



DUAL INDUCTION LOG

Company PANTERA ENERGY COMPANY
Well KMU #14-8
Field KOENIG
County HASKELL **State** KANSAS

Location: API #: 15-081-22264-0000
 2167' FNL & 372' FEL
 NW - SE - SE - NE
 SEC 14 TWP 29S RGE 34W
Permanent Datum GROUND LEVEL Elevation 2958
Log Measured From KELLY BUSHING 13' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services CDL/CNL
Elevation K.B. 2971
 D.F. 2969
 G.L. 2958

Date	7/1/23	
Run Number	ONE	
Depth Driller	1735	
Depth Logger	1735	
Bottom Logged Interval	1733	
Top Log Interval	750	
Casing Driller	9 5/8" @ 759	
Casing Logger	759	
Bit Size	7 7/8	
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 250 PPM
Density / Viscosity	8.4/28	
PH / Fluid Loss	8.5/15	
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	2.20 @ 75F	
Rmt @ Meas. Temp	1.65 @ 75F	
Rmc @ Meas. Temp	2.64 @ 75F	
Source of Rmf / Rmc	MEASUREMENT	
Rm @ BHT	1.72 @ 96F	
Time Circulation Stopped	2 HOURS	
Time Logger on Bottom	4:00 A.M.	
Maximum Recorded Temperature	96F	
Equipment Number	8916	
Location	HAYS, KANSAS	
Recorded By	COLE ROBBEN	
Witnessed By	TERRY SORTER	JAKE SLATTEN

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395

DIRECTIONS:
 FROM SATANTA, KANSAS GO NORTHWEST ON HIGHWAY 190 TO 'FF' ROAD, THEN 6 MILES NORTH, WEST INTO

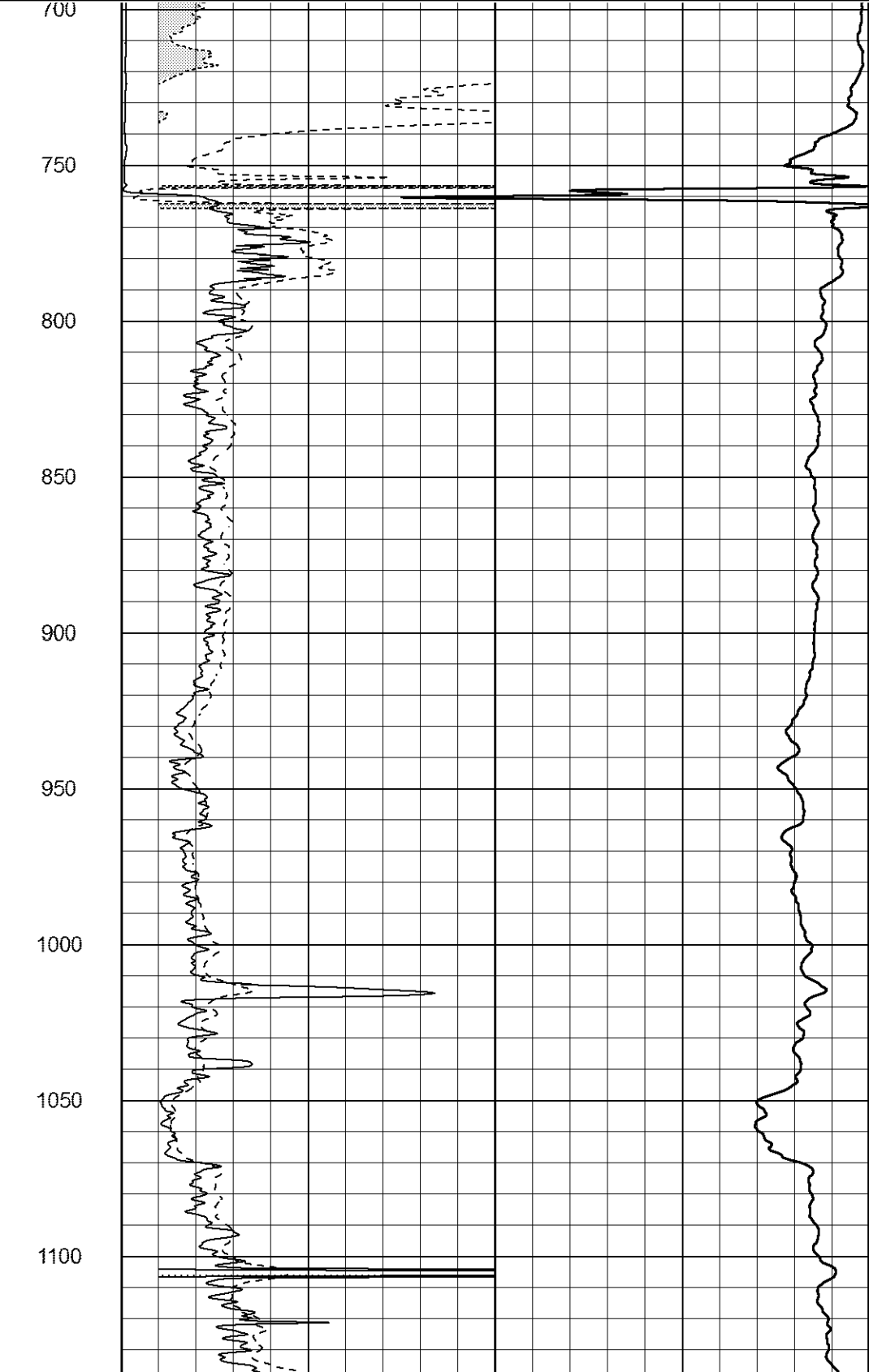
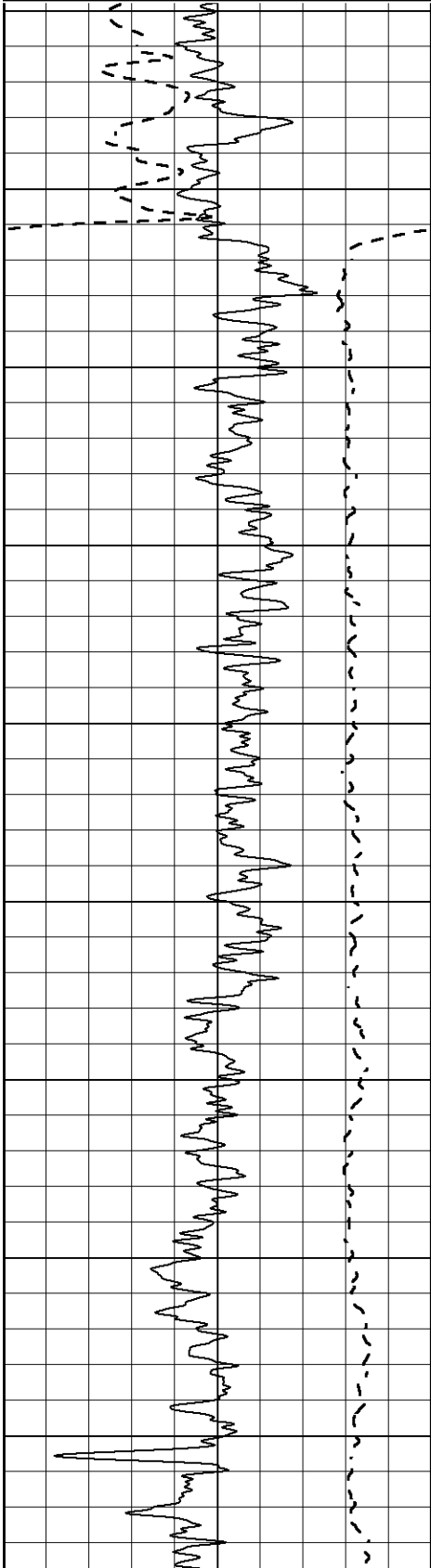


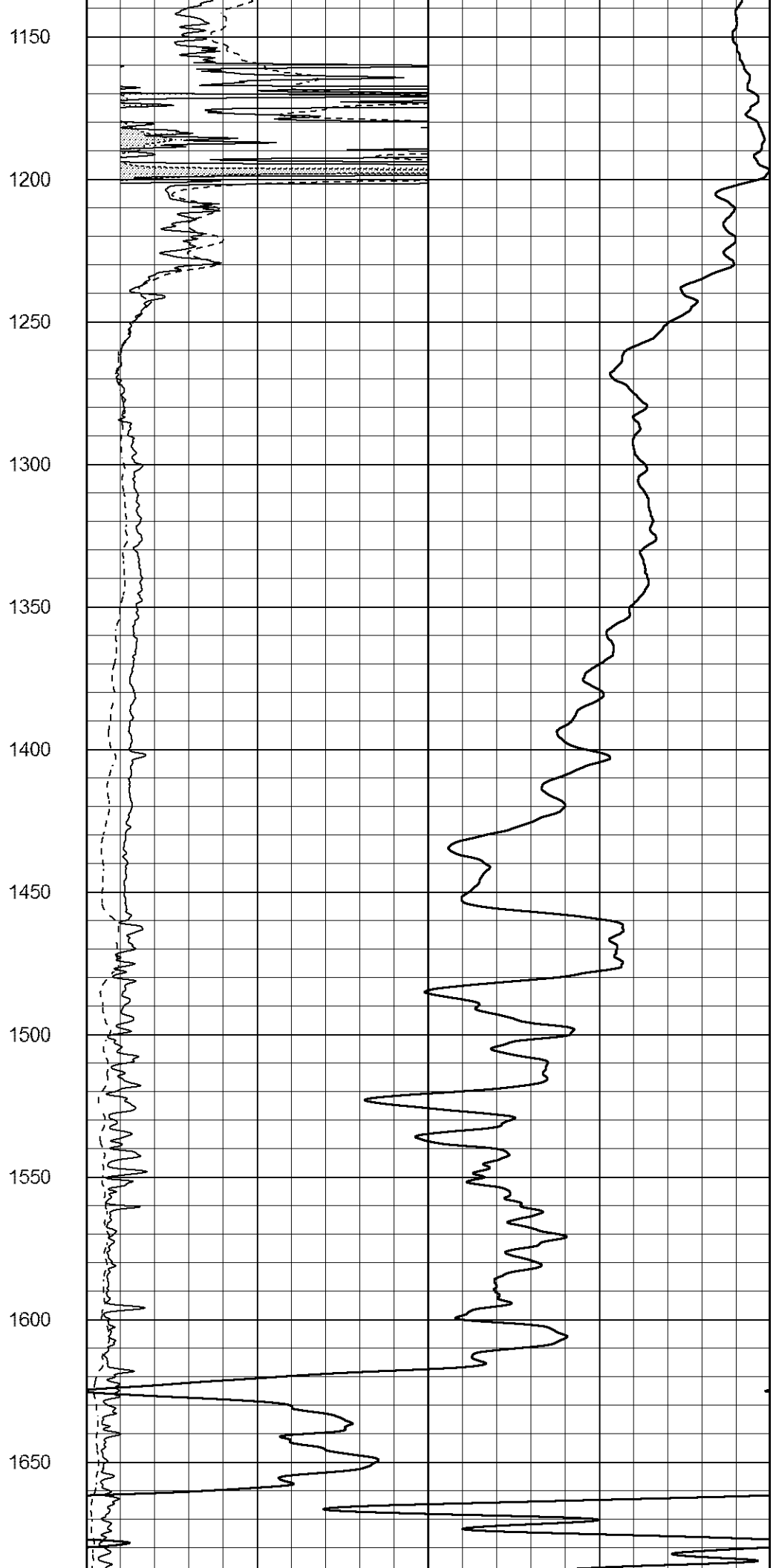
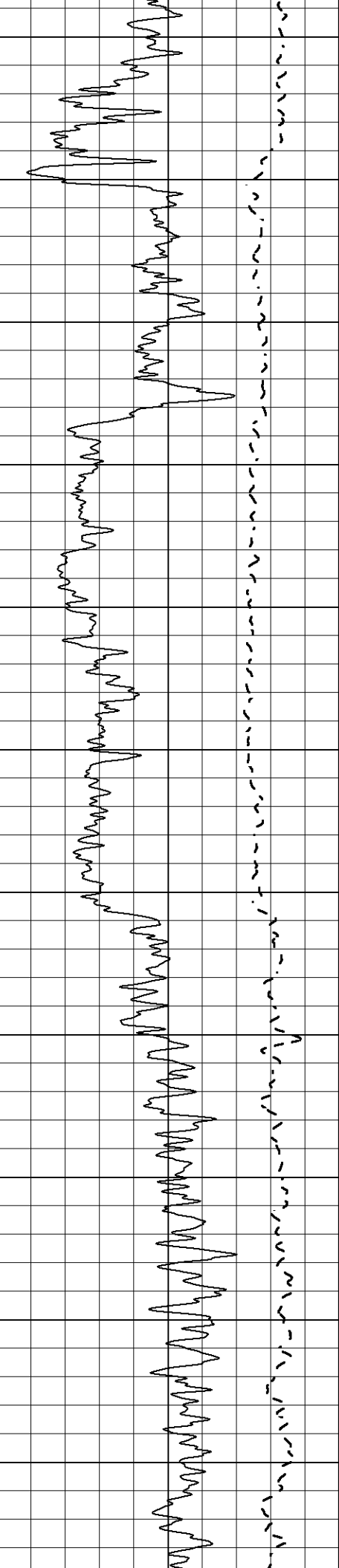
MAIN SECTION

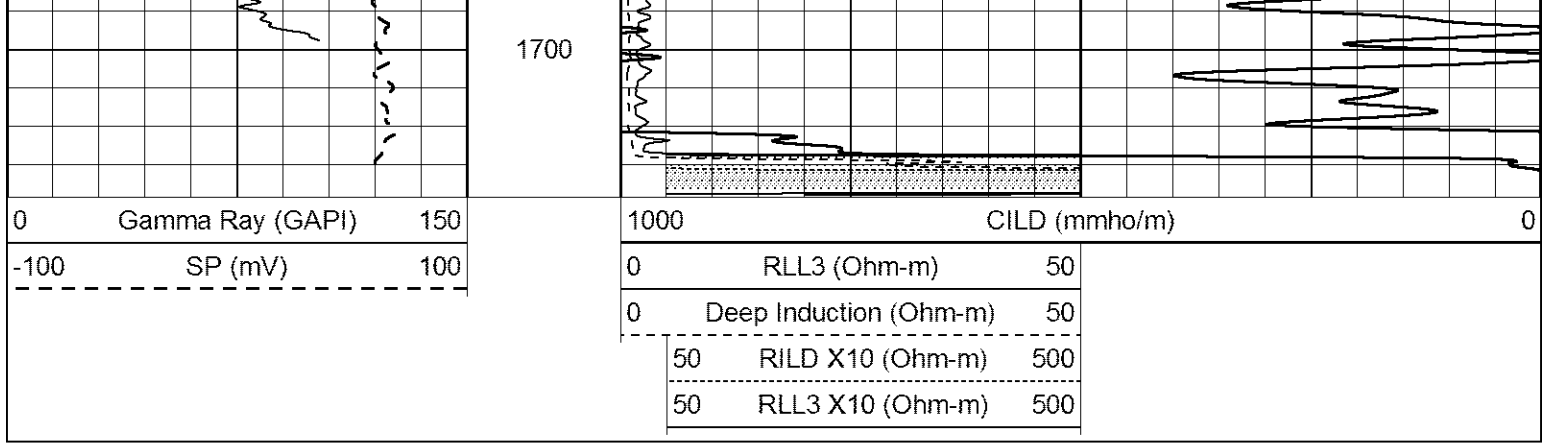
Database File 7600ddn.db
 Dataset Pathname pass3.4
 Presentation Format _dil2
 Dataset Creation Sat Jul 01 05:11:53 2023
 Charted by Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

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



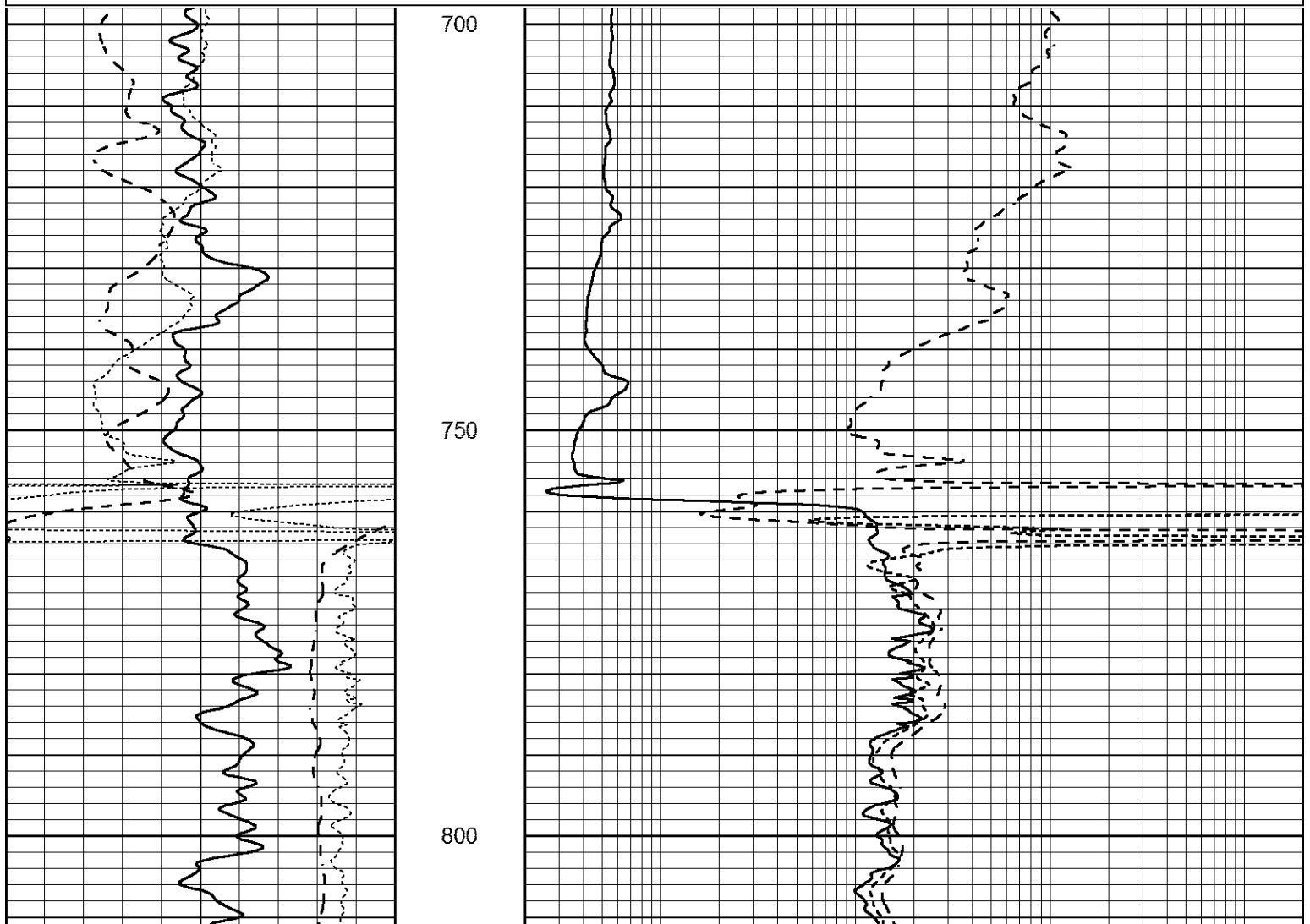


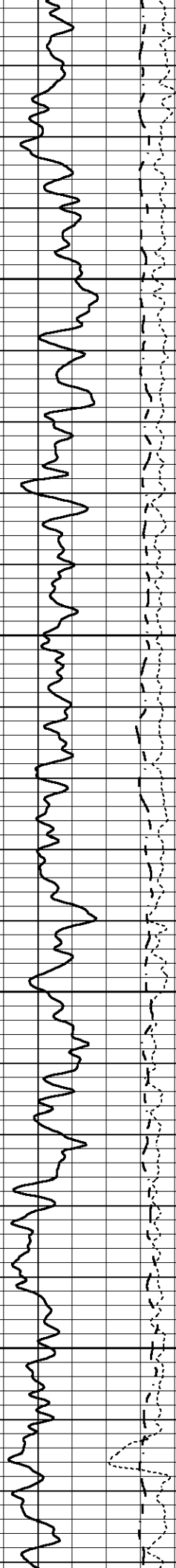


MAIN SECTION

Database File 7600ddn.db
 Dataset Pathname pass3.4
 Presentation Format _dil
 Dataset Creation Sat Jul 01 05:11:53 2023
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000



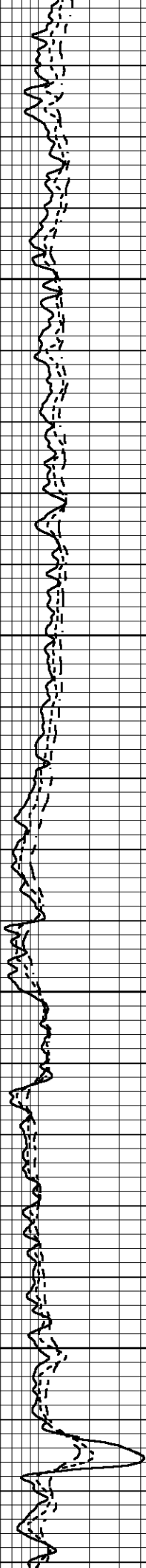


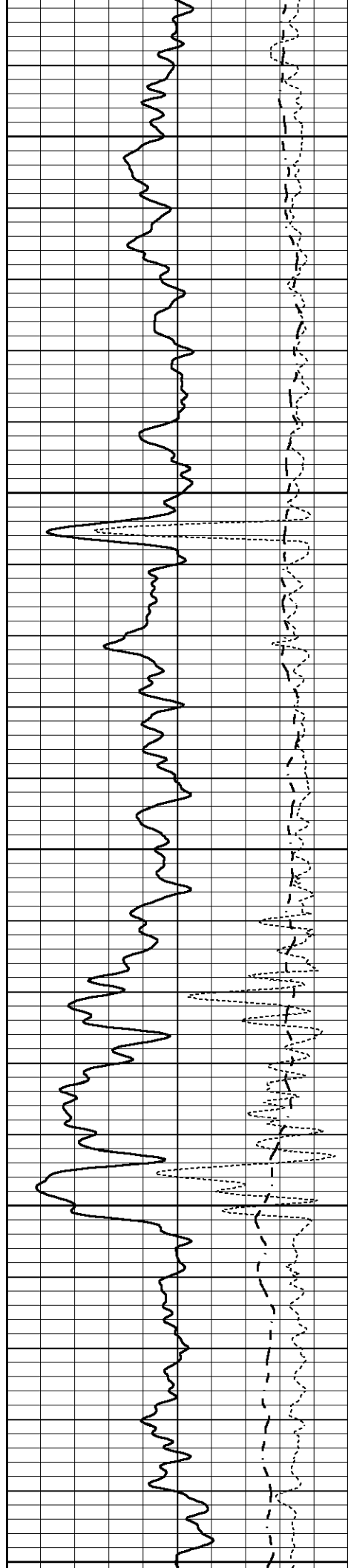
850

900

950

1000





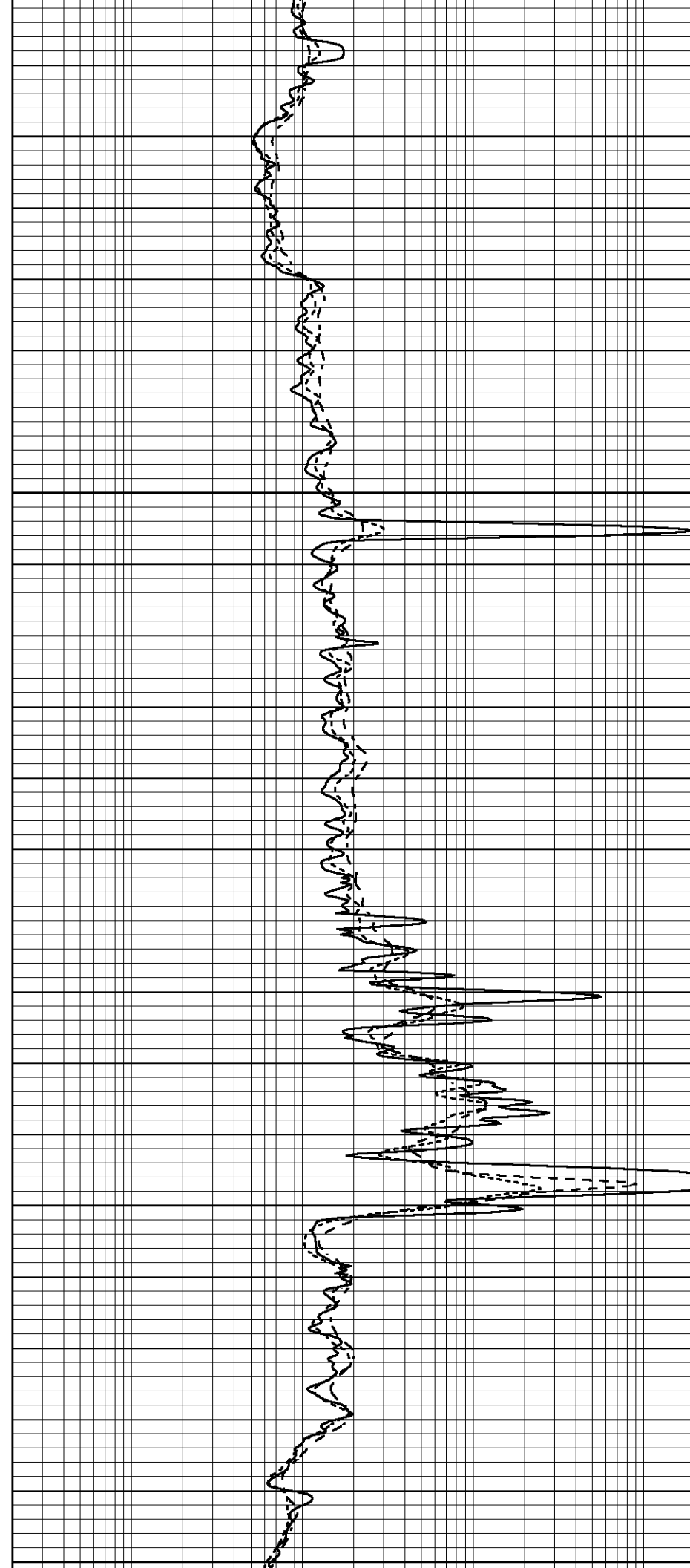
1050

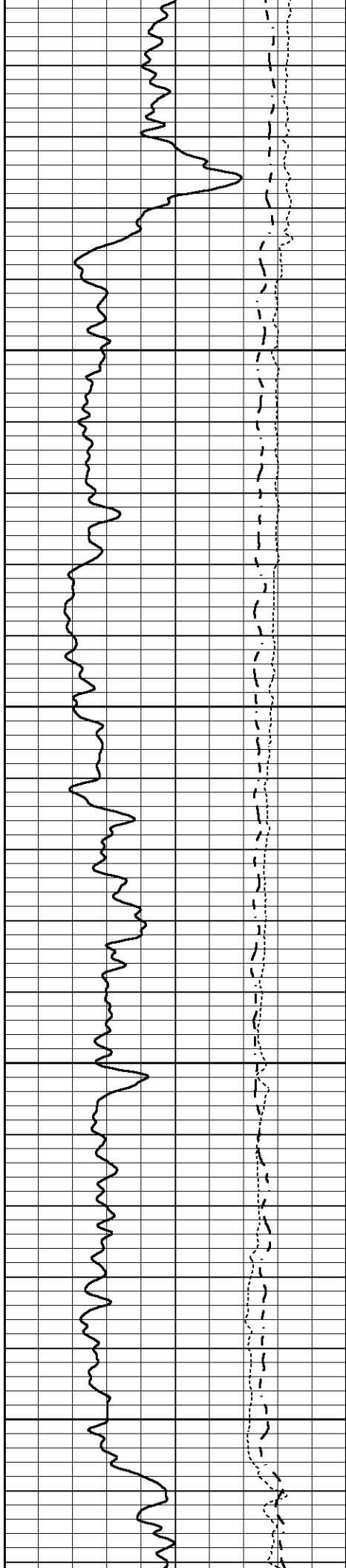
1100

1150

1200

1250



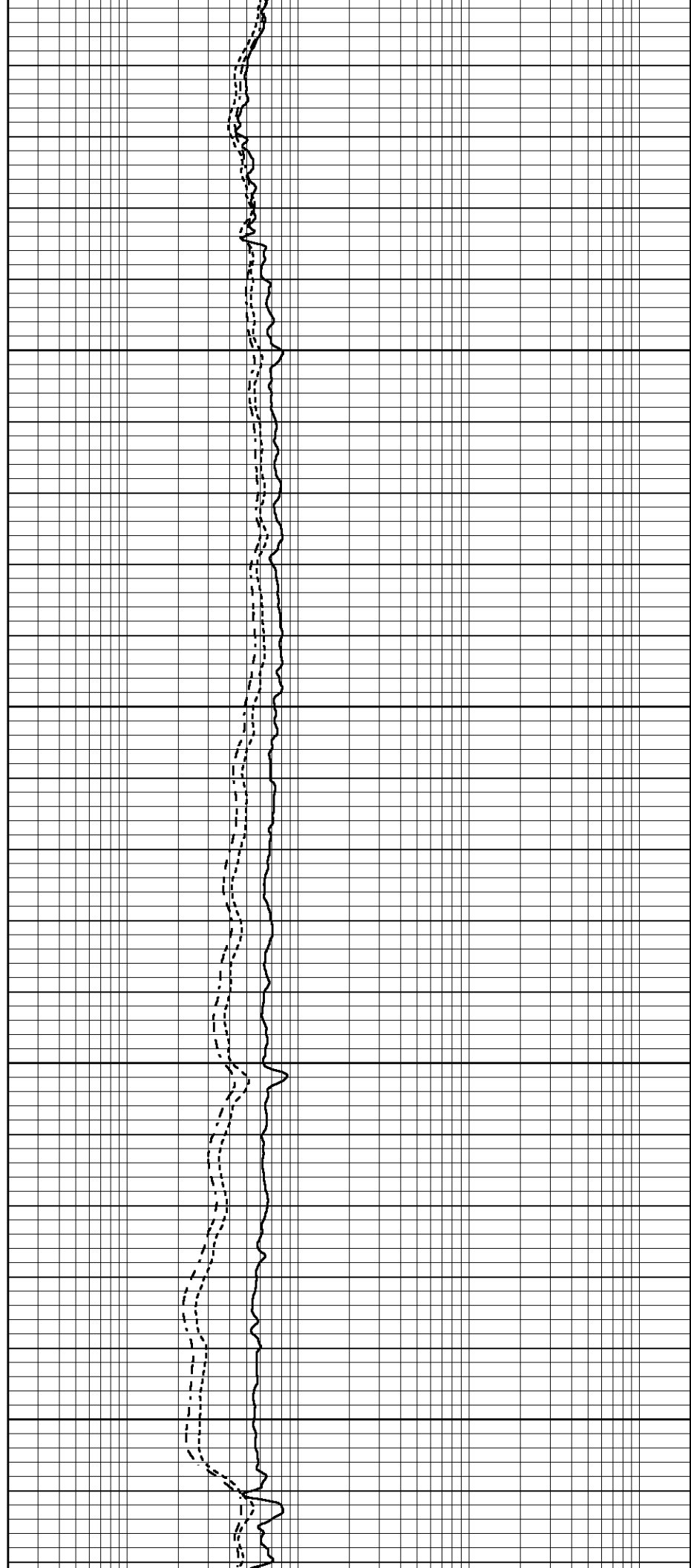


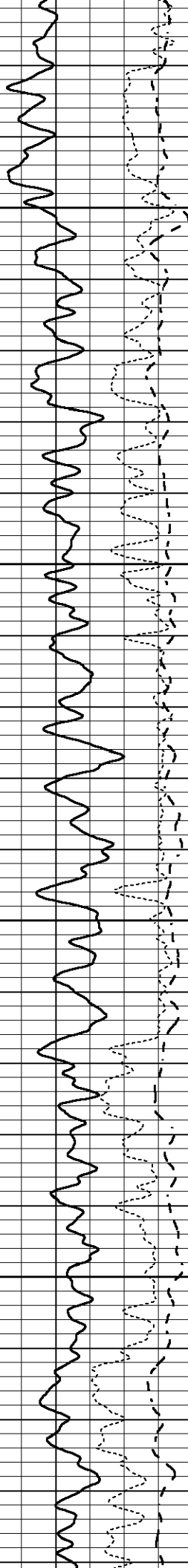
1300

1350

1400

1450



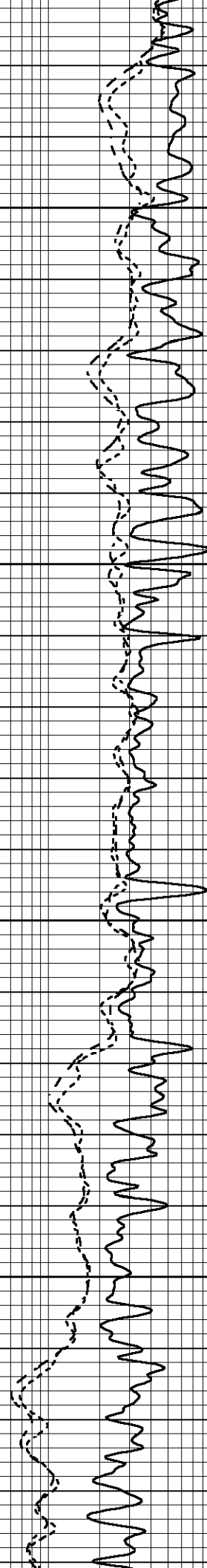


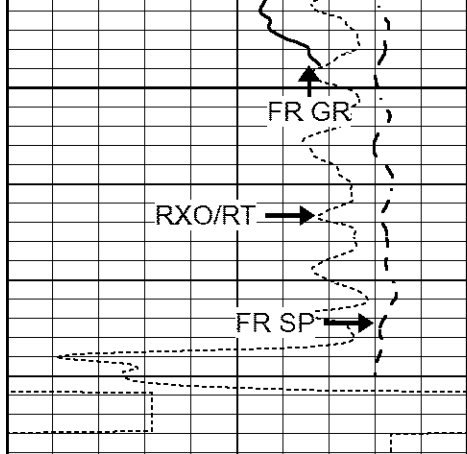
1500

1550

1600

1650





1700

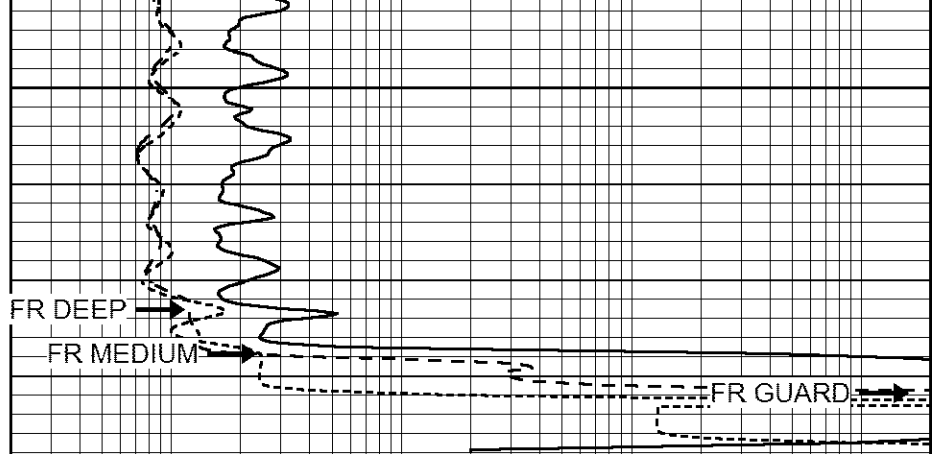
RXO/RT

FR GR

FR SP

LTD 1735

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

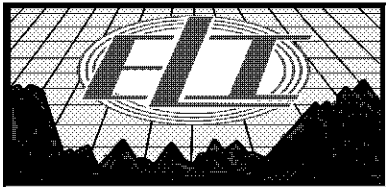


FR DEEP

FR MEDIUM

FR GUARD

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

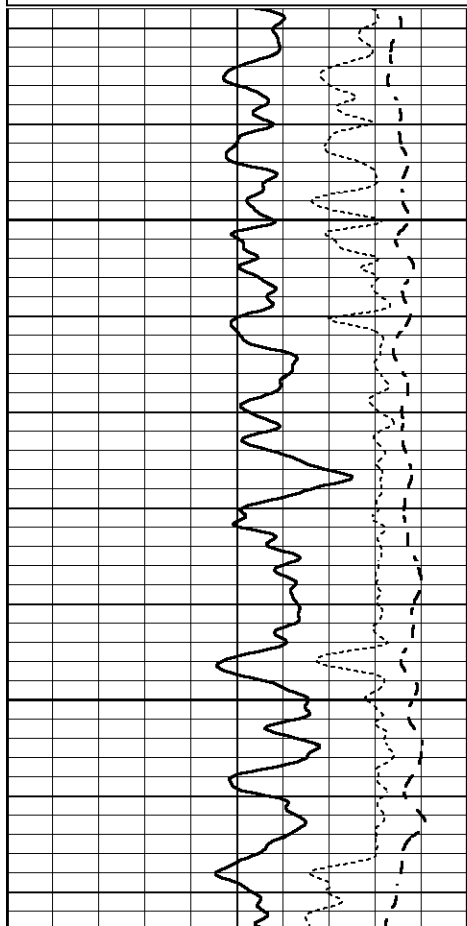


REPEAT SECTION

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 Charted by Depth in Feet scaled 1:240

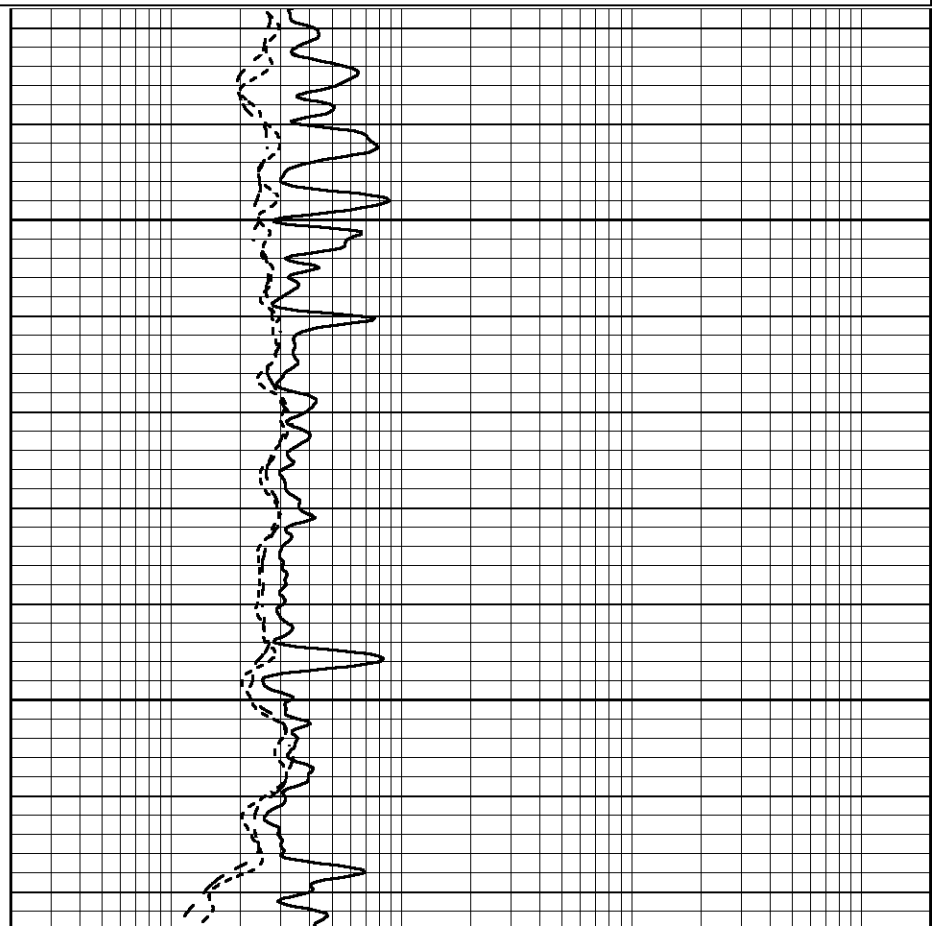
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

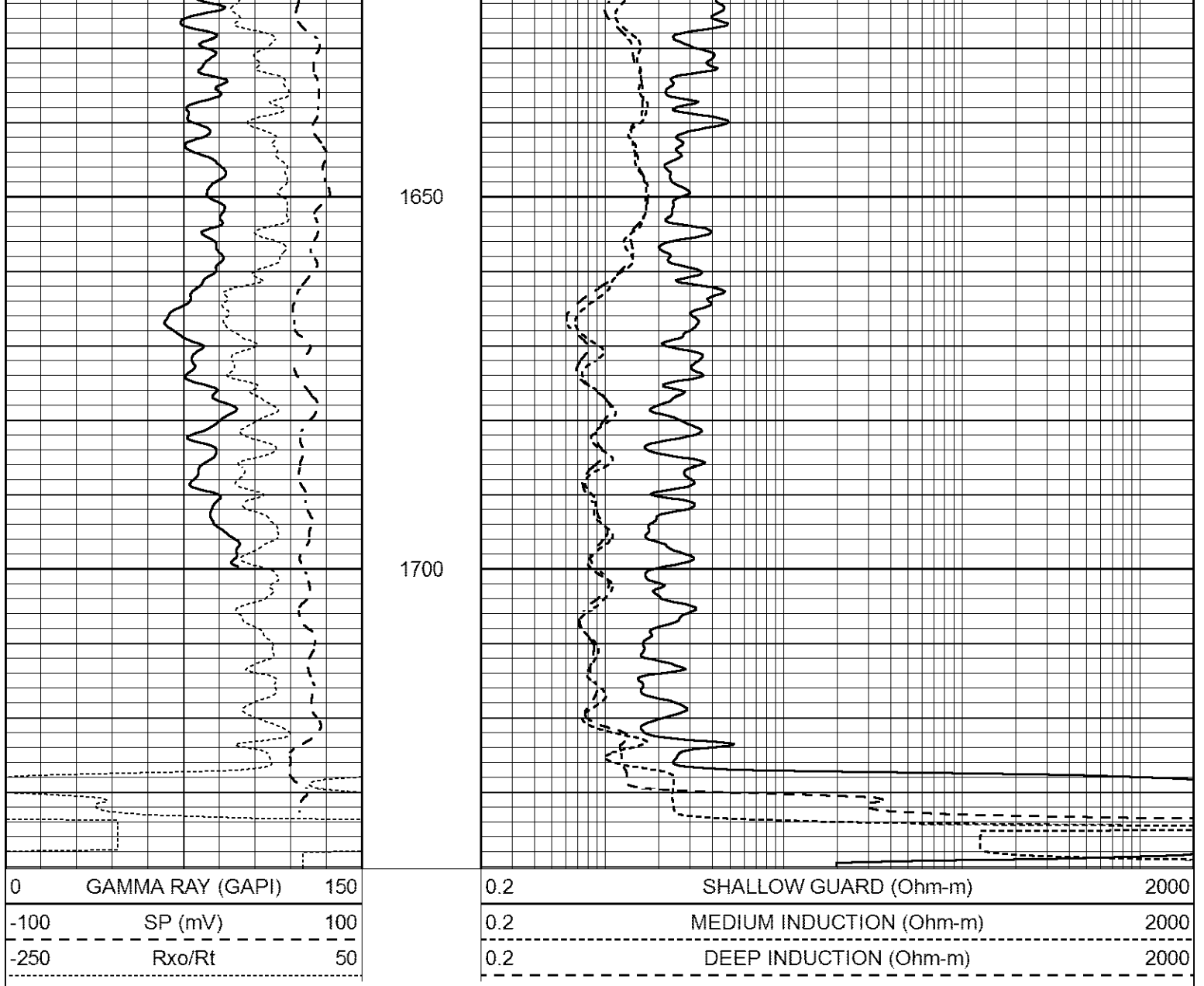
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



1550

1600





Calibration Report

Database File 7600ddn.db
 Dataset Pathname pass3.4
 Dataset Creation Sat Jul 01 05:11:53 2023

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Thu Jun 15 08:08:21 2023
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	550.000	-7.000
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	530.000	-10.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration			Readings		References		Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification			Readings		Targets		Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Litho Density Calibration Report
Serial: 140704
Model: V4_10P
Source Number: 74GBq-19

Master Calibration			Performed: Fri May 12 10:26:47 2023		
	Background	Aluminum	Magnesium		
Window 1	521.46	5212.91	23528.37	cps	
Window 2	43.81	1175.90	6160.42	cps	
Window 4	226.45	1217.97	4891.35	cps	
Window 5	519.17	8959.34	17037.10	cps	
Window 6	39.35	1453.85	2926.68	cps	
Window 8	253.66	2919.24	5361.51	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.7699	SS Alpha:	: -0.7448	LS CPE:	: 1.1844
LS Beta:	: 101708.6271	SS Beta:	: 19263.5258	SS CPE:	: 1.5835

Before Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

After Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

Lithodensity Caliper Calibration Performed: Fri May 12 10:26:47 2023

Results	Readings		References (in)		Gain	Offset
	Low	High	Low	High		
	7228.5	10151.9	8.0	14.0	0.0	-7.4

Before Survey Caliper Verification	Performed:				
	Reference	Reading			
Caliper (in)	_____	_____			

After Survey Caliper Verification	Performed:				
	Reference	Reading			
Caliper (in)	_____	_____			

Compensated Neutron Calibration Report

Serial Number:	080621PMC
Tool Model:	NABORS

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:	7	
Tool Model:	Probe1	
Performed:	Sun Apr 02 09:22:40 2023	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.4000	GAPI/cps