STEP energy services

PHASED INDUCTION

SHALLOW FOCUS SP LOG

Company TRANS PACIFIC OIL CORPORATIC
Well FLAX A #1-16
Field RANSOM NORTHWEST
County NESS
State KANSAS
Country USA
API No. 15-135-26082-00-00

File No : HAYS-70363
Company : TRANS PACIFIC OIL CORPORATION
Well : FLAX A #1-16
Field : RANSOM NORTHWEST
County : NESS
State : KANSAS
Country : USA
API No : 15-135-26082-00-00

Location :
2310' FNL & 2970' FEL
SE SE NW

LSD : **Sect :** 16 **Twp :** 16S **Rge :** 24W

Permanent Datum:	GL	**Elevations:**		**Services:**	
Drilling Measured From:	KB	**KB**	2537.00 Ft	GRT	MLT
Log Measured From:	KB	**DF**	2535.00 Ft	CNT	PIT
Above Permanent Datum:	7.00 Ft	**GL**	2530.00 Ft	LDT	

Date	10-01-2019						
Run Number	1						
Depth--Driller	4610.0	Ft					
Depth--Logger	4604.0	Ft					
First Reading	4603.0	Ft					
Last Reading	264.0	Ft					
Casing--Driller	264.0	Ft					
Casing--Logger	264.0	Ft					
Bit Size	7.875	In					
Casing Size	8.625	In					
Hole Fluid Type	WBM						
Density	9.4	lb/gal					
Fluid Loss	8.0	ml/30min					
PH/Viscosity	10.0	60.0 sec					
Sample Source	MEASURED						
RM@Measured Temp.	0.700 @ 75 F						
RMF@Measured Temp	0.600 @ 75 F						
RMC@Measured Temp.	0.810 @ 75 F						
Source RMF/RMC	CALCULATED	CALCULATED					
RM@BHT	0.450 @ 120 F						
Time Circulation Stopped							
Max Recorded Temp.	120 F						
Equipment/Base	TRK 137	HAYS					
Recorded By	R. FRANKLIN						
Witnessed By	N. HIXON						

Bitsize Intervals

Size (In)	Bottom (Ft)
7.875	4604.00

Casing Strings

Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
8.625	0.00	264.00	0.00

Run Number	1		
Date	10-01-2019		
Date/Time On Bottom	10-01-2019 13:15		
Depth to Fluid	0.0	Ft	
Salinity	3100.000	ppm	
RMF@BHT	0.380 @ 120 F		
RMC@BHT	0.520 @ 120 F		

Run Number 1

Comments

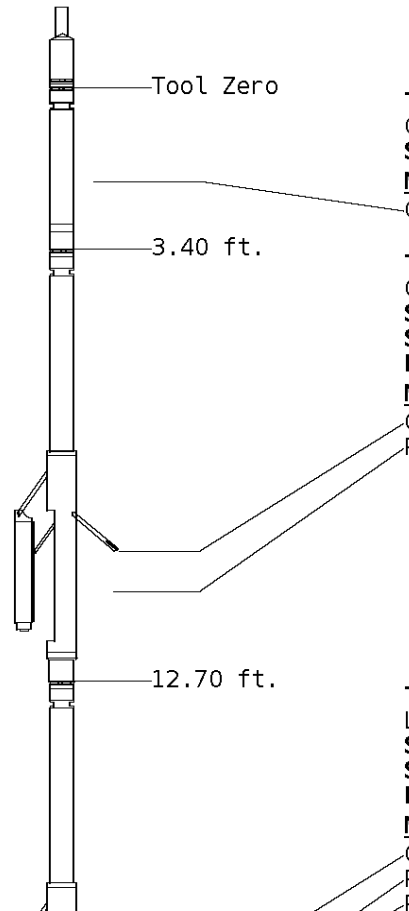
ALL PRESENTATION PER CUSTOMER REQUEST
GRT,CNT,LDT,MLT,PIT RUN IN COMBINATION
CALIPERS ORIENTED ON X-Y AXIS
2.71 G/CC USED TO CALCULATE POROSITY
ANNULAR & BOREHOLE VOLUME CALCULATED USING 5.5 PRODUCTION CASING
PHIN IS CALIPER CORRECTED
DETAIL IS PRESENTED FROM TD TO SCG
ANHYRITE DETAIL PRESENTED FROM 1950' TO 1850'

GRT; GRP,
CNT; PHIN, CLCNIN
LDT; PORL, LCORN, PECLN, LDENN, CLLDIN
MLT; NOR_RF, INV_RF, MSCLPIN.
PIT; ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS;
D. LEGLEITER
D. RAGSDALE
J. VAUGHN
R. NITZ

Tool String Schematic

Total Tool Length - 54.51 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 943.00 **lbs.**



Tool: GRT-B **Length:** 3.40 **ft.** **O.D.** 3.60 **in.**
Gamma Ray Controller
Sonde ID :GRT-BC-038

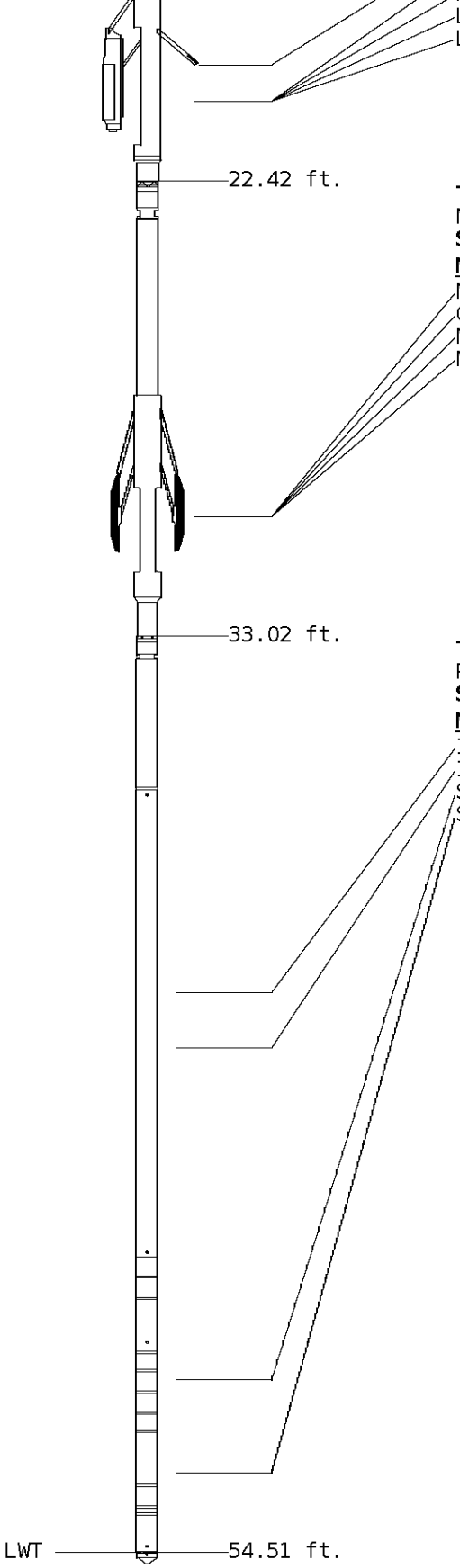
Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	52.51

Tool: CNT-AA **Length:** 9.30 **ft.** **O.D.** 4.36 **in.**
Compensated Neutron A Pad on NDT-A
Sonde ID :NDT-AF-104
Source ID :N-1104
Pad ID :CNP-AE-41

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	45.11
PHIN	6.80	10.20	44.31

Tool: LDT-DF **Length:** 9.72 **ft.** **O.D.** 4.80 **in.**
Litho Density D Pad on NDT-F
Sonde ID :NDT-FA-404
Source ID :1637GW
Pad ID :LDP-DA-062

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.42	19.12	35.39
PEL	7.42	20.12	34.39
PES	7.82	20.52	33.99



LDEN	7.62	20.32	34.19
LCOR	7.62	20.32	34.19

Tool: MLT-AB **Length:** 10.60 **ft.** **O.D.** 6.00 **in.**
Micro Log Tool
Sonde ID :MLT-012

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	8.90	31.32	23.19
CLMR	7.60	30.02	24.49
MSFN	8.90	31.32	23.19
MSFI	8.90	31.32	23.19

Tool: PIT-CA **Length:** 21.49 **ft.** **O.D.** 3.62 **in.**
Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-043

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	41.94	12.56
ILM	10.10	43.12	11.39
SFLU	17.49	50.51	4.00
SP	20.60	53.62	0.88

Well File: TRANS-PACIFIC_FLAX_A_1-16_OCT_1_MSTK **Scale:** 1:600 **Format:** DIL-600
Segment: V1.D1.S6 MAIN **Acquired:** 2019-10/01 13:25 3.4.1-13972
Reference: 0 **Processed:** 2019-10/01 14:46 3.4.1-13972

TENSION LBS		DEEP INDUCTION OHMM	
10000	0	0.0	500.0
		0.0	50.0
SPONTANEOUS POTENTIAL mV		SHALLOW FOCUSED RESISTIVITY OHMM	
		0.0	500.0

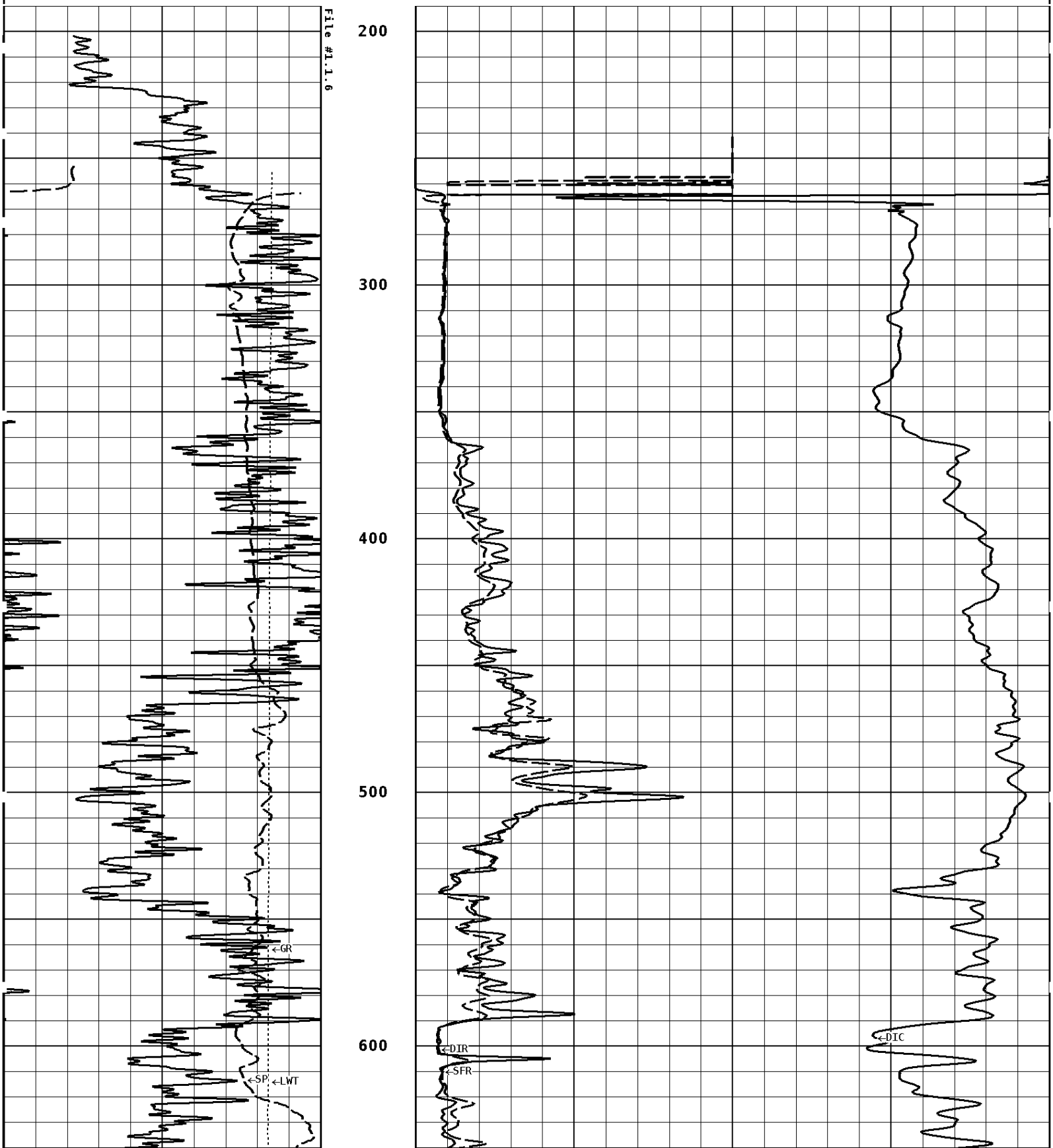
→| |←20

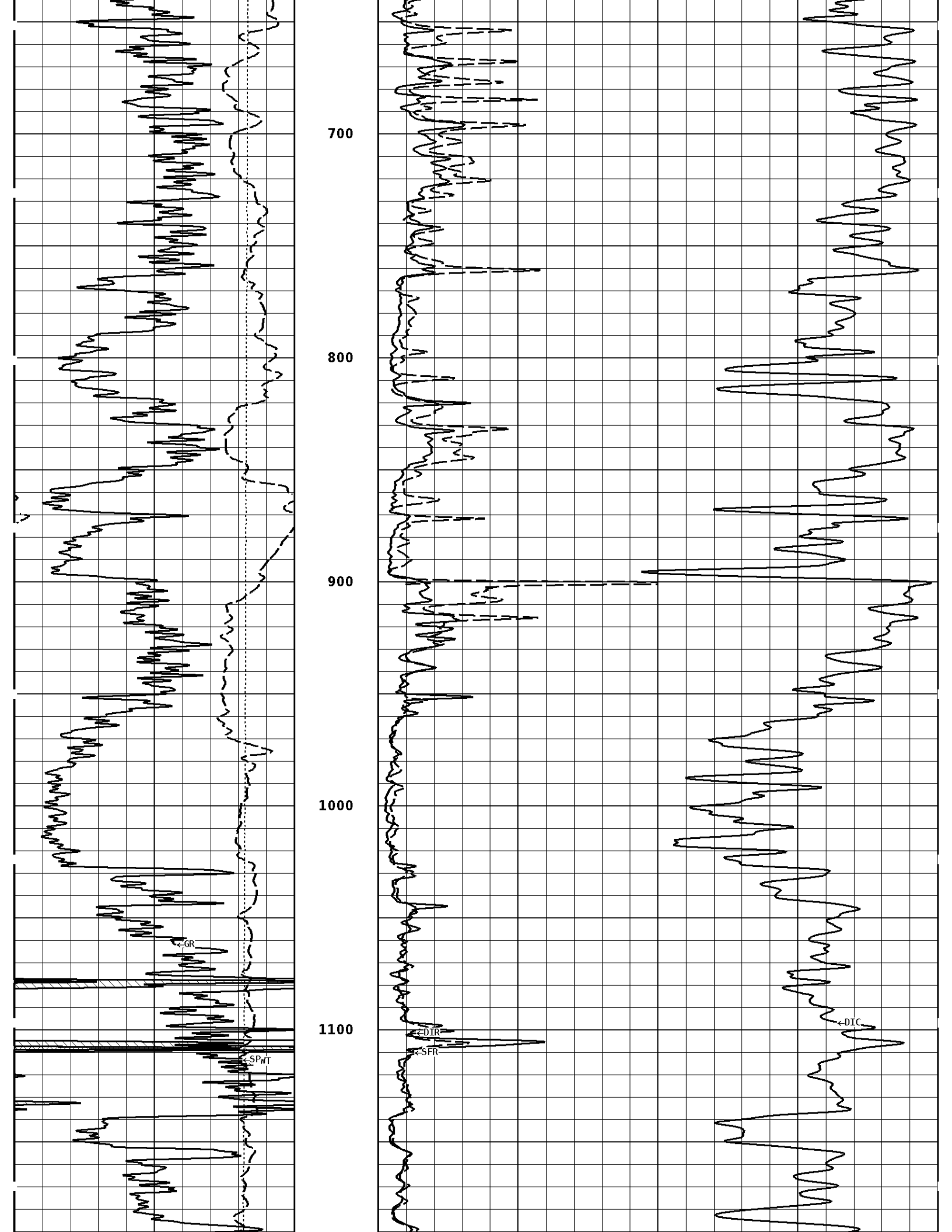
GAMMA RAY
API UNITS
150 300
0 150

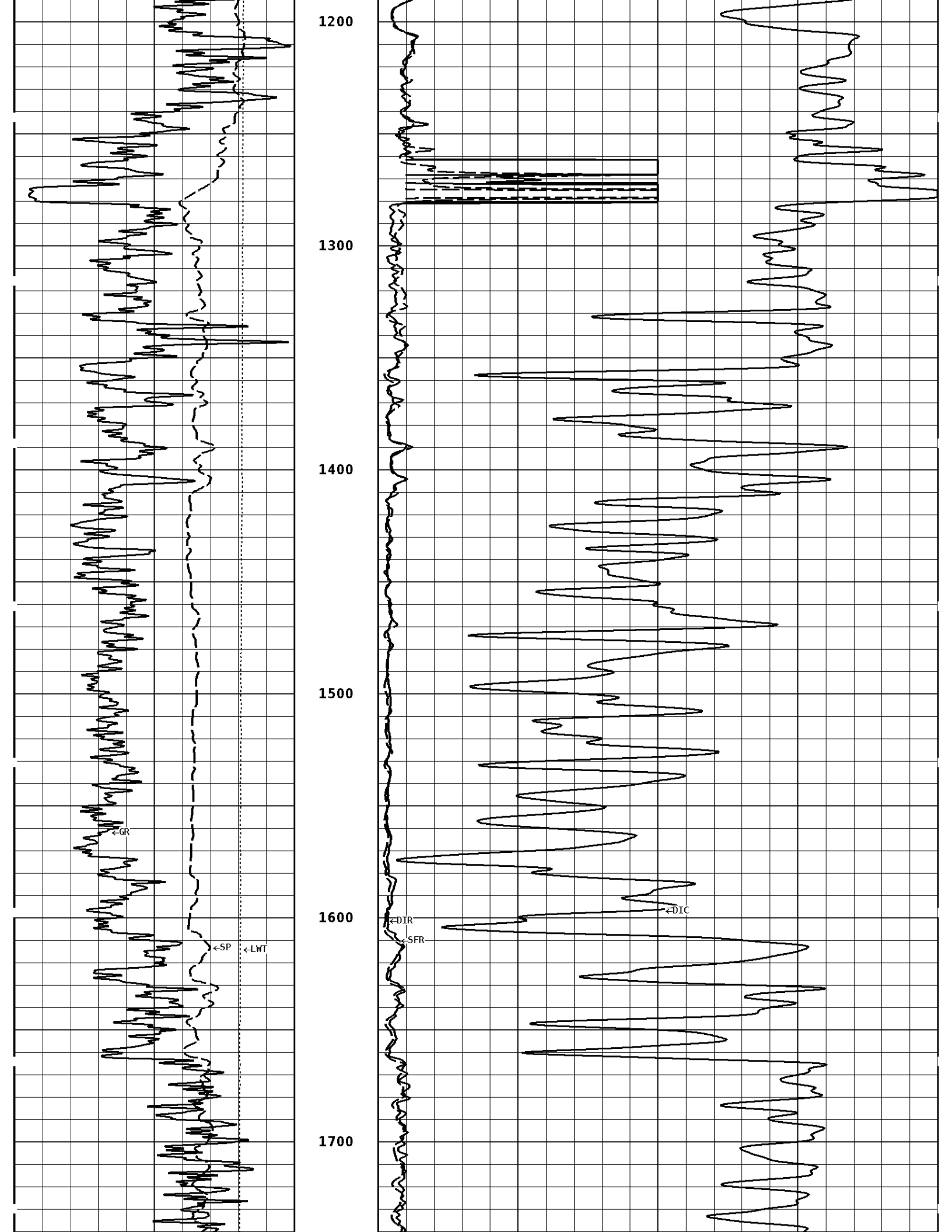
0.0 500.0
0.0 50.0

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

1:600 MAIN SECTION




700
800
900
1000
1100
GR
SPWT
DIR
SFR
DIC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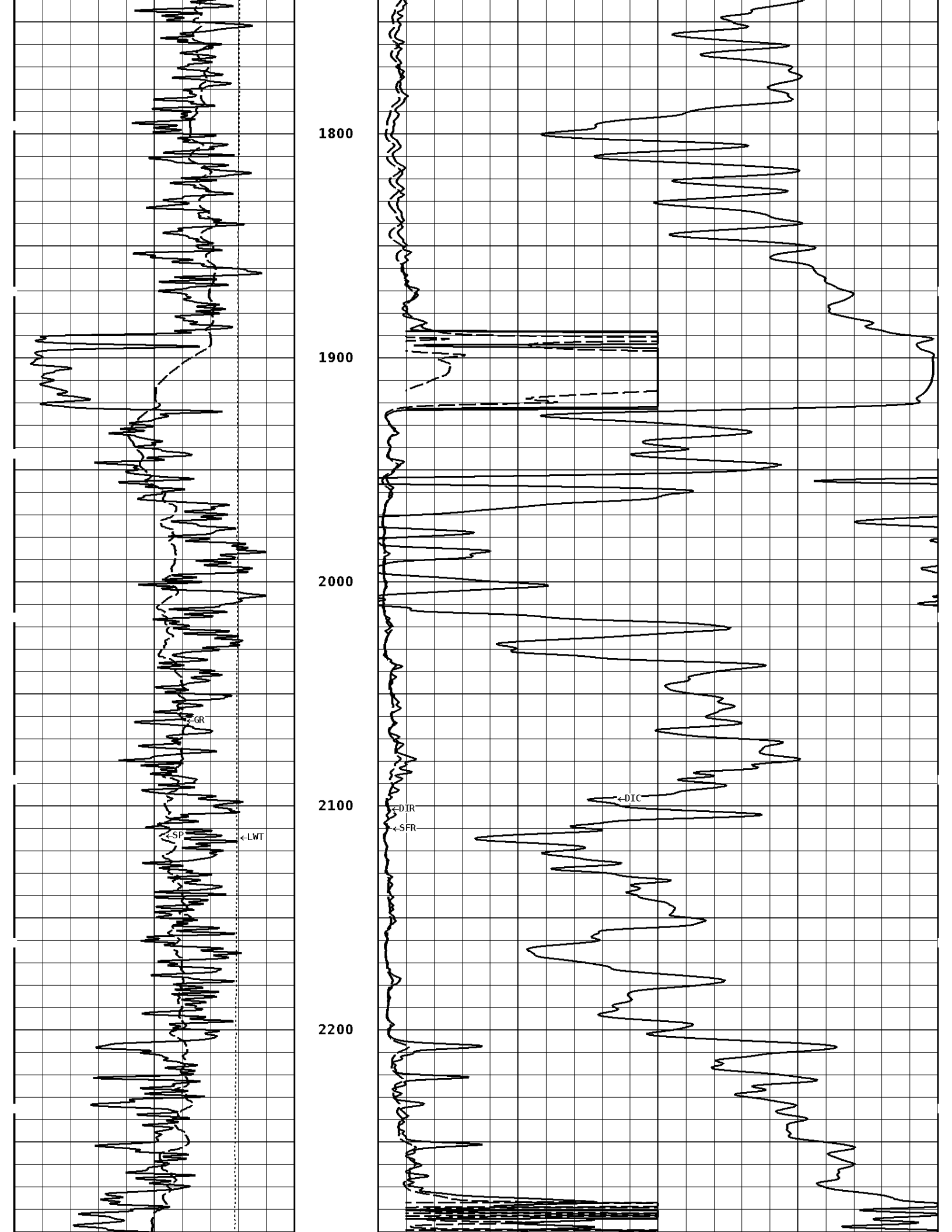
1300
1400
1500
1600
1700
GR
SP
LWT
DIR
SFR
DIC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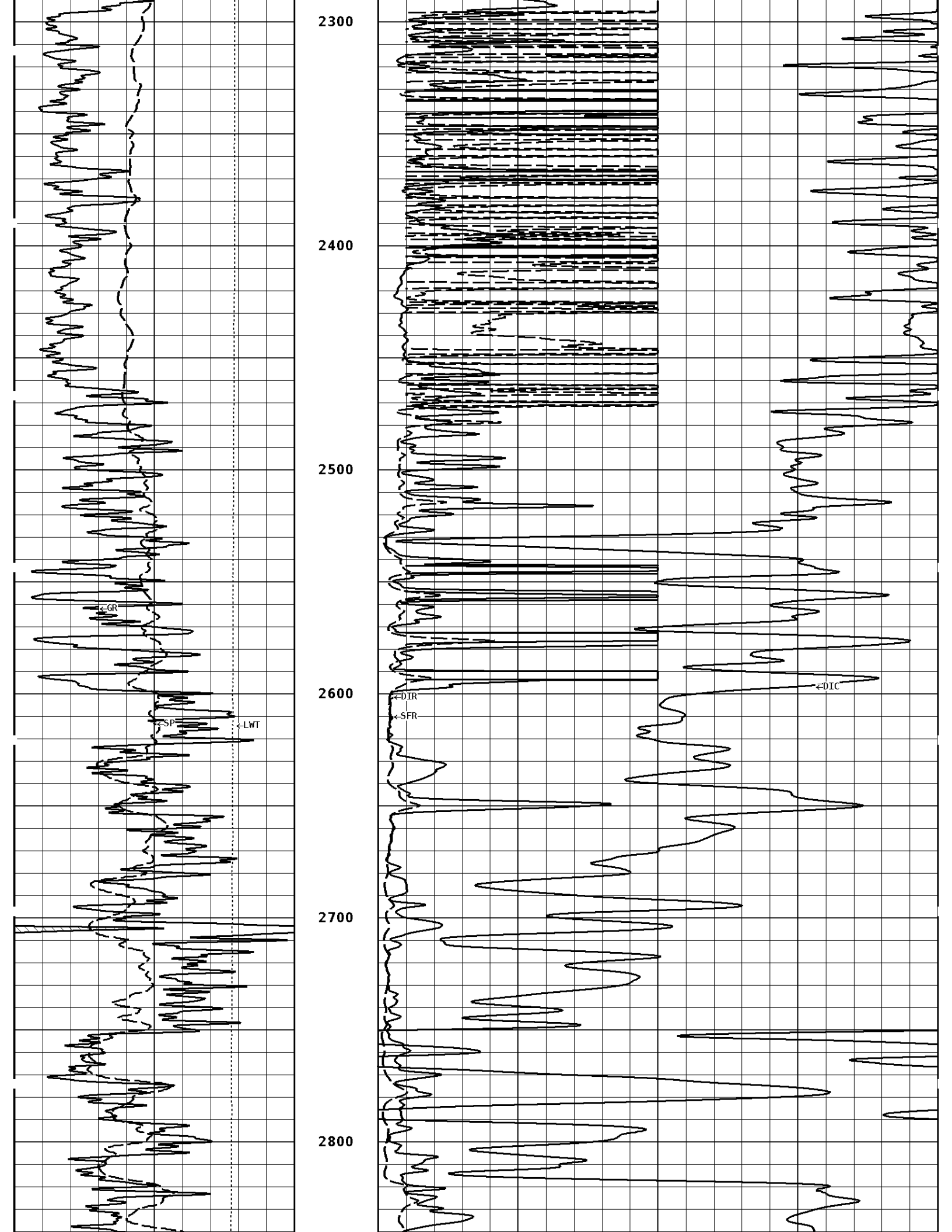
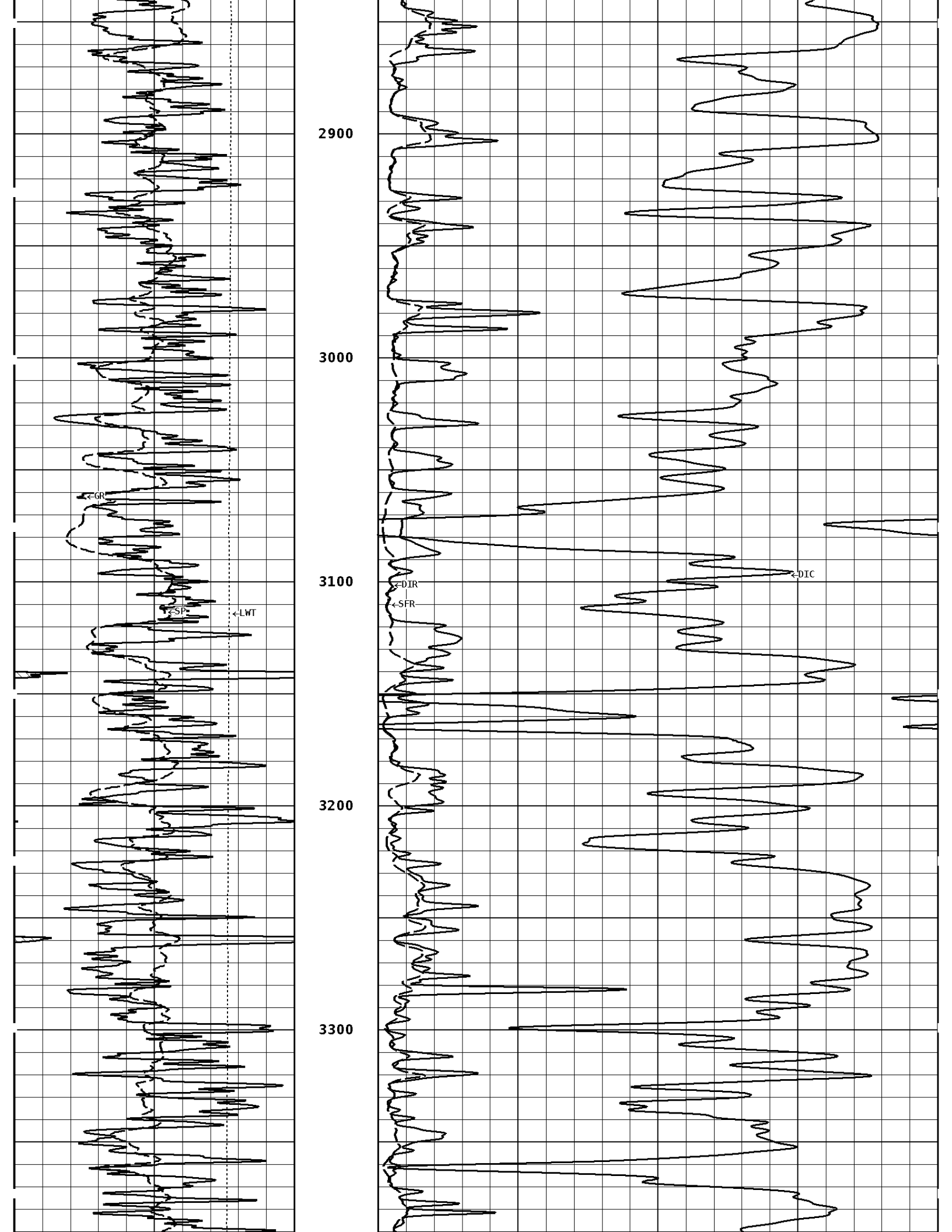
1900
2000
2100
2200
GR
SP
LWT
DIC
DIR
SFR


2300
2400
2500
2600
2700
2800
GR
SP
LWT
DIR
SFR
DIC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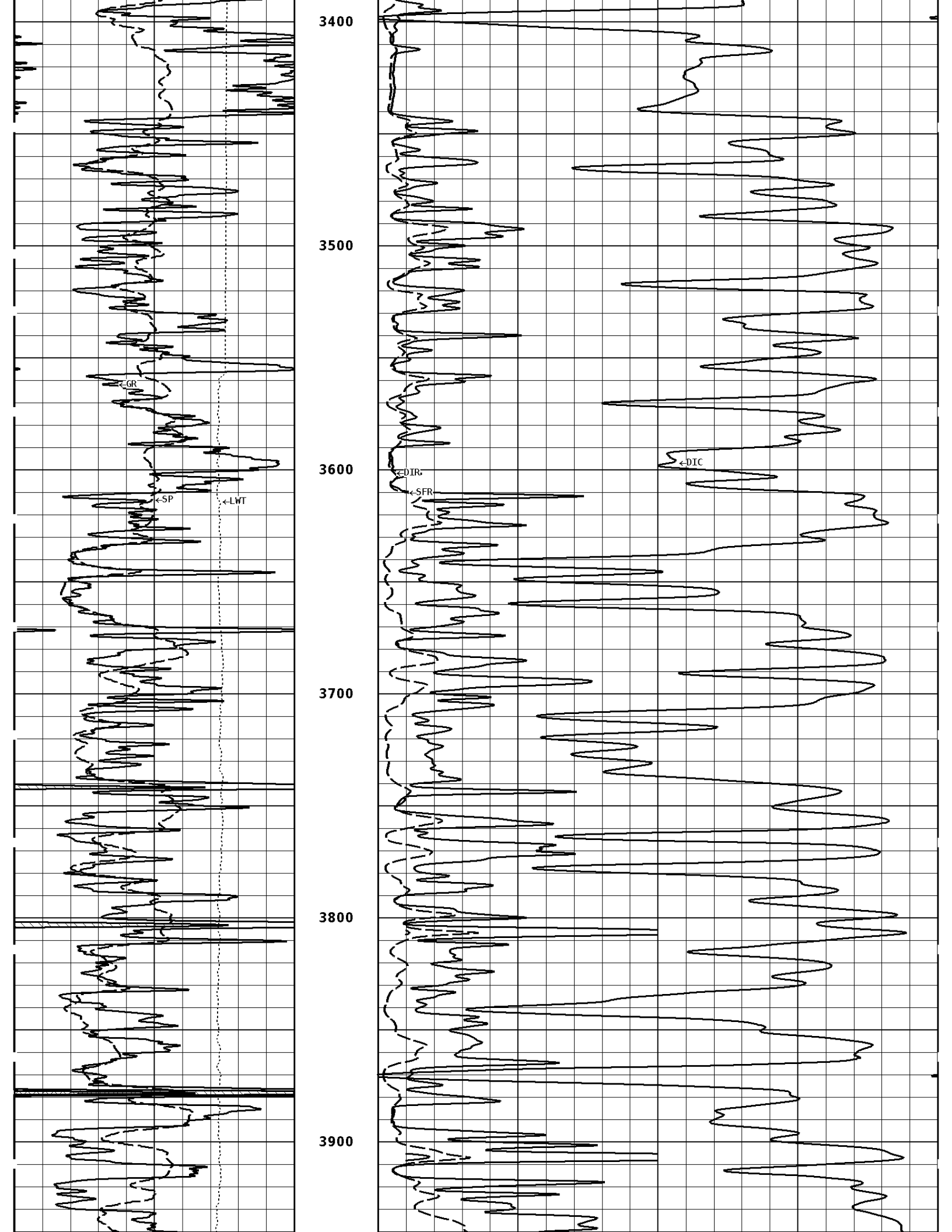
3000
3100
3200
3300
GR
SP
LWT
DIR
SFR
DIC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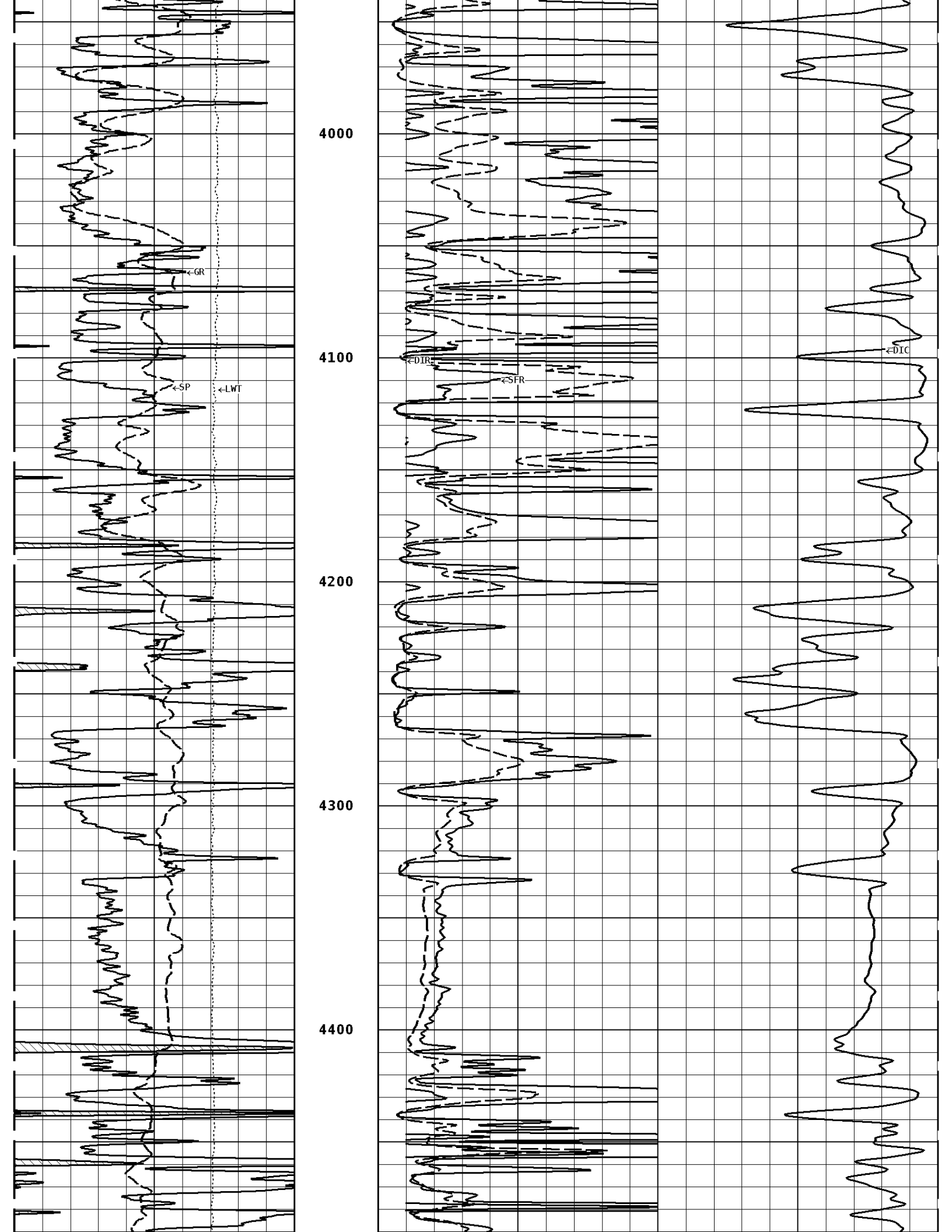
3500
3600
3700
3800
3900
GR
SP
LWT
DIR
SFR
DIC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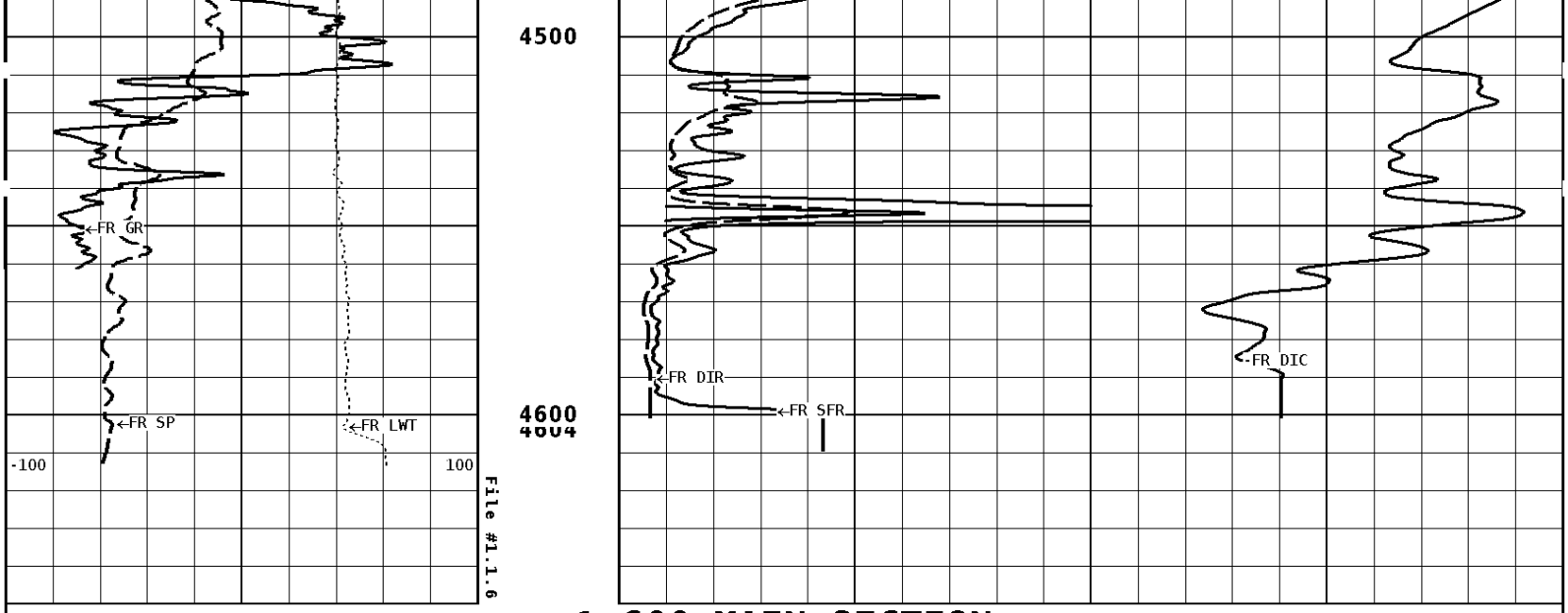
4100
4200
4300
4400
GR
SP
LWT
DIR
SFR
DIC



1:600 MAIN SECTION

GAMMA RAY
API UNITS
150 — 300
0 — 150

DEEP CONDUCTIVITY
MMHO
2000 — 1000
1000 — 0

SPONTANEOUS POTENTIAL
mV
→| |←20

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 — 500.0
0.0 — 50.0

TENSION
LBS
10000 — 0

DEEP INDUCTION
OHMM
0.0 — 500.0
0.0 — 50.0

Well File: TRANS-PACIFIC_FLAX_A_1-16_OCT_1_MSTK **Scale:** 1:240 **Format:** DIL-240
Segment: V1.D1.S6 MAIN **Acquired:** 2019-10-01 13:25 3.4.1-13972
Reference: 0 **Processed:** 2019-10-01 14:46 3.4.1-13972

SPONTANEOUS POTENTIAL
mV
→| |←20

DEEP INDUCTION
OHMM
0.2 — 2000.0

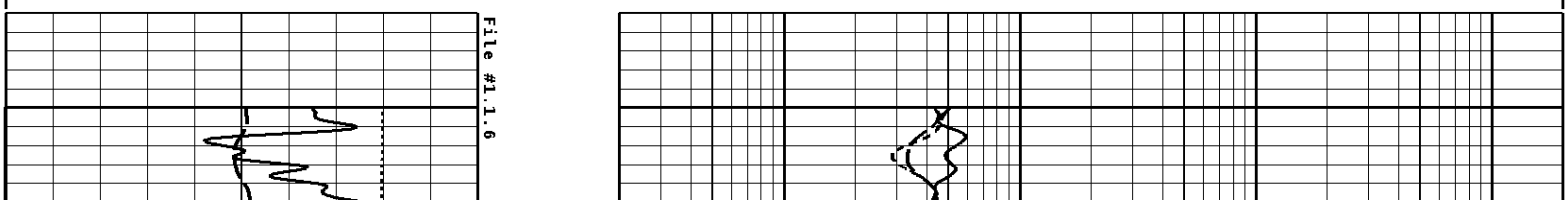
TENSION
LBS
10000 — 0

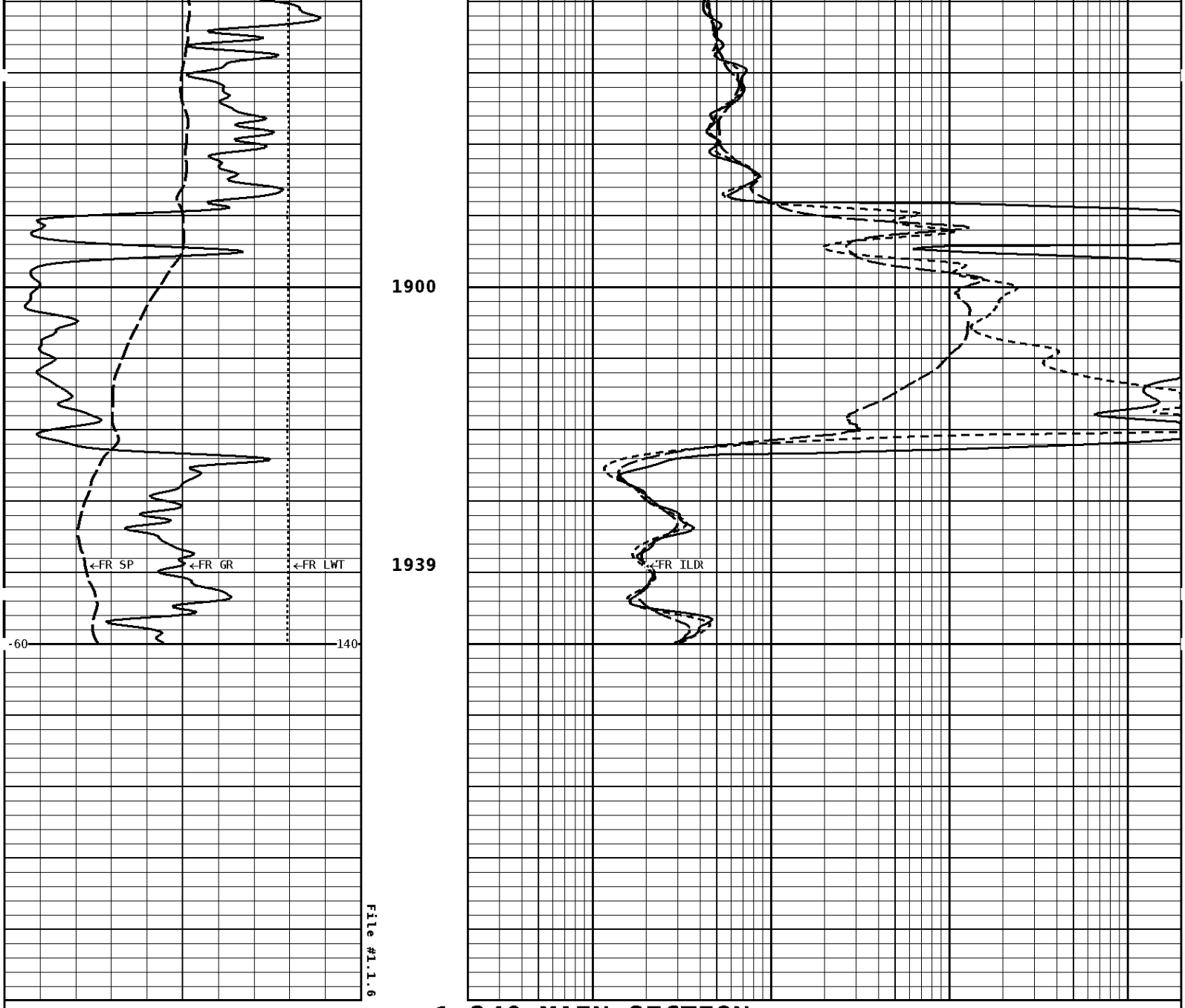
MEDIUM INDUCTION
OHMM
0.2 — 2000.0

GAMMA RAY
API UNITS
150 — 300
0 — 150

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 — 2000.0

1:240 MAIN SECTION





1:240 MAIN SECTION

GAMMA RAY
API UNITS
150 — 300
0 — 150

TENSION
LBS
10000 — 0

SPONTANEOUS POTENTIAL
mV
→| |←20

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 — 2000.0

MEDIUM INDUCTION
OHMM
0.2 — 2000.0

DEEP INDUCTION
OHMM
0.2 — 2000.0

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet

Drill Bit Size	7.875 in
Casing Diameter	5.500 in

Casing Diameter	5.500	in
BHT Depth	4604.000	ft
Borehole Temperature	120.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	0.700	ohmm
Standoff	1.5	
Resistivity Of Mud Temperature	75.00	degF

Well File: TRANS-PACIFIC_FLAX_A_1-16_OCT_1_MSTK **Scale:** 1:240 **Format:** DIL-240
Segment: V1.D1.S6 MAIN **Acquired:** 2019-10/01 13:25 3.4.1-13972
Reference: 0 **Processed:** 2019-10/01 14:46 3.4.1-13972

SPONTANEOUS POTENTIAL
mV
→| |←20

TENSION
LBS
10000 0

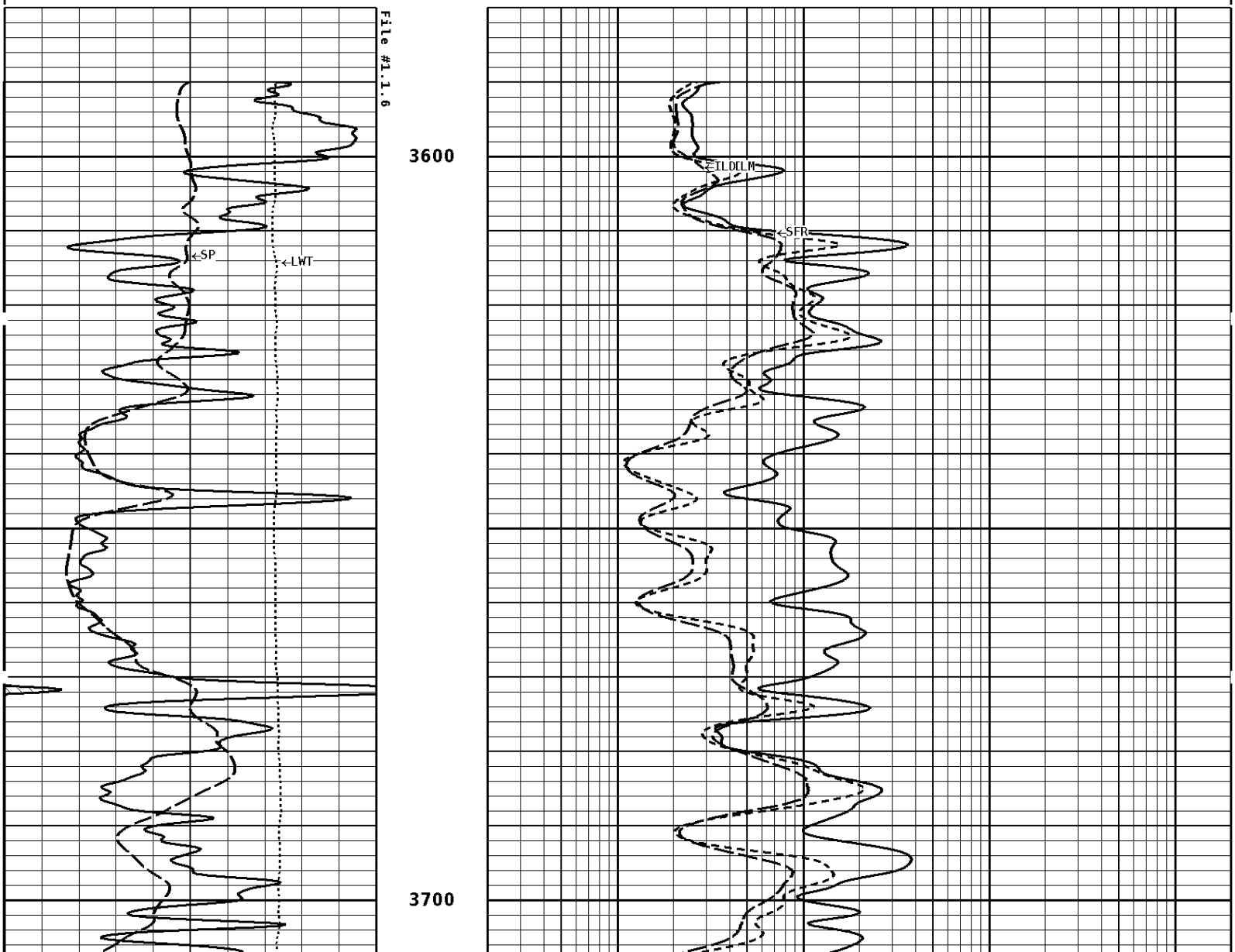
GAMMA RAY
API UNITS
150 300
0 150

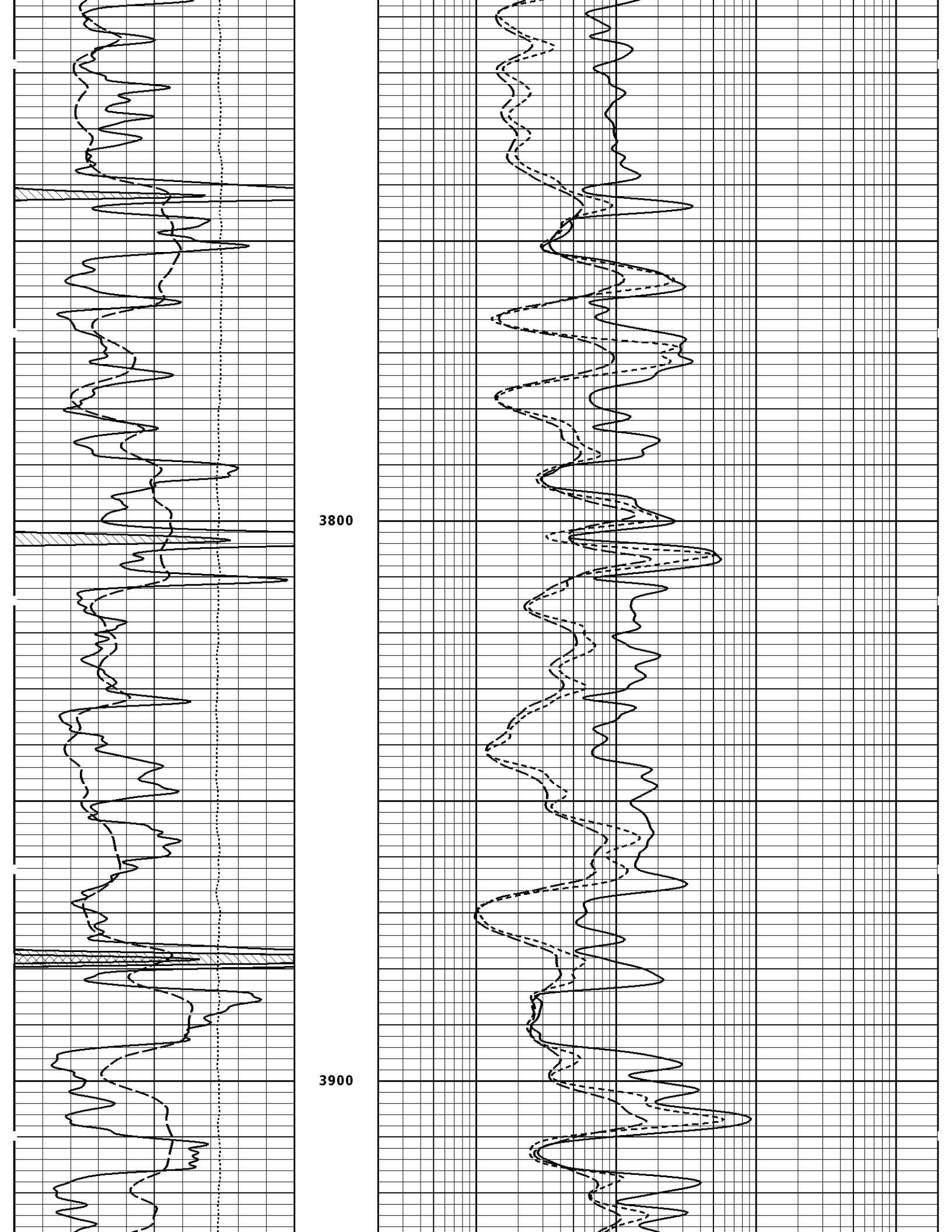
DEEP INDUCTION
OHMM
0.2 2000.0

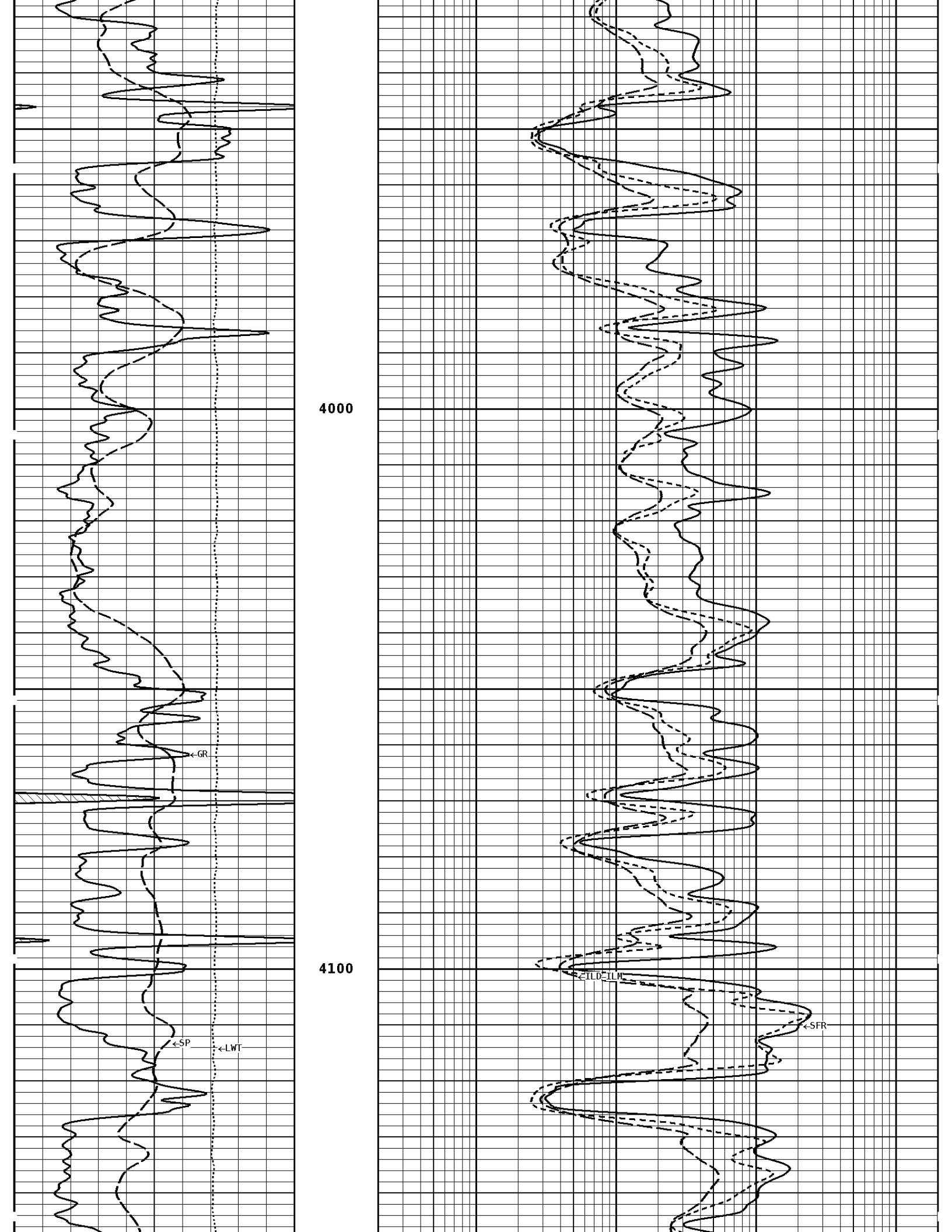
MEDIUM INDUCTION
OHMM
0.2 2000.0

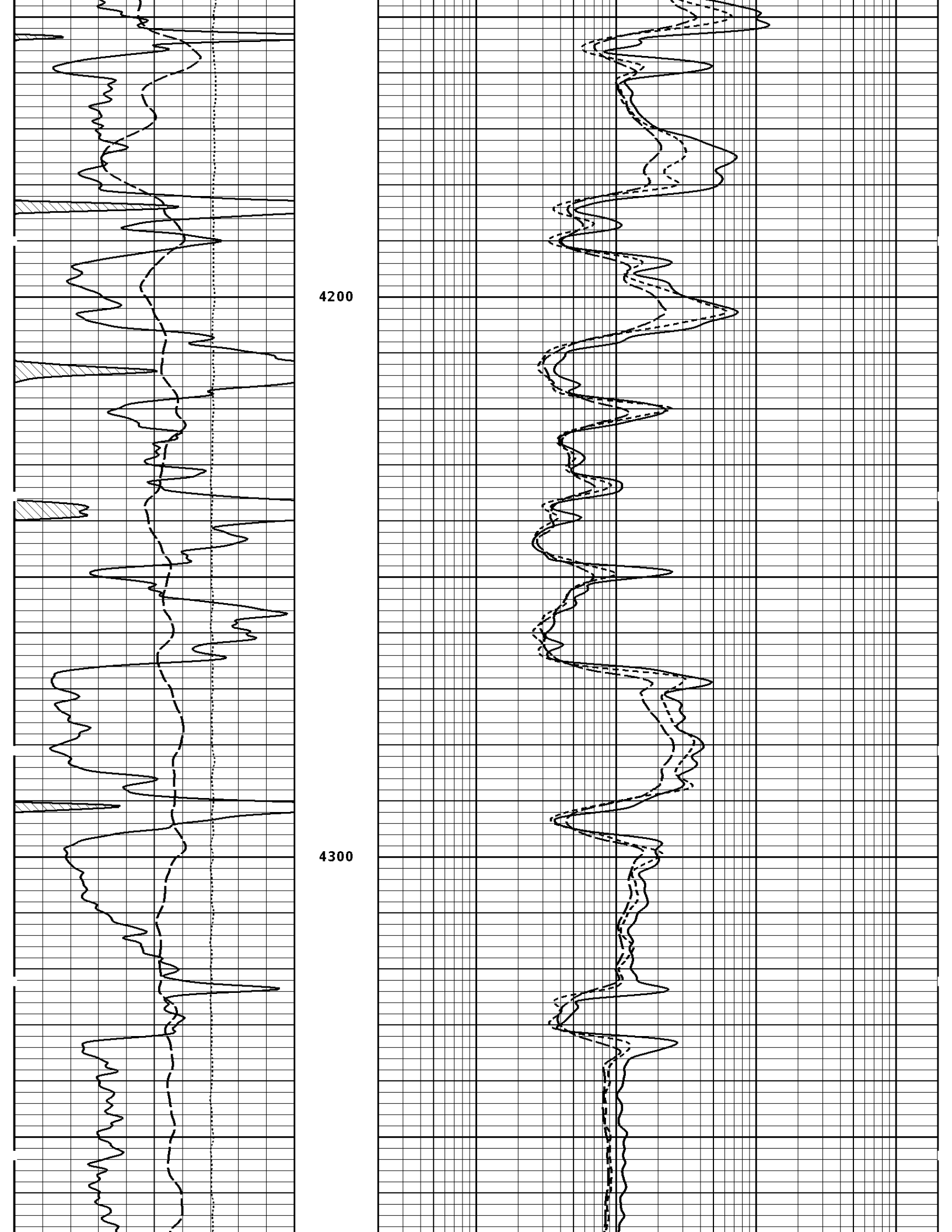
SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

1:240 MAIN SECTION




3800
3900


4000
GR
4100
SP
LWT
ILD ILM
SFR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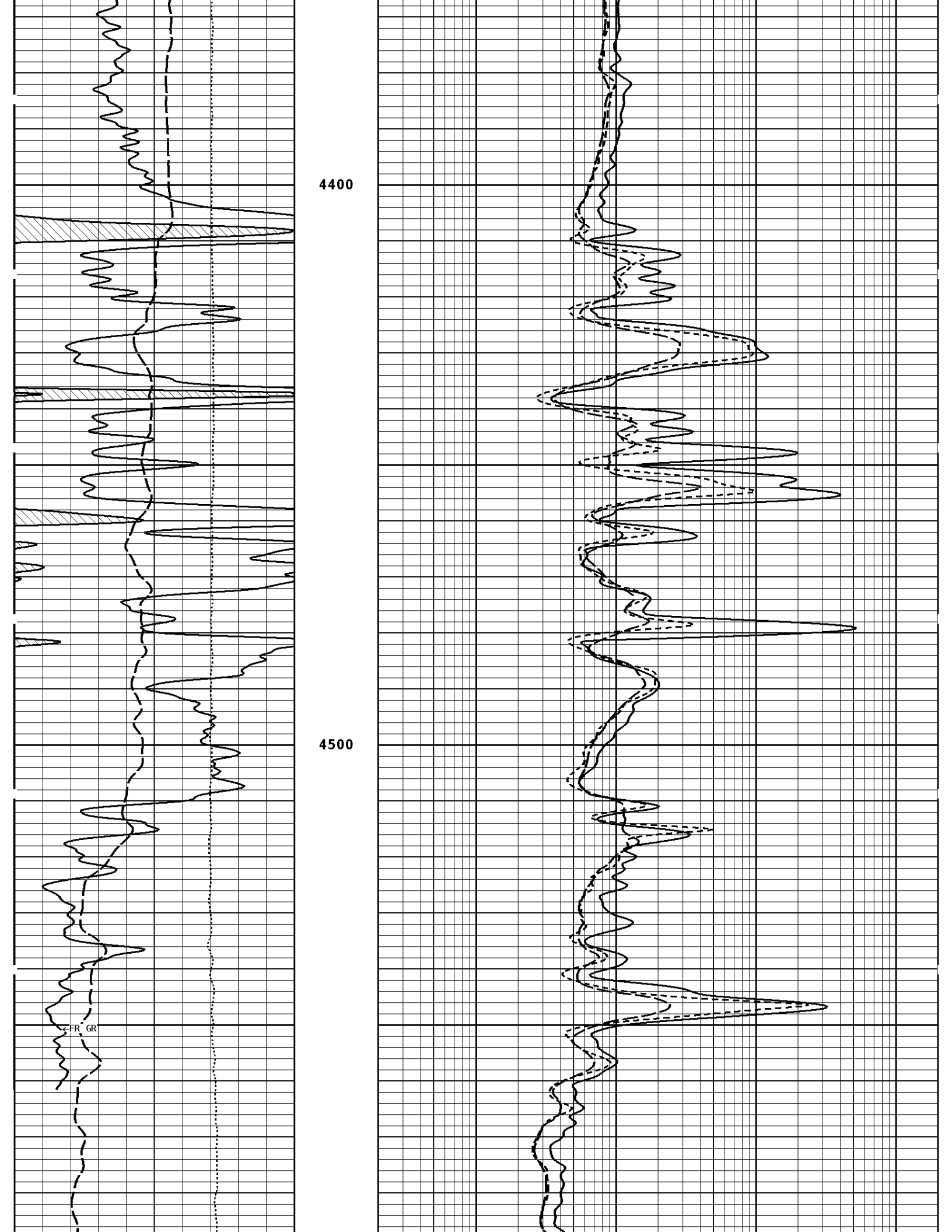
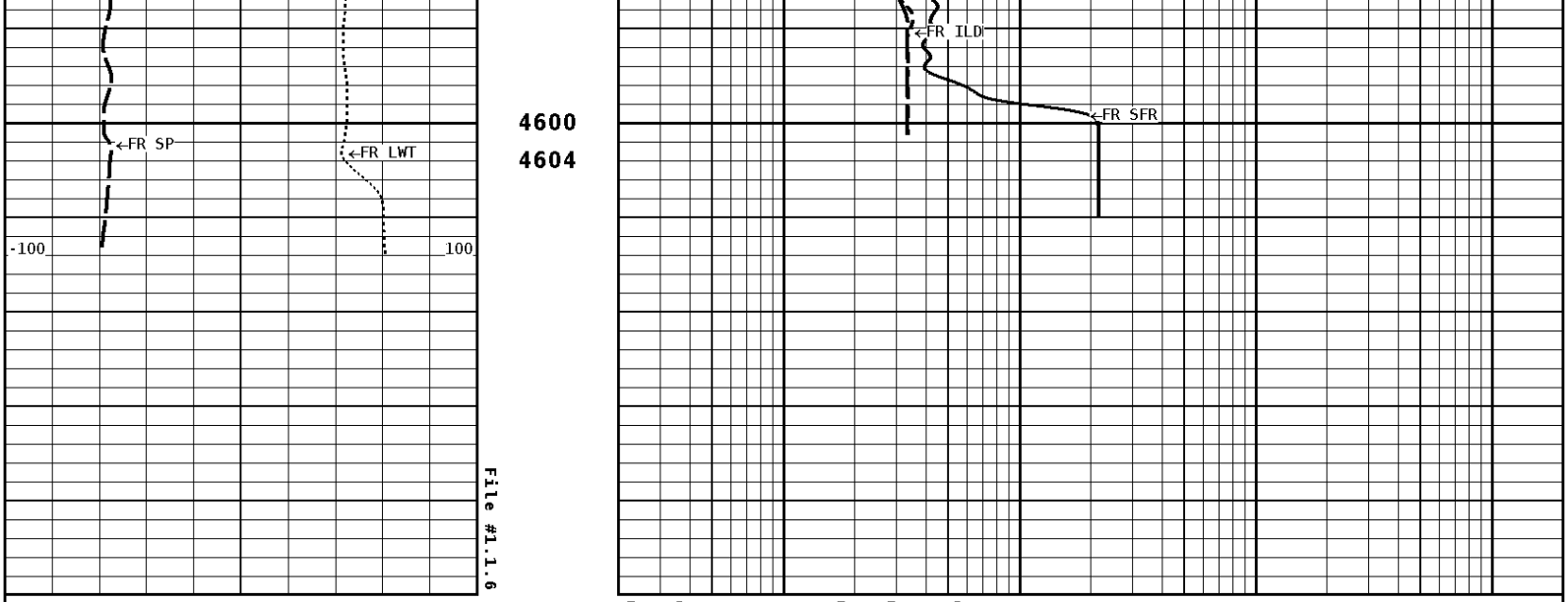
4300


4400
4500
FR GR



1:240 MAIN SECTION

GAMMA RAY
API UNITS
150 | 300
0 | 150

TENSION
LBS
10000 | 0

SPONTANEOUS POTENTIAL
mV
→| |←20

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 | 2000.0

MEDIUM INDUCTION
OHMM
0.2 | 2000.0

DEEP INDUCTION
OHMM
0.2 | 2000.0

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet

Drill Bit Size	7.875	in
Casing Diameter	5.500	in
BHT Depth	4604.000	ft
Borehole Temperature	120.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	0.700	ohmm
Standoff	1.5	
Resistivity Of Mud Temperature	75.00	degF

Well File: TRANS-PACIFIC_FLAX_A_1-16_OCT_1_MSTK **Scale:** 1:240 **Format:** DIL-240
Segment: V1.D1.S7 REPEAT **Acquired:** 2019-10/01 13:08 3.4.1-13972
Reference: 0 **Processed:** 2019-10/01 14:45 3.4.1-13972

SPONTANEOUS POTENTIAL
mV
→| |←20

DEEP INDUCTION
OHMM
0.2 | 2000.0

TENSION
LBS
10000 | 0

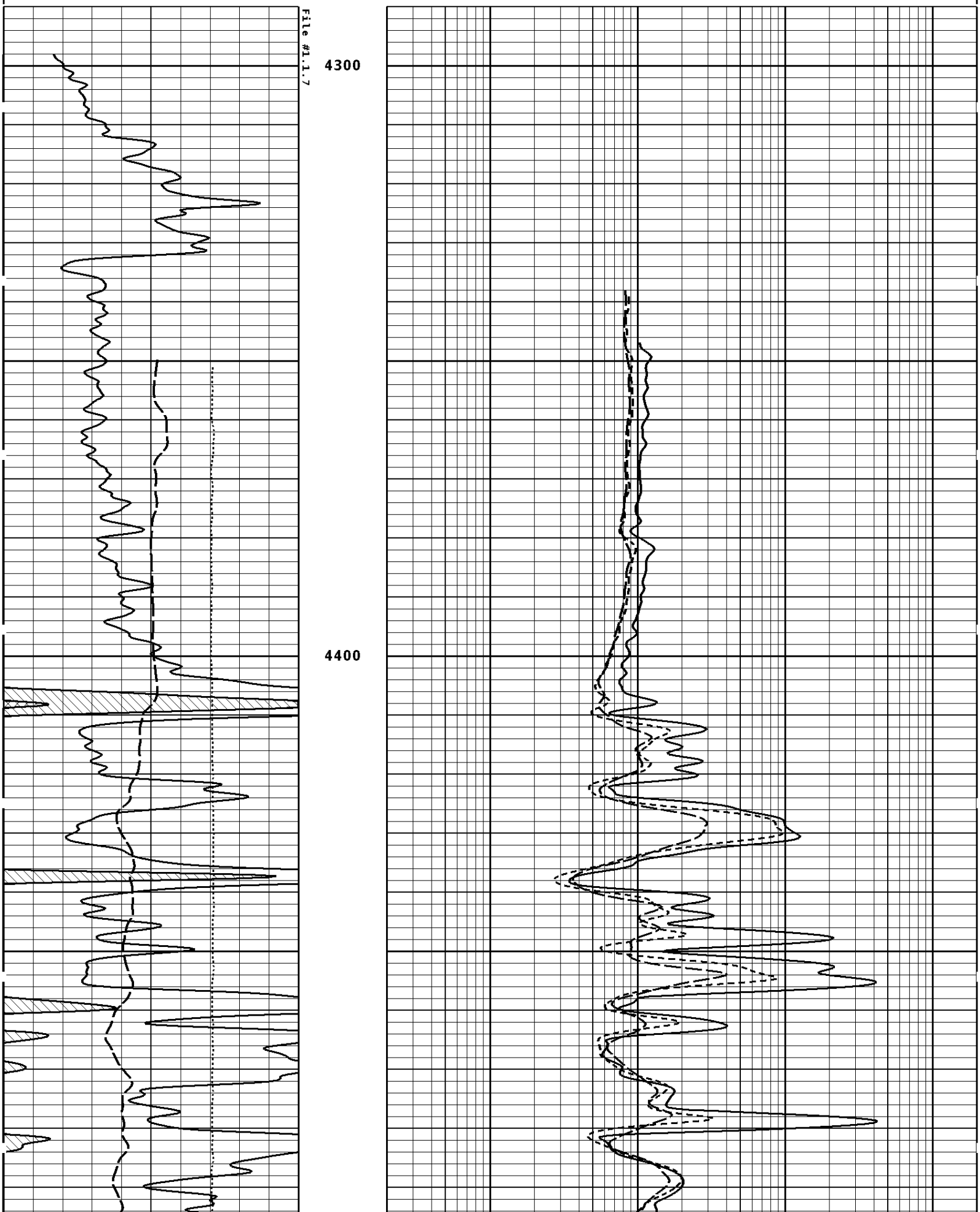
MEDIUM INDUCTION
OHMM
0.2 | 2000.0

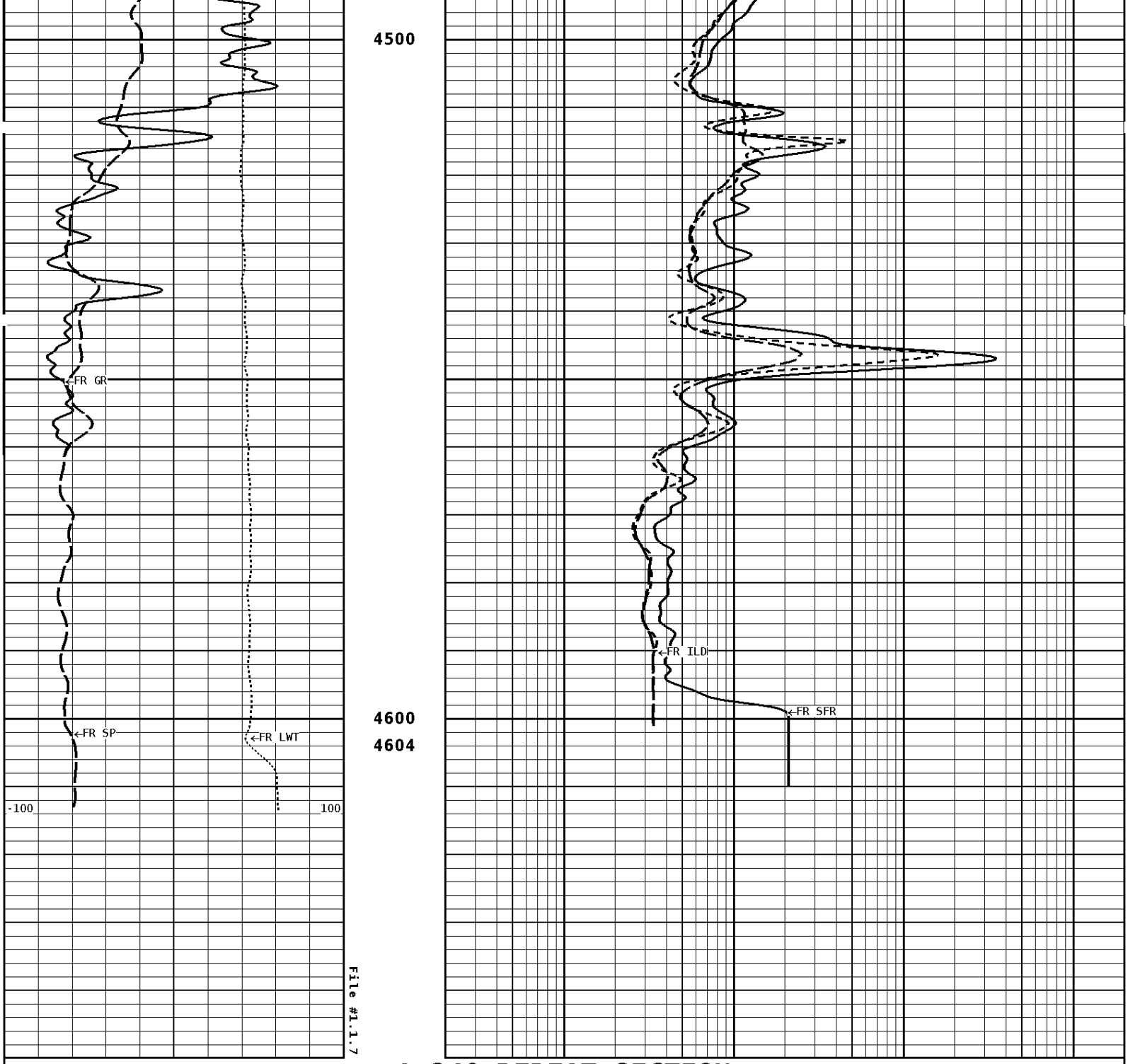
GAMMA RAY
API UNITS
150 | 300
0 | 150

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 | 2000.0

1:240 REPEAT SECTION

1:240 REPEAT SECTION





1:240 REPEAT SECTION

GAMMA RAY
API UNITS
150 0 300 150

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→ ←20

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

MEDIUM INDUCTION
OHMM
0.2 2000.0

DEEP INDUCTION
OHMM
0.2 2000.0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Drill Bit Size	7.875	in
Casing Diameter	5.500	in
BHT Depth	4604.000	ft
Borehole Temperature	120.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	0.700	ohmm
Standoff	1.5	
Resistivity Of Mud Temperature	75.00	degF

* Calibration Summary *

Shop Calibration GRT-B

Performed : 24-JUN-2019 Time : 12:20
Sensor Suite : GR-GR5 ID : GRT-BC-038

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	36	266	CPS	160	GRAPI

Shop Calibration PIT-CA

Performed : 10-MAY-2019 Time : 11:27
Sensor Suite : P-IND-T ID : PIT-AC-043

Medium

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	131492	129685	0.0	0.0	MMHOS
Zero	131066	131062	-18.1	59.6	MMHOS
Reference	244915	244454	4981.9	5059.6	MMHOS
Loop	130404	210498	3515.7	3611.2	MMHOS
Sonde Error			-0.5	-1.7	MMHOS
Cond			4981.9	5059.6	MMHOS

Deep

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	131939	129230	0.0	-0.0	MMHOS
Zero	131079	131067	-15.6	35.3	MMHOS
Reference	220620	224092	1984.4	2035.3	MMHOS
Loop	129308	206166	1595.4	1712.8	MMHOS
Sonde Error			-0.6	-7.8	MMHOS
Cond			1984.4	2035.3	MMHOS

Temperature

Measured Low	Measured High	Calibrated Low	Calibrated High	Units
16980.0	56920.0	70.0	350.0	DEGF

Performed : 10-May-2019 Time : 14:03
Sensor Suite : SFL ID : PIT-AC-043

Internal

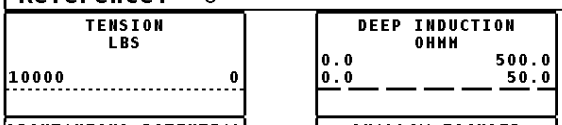
	Measured Zero	Measured Reference	Calibrated Zero	Calibrated Reference	Units
Im	32732.6	48929.1	0.0	7028.0	uA
Ib	32768.6	49680.1	0.0	1750.0	mA
MOM1	32722.0	56290.6	0.0	175.0	mV
Equivalent SFL				43.97	OHMM

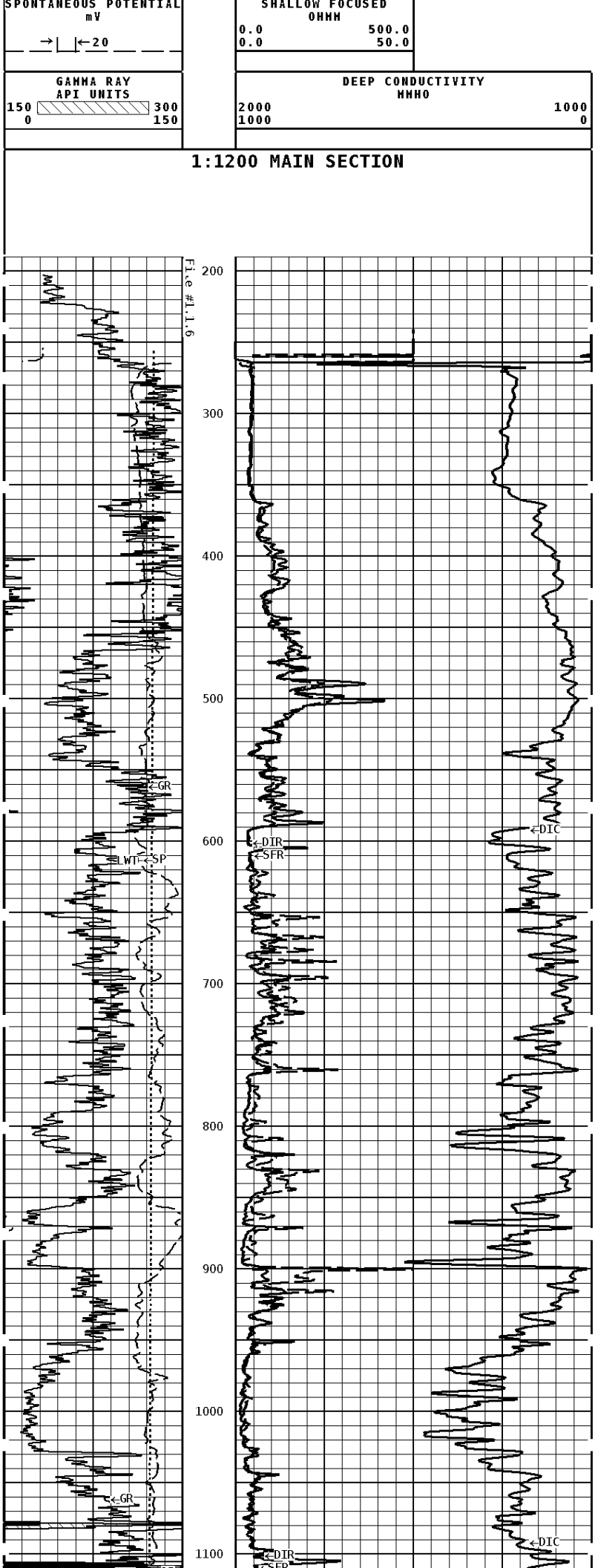
Performed : 10-MAY-2019 Time : 11:16
Sensor Suite : P-SP ID : PIT-AC-043

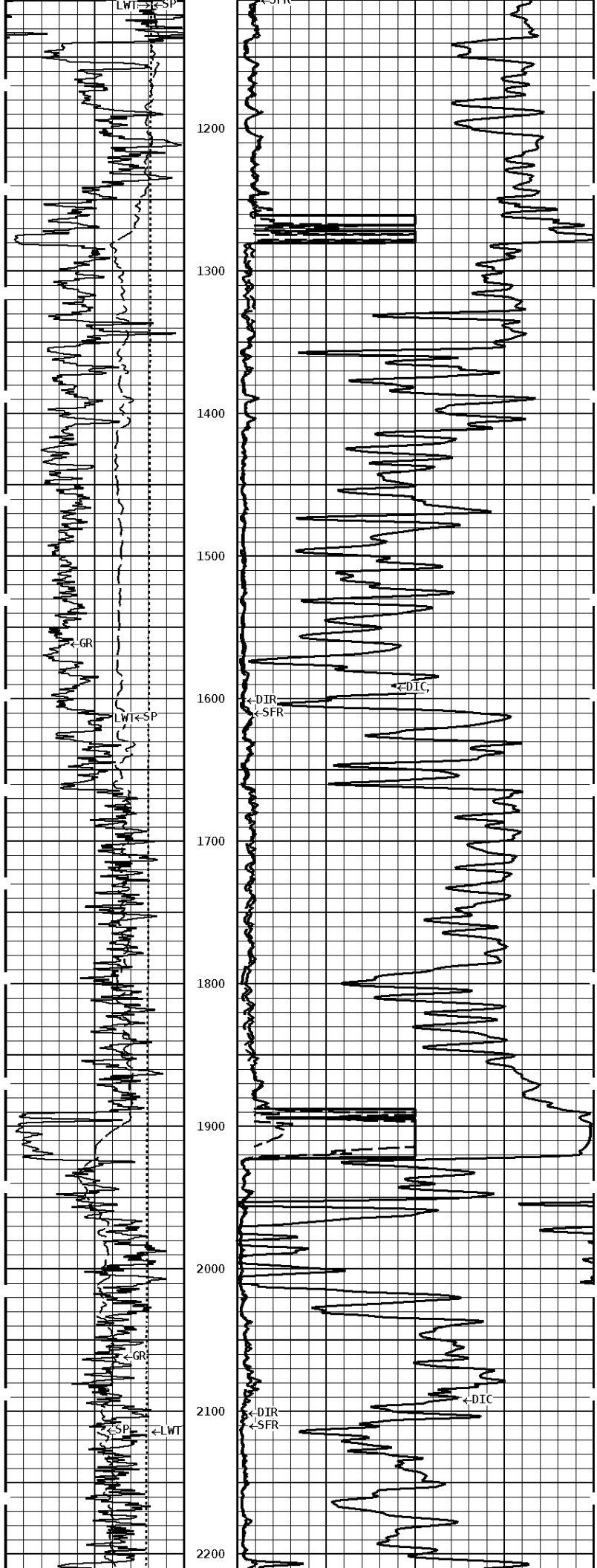
Internal

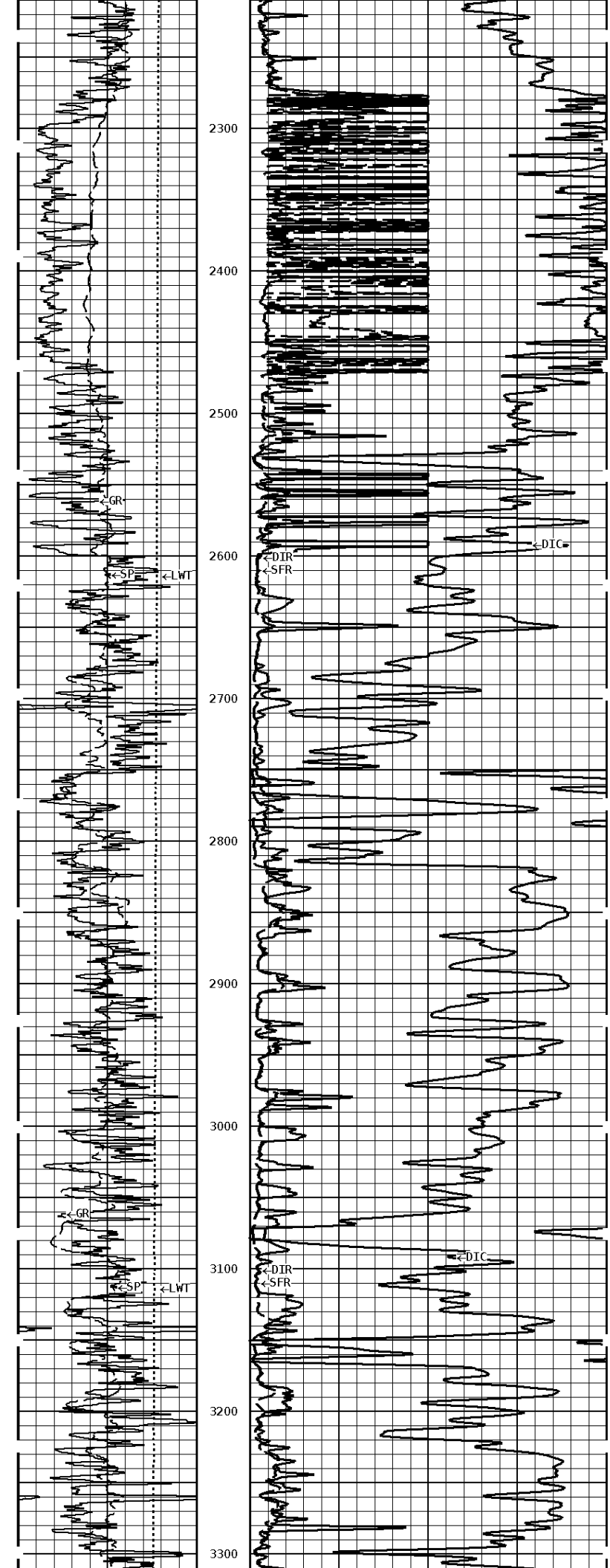
Measured Zero	Measured Reference	Calibrated Zero	Calibrated Reference	Units
32774.5	58935.9	0.0	1000.0	mV

Well File: TRANS-PACIFIC_FLAX_A_1-16_OCT_1_MSTK **Scale:** 1:1200 **Format:** DIL1200
Segment: V1.D1.S6 MAIN **Acquired:** 2019-10/01 13:25 3.4.1-13972
Reference: 0 **Processed:** 2019-10/01 14:46 3.4.1-13972




SPONTANEOUS POTENTIAL
mV
→ ←20
SHALLOW FOCUSED
OHMM
0.0 500.0
0.0 50.0
GAMMA RAY
API UNITS
150 300
0 150
DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0
1:1200 MAIN SECTION
File #1.1.6
200
300
400
500
600
700
800
900
1000
1100
←GR
←DIR
←SFR
LWT
←SP
←DIC
←GR
←DIR
←DIC


LWT
SP
SFR
1200
1300
1400
1500
GR
DIC
1600
DIR
SFR
LWT
SP
1700
1800
1900
2000
GR
DIC
2100
DIR
SFR
SP
LWT
2200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SFR
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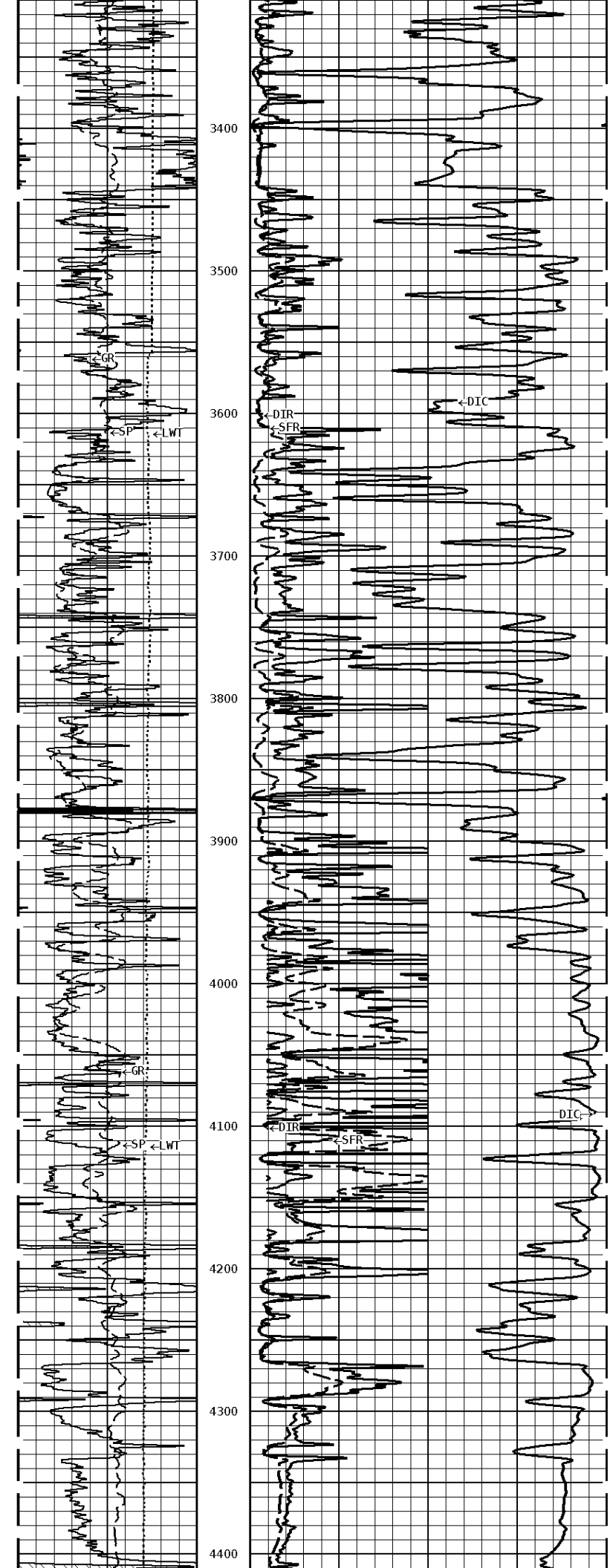
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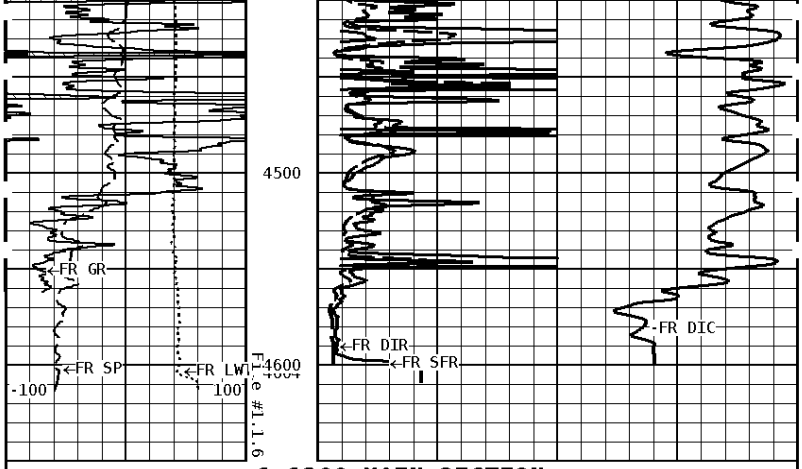

1:1200 MAIN SECTION

GAMMA RAY API UNITS	DEEP CONDUCTIVITY MMHO
150 300	2000 1000
0 150	1000 0

SPONTANEOUS POTENTIAL mV	SHALLOW FOCUSED OHMM
→||←20	0.0 500.0
	0.0 50.0

TENSION LBS	DEEP INDUCTION OHMM
10000 0	0.0 500.0
	0.0 50.0

STEP energy services

Company: TRANS PACIFIC OIL CORPORATION

Well: FLAX A #1-16

Location: 2310' FNL & 2970' FEL

Logged: 10-01-2019

K.B. Elev: 2537.0 Ft