



PIONEER

Pioneer Energy Services

DUAL COMP POROSITY LOG

Company **LEBSACK OIL PRODUCTION INC.**
Well **GARDEN CITY #10-12**
Field **TANKER**
County **FINNEY**
State **KANSAS**

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Location: API #: 15-055-22494-00-00

Other Services

SEC 12 TWP 22S RGE 34W
440' FSL & 330' FEL

DIL/MEL

Permanent Datum **GROUND LEVEL** Elevation **2906'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Elevation
K.B. 2919'
D.F. N/A
G.L. 2906'

Date **08/13/2018**

Run Number **ONE**

Type Log **CNL/CDL**

Depth Driller **4848'**

Depth Logger **4840'**

Bottom Logged Interval **4811'**

Top Logged Interval **3600'**

Type Fluid In Hole **CHEMICAL**

Salinity, PPM CL **2700**

Density **9.25**

Level **FULL**

Max. Rec. Temp. F **124**

Operating Rig Time **3 HOURS**

Equipment -- Location **91 HAYS**

Recorded By **C. PFEIFER**

Witnessed By **JOSH AUSTIN**

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	435'	8.625"	23#	0'	435'
TWO	7.875"	435'	TD				

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

SCOTT CITY, KANSAS
SOUTH TO TENNIS ROAD, 6 MILES WEST,
1 MILE SOUTH,
WEST INTO

Log Measured From: **KELLY BUSHING** 13 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew

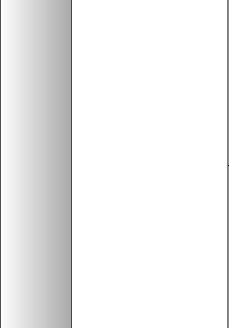
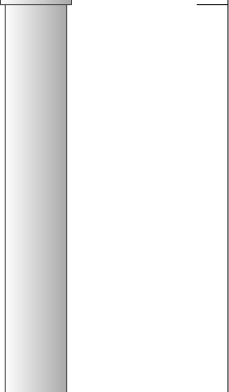
Engineer: **C. PFEIFER**
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: **JOSH AUSTIN**
Secondary Witness:
Secondary Witness:
Secondary Witness:

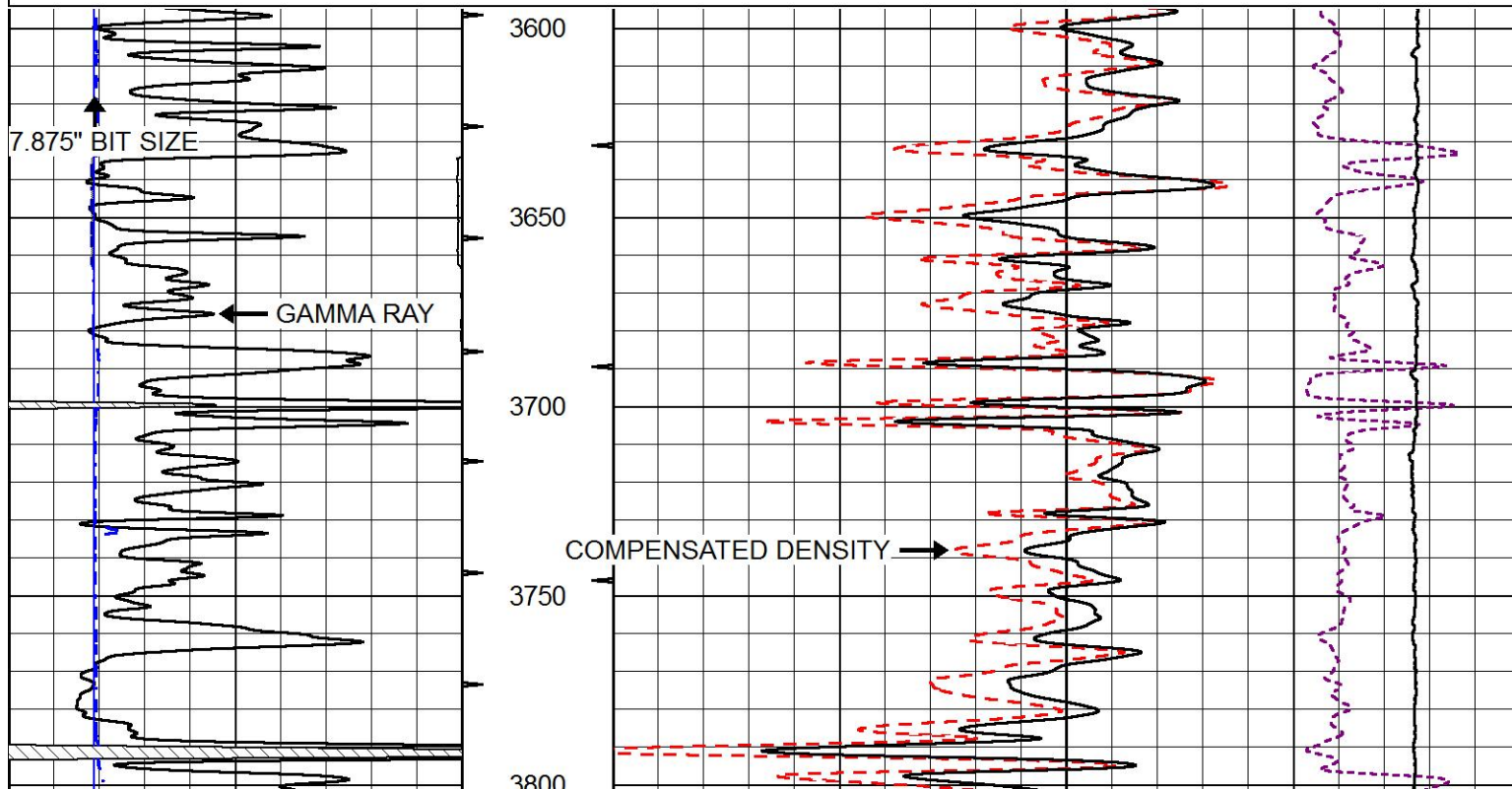
Top - Bottom

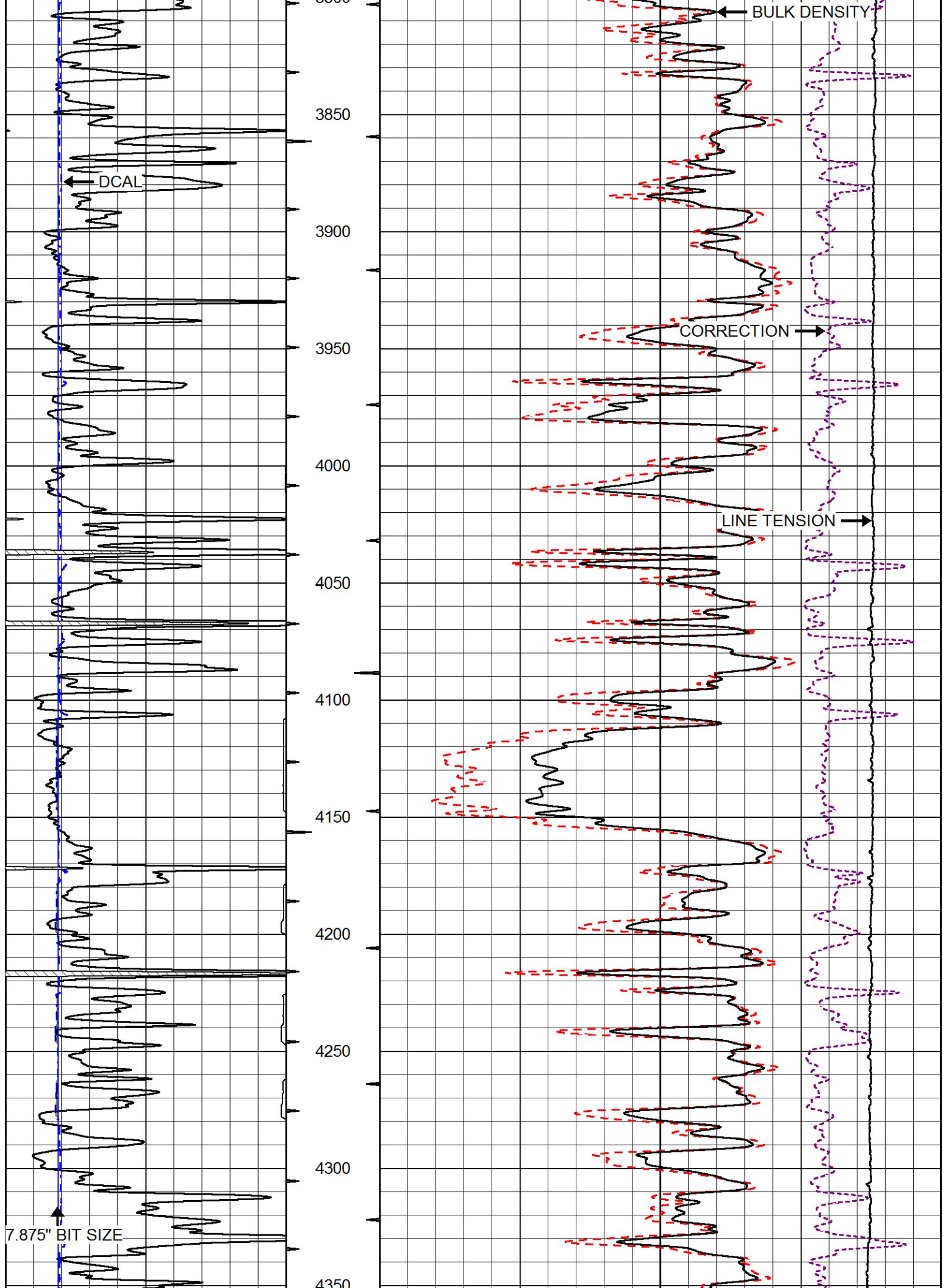
M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	448	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
11	71	0	5.5	0	4840	124	7.875

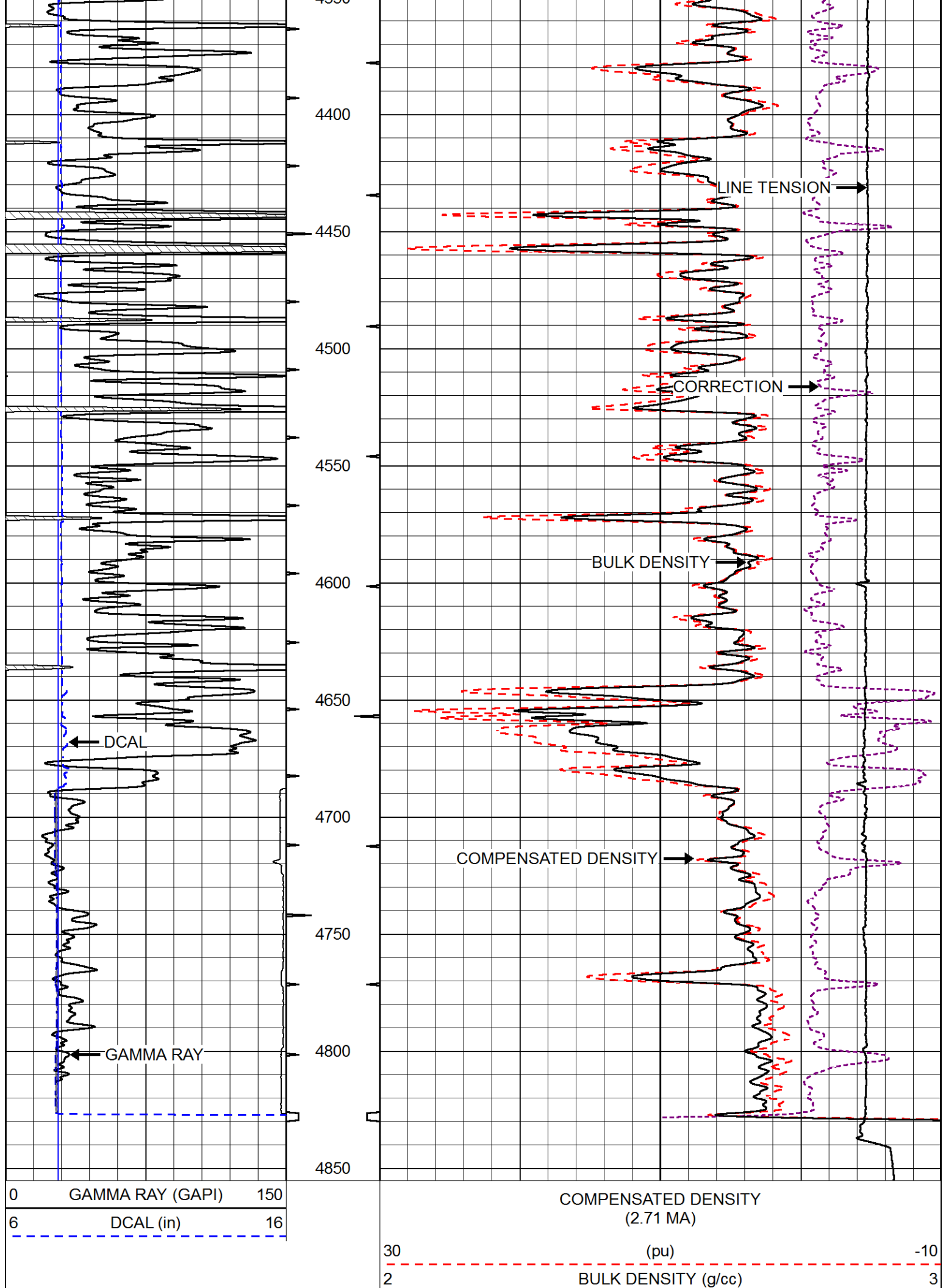
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (797-152)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80					

			DIL-PSI HIGH TEMP (967 (HT))	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					
Dataset: lebsack_gardencity_10_12.db: field/well/STKML/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in						

			MAIN PASS		
Database File lebsack_gardencity_10_12.db Dataset Pathname STKML/pass3.1 Presentation Format cdl Dataset Creation Mon Aug 13 08:40:52 2018 Charted by Depth in Feet scaled 1:600					
0	GAMMA RAY (GAPI)	150	COMPENSATED DENSITY (2.71 MA)		
6	DCAL (in)	16			
			30	(pu)	-10
			2	BULK DENSITY (g/cc)	3
			15000	LINE TENSION (lb)	0
			-0.25 CORRECTION (g/cc) 0.25		







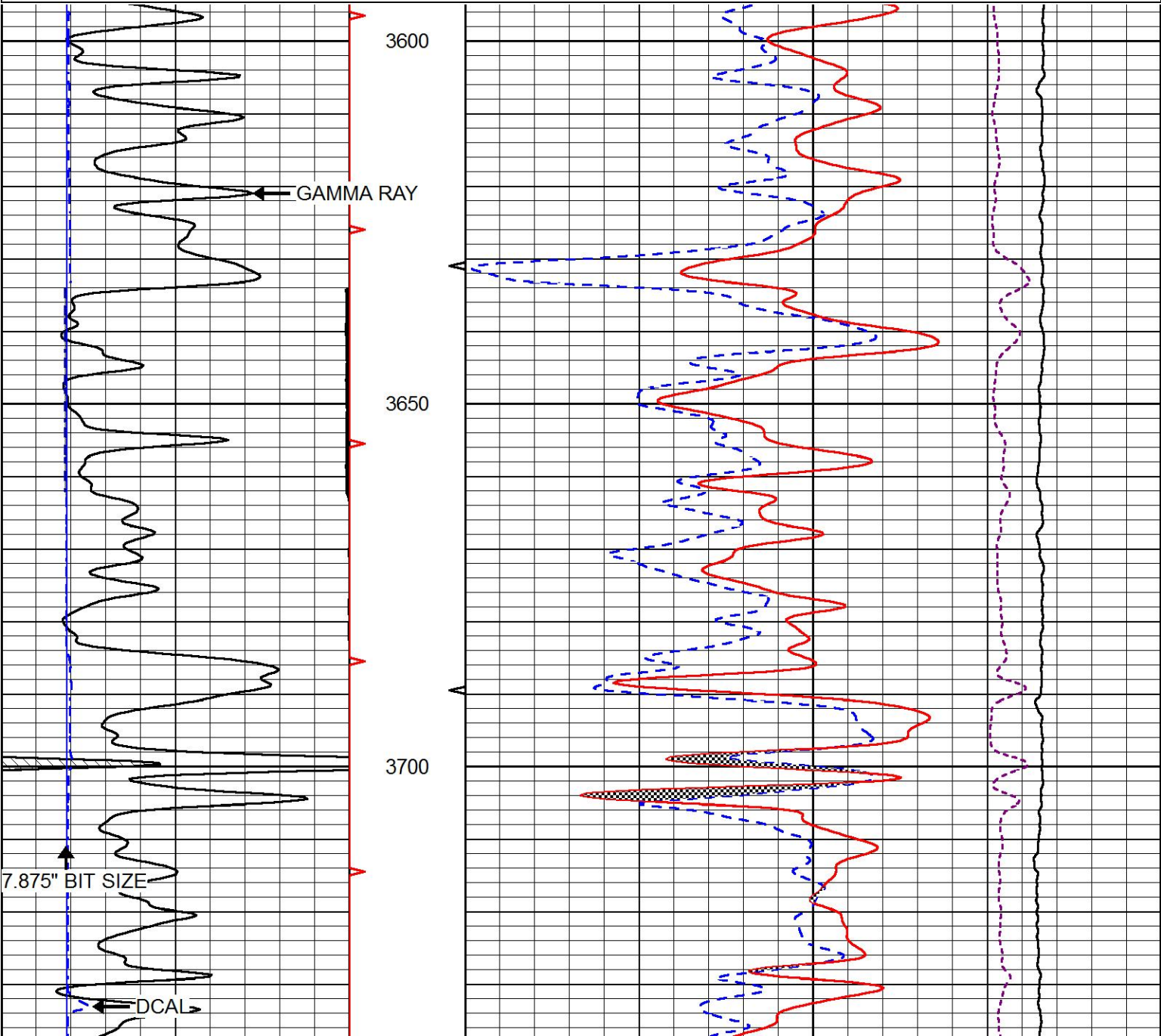
15000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25

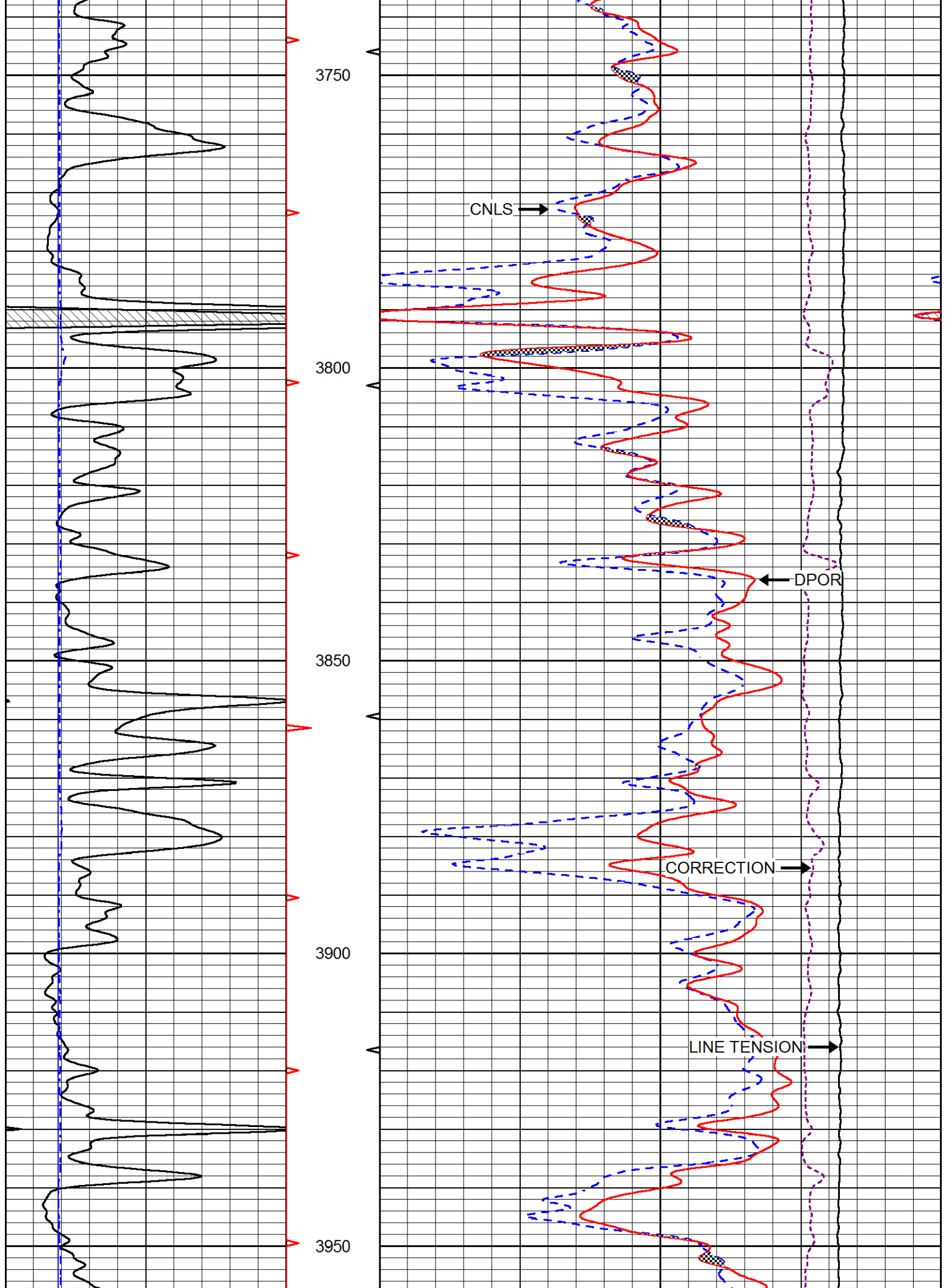


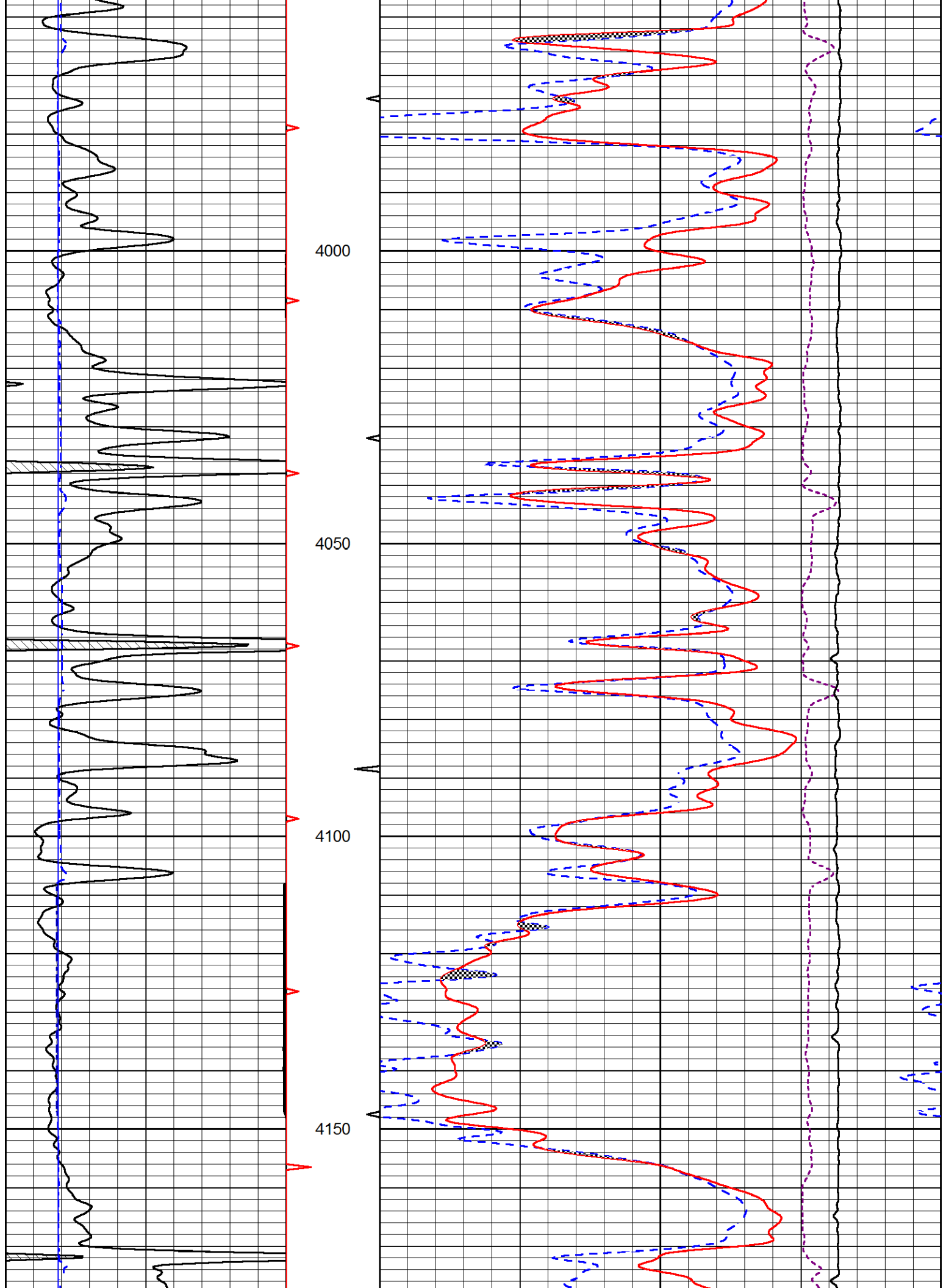
MAIN PASS

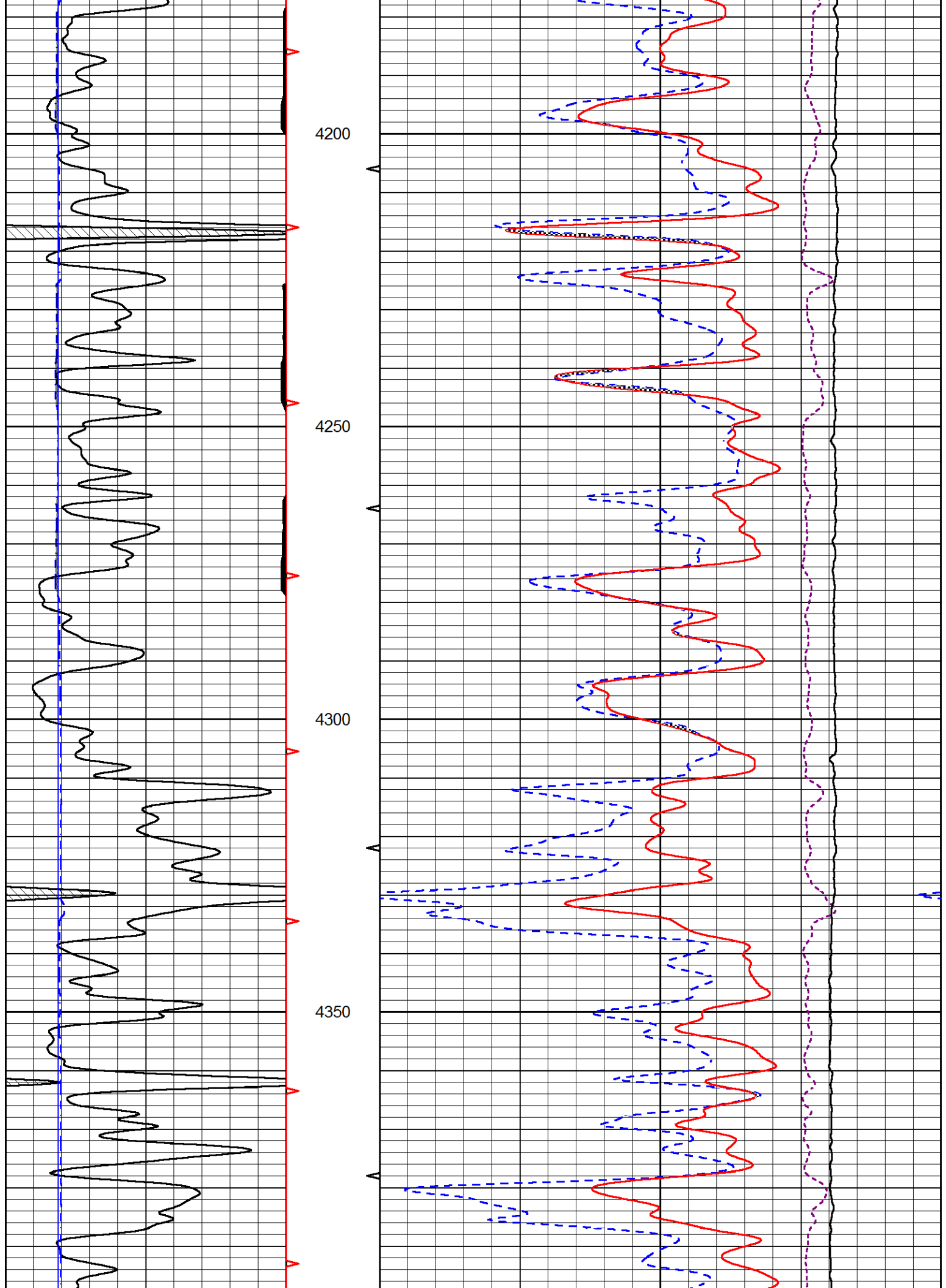
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Dataset Pathname	STKML/pass3.1
Presentation Format	cnlspec
Dataset Creation	Mon Aug 13 08:40:52 2018
Charted by	Depth in Feet scaled 1:240

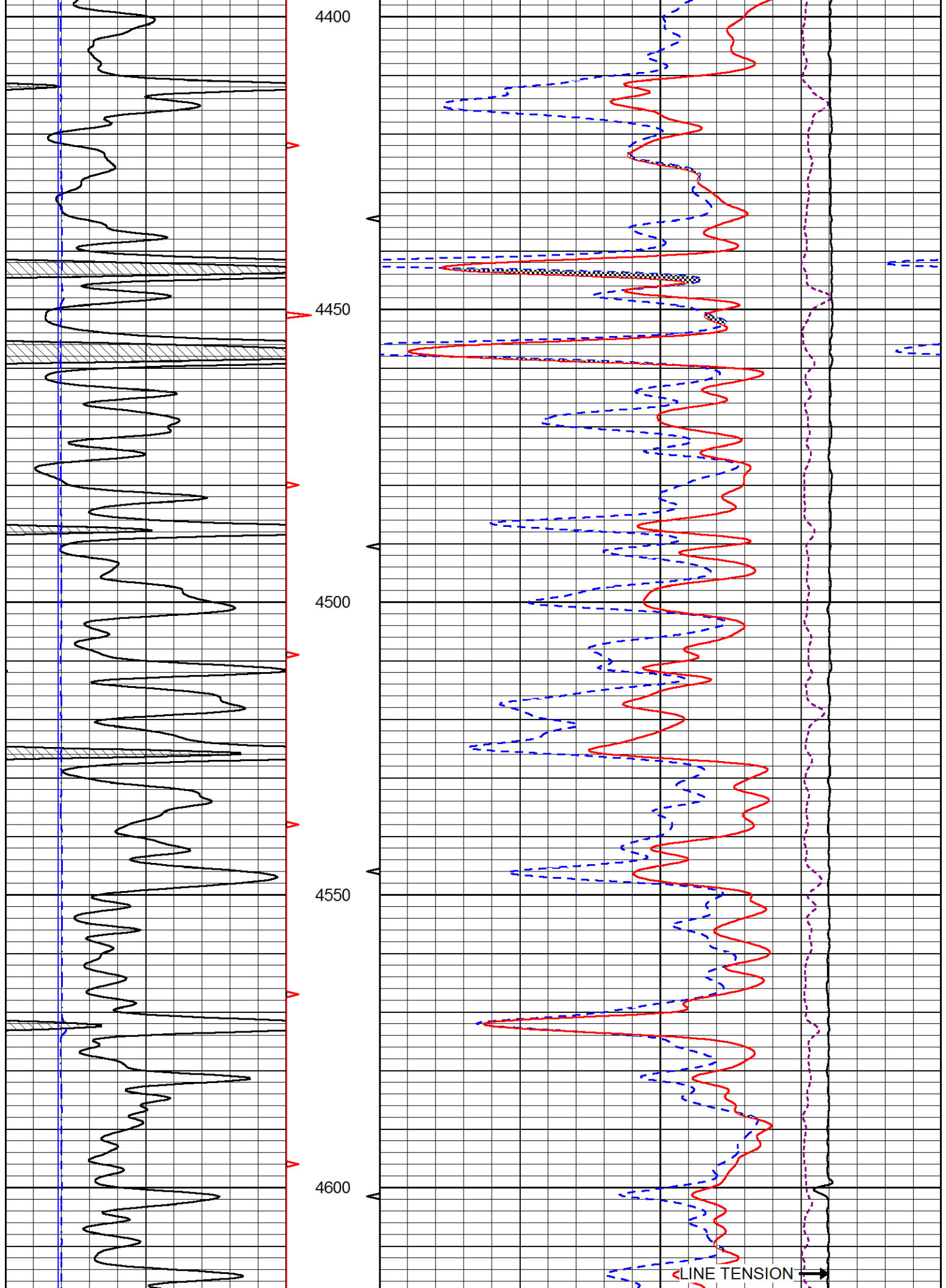
0	GAMMA RAY (GAPI)	150	30	CNLS (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
			10000	LINE TENSION (lb)	0
				-0.75	CORRECTION (g/cc)
					0.75

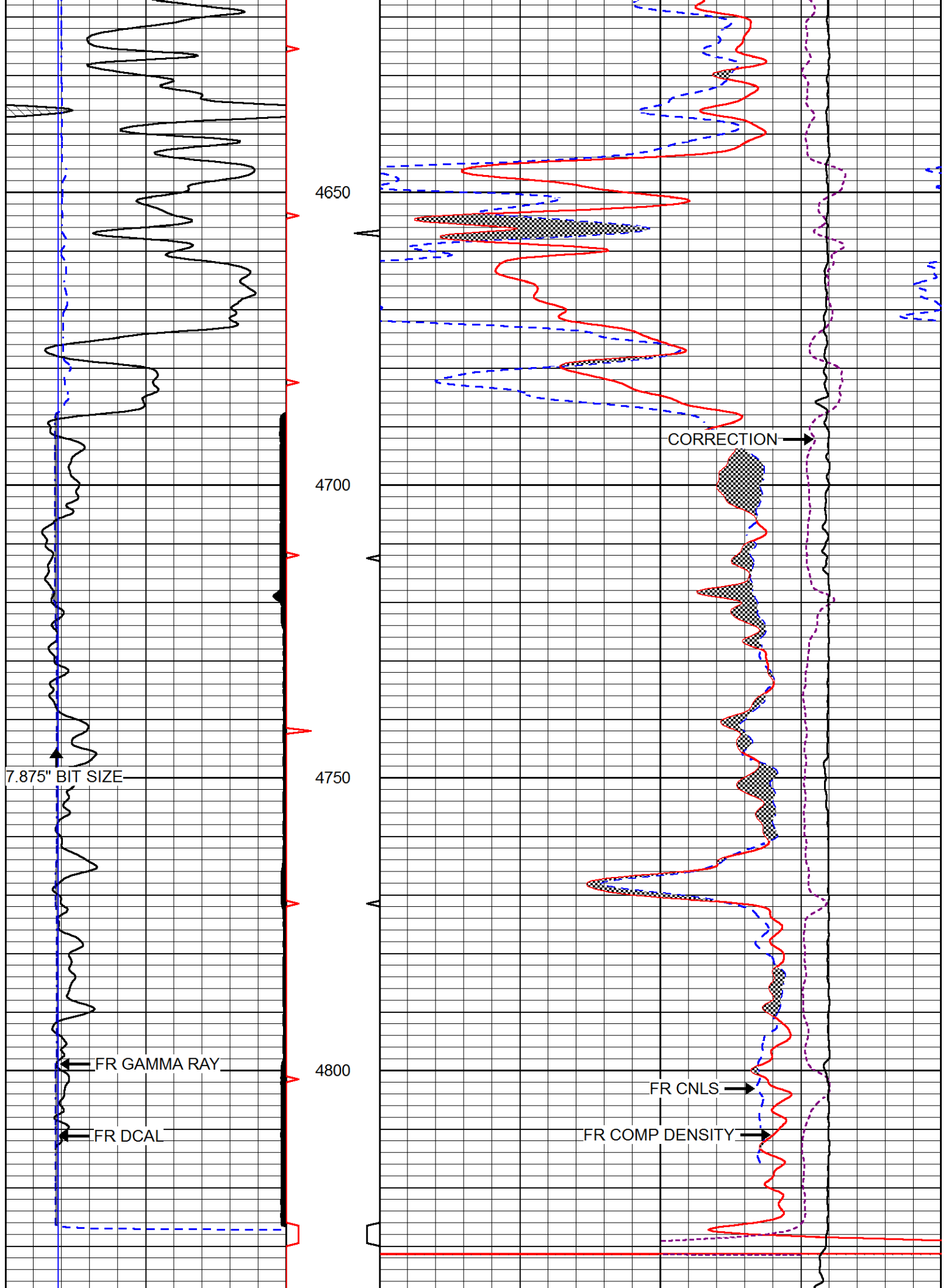


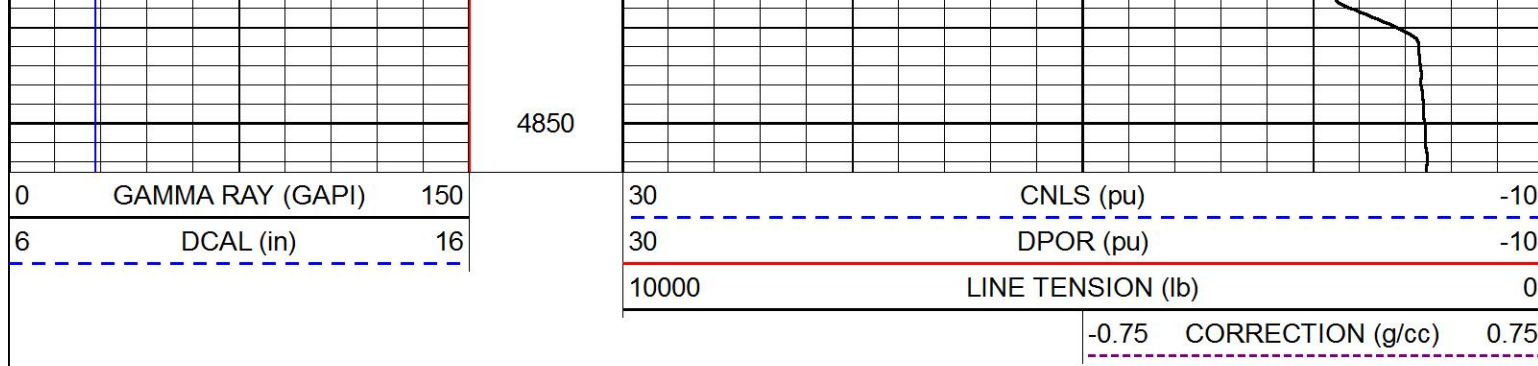






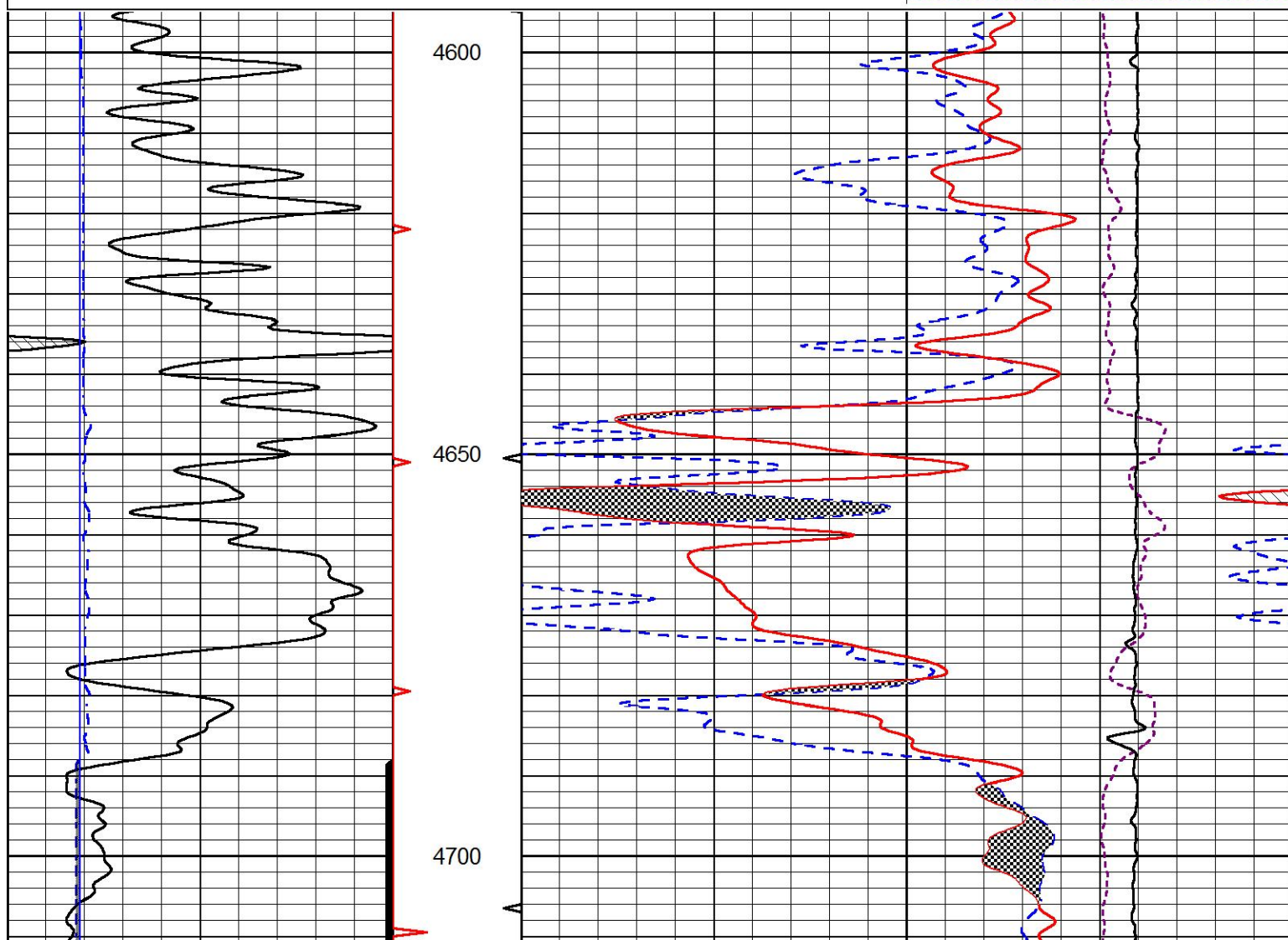
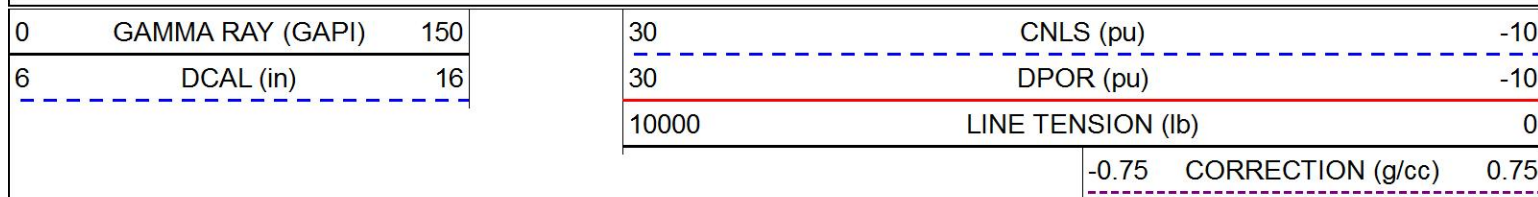


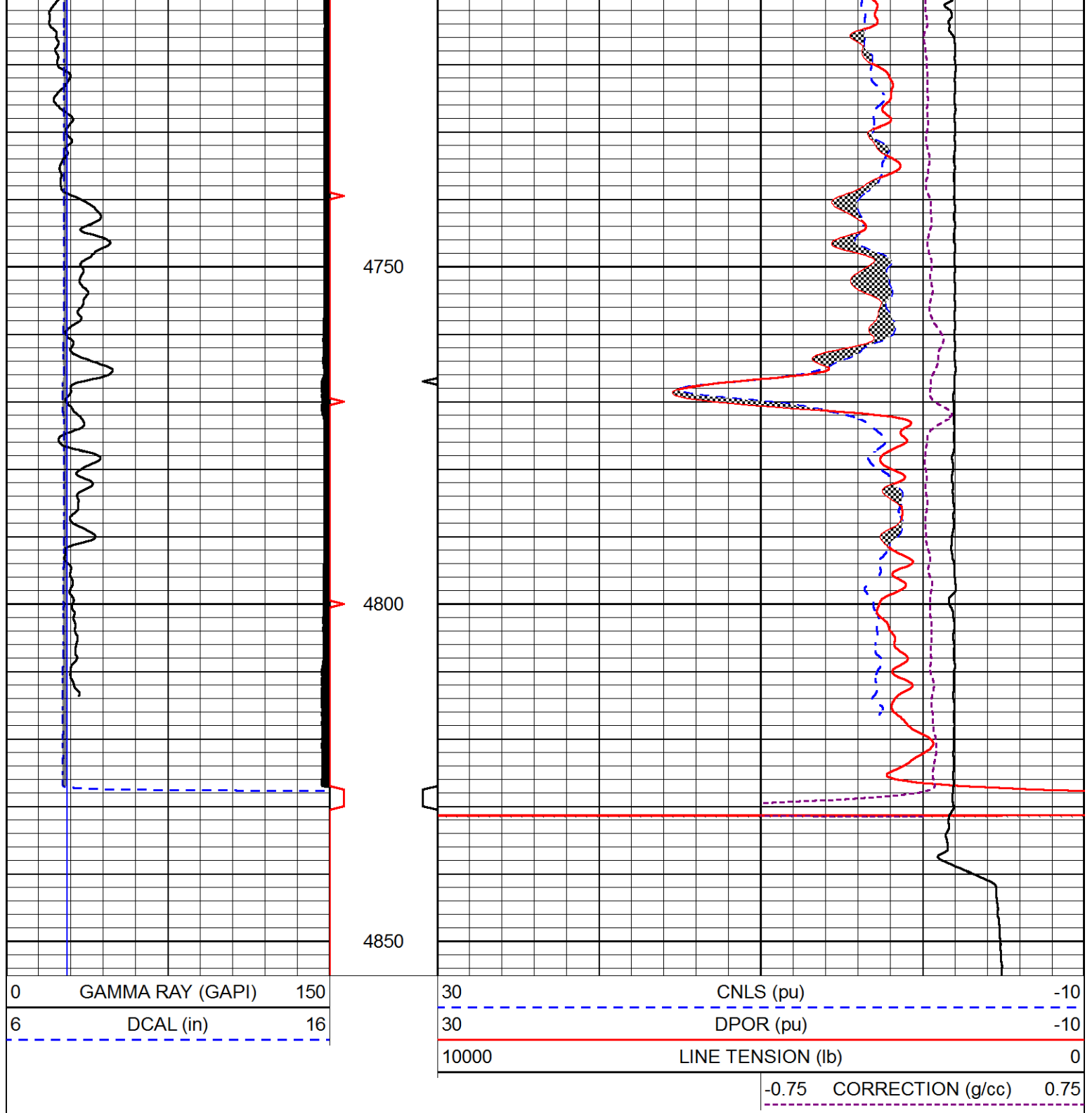




REPEAT SECTION

Database File	lebsack_gardencity_10_12.db
Dataset Pathname	STKML/pass2.1
Presentation Format	cnslspec
Dataset Creation	Mon Aug 13 08:58:02 2018
Charted by	Depth in Feet scaled 1:240





Calibration Report

Database File lebsack_gardencity_10_12.db
Dataset Pathname STKML/pass3.1
Dataset Creation Mon Aug 13 08:40:52 2018

Dual Induction Calibration Report

Serial-Model: 967 (HT)-PSI HIGH TEMP
Calibration Performed: Fri Mar 09 21:20:21 2018

Readings

Loop: Air Loop

References

Air Loop

Results

Gain Offset

Deep	167.000	835.000	0.000	255.800	mmho/m	0.565	-20.000
Medium	0.000	1348.000	142.000			0.390	-40.000

Microlog Calibration Report

Serial-Model: Performed:	PSI-01-PSIML Sun Jul 15 07:40:28 2018
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	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	20000.0000	-0.8000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	24000.0000	-0.6000
Caliper	1.0001	1.1397	6.5000	18.5000	in	70.0000	-65.9600

Compensated Density Calibration Report

Serial-Model: Source / Verifier: Master Calibration Performed:	797-152-M&W 16955B / 2ci Tue May 01 13:38:28 2018
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Master Calibration							
	Density			Far Detector		Near Detector	
Magnesium	1.755	g/cc		4933.40		5500.86	cps
Aluminum	2.650	g/cc		928.80		3521.29	cps
	Spine Angle = 75.04			Density/Spine Ratio = 0.518			
	Size			Reading			
Small Ring	5.00	in		1.09			
Large Ring	15.00	in		1.03			

Compensated Neutron Calibration Report

Serial Number: Tool Model: Calibration Performed:	207-MW M&W SUN JUL 15 10:30:30 2018
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Detector	Readings		Target		Normalization
Short Space	6240.00	cps	1000.00	cps	1.6025
Long Space	460.00	cps	1000.00	cps	1.9500

Gamma Ray Calibration Report

Serial Number:	89	
Tool Model:	M&W	
Calibration Performed:	Sun Jul 15 05:37:08 2018	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps



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Field	TANKER
County	FINNEY
State	KANSAS