



PIONEER

Pioneer Energy Services

DUAL COMP POROSITY LOG

Company CARMEN SCHMITT, INC.

Well WP UNIT #5-7

Field WILDCAT

County TREGO State KANSAS

Location: API #: 15-195-23053-00-00

2200' FSL & 2310' FWL

Other Services

SEC 7 TWP 14S RGE 25W

DIL/MEL

Permanent Datum GROUND LEVEL Elevation 2424'

Log Measured From KELLY BUSHING

Elevation

K.B. 2429'

D.F. N/A

G.L. 2424'

Date 05/21/2018

Run Number ONE

Type Log CNL/CDL

Depth Driller 4340'

Depth Logger 4343'

Bottom Logged Interval 4314'

Top Logged Interval 3400'

Type Fluid In Hole CHEMICAL

Salinity, PPM CL 2000

Density 9.3

Level FULL

Max. Rec. Temp. F 119

Operating Rig Time 3 HOURS

Equipment -- Location 91 HAYS

Recorded By IAN MABB

Witnessed By BRAD RINE

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	217'	8.625"	23#	0'	217'
TWO	7.875"	217'	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.

COLLYER KANSAS,
SOUTH TO U ROAD, WEST TO FIRST TANK BATTERIES,
NORTH INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

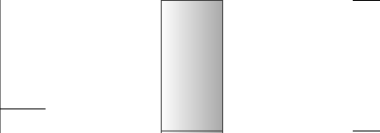
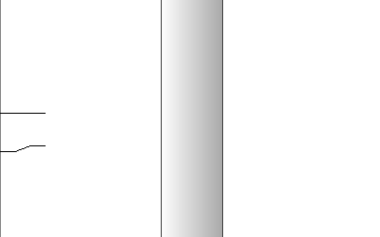
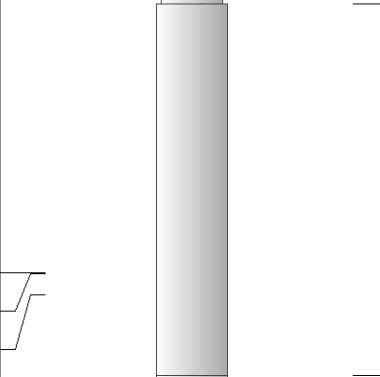
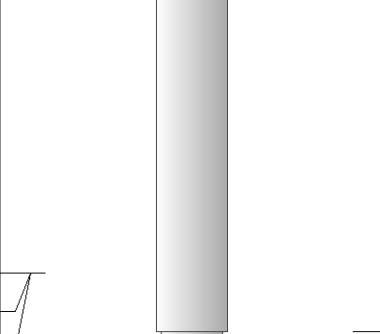
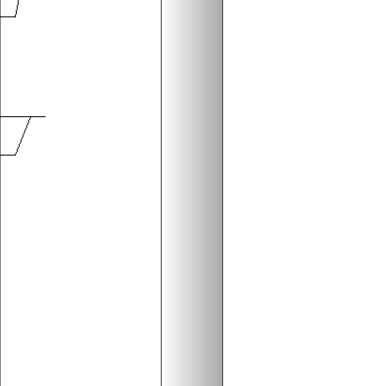
Engineer: IAN MABB
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: BRAD RINE
Secondary Witness:
Secondary Witness:
Secondary Witness:

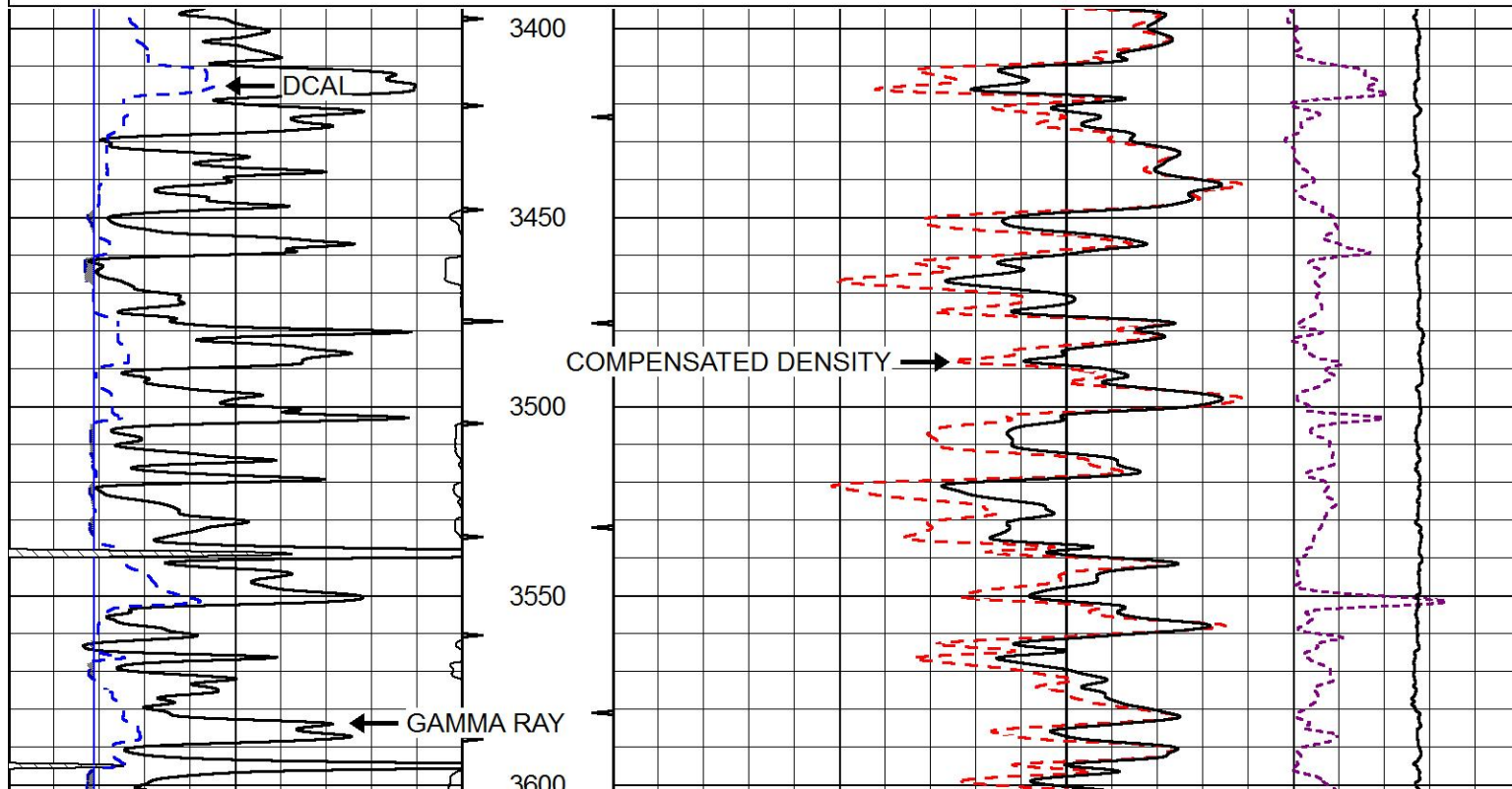
Top - Bottom

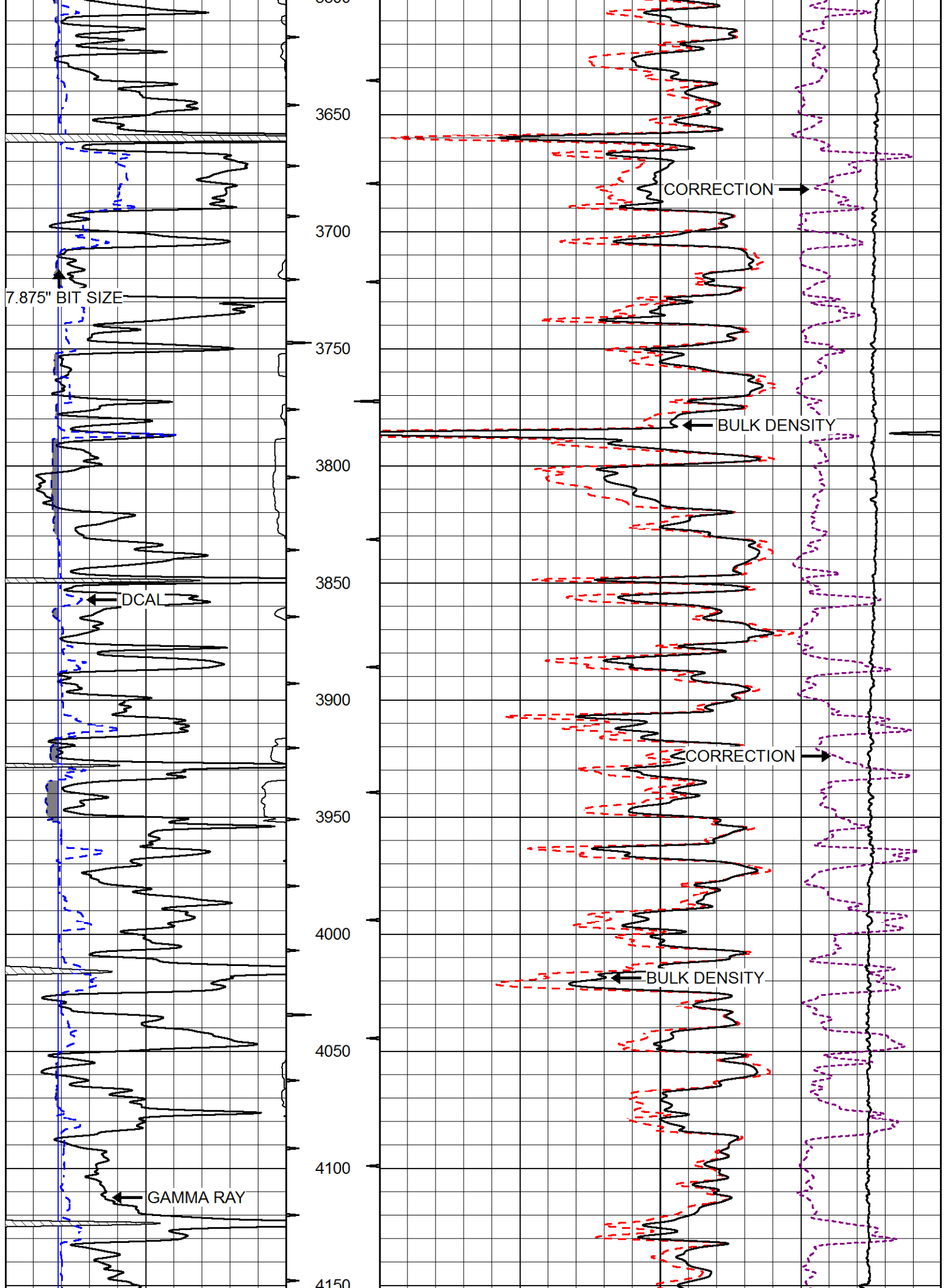
M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	0	0
SNDERR mmho/m 0	SRFTEMP degF 68	CASETHCK in 0	CASEOD in 5.5	PERFS 0	TDEPTH ft 4343	BOTTEMP degF 119	BOREID in 7.875

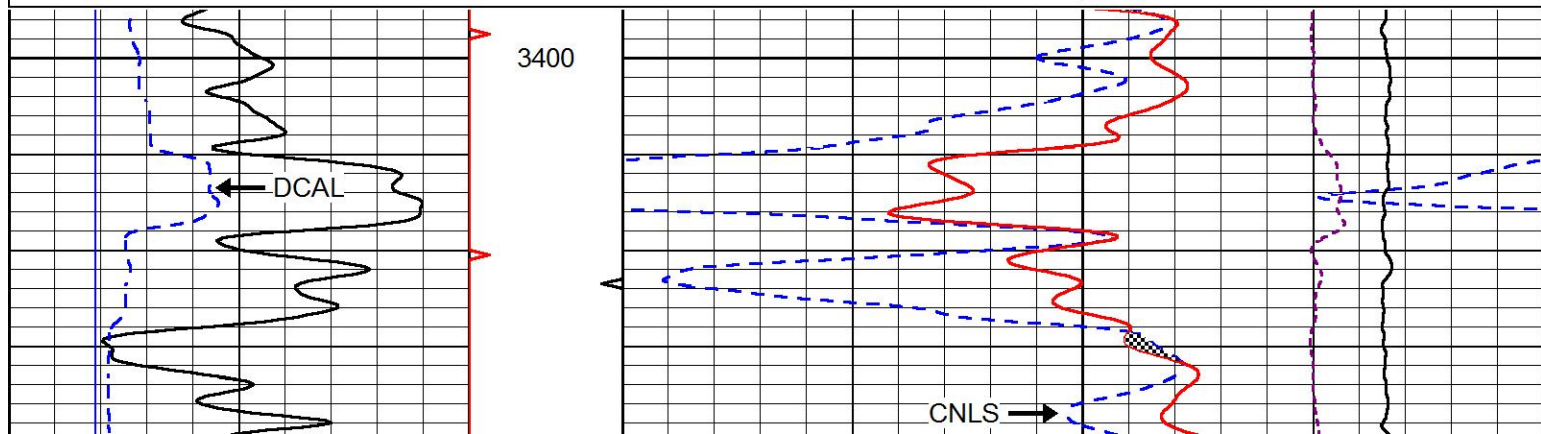
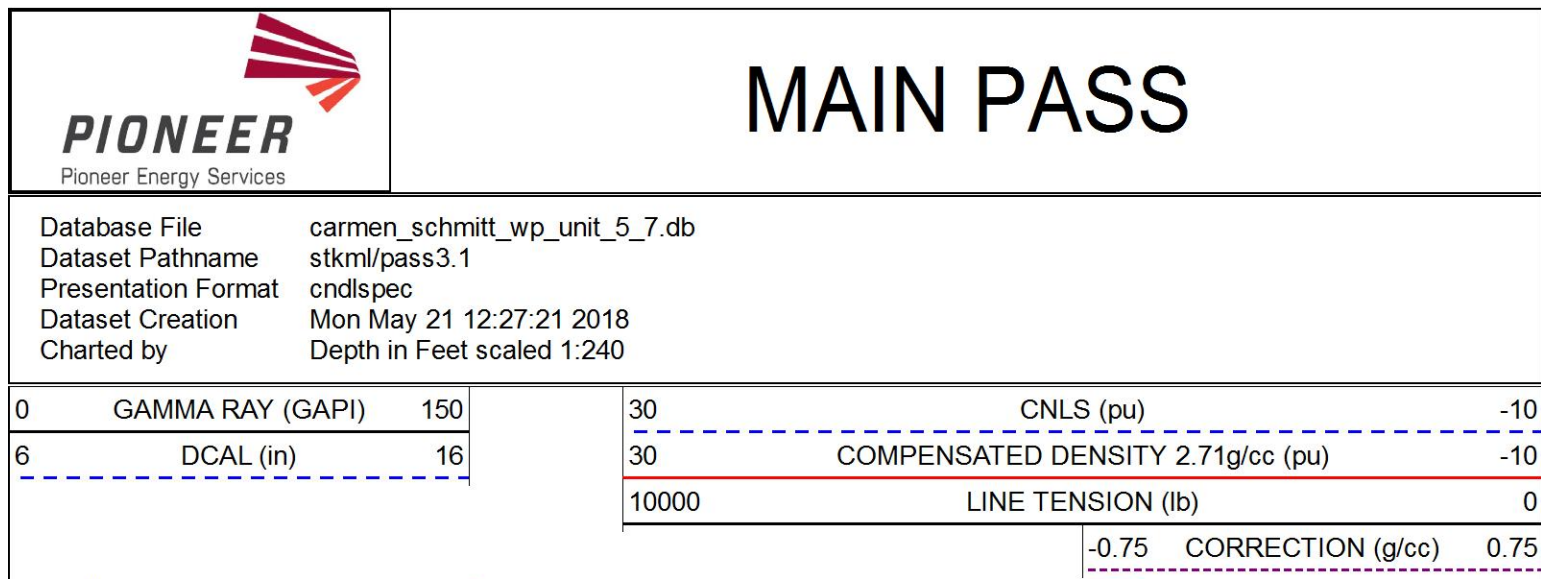
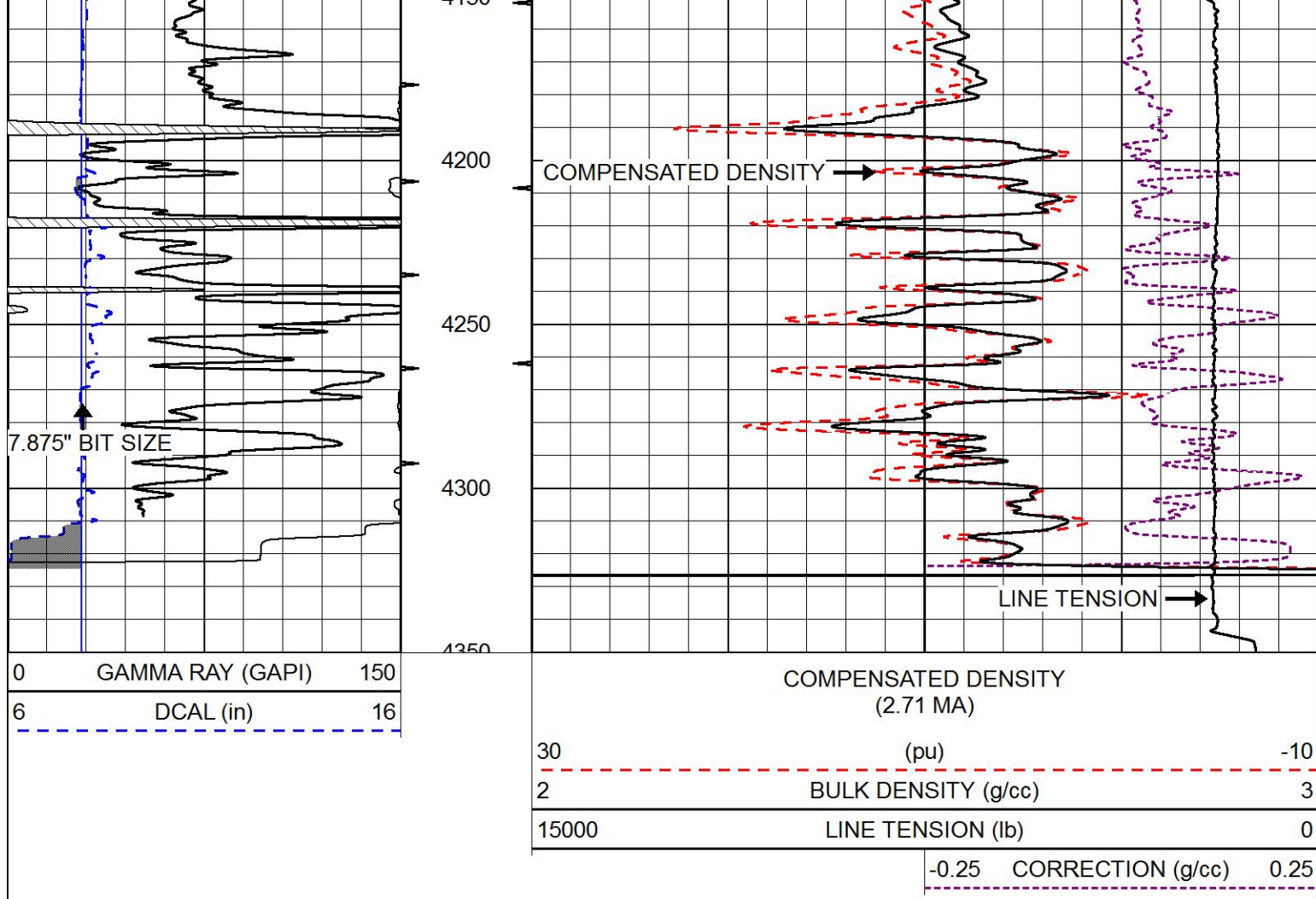
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (817-947)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80					

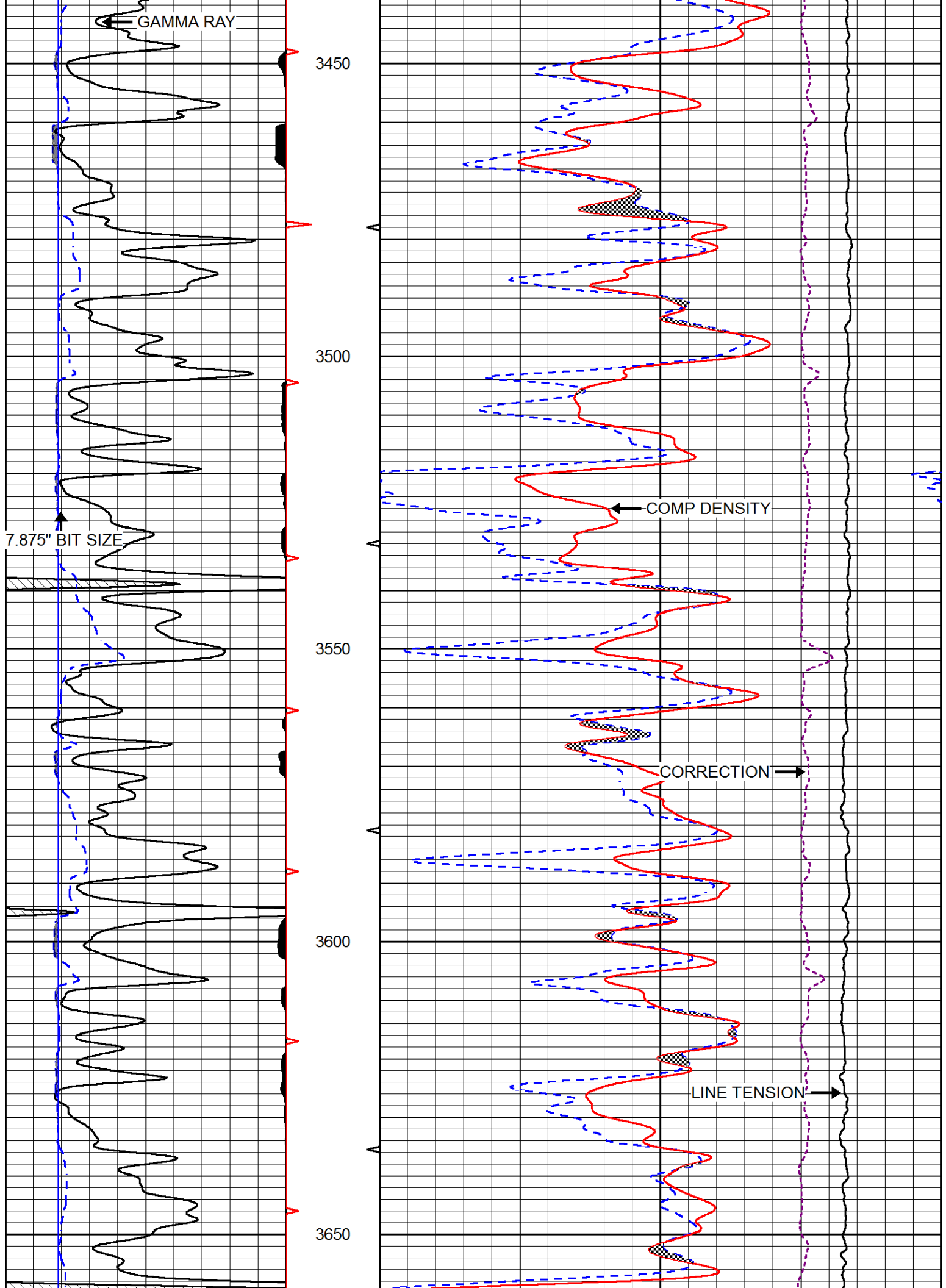
			DIL-PSI HIGH TEMP (933 (HT))	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					
Dataset: carmen_schmitt_wp_unit_5_7.db: field/well/stkml/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in						

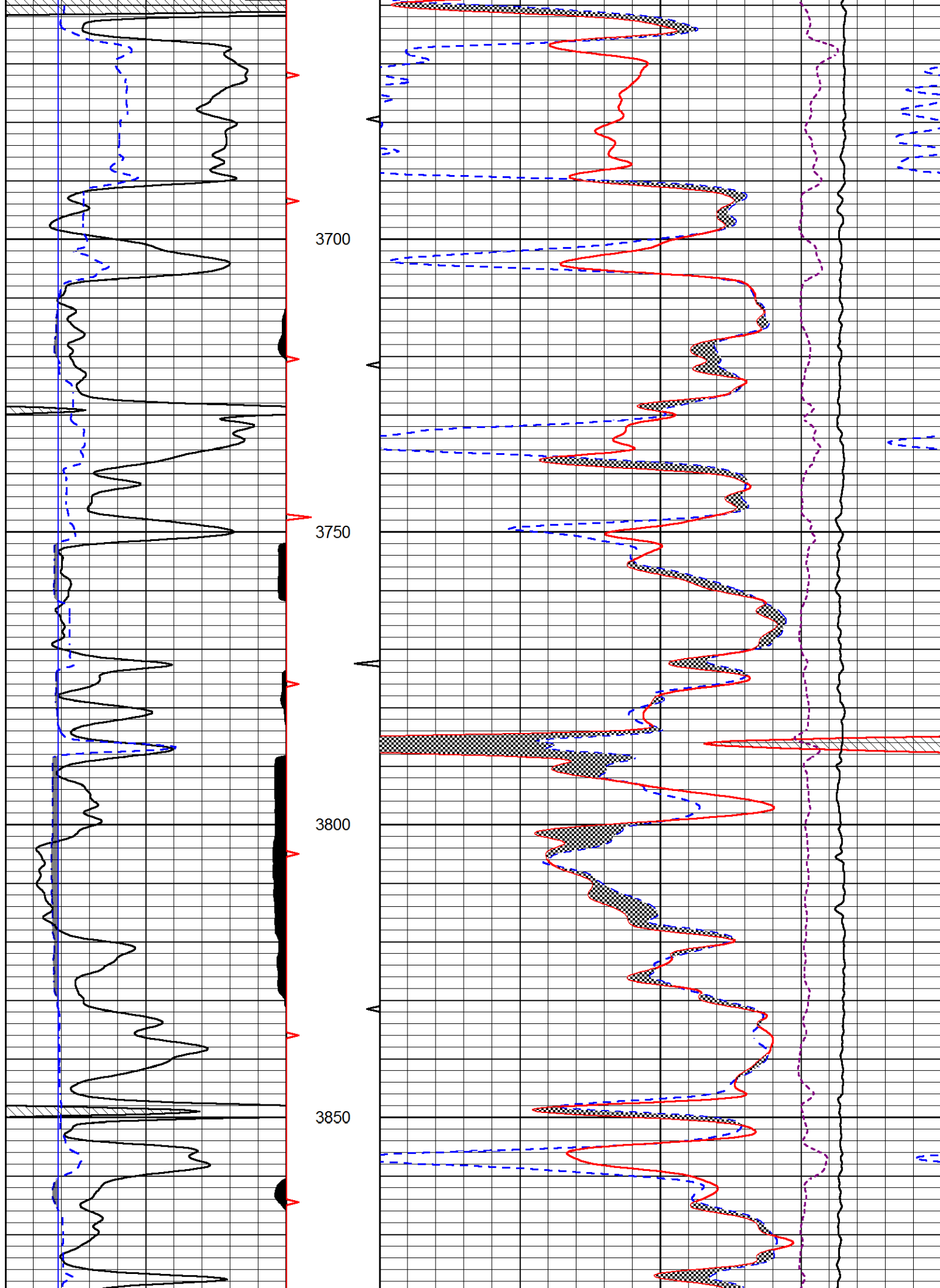
 PIONEER Pioneer Energy Services			MAIN PASS		
Database File		carmen_schmitt_wp_unit_5_7.db			
Dataset Pathname		stkml/pass3.1			
Presentation Format		cdl			
Dataset Creation		Mon May 21 12:27:21 2018			
Charted by		Depth in Feet scaled 1:600			
0	GAMMA RAY (GAPI)	150	COMPENSATED DENSITY (2.71 MA) 30 (pu) -10 2 BULK DENSITY (g/cc) 3 15000 LINE TENSION (lb) 0 -0.25 CORRECTION (g/cc) 0.25		
6	DCAL (in)	16			

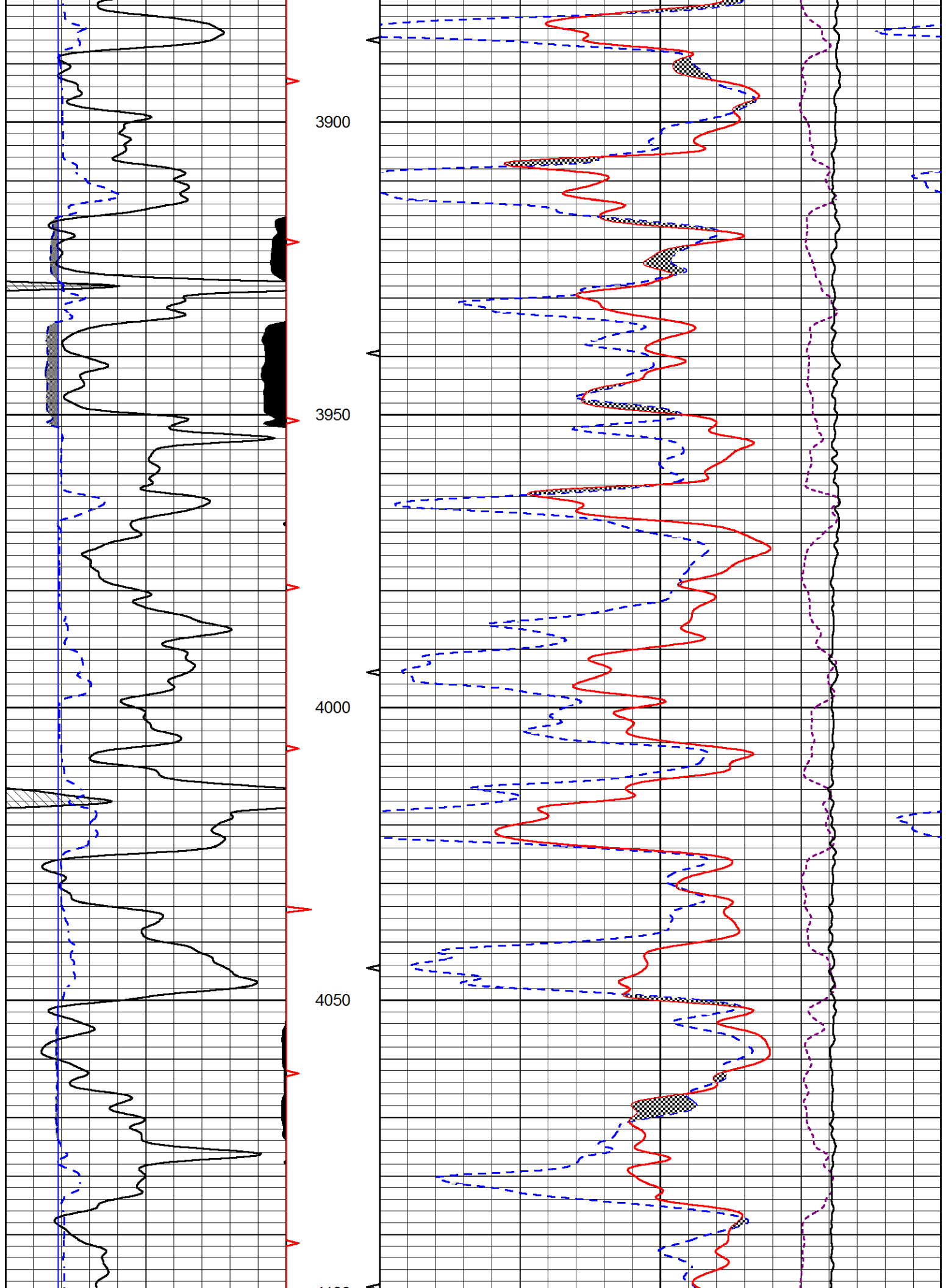


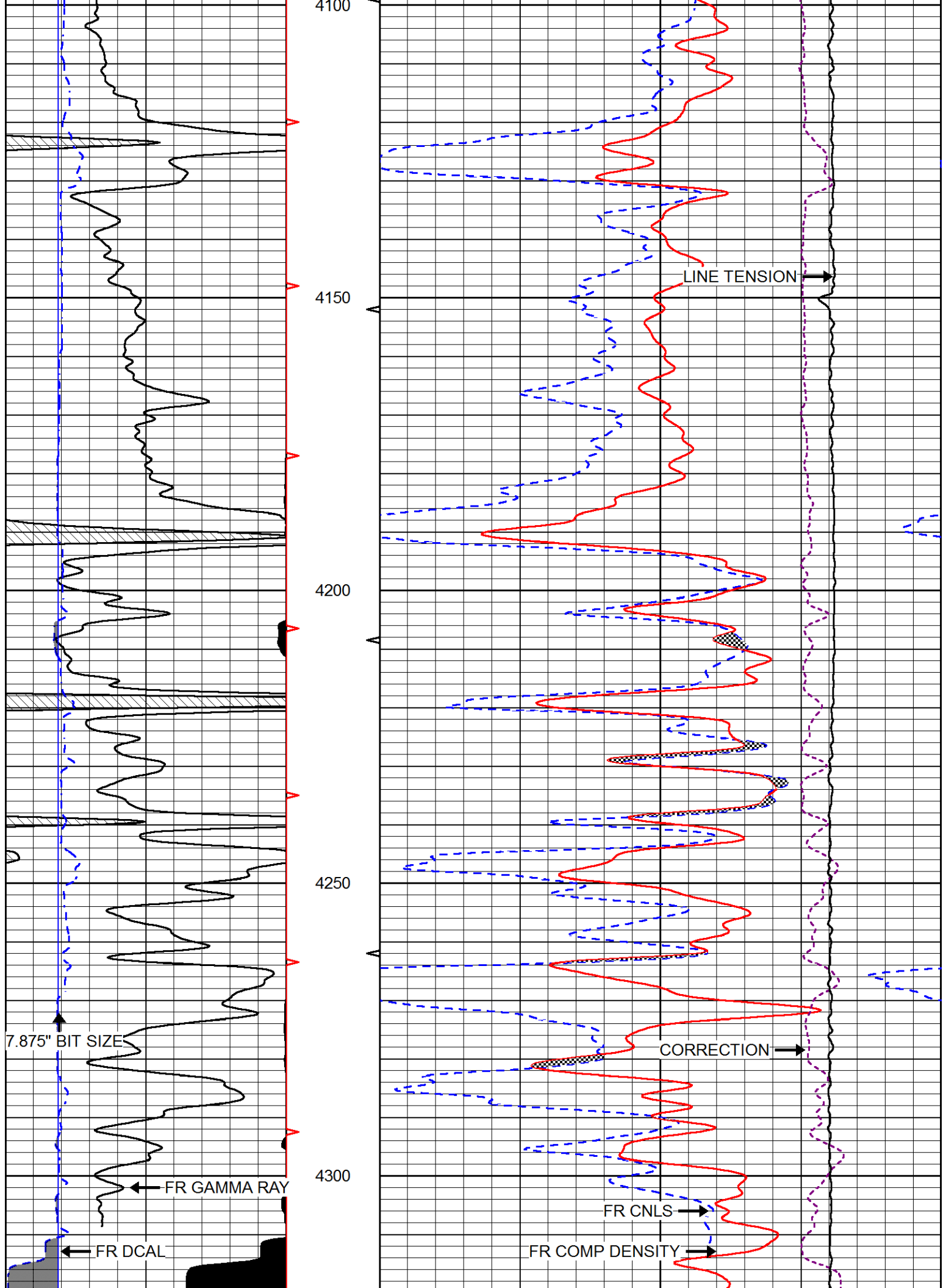


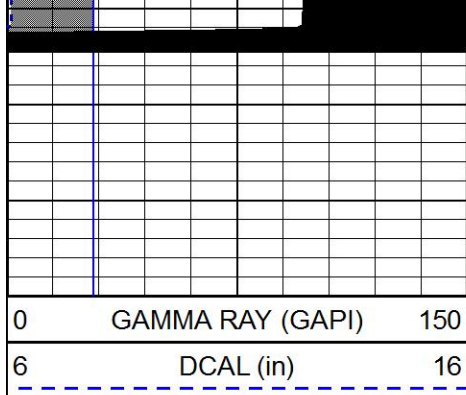




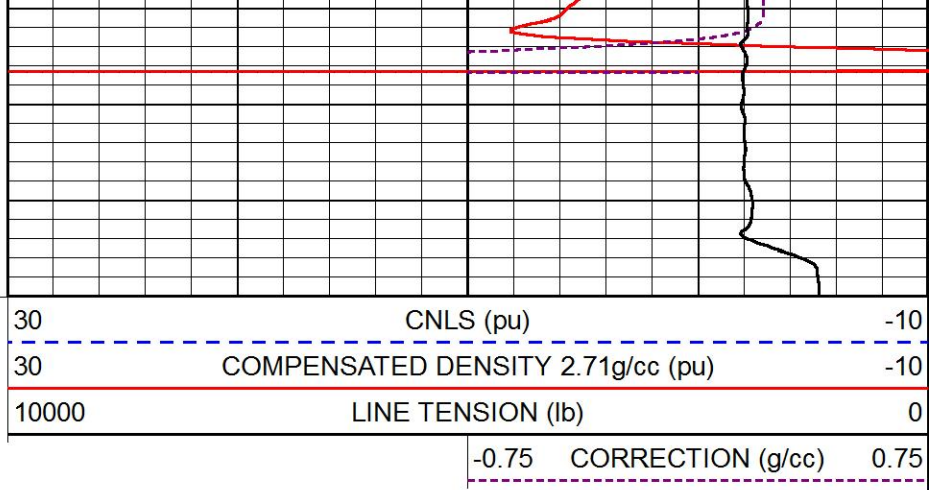






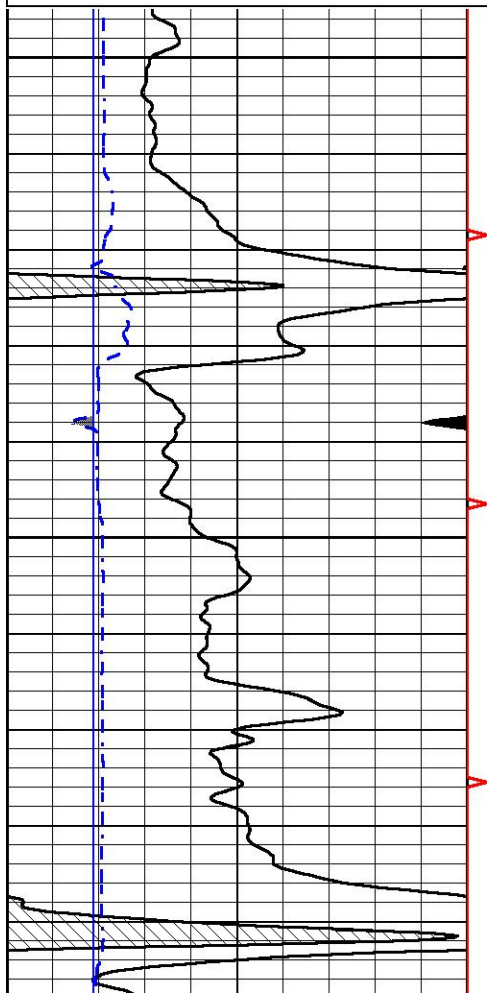
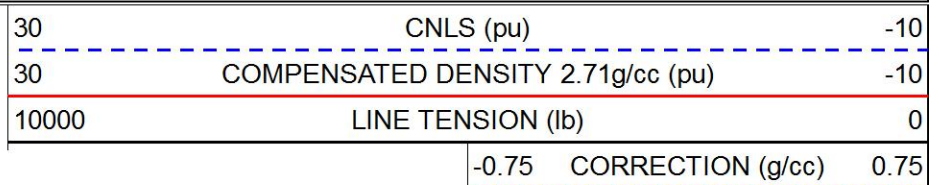
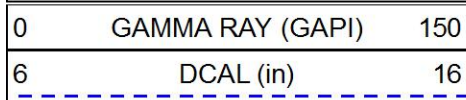


4350



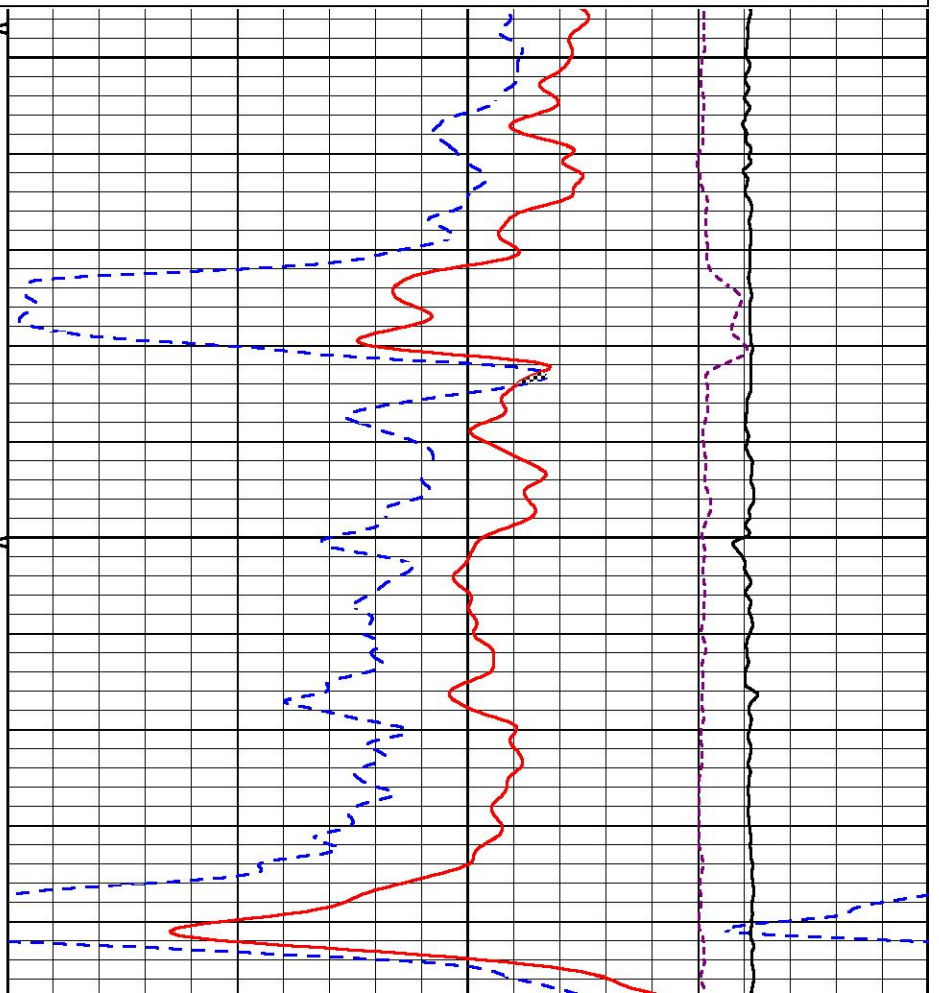
REPEAT SECTION

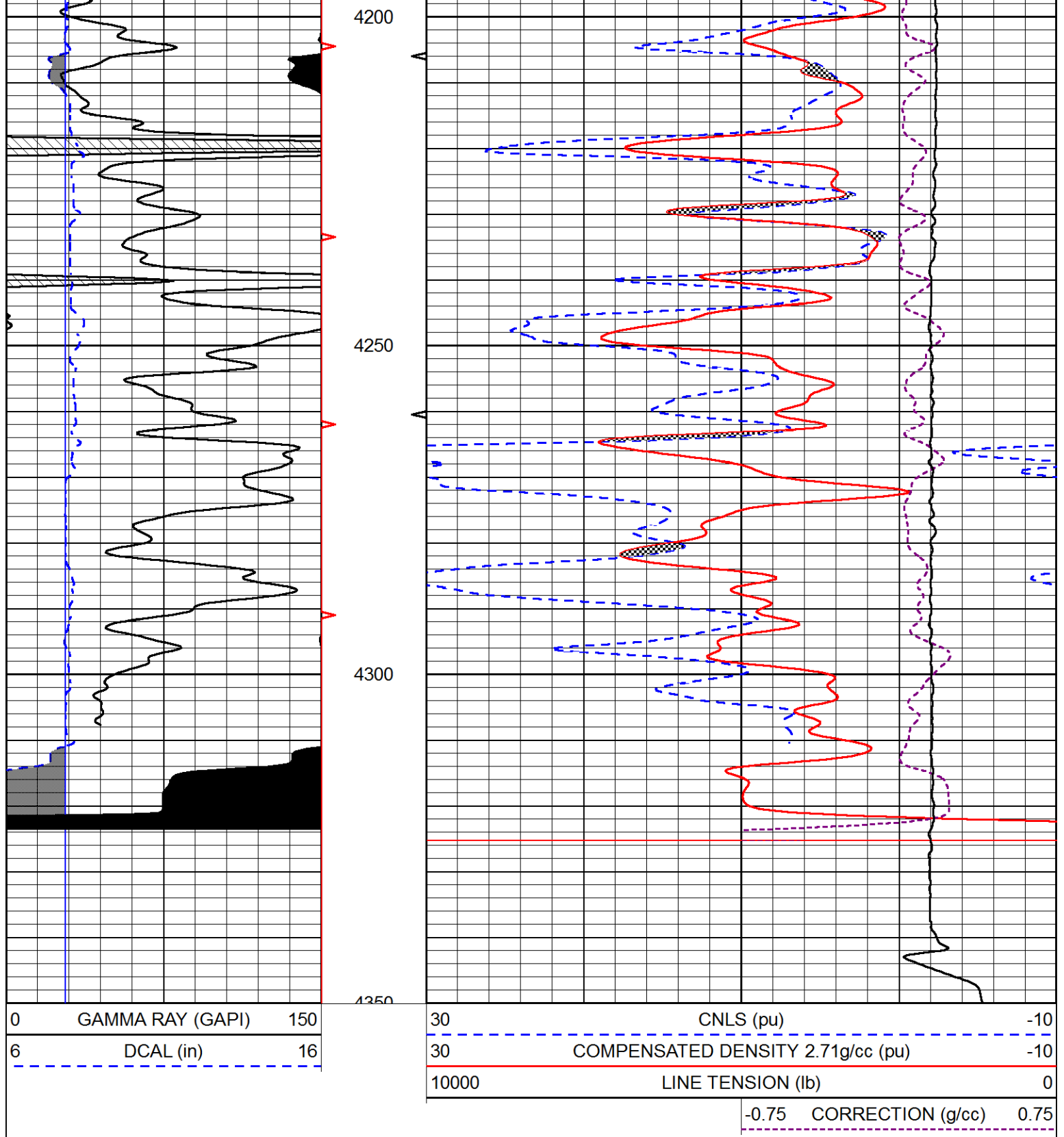
Database File carmen_schmitt_wp_unit_5_7.db
Dataset Pathname stkml/pass2.1
Presentation Format cndlspec
Dataset Creation Mon May 21 12:28:34 2018
Charted by Depth in Feet scaled 1:240



4100

4150





Calibration Report

Database File carmen_schmitt_wp_unit_5_7.db
Dataset Pathname stkml/pass3.1
Dataset Creation Mon May 21 12:27:21 2018

Dual Induction Calibration Report

Serial-Model: 933 (HT)-PSI HIGH TEMP
Calibration Performed: Mon Apr 23 14:01:41 2018

Readings

References

Results

Loop:	Air	Loop		Air	Loop		Gain	Offset
Deep	167.000	835.000		0.000	255.000	mmho/m	0.700	-17.000
Medium	142.000	1349.000		0.000	255.000	mmho/m	0.565	-60.500
Microlog Calibration Report								
Serial-Model: Performed:				PSI-01-PSIML Mon Apr 16 11:11:21 2018				
Readings			References			Results		
	Zero	Cal		Zero	Cal		m	b
Normal	0.0000	1.0000		0.0000	1.0000	Ohm-m	19000.0000	-0.7000
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	-65.8500
Compensated Density Calibration Report								
Serial-Model: Source / Verifier: Master Calibration Performed:				817-947-M&W 16955B / 2ci Tue May 01 14:00:17 2018				
Master Calibration								
	Density			Far Detector		Near Detector		
Magnesium	1.755	g/cc		6127.15		5922.31	cps	
Aluminum	2.650	g/cc		1141.85		3762.09	cps	
	Spine Angle = 74.89			Density/Spine Ratio = 0.514				
	Size			Reading				
Small Ring	4.50	in		1.02				
Large Ring	15.00	in		1.15				
Compensated Neutron Calibration Report								
Serial Number: Tool Model: Calibration Performed:				207-MW M&W MON APR 16 10:30:30 2018				
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: Tool Model: Calibration Performed:		89 M&W Mon Jan 15 11:20:44 2018						
Calibrator Value:		1.0		GAPI				
Background Reading: Calibrator Reading:		0.0 1.0		cps cps				
Sensitivity:		0.6000		GAPI/cps				



Company	CARMEN SCHMITT, INC.
Well	WP UNIT #5-7
Field	WILDCAT
County	TREGO
State	KANSAS