



FILE NO: \_\_\_\_\_ COMPANY **MERIT ENERGY COMPANY**  
 WELL **CARRIE 15-1**  
 FIELD **WILDCAT**  
 COUNTY **FINNEY** STATE **KANSAS**  
 API NO: 15-093-21978-00-00

Ver. 4.15 LOCATION: 1632 FEL & 2315 FNL  
 SEC 15 TWP 23S RGE 35W  
 OTHER SERVICES  
 DAL/GR  
 ZD/CN/GR  
 ZD/CN/HD/L/GR  
 ML/GR

PERMANENT DATUM GL ELEVATION 3020.6 FT  
 LOG MEASURED FROM KB 12 FT ABOVE P.D.  
 DRILL. MEAS. FROM KB  
 ELEVATIONS:  
 KB 3033 FT  
 DF 3032 FT  
 GL 3021 FT

DATE	05-Mar-2020	
RUN	TRIP	1
SERVICE ORDER	US166109	
DEPTH DRILLER	5000 FT	
DEPTH LOGGER	5001 FT	
BOTTOM LOGGED INTERVAL	5001 FT	
TOP LOGGED INTERVAL	1828 FT	
CASING DRILLER	8.625 IN @ 1832 FT	
CASING LOGGER	1828 FT	
BIT SIZE	7.875 IN	
TYPE OF FLUID IN HOLE	OBM	
DENSITY	9.35 LB/G	52 CP
PH	11	6.4 C3
SOURCE OF SAMPLE	PIT	
RM AT MEAS. TEMP.	3.038 OHMM	@ 75 DEGF
RMF AT MEAS. TEMP.	2.278 OHMM	@ 75 DEGF
RMC AT MEAS. TEMP.	3.797 OHMM	@ 75 DEGF
SOURCE OF RMF	RMC	CALCULATED
RM AT BHT	2.024 OHMM	@ 116 DEGF
TIME SINCE CIRCULATION	5 HRS	
MAX. RECORDED TEMP.	116 DEGF	
EQUIP. NO.	HL-6670	OKC,OK
RECORDED BY	S. Yassa	
WITNESSED BY	MR. M. Lange	

**IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.**

**REMARKS**

RUN 1 TRIP 1: 1 OPERATION IN WELL  
 HDIL/DAL/ML/ZDL/CN/GR RUN IN COMBINATION

CVOL CALCULATED FOR PROPOSED 5.5" CASING  
 CALIPER VERIFIED IN CASING

ZDL & CN RUN ON LIMESTONE MATRIX  
 RHO MATRIX: 2.68 G/CC

HDIL RUN WITH 0.5" STANDOFFS  
 ABC TO CALCULATED: MUD CONDUCTIVITY

ACOUSTIC POROSITY RUN ON LIMESTONE MATRIX

WELLBORE RUGOSITY WILL AFFECT THE ACCURACY OF MEASUREMENTS

CREW: D.HUTCHISON, K.REED  
 RIG: DUKE RIG 9

## EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	TTRM	3981 XA	10045153	FREE
1	1	COMREM	3514 XC	12367091	FREE
1	1	DGR	1329 XA	179184	FREE
1	1	CN	2446 XA	10162846	DECENTRALIZED
1	1	ZDL	2234 XA	10495112	PAD DEVICE
1	1	DKJT	3939 XA	186262	FREE
1	1	DAL	1677EA/1680MA	10192401/151555	CENTRALIZED
1	1	CENT	4341XA	177195	CENTRALIZED
1	1	HDIL	1515 EA/MA	10059243/179553	1.5" STANDOFFS
1	1	ML	1243XA	10676690	PAD DEVICE

## MAIN LOG 2"/100FT SCALE

ECLIPS 7.0i ECLIPS General Release Rel 7.0i Thu Jun 08 20:36:10 CDT 2017

Updates: 1,32 Patches: 7

Plotted: Fri Mar 6 00:44:07 2020

## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MERIT\_CARRIE\_15\_1/GSALM\_DAL02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 1723.250 ft BOTTOM DEPTH: 5007.500 ft

### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
SP-SPDH	FILTER ()	medium (1)		"	"

### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
X-Y COMBINED CALIPER PROCESSING	X-Y Caliper	X-Axis		TOP	BOTTOM
BIT SIZE	BIT SIZE	7.875	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	7.875	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

### HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	0.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"
HDIL High RESISTIVITY Normalization	VRM Norm	ON		"	"

## CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Mar 5 21:33:50 2020	GAMMA RAY

F1:M0R2 Mar 5 21:33:50 2020  
 F1:M0R6 Mar 5 21:33:50 2020  
 F1:M2CCX Mar 5 21:33:50 2020  
 F1:SP Mar 5 21:33:50 2020

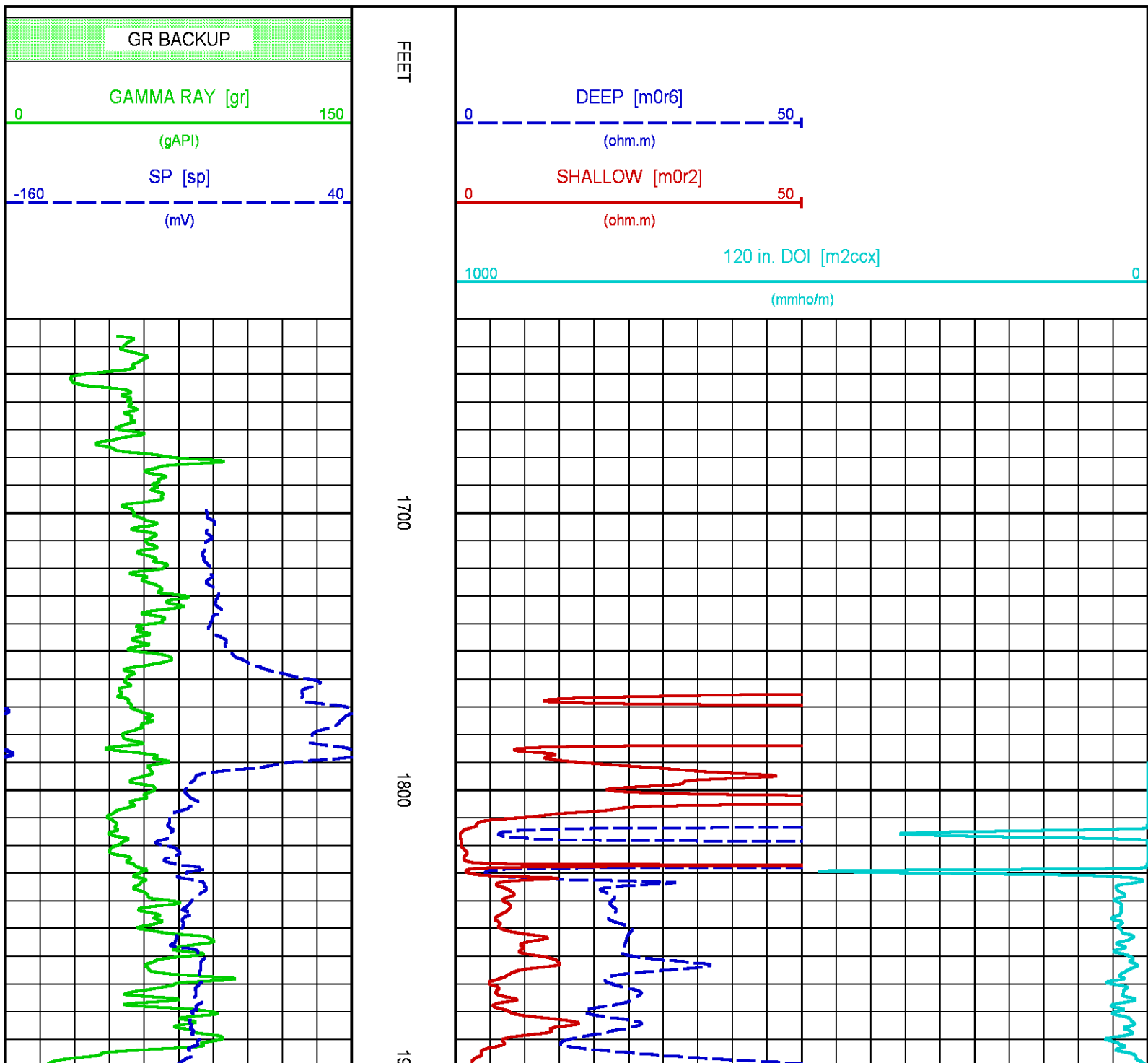
TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI  
 TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI  
 HDIL 2-FOOT RESOLUTION COMPRESSED CONDUCTIVITY, 120-INCH DOI  
 SPONTANEOUS POTENTIAL

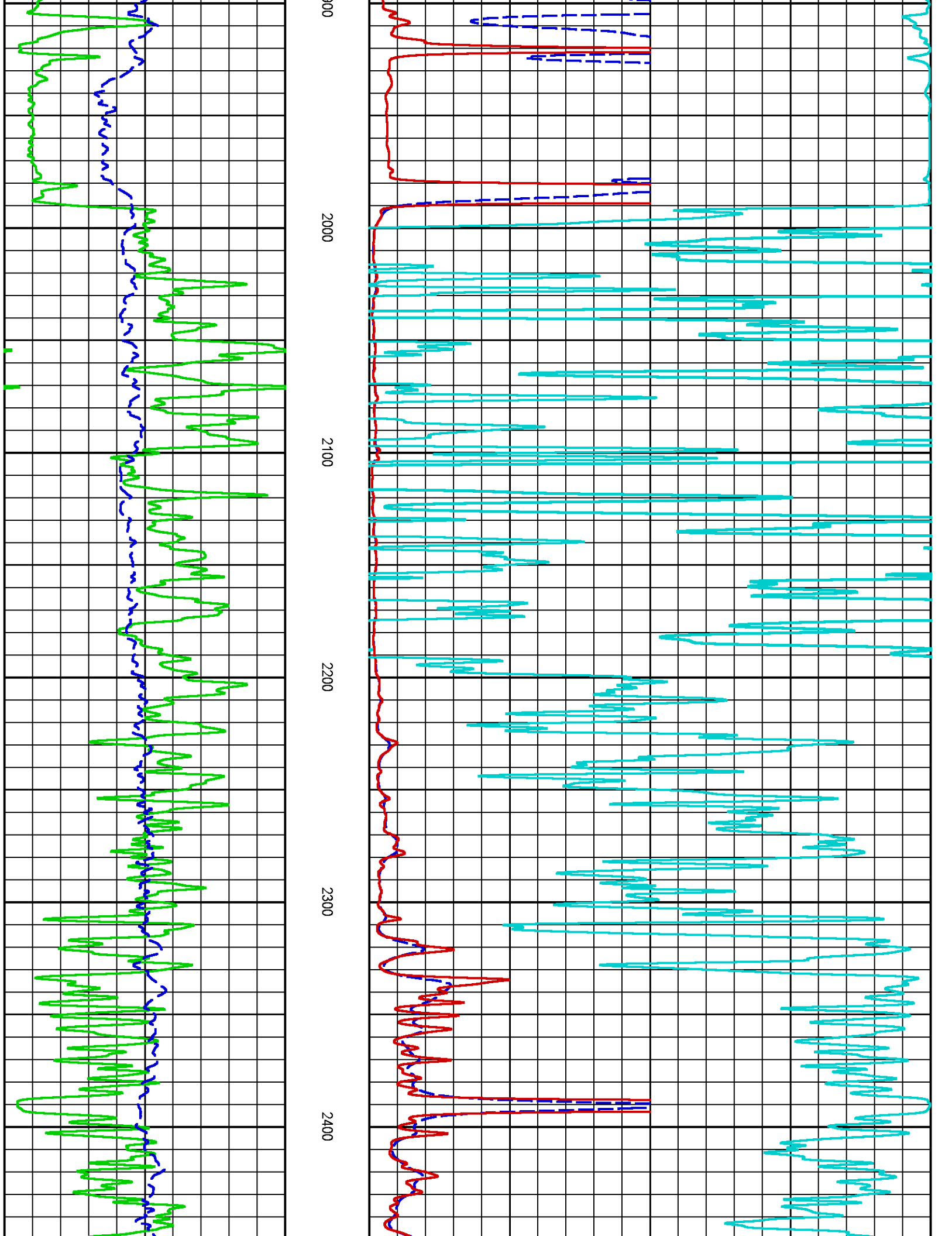
### CURVE MEASURE POINT OFFSET

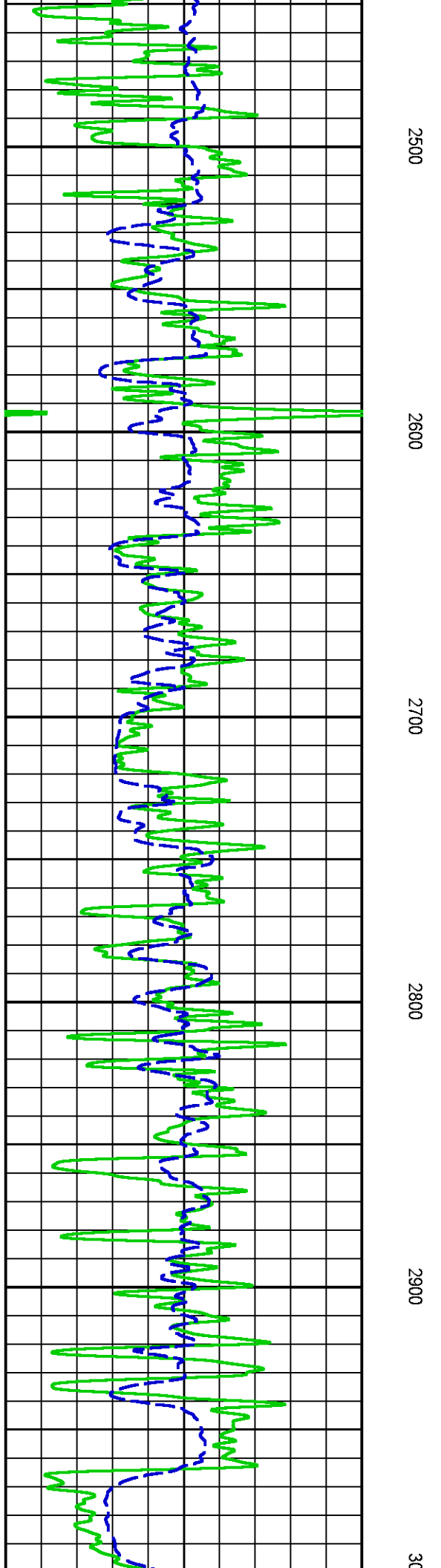
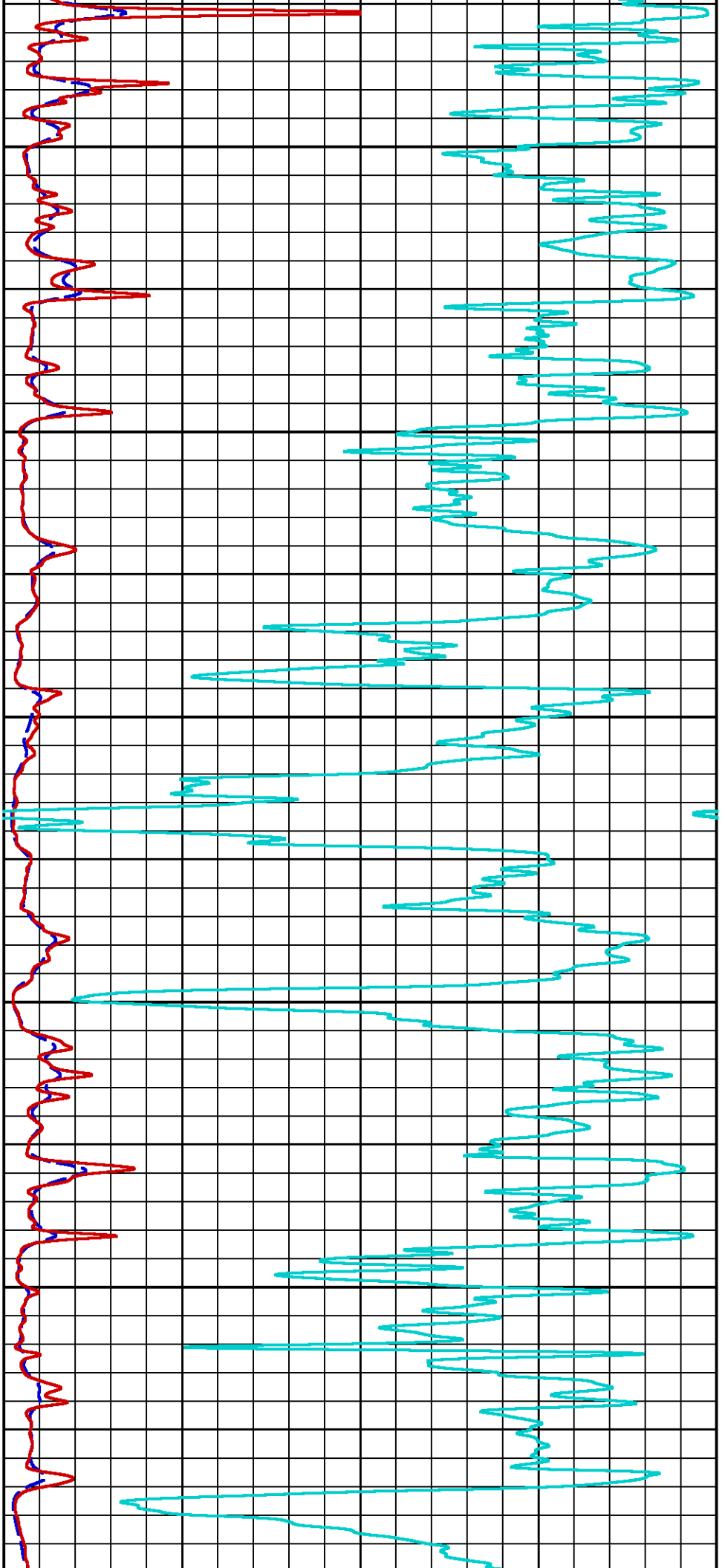
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
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M0R2	-19.25	M2CCX	-19.25				

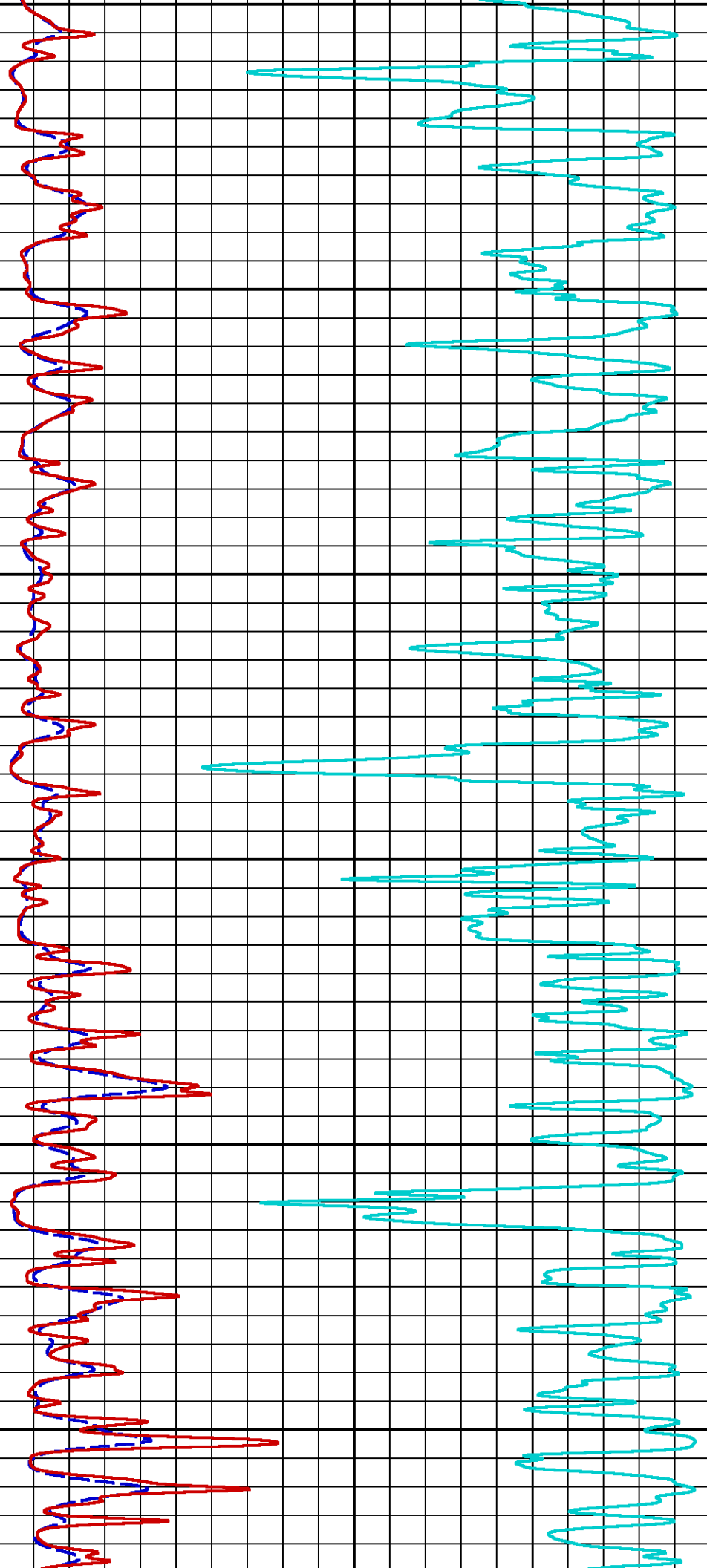
**Presentation** : cpu6728:HDIL2IN.fvpdf [2"/100' Scale]  
**Plot Interval** : 1636.25 - 5006.25 Feet

**Data File 1** : F1 : cpu6728:/dat1a/MERIT\_CARRIE\_15\_1/MAIN.xtf  
**Created On** : Mar 5 21:33:50 2020  
**Company** : MERIT ENERGY COMPANY  
**Well** : CARRIE 15-1  
**Field** : WILDCAT  
**File Interval** : 1621.75 - 5007.5 Feet  
**OCT** : GSALM\_DA

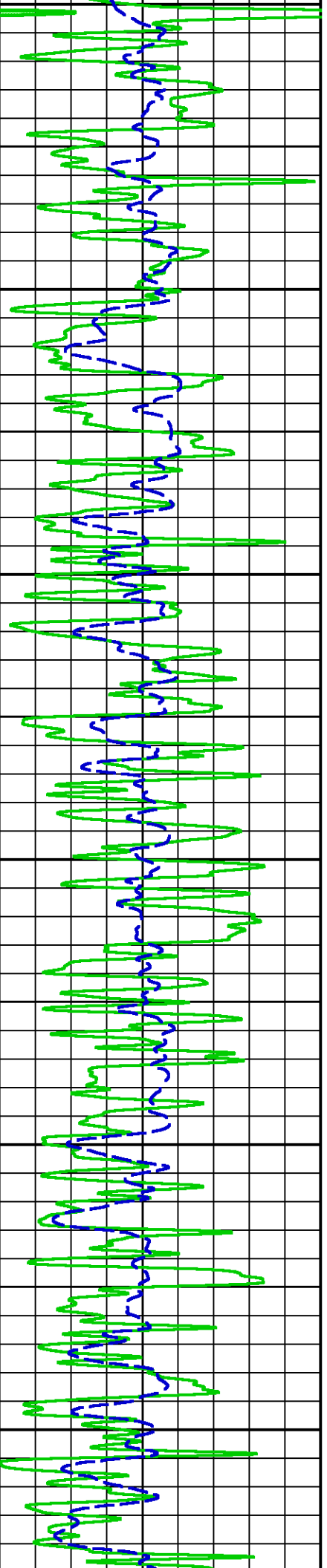


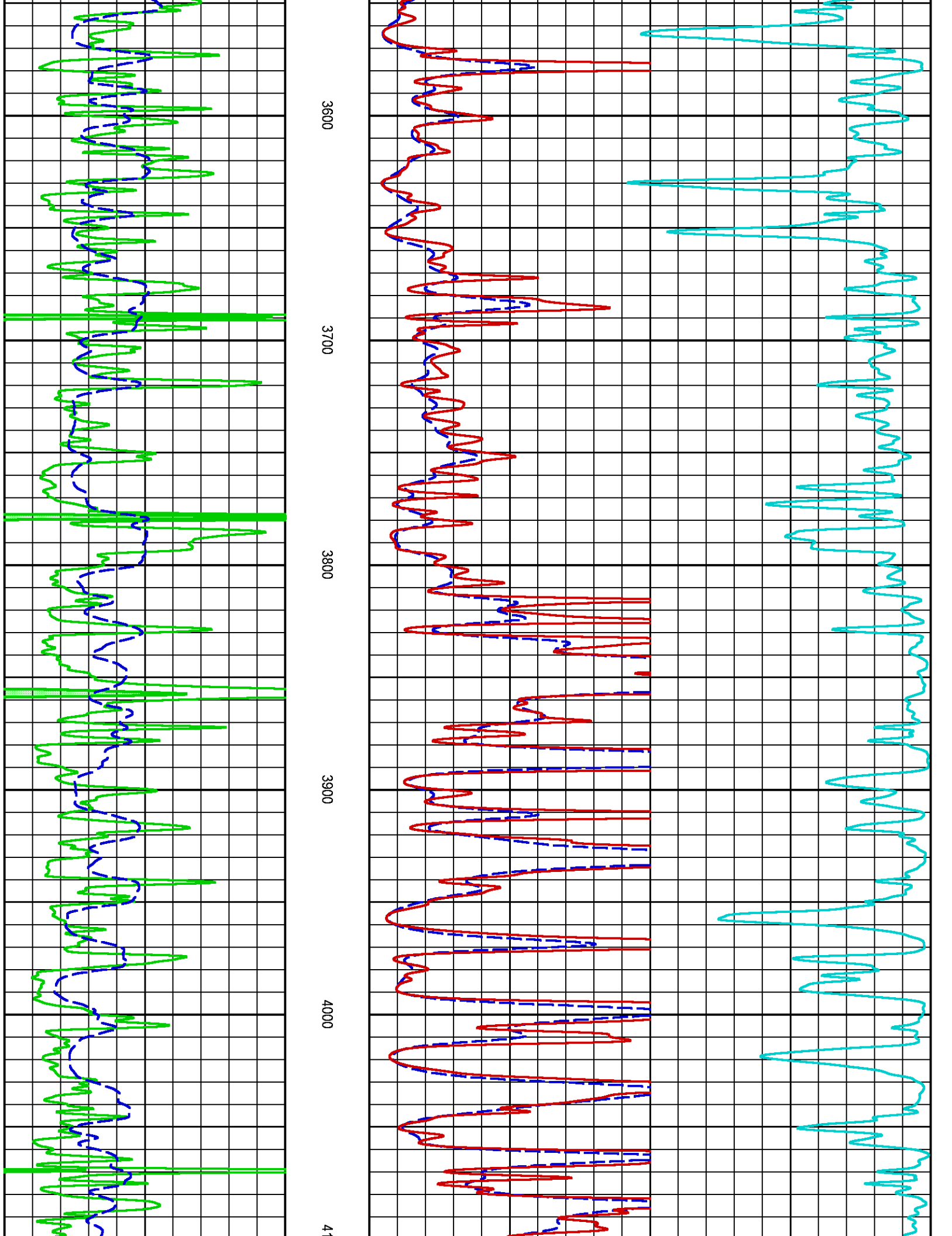


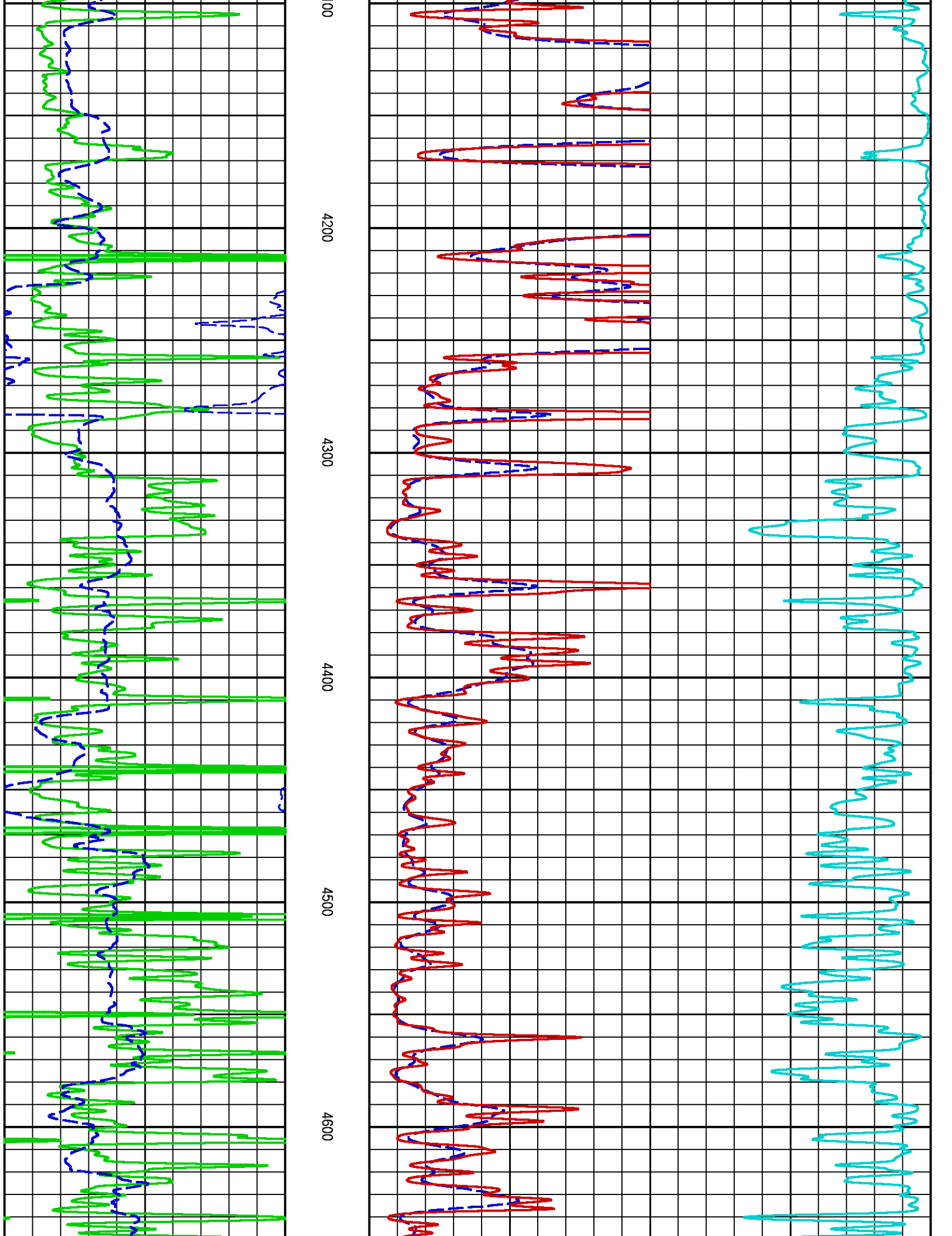




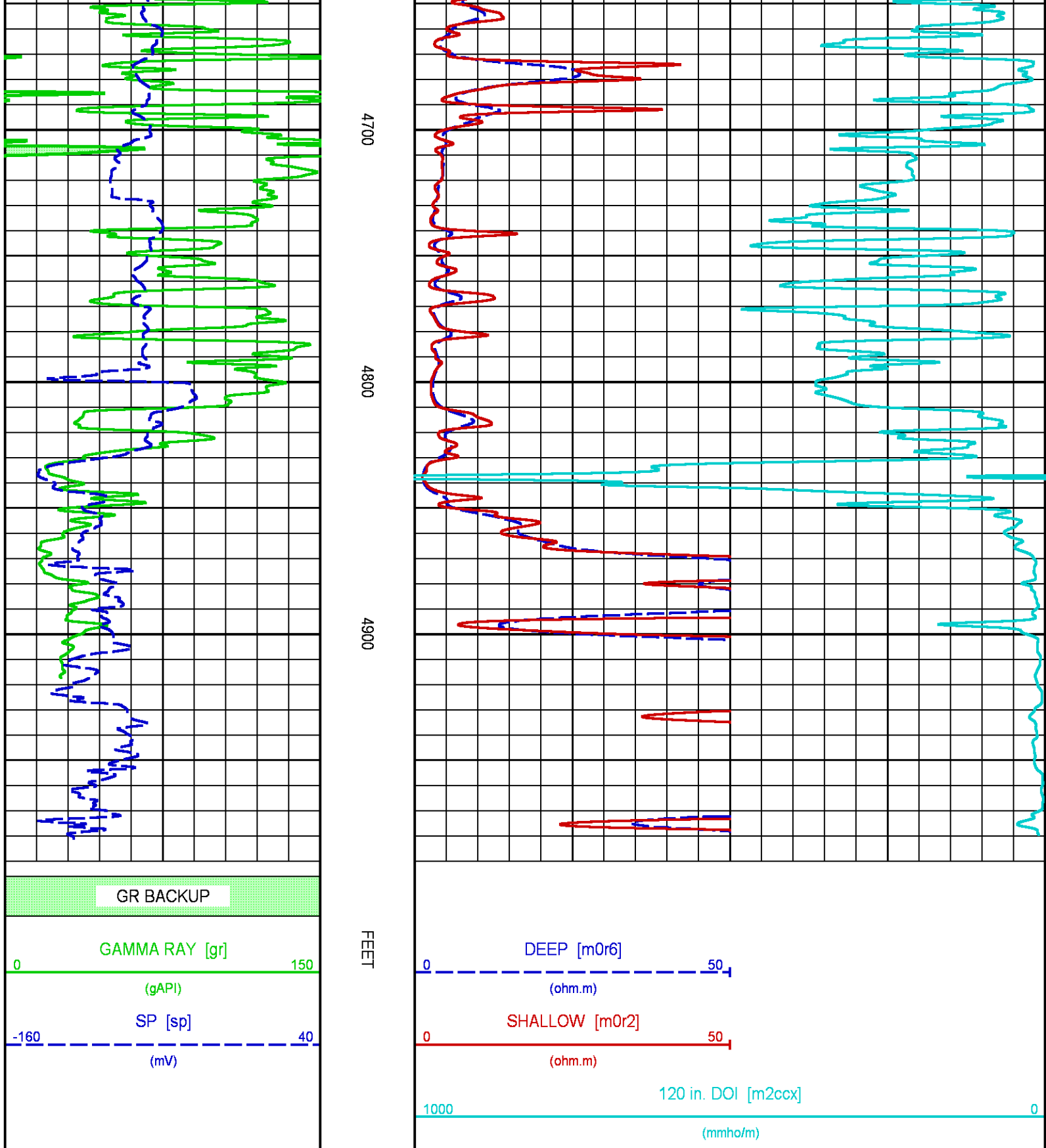
000 3100 3200 3300 3400 3500











MAIN LOG 5"/100FT SCALE

Plotted: Fri Mar 6 00:48:31 2020

## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MERIT\_CARRIE\_15\_1/GSALM\_DAL02.prm  
 LOGGING MODE: DEPTH:           DIRECTION: UP  
 TOP DEPTH: 1723.250 ft       BOTTOM DEPTH: 5007.500 ft

### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ( )	medium (1)		TOP	BOTTOM
	FILTER (.h)	medium (1)		"	"
CALIPER	FILTER (.h)	medium (1)		"	"
SP-SPDH	FILTER ( )	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"

### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
X-Y COMBINED CALIPER PROCESSING	X-Y Caliper	X-Axis		TOP	BOTTOM
BIT SIZE	BIT SIZE	7.875	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	7.875	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

### HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	0.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"
HDIL High RESISTIVITY Normalization	VRM Norm	ON		"	"

### CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Mar 5 21:33:50 2020	GAMMA RAY
F1:M2R1	Mar 5 21:33:50 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R2	Mar 5 21:33:50 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 20-INCH DOI
F1:M2R3	Mar 5 21:33:50 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F1:M2R6	Mar 5 21:33:50 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Mar 5 21:33:50 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:M2RX	Mar 5 21:33:50 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 120-INCH DOI
F1:SP	Mar 5 21:33:50 2020	SPONTANEOUS POTENTIAL

### CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
GR	-88.12	M2R2	-19.25	M2R6	-19.25	M2RX	-19.25
M2R1	-19.25	M2R3	-19.25	M2R9	-19.25	SP	-25.25

**Presentation** : cpu6728:HDIL5IN.fvpdf [5"/100' Scale]  
**Plot Interval** : 1636.25 - 5006.25 Feet

**Data File 1** : F1 : cpu6728:/dat1a/MERIT\_CARRIE\_15\_1/MAIN.xtf  
**Created On** : Mar 5 21:33:50 2020  
**Company** : MERIT ENERGY COMPANY  
**Well** : CARRIE 15-1  
**Field** : WILDCAT

GR BACKUP

GAMMA RAY [gr]

0 150

(gAPI)

SP [sp]

-160 40

(mV)

FEET

1700

10 in. DOI [m2r1]

2000

(ohm.m)

20 in. DOI [m2r2]

2000

(ohm.m)

30 in. DOI [m2r3]

2000

(ohm.m)

60 in. DOI [m2r6]

2000

(ohm.m)

90 in. DOI [m2r9]

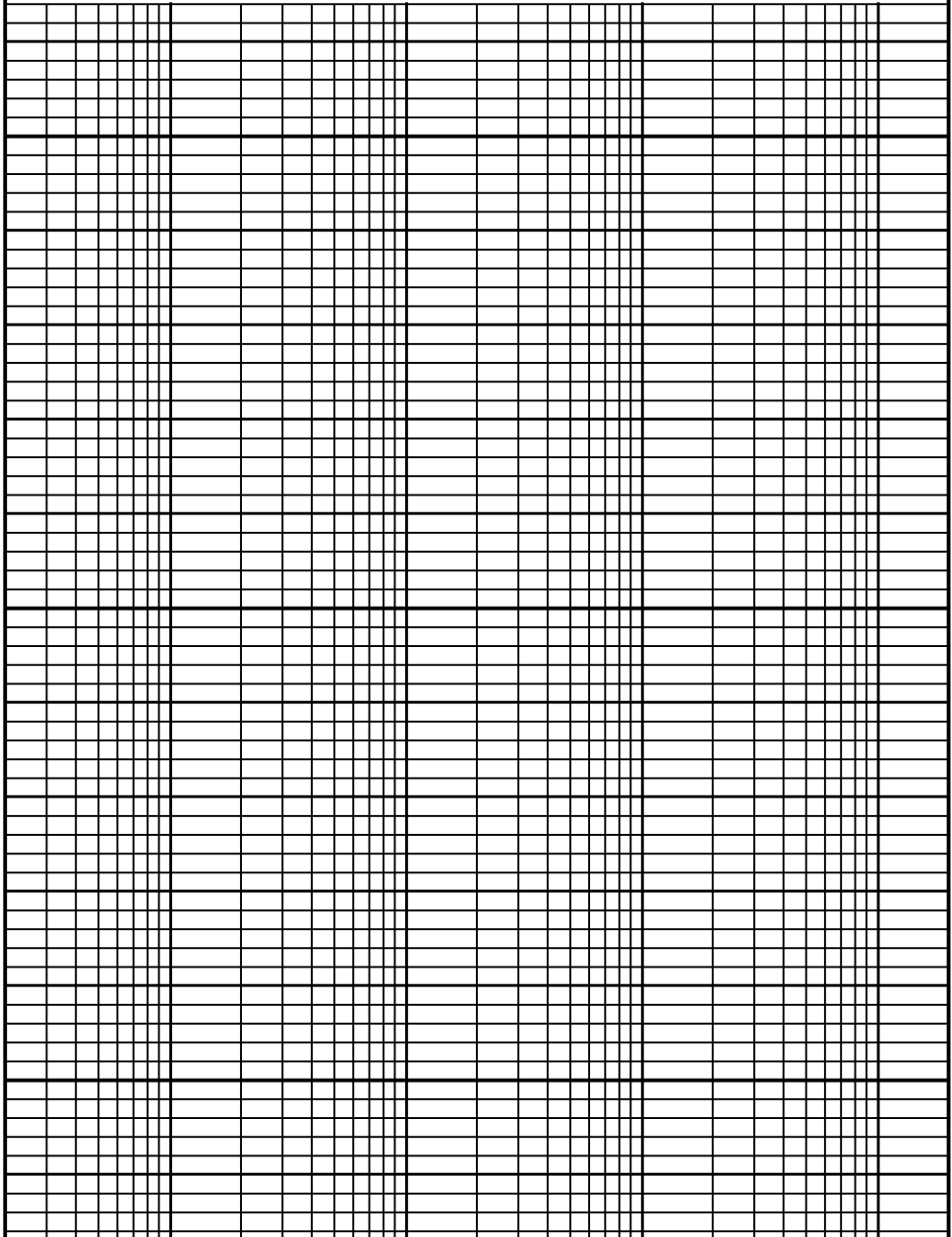
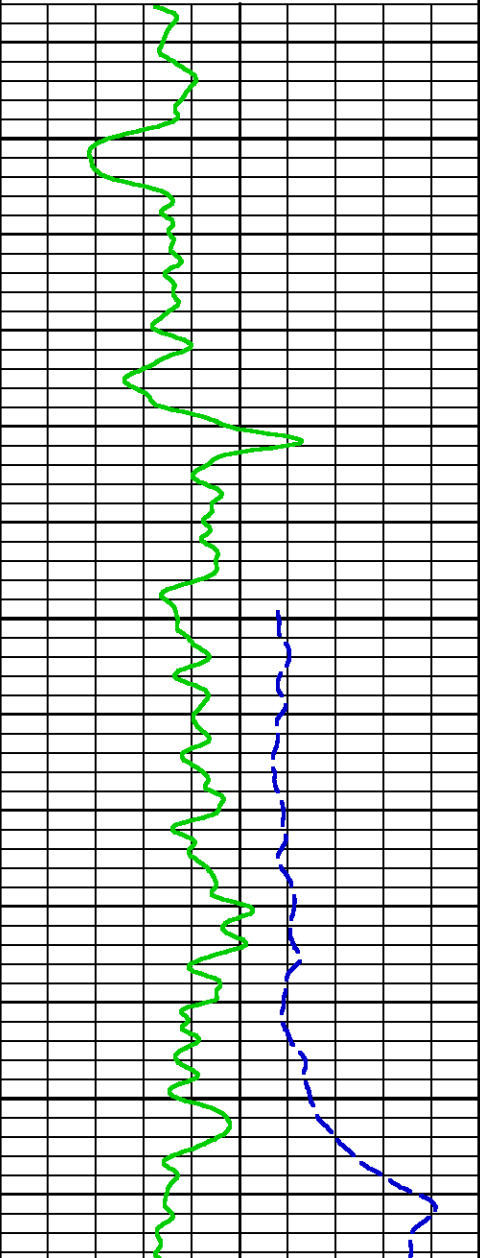
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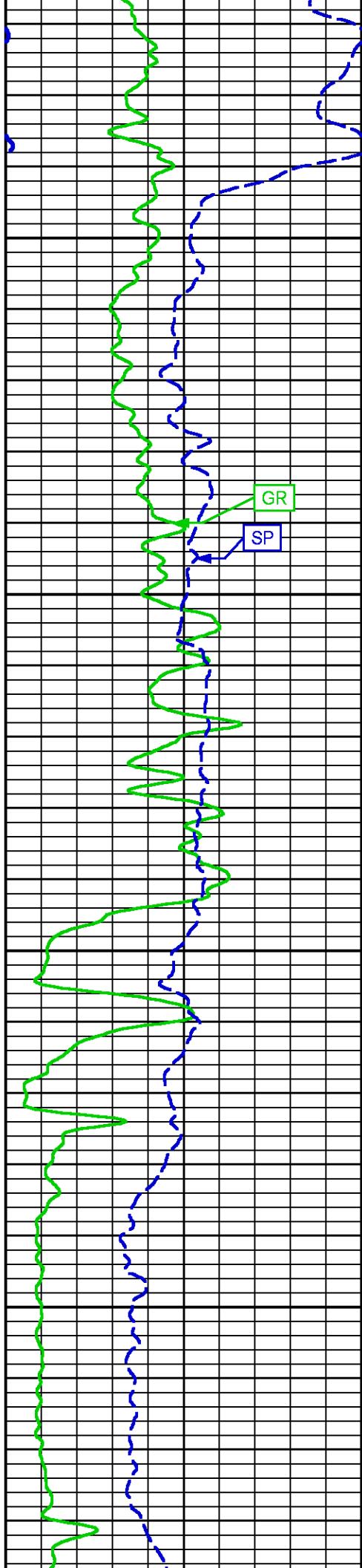
(ohm.m)

120 in. DOI [m2rx]

2000

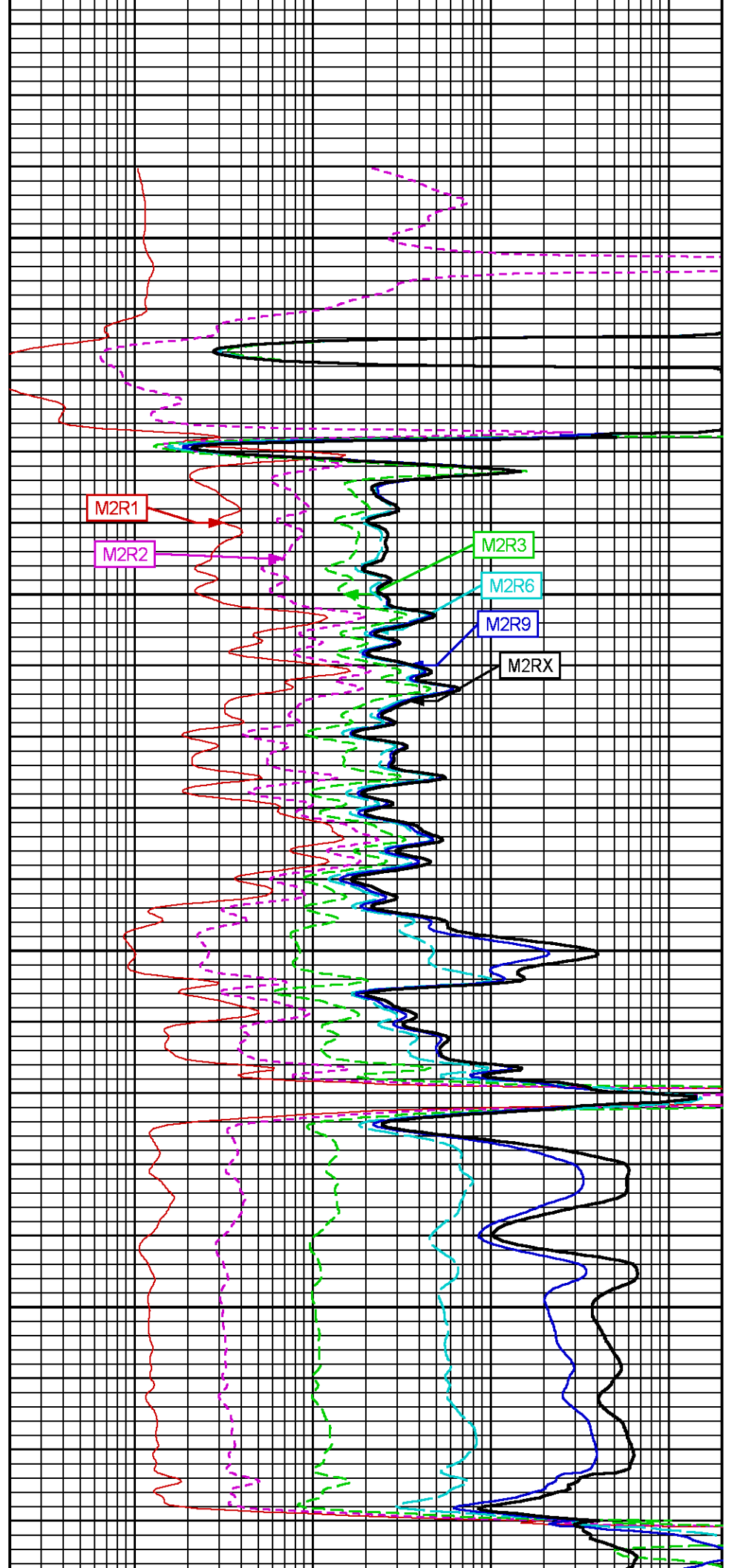
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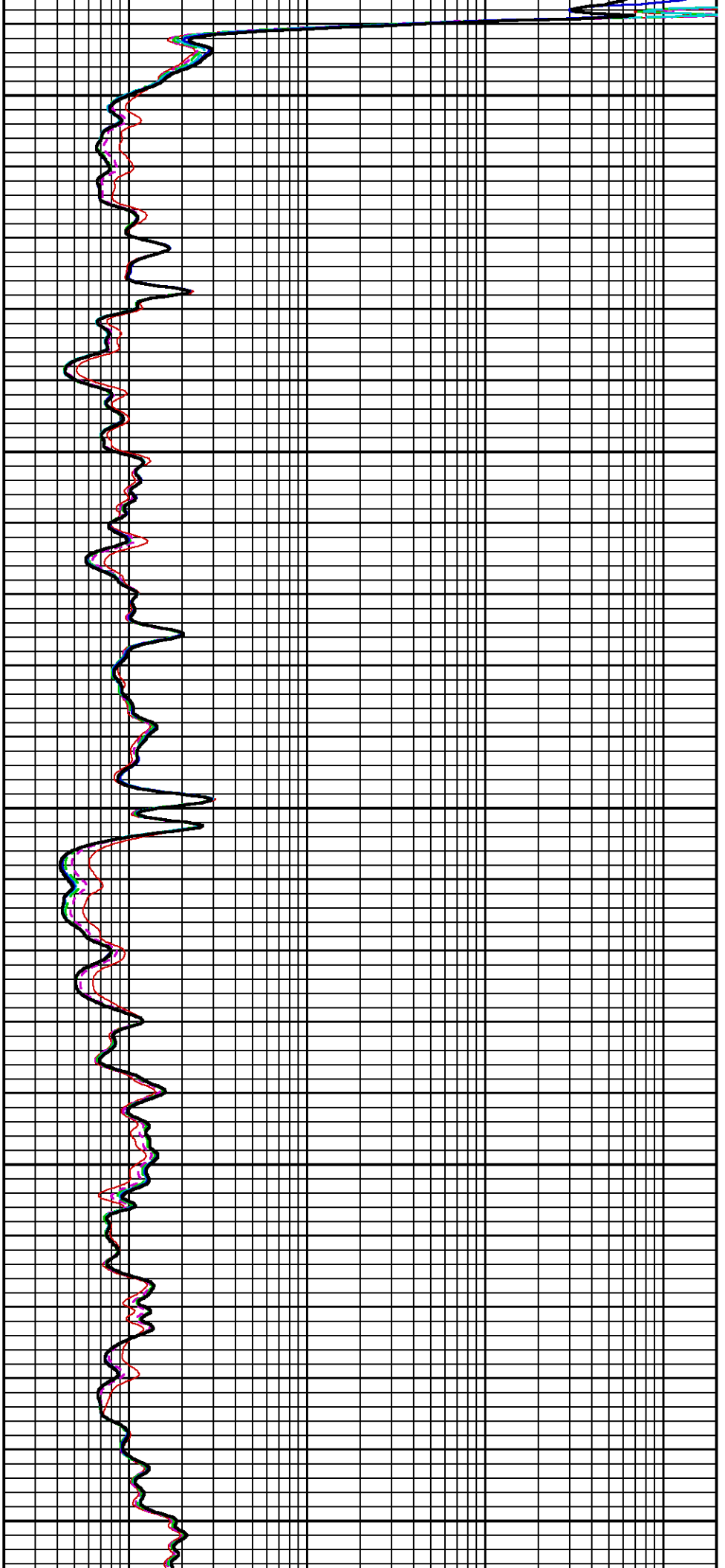




1800

1900

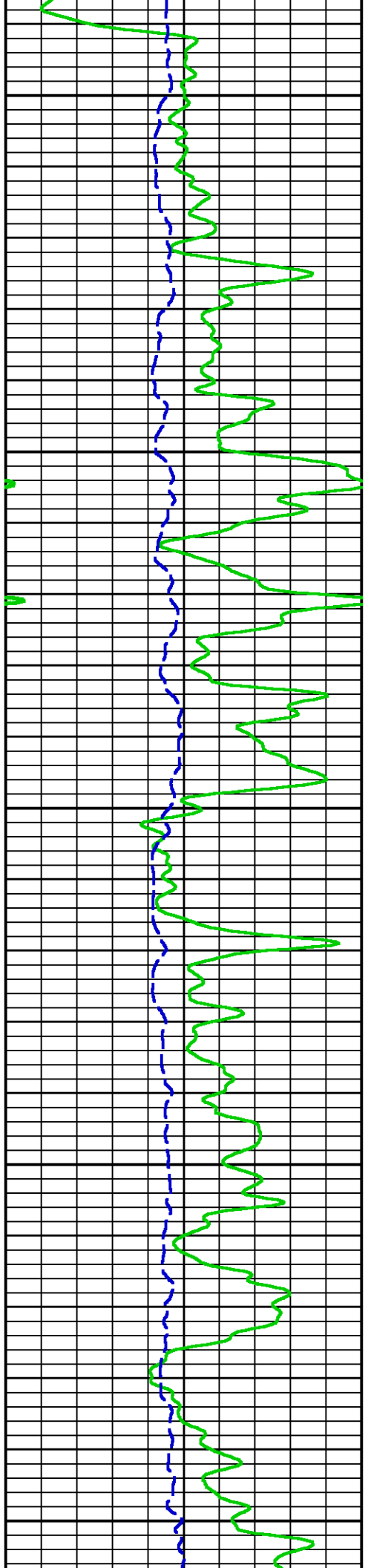


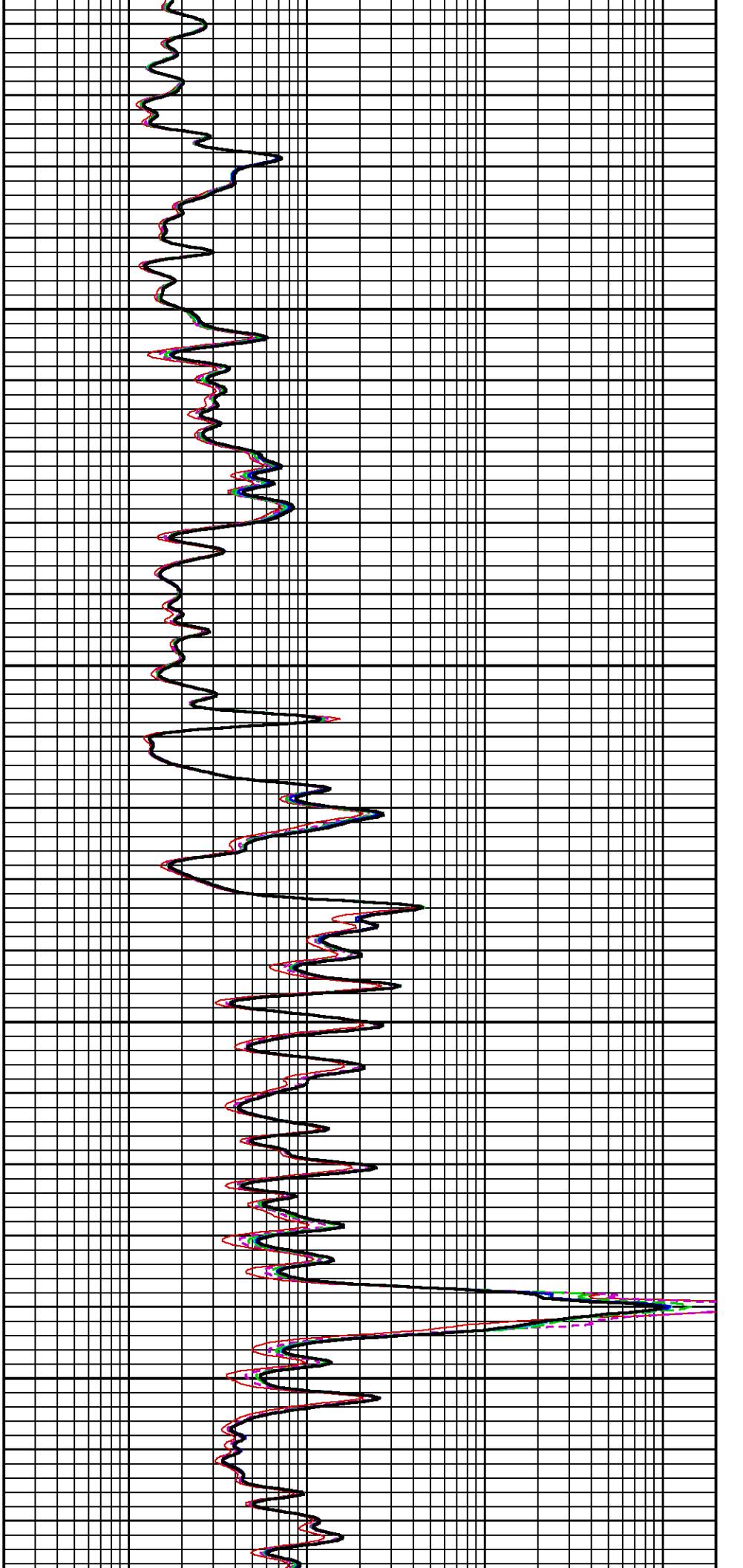


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2100

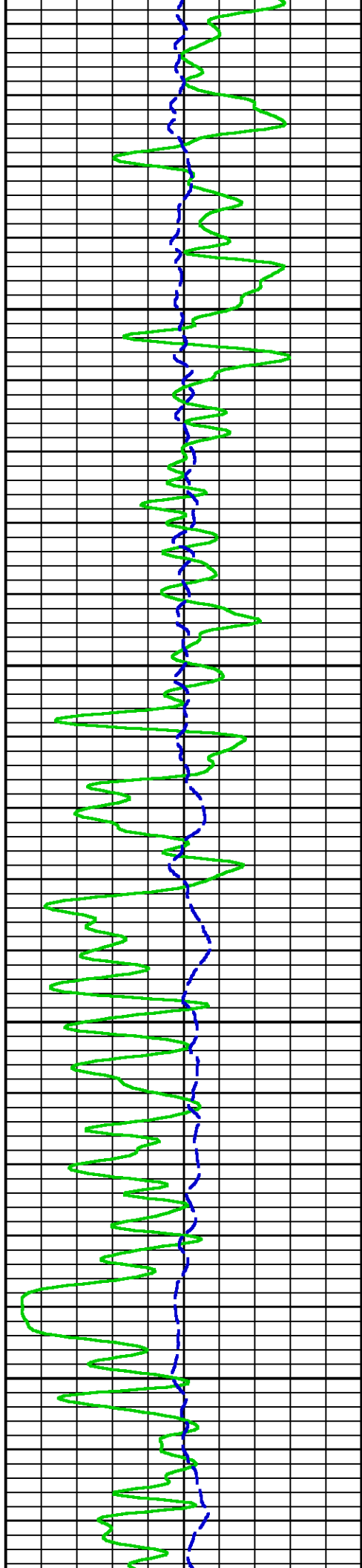
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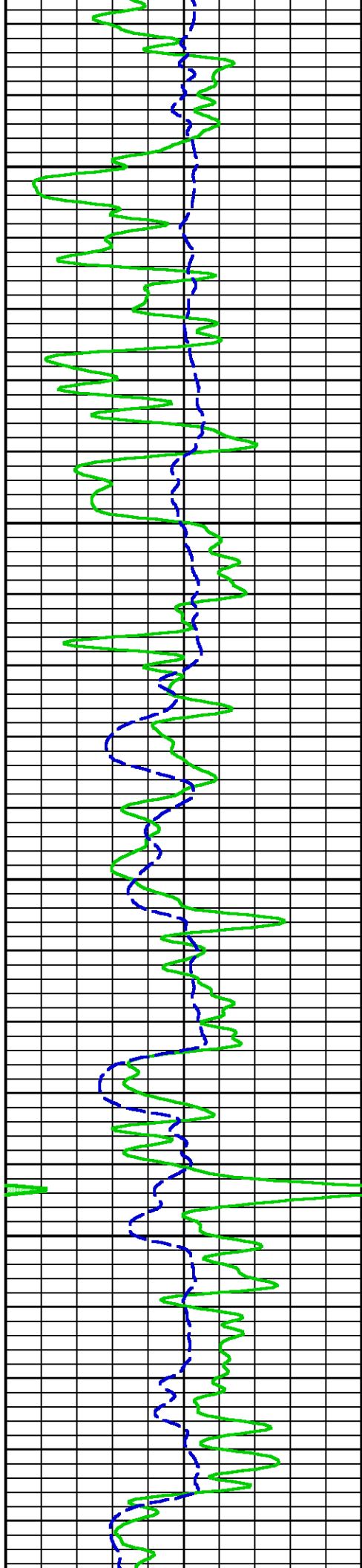




2300

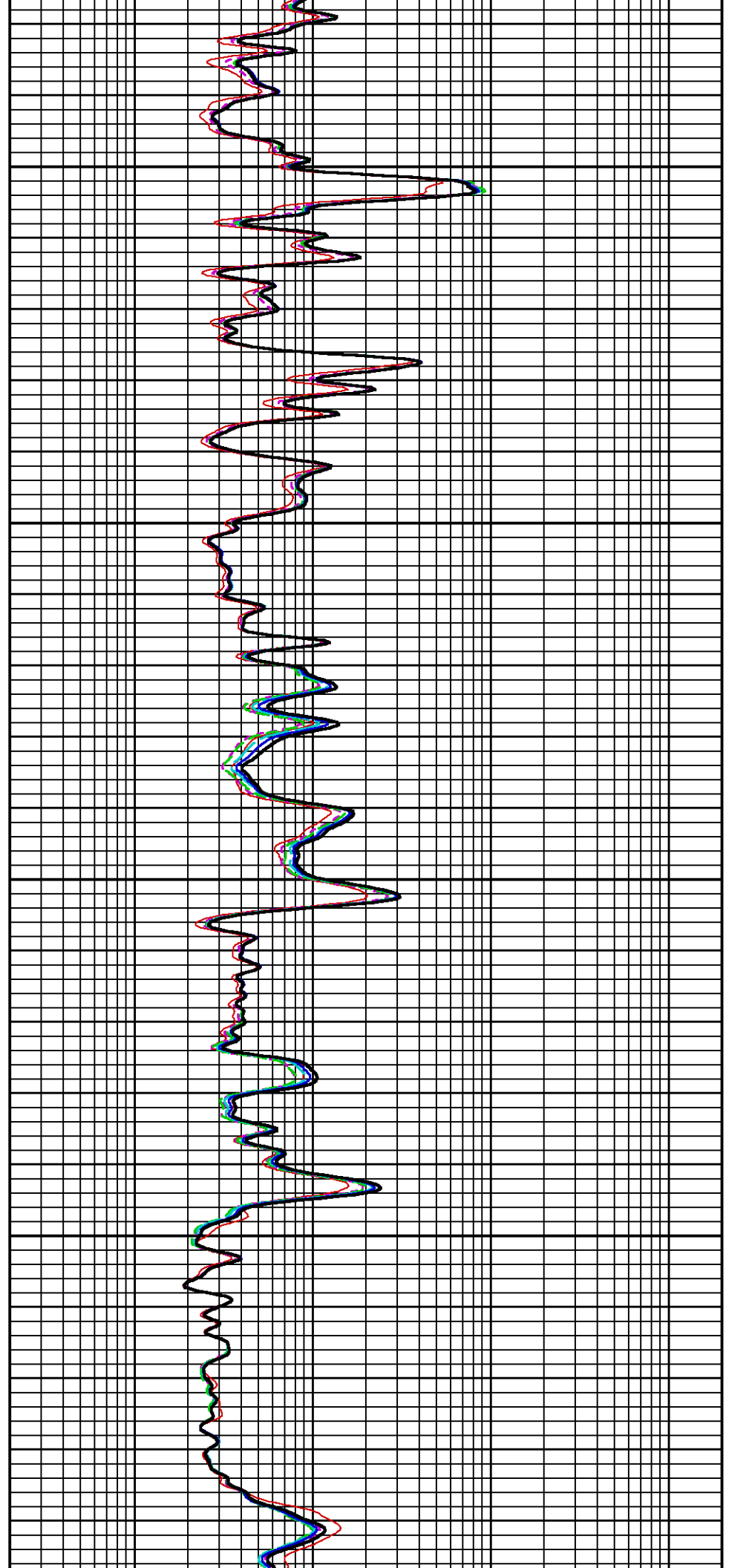
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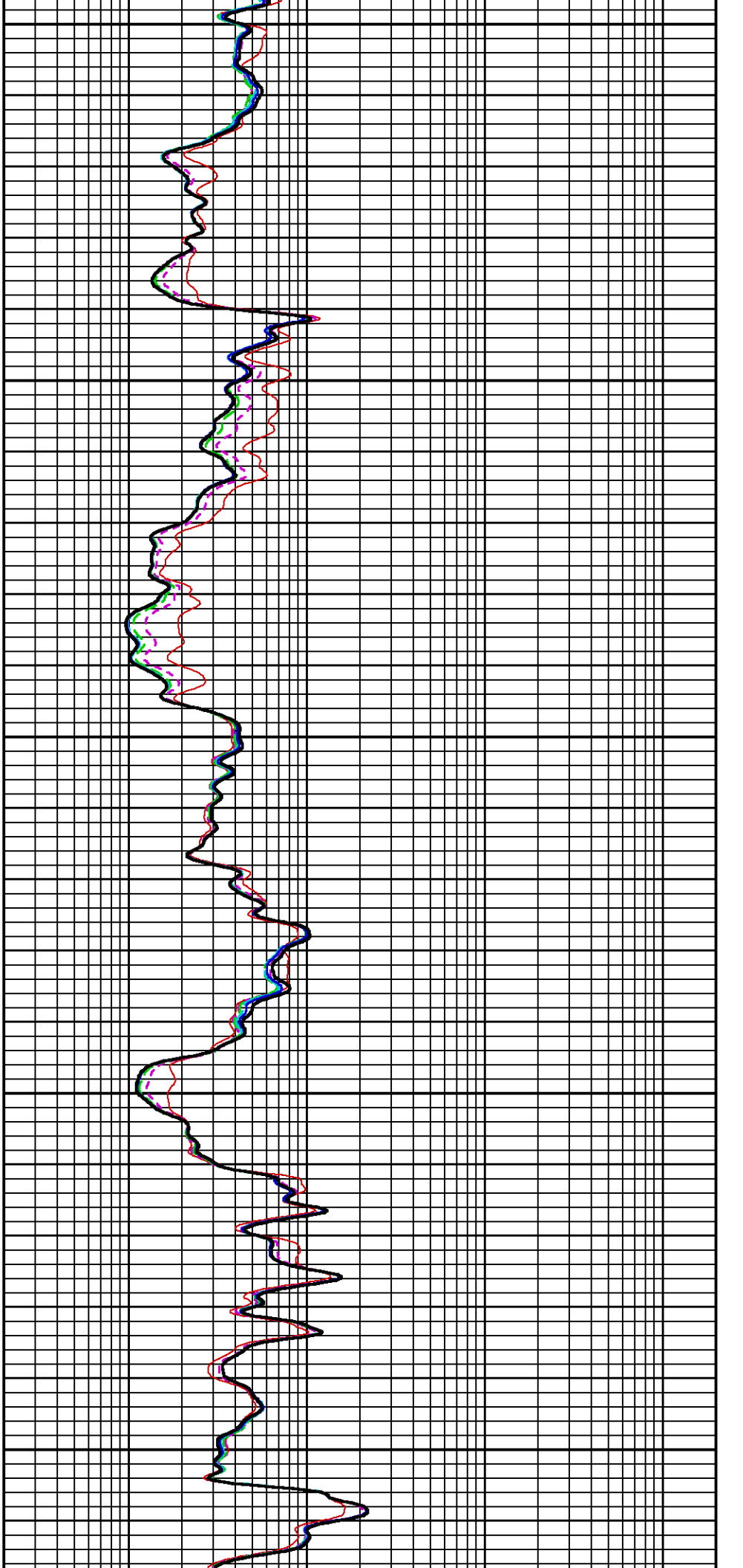




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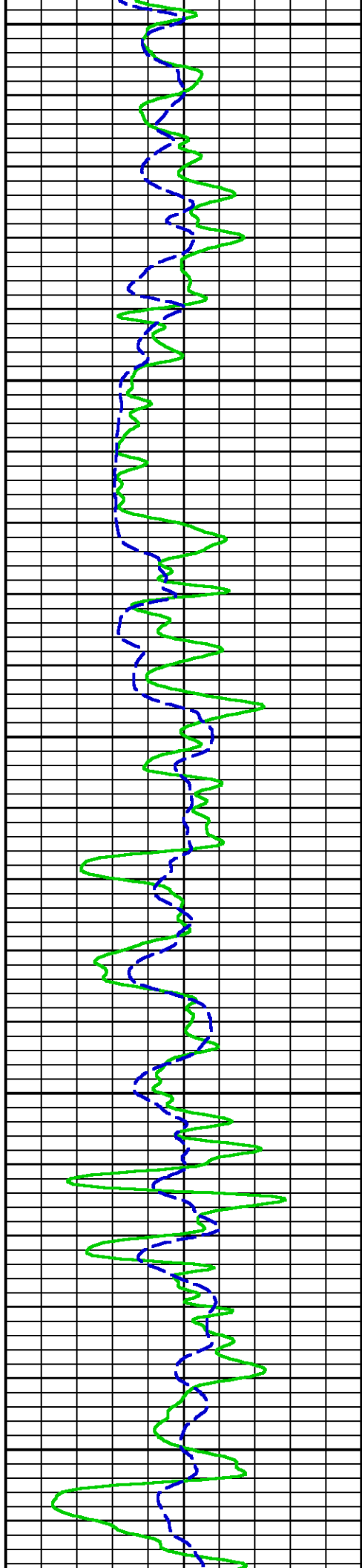
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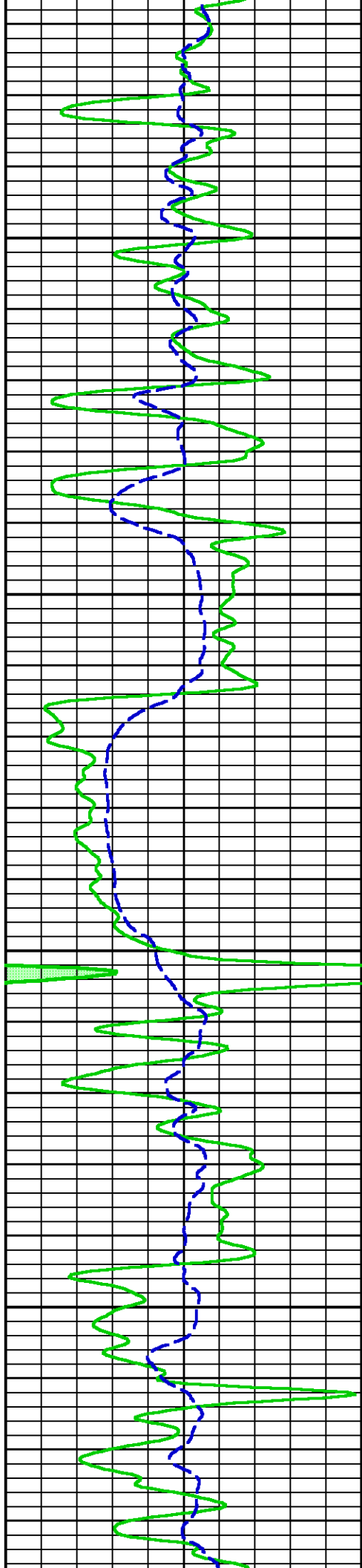


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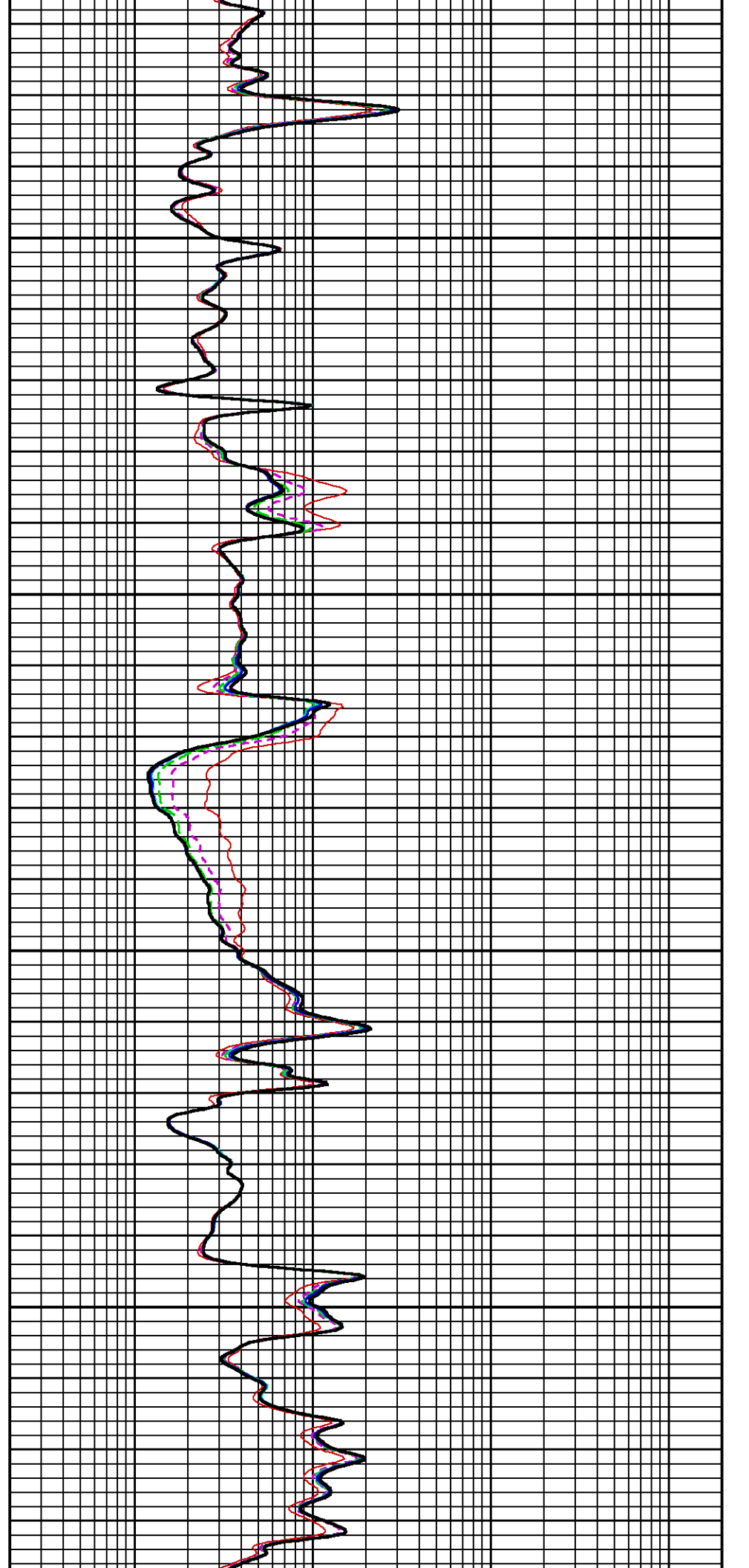


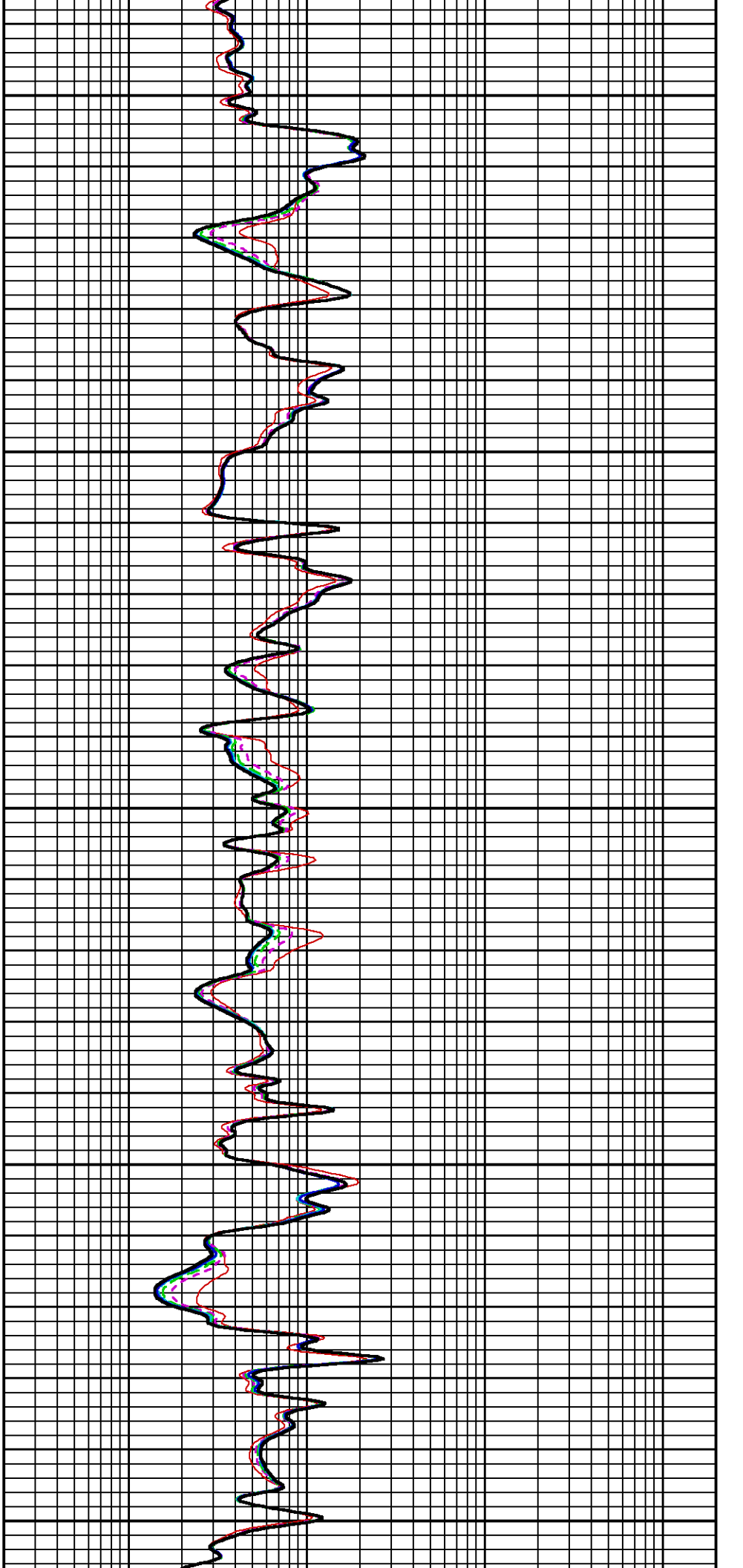




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3000

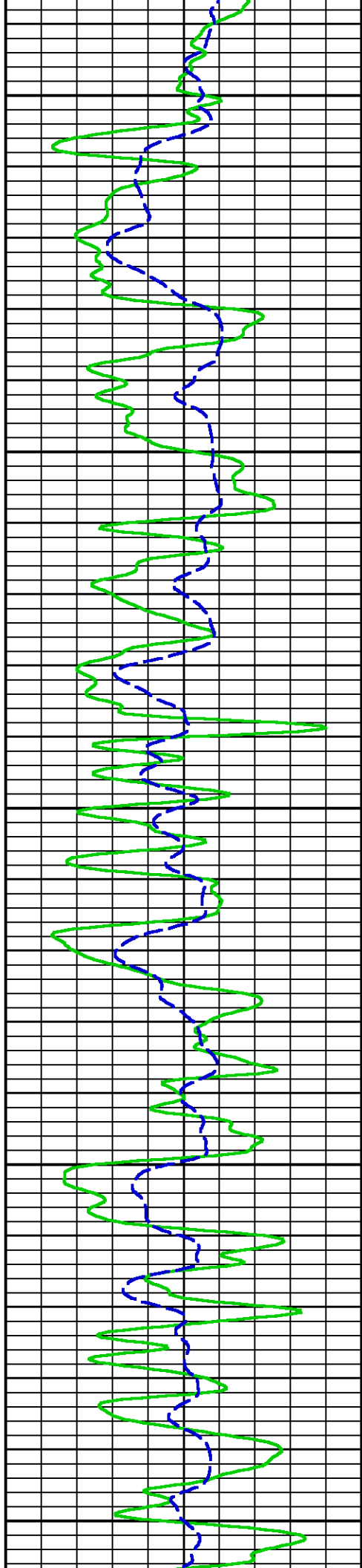


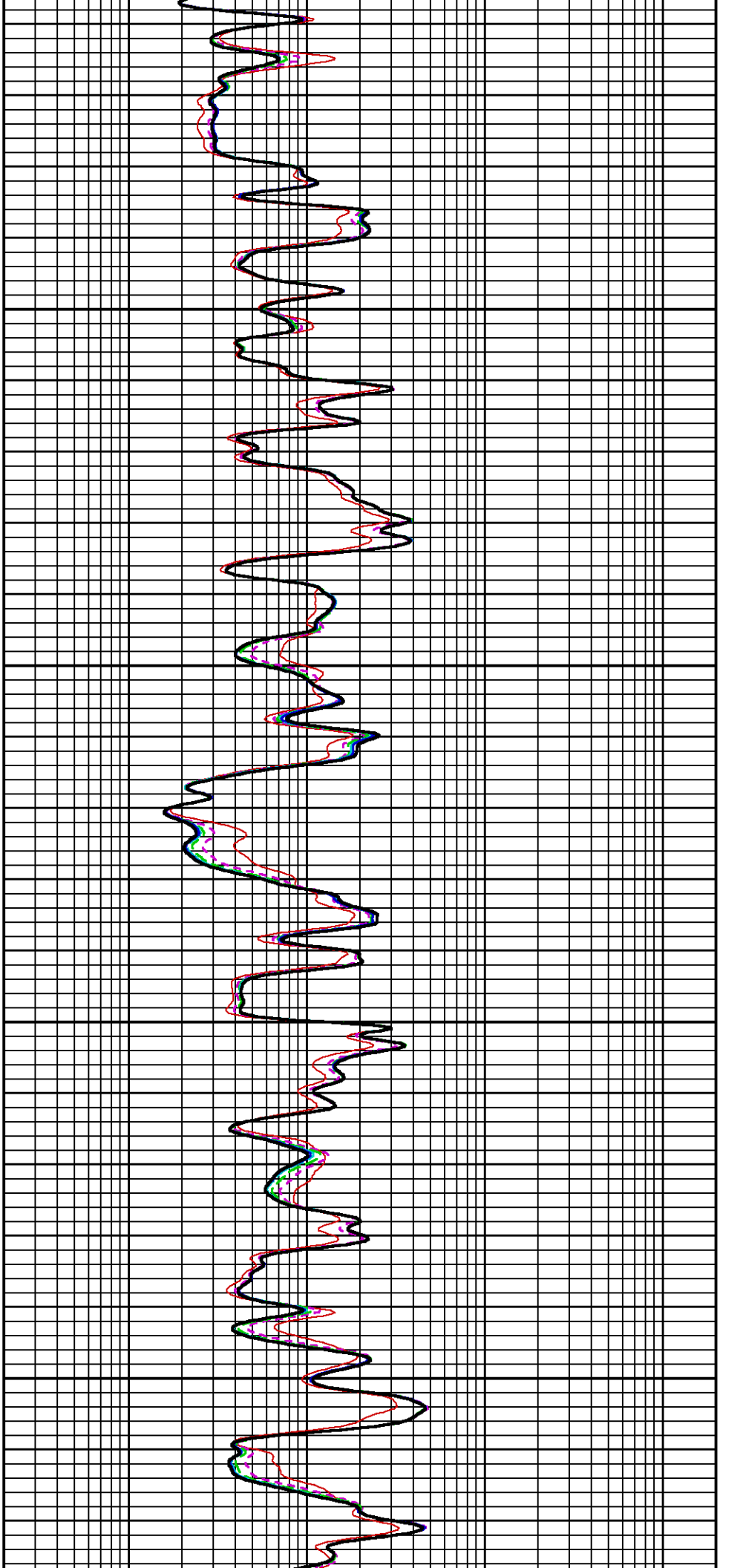


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3200

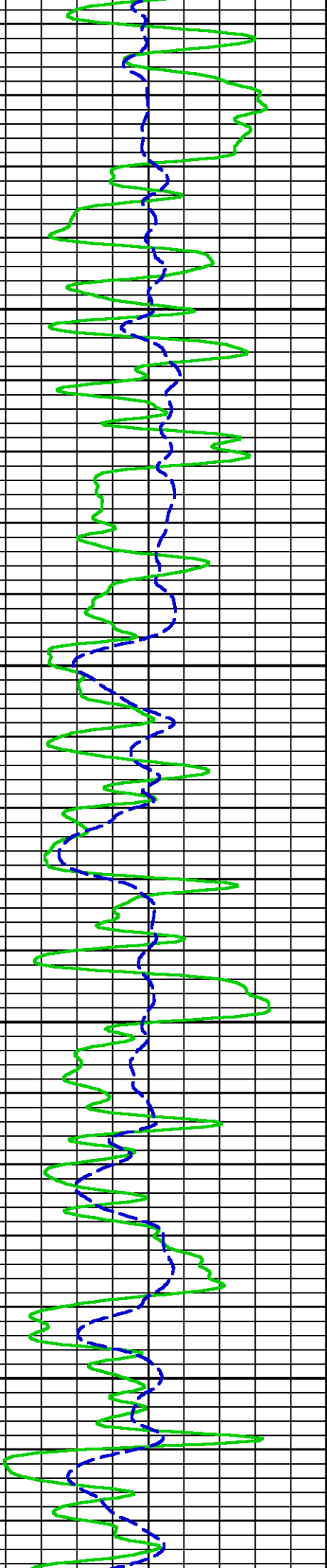
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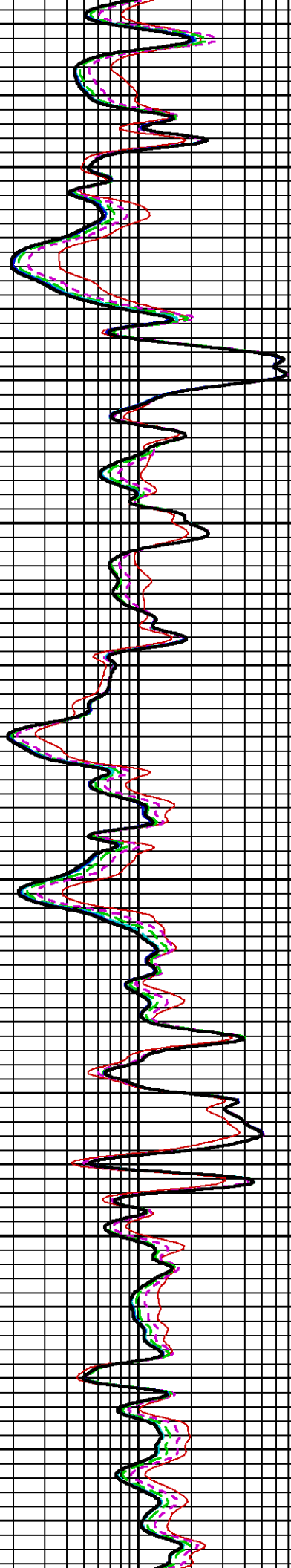




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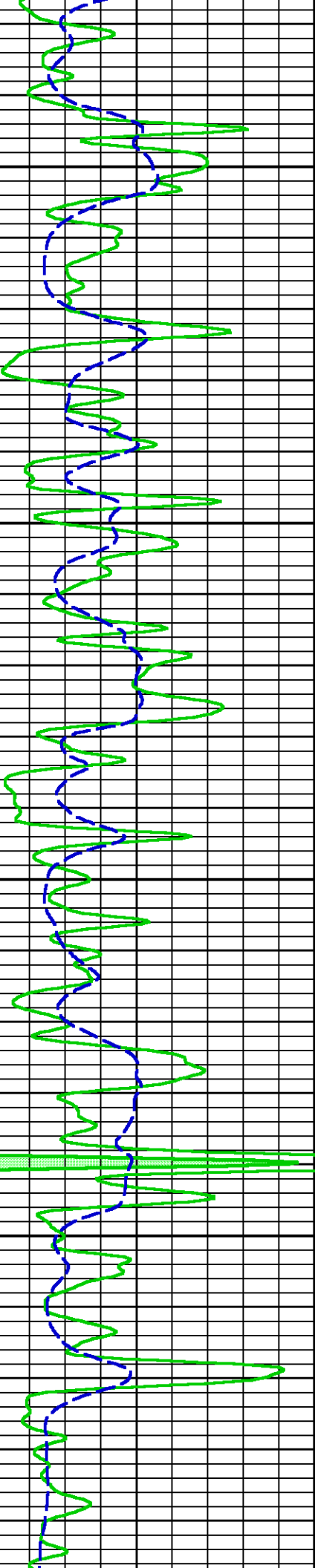
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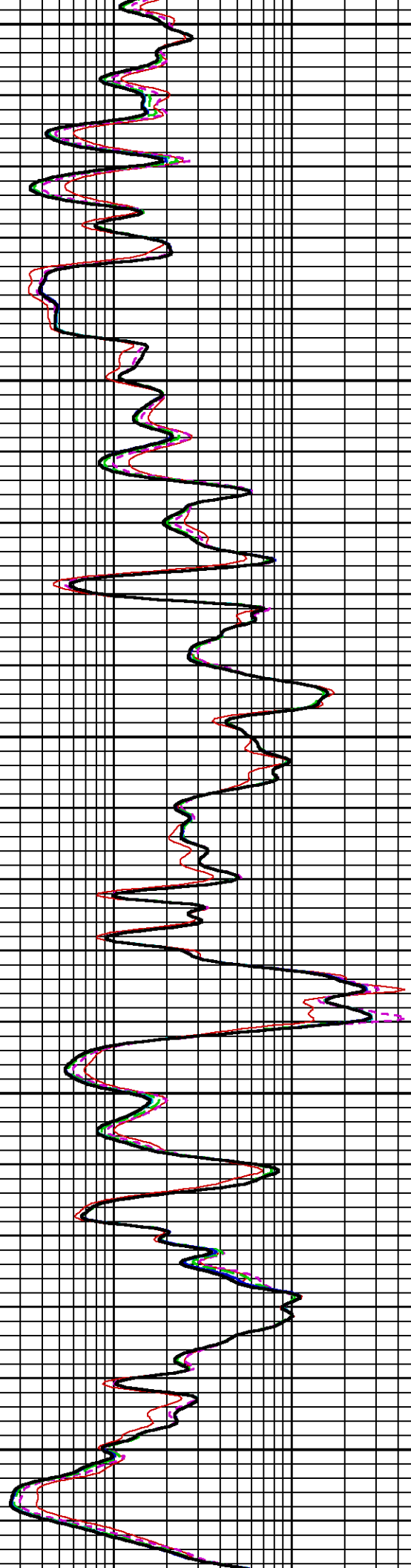




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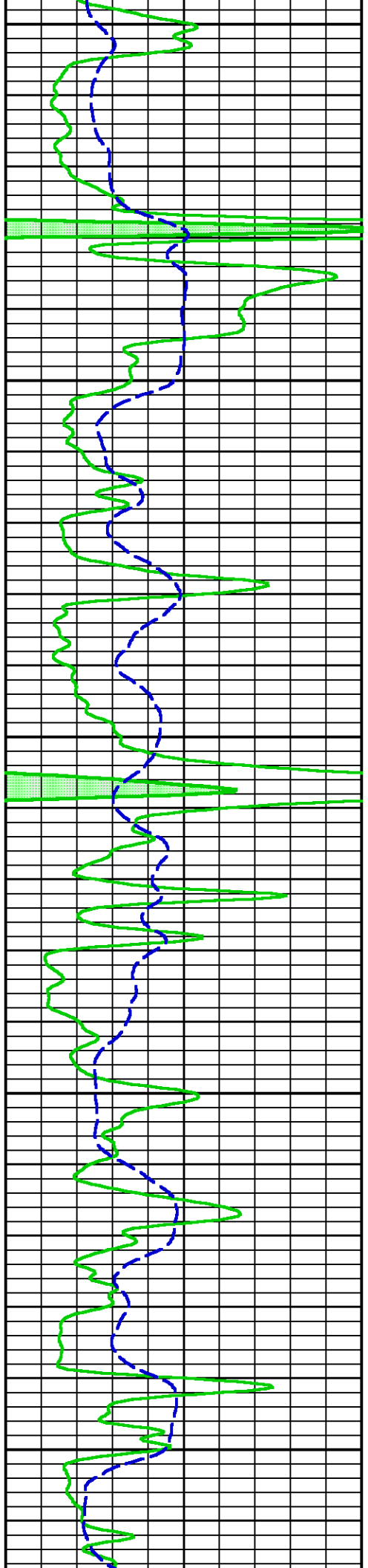
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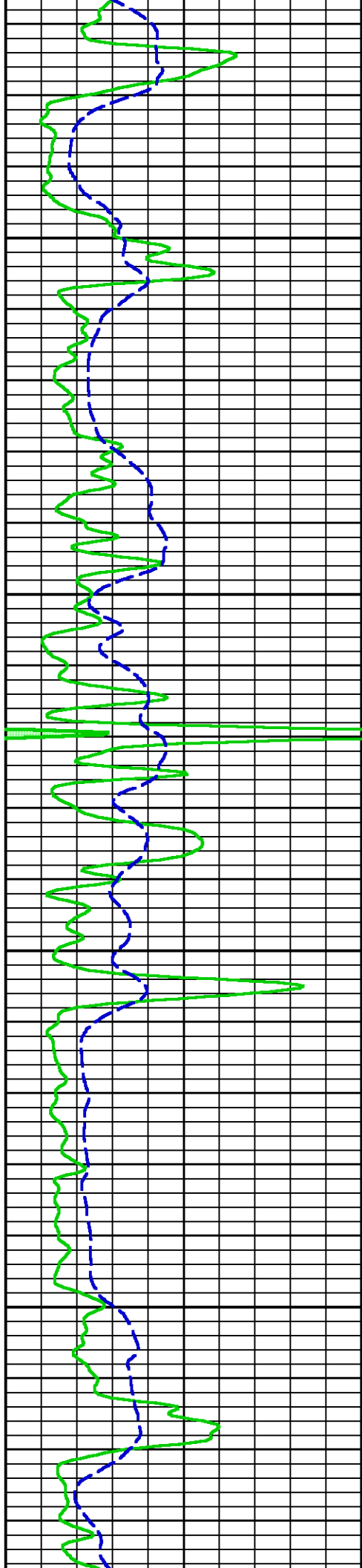




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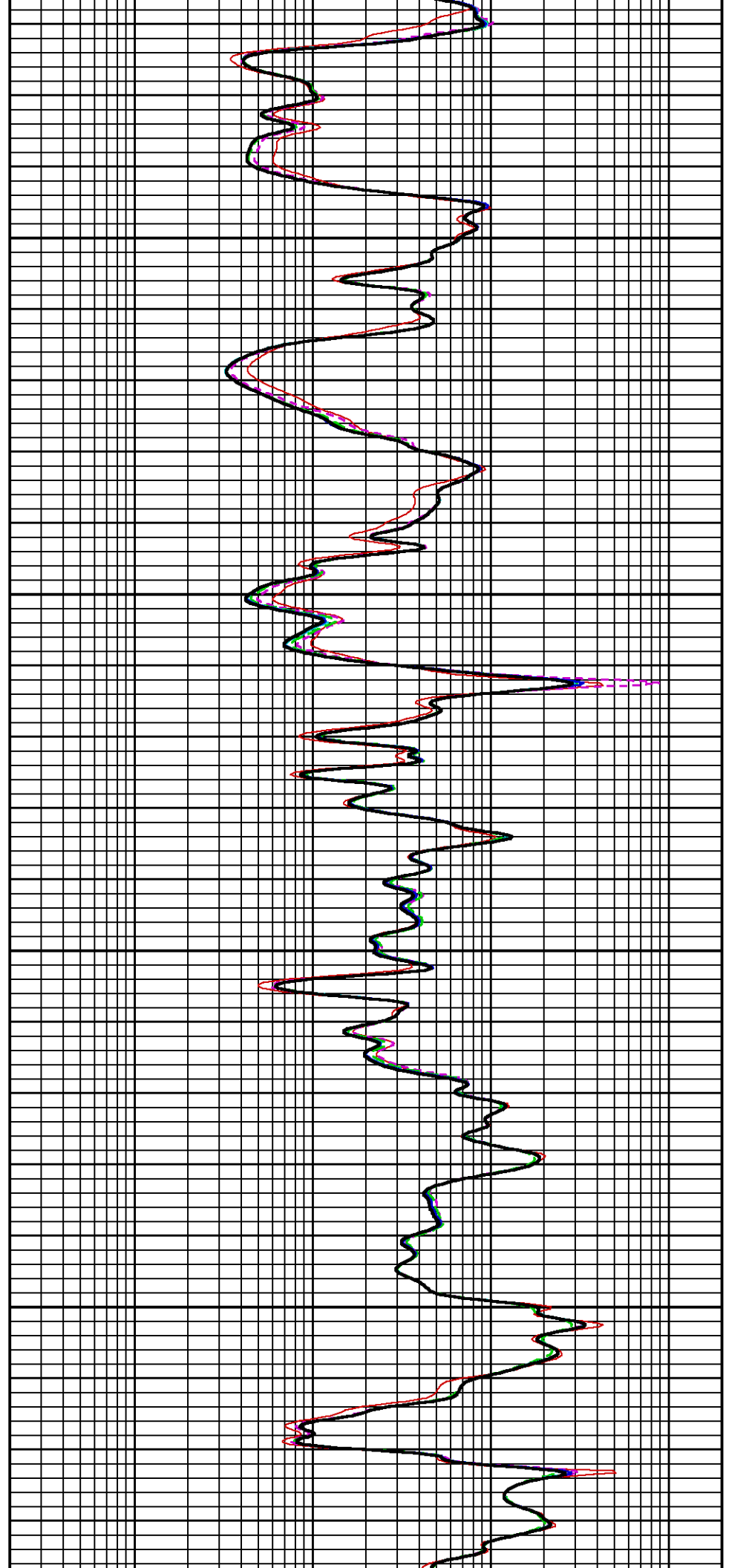
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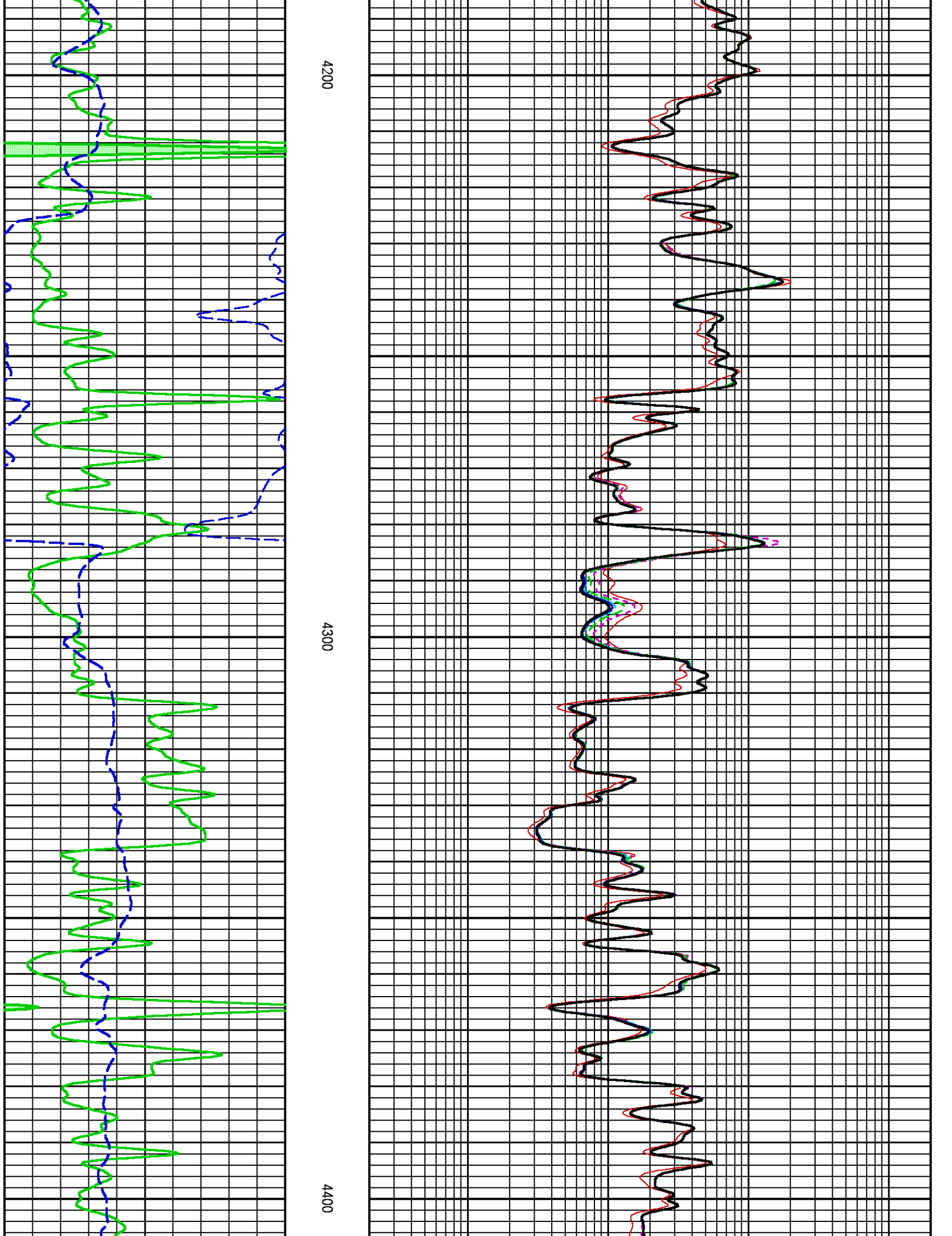


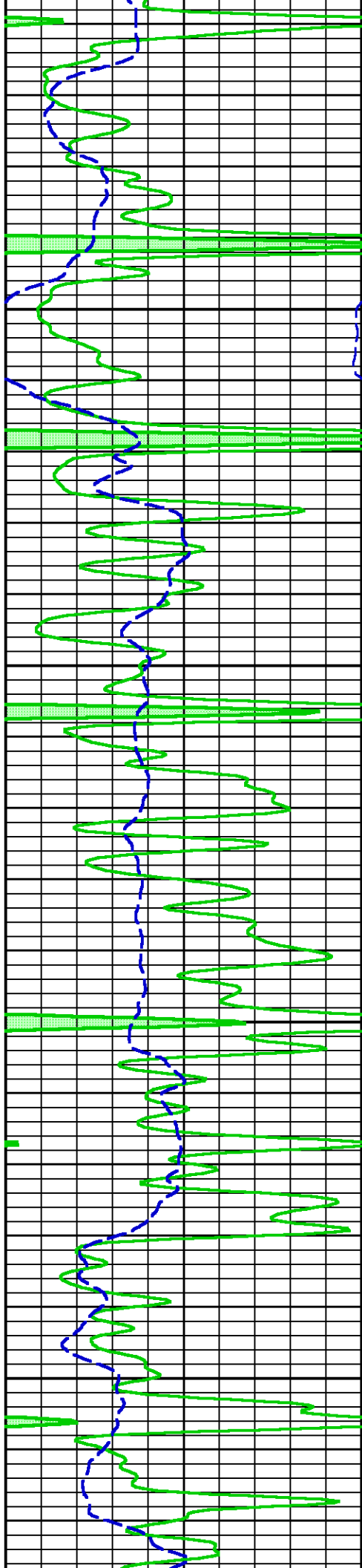


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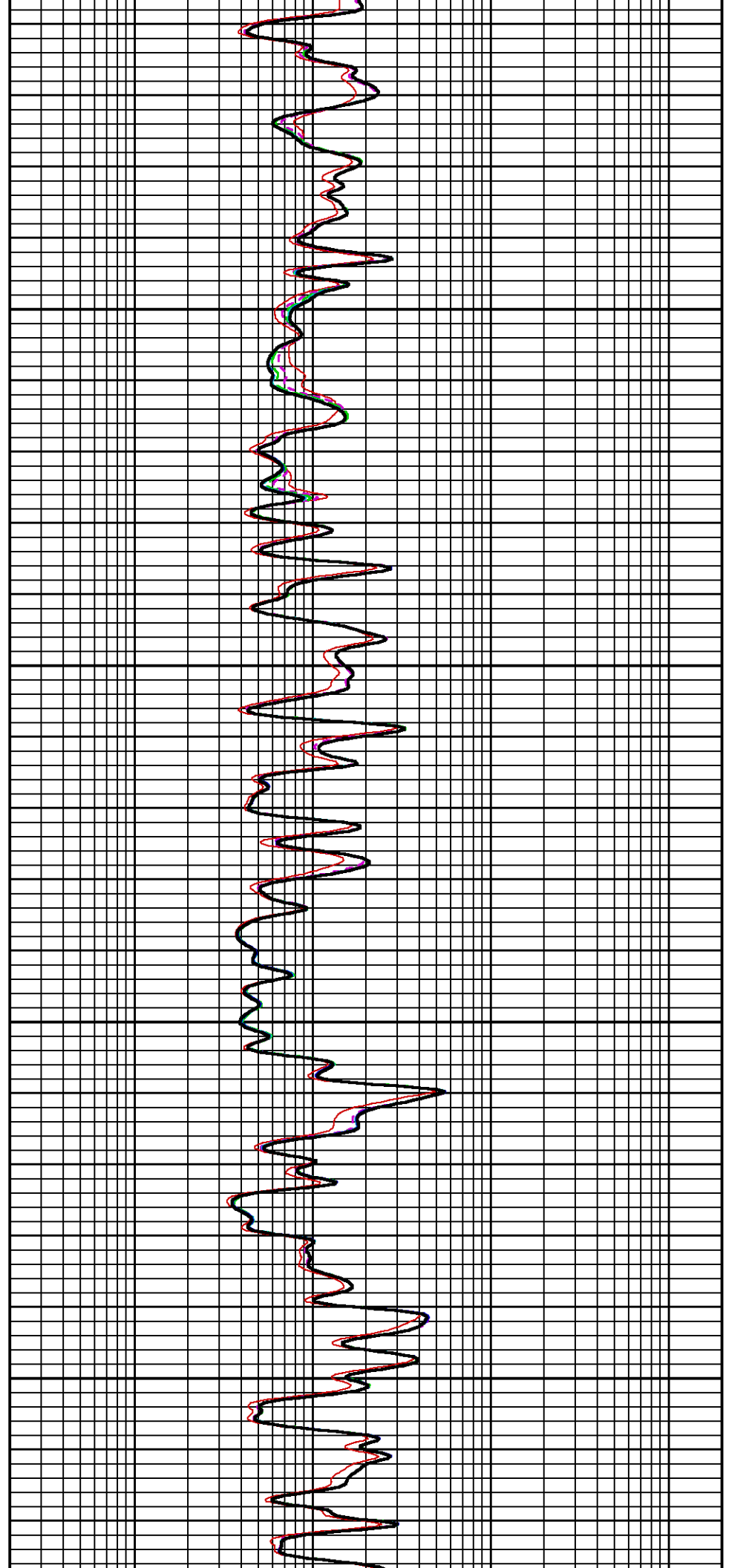




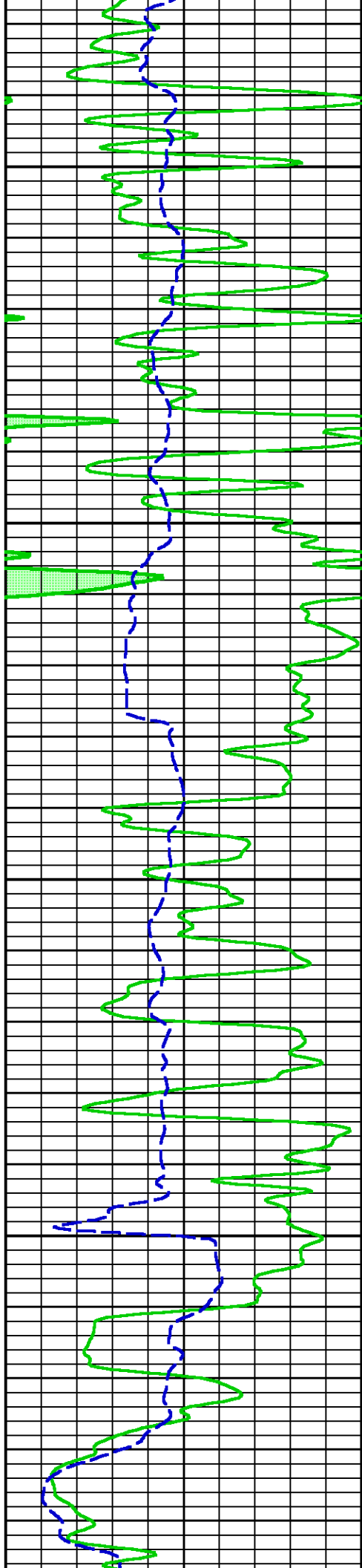


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4600

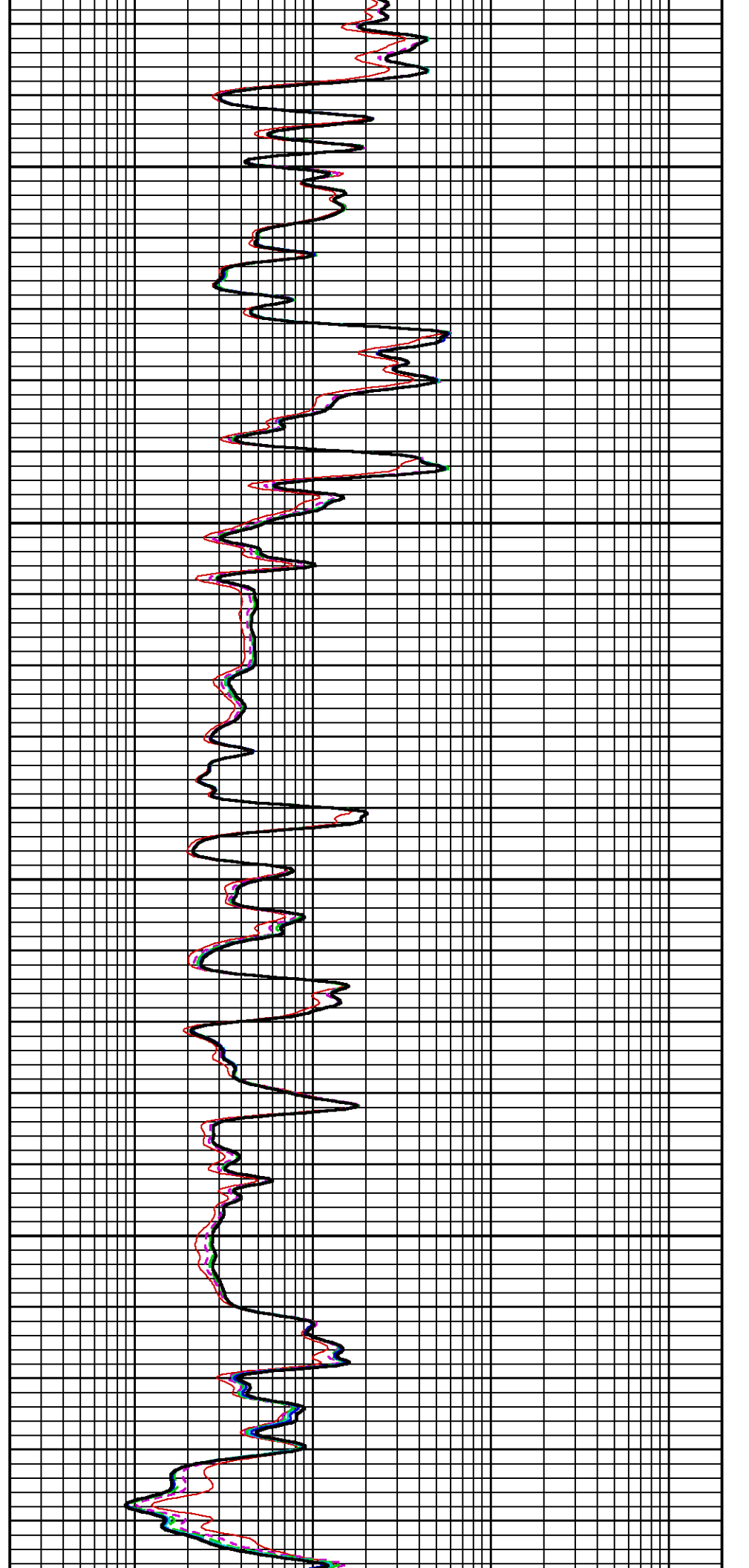


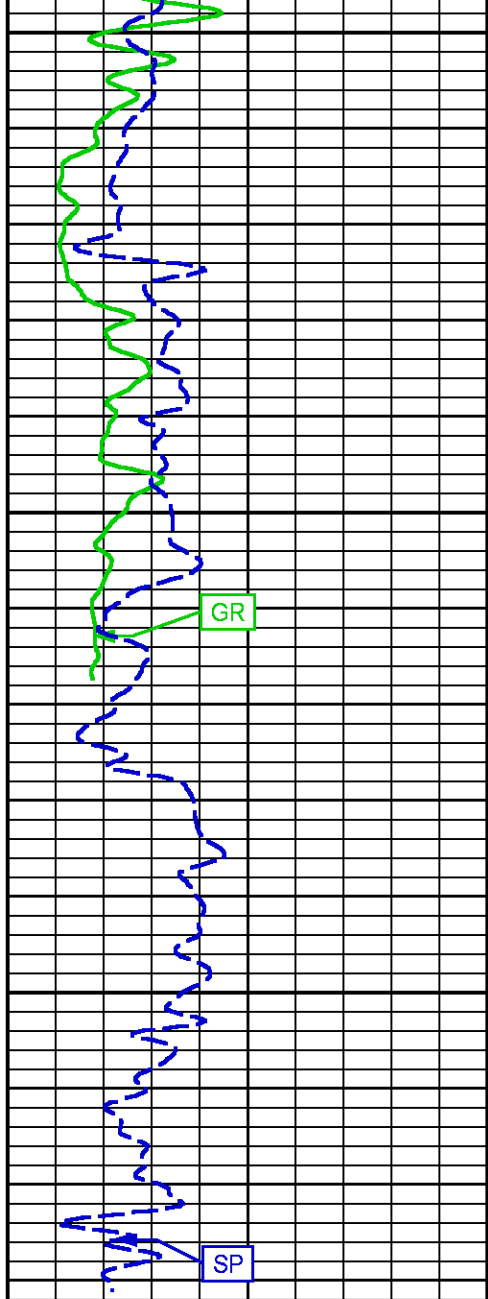




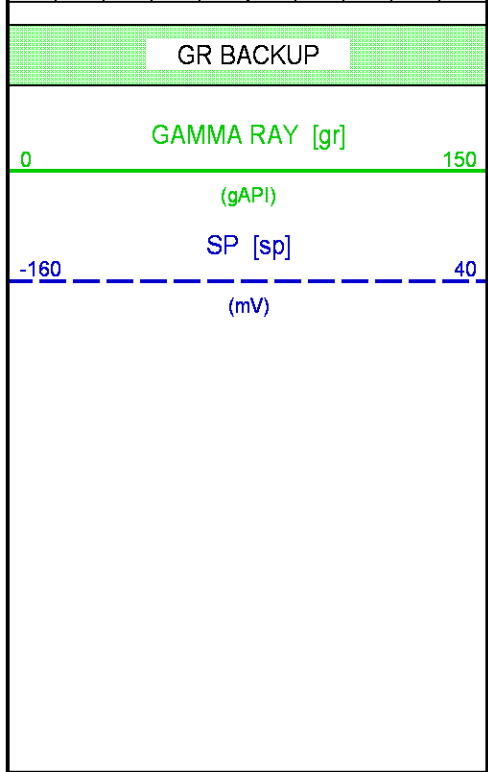
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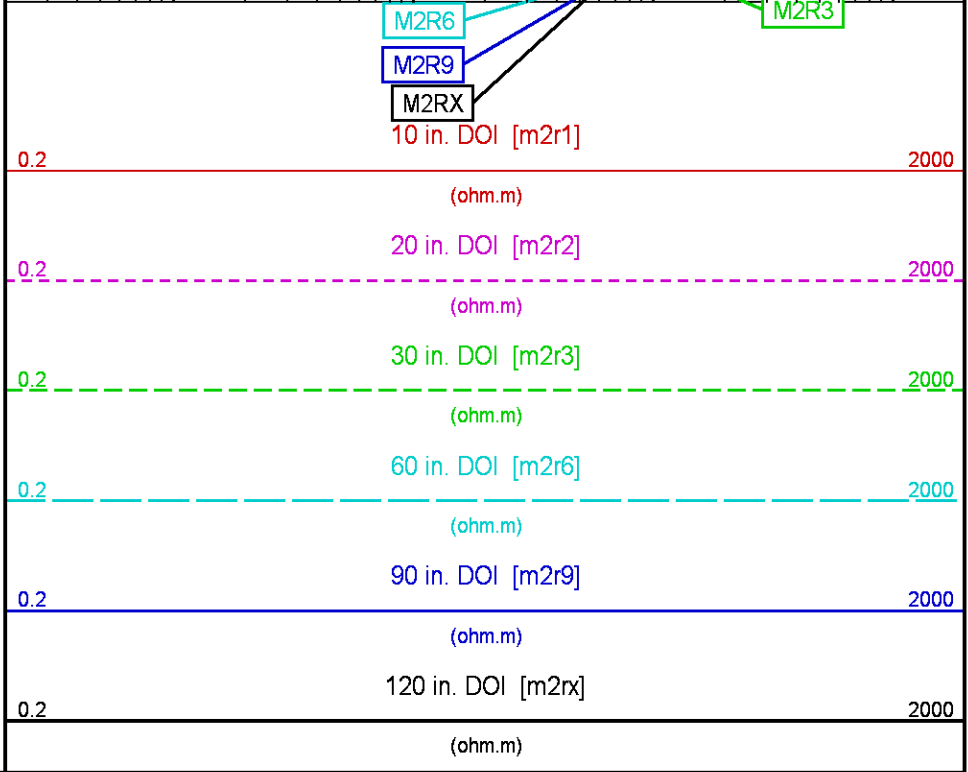
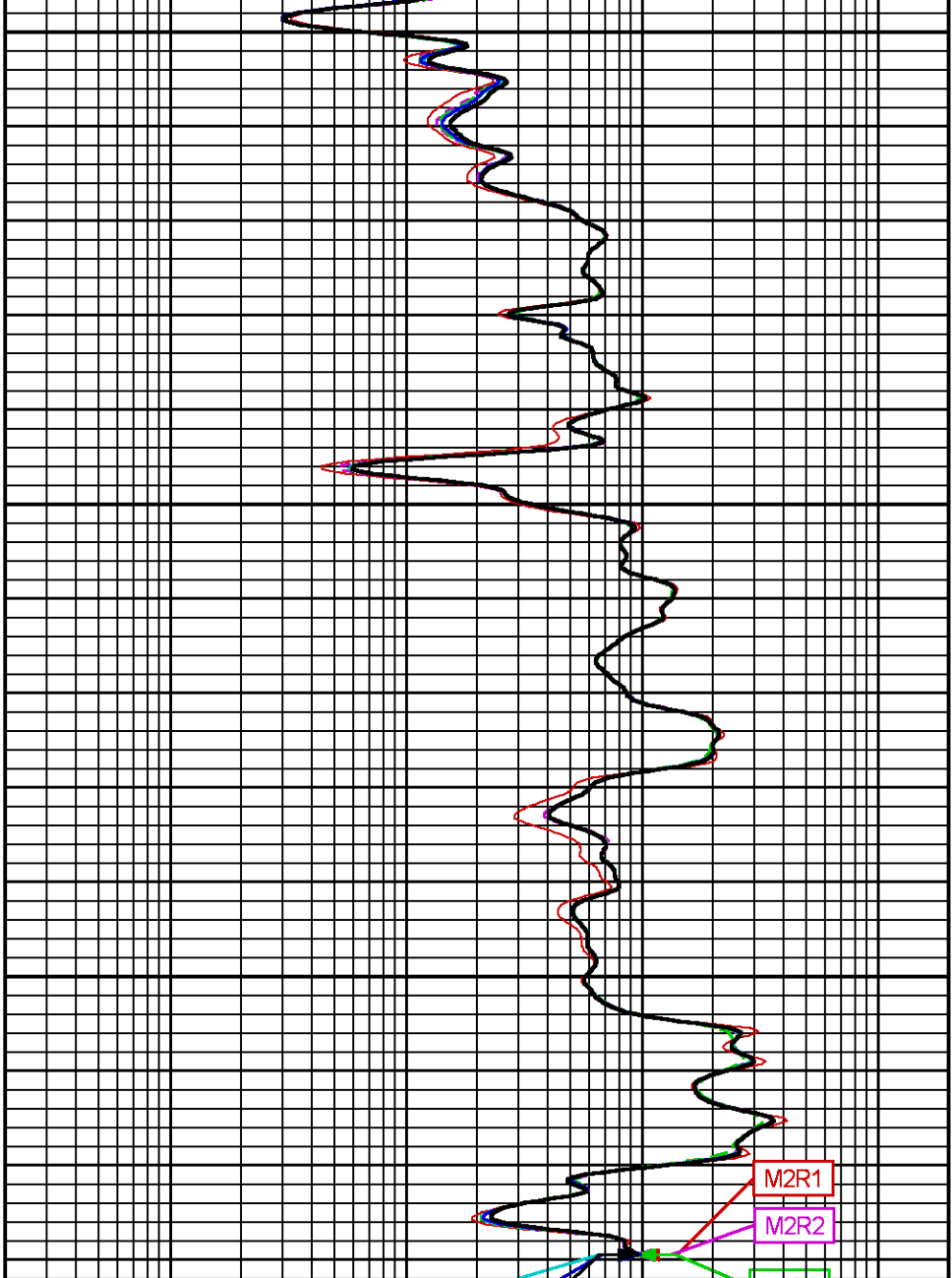




4900



FEET



# REPEAT LOG

ECLIPS 7.0i ECLIPS General Release Rel 7.0i Thu Jun 08 20:36:10 CDT 2017

Updates: 1,32 Patches: 7

Plotted: Fri Mar 6 00:55:52 2020

## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MERIT\_CARRIE\_15\_1/GSALM\_DAL01.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 4625.250 ft BOTTOM DEPTH: 5011.000 ft

### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ( )	medium (1)		TOP	BOTTOM
	FILTER (.h)	medium (1)		"	"
CALIPER	FILTER (.h)	medium (1)		"	"
SP-SPDH	FILTER ( )	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"

### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
X-Y COMBINED CALIPER PROCESSING	X-Y Caliper	X-Axis		TOP	BOTTOM
BIT SIZE	BIT SIZE	7.875	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	7.875	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

### HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	0.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"
HDIL High RESISTIVITY Normalization	VRM Norm	ON		"	"

### CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Mar 5 21:14:15 2020	GAMMA RAY
F1:M2R1	Mar 5 21:14:15 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R2	Mar 5 21:14:15 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 20-INCH DOI
F1:M2R3	Mar 5 21:14:15 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F1:M2R6	Mar 5 21:14:15 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Mar 5 21:14:15 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:M2RX	Mar 5 21:14:15 2020	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 120-INCH DOI
F1:SP	Mar 5 21:14:15 2020	SPONTANEOUS POTENTIAL

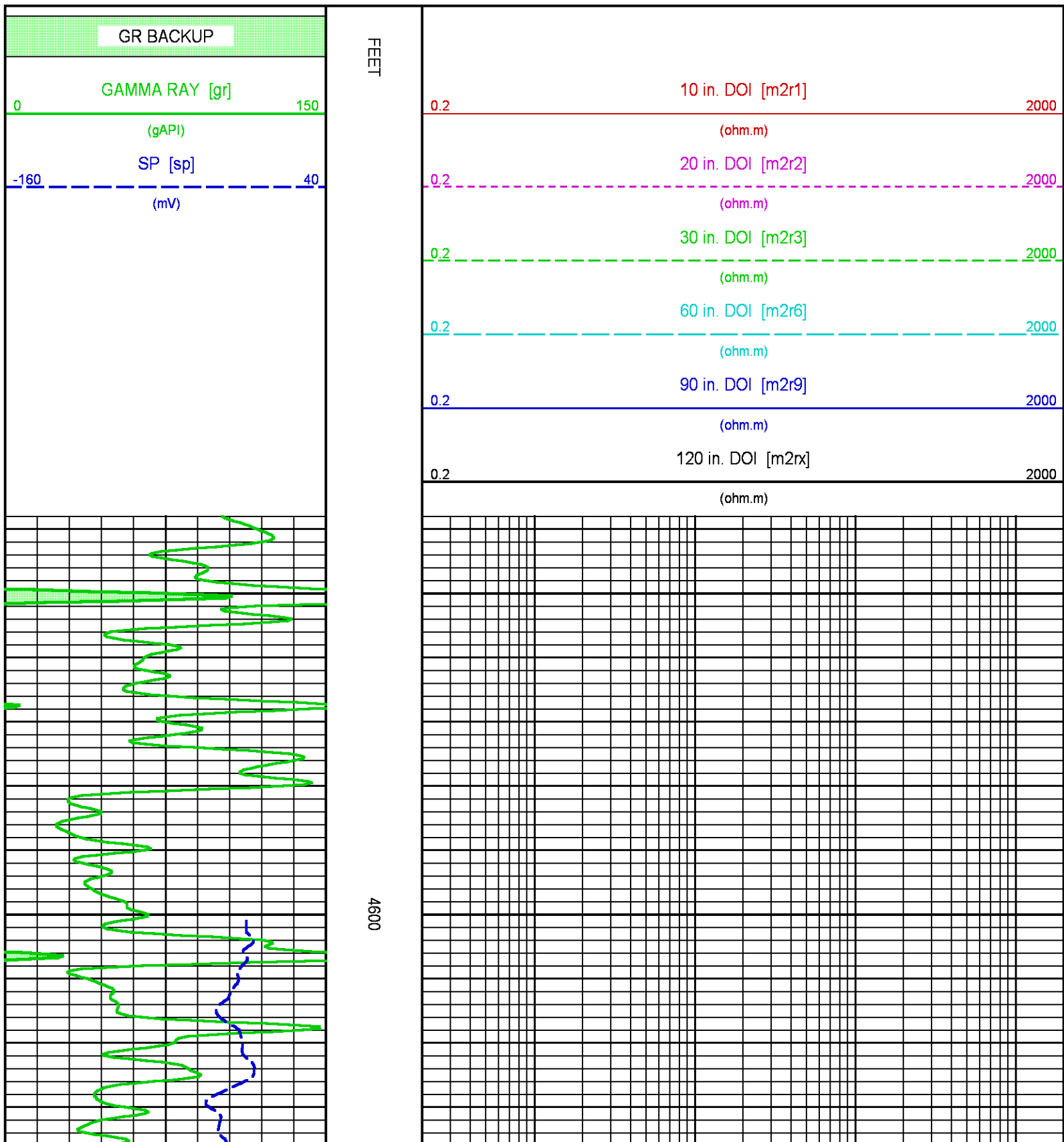
### CURVE MEASURE POINT OFFSET

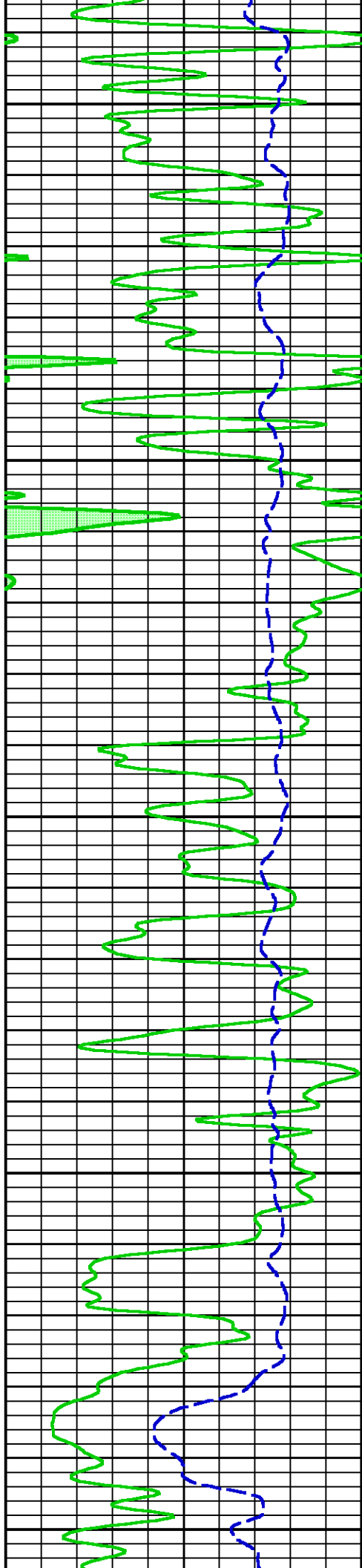
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
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GR	-88.12	M2R2	-19.25	M2R6	-19.25	M2RX	-19.25
M2R1	-19.25	M2R3	-19.25	M2R9	-19.25	SP	-25.25

**Presentation** : cpu6728:/dat1a/MERIT\_CARRIE\_15\_1/HDIL5IN\_REPEAT.fvpdf [5"/100' Scale]  
**Plot Interval** : 4538 - 5009.75 Feet

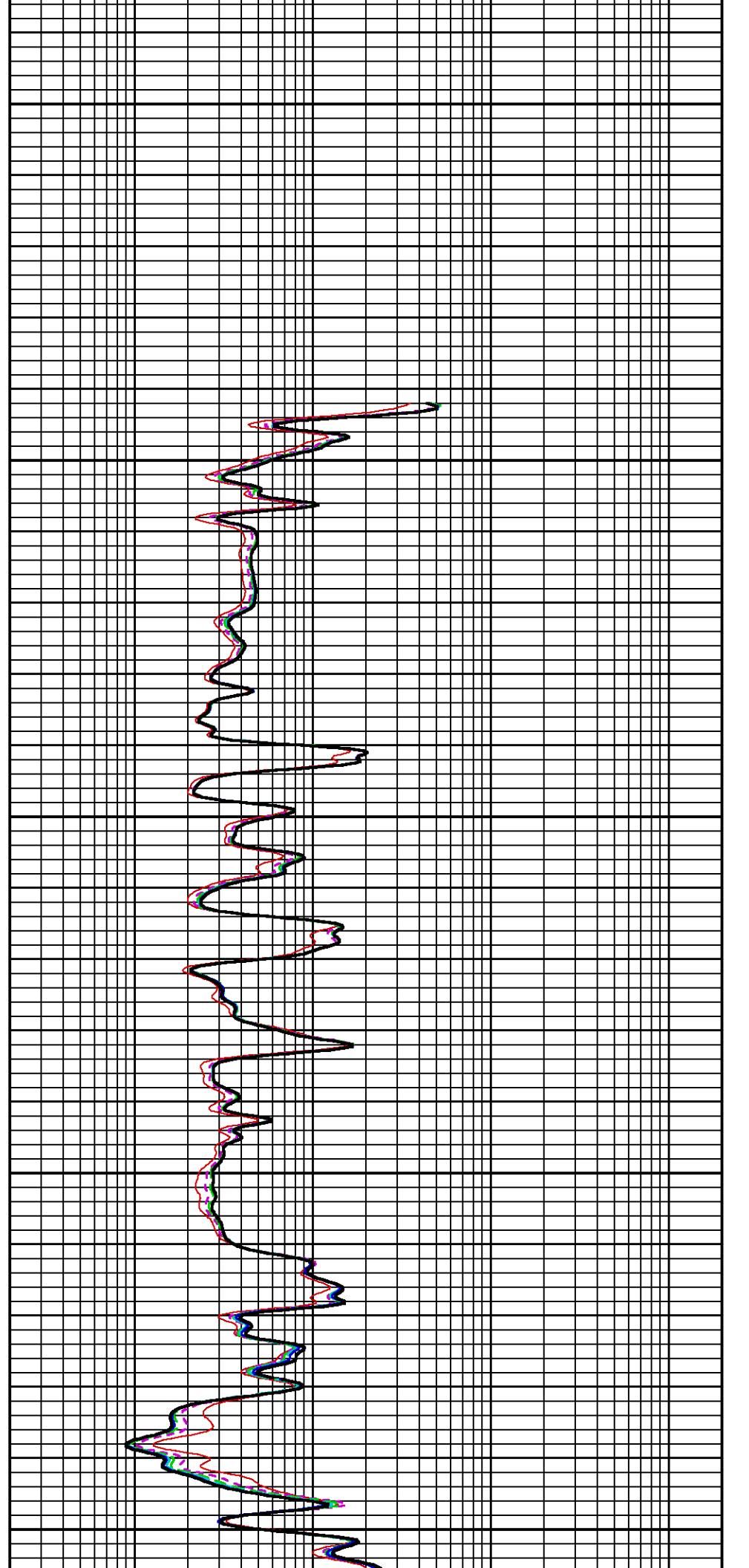
**Data File 1** : F1 : cpu6728:/dat1a/MERIT\_CARRIE\_15\_1/RPEAT.xtf  
**Created On** : Mar 5 21:14:15 2020  
**Company** : MERIT ENERGY COMPANY  
**Well** : CARRIE 15-1  
**Field** : WILDCAT  
**File Interval** : 4523.5 - 5011 Feet  
**OCT** : GSALM\_DA

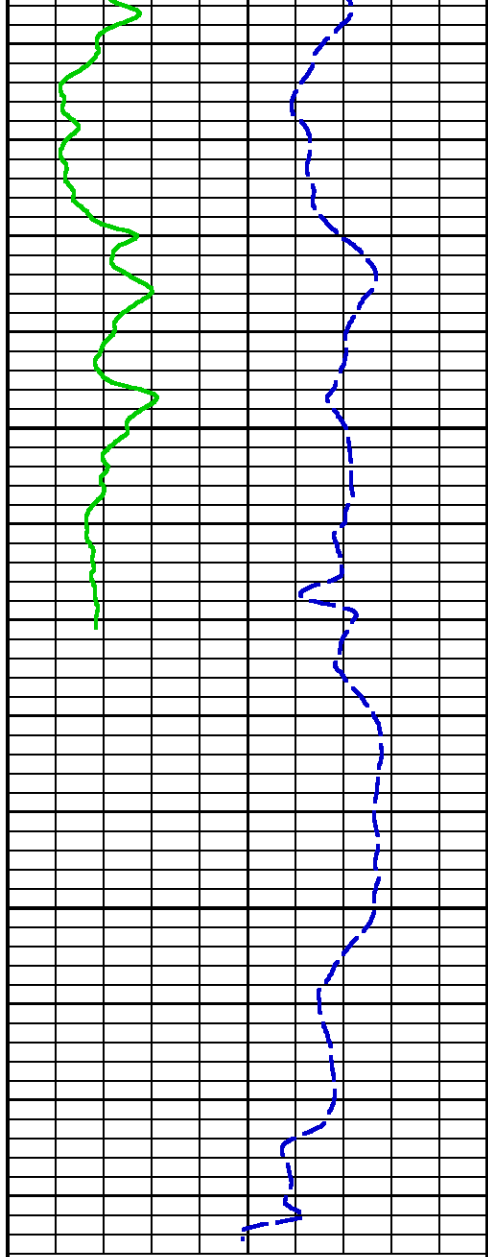




4700

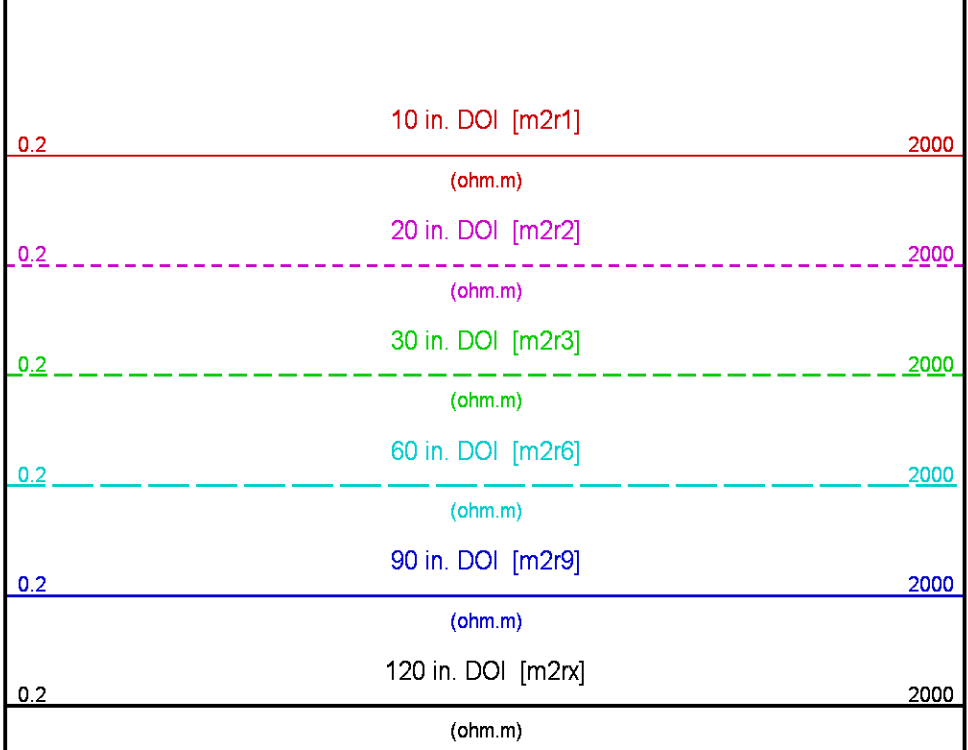
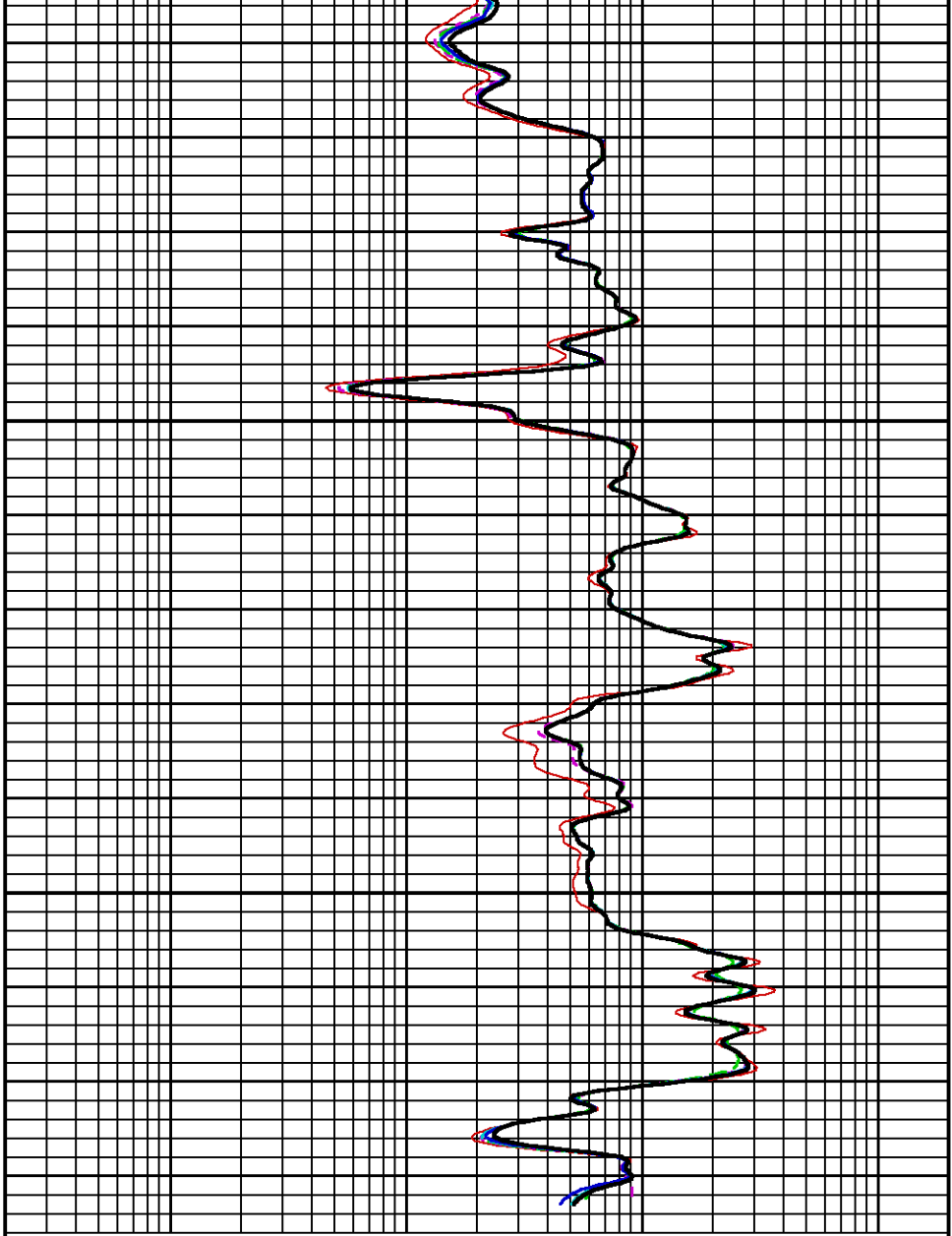
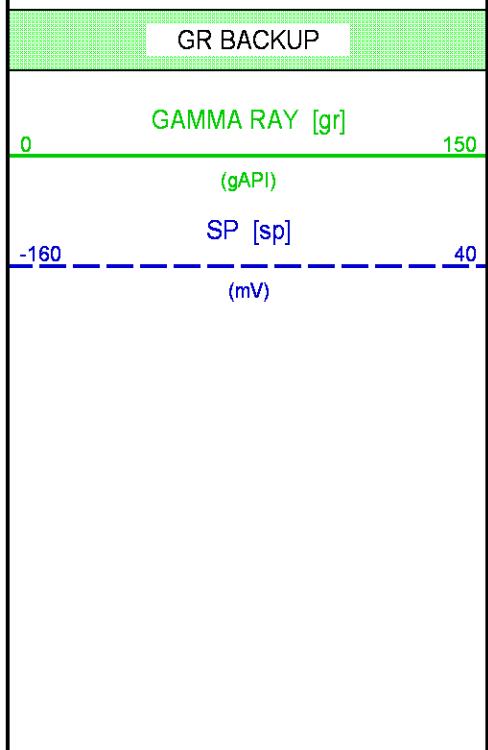
4800





4900

FEET



# CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/MERIT\_CARRIE\_15\_1/GSALM\_DAL.tp1

## GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 179184      DATE/TIME PERFORMED: Thu Jan 30 11:02:11 2020

UNIT #: 3882TD HL6728      CALB JIG #: 4702NK DA\_228

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	206.22	1100.38	894.2	0.168	34.60	184.60	150
			630.0    960.0				

## GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 179184      DATE/TIME PERFORMED: Thu Jan 30 11:09:45 2020

UNIT #: 3882TD HL6728      VERI JIG #: 4702NK DA\_228

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	201.56	1097.87	0.168	33.81	184.17	150.36
						140.00    160.00

## CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1243XA 10676690      DATE/TIME PERFORMED: Tue Jul 23 13:09:52 2019

UNIT #: 3882TD HL6728

	SIZE (in)	VALUE (mV)	MULTIPLIER	ADD
SMALL RING	7.785	562		
LARGE RING	15.000	957	0.01828	-2.48828

## CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1243XA 10676690      DATE/TIME PERFORMED: Thu Mar 5 20:51:54 2020      DAYS SINCE CAL: 226

UNIT #: 3882TD HL6728

	ACT SIZE	VALUE (mV)	MULTIPLIER	ADD	SIZE (in)
	8.093	637.9	0.01828	-3.56755	8.09
					7.74    8.44

## CAL AFTER LOG VERIFICATION SUMMARY

NOT DONE

## ML PRIMARY CALIBRATION SUMMARY

TOOL #: 1243XA 10676690      DATE/TIME PERFORMED: Thu Mar 5 20:55:12 2020

UNIT #: 3882TD HL6728

	Raw Low (mV/mA)	Raw High (mV/mA)	Mult	Add	K-factor	Eng Low (ohm.m)	Eng High (ohm.m)
NORMAL	0.50	148.6	1.010	-0.009	0.417	0.21	62.5
	0.45    0.55	135.0    165.0				0.19    0.23	56.2    68.8
LATERAL	0.51	148.4	1.000	0.014	0.222	0.17	50.0

LATERAL

0.51 0.55 135.0 149.1 165.0

1.006 -0.011 0.333

0.15 0.17 45.0 50.0 55.0

## ML AFTER LOG VERIFICATION SUMMARY

TOOL #: 1243XA 10676690

DATE/TIME PERFORMED: Thu Mar 5 22:56:19 2020

DAYS SINCE CAL: 0

UNIT #: 3882TD HL6728

	Raw Low (mV/mA)	Raw High (mV/mA)	Mult	Add	Eng Low (ohm.m)	Eng High (ohm.m)
NORMAL	0.50	148.6	1.010	-0.009	0.21	62.5
	0.45 0.55 135.0 165.0				0.19 0.23 58.2 68.8	
LATERAL	0.51	149.1	1.006	-0.011	0.17	50.0
	0.45 0.55 135.0 165.0				0.15 0.18 45.0 55.0	

## INSTRUMENT CONFIGURATION

Source File: /data/MERIT\_CARRIE\_15\_1/GSALM\_DAL.tdg

## CABLEHEAD

Diameter : 3.38"  
 Length : 5.50'  
 Weight : 24 lbs  
 Series : CABL338  
 Mnemonic : CABLH  
 Measure Point: 2.75': CABLEHEAD TOP

## TTRM SUB

Diameter : 3.63"  
 Length : 3.83'  
 Weight : 62 lbs  
 Series : 3981XA  
 Mnemonic : TTRM

## WTS COMMON REMOTE

Diameter : 3.63"  
 Length : 6.36'  
 Weight : 128 lbs  
 Series : 3514XC  
 Mnemonic : WTS

## DIGITAL SPECTRALOG

Diameter : 3.63"  
 Length : 7.31'  
 Weight : 130 lbs  
 Series : 1329XA  
 Mnemonic : DSL  
 Measure Point: 1.60': GR MP

## COMPENSATED NEUTRON

Diameter : 3.63"  
 Length : 7.59'  
 Weight : 150 lbs  
 Series : 2446XA  
 Mnemonic : CN  
 Measure Point: 2.63': LSN MP  
 Measure Point: 2.24': SSN MP

## Z-DENSITOG

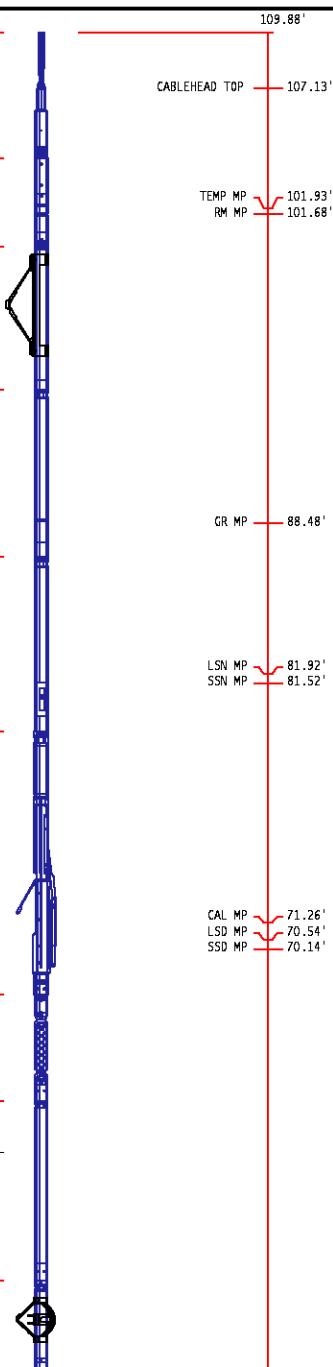
Diameter : 4.88"  
 Length : 11.22'  
 Weight : 360 lbs  
 Series : 2234XA  
 Mnemonic : ZDL  
 Measure Point: 3.19': CAL MP  
 Measure Point: 2.47': LSD MP  
 Measure Point: 2.07': SSD MP

## KNUCKLE JOINT (DOUBLE)

Diameter : 3.38"  
 Length : 4.65'  
 Weight : 90 lbs  
 Series : 3939XA  
 Mnemonic : KNJT

## ARRAY ACOUSTILOG ELECTRONICS, 8 CHANNEL

Diameter : 3.38"  
 Length : 7.82'  
 Weight : 102 lbs  
 Series : 1677EA  
 Mnemonic : XMAC





DIGITAL ACOUSTIC LOG  
 Diameter : 3.38"  
 Length : 12.76'  
 Weight : 145 lbs  
 Series : 1680MA  
 Mnemonic : DA  
 Measure Point: 7.95' : T1 MP  
 Measure Point: 5.95' : T2 MP  
 Measure Point: 2.95' : R1 MP

4 ARM BOW SPRING CENTRALIZER  
 Diameter : 3.38"  
 Length : 4.12'  
 Weight : 72 lbs  
 Series : 4341XA  
 Mnemonic : CENT

HIGH DEFINITION INDUCTION TOOL  
 Diameter : 3.62"  
 Length : 27.13'  
 Weight : 415 lbs  
 Series : 1515XA  
 Mnemonic : HDIL  
 Measure Point: 13.91' : SP MP  
 Measure Point: 7.44' : XMTR MP

WTS MINILOG  
 Diameter : 4.00"  
 Length : 11.25'  
 Weight : 258 lbs  
 Series : 1243XA  
 Mnemonic : ML  
 Measure Point: 1.63' : MP

BULL PLUG 3-3/8

TOTAL LENGTH: 109.88'  
 TOTAL WEIGHT: 1964 lbs  
 MAX DIAMETER: 0' 4.88"



T1 MP 50.79'  
 T2 MP 48.79'  
 R1 MP 45.79'  
 SP MP 25.50'  
 XMTR MP 19.03'  
 MP 1.97'  
 0.00'



COMPANY MERIT ENERGY COMPANY  
 WELL CARRIE 15-1  
 FIELD WILDCAT  
 COUNTY FINNEY STATE OKLAHOMA

FILE NO: \_\_\_\_\_  
 API NO: 15-093-21978-00-00

LOCATION:  
1632 FEL & 2315 FNL  
 SEC 15 TWP 23S RGE 35W

ELEVATIONS:  
 KB 3033 FT  
 DF 3032 FT  
 GL 3021 FT  
 DATE 05-Mar-2020

MAIN LOG 1"/100'

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MERIT\_CARRIE\_15\_1/GSALM\_DAL02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 1723.250 ft BOTTOM DEPTH: 5007.500 ft

#### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
TENSION	FILTER ( )	medium (1)		TOP	BOTTOM
GR	FILTER ( )	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
SP-SPDH	FILTER ( )	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"

#### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
X-Y COMBINED CALIPER PROCESSING	X-Y Caliper	X-Axis		TOP	BOTTOM
BIT SIZE	BIT SIZE	7.875	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	7.875	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

#### HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	0.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"
HDIL High RESISTIVITY Normalization	VRM Norm	ON		"	"

#### CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Mar 5 21:33:50 2020	GAMMA RAY
F1:M0R2	Mar 5 21:33:50 2020	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:M0R6	Mar 5 21:33:50 2020	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:M2CCX	Mar 5 21:33:50 2020	HDIL 2-FOOT RESOLUTION COMPRESSED CONDUCTIVITY, 120-INCH DOI
F1:SP	Mar 5 21:33:50 2020	SPONTANEOUS POTENTIAL
F1:TEN	Mar 5 21:33:50 2020	DIFFERENTIAL TENSION

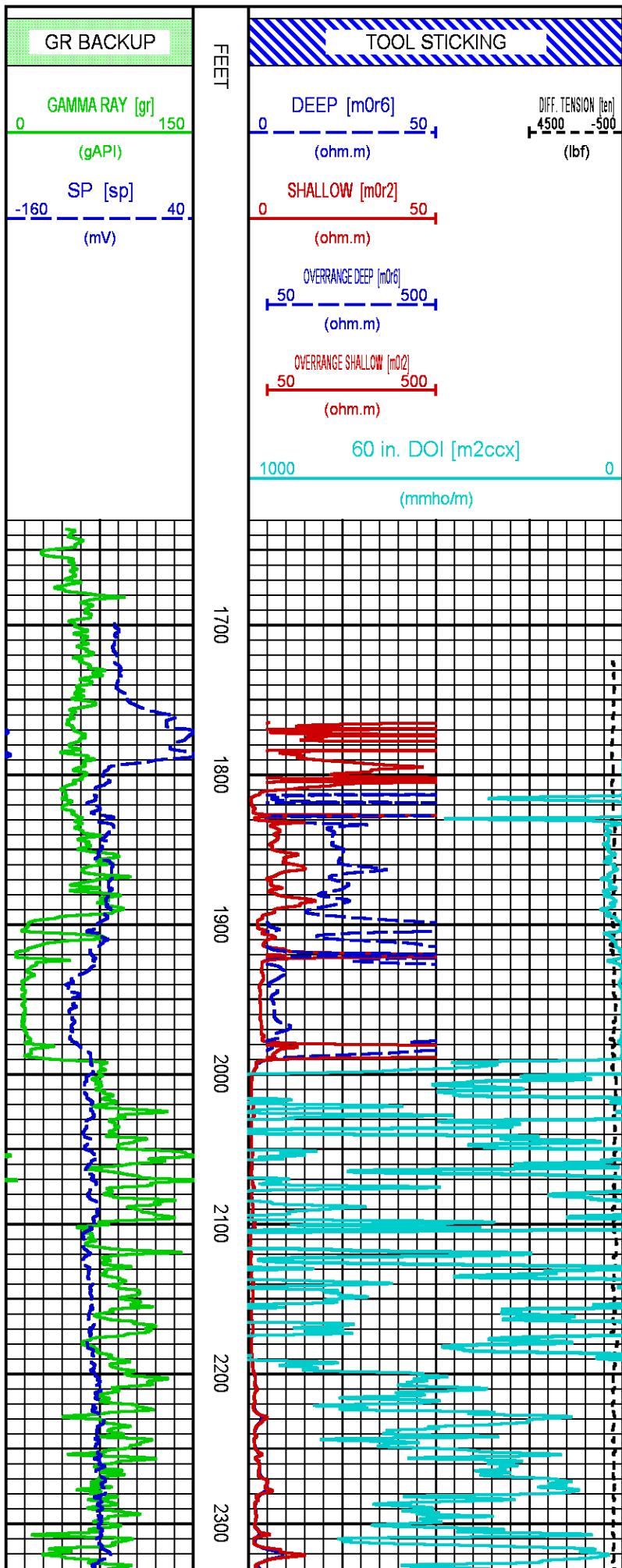
#### CURVE MEASURE POINT OFFSET

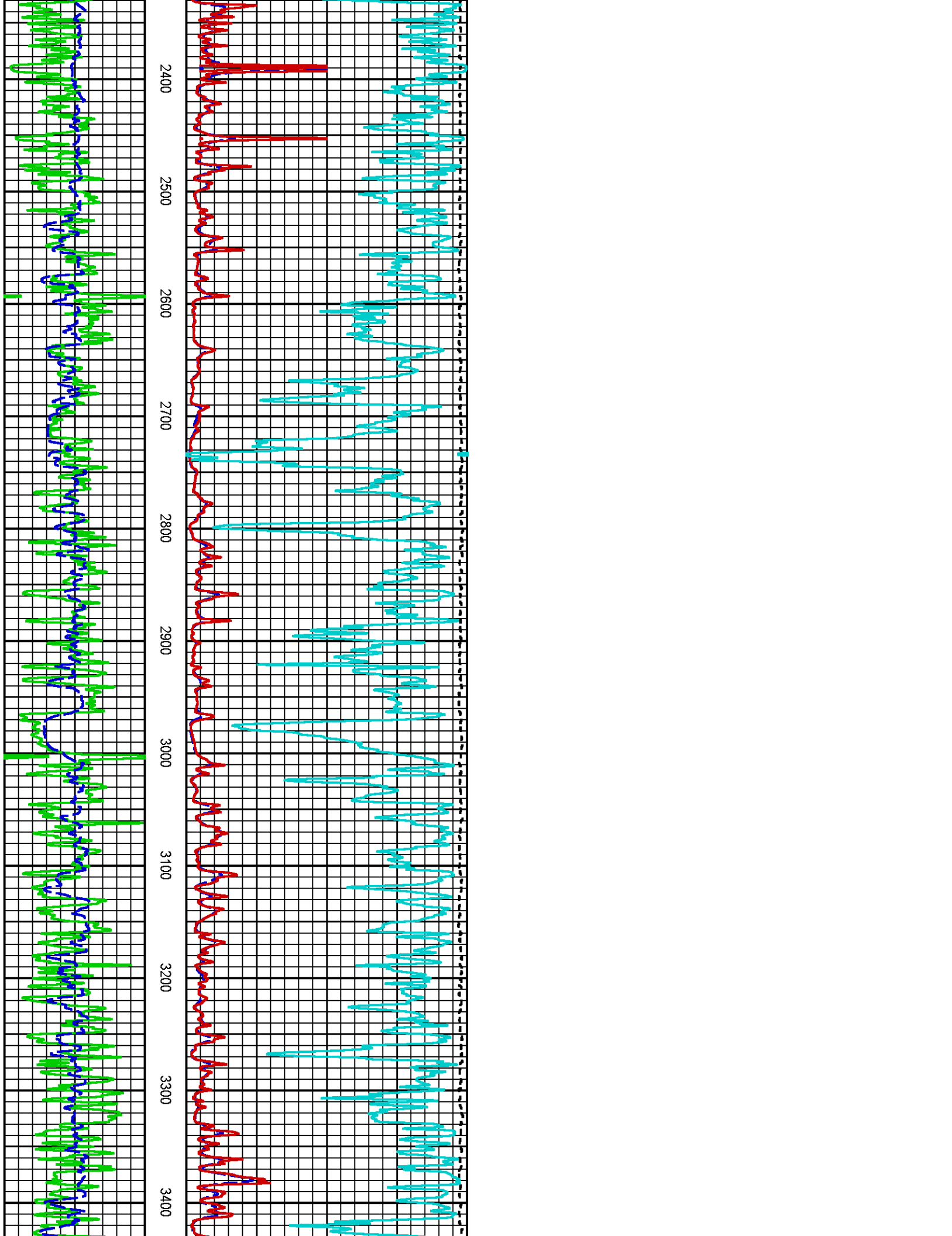
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
GR	-88.12	M0R6	-19.25	SP	-25.25		
M0R2	-19.25	M2CCX	-19.25	TEN	0.00		

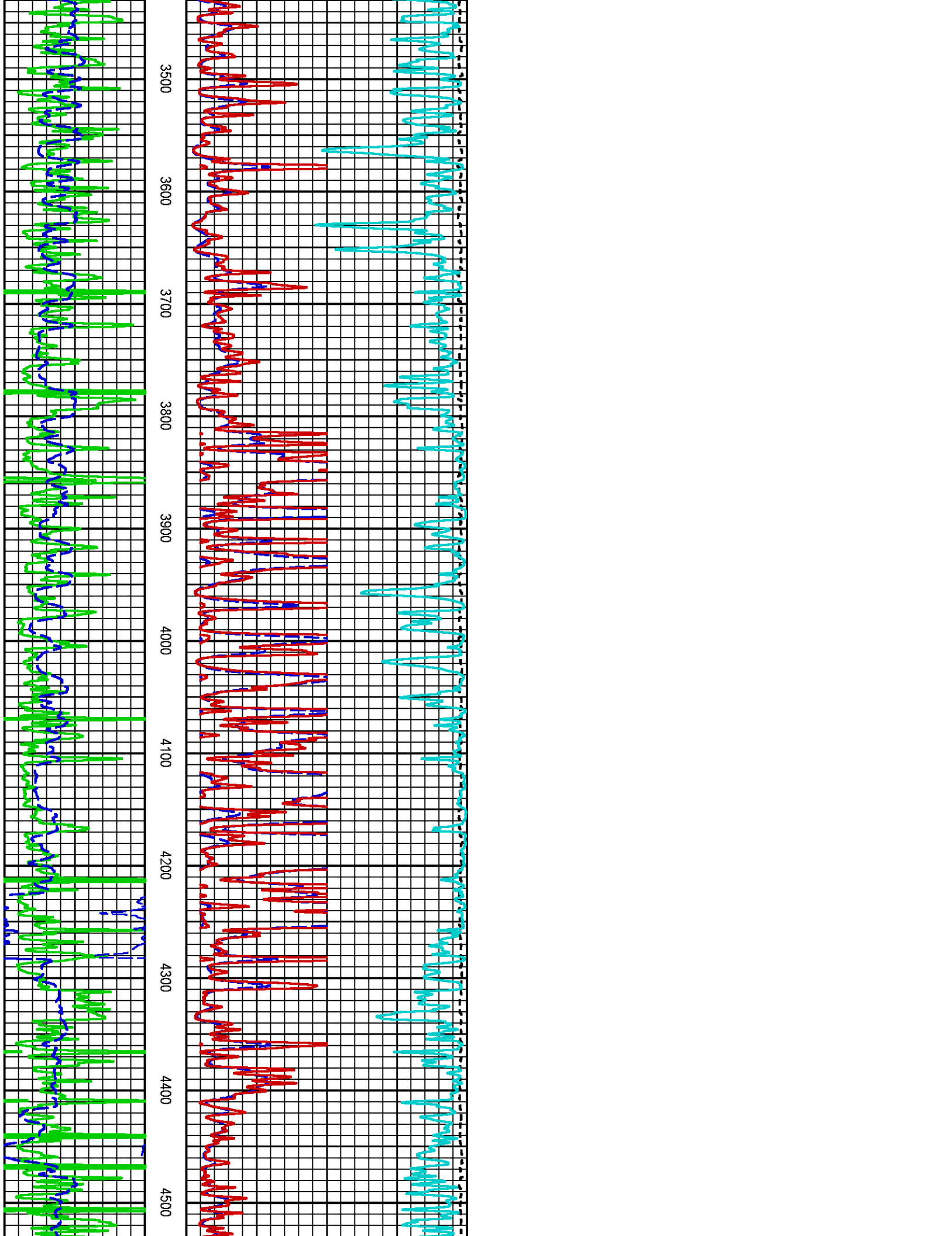
Presentation : cpu6728:/dat1a/MERIT\_CARRIE\_15\_1/1IN\_IND.fvpdf [1"/100' Scale]  
 Plot Interval : 1636.25 - 5006.25 Feet

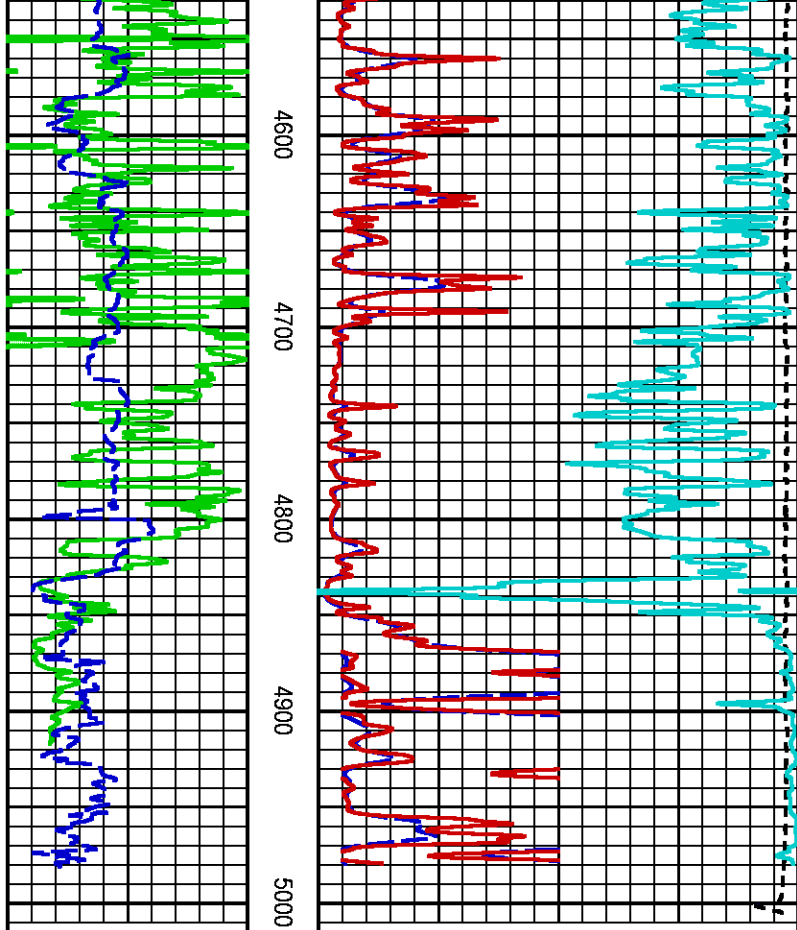
Data File 1 : F1 : cpu6728:/dat1a/MERIT\_CARRIE\_15\_1/MAIN.xtf  
 Created On : Mar 5 21:33:50 2020  
 Company : MERIT ENERGY COMPANY  
 Well : CARRIE 15-1

Field : WILDCAT  
File Interval : 1621.75 - 5007.5 Feet  
OCT : GSALM\_DA









FEET

4600  
4700  
4800  
4900  
5000

GR BACKUP

TOOL STICKING

GAMMA RAY [gr]

DEEP [m0r6] (ohm.m)

(gAPI)

SHALLOW [m0r2] (ohm.m)

SP [sp] (mV)

DIFF. TENSION [ten] (lbf)

50 500 (ohm.m)

50 500 (ohm.m)

50 500 (ohm.m)

60 in. DOI [m2ccx] (mmho/m)

1000 0

(mmho/m)