	8.75	8611	8803
BS	6.125	8803	10169
MATR	SANDSTONE	8611	9120
MATR	LIMESTONE	9120	9900
MATR	SANDSTONE	9900	10183.33
MDEN	2.68	8611	9120
MDEN	2.71	9120	9900
MDEN	2.68	9900	10183.33
All depth are actual.			

Tool Control Parameters				
TD Run PEX-AIT: Parameters				
Parameter	Description	Tool	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h

Calibration Report		
AIT-M (Array Induction Tool - M) Calibration - Run TD Run PEX-AIT		
Primary Equipment :		
File code for AIT-MA Sonde Tool Element	AMIS	1372
Auxiliary Equipment :		
AITM Rm/SP Bottom Nose	AMRM	

AIT Sonde Calibration - Test Loop Gain							
Master (EEPROM):		11:24:46 02-Oct-2013					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Test Loop Gain - 0		Master	1.000	0.950	1.015	1.050	
Test Loop Phase - 0	deg	Master	0	-3.000	0.571	3.000	
Test Loop Gain - 1		Master	1.000	0.950	1.012	1.050	
Test Loop Phase - 1	deg	Master	0	-3.000	0.612	3.000	
Test Loop Gain - 2		Master	1.000	0.950	1.014	1.050	
Test Loop Phase - 2	deg	Master	0	-3.000	0.064	3.000	
Test Loop Gain - 3		Master	1.000	0.950	1.010	1.050	

Test Loop Phase - 3		deg	Master	0	-3.000	0.109	3.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Test Loop Gain - 4			Master	1.000	0.950	0.993	1.050	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Test Loop Phase - 4		deg	Master	0	-3.000	0.068	3.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Test Loop Gain - 5			Master	1.000	0.950	0.989	1.050	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Test Loop Phase - 5		deg	Master	0	-3.000	-0.164	3.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Test Loop Gain - 6			Master	1.000	0.950	0.994	1.050	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Test Loop Phase - 6		deg	Master	0	-3.000	0.167	3.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Test Loop Gain - 7			Master	1.000	0.950	1.005	1.050	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Test Loop Phase - 7		deg	Master	0	-3.000	-0.208	3.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

AIT Sonde Calibration - Sonde Error Correction

Master (EEPROM):		11:24:46 02-Oct-2013					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Real - 0	mS/m	Master	-----	-231.000	-69.387	119.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Quad - 0		Master	-----	-2250.000	-605.367	2250.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Real - 1	mS/m	Master	-----	114.000	170.247	204.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Quad - 1		Master	-----	-625.000	172.559	625.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Real - 2	mS/m	Master	-----	66.000	116.685	156.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Quad - 2		Master	-----	-350.000	57.492	350.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Real - 3	mS/m	Master	-----	39.000	64.196	89.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Quad - 3		Master	-----	-250.000	-40.803	250.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Real - 4	mS/m	Master	-----	15.000	25.942	35.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Quad - 4		Master	-----	-63.000	18.491	63.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Real - 5	mS/m	Master	-----	4.000	11.926	24.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Quad - 5		Master	-----	-50.000	-13.238	50.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Real - 6	mS/m	Master	-----	5.000	9.342	15.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Quad - 6		Master	-----	-30.000	-5.534	30.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Real - 7	mS/m	Master	-----	-5.000	-0.364	5.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sonde Error Correction Quad - 7		Master	-----	-30.000	-13.961	30.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

AIT Mud Calibration - Mud Calibration Gain

Master (EEPROM):		11:24:46 02-Oct-2013					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Coarse Gain		Master	1.000	0.800	1.007	1.200	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Fine Gain		Master	1.000	0.800	1.021	1.200	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

AIT Electronics Check - Thru Calibration Check

Master (EEPROM):		11:24:46 02-Oct-2013		Before (Measured):		11:11:03 30-Oct-2013		After:	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
Thru Cal Mag - 0	V	Master	----	0.366	0.620	0.854	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before	----	0.366	0.620	0.854	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before-Master	----	----	0.000	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After-Before	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
Thru Cal Phase - 0	deg	Master	----	137.000	179.770	-103.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before	----	137.000	179.840	-103.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before-Master	----	----	0.070	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After-Before	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
Thru Cal Mag - 1	V	Master	----	0.762	1.271	1.778	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before	----	0.762	1.271	1.778	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before-Master	----	----	0.000	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After-Before	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
Thru Cal Phase - 1	deg	Master	----	136.000	178.694	-104.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before	----	136.000	178.764	-104.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before-Master	----	----	0.070	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After-Before	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
Thru Cal Mag - 2	V	Master	----	0.372	0.632	0.868	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before	----	0.372	0.632	0.868	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before-Master	----	----	0.000	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After-Before	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
Thru Cal Phase - 2	deg	Master	----	132.000	175.136	-108.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before	----	132.000	175.207	-108.000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		After	----	----	----	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		
		Before-Master	----	----	0.071	----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		

		After-Before	----	----	----	----		
Thru Cal Mag - 3	V	Master	----	0.420	0.713	0.980		
		Before	----	0.420	0.713	0.980		
		After	----	----	----	----		
		Before-Master	----	----	0.000	----		
		After-Before	----	----	----	----		
Thru Cal Phase - 3	deg	Master	----	131.000	174.382	-109.000		
		Before	----	131.000	174.452	-109.000		
		After	----	----	----	----		
		Before-Master	----	----	0.070	----		
		After-Before	----	----	----	----		
Thru Cal Mag - 4	V	Master	----	0.804	1.335	1.876		
		Before	----	0.804	1.335	1.876		
		After	----	----	----	----		
		Before-Master	----	----	0.000	----		
		After-Before	----	----	----	----		
Thru Cal Phase - 4	deg	Master	----	125.000	168.239	-115.000		
		Before	----	125.000	168.309	-115.000		
		After	----	----	----	----		
		Before-Master	----	----	0.070	----		
		After-Before	----	----	----	----		
Thru Cal Mag - 5	V	Master	----	1.176	1.955	2.744		
		Before	----	1.176	1.955	2.744		
		After	----	----	----	----		
		Before-Master	----	----	0.000	----		
		After-Before	----	----	----	----		
Thru Cal Phase - 5	deg	Master	----	122.000	166.534	-118.000		
		Before	----	122.000	166.605	-118.000		
		After	----	----	----	----		
		Before-Master	----	----	0.071	----		
		After-Before	----	----	----	----		
Thru Cal Mag - 6	V	Master	----	1.176	1.951	2.744		
		Before	----	1.176	1.951	2.744		
		After	----	----	----	----		
		Before-Master	----	----	0.000	----		
		After-Before	----	----	----	----		
Thru Cal Phase - 6	deg	Master	----	121.000	166.565	-119.000		
		Before	----	121.000	166.635	-119.000		
		After	----	----	----	----		
		Before-Master	----	----	0.070	----		
		After-Before	----	----	----	----		
Thru Cal Mag - 7	V	Master	----	0.846	1.424	1.974		
		Before	----	0.846	1.424	1.974		
		After	----	----	----	----		
		Before-Master	----	----	0.000	----		
		After-Before	----	----	----	----		
Thru Cal Phase - 7	deg	Master	----	115.000	165.752	-125.000		
		Before	----	115.000	165.816	-125.000		
		After	----	----	----	----		
		Before-Master	----	----	0.064	----		
		After-Before	----	----	----	----		
SPA Zero	mV	Master		-50.000	0.009	50.000		
		Before		-50.000	0.020	50.000		
		After	----	----	----	----		
		Before-Master	----	----	0.011	----		
		After-Before	----	----	----	----		
SPA Plus	mV	Master		941.000	991.714	1040.000		
		Before		941.000	991.760	1040.000		
		After	----	----	----	----		
		Before-Master	----	----	0.046	----		
		After-Before	----	----	----	----		
Temperature Zero	V	Master		-0.050	0.000	0.050		
		Before		-0.050	0.000	0.050		
		After	----	----	----	----		
		Before-Master	----	----	0.000	----		
		After-Before	----	----	----	----		
Temperature Plus	V	Master		0.870	0.919	0.960		
		Before		0.870	0.919	0.960		

		Before	0.000	0.000	0.000		
		After	-----	-----	-----		
		Before-Master	-----	-----	0.000		
		After-Before	-----	-----	-----		

HDRS-H (HILT Density and Rxo Sonde, 150 degC) Calibration - Run TD Run PEX-AIT

Primary Equipment :							
	HILT High-Resolution Control Cartridge, 150 degC	HRCC-H					
	HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H				3775	
Auxiliary Equipment :							
	HRDD Backscatter Detector	Backscatter				26404	
	HRDD Long Spacing Detector	Long Spacing				28926	
	HRDD Short Spacing Detector	Short Spacing					
	Cesium 137 Gamma-Ray Logging Source	GSR-J				5363	
	HILT High-Resolution Control Cartridge, 150 degC	HRCC-H					
	HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H					
Calibration Parameter :							
	Small Ring Size (Caliper Calibration Small Ring)	8.00					
	Large Ring Size (Caliper Calibration Large Ring)	12.00					

HDRS Caliper Calibration - Caliper Accumulations

Before (Measured): 11:10:38 30-Oct-2013							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Small Ring	in	Before	8.00	6.00	8.96	10.00	
Large Ring	in	Before	12.00	9.00	13.26	15.00	

HDRS Density Calibration - Inversion Results

Master (EEPROM): 10:27:08 30-Oct-2013							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Rho Aluminum	g/cm3	Master	2.596	2.586	2.594	2.606	
Rho Magnesium	g/cm3	Master	1.686	1.676	1.689	1.696	
Pe Aluminum		Master	2.570	2.470	2.539	2.670	
Pe Magnesium		Master	2.650	2.550	2.627	2.750	

HDRS Density Calibration - Deviation Summary

Master (EEPROM): 10:27:08 30-Oct-2013							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Average Deviation	%	Master	0	-0.6000	0.2794	0.6000	
BS Max Deviation	%	Master	0	-1.6000	0.5801	1.6000	
SS Average Deviation	%	Master	0	-1.0000	0.5925	1.0000	
SS Max Deviation	%	Master	0	-2.5000	1.1903	2.5000	
LS Average Deviation	%	Master	0	-1.5000	1.0339	1.5000	
LS Max Deviation	%	Master	0	-3.5000	2.4644	3.5000	

HDRS Density Calibration - Background Summary

Master (EEPROM): 10:27:08 30-Oct-2013				Before (Measured): 11:12:55 30-Oct-2013			
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000		0.7548		
		Before	0.7548	0.7171	0.7534	0.7926	
		Before-Master	-----	-----	-0.0014	-----	
BS Window Sum	1/s	Master	1		24769		
		Before	24769	23530	24748	26007	
		Before-Master	-----	-----	-21	-----	
SS Window Ratio		Master	1.0000		0.4884		
		Before	0.4884	0.4640	0.4886	0.5128	
		Before-Master	-----	-----	0.0002	-----	
SS Window Sum	1/s	Master	1		11094		
		Before	11094	10539	11097	11649	
		Before-Master	-----	-----	3	-----	
LS Window Ratio		Master	1.0000		0.3027		
		Before	0.3027	0.2876	0.3019	0.3179	
		Before-Master	-----	-----	-0.0008	-----	
LS Window Sum	1/s	Master	1		1130		

		Before	1130	1073	1125	1186	
		Before-Master	-----	-----	-5	-----	

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM):		10:27:08 30-Oct-2013		Before (Measured):		11:12:55 30-Oct-2013	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Master		1000	1518	2400	
		Before		1000	1539	2400	
		Before-Master	-----	-100	21	100	
SS PM High Voltage	V	Master		1000	1471	2400	
		Before		1000	1488	2400	
		Before-Master	-----	-100	17	100	
LS PM High Voltage	V	Master		1000	1437	2400	
		Before		1000	1452	2400	
		Before-Master	-----	-100	15	100	

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM):		10:27:08 30-Oct-2013		Before (Measured):		11:12:55 30-Oct-2013	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Master		5.00	10.58	25.00	
		Before		5.00	10.62	25.00	
		Before-Master	-----	-1.00	0.04	1.00	
SS Crystal Resolution	%	Master		5.00	9.70	20.00	
		Before		5.00	9.75	20.00	
		Before-Master	-----	-1.00	0.05	1.00	
LS Crystal Resolution	%	Master		5.00	8.76	20.00	
		Before		5.00	8.52	20.00	
		Before-Master	-----	-1.00	-0.24	1.00	

HDRS MCFL Calibration - MCFL Accumulations

Before (Measured):		17:56:55 30-Oct-2013					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Main Resistivity	ohm.m	Before	3875	3565	3876	4185	
Deep Resistivity	ohm.m	Before	3830	3524	3789	4136	
Shallow Resistivity	ohm.m	Before	3830	3524	3824	4136	

HGNS-H (HILT Gamma-Ray and Neutron Sonde, 150 degC) Calibration - Run TD Run PEX-AIT

Primary Equipment :			
	HILT Gamma-Ray and Neutron Sonde, 150 degC	HGNS-H	
Auxiliary Equipment :			
	HGNS Accelerometer, 150 degC	HACCZ-H	5736
	AmBe Neutron Logging Source	NSR-F	5168
Calibration Parameter :			
	Water Temperature		
	Housing Size		
	JIG-BKG (Jig minus background reference)	165	

HGNS Accelerometer Calibration - Accelerometer Accumulations

Before (Measured):		17:08:05 30-Oct-2013					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.2	31.5	32.1	32.8	

HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM):		00:00:00 15-Mar-2006					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Accelerometer Manufacturer		Master			QAT_160		
Accelerometer Reference Temperature	degF	Master		30.2	77.0	122.0	
Accelerometer Coefficients - 0		Master	-----	-----	8084.000	-----	
Accelerometer Coefficients - 1		Master	-----	-----	-8.467	-----	
Accelerometer Coefficients - 2		Master	-----	-----	0.009	-----	
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 4		Master	-----	-----	2.722	-----	
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----	

Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 7		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 8		Master	-----	-----	298.700	-----	
Accelerometer Coefficients - 9		Master	-----	-----	0.995	-----	

HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM): 20:04:48 29-Sep-2013		Before (Measured): 11:08:10 30-Oct-2013		After:			
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Master	0	5.0	25.1	40.0	
		Before	0	5.0	25.6	40.0	
		After	-----	-----	-----	-----	
		Before-Master	-----	-3.8	0.5	3.8	
		After-Before	-----	-----	-----	-----	
Far Zero Measurement	1/s	Master	0	5.0	27.4	40.0	
		Before	0	5.0	30.8	40.0	
		After	-----	-----	-----	-----	
		Before-Master	-----	-4.1	3.4	4.1	
		After-Before	-----	-----	-----	-----	
Near Plus Measurement	1/s	Master	6031.0	4700.0	5249.0	6900.0	
		Before	-----	-----	-----	-----	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
Far Plus Measurement	1/s	Master	2793.0	1900.0	2180.0	2900.0	
		Before	-----	-----	-----	-----	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
Near Corrected Plus Measurement	1/s	Master		4700.0	5245.0	6900.0	
		Before	-----	-----	-----	-----	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
Far Corrected Plus Measurement	1/s	Master		1900.0	2167.0	2900.0	
		Before	-----	-----	-----	-----	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured): 11:10:51 30-Oct-2013		After:					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	92.0	120.0	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
RGR Plus Measurement	gAPI	Before	185.4	157.1	172.6	206.3	
		After	-----	-----	NOT DONE	-----	
		After-Before	-----	-----	-----	-----	
GR Calibration Gain		Before	0.89	0.80	0.96	1.05	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

LEH-QT (Logging Equipment Head - QT, 3-3/8 inch 31 pin HPHT with Tension Sensor) Calibration - Run TD Run PEX-AIT

Primary Equipment :		Logging Equipment Head - QT, 3-3/8 inch 31 pin HPHT with Tension Sensor LEH-QT					
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HTEN Master Calibration - HTEN Master Calibration

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
HTEN Shop Gain		Master	1.000	0.800	NOT DONE	4.500	
HTEN Shop Offset	lbf	Master	0	-1000.000	NOT DONE	1000.000	

HTEN Before Calibration - HTEN Before Calibration

Before:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RHTE Zero Measurement - 0	lbf	Before	-----	-----	-----	-----	

RHTE Plus Measurement - 0	lbf	Before	----	----	----	----		
HTEN Gain - 0		Before	----	----	----	----		
HTEN Offset - 0	lbf	Before	----	----	----	----		

Company:	High Sierra Water Services LLC	Schlumberger
Well:	High Sierra SWD C7B	
Field:	Wattenberg	
County:	Weld	
State:	Colorado	
Platform Express		
Triple Combo		
with Linear Print		