HALLIBURTON

MICROLOG

COMPANY HERMAN L. LOEB, LLC
WELL KOGER #3
FIELD/BLOCK ALFORD
COUNTY KIOWA
STATE KANSAS

COMPANY **HERMAN L. LOEB, LLC**

WELL **KOGER #3**

FIELD/BLOCK **ALFORD**

COUNTY **KIOWA** STATE **KANSAS**

API No. 15-097-21823-00-00

Location (SHL) 890' FNL & 1430' FEL
NE SE NW NE

Sect. 1 Twp. 30S Rge. 19W

Other Services:
DSNT/SDLT
MICROLOG
BSAT
ACRT

Permanent Datum	GL	Elev. 2270.0 ft	Elev.: K.B. 2281.0 ft
Log measured from	KB	, 11.0 ft above perm. Datum	D.F. 2281.0 ft
Drilling measured from	KB		G.L. 2270.0 ft

Date		15-Apr-16				
Run No.		ONE				
Depth - Driller		5357.00 ft				
Depth - Logger		5356.0 ft				
Bottom - Logged Interval		5334.00 ft				
Top - Logged Interval		3900.00 ft				
Casing - Driller		8.625 in	@ 660.0 ft	@		@
Casing - Logger		660.0 ft				
Bit Size		7.875 in		@		@
Type Fluid in Hole		Water Based Mud				
Density	Viscosity	9.3 ppg	62.00 s/qt			
PH	Fluid Loss	10.50 pH	4.6 cptm			
Source of Sample		MUD PIT				
Rm @ Meas. Temperature		1.040 ohmm	@ 75.00 degF	@		@
Rmf @ Meas. Temperature		0.89 ohmm	@ 75.00 degF	@		@
Rmc @ Meas. Temperature		1.181 ohmm	@ 75.00 degF	@		@
Source Rmf	Rmc	MEAS	MEAS			
Rm @ BHT		0.65 ohmm	@ 124.0 degF	@		@
Time Since Circulation		3.0000 hr				
Time on Bottom		15-Apr-16 02:45:00.000				
Max. Rec. Temperature		124.0 degF	@ 5356.0 ft	@		@
Equipment	Location	12156883	EL RENO			
Recorded By		JORGE ORLANDO PEREZ				
Witnessed By		JON CHRISTENSEN				

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Service Ticket No.: 903246317 API Serial No.: 15-097-21823-00-00 PGM Version: WL INSITE R4.6.3 (Build 5)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

	Date	Sample No.					
Depth-Driller							
Type Fluid in Hole							
Density	Viscosity						
Ph	Fluid Loss						
Source of Sample							
Rm @ Meas. Temp		@	@	@	@	@	@
Rmf @ Meas. Temp.		@	@	@	@	@	@
Rmc @ Meas. Temp.		@	@	@	@	@	@
Source Rmf	Rmc						
Rm @ BHT		@	@	@	@	@	@
Rmf @ BHT		@	@	@	@	@	@
Rmc @ BHT		@	@	@	@	@	@

RESISTIVITY SCALE CHANGES

	Type Log	Depth	Scale Up Hole	Scale Down Hole

RESISTIVITY EQUIPMENT DATA

	Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other
	ONE	ACRT	N/A	1.5 S.O.	N/A
		I-11055059			
		S-11038385			

EQUIPMENT DATA

	GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	ONE	
Serial No.	11021139	Serial No.	11014316	Serial No.	10951315	Serial No.	11019641	
Model No.	GTET	Model No.	BSAT	Model No.	SDLT	Model No.	DSNT	
Diameter	3.625"	No. of Cent.	2	Diameter	5.3"	Diameter	3.625"	
Detector Model No.	T-102	Spacing	EVEN	Log Type	GAM-GAM	Log Type	NEU-NEU	
Type	SCINT			Source Type	CS137	Source Type	AM241BE	
Length	8"	LSA [Y/N]		Serial No.	5577GW	Serial No.	DSN-373	
Distance to Source	N/A	FWDA [Y/N]		Strength	1.5 Ci	Strength	15.0 Ci	

LOGGING DATA

	GENERAL				GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	Depth From	Depth To	Speed ft/min	Scale L	Scale R	Scale L	Scale R	Matrix	Scale L	Scale R	Matrix	Scale L	Scale R	Matrix
ONE	TD	CSG	REC	0	150	30	-10	47.6 uSec/ft	30	-10	2.71 gr/cc	30	-10	LIME

DIRECTIONAL INFORMATION

Maximum Deviation	@	KOP	@

Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING

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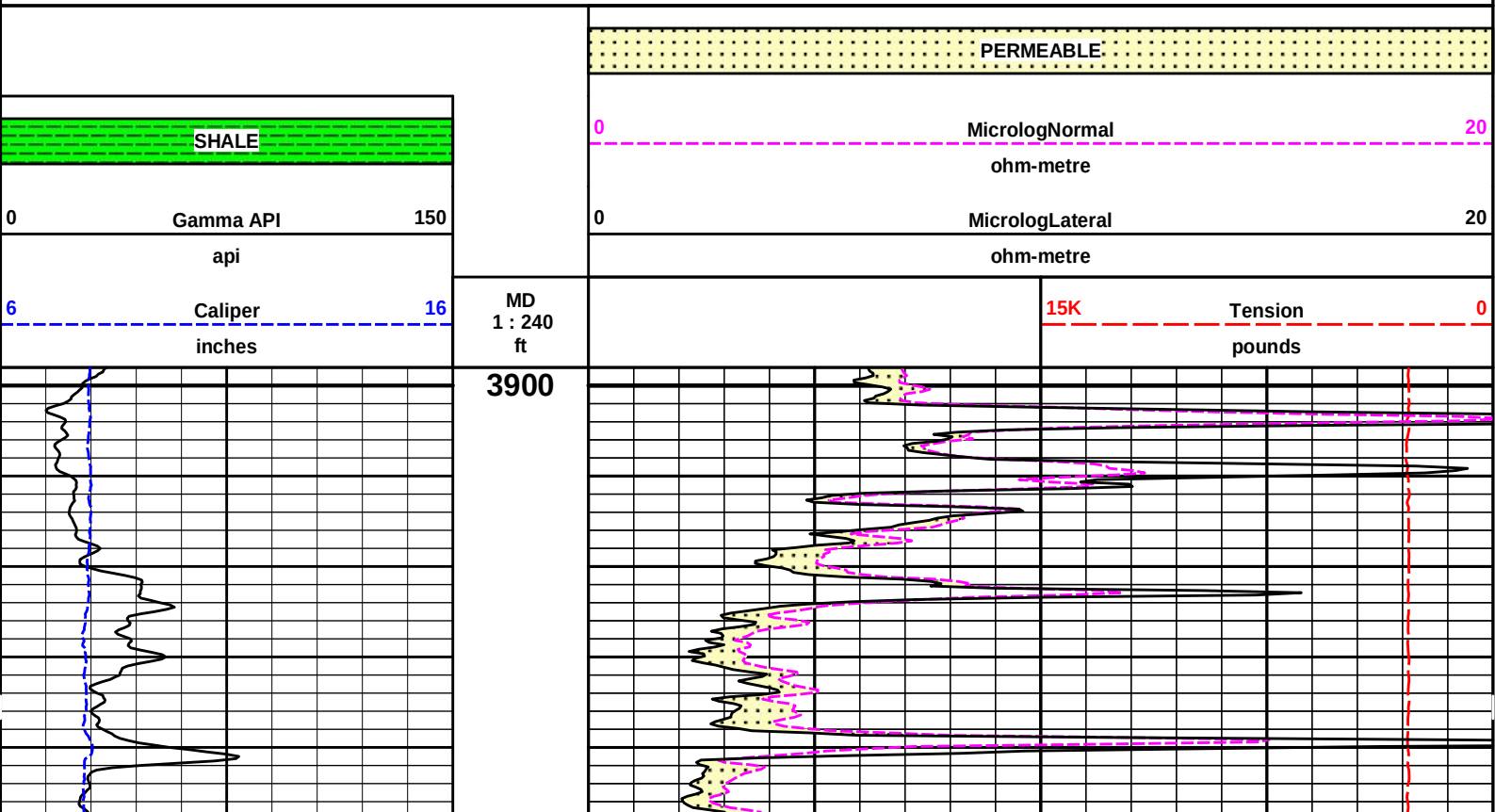
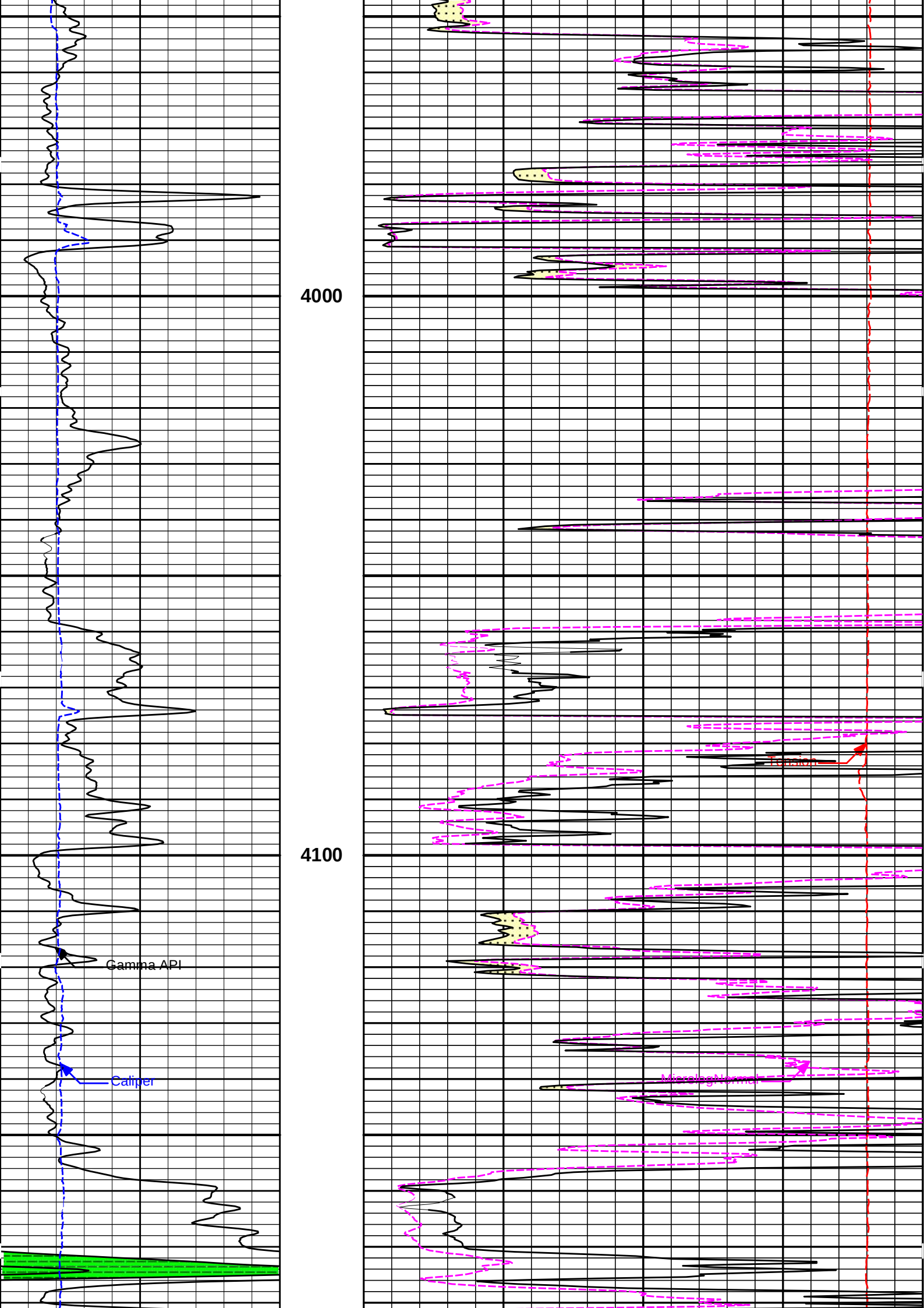
Plot Time: 15-Apr-16 03:43:13
Plot Range: 3898 ft to 5359.42 ft
Data: KOGER_3\Well Based\DETAILS
Plot File: \\-LOCAL-\KOGER_3\Well Based\MICROLOG\Microlog_IQ_5_main_lib

5 INCH MAIN LOG

MEASURED DEPTH
MAIN LOG 5" PER 100'

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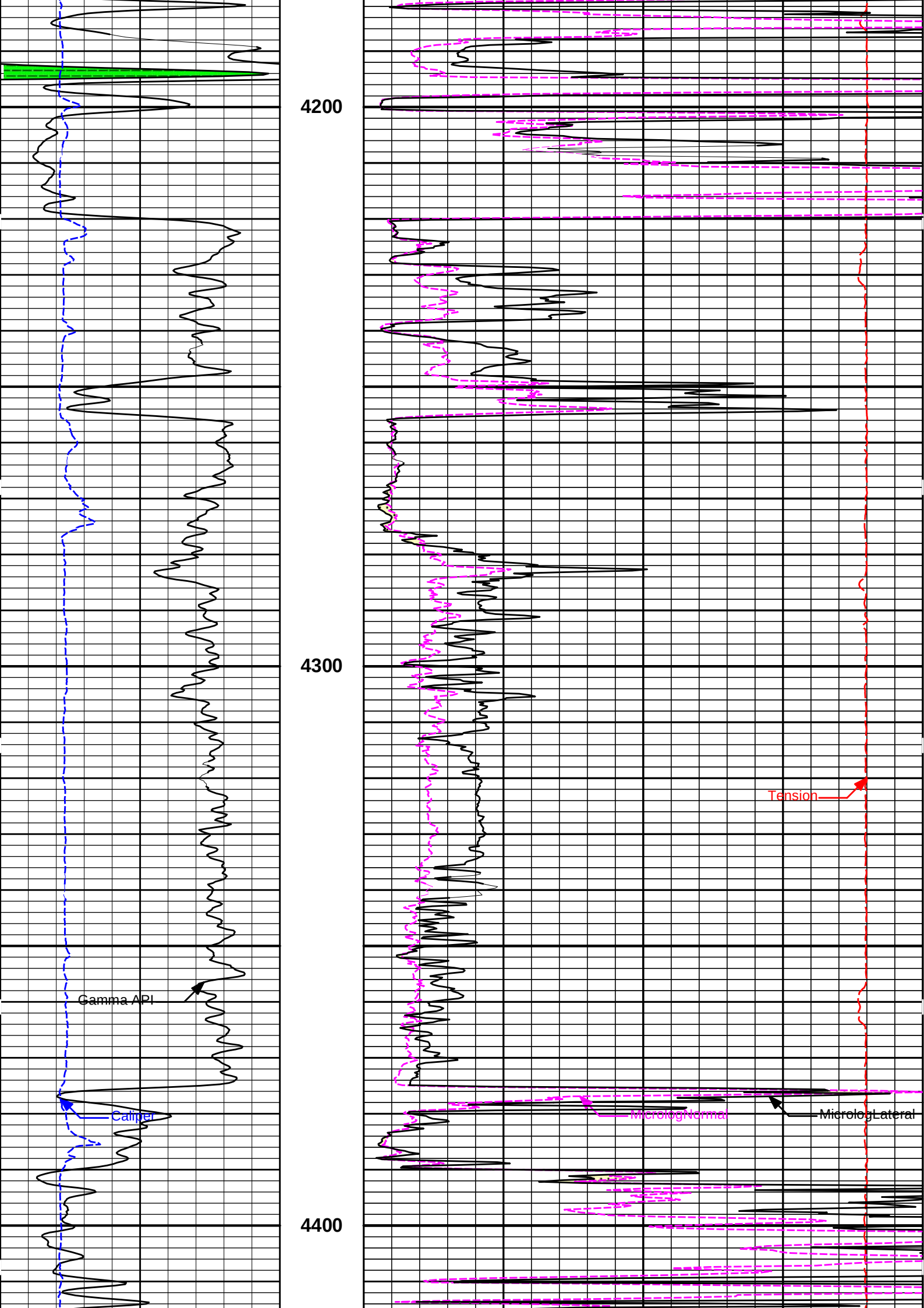
Gamma API
Caliper
Tension
MicrologNormal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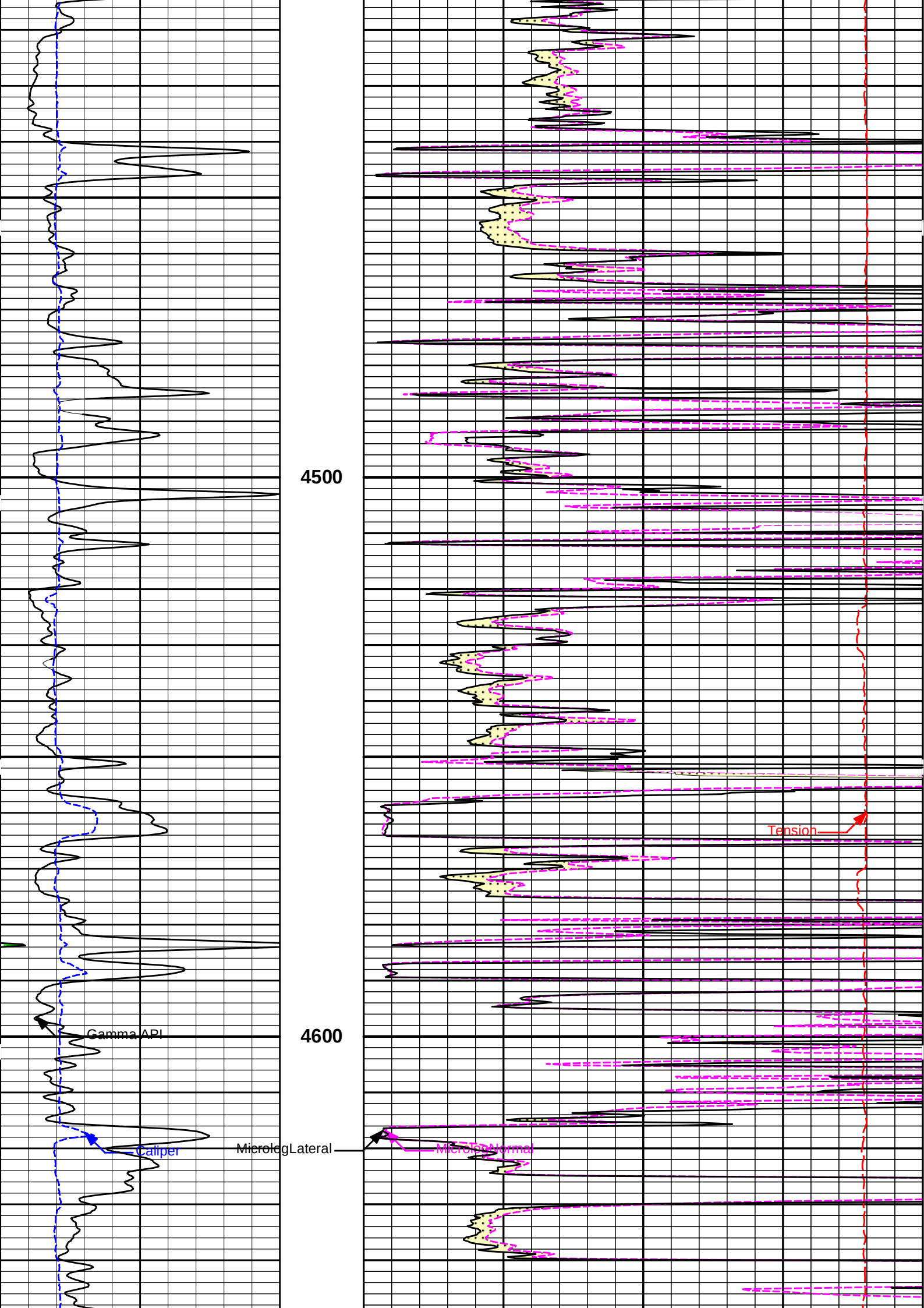
MicrologLateral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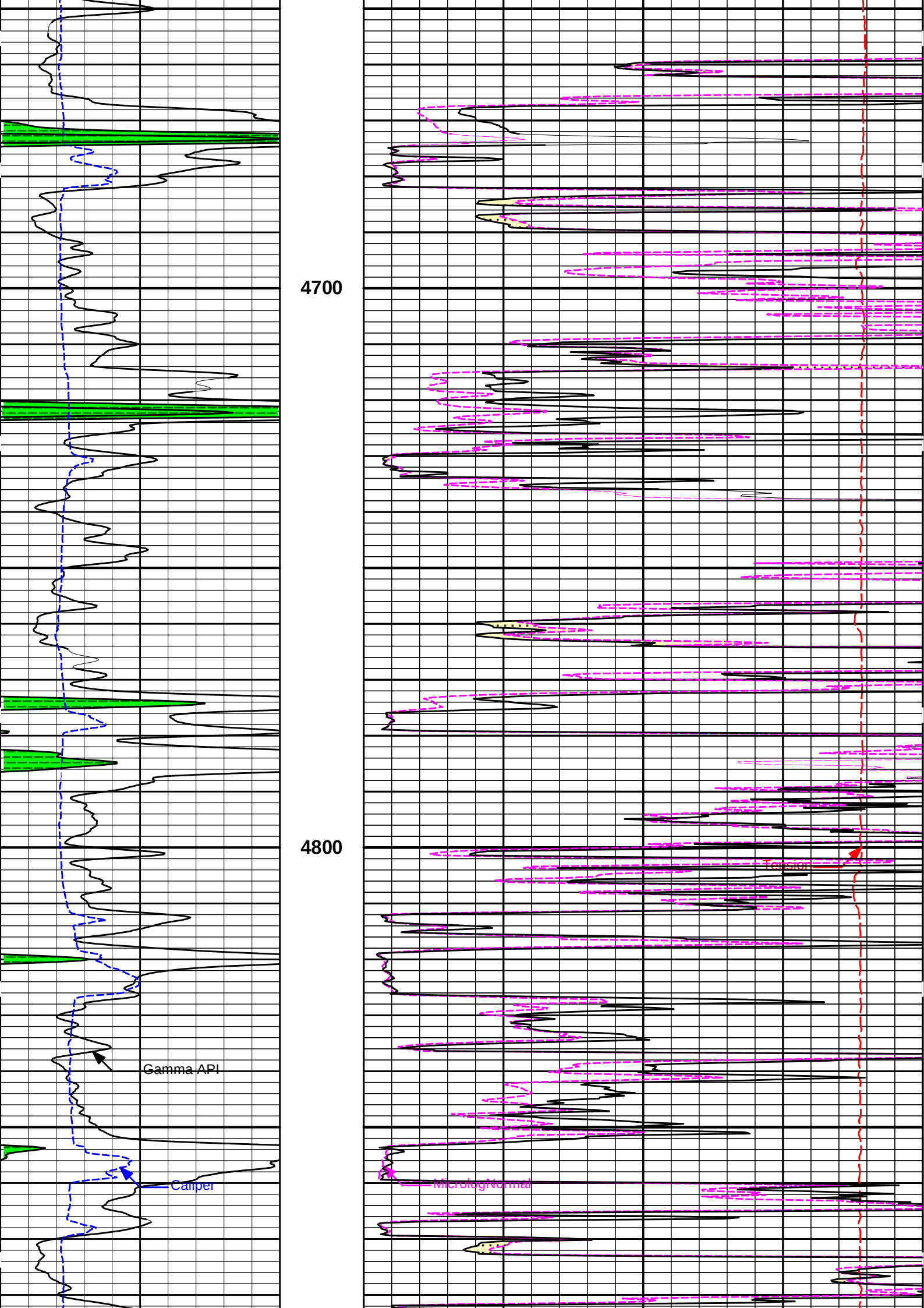
Tension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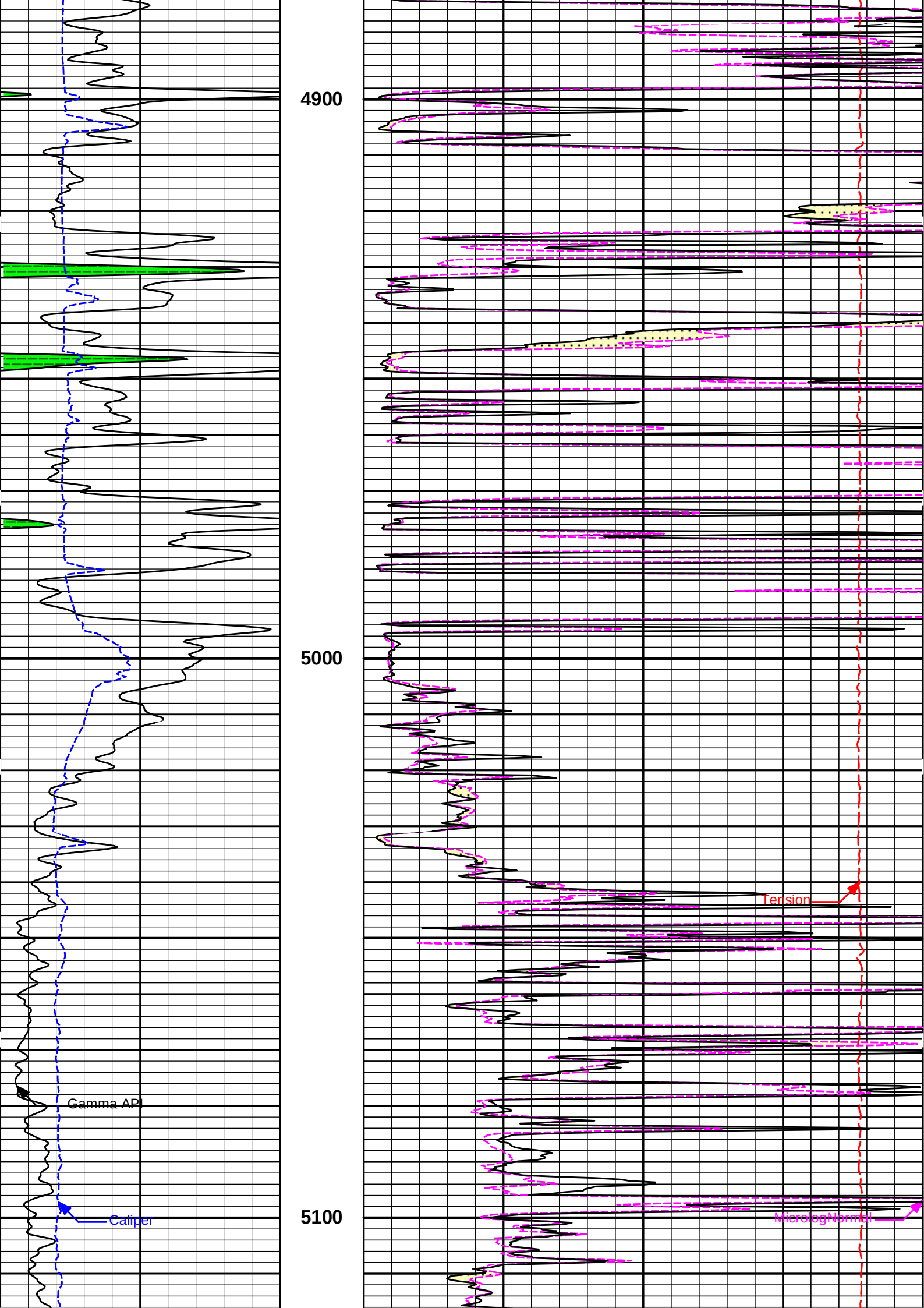
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Gamma API
Caliper
Tension
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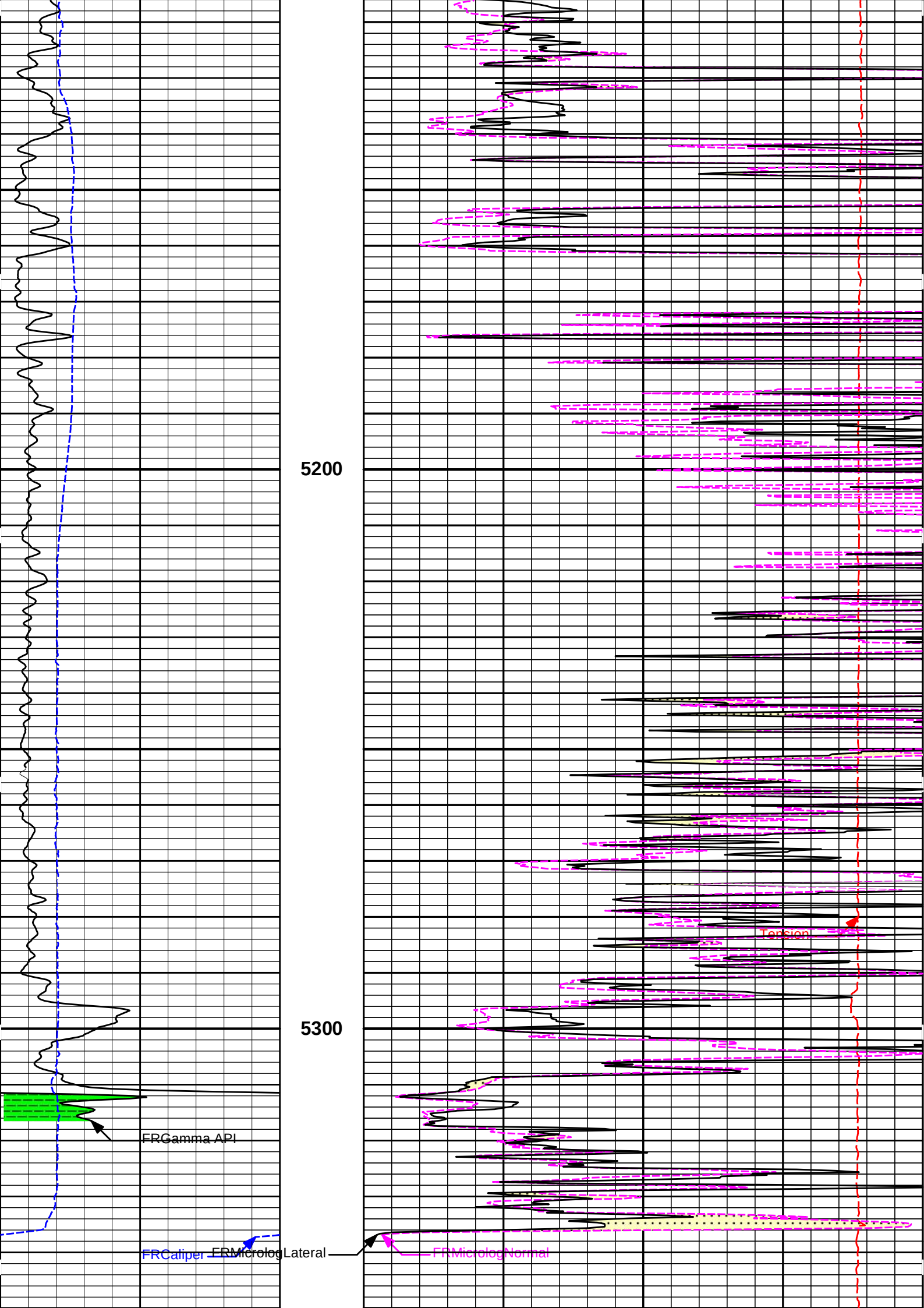
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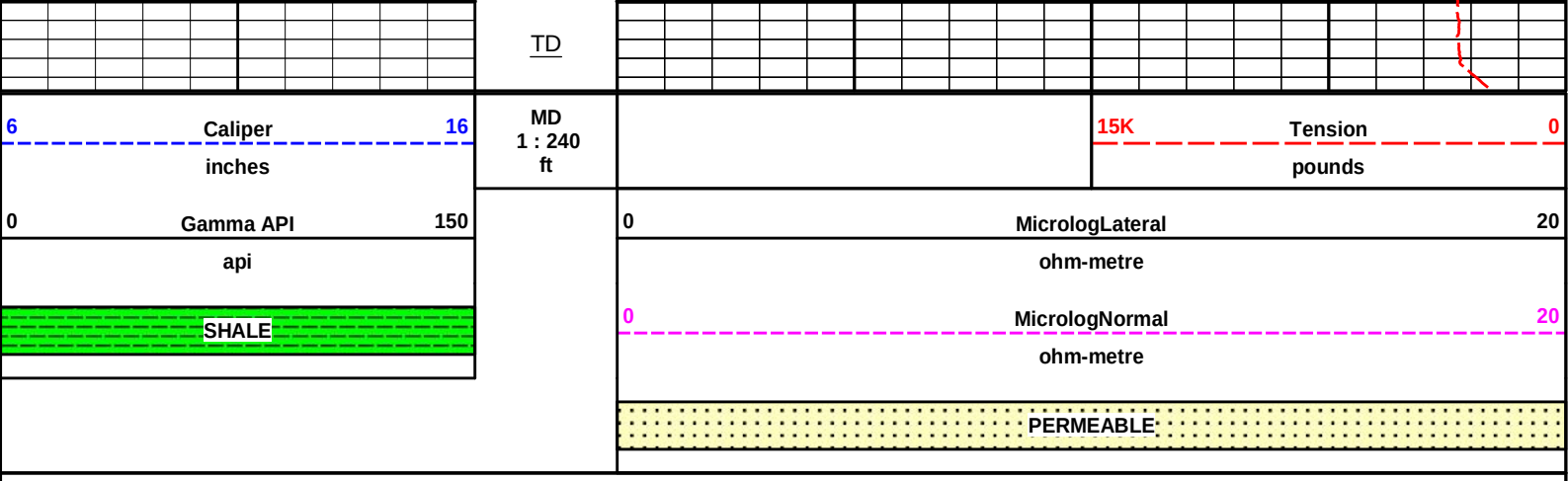
5300
Tension
FRGamma API
FRCaliper
FRMicrologLateral
FRMicrologNormal



HALLIBURTON

Plot Time: 15-Apr-16 03:43:15
Plot Range: 3898 ft to 5359.42 ft
Data: KOGER_3\Well Based\DETAILS\
Plot File: \\-LOCAL-\KOGER_3\Well Based\MICROLOG\Microlog_IQ_5_main_lib

5 INCH MAIN LOG

MEASURED DEPTH
MAIN LOG 5" PER 100'

HALLIBURTON

Plot Time: 15-Apr-16 03:43:15
Plot Range: 4998 ft to 5357.67 ft
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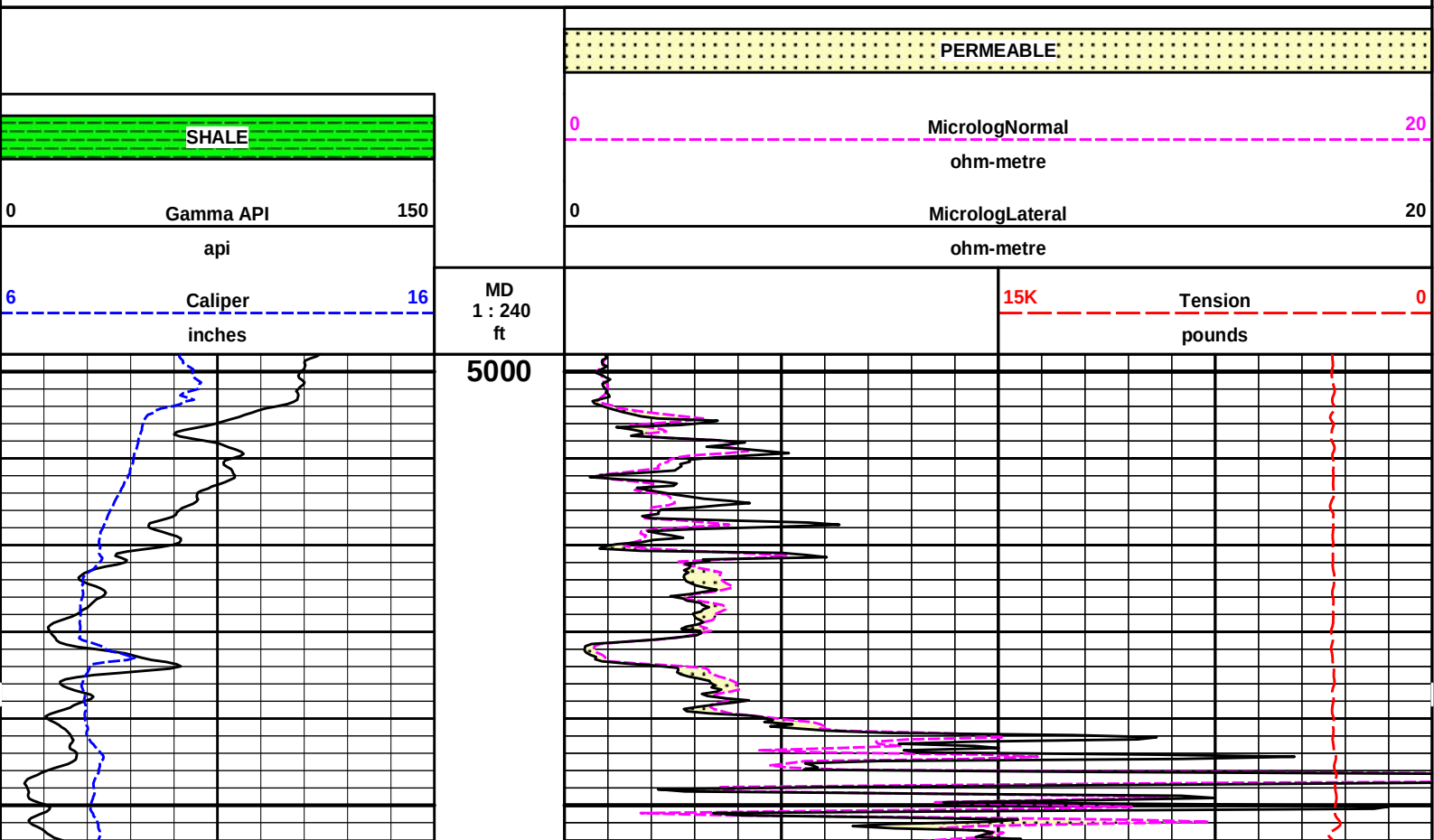
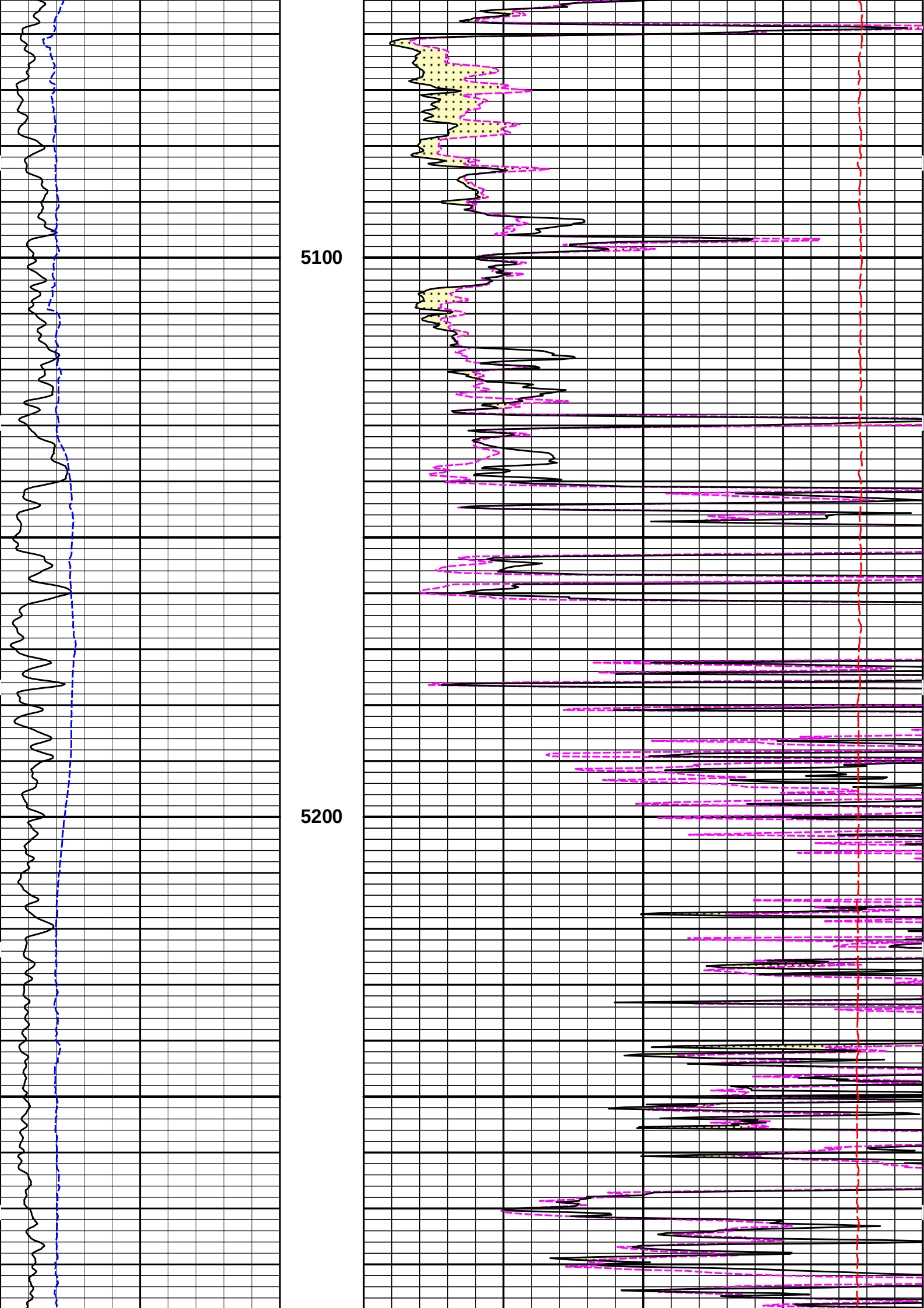
REPEAT SECTION

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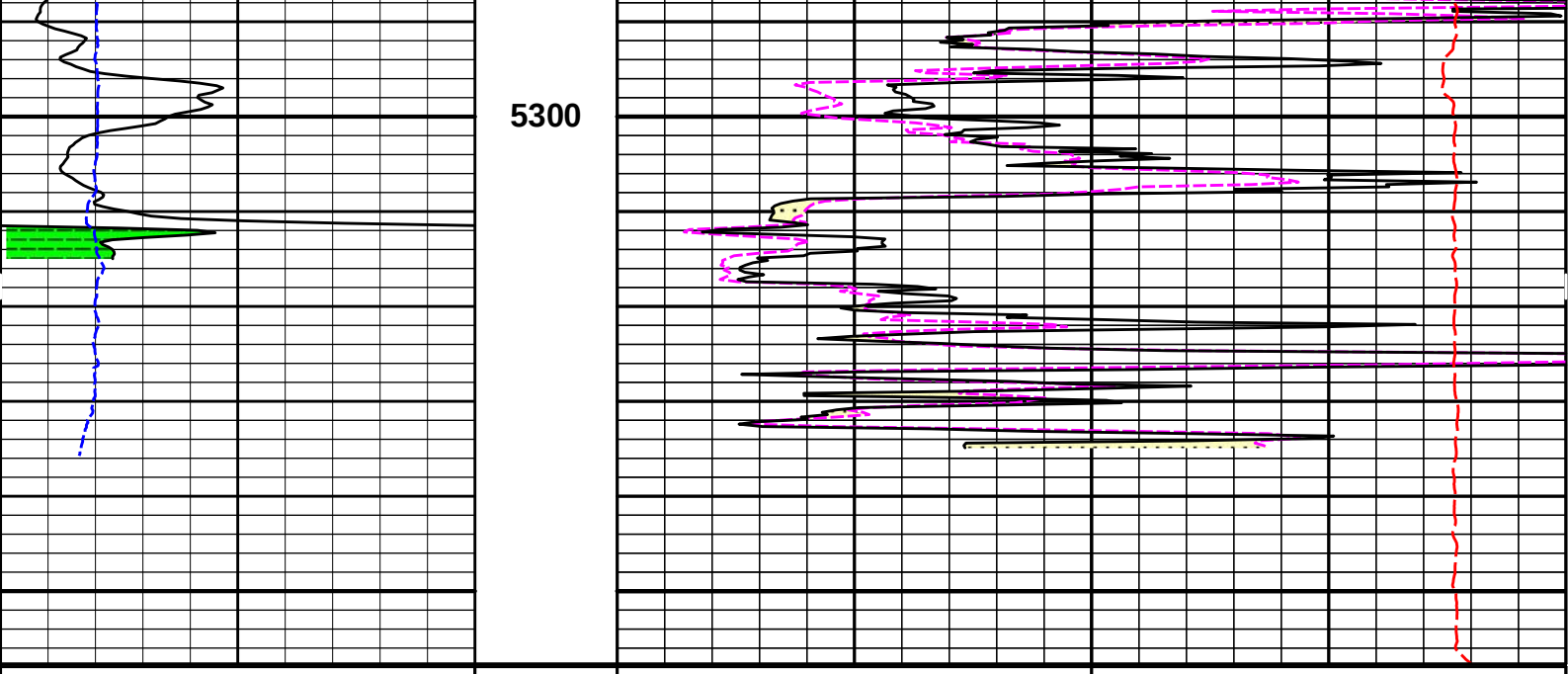
5200



HALLIBURTON

Plot Time: 15-Apr-16 03:43:16
Plot Range: 4998 ft to 5357.67 ft
Data: KOGER_3\Well Based\REPEAT\
Plot File: \\-LOCAL-\KOGER_3\Well Based\MICROLOG\Microlog_IQ_5_rep_lib

REPEAT SECTION

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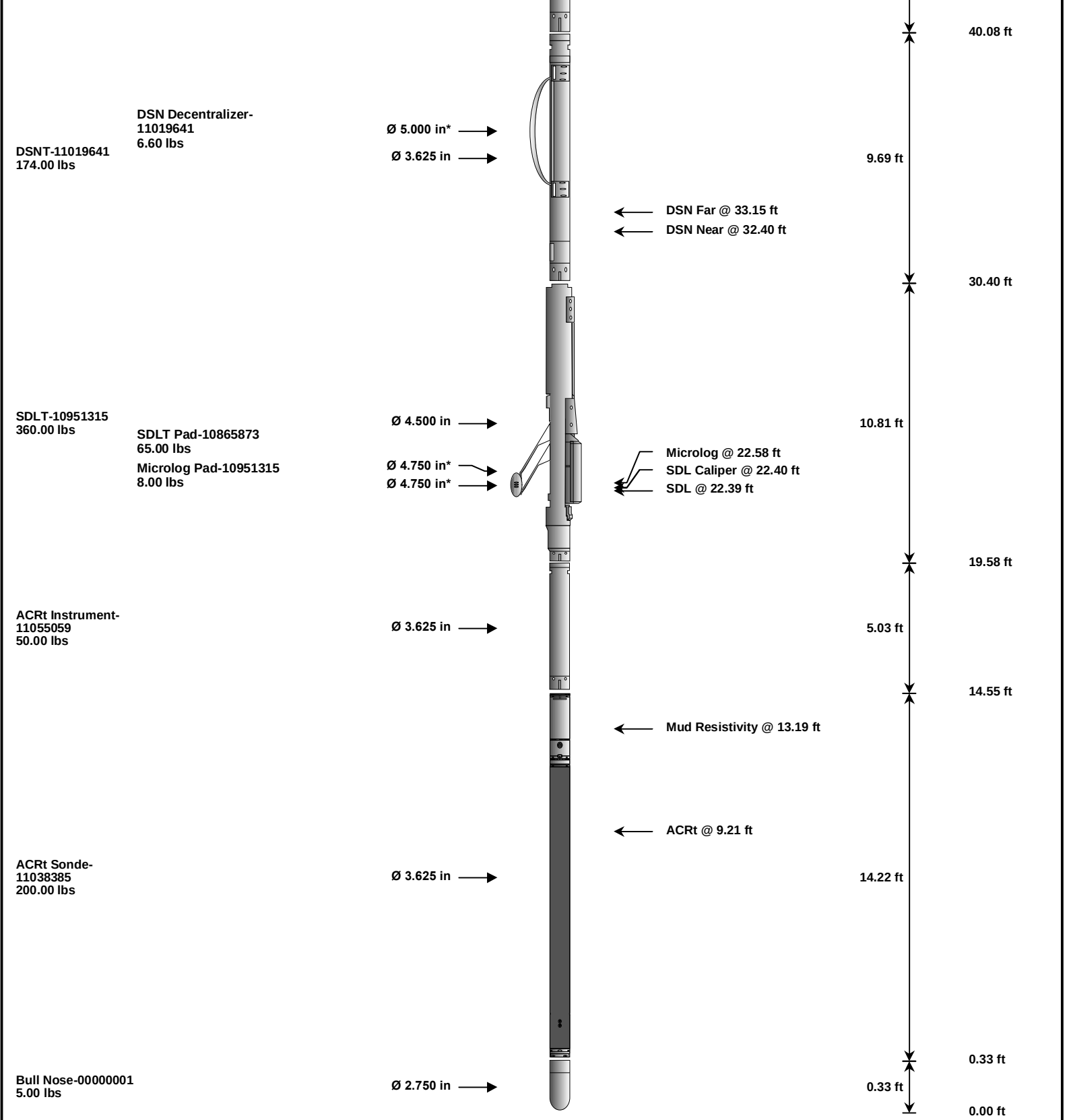
TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS_I 37.50 lbs		Ø 2.750 in		Temperature @ 55.29 ft	3.50 ft	56.79 ft
XOHD-12345678 20.00 lbs		Ø 2.750 in Ø 3.625 in			0.95 ft	53.29 ft
SP Sub-10904995 60.00 lbs		Ø 3.625 in		SP @ 50.56 ft	3.74 ft	52.34 ft
GTET-11021139 165.00 lbs		Ø 3.625 in		GammaRay @ 42.54 ft	8.52 ft	48.60 ft



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)		Accumulated Length (ft)	Max.Log. Speed (fpm)
CH_HOS	Hostile Cable Head with Load Cell	CH_HOS_I	37.50	3.50		53.29	300.00
XOHD	Hostile to Dits Cross Over	12345678	20.00	0.95		52.34	300.00
SP	SP Sub	10904995	60.00	3.74		48.60	300.00
GTET	Gamma Telemetry Tool	11021139	165.00	8.52		40.08	60.00
DSNT	Dual Spaced Neutron	11019641	174.00	9.69		30.40	60.00
DCNT	DSN Decentralizer	11019641	6.60	5.13	*	33.73	300.00
SDLT	Spectral Density Tool	10951315	360.00	10.81		19.58	60.00
SDLP	Density Insite Pad	10865873	65.00	2.55	*	21.79	60.00
MICP	Microlog Pad	10951315	8.00	1.00	*	22.08	60.00
ACRt	Array Compensated True Resistivity Instrument Section	11055059	50.00	5.03		14.55	120.00
ACRt	Array Compensated True Resistivity Sonde Section	11038385	200.00	14.22		0.33	120.00
BLNS	Bull Nose	00000001	5.00	0.33		0.00	300.00
Total			**1,151.10**	**56.79**			

* Not included in Total Length and Length Accumulation.

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PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.300	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	2.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.500	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5357.00	ft
	SHARED	BHT	Bottom Hole Temperature	125.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	Temperature Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	Rwa / CrossPlot	BHSM	Borehole Size Source Tool	SDLT	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	in
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	GTET	BHSM	Borehole Size Source Tool	SDLT	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
	DSNT	DNTP	Temperature Correction Type	None	
	DSNT	DPRS	DSN Pressure Correction Type	None	
	DSNT	SHCO	View More Correction Options	No	
	DSNT	UTVD	Use TVD for Gradient Corrections?	No	
	DSNT	LHWT	Logging Horizontal Water Tank?	No	
	DSNT	BHSM	Borehole Size Source Tool	SDLT	
	SDLT	CLOK	Process Caliper Outputs?	Yes	
	SDLT Pad	DNOK	Process Density?	Yes	

SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
ACRt Sonde	BHSM	Borehole Size Source Tool	SDLT	
ACRt Sonde	MBFL	Apply Corkscrew Effect?	No	

BOTTOM

Data: KOGER_3\0001 RED_TRIPLE\IDLE **Date: 15-Apr-16 01:59:06**

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CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 11021139 **Reference Calibration Date:** 26-Feb-16 09:56:46

Engineer: WHITLOCK **Calibration Date:** 10-Apr-16 15:48:49

Software Version: WL INSITE R4.6.3 (Build 5) **Calibration Version:** 1

Calibrator Source S/N: TB 79

Calibrator API Reference:222.00 api

Equivalent Calibrator API Reference:225.9 api

Measurement	Measured	Calibrated	Units
Background	23.0	23.1	api
Background + Calibrator	248.2	249.0	api
Calibrator	225.2	225.9	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name: GTET - 11021139 **Reference Calibration Date:** 10-Apr-16 15:48:49

Engineer: WHITLOCK **Calibration Date:** 10-Apr-16 15:54:51

Software Version: WL INSITE R4.6.3 (Build 5) **Calibration Version:** 1

Calibrator Source S/N: TB 79

Calibrator API Reference:222.00 api

Equivalent Calibrator API Reference:225.9 api

Field Verification	Shop	Field	Units
Background	23.1	23.3	api
Background + Calibrator	249.0	248.9	api
Calibrator	225.9	225.6	api

Shop	Field	Difference	Tolerance
225.9	225.6	0.3	+/- 9.00

DENSITY CALIPER SHOP CALIBRATION

Tool Name: SDLT - 10951315 **Reference Calibration Date:** 18-Jan-16 11:11:04

Engineer:	**WHITLOCK**	**Calibration Date:**	**18-Feb-16 11:56:22**
Software Version:	**WL INSITE R4.6.3 (Build 5)**	**Calibration Version:**	**1**
Host Tool Name:	**DSNT - 11019641**		

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2649.25	-2649.25	-7000.00 - -1000.00
Pad Gain	0.0003773	0.0003773	0.000200 - 0.000600
Arm Offset	480.90	480.90	-5000.00 - 3000.00
Arm Gain	0.0004044	0.0004044	0.000300 - 0.000700
Arm Power	0.000001870	0.000001870	-0.000010000 - 0.000010000

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER

Tool Diameter: 4.50 in

CALIBRATION RINGS

Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value
PAD EXTENSION:				
Small Ring (in)	2.00	2.00	0.00	+/- 0.20
Medium Ring (in)	3.75	3.75	0.00	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.50	6.50	0.00	+/- 0.20
Medium Ring (in)	8.25	8.25	0.00	+/- 0.20
Large Ring (in)	15.00	15.00	0.00	+/- 0.20

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed
Ring-Measurement Check:	Passed

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed

SDLT CALIPER FIELD CALIBRATION

Tool Name:	**SDLT - 10951315**	**Reference Calibration Date:**	**18-Feb-16 11:56:22**
Engineer:	**WHITLOCK**	**Calibration Date:**	**10-Apr-16 15:44:16**
Software Version:	**WL INSITE R4.6.3 (Build 5)**	**Calibration Version:**	**1**

MEASURED CALIPER VALUES

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.77	0.02	+/- 0.10
Ring Diameter	8.25	8.25	0.00	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check:	Passed
Diameter Check:	Passed

MICRO LOG SHOP CALIBRATION

Tool Name:	**Microlog Pad - 10951315**	**Reference Calibration Date:**	**18-Jan-16 12:52:41**
Engineer:	**WHITLOCK**	**Calibration Date:**	**18-Feb-16 14:53:42**
Software Version:	**WL INSITE R4.6.3 (Build 5)**	**Calibration Version:**	**1**
Host Tool Name:	**DSNT - 11019641**		

CALIBRATION COEFFICIENT SUMMARY

Measurement	Micro Log Normal		Micro Log Lateral		
	Measured	Calibrated	Measured	Calibrated	Units
Tool Zero	-0.17	-0.17	-0.01	-0.01	ohmm
Calibration Point #1	0.00	0.00	0.00	0.00	ohmm

Calibration Point #2	20.00	20.00	20.00	20.00	ohmm
Internal Reference	19.76	19.76	19.96	19.96	ohmm

Measurement	Micro Log Normal Tool Value	Micro Log Lateral Tool Value	Units
Tool Zero	3.11	0.19	V
Calibration Point #1	48.82	2.83	V
Calibration Point #2	5497.07	7124.17	V
Internal Reference	5430.58	7109.98	V

MICRO LOG FIELD CHECK

Tool Name: Microlog Pad - 10951315 **Reference Calibration Date:** 18-Feb-16 14:53:42

Engineer: WHITLOCK **Calibration Date:** 10-Apr-16 15:54:33

Software Version: WL INSITE R4.6.3 (Build 5) **Calibration Version:** 1

Measurement	Micro Log Normal		Micro Log Lateral		
	Shop	Field	Shop	Field	Units
Tool Zero	-0.17	-0.18	-0.01	-0.01	ohmm
Internal Reference	19.76	19.66	19.96	19.86	ohmm

Summary

Signal	Shop	Field	Difference	Tolerence
Microlog Normal	19.76	19.66	0.10	+/- 0.80
Microlog Lateral	19.96	19.86	0.10	+/- 0.80

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11021139						
Gamma Ray Calibrator	225.9	225.6	----------	0.3	+/- 9.00	api
SDLT-10951315						
Pad Extension	3.75	3.77	----------	-0.02	+/-0.10	in
Ring Diameter	8.25	8.25	----------	0.00	+/-0.15	in
Microlog Pad-10951315						
MicroLog Normal	19.76	19.66	----------	0.10	+/-0.80	ohmm
MicroLog Lateral	19.96	19.86	----------	0.10	+/-0.80	ohmm

Data: KOGER_3\0001 RED_TRIPLE\IDLE **Date: 15-Apr-16 02:16:02**

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INPUTS, DELAYS AND FILTERS TABLE

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
Rwa / CrossPlot				
TPUL	Tension Pull	56.79	NO	
BS	Bit Size	56.79	NO	
HDIA	Measured Hole Diameter	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000
SP Sub				
PLTC	Plot Control Mask	50.56	NO	
SP	Spontaneous Potential	50.56	BLK	1.250
SPR	Raw Spontaneous Potential	50.56	NO	

SPO	Spontaneous Potential Offset	50.56	NO	
	GTET			
TPUL	Tension Pull	42.54	NO	
GR	Natural Gamma Ray API	42.54	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	42.54	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	42.54	W	1.416 , 0.750
HDIA	Measured Hole Diameter	0.00	NO	
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
	DSNT			
TPUL	Tension Pull	32.30	NO	
RNDS	Near Detector Telemetry Counts	32.40	BLK	1.417
RFDS	Far Detector Telemetry Counts	33.15	TRI	0.583
DNTT	DSN Tool Temperature	32.40	NO	
DSNS	DSN Tool Status	32.30	NO	
ERND	Near Detector Telemetry Counts EVR	32.40	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	33.15	BLK	0.000
ENTM	DSN Tool Temperature EVR	32.40	NO	
HDIA	Measured Hole Diameter	0.00	NO	
	SDLT			
TPUL	Tension Pull	22.40	NO	
PCAL	Pad Caliper	22.40	TRI	0.250
ACAL	Arm Caliper	22.40	TRI	0.250
	ACRt Sonde			
TPUL	Tension Pull	2.73	NO	
F1R1	ACRT 12KHz - 80in R value	8.98	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	8.98	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.48	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.48	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	4.98	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	4.98	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	3.98	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	3.98	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.48	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.48	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.23	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.23	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	8.98	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	8.98	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.48	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.48	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	4.98	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	4.98	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	3.98	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	3.98	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.48	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.48	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.23	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.23	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	8.98	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	8.98	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.48	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.48	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	4.98	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	4.98	BLK	0.000

F3R4	ACRT 72KHz - 17in R value	3.98	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	3.98	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.48	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.48	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.23	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.23	BLK	0.000
RMUD	Mud Resistivity	12.52	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.73	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.73	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.73	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.73	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.73	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.73	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.73	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.73	BLK	0.000
ITMP	Instrument Temperature	2.73	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.73	NO	
TIDV	Instrument Temperature Derivative	2.73	NO	
TUDV	Upper Temperature Derivative	2.73	NO	
TLDV	Lower Temperature Derivative	2.73	NO	
TRBD	Receiver Board Temperature	2.73	NO	
HDIA	Measured Hole Diameter	0.00	NO	

SDLT Pad

TPUL	Tension Pull	22.39	NO	
NAB	Near Above	22.21	BLK	0.920
NHI	Near Cesium High	22.21	BLK	0.920
NLO	Near Cesium Low	22.21	BLK	0.920
NVA	Near Valley	22.21	BLK	0.920
NBA	Near Barite	22.21	BLK	0.920
NDE	Near Density	22.21	BLK	0.920
NPK	Near Peak	22.21	BLK	0.920
NLI	Near Lithology	22.21	BLK	0.920
NBAU	Near Barite Unfiltered	22.21	BLK	0.250
NLIU	Near Lithology Unfiltered	22.21	BLK	0.250
FAB	Far Above	22.56	BLK	0.250
FHI	Far Cesium High	22.56	BLK	0.250
FLO	Far Cesium Low	22.56	BLK	0.250
FVA	Far Valley	22.56	BLK	0.250
FBA	Far Barite	22.56	BLK	0.250
FDE	Far Density	22.56	BLK	0.250
FPK	Far Peak	22.56	BLK	0.250
FLI	Far Lithology	22.56	BLK	0.250
PTMP	Pad Temperature	22.40	BLK	0.920
NHV	Near Detector High Voltage	21.79	NO	
FHV	Far Detector High Voltage	21.79	NO	
ITMP	Instrument Temperature	21.79	NO	
DDHV	Detector High Voltage	21.79	NO	
HDIA	Measured Hole Diameter	0.00	NO	

Microlog Pad

TPUL	Tension Pull	22.58	NO	
MINV	Microlog Lateral	22.58	BLK	0.750
MNOR	Microlog Normal	22.58	BLK	0.750

Data: KOGER_3\0001 RED_TRIPLE\IDLE **Date: 15-Apr-16 02:15:10**

COMPANY **HERMAN L. LOEB, LLC**

WELL **KOGER #3**

FIELD	**ALFORD**		
COUNTY	**KIOWA**	STATE	**KANSAS**

HALLIBURTON	**MICROLOG**