NABORS
COMPLETION & PRODUCTION SERVICES CO.

DUAL INDUCTION LOG

Company CHARTER ENERGY, INC.

Well SHUART #1

Field WILDCAT

County PAWNEE State KANSAS

Location: API # : 15-145-21764

375' FNL & 2247' FWL

SEC 1 TWP 22S RGE 15W

Other Services
CDL/CNL
SONIC/MEL

Permanent Datum	GROUND LEVEL	Elevation 1957
Log Measured From	KELLY BUSHING 6' A.G.L.	
Drilling Measured From	KELLY BUSHING	

Elevation
K.B. 1963
D.F.
G.L. 1957

Company CHARTER ENERGY, INC.
Well SHUART #1
Field WILDCAT
County PAWNEE
State KANSAS

Date	5-29-14		
Run Number	ONE		
Depth Driller	3950		
Depth Logger	3948		
Bottom Logged Interval	3946		
Top Log Interval	00		
Casing Driller	924		
Casing Logger	924		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.4 / 48		
pH / Fluid Loss	9.0 / 10.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.75 @ 87F		
Rmf @ Meas. Temp	0.56 @ 87F		
Rmc @ Meas. Temp	0.90 @ 87F		
Source of Rmf / Rmc	FLOWLINE		
Rm @ BHT	.570 @ 114F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:45 A.M.		
Maximum Recorded Temperature	114F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	KURT TALBOTT		

<<< Fold Here >>>

Comments

NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: RADIUM BLACKTOP & #19, 1W, 1N, 1/2W, S INTO.

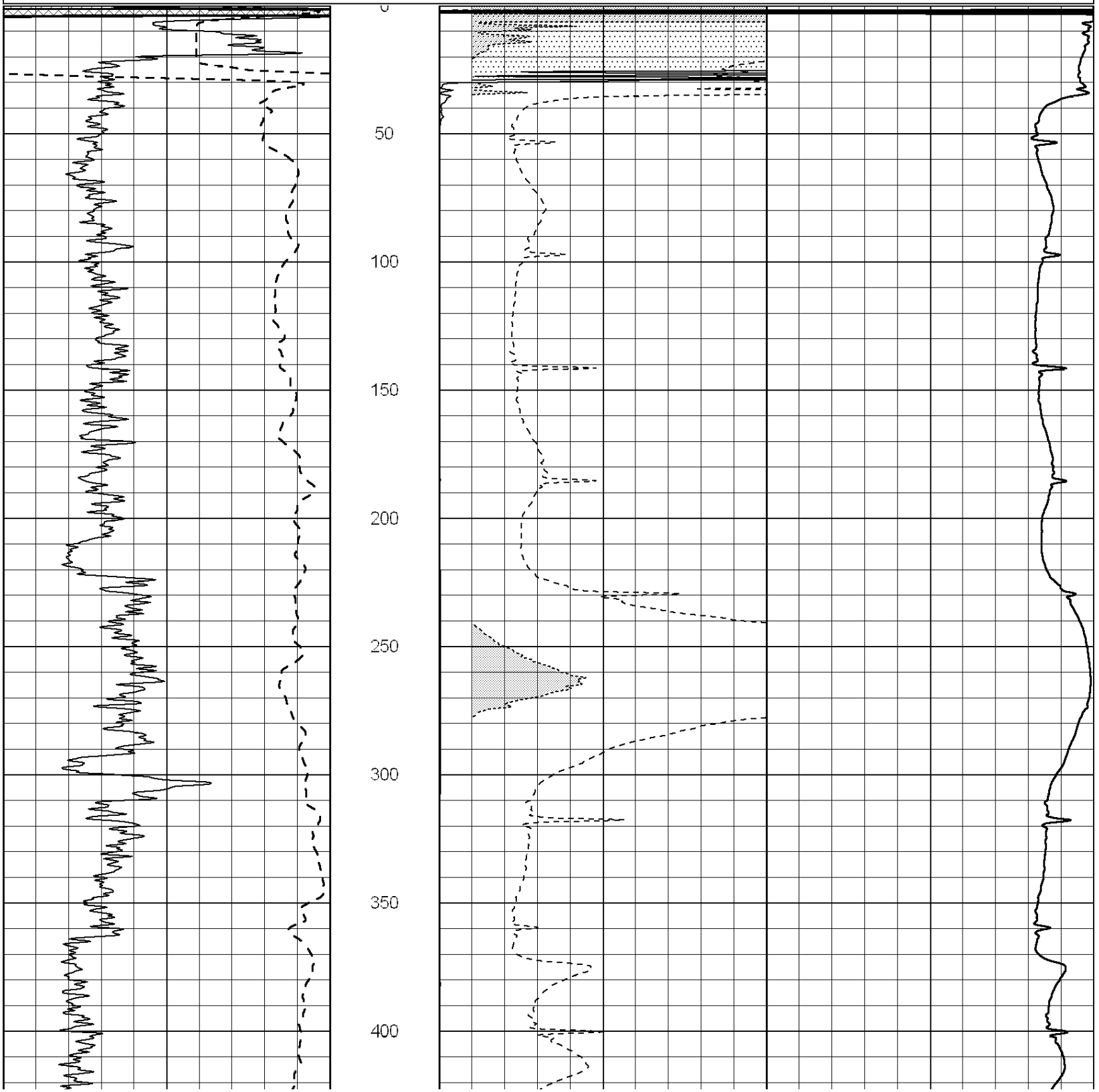
MAIN SECTION

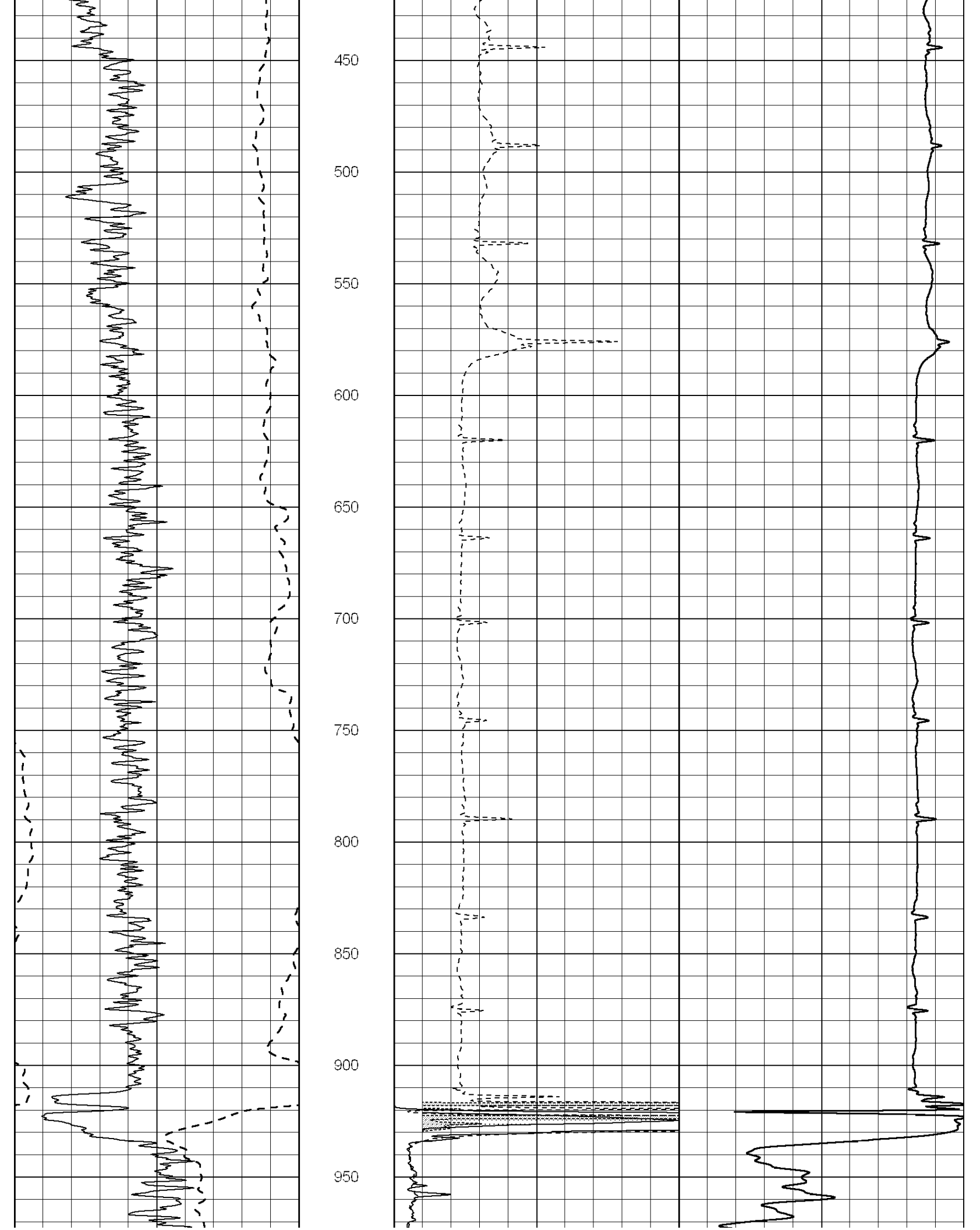
NABORS COMPLETION & PRODUCTION

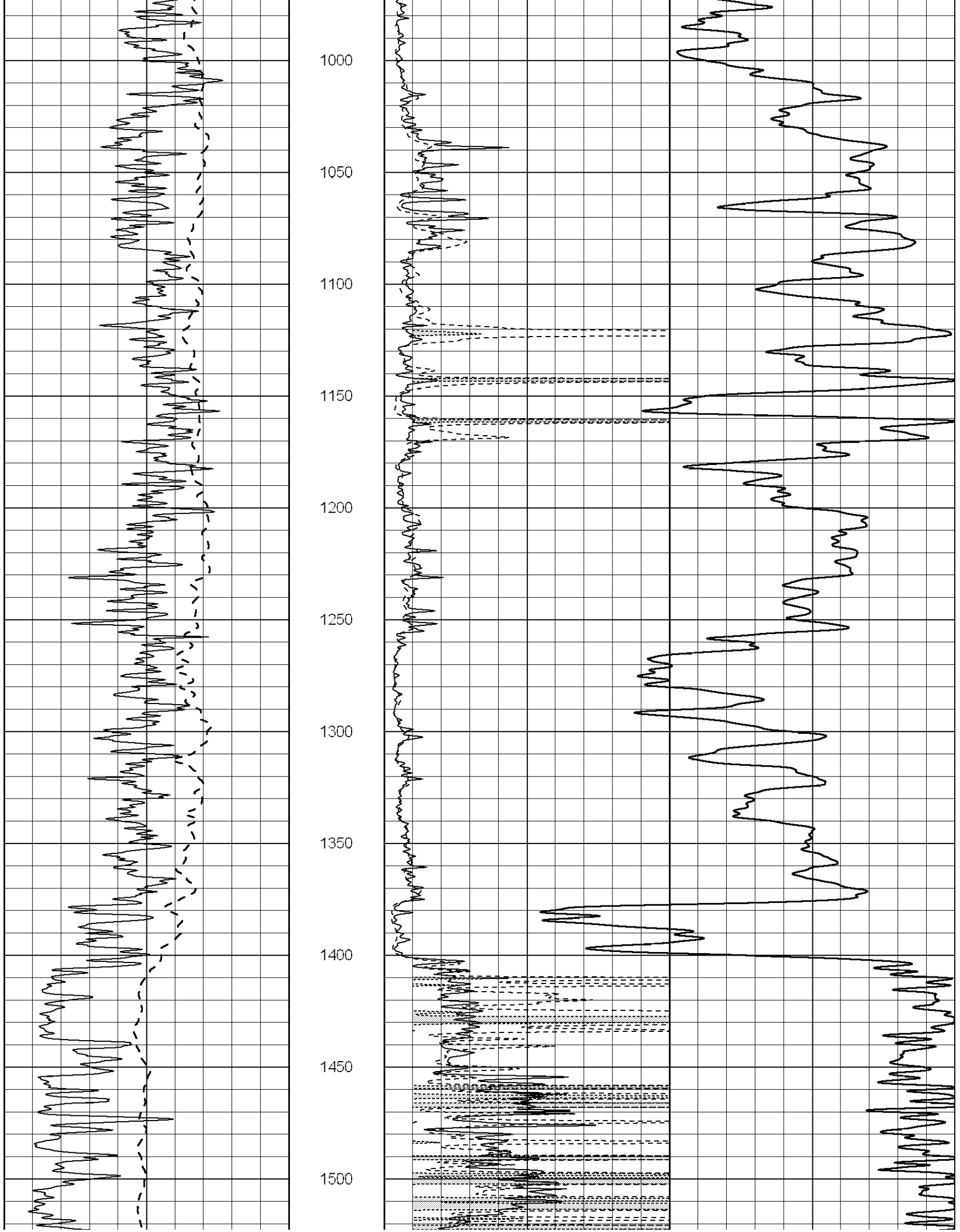
SERVICES CO.

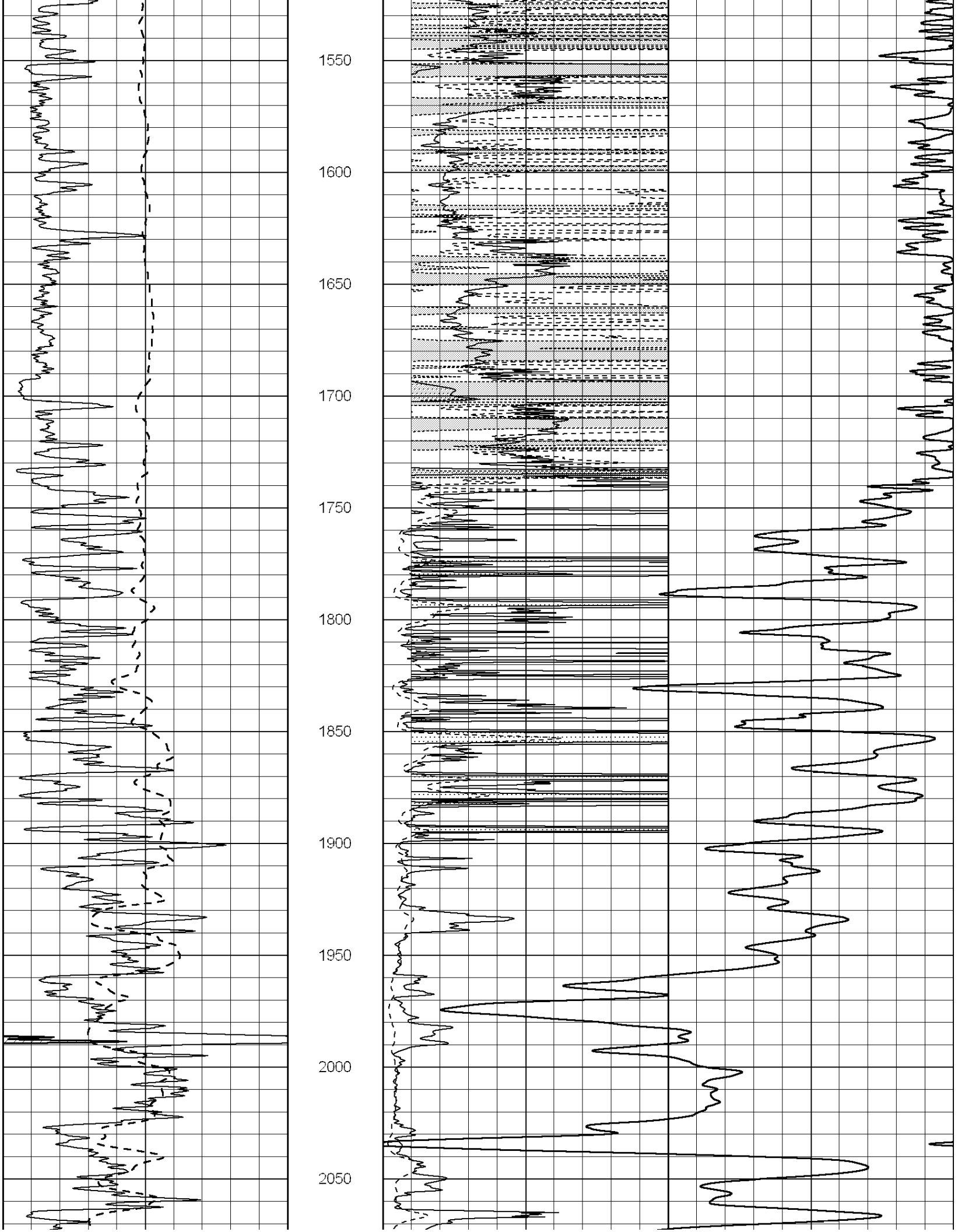
Database File: 24443ddn.db
Dataset Pathname: pass3.1
Presentation Format: _dil2
Dataset Creation: Fri May 30 03:03:22 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

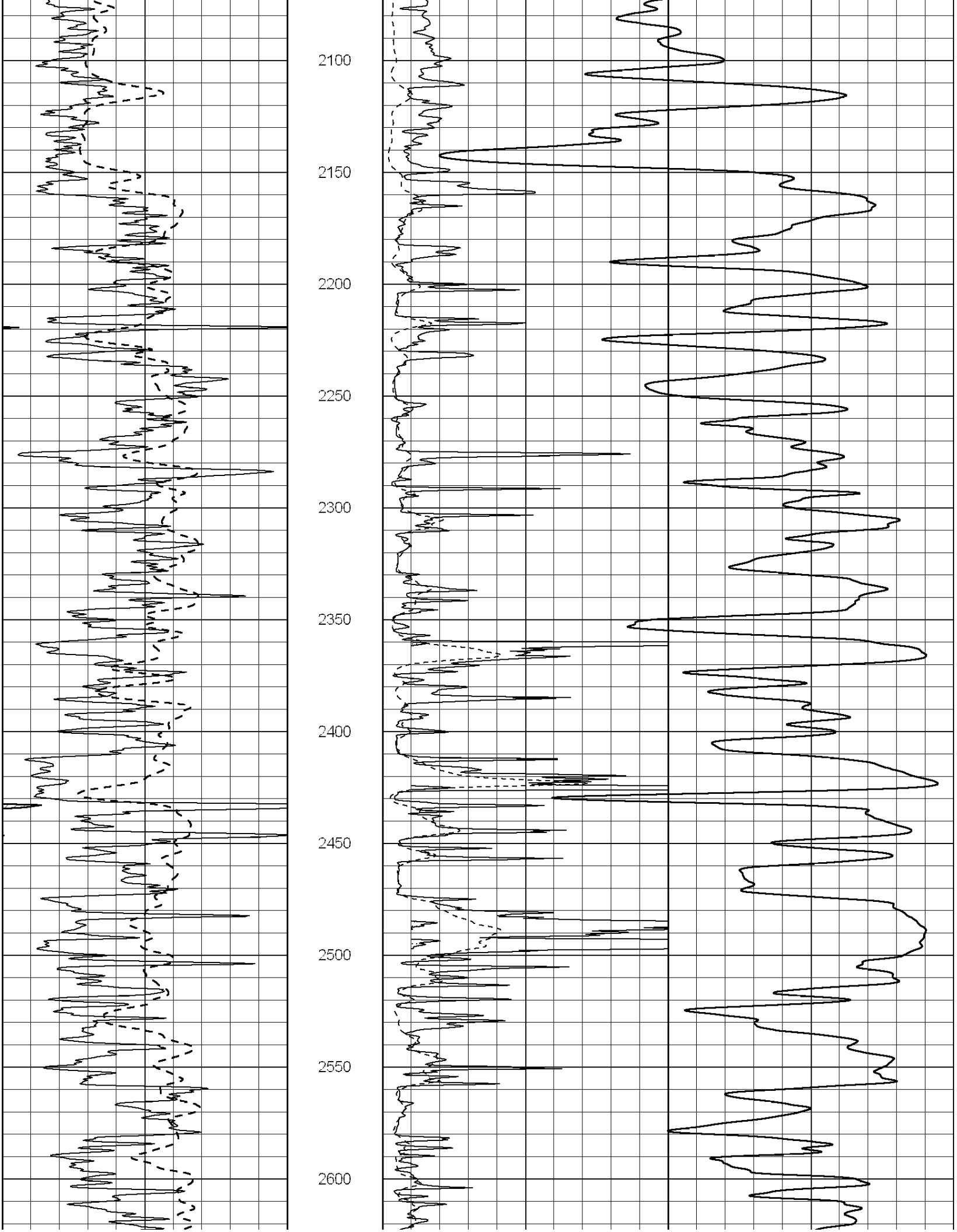
0	Gamma Ray (GAPI)	150
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50
1000	CILD (mmho/m)	0
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

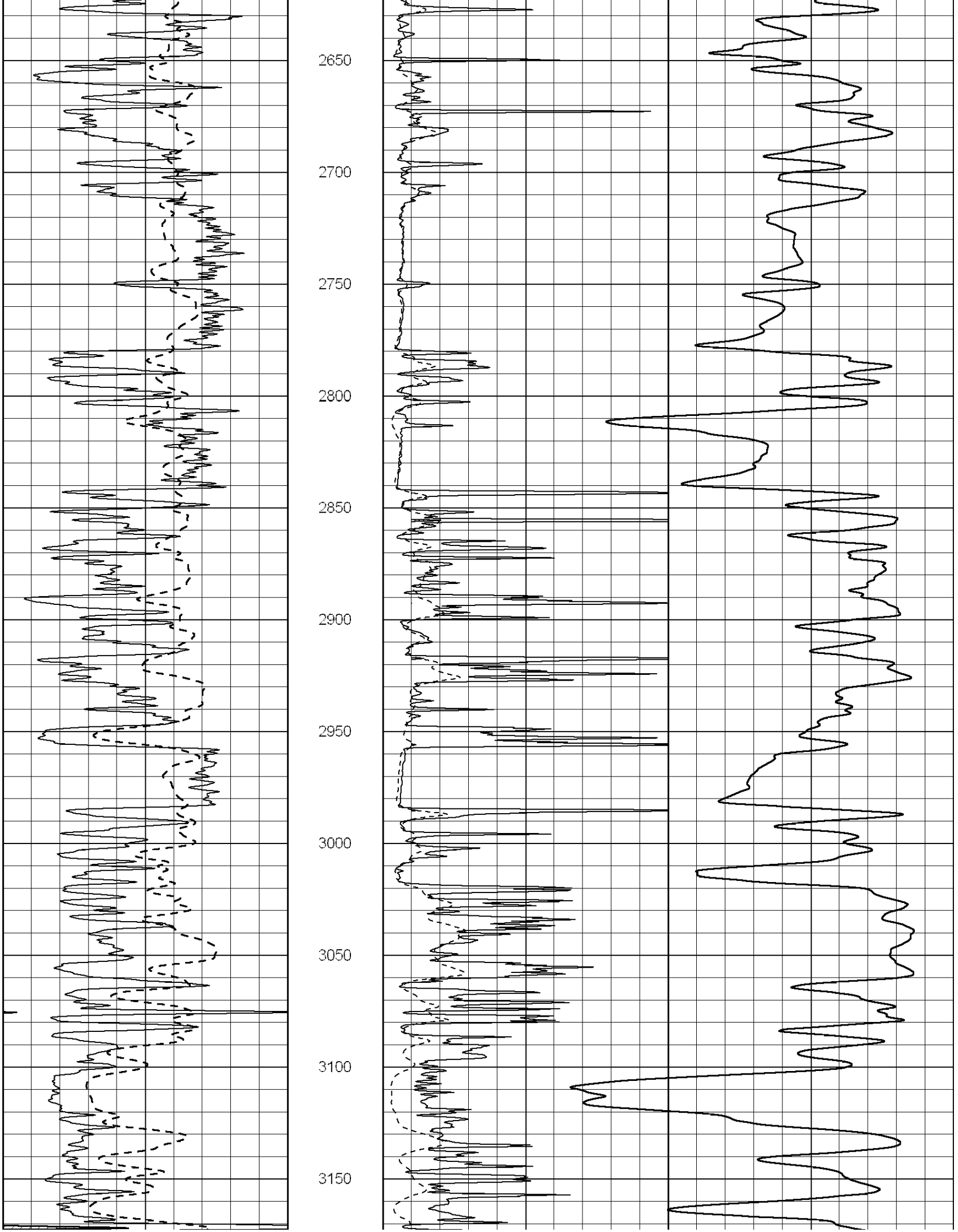


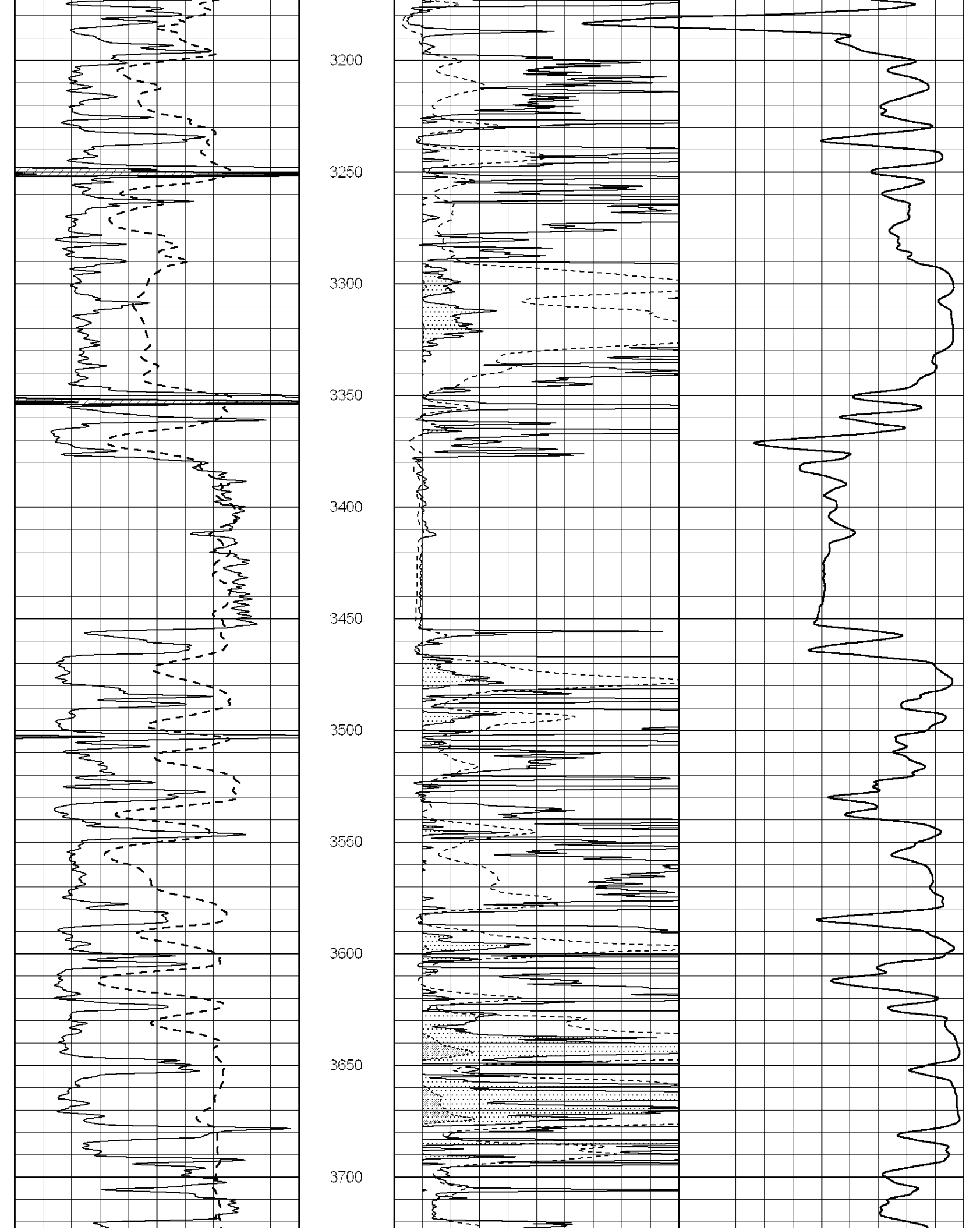

450
500
550
600
650
700
750
800
850
900
950

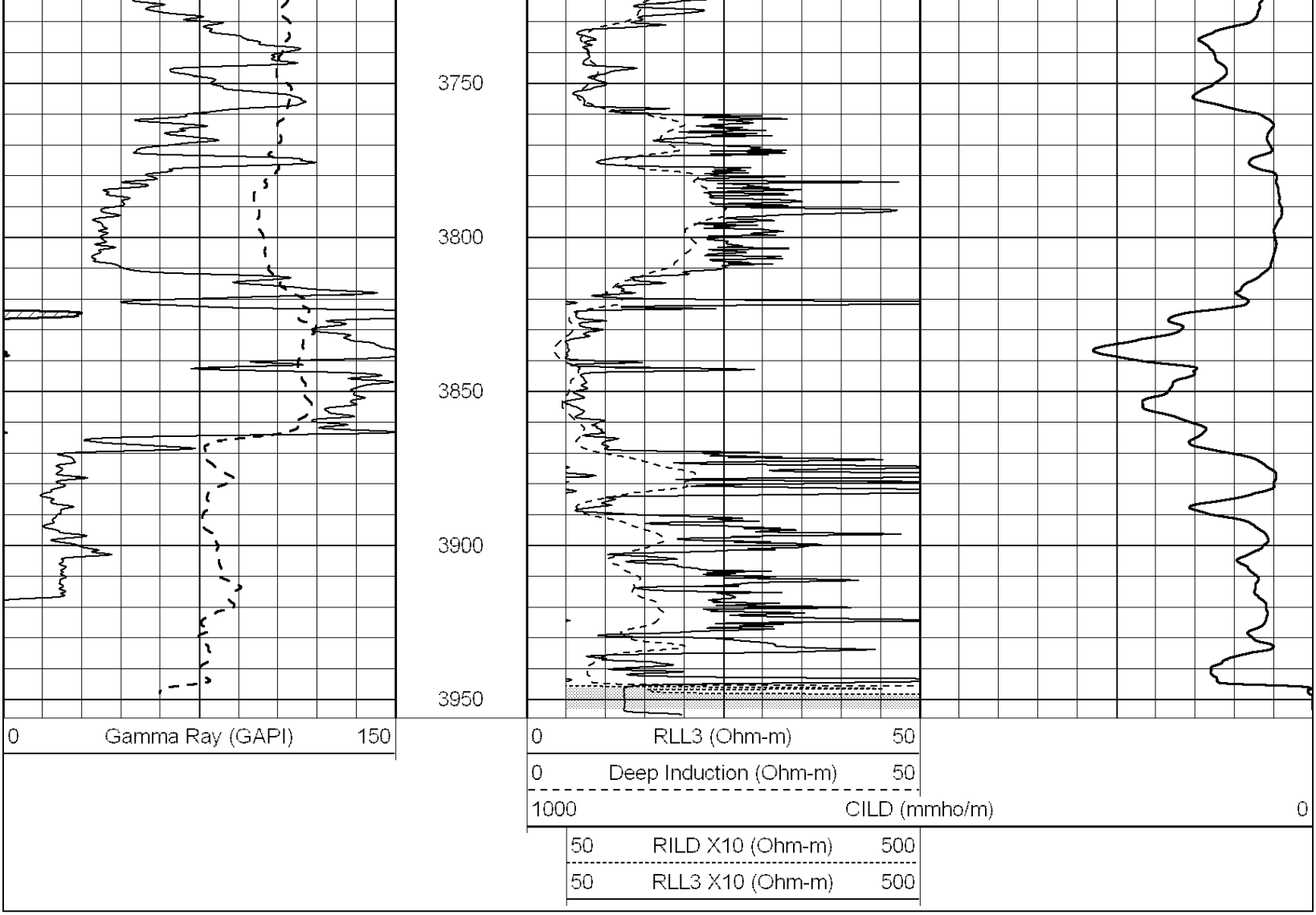

1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500


1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050


2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600


2650
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150


3200
3250
3300
3350
3400
3450
3500
3550
3600
3650
3700



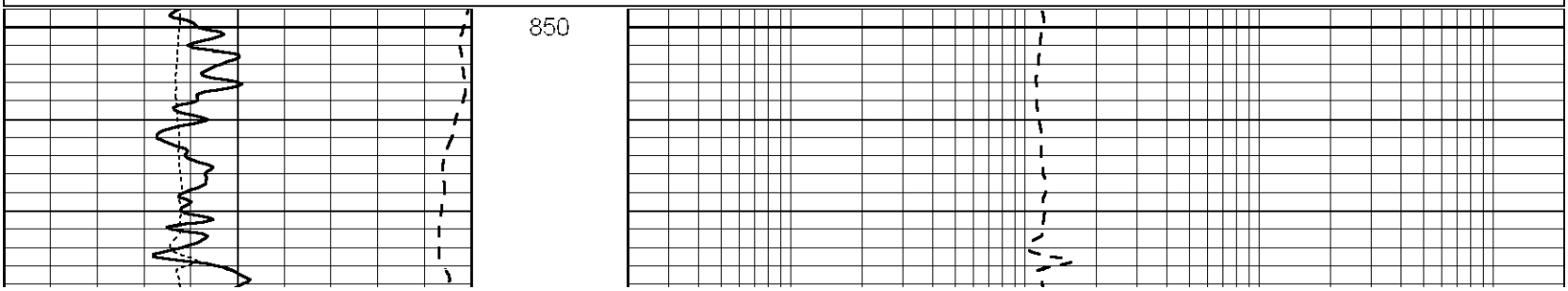
NABORS
COMPLETION & PRODUCTION SERVICES CO.

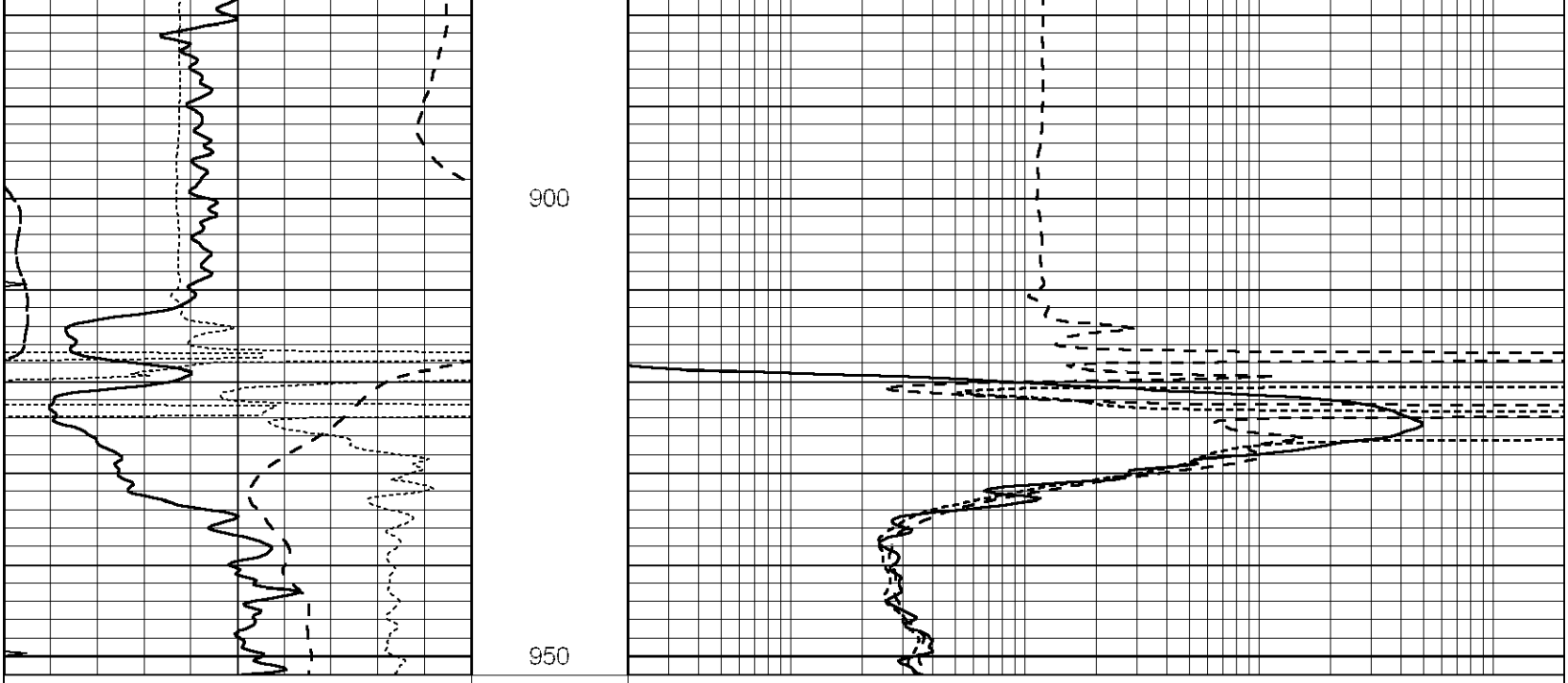
MAIN SECTION

Database File: 24443ddn.db
Dataset Pathname: pass3.1
Presentation Format: _dil
Dataset Creation: Fri May 30 03:03:22 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

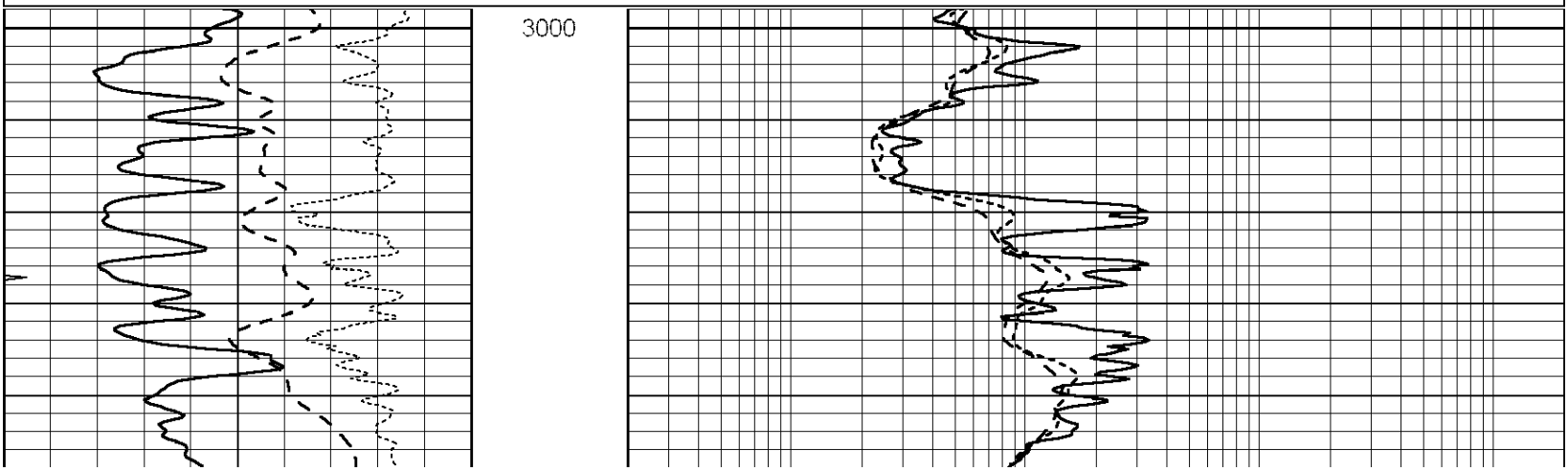
NABORS
COMPLETION & PRODUCTION SERVICES CO.

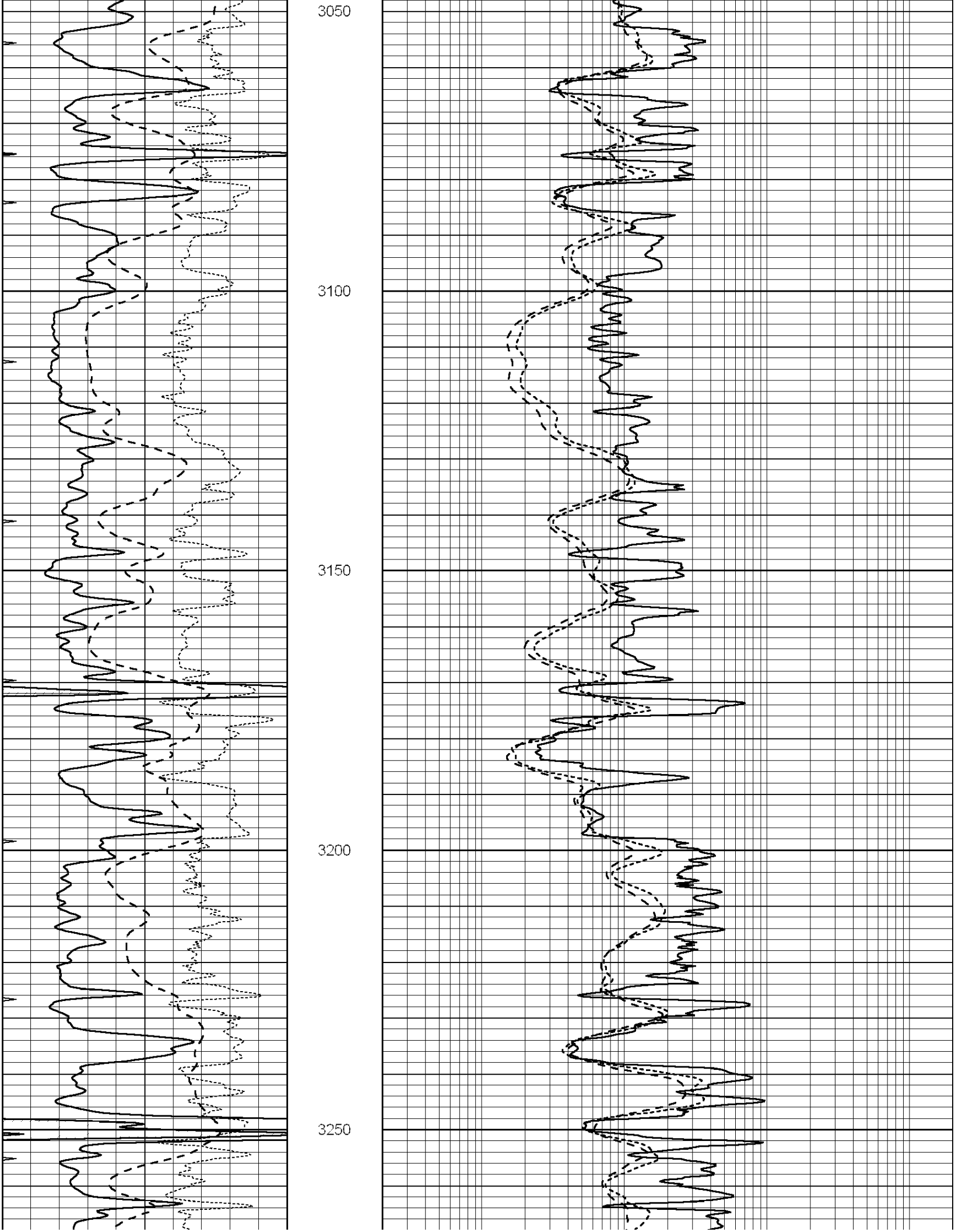
MAIN SECTION

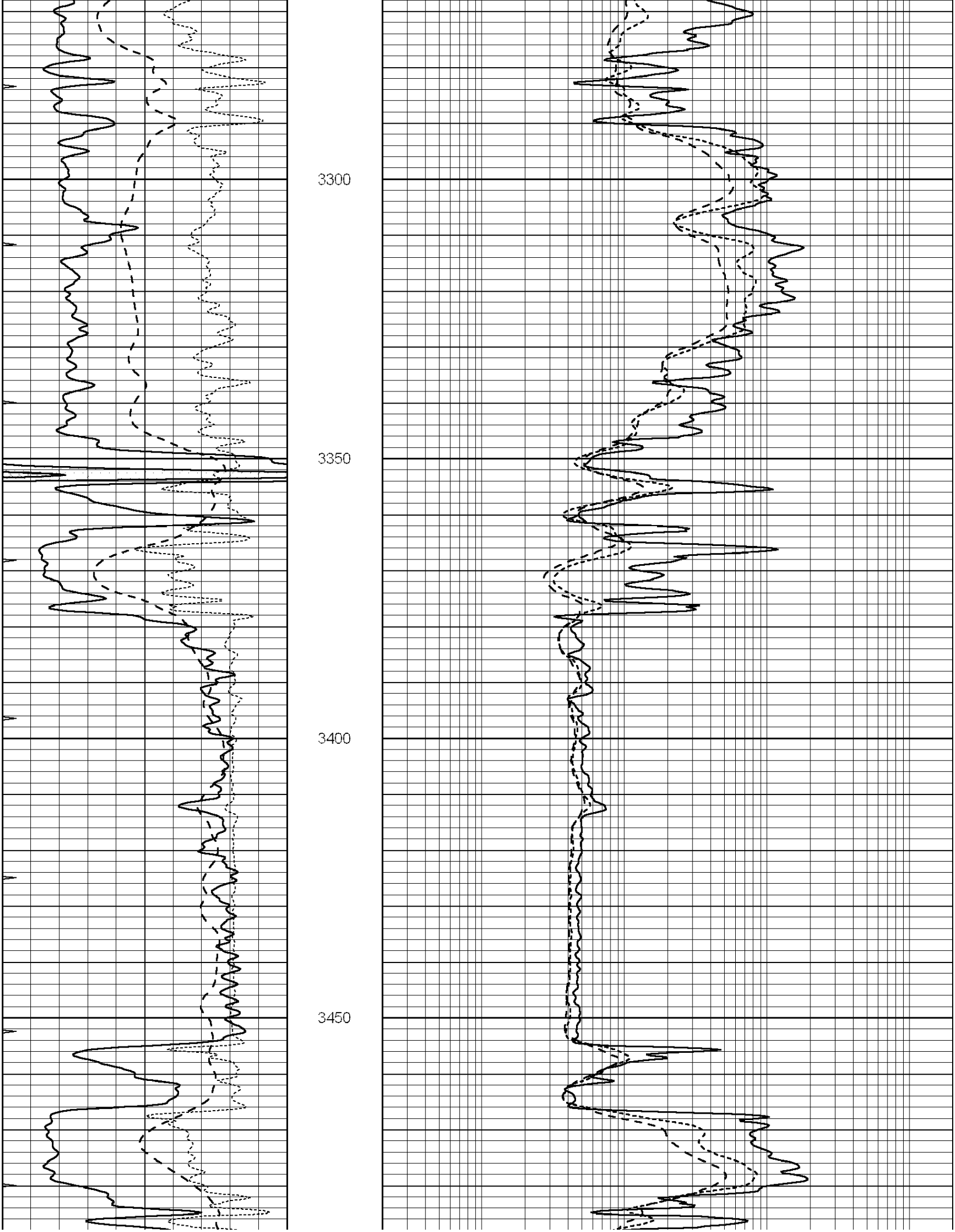
Database File: 24443ddn.db
Dataset Pathname: pass3.1
Presentation Format: _dil
Dataset Creation: Fri May 30 03:03:22 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

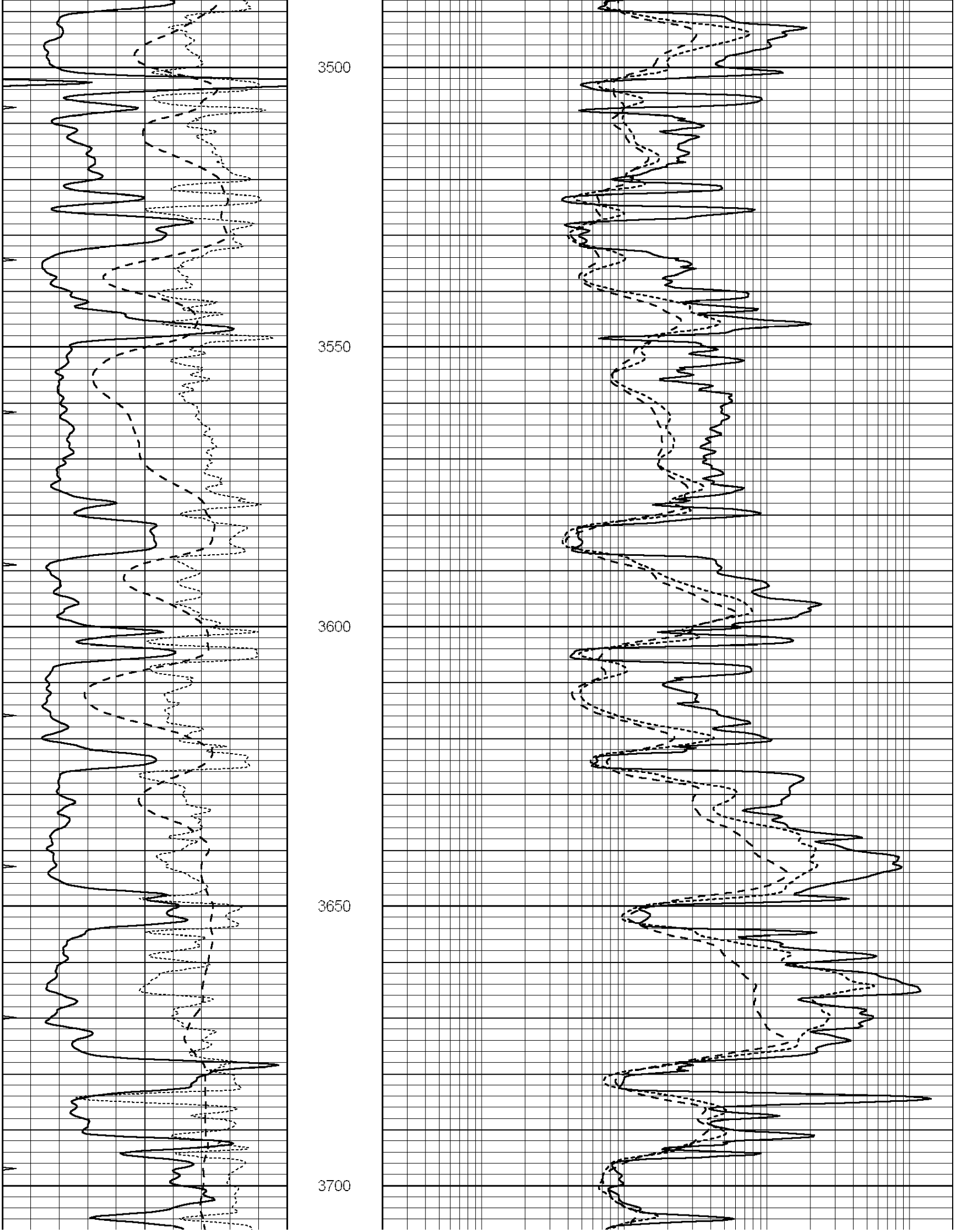
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

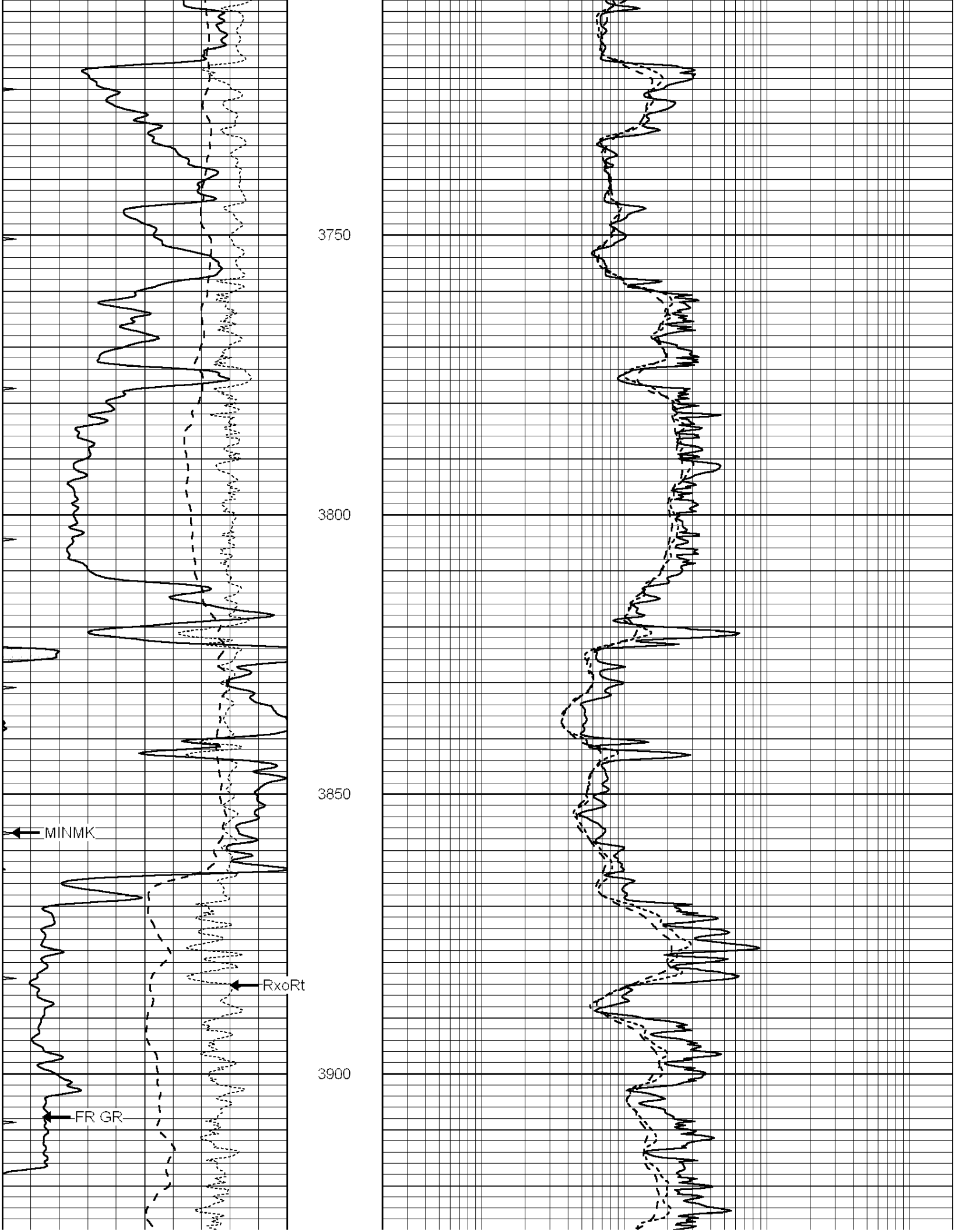
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

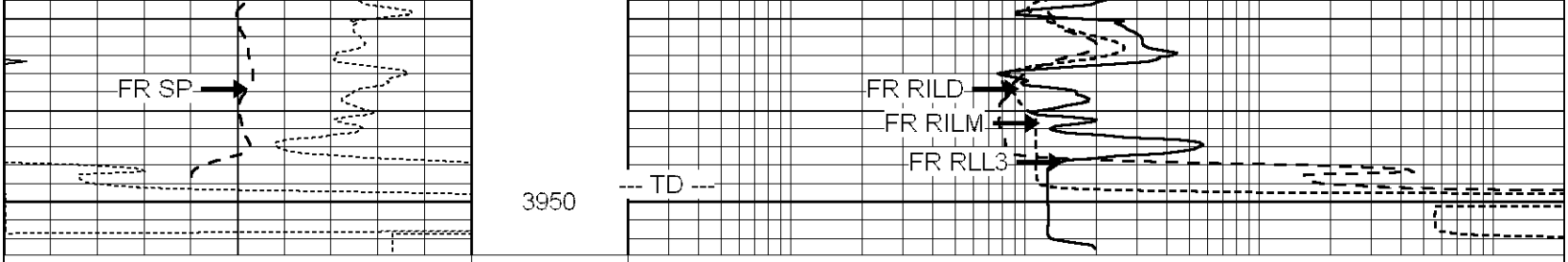



3050
3100
3150
3200
3250


3300
3350
3400
3450


3500
3550
3600
3650
3700


3750
3800
3850
MINMK
RxoRt
3900
FR GR



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

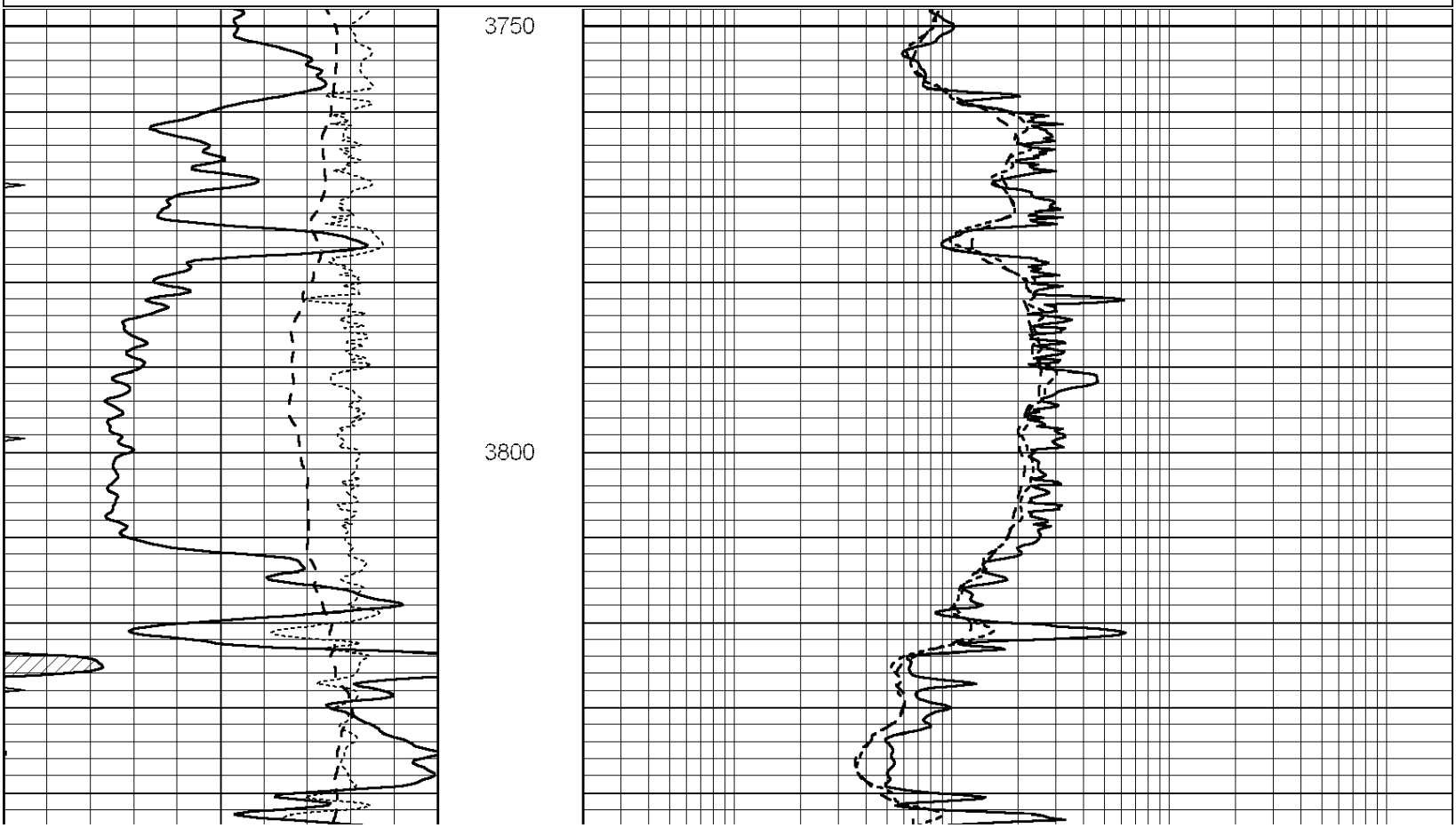
NABORS
COMPLETION & PRODUCTION SERVICES CO.

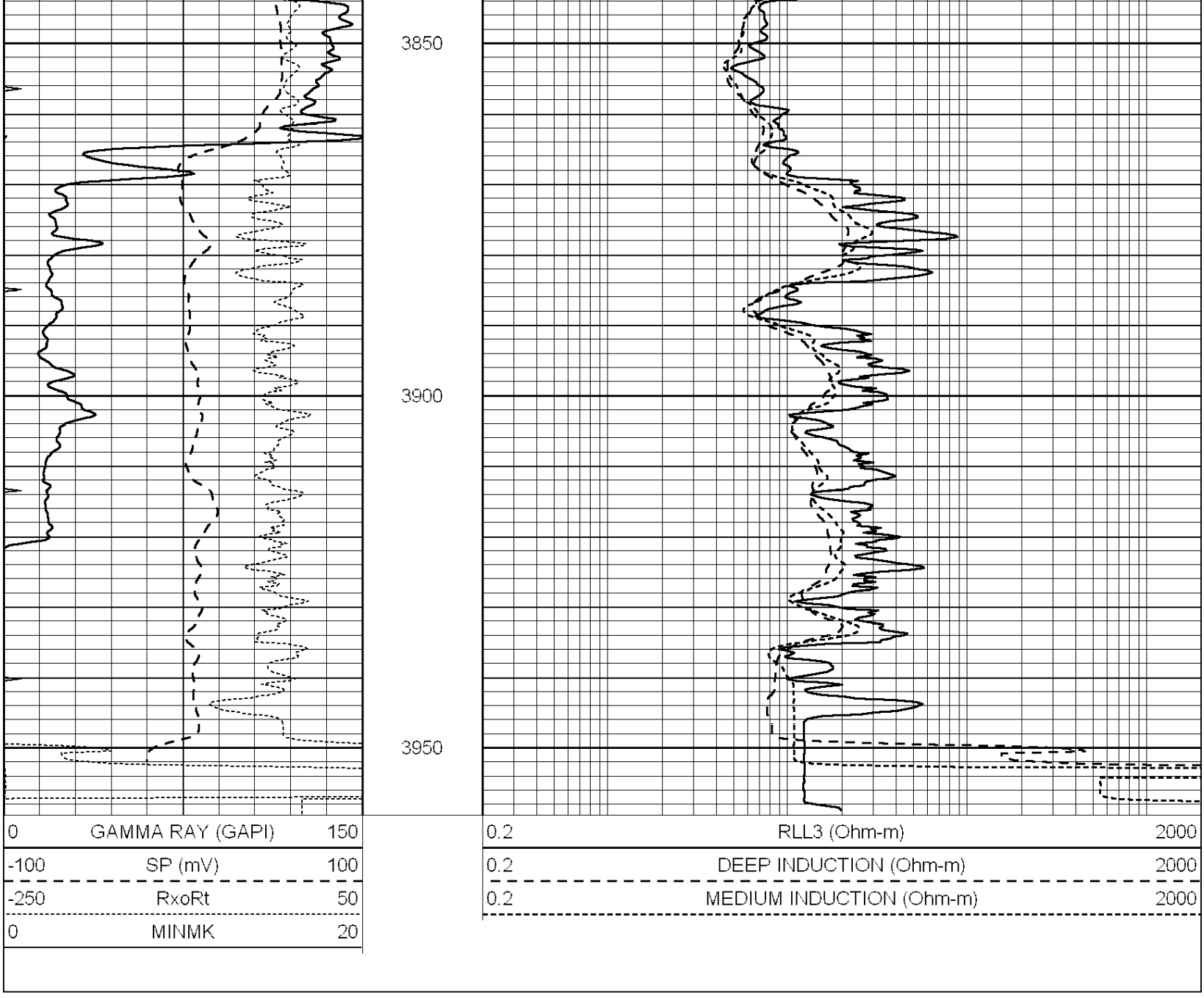
REPEAT SECTION

Database File:	24443ddn.db
Dataset Pathname:	pass2.1A
Presentation Format:	_dil
Dataset Creation:	Fri May 30 02:24:54 2014 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





Calibration Report

Database File: 24443ddn.db
Dataset Pathname: pass3.1
Dataset Creation: Fri May 30 03:03:22 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Fri May 30 02:21:03 2014
Downhole Cal Performed:	Sat Jan 19 19:51:38 2013
After Survey Verification Performed:	Sat Jan 19 19:51:38 2013

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	490.000	15.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	530.000	-30.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011

Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	135384.000	27094.500	mmho/m	135400.000	27082.400	mmho/m	1.000	-19.259
Medium	-47330.100	-9381.740	mmho/m	-47327.100	-9389.280	mmho/m	1.000	-10.154
LL3		7.322	V		1400.000	Ohm-m		
		0.038	V		20.000	Ohm-m		
		-7.273	V		4000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	135384.000	27094.500	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-47330.100	-9381.740	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1400.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Fri May 30 01:35:07 2014

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1211.27	625.92	cps
Aluminum	2.590	g/cc	267.11	413.26	cps

Spine Angle = 74.64 Density/Spine Ratio = 0.561

	Size		Reading	
Small Ring	8.20	in	5.38	V
Large Ring	14.00	in	8.71	V

Compensated Neutron Calibration Report

Serial Number: 080621
Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 080328
Tool Model: Probe1
Performed: Fri May 30 02:18:53 2014

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2600	GAPI/cps