

Tucker
ENERGY SERVICES

COMPENSATED NEUTRON

PEL DENSITY LOG

N

Company : RUNNING FOXES PETROLEUM
Well : WUNDERLY #14-36B-2
Field : DEVON
Country : BOURBON
State : KANSAS
Country : USA
API No. : 15-011-23965-00-00

File No : TUL-57192
Company : RUNNING FOXES PETROLEUM INC.
Well : WUNDERLY #14-36B-2
Field : DEVON
Country : BOURBON
State : KANSAS
Country : USA
API No : 15-011-23965-00-00

Location :
1140' FSL & 1485' FWL
NW NW SE SW

LSD : Sect : 36 Twp : 24S Rge : 23E

Permanent Datum: GL Elevations: KB 0.00 Ft CNT
Drilling Measured From: GL KB 0.00 Ft LDT
Log Measured From: GL DF 0.00 Ft PIT
Above Permanent Datum: 0.00 Ft GL 879.00 Ft

Date	2012-06-20			
Run Number	1			
Depth--Driller	570.0	Ft		
Depth--Logger	563.0	Ft		
First Reading	540.0	Ft		
Last Reading	20.0	Ft		
Casing--Driller	20.0	Ft		
Casing--Logger	20.0	Ft		
Bit Size	6.750	in		
Casing Size	8.625	in		
Hole Fluid Type	FRESH			
Density	0.0	LBS/GAL		
Fluid Loss	0.0	CC		
PH/Viscosity	0.0	0.0 SEC		
Sample Source	MEASURED			
RM@Measured Temp.	2.400	@ 85 F		
RMF@Measured Temp	2.000	@ 85 F		
RMG@Measured Temp.	2.800	@ 85 F		
Source RMF/RMC	CALCULATED/CALCULATED			
RM@BHT	2.500	@ 80 F		
Time Circulation Stopped				
Max Recorded Temp.	80	F		
Equipment/Base	TRUCK 119	TULSA		
Recorded By	R. FRANKLIN			
Witnessed By	K. HODGES			

The customer is hereby warned that by providing the log data herein, T. E. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. E. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. E. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. E. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings		
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)
6.750	570.00	8.625	24.00	20.00

Run Number	1	
Date	2012-06-20	
Date/Time On Bottom	2012-06-20 12:30	
Depth to Fluid	0.0	Ft
Salinity	0.000	PPM
RMF@BHT	2.200 @ 80	F
RMC@BHT	2.900 @ 80	F

Run Number 1

Comments

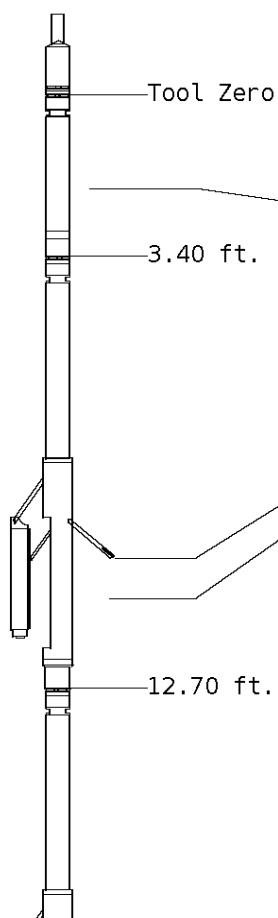
ALL PRESENTATIONS AS PER CUSTOMER REQUEST.
 GRT, CNT, LDT, AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED USING 2.875" PRODUCTION CASING.
 PHIN IS CALIPER CORRECTED.

GRT: GRP.
 CNT: PHIN, CLCNIN
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.
 PIT: ILD, ILM, SPU, SFLAEC.

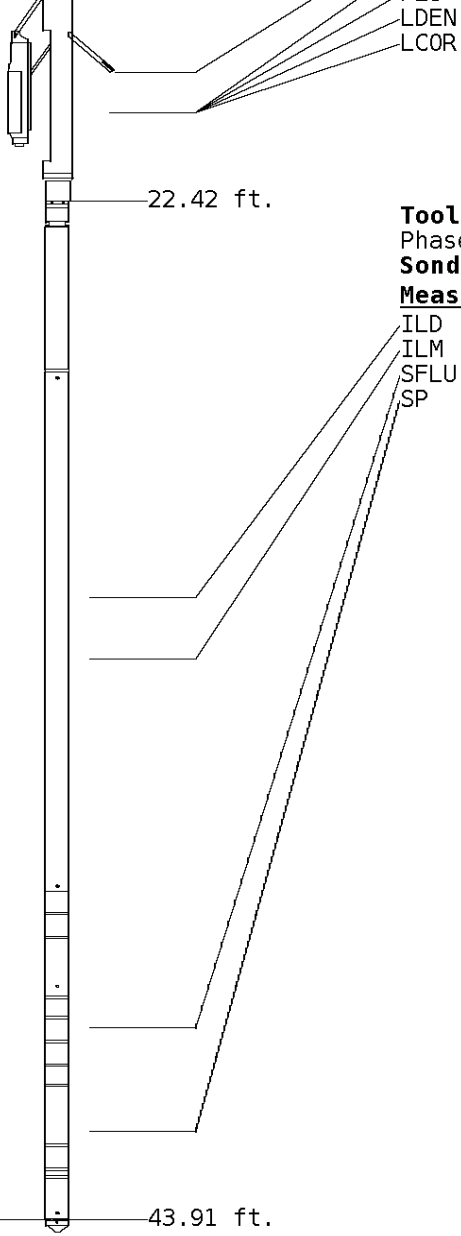
OPERATORS:
 J. THOMAS
 R. BAKE

Tool String Schematic

Total Tool Length - 43.91 ft.
Maximum Outside diameter - 4.80 in.
Net Weight in Air - 743.00 lbs.



Tool: GRT-B		Length: 3.40 ft.	O.D.: 3.60 in.
Gamma Ray Controller			
Sonde ID :GRT-BC-41			
Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	41.91
Tool: CNT-AA		Length: 9.30 ft.	O.D.: 4.36 in.
Compensated Neutron A Pad on NDT-A			
Sonde ID :NDT-BB-123			
Source ID :N-1045			
Pad ID :CNP-AA-024			
Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	34.51
PHIN	6.80	10.20	33.71
Tool: LDT-DF		Length: 9.72 ft.	O.D.: 4.80 in.
Litho Density D Pad on NDT-F			
Sonde ID :PDT-GA-464			
Source ID :CSV-B45			
Pad ID :LDP-DA-067			
Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.42	19.12	24.79
PEL	7.42	20.12	23.79
PES	7.82	20.52	23.39



7.62 20.32 23.59
 7.62 20.32 23.59

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-22

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	31.34	12.56
ILM	10.10	32.52	11.39
SFLU	17.49	39.91	4.00
SP	20.60	43.02	0.88

Well File: RFP_WUN_14-36B-2_JUN_20_STK

Scale: 1:240

Segment: V1.D1.S6 MAIN

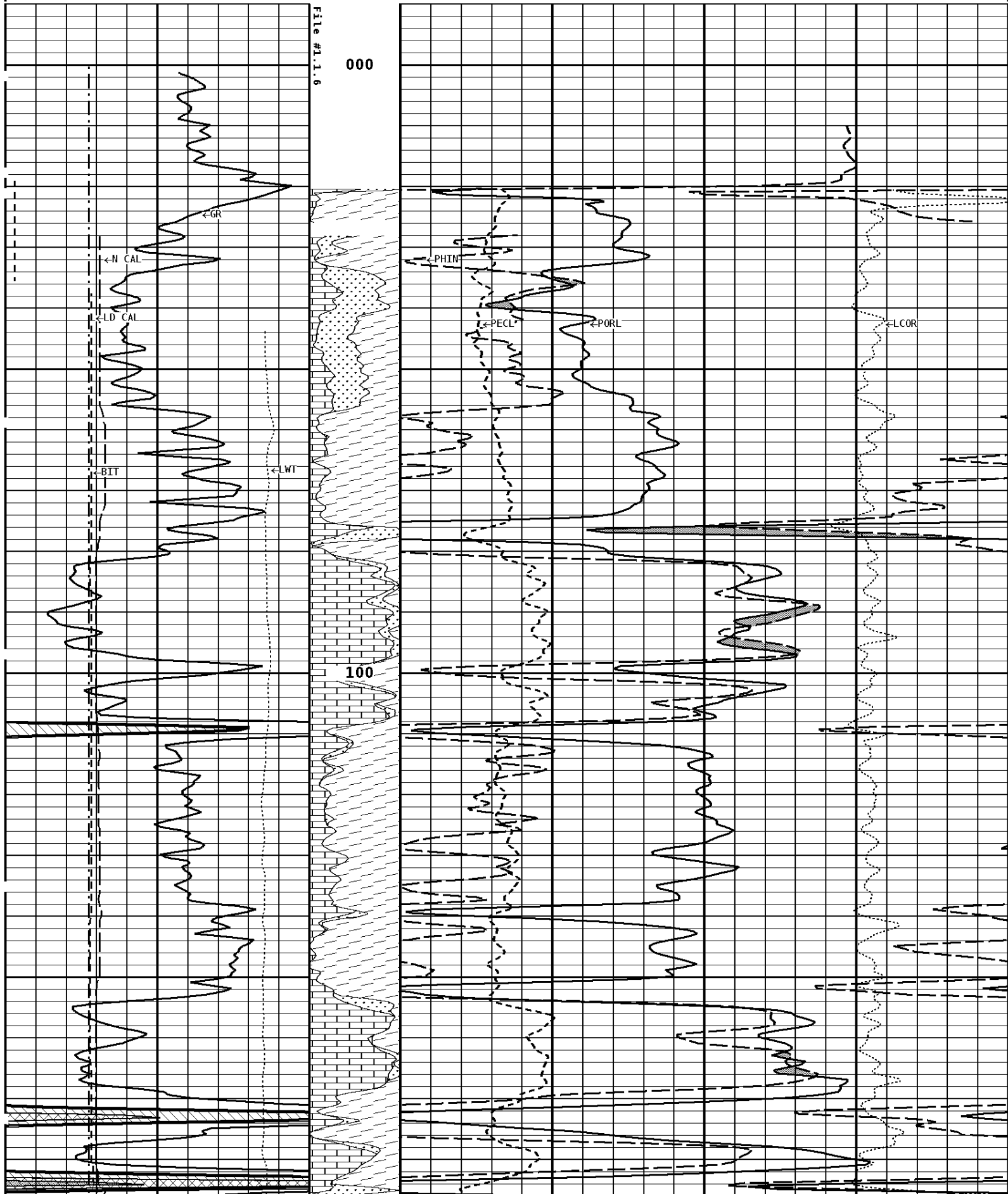
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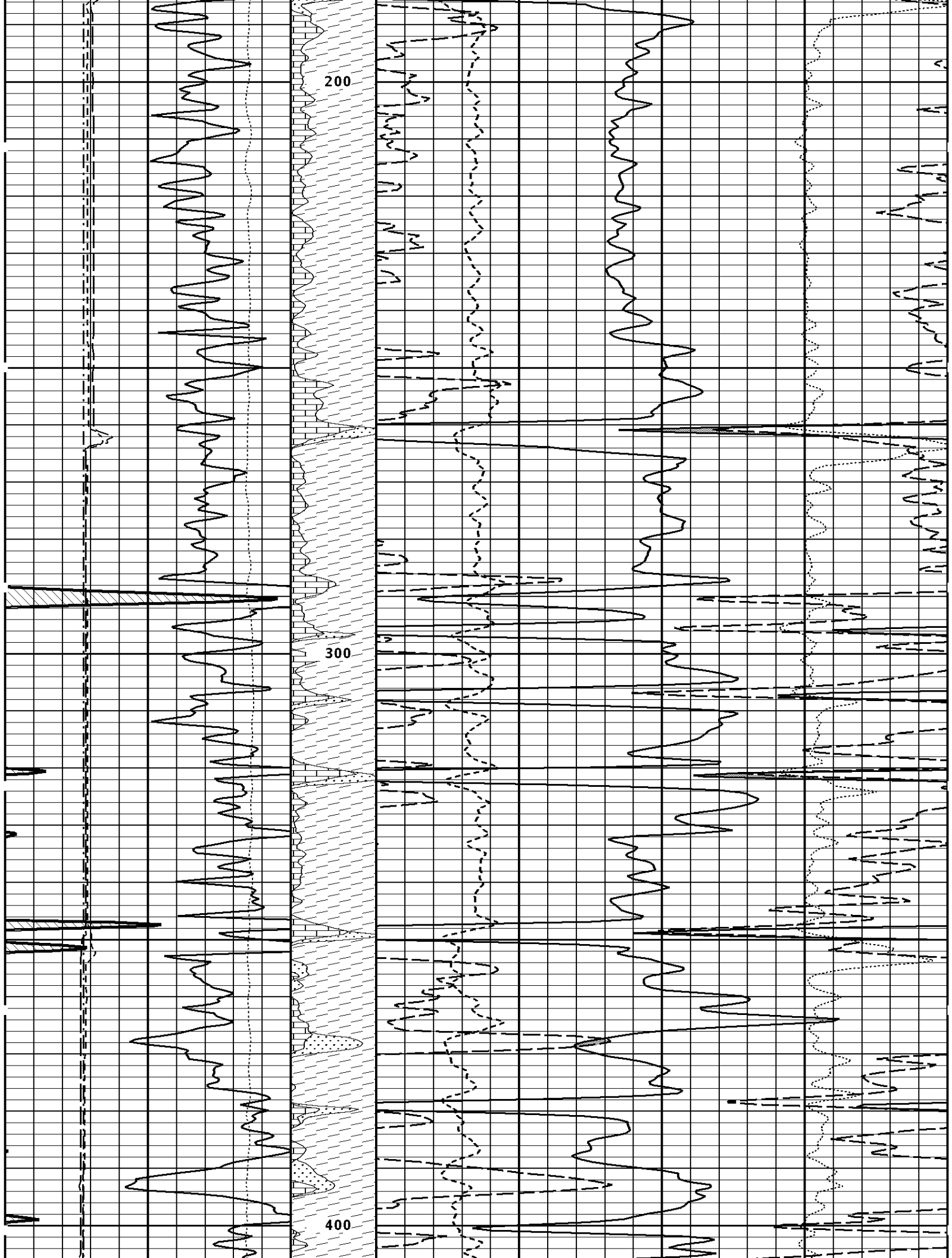
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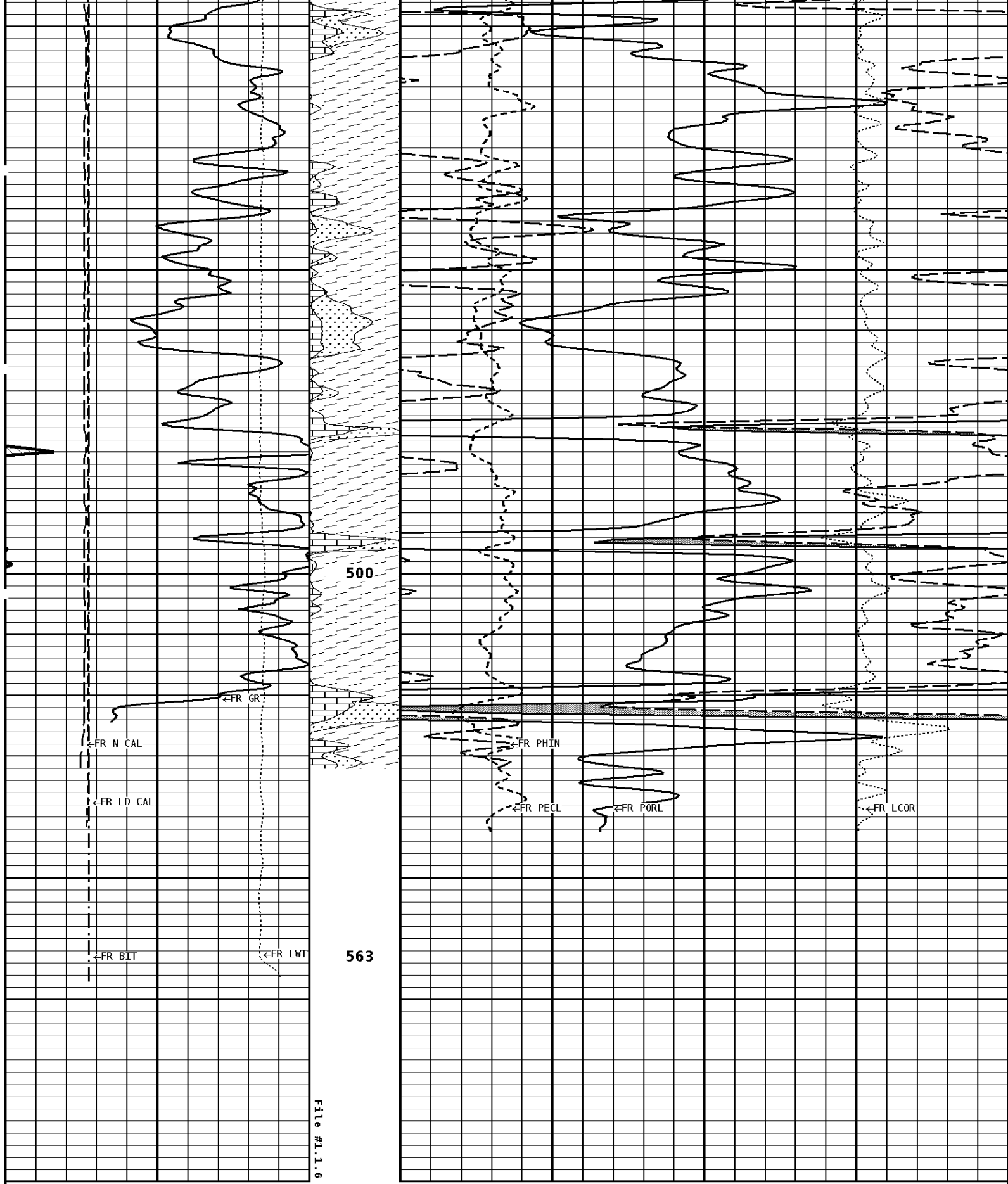
Processed: 2012-06/20 13:48 3.2.0-10932

TENSION LBS					
10000	0				
BIT SIZE INCHES (IN)					
4	14				
DENSITY (X) CALIPER INCHES (IN)		Volume Quartz	PE CROSS-SECTION BARNs/ELECTRON	DENSITY CORRECTION G/CC	
14	24				
4	14	0	10	-0.25	0.25
NEUTRON (Y) CALIPER INCHES (IN)		Volume Calcite	NEUTRON POROSITY PERCENT (LIMESTONE MATRIX)		
14	24		70		30
4	14		30		-10
			-10		-50
GAMMA RAY API UNITS		Volume Dolo/Shale	DENSITY POROSITY PERCENT (2.71 g/cc)		
200	400		70		30
0	200		30		-10
			-10		-50

1:240 MAIN SECTION







500

563

File #1.1.6

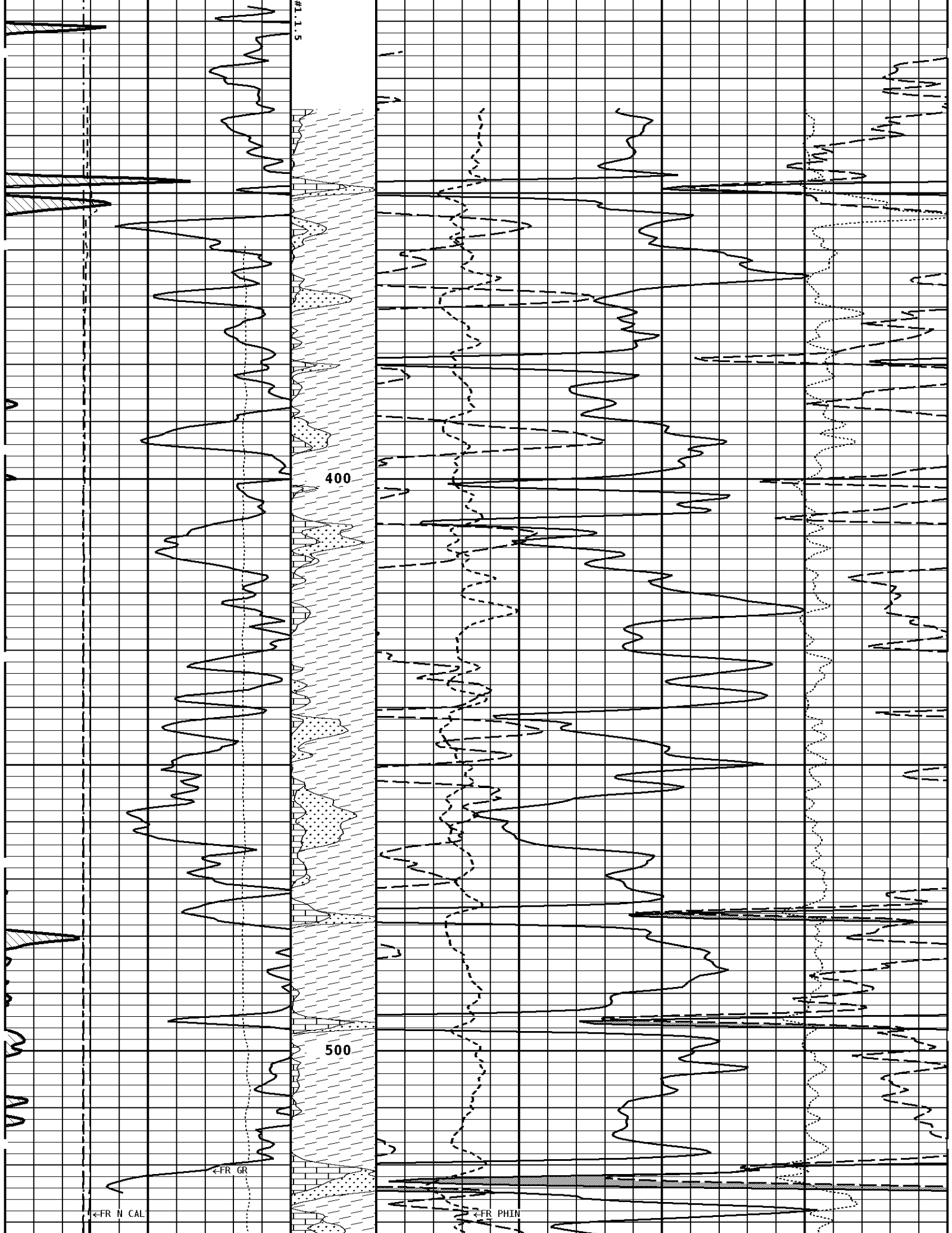
1:240 MAIN SECTION

GAMMA RAY

Volume

DENSITY POROSITY

#1.1.5



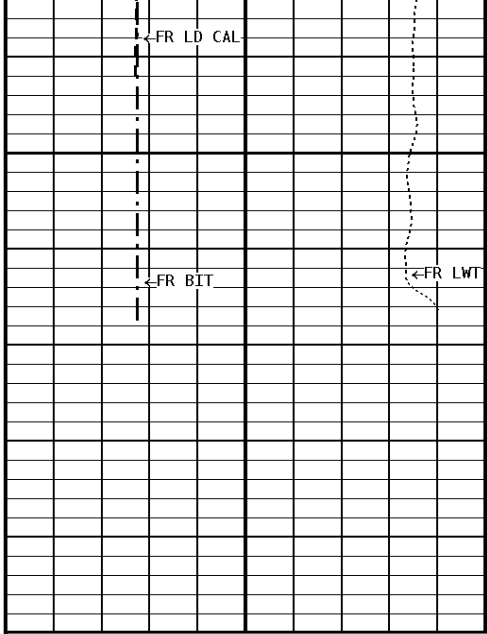
400

500

FR CAL

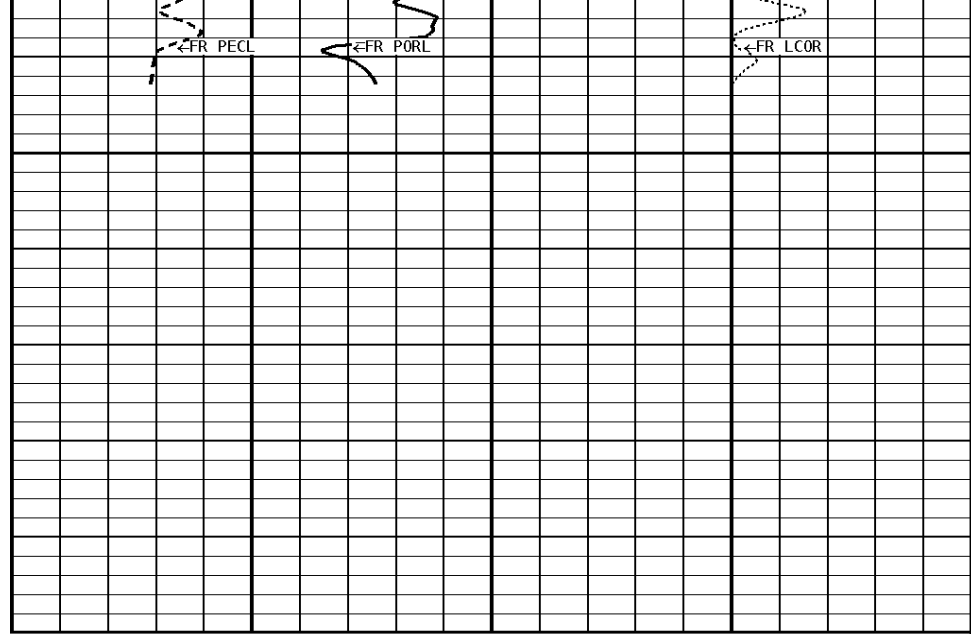
FR GR

FR PHIN



File #1.1.5

563



1:240 REPEAT SECTION

GAMMA RAY API UNITS 200 400 0 200	Volume Dolo/Shale 70 30 -10	DENSITY POROSITY PERCENT (2.71 g/cc) 30 -10 -50	
NEUTRON (Y) CALIPER INCHES (IN) 14 24 4 14	Volume Calcite 70 30 -10	NEUTRON POROSITY PERCENT (LIMESTONE MATRIX) 30 -10 -50	
DENSITY (X) CALIPER INCHES (IN) 14 24 4 14	Volume Quartz 0	PE CROSS-SECTION BARNS/ELECTRON 10	DENSITY CORRECTION G/CC -0.25 0.25
BIT SIZE INCHES (IN) 4 14			
TENSION LBS 10000 0			

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet		
Matrix Density _____	2.71	g/cc
Fluid Density _____	1.00	g/cc
Formation Matrix _____	Limestone	
Drill Bit Size _____	6.750	in
Casing Diameter _____	2.875	in
Casing Correction (PHI N) _____	Disable	

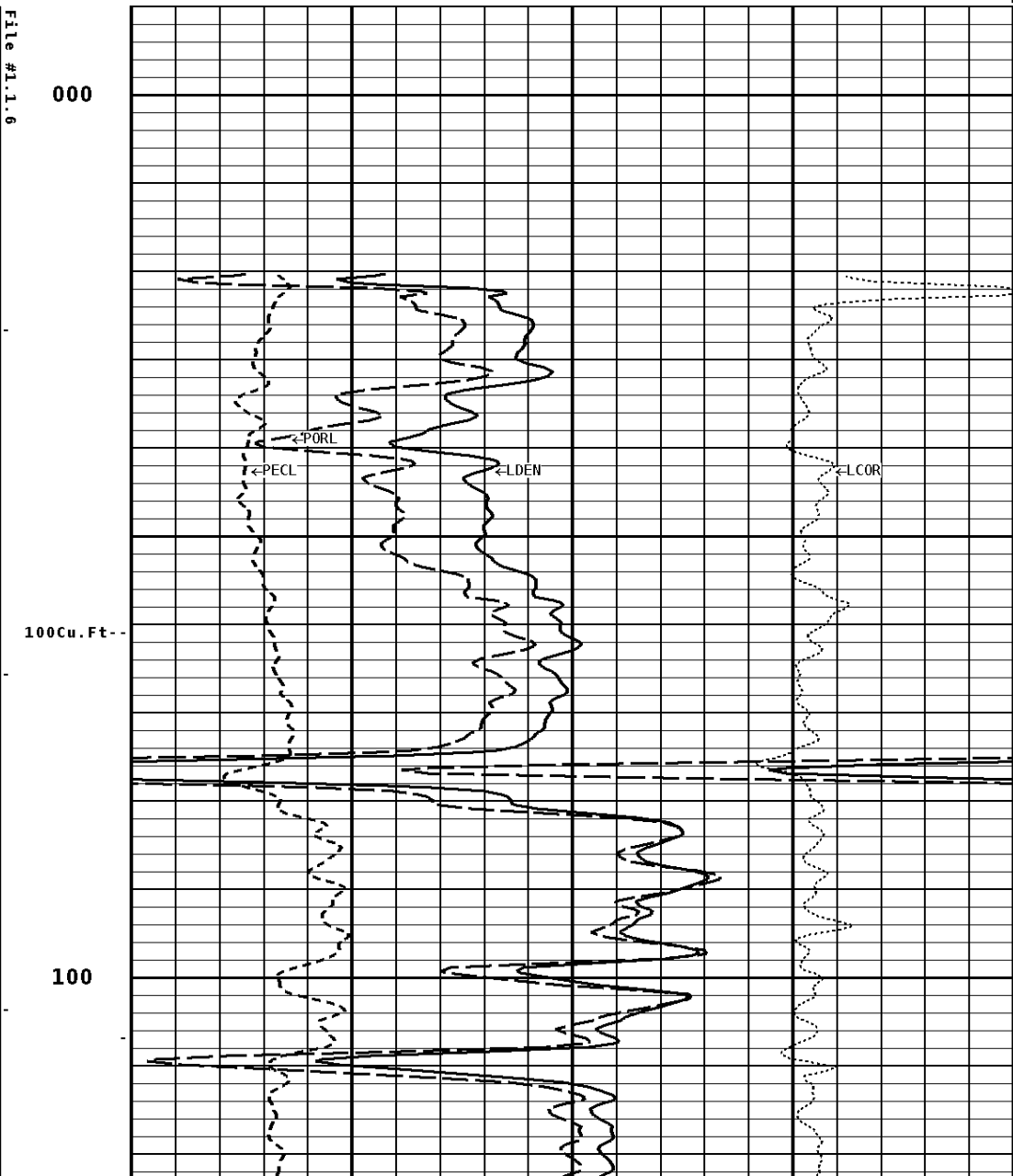
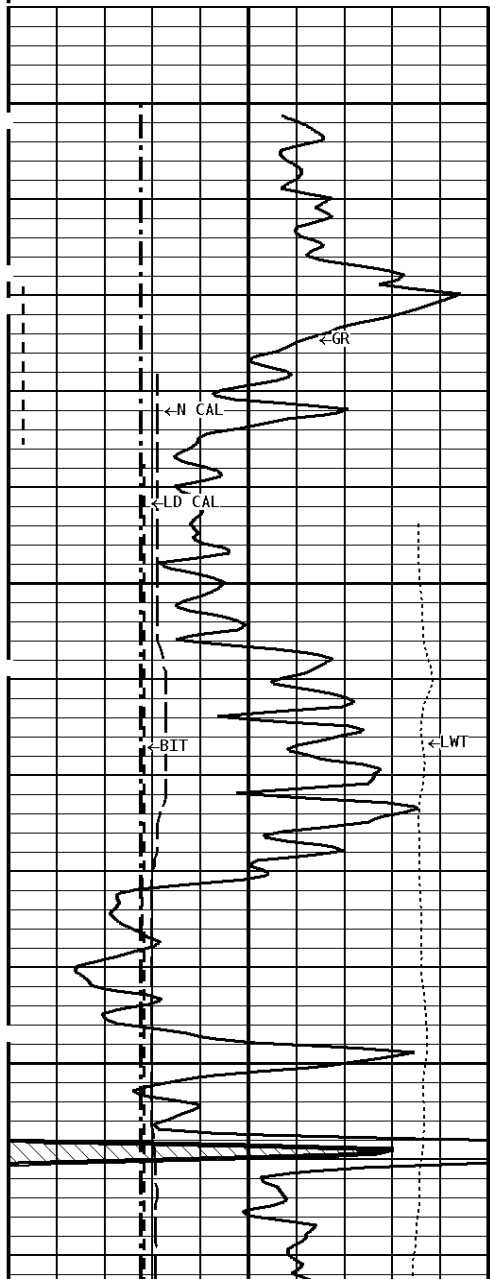
Well File: RFP_WUN_14-36B-2_JUN_20_STK **Scale:** 1:240
Segment: V1.D1.S6 MAIN **Acquired:** 2012-06/20 12:49 3.2.0-10932
Reference: 0 **Processed:** 2012-06/20 13:48 3.2.0-10932

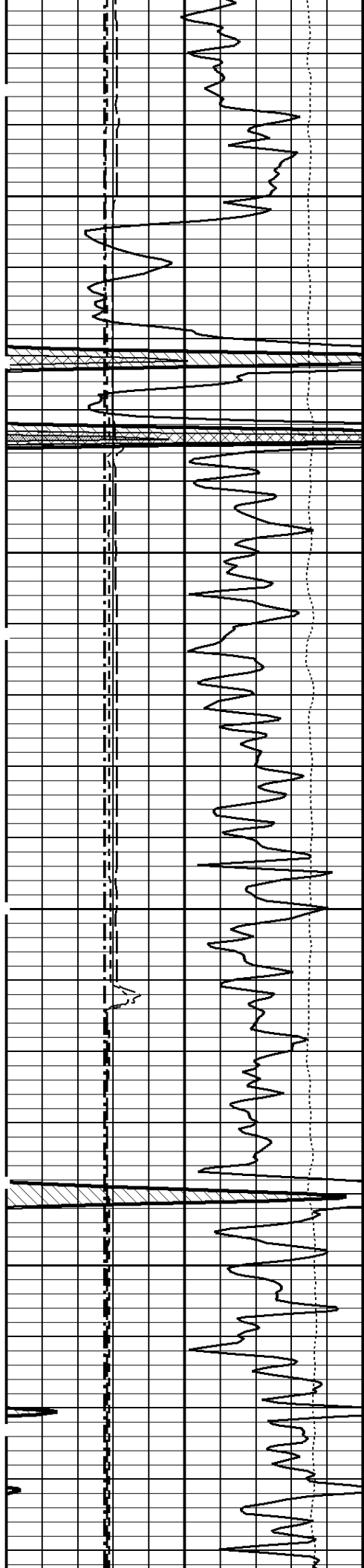
TENSION LBS 10000 0

BIT SIZE INCHES (IN)	
4	14
DENSITY (X) CALIPER INCHES (IN)	
14	24
4	14
NEUTRON (Y) CALIPER INCHES (IN)	
14	24
4	14
GAMMA RAY API UNITS	
200	400
0	200

PE CROSS-SECTION BARNS/ELECTRON		DENSITY CORRECTION G/CC	
0	10	-0.25	0.25
DENSITY POROSITY PERCENT (2.71 g/cc)			
70			30
30			-10
-10			-50
- BHV AHV - CU. FT		COMPENSATED BULK DENSITY G/CC	
3.0			4.0
2.0			3.0
1.0			2.0

1:240 MAIN SECTION BULK DENSITY

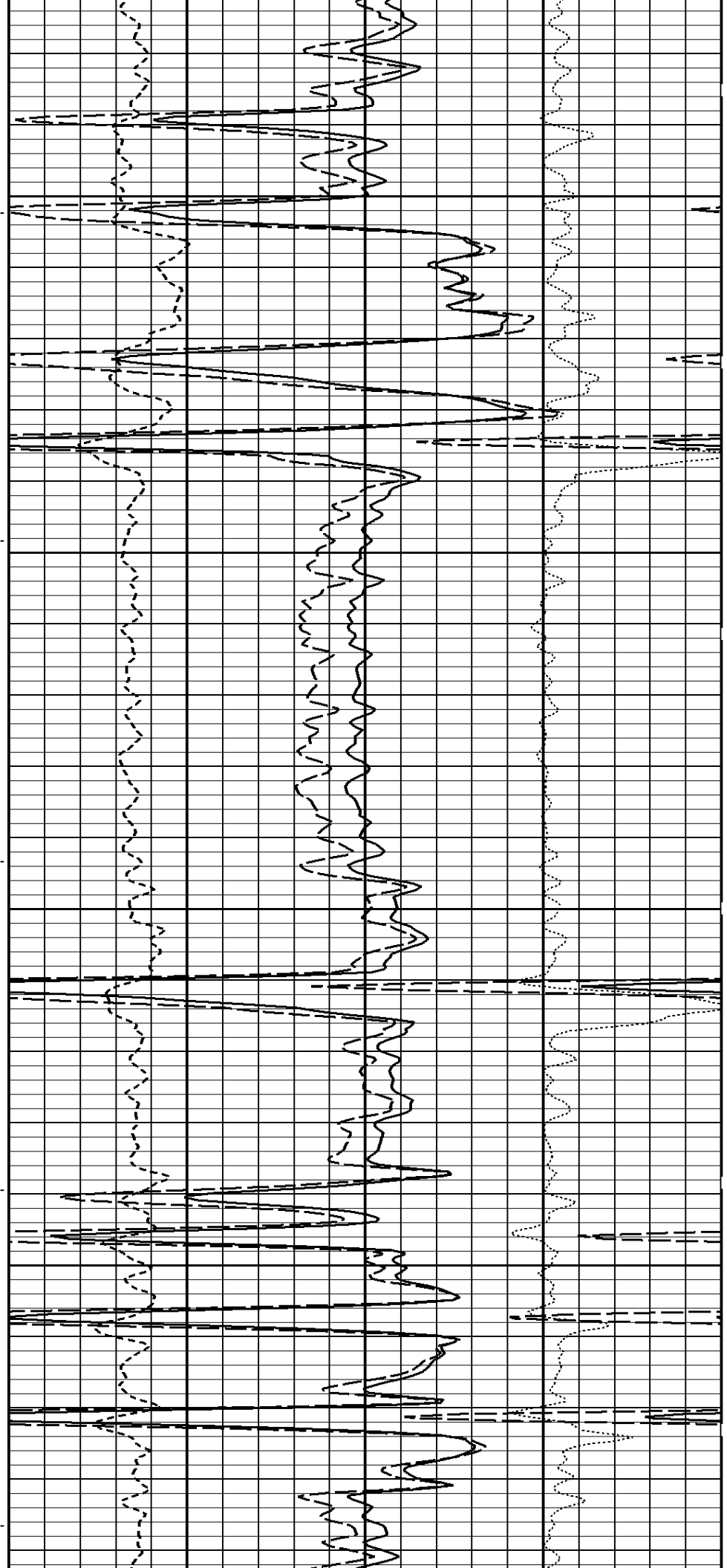


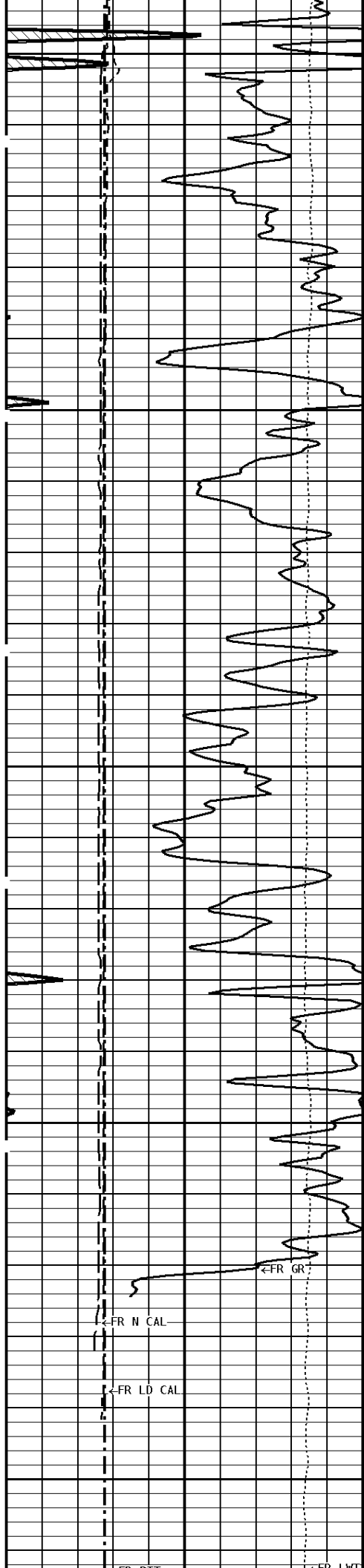


100 Cu. Ft

200

300





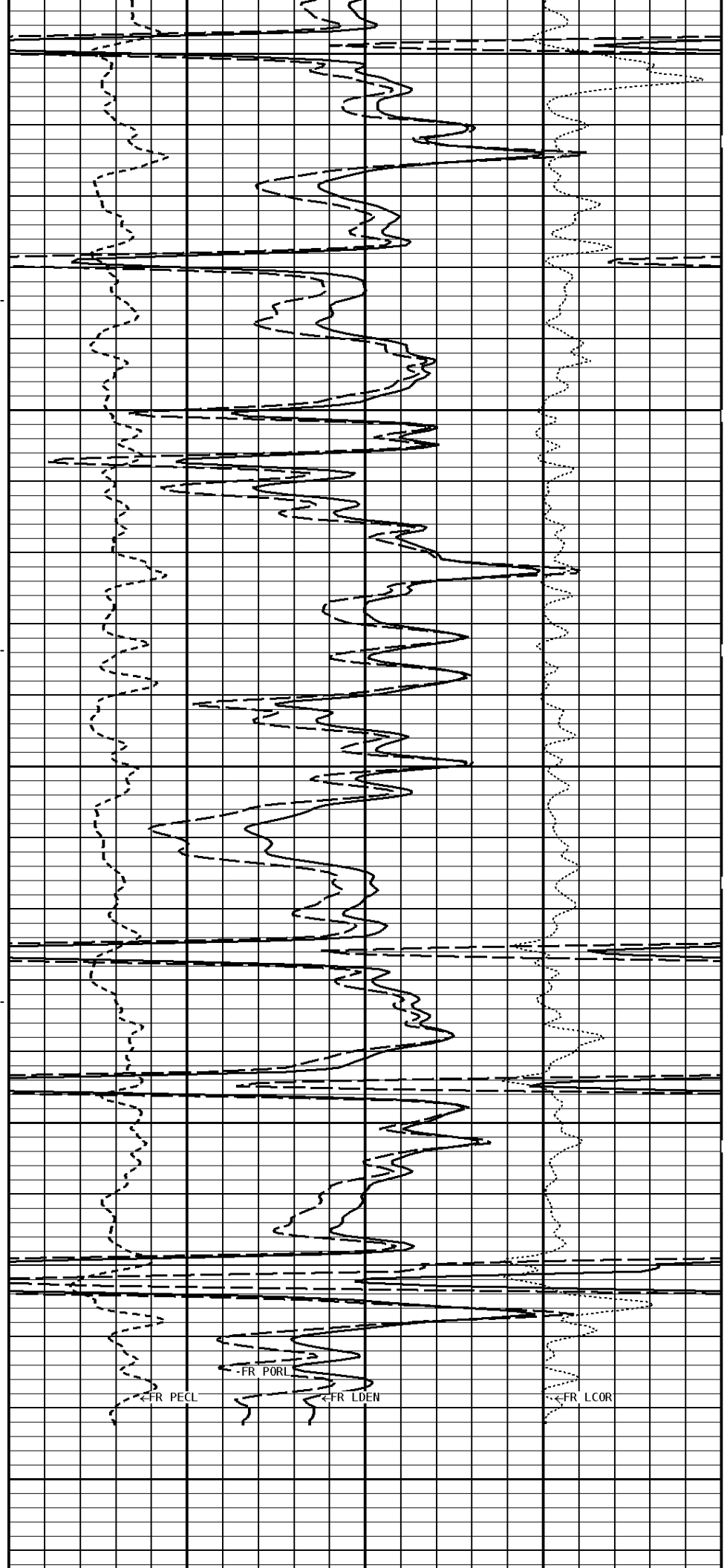
400

500

←FR GR

←FR N CAL

←FR LD CAL



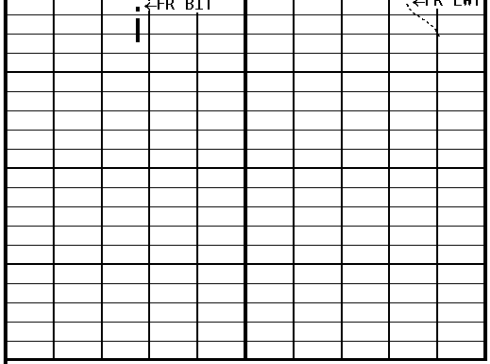
←FR PORL

←FR PECL

←FR LDEN

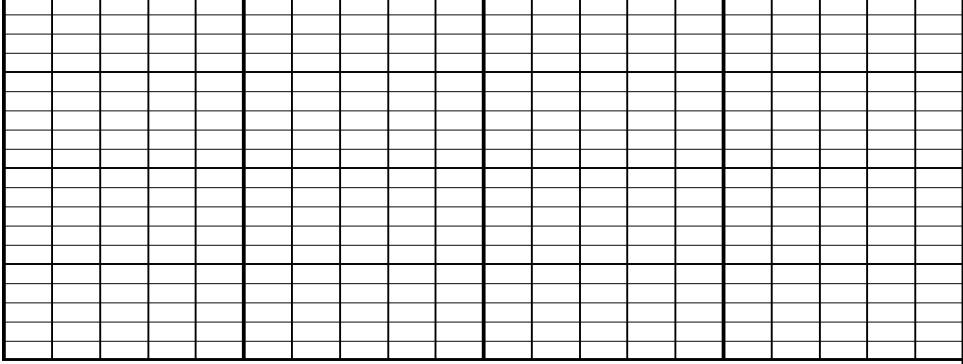
←FR LCOR

500



563

File #1.1.6



1:240 MAIN SECTION BULK DENSITY

GAMMA RAY API UNITS	
200 0	400 200
NEUTRON (Y) CALIPER INCHES (IN)	
14 4	24 14
DENSITY (X) CALIPER INCHES (IN)	
14 4	24 14
BIT SIZE INCHES (IN)	
4	14
TENSION LBS	
10000	0

- BHV AHV - CU. FT	COMPENSATED BULK DENSITY G/CC	
	3.0 2.0 1.0	4.0 3.0 2.0
	DENSITY POROSITY PERCENT (2.71 g/cc)	
	70 30 -10	30 -10 -50
	PE CROSS-SECTION BARNS/ELECTRON	DENSITY CORRECTION G/CC
	0	10 -0.25
		0.25

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet		
Matrix Density _____	2.71	g/cc
Fluid Density _____	1.00	g/cc
Formation Matrix _____	Limestone	
Drill Bit Size _____	6.750	in
Casing Diameter _____	2.875	in
Casing Correction (PHI N) _____	Disable	

* Calibration Summary *

Shop Calibration GRT-B					
Performed : 04-APR-2011			Time : 19:28		
Sensor Suite : GR-GR5			ID : GRT-BC-41		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig		
	46	346	175	CPS	GRAPI

Shop Calibration CNT-AA					
Performed : 24-OCT-2011			Time : 08:41		
Sensor Suite : CALI-BCN			ID : NDT-BB-123		
	Jig - Measured	Units	Jig - Calibrated	Units	
	Ring#1 Ring#2		Ring#1 Ring#2		

CL # 1	5.7	11.7	6.0	12.0	IN.
Performed : 17-May-2012		Time : 12:59			
Sensor Suite : BHC NEUT		ID : CNP-AA-024			
Source ID : N-1045					
	Tank	Calibrated	Verification	Units	
N/F	Measured	3.6893	Jig		
	3.8748		3.6852		
Porosity	23.4	20.5	20.4		%
Shop Calibration					
LDT-DF					
Performed : 01-MAR-2011		Time : 04:24			
Sensor Suite : CALI-LTH		ID : PDT-GA-464			
	Jig - Measured	Jig - Calibrated	Units		
	Ring#1 Ring#2	Ring#1 Ring#2			
CL # 1	7.0 13.0	6.0 12.0		IN.	
Performed : 17-May-2012		Time : 10:51			
Sensor Suite : BHCPELNG		ID : LDP-DA-067			
Source ID : CSV-B45					
Short Space					
	BKGD	Al	Mg	Al+Fe	Units
LSW1	65	919	1491	593	CPS
LSW2	70	1027	1644	747	CPS
LSW3	256	2342	3792	1992	CPS
LSW4	308	2114	3072	1858	CPS
LSW5	42	61	63	58	CPS
LSW6	70	73	73	73	CPS
LSW7	52	55	55	54	CPS
LSW8	9	10	11	10	CPS
QS	0.144	0.134	0.137	0.144	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC
Long Space					
	BKGD	Al	Mg	Al+Fe	Units
LLW1	94	1117	4649	667	CPS
LLW2	103	1826	7322	1336	CPS
LLW3	397	3225	12338	2778	CPS
LLW4	503	1553	4739	1418	CPS
LLW5	54	62	97	61	CPS
LLW6	172	169	157	166	CPS
LLW7	105	103	100	105	CPS
LLW8	3	5	14	5	CPS
QL	0.243	0.241	0.221	0.226	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC