

Tucker

WIRELINE SERVICES

COMPENSATED NEUTRON
PEL DENSITY LOG

Company RUNNING FOXES PETROLEUM Well WUNDERLY #11-36A-4 Field DEVON County BOURBON State KANSAS Country USA API No. 15-011-23813-00-00		File No : TUL-55538 Company : RUNNING FOXES PETROLEUM INC. Well : WUNDERLY #11-36A-4 Field : DEVON County : BOURBON State : KANSAS Country : USA API No : 15-011-23813-00-00	
Location : 2130' FSL & 2460' FEL SE NE NE SW		LSD : Sect : 36 Twp : 24 Rge : 23	
Permanent Datum:	GL	Elevations:	
Drilling Measured From:	GL	KB 0.00	Services:
Log Measured From:	GL	DF 0.00	CNT
Above Permanent Datum:	0.00 Ft	GL 868.00	LDT
Date	Aug 22 2011		
Run Number	1		
Depth--Driller	575.0	Ft	
Depth--Logger	573.0	Ft	
First Reading	552.0	Ft	
Last Reading	21.0	Ft	
Casing--Driller	20.0	Ft	
Casing--Logger	21.0	Ft	
Bit Size	6.750	In	
Casing Size	8.625	In	
Hole Fluid Type	FRESH/NATIVE		
Density	0.0	LBS/GAL	
Fluid Loss	0.0	CC	
PH/Viscosity	0.0	SEC	
Sample Source	MEASURED		
RMF@Measured Temp.	4.000	@ 80 F	
RMF@Measured Temp	3.000	@ 80 F	
RMF@Measured Temp.	4.600	@ 80 F	
Source RMF/RMC	CACULATED CACULATED		
RM@BHT	4.000	@ 80 F	
Time Circulation Stopped			
Max Recorded Temp.	80	F	
Equipment/Base	TRK123	TULSA	
Recorded By	T. MONTGOMERY		
Witnessed By	A. GREENE		

The customer is hereby warned that by providing the log data herein, T. W. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. W. 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. W. 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. W. 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	575.00	8.625	40.00	20.00

Run Number	1	
Date	Aug 22 2011	
Date/Time On Bottom	Aug 22 2011 13:30	
Depth to Fluid	0.0 Ft	
Salinity	0.000 PPM	
RMF@BHT	0.000 @ 80 F	
RMC@BHT	0.000 @ 80 F	

Run Number 1

Comments

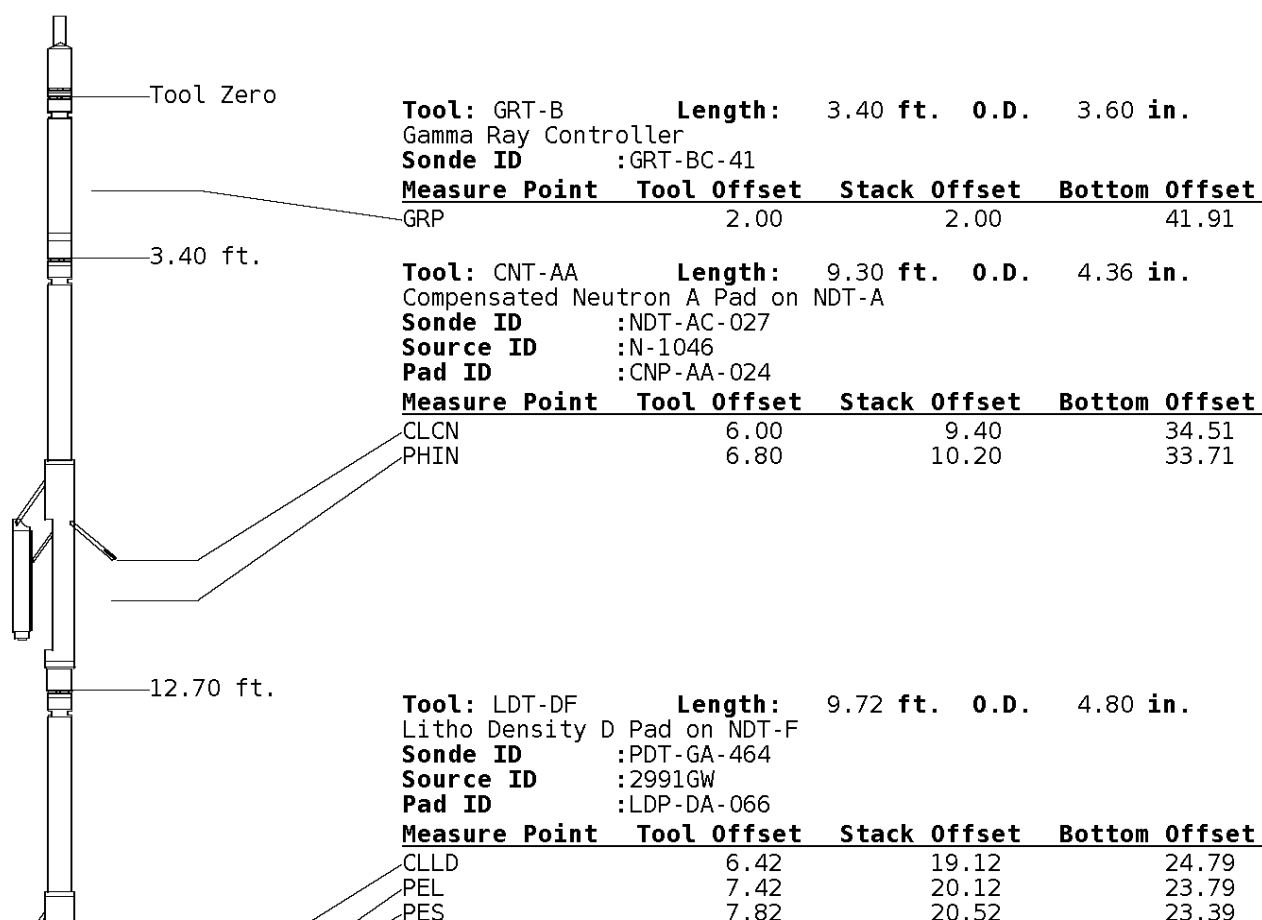
ALL PRESENTATIONS AS PER CUSTOMER REQUEST.
 GRT, CNT, LDT, AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED UISING 4.50" PRODUCTION CASING.

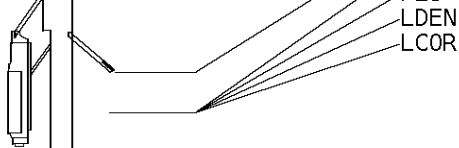
GRT: GRP.
 CNT: PHIN, CLCNIN.
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.
 PIT: ILD, ILM, SPU, SFLAEC.

OPERATORS:
 J. THOMAS
 S. DAVIS

Tool String Schematic

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





LDEN	7.62	20.32	23.59
LCOR	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-CA-069

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

LWT 43.91 ft.

Well File: rfp_11-36a-4_aug_22_stk

Scale: 1:240

Segment: V1.D1.S5 MN-RE

Acquired: 2011-08/22 13:34 3.2.0-9963

Reference: 0

Processed: 2011-08/22 14:21 3.2.0-9963

**TENSION
LBS**

10000 0

**BIT SIZE
INCHES (IN)**

4 14

**DENSITY (X) CALIPER
INCHES (IN)**

14 24
4 14

Volume
Quartz

**PE CROSS-SECTION
BARNs/ELECTRON**

**DENSITY CORRECTION
G/CC**

0 10 -0.25 0.25

**NEUTRON (Y) CALIPER
INCHES (IN)**

14 24
4 14

Volume
Calcite

**NEUTRON POROSITY
PERCENT (LIMESTONE MATRIX)**

70 30
30 -10
-10 -50

**GAMMA RAY
API UNITS**

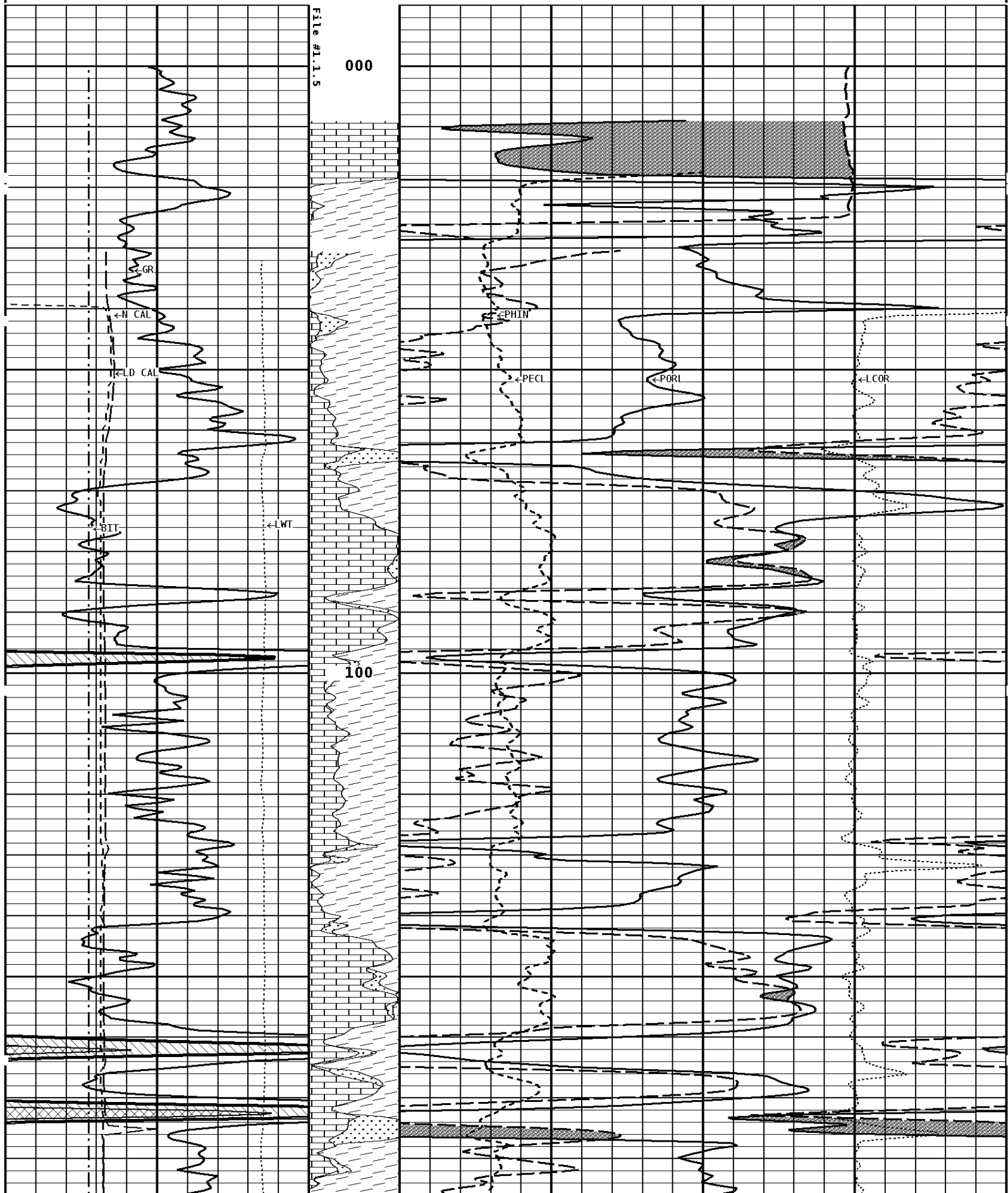
200 400
0 200

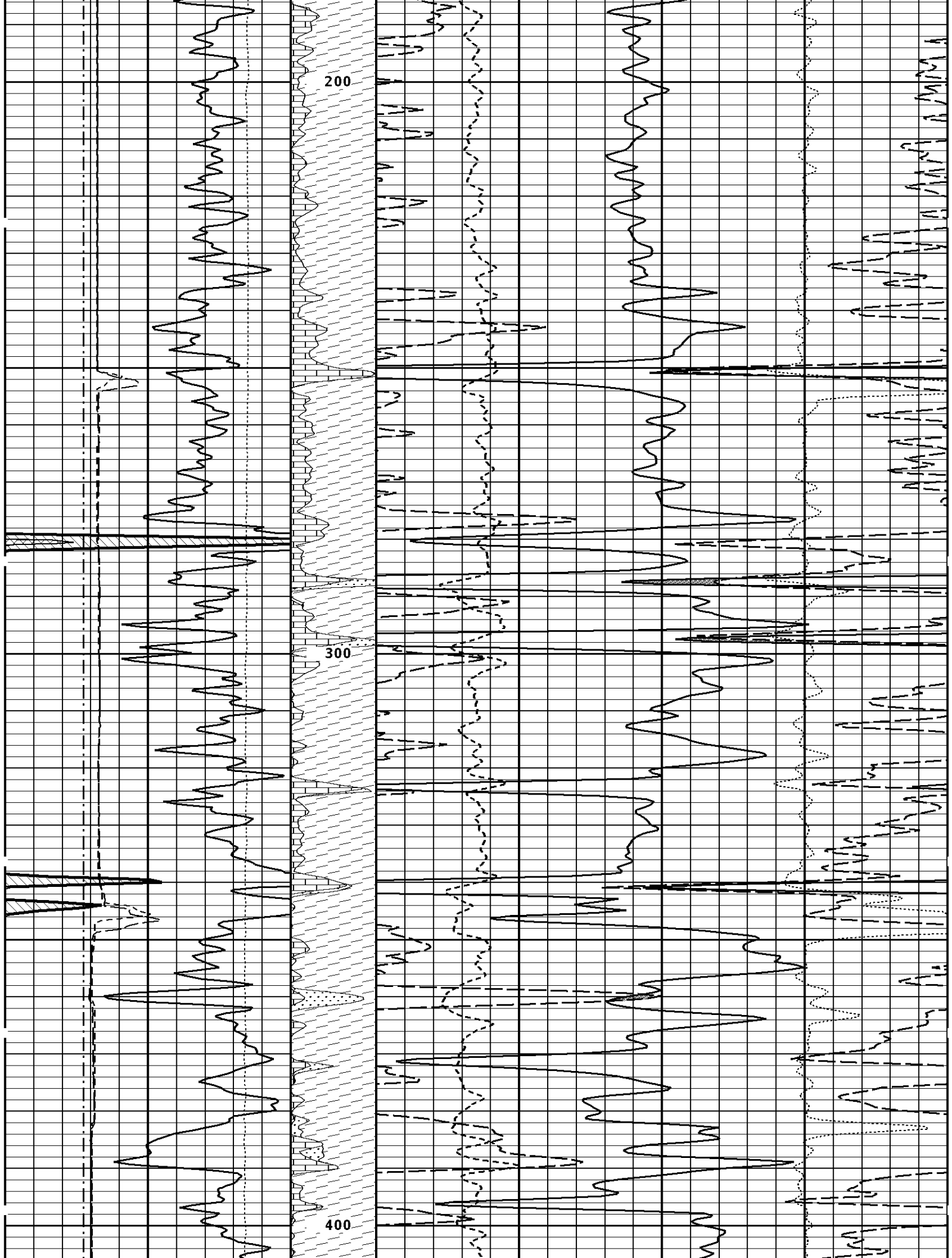
Volume
Dolo/Shale

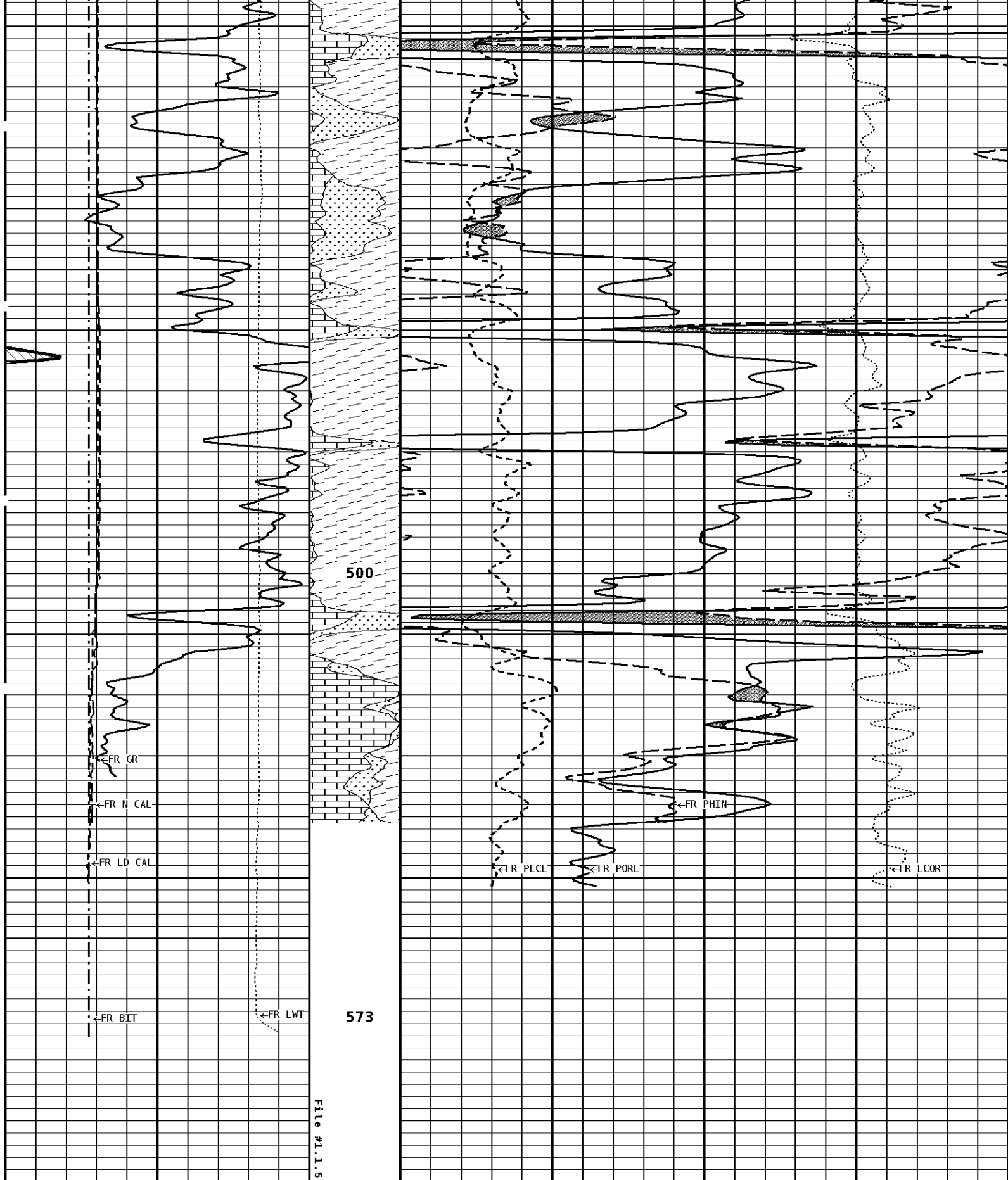
**DENSITY POROSITY
PERCENT (2.71 g/cc)**

70 30
30 -10
-10 -50

1:240 MAIN SECTION







1:240 MAIN SECTION

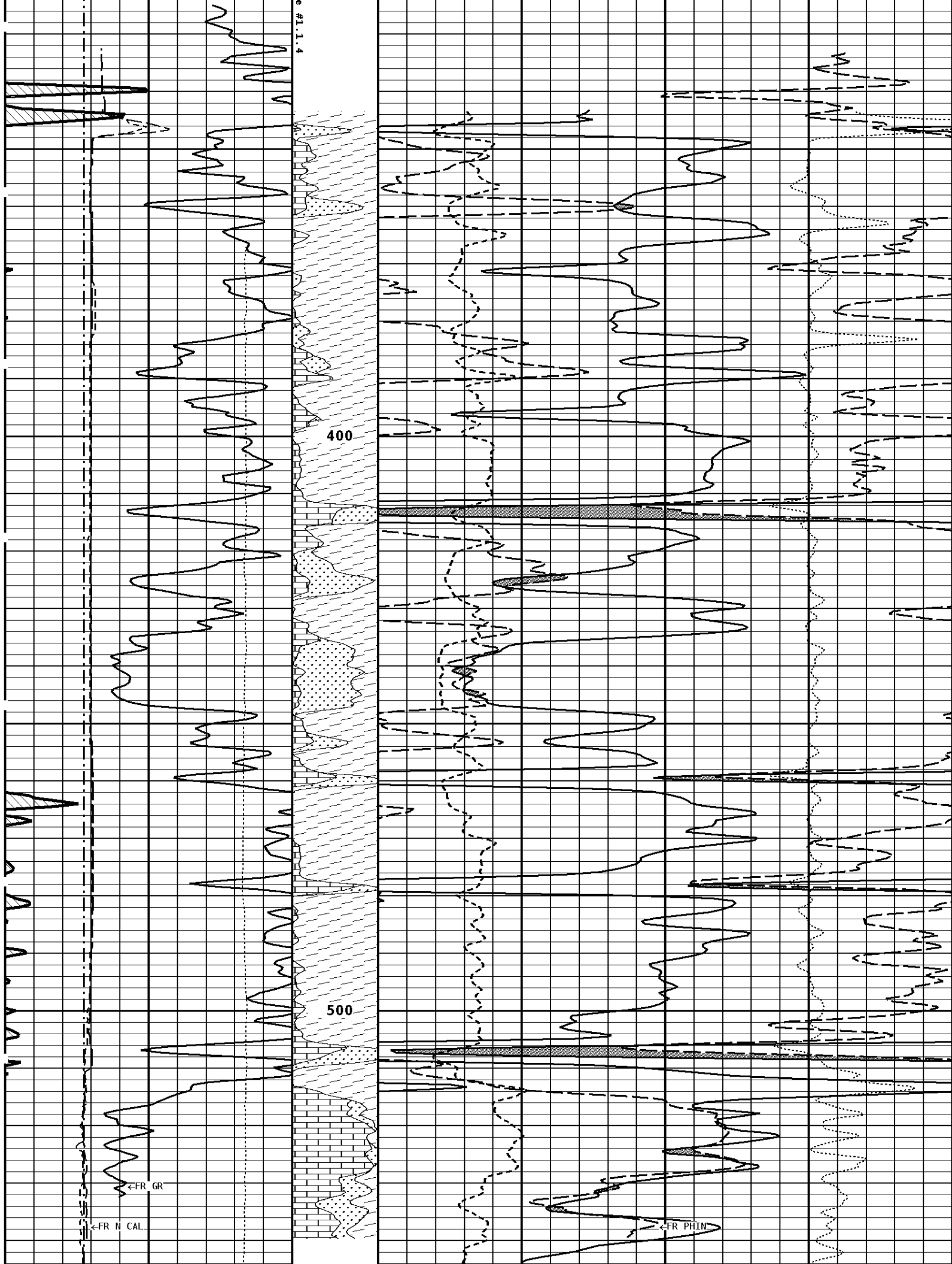
GAMMA RAY

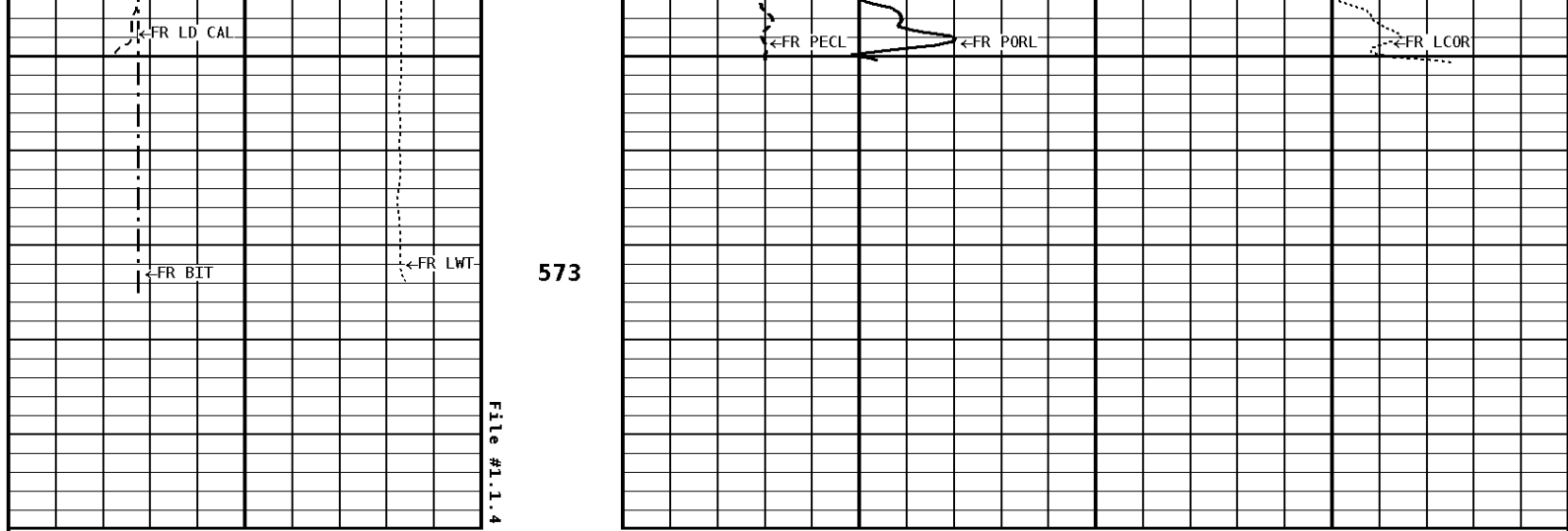
Volume

DENSITY POROSITY

[illegible]

#1.1.4





1:240 REPEAT SECTION

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

* Borehole Zone Factors *

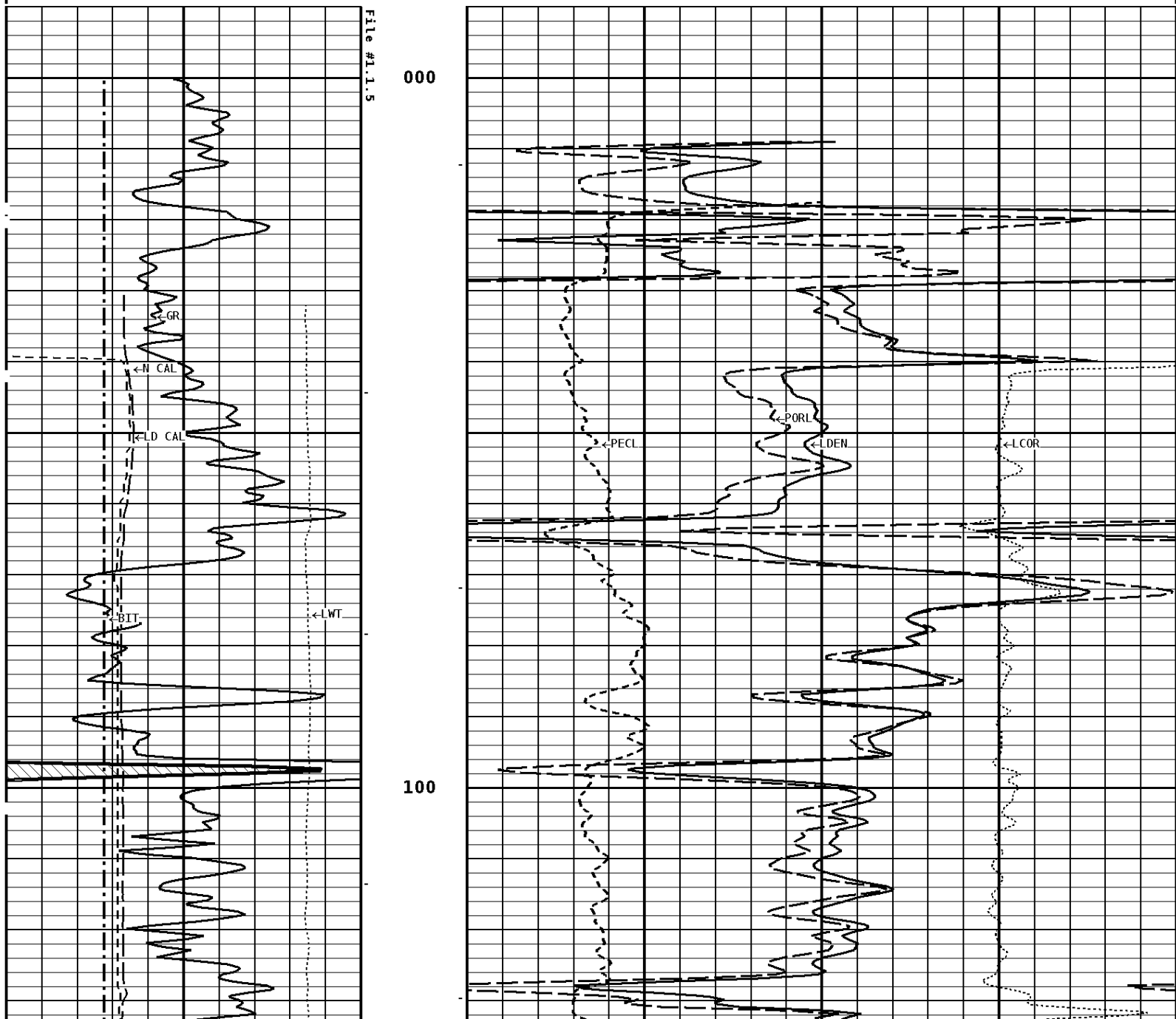
Zone 1 99999.0 to 0.0 Feet		
Matrix Density		2.71 g/cc
Fluid Density		1.00 g/cc
Formation Matrix		Limestone
Drill Bit Size		6.750 in
Casing Diameter		4.500 in
Casing Correction (PHI N)		Disable

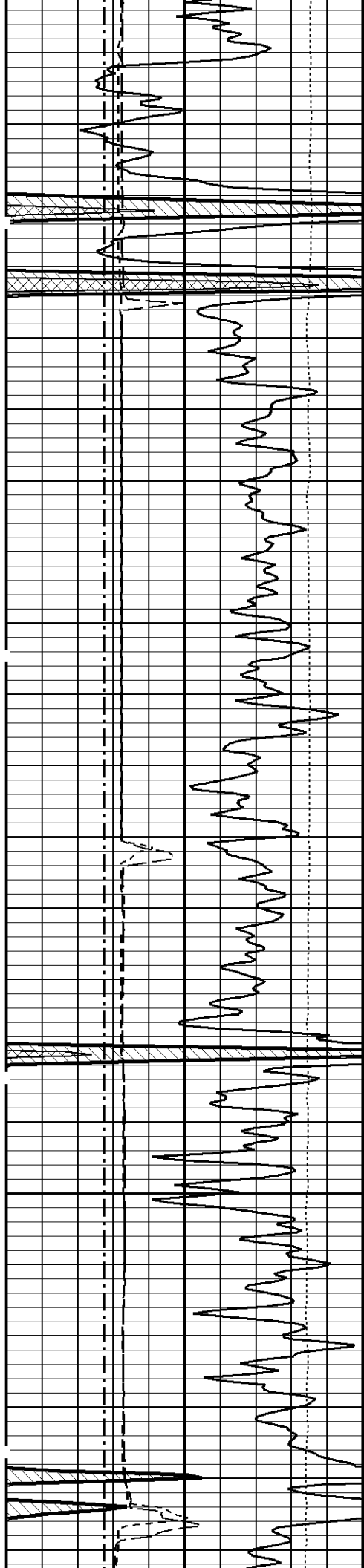
Well File: rfp_11-36a-4 aug_22_stk	Scale: 1:240
Segment: V1.D1.S5 MN-RE	Acquired: 2011-08/22 13:34 3.2.0-9963
Reference: 0	Processed: 2011-08/22 14:21 3.2.0-9963

TENSION LBS
10000
0
BIT SIZE INCHES (IN)

4	14		
DENSITY (X) CALIPER INCHES (IN)		PE CROSS-SECTION BARN/ ELECTRON	DENSITY CORRECTION G/CC
14	24	0	10 -0.25 0.25
4	14	DENSITY POROSITY PERCENT (2.71 g/cc)	
NEUTRON (Y) CALIPER INCHES (IN)		70	30
14	24	30	-10
4	14	-10	-50
GAMMA RAY API UNITS		COMPENSATED BULK DENSITY G/CC	
200	400	3.0	4.0
0	200	2.0	3.0
		1.0	2.0

1:240 MAIN SECTION
BULK DENSITY



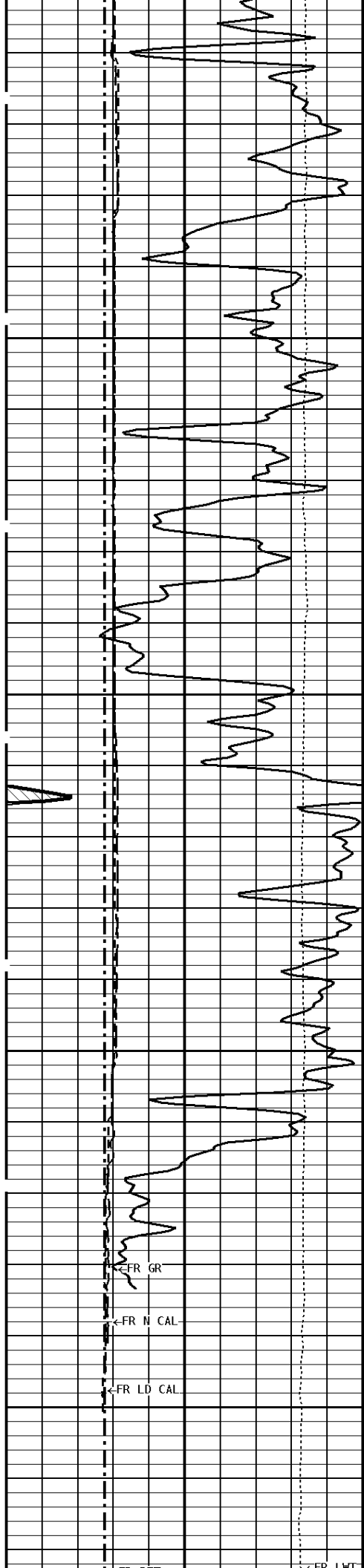


--100Cu.Ft

200

300





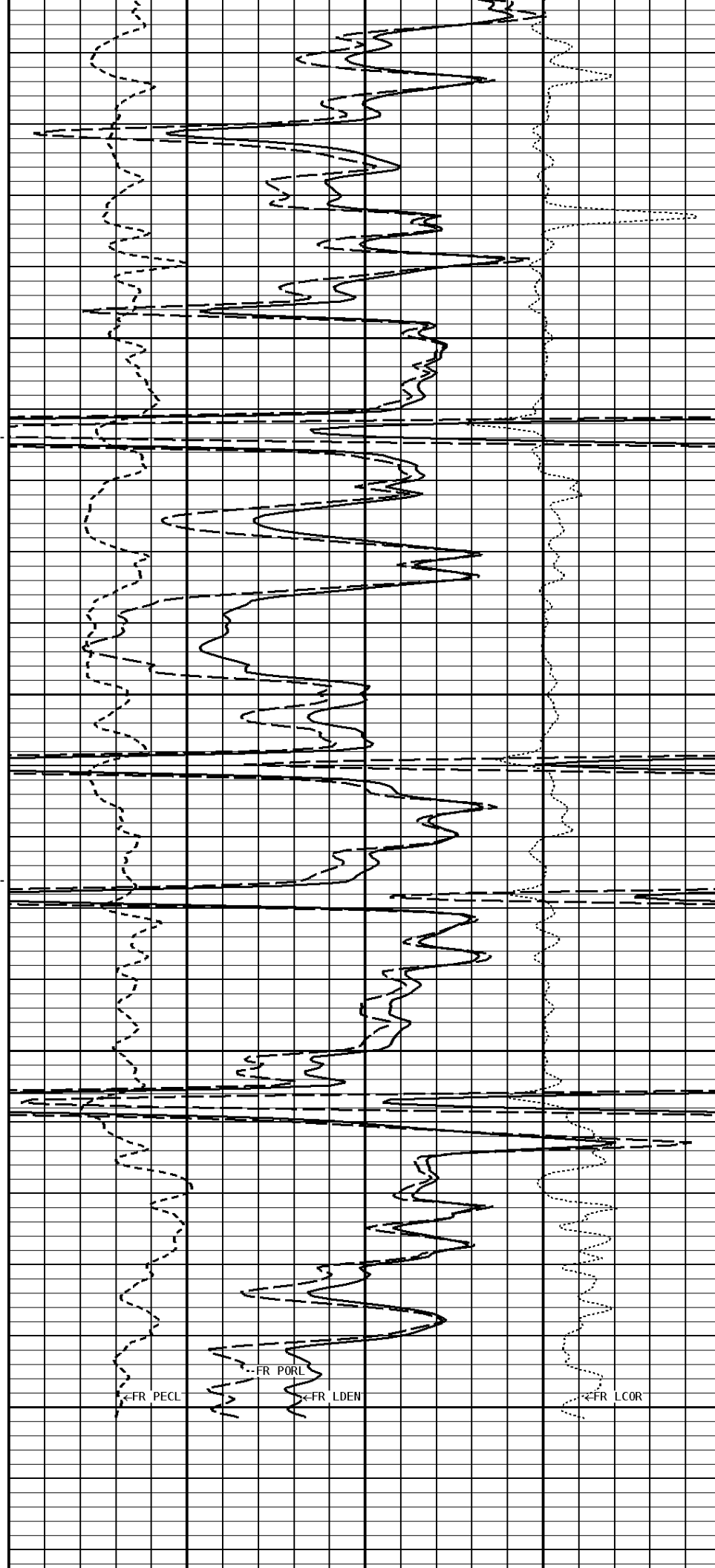
400

500

←FR GR

←FR N CAL

←FR LD CAL



←FR PECL

←FR PORL

←FR LDEN

←FR LCOR

572

1:240 MAIN SECTION BULK DENSITY

GAMMA RAY API UNITS		- BHV AHV - CU. FT	COMPENSATED BULK DENSITY G/CC		
200 0	400 200		3.0 2.0	4.0 3.0	
			1.0	2.0	
NEUTRON (Y) CALIPER INCHES (IN)			DENSITY POROSITY PERCENT (2.71 g/cc)		
14 4	24 14		70 30	30 -10	
-----			-10	-50	
DENSITY (X) CALIPER INCHES (IN)			PE CROSS-SECTION BARNs/ELECTRON		
14 4	24 14		DENSITY CORRECTION G/CC		
-----		0	10	-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_____	4.500	in
Casing Correction (PHI N)_____	Disable	

*** Calibration Summary ***

Shop Calibration					
GRT-B					
Performed : 29-Apr-2010			Time : 11:02		
Sensor Suite : GR-GR5			ID : GRT-BC-41		
	Measured		Units	Calibrated	
	Background	Jig		Jig	Units
GR	46	346	CPS	175	GRAPI
Shop Calibration					
CNT-AA					
Performed : 30-APR-2011			Time : 18:55		
Sensor Suite : CALI-BCN			ID : NDT-AC-027		
	Jig - Measured			Jig - Calibrated	
	Ring#1	Ring#2		Ring#1	Ring#2
CL # 1	7.3	14.1		6.0	12.0
					IN.
Performed : 15-Jul-2011			Time : 11:29		
Sensor Suite : BHC NEUT			ID : CNP-AA-024		

Source ID : N-1046					
	Tank		Verification		Units
	Measured	Calibrated	Jig		
N/F	3.8791	3.6893	3.6842		
Porosity	23.5	20.5	20.4		%
Shop Calibration					
LDT-DF					
Performed : 26-APR-2011			Time : 13:10		
Sensor Suite : CALI-LTH			ID : PDT-GA-464		
	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	6.9	10.3	6.0	12.0	IN.
Performed : 15-Jul-2011			Time : 10:34		
Sensor Suite : BHCPELNG			ID : LDP-DA-066		
Source ID : 2991GW					
Short Space					
	BKGD	Al	Mg	Al+Fe	Units
LSW1	70	1133	1834	740	CPS
LSW2	73	1332	2113	975	CPS
LSW3	270	3079	4974	2624	CPS
LSW4	329	2745	3958	2401	CPS
LSW5	31	57	65	54	CPS
LSW6	89	94	92	96	CPS
LSW7	57	63	62	63	CPS
LSW8	2	4	6	4	CPS
QS	0.221	0.202	0.192	0.212	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC
Long Space					
	BKGD	Al	Mg	Al+Fe	Units
LLW1	103	1228	5073	754	CPS
LLW2	116	2197	8637	1609	CPS
LLW3	435	4122	15628	3575	CPS
LLW4	561	1988	6291	1797	CPS
LLW5	59	73	130	69	CPS
LLW6	181	174	167	178	CPS
LLW7	114	112	107	111	CPS
LLW8	3	7	18	6	CPS
QL	0.224	0.218	0.216	0.230	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC