



PIONEER
Pioneer Energy Services

MICRORESISTIVITY LOG

Company FOSSIL ENERGY, LLC		Well TRUAN #1	
Field BAXTER		County RUSSELL	
State KANSAS		Location: API #: 15-167-24066-00-00	
Permanent Datum GROUND LEVEL		Elevation 1895'	
Log Measured From KELLY BUSHING		Other Services	
Drilling Measured From KELLY BUSHING		CNL/CDL DIL	
Date	10/10/2017	SEC 33 TWP 14S RGE 15W	
Run Number	ONE	Elevation	
Depth Driller	3400'	K.B. 1903'	
Depth Logger	3396'	D.F. N/A	
Bottom Logged Interval	3395'	G.L. 1895'	
Top Log Interval	2800'		
Casing Driller	8.625" @ 474'		
Casing Logger	475'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity, ppm CL	6000		
Density / Viscosity	8.9 56		
pH / Fluid Loss	9.5 8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.50 @ 80		
Rmt @ Meas. Temp	0.38 @ 80		
Rmc @ Meas. Temp	0.68 @ 80		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	0.36 @ 110		
Operating Rig Time	3 HOURS		
Max Rec. Temp. F	110		
Equipment Number	91		
Location	HAYS		
Recorded By	D. SCHMIDT		
Witnessed By	RANDY KILIAN		

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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.

GORHAM,
(FROM I-70) 5 SOUTH TO LINCOLN RD,
1 1/2 EAST, NORTH INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

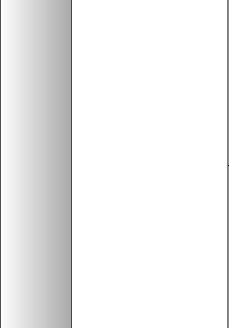
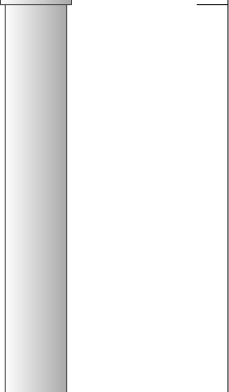
Engineer: D. SCHMIDT
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: RANDY KILIAN
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	70	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	80	0	5.5	0	3396	110	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 (90-1031)	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					

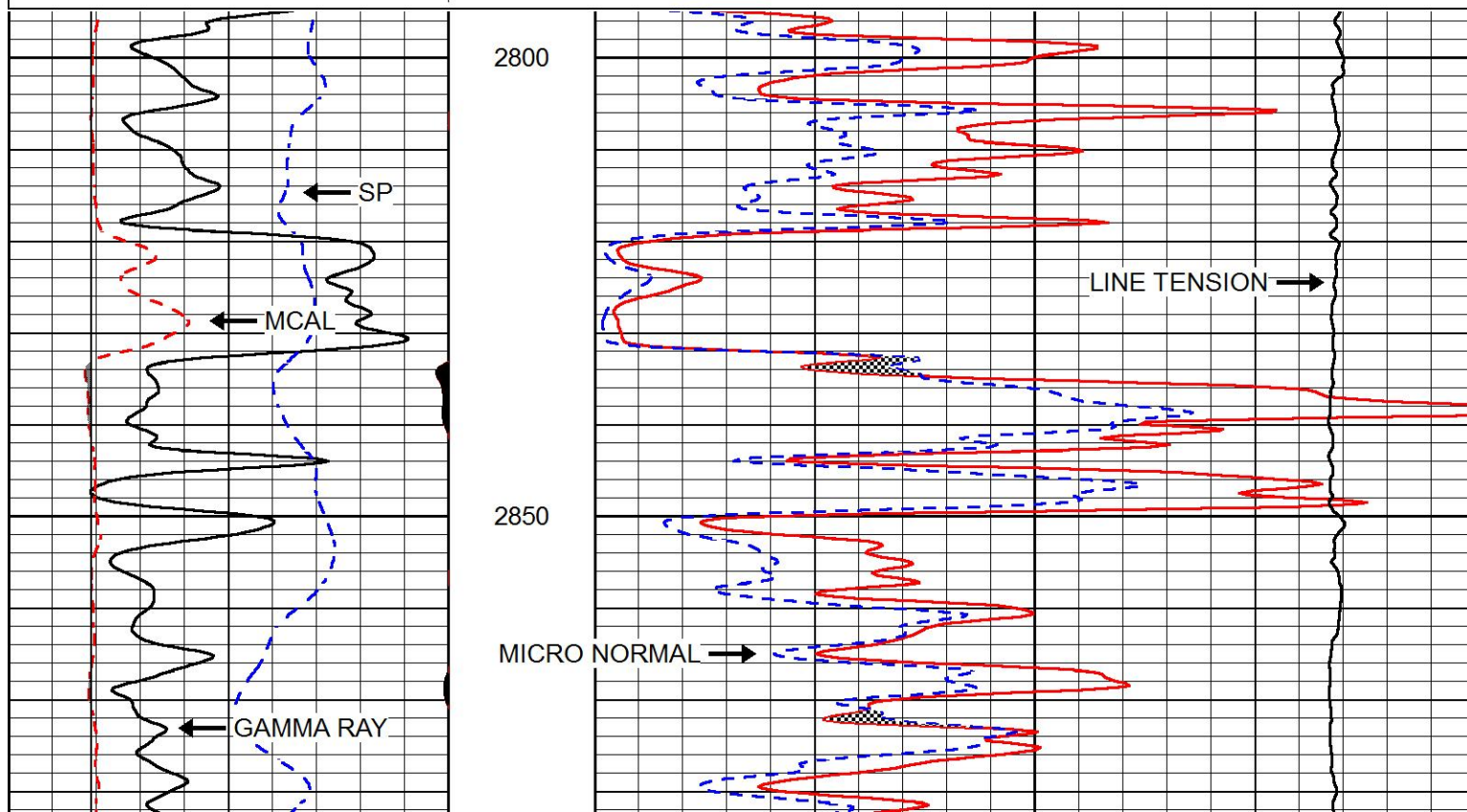
		DIL-M&W (PSI 91)		18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					
Dataset: fossil_truan_1.db: field/well/STKML/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in						

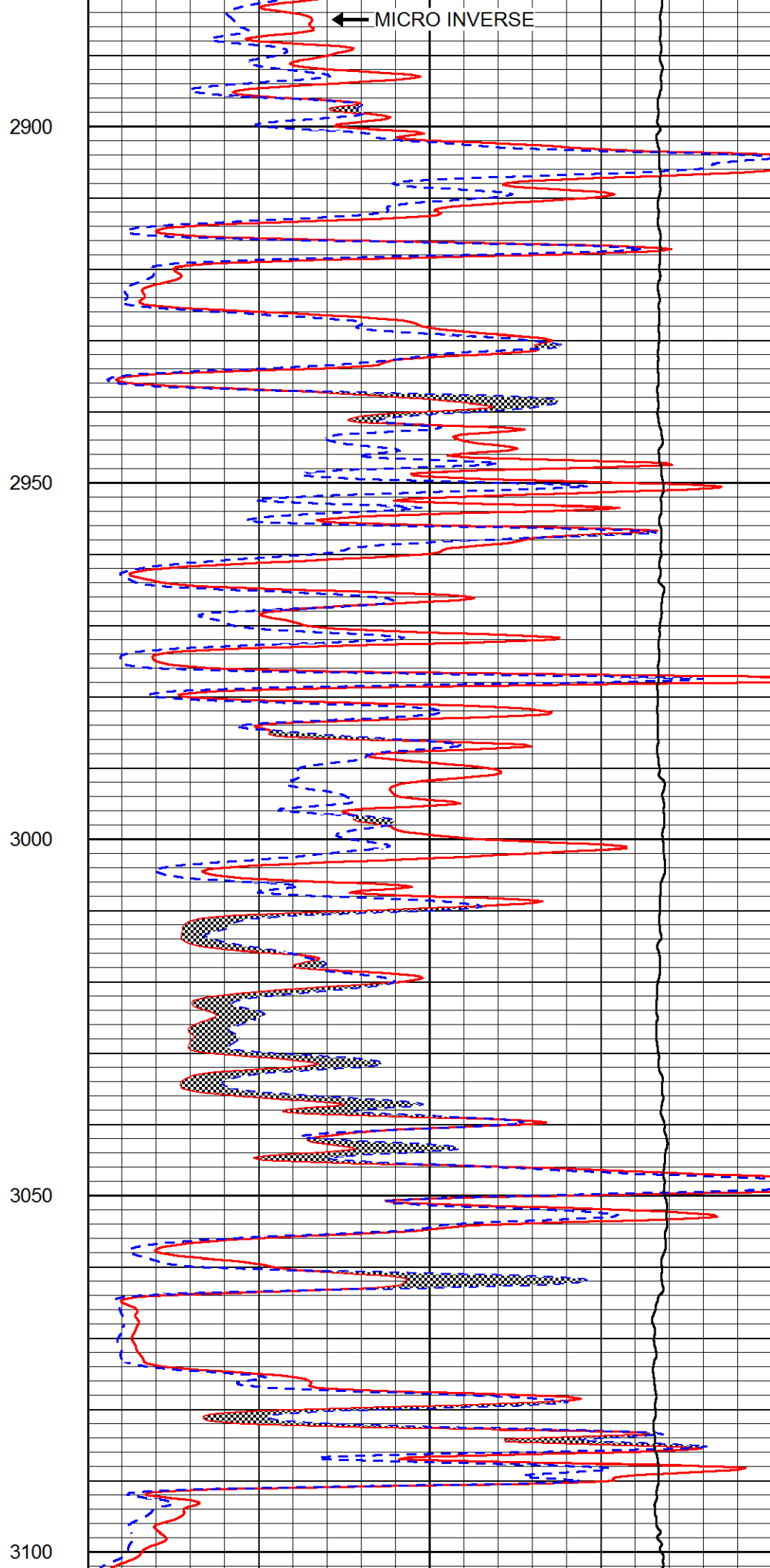
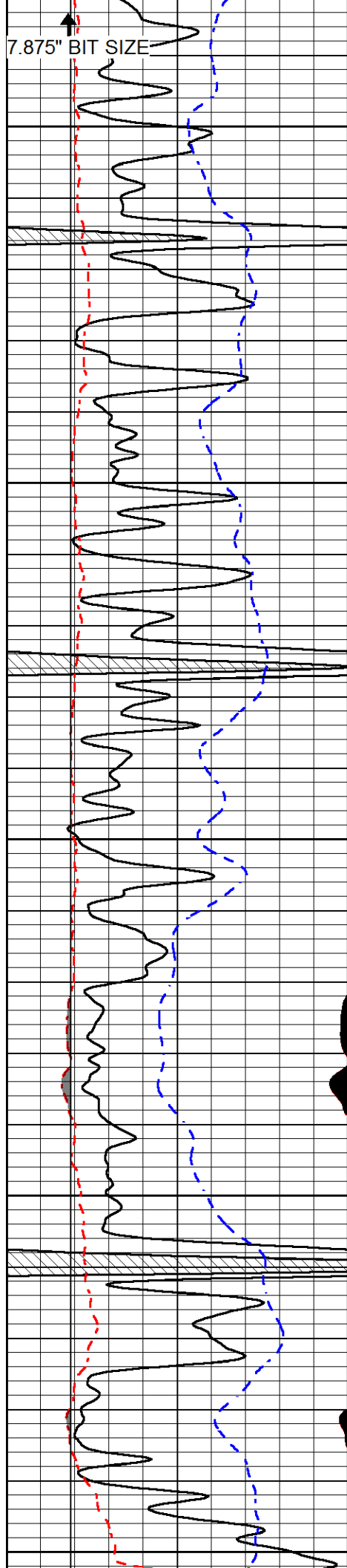


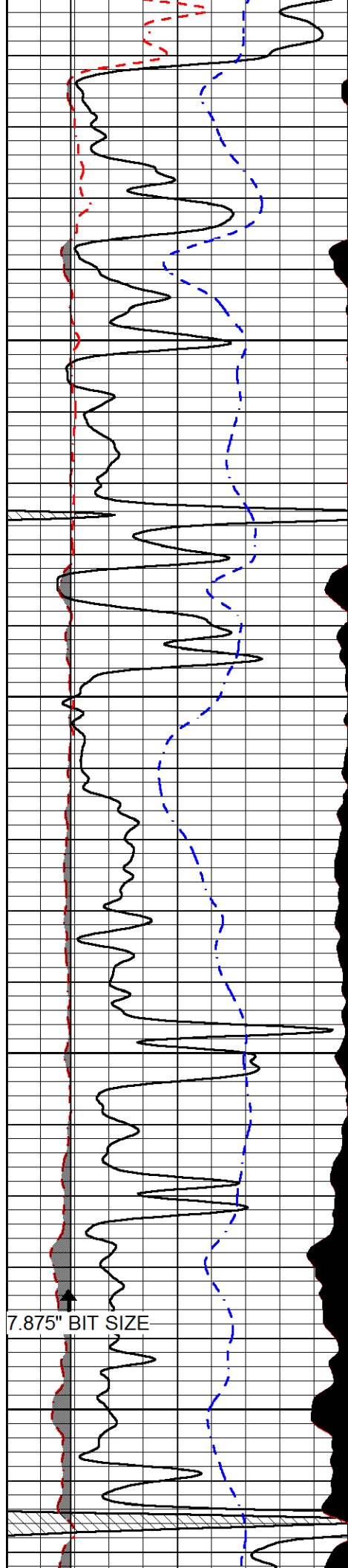
MAIN PASS

Database File	fossil_truan_1.db
Dataset Pathname	STKML/pass3.1
Presentation Format	micro
Dataset Creation	Tue Oct 10 20:54:15 2017
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	0	Micro Inverese 1 X 1 (Ohm-m)	40
6	MCAL (in)	16	0	Micro Normal 2" (Ohm-m)	40
2.875	mcals (in)	7.875	10000	Line Weight (lb)	0
6	Bit Size (in)	16			
-200	SP (mV)	0			





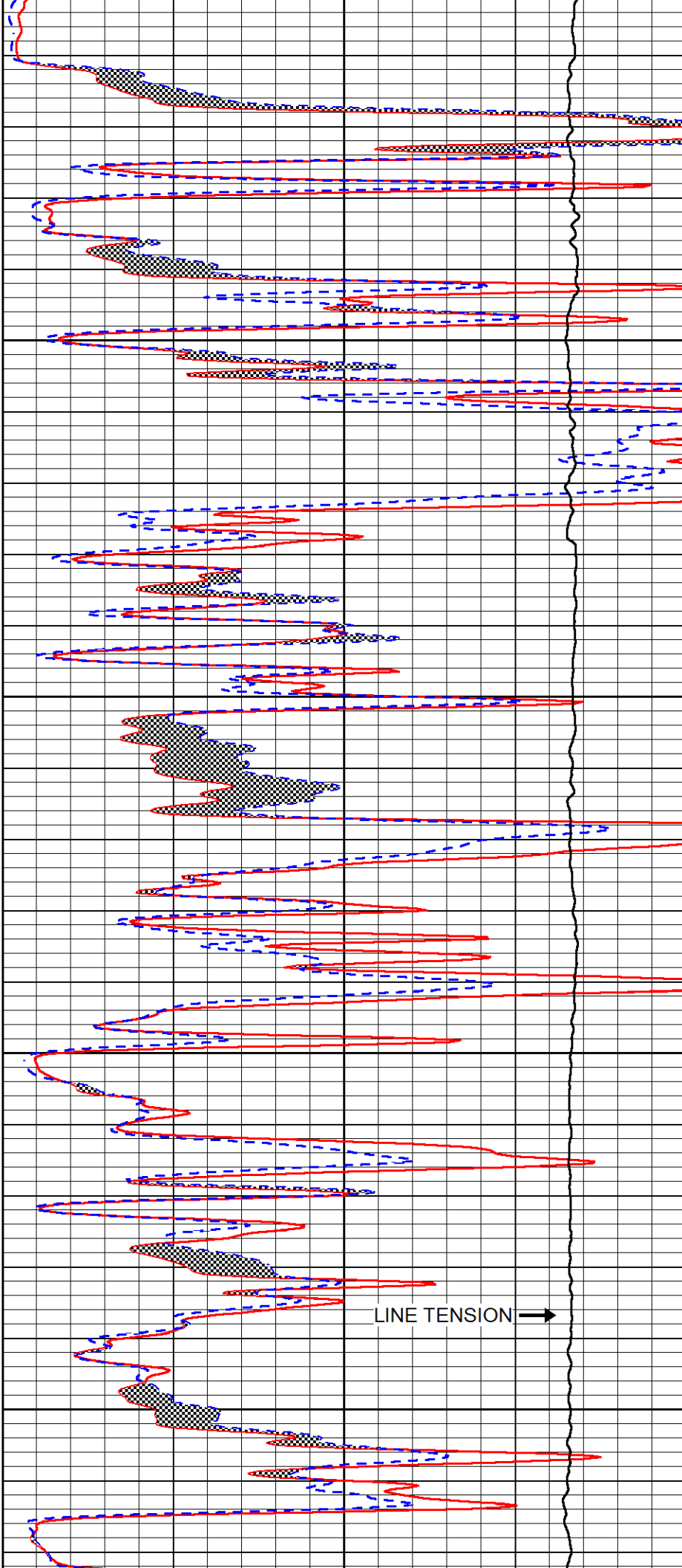


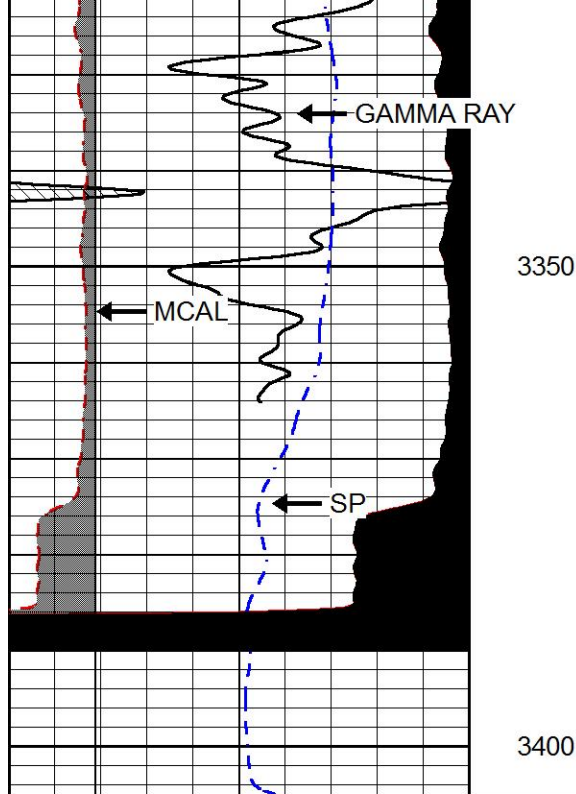
3150

3200

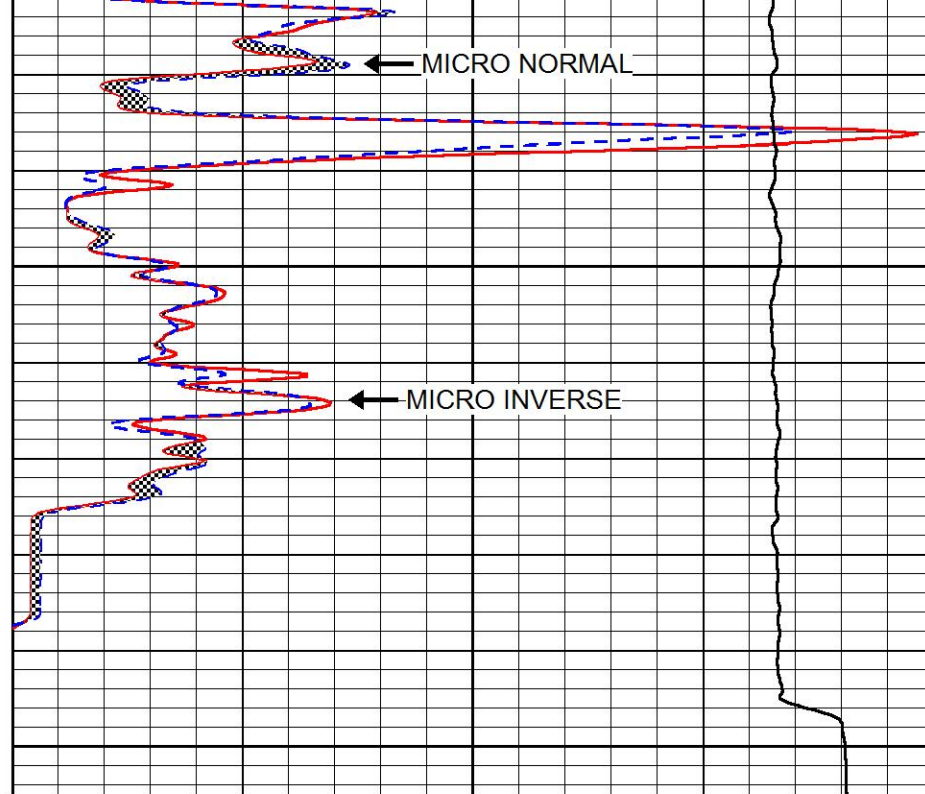
3250

3300





0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcals (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0



0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

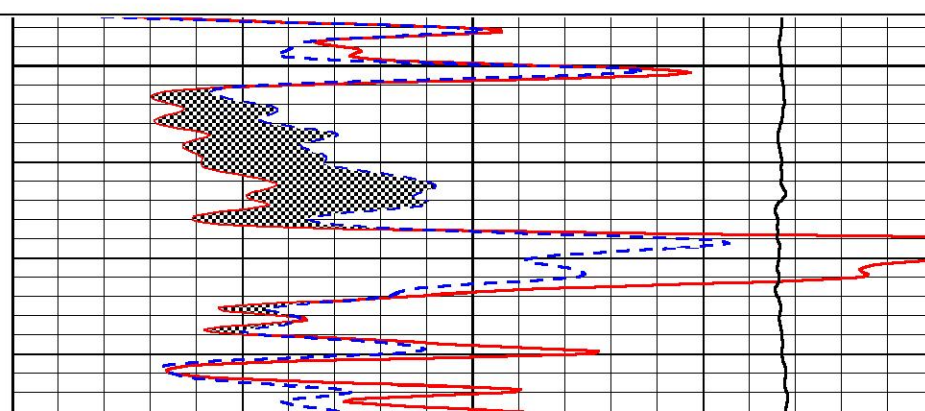
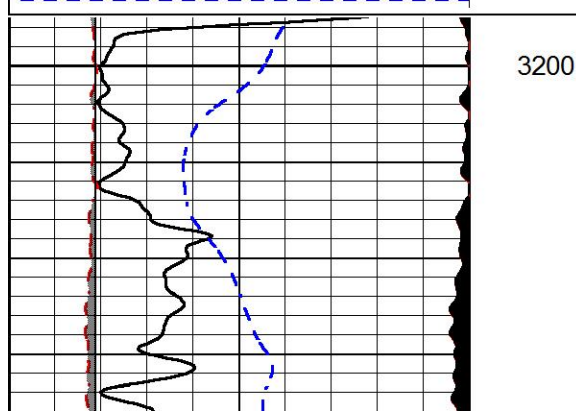


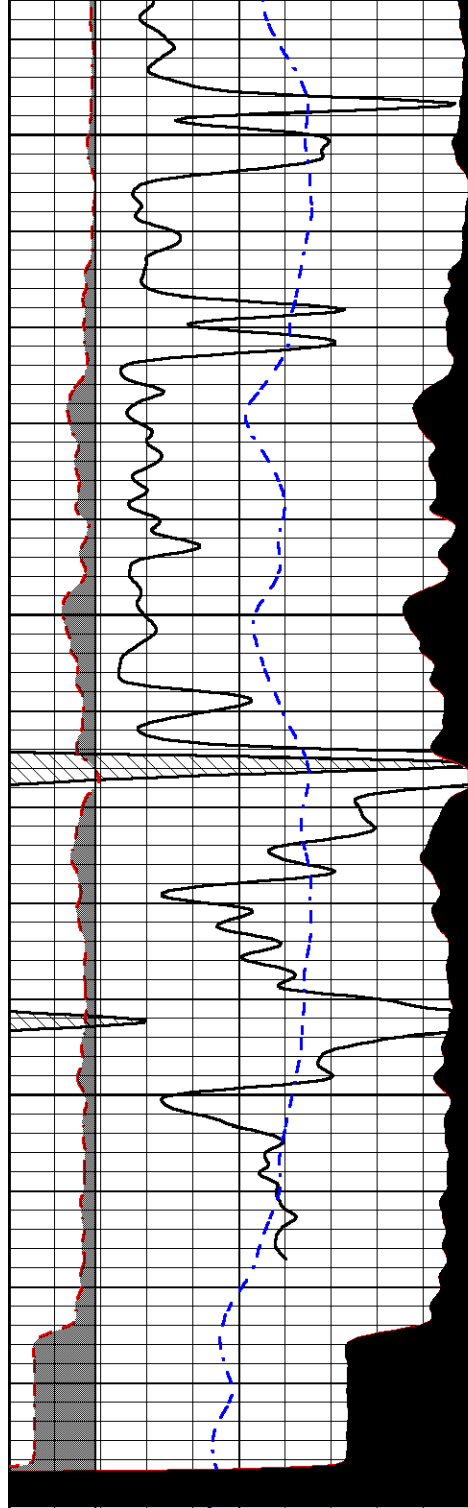
REPEAT SECTION

Database File fossil_truan_1.db
 Dataset Pathname STKML/pass2.1
 Presentation Format micro
 Dataset Creation Tue Oct 10 20:58:05 2017
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcals (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

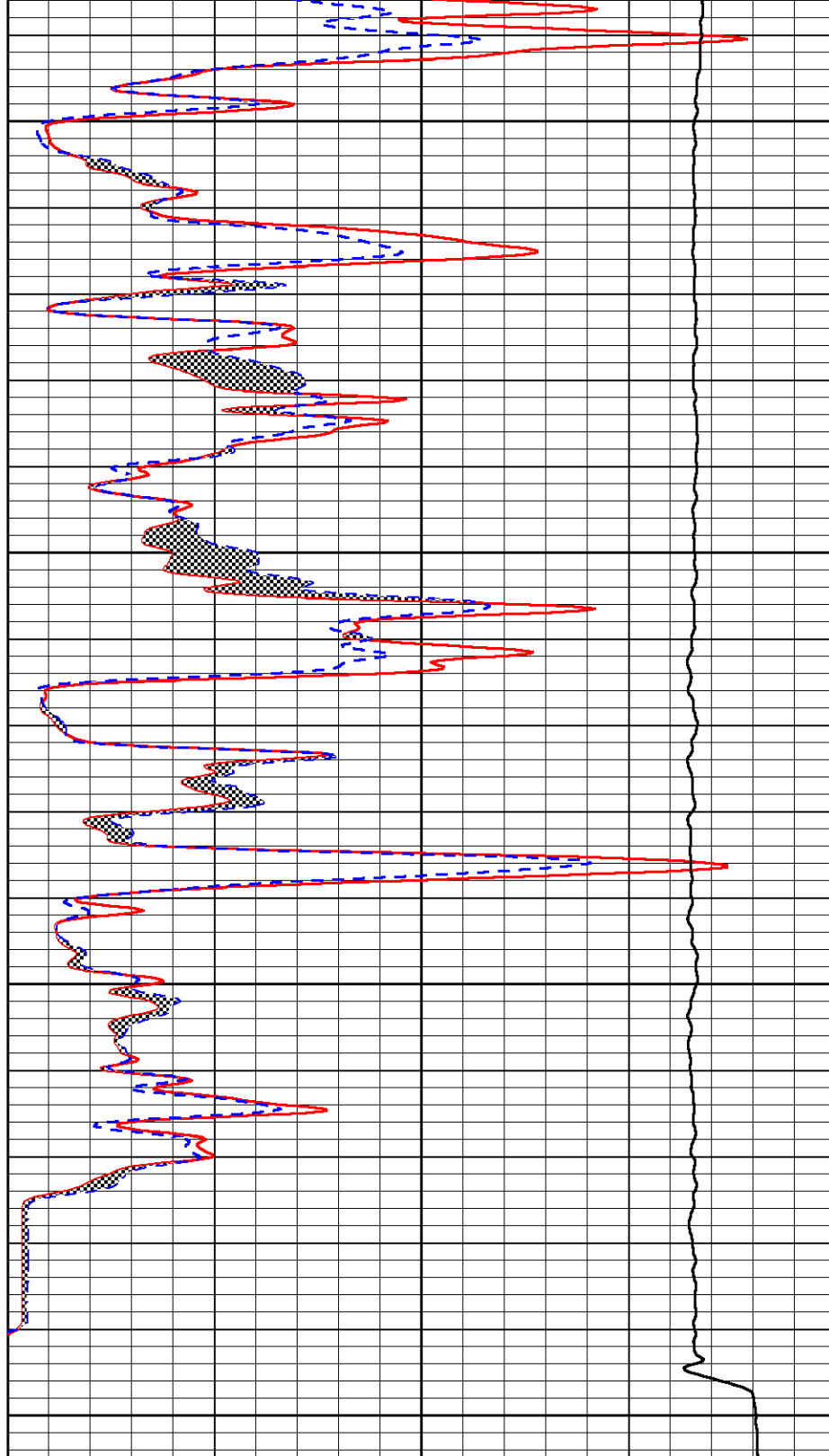
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0





3250
3300
3350
3400

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0



0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

Calibration Report

Database File fossil_truan_1.db
Dataset Pathname STKML/pass3.1
Dataset Creation Tue Oct 10 20:54:15 2017

Dual Induction Calibration Report

Serial-Model:
Calibration Performed:

PSI 91-M&W
Wed Sep 13 22:23:16 2017

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.430	-30.500
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.360	-29.500

Microlog Calibration Report

Serial-Model:
Performed:

PSI-01-PSIML
Wed Sep 06 19:50:56 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	21000.0000	-1.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	23000.0000	-0.3000
Caliper	1.0001	1.1397	6.5000	18.5000	in	100.0000	-97.4550

Compensated Density Calibration Report

Serial-Model:
Source / Verifier:
Master Calibration Performed:

90-1031-M&W
16955B / 2ci
Wed Sep 06 19:51:03 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4903.44	6153.79	cps
Aluminum	2.640	g/cc	934.50	4021.31	cps
Spine Angle = 75.61			Density/Spine Ratio = 0.517		
	Size		Reading		
Small Ring	8.00	in	1.84		
Large Ring	22.00	in	1.46		

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: WED SEP 6 10:30:30 2017

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: Wed Sep 06 19:51:14 2017

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps



Company	FOSSIL ENERGY, LLC
Well	TRUAN #1
Field	BAXTER
County	RUSSELL
State	KANSAS