



MIDWEST WIRELINE

# MICRORESISTIVITY LOG

**Company** Mike Kelso Oil, Inc.  
**Well** Thomas Farms C-4  
**Field** Chase-Sillica  
**County** Barton **State** Kansas

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**State** Kansas

**Location:** API #: 15-009-26385-00-00  
 886 FSL & 2017  
 SEC 34 TWP 19S RGE 11W  
**Permanent Datum** Ground Level Elevation 1771  
**Log Measured From** Kelly Bushing  
**Drilling Measured From** Kelly Bushing  
**Other Services** CNL/CDL DIL  
**Elevation** K.B. 1779  
 D.F. G.L. 1771

Date	3/13/2023
Run Number	One
Depth Driller	3420
Depth Logger	3416
Bottom Logged Interval	3415
Top Log Interval	2400
Casing Driller	8:625 @ 250
Casing Logger	265
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	6800
Density / Viscosity	8.9 46
pH / Fluid Loss	9.0 7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.50 @ 54
Rmt @ Meas. Temp	0.38 @ 54
Rmc @ Meas. Temp	0.68 @ 54
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.25 @ 110
Operating Rig Time	3 Hours
Max Rec. Temp. F	110
Equipment Number	P-108
Location	HAYS
Recorded By	D. Schmidt
Witnessed By	Mike Kelso

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

Ellinwood,  
East to 130 Rd, 1/4 North,  
East into

Log Measured From: Kelly Bushing 8 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC  
785-625-3858

**Your Midwest Wireline Crew**

**Engineer:** D. Schmidt  
**Operator:**  
**Operator:**  
**Operator:**

**This Log Record Was Witnessed By**

**Primary Witness:** Mike Kelso  
**Secondary Witness:**  
**Secondary Witness:**  
**Secondary Witness:**

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (103)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (303-03)	8.50	4.00	250.00
			ML-PSI STKBL ML (402)	7.58	4.00	65.00
MCAL MI MN	19.58 19.58 19.58					
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (505 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: mike kelso\_thomas farms c-4.db: field/well/stkml/pass4.1  
 Total length: 42.33 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\mike\_kelso\_thomas\_farms\_c-4.db  
 Dataset field/well/stkml/pass4.1/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	108	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	0	0	220	40	Off	3416

## Variable Description

A : Cement Factor (a)  
 BOREID : Borehole I.D.  
 BOTTEMP : Bottom Hole Temperature  
 CASEOD : Casing O.D.  
 CASETHCK : Casing Thickness  
 FLUIDDEN : Fluid Density  
 M : Cement Exp (m)  
 MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select  
 PERFS : Perforation Flag  
 SNDERR : Deep Sonde Error Correction  
 SNDERRM : Medium Sonde Error Correction  
 SPSHIFT : S.P. Baseline Offset  
 SRFTEMP : Surface Temperature  
 SZCOR : CN Size Cor. ?  
 TDEPTH : Total Depth



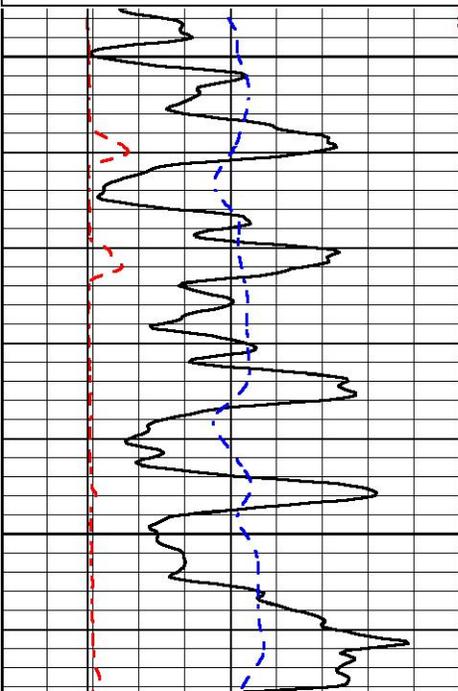
## DETAIL SECTION

### MAIN PASS

Database File      mike\_kelso\_thomas\_farms\_c-4.db  
 Dataset Pathname    stkml/pass4.1  
 Presentation Format    \_micro  
 Dataset Creation      Mon Mar 13 15:23:15 2023  
 Charted by            Depth in Feet scaled 1:240

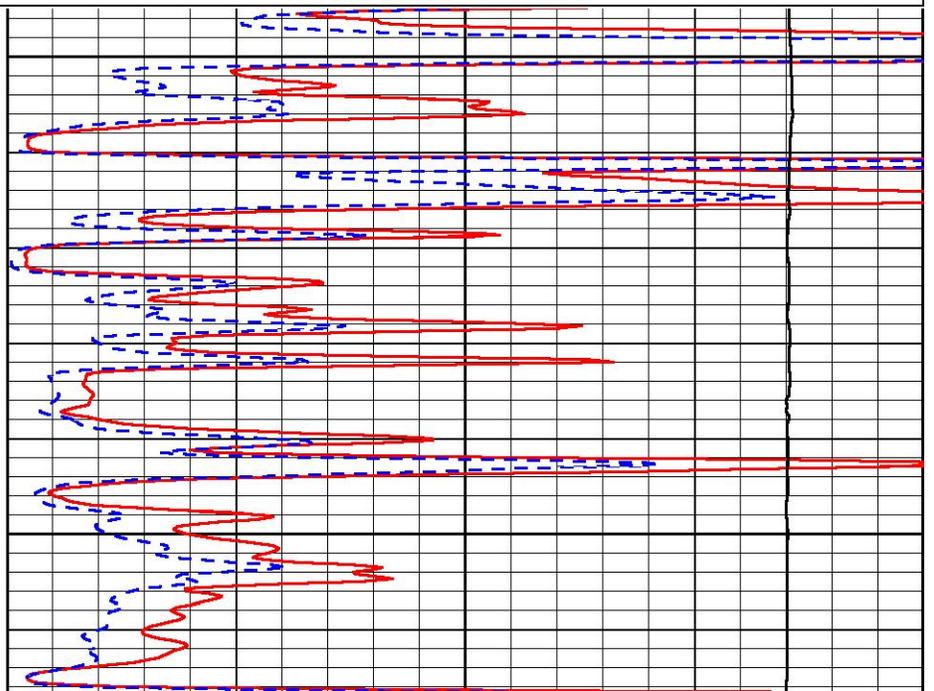
0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
-200	SP (mV)	0

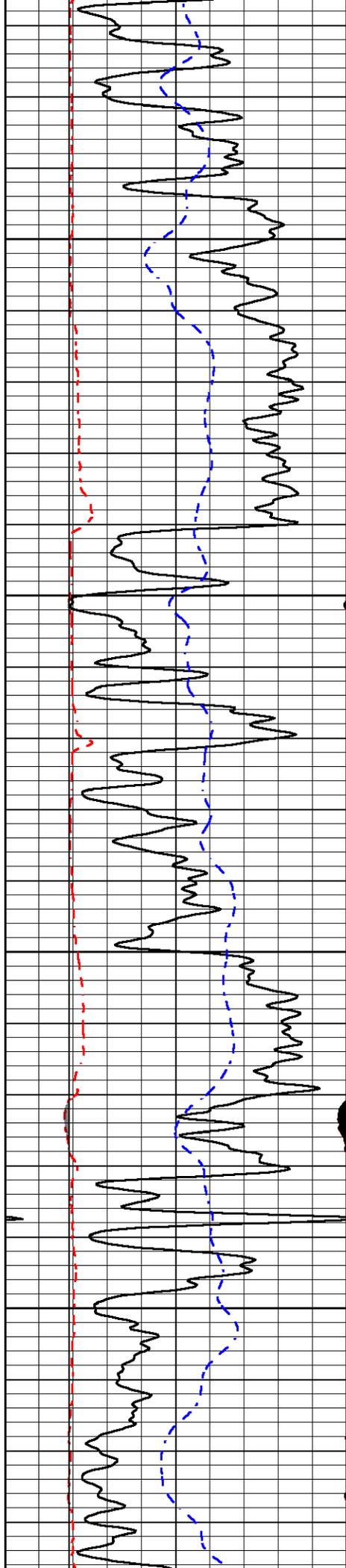
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



2400

2450



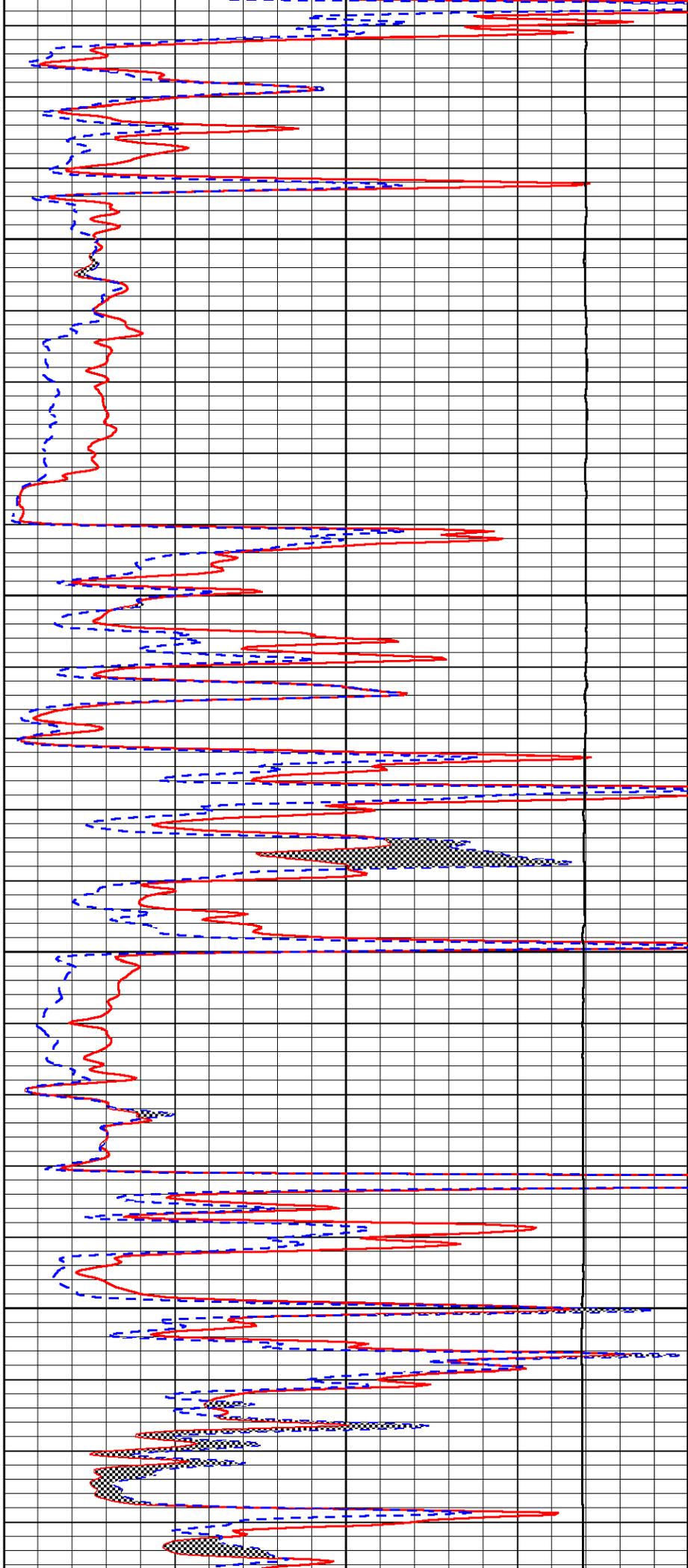


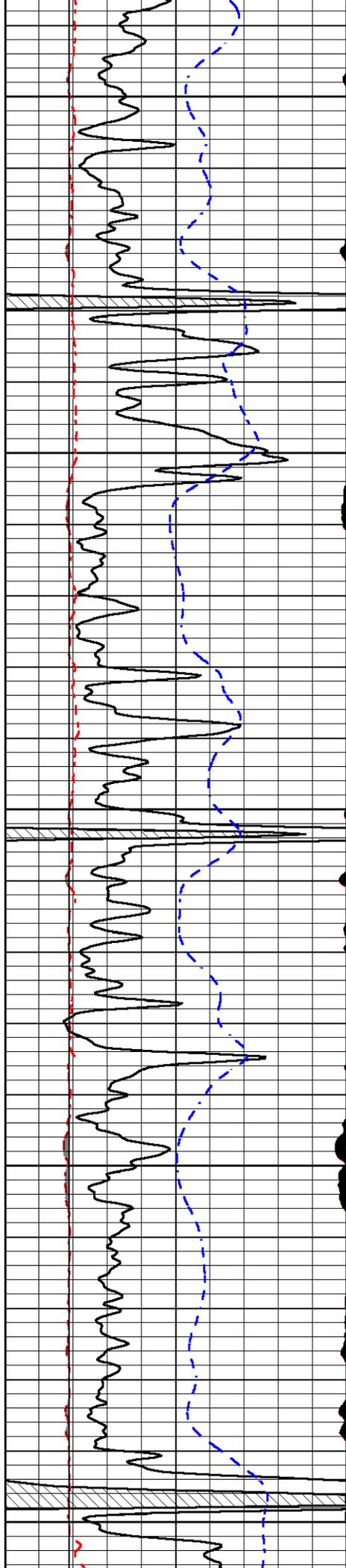
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2550

2600

2650





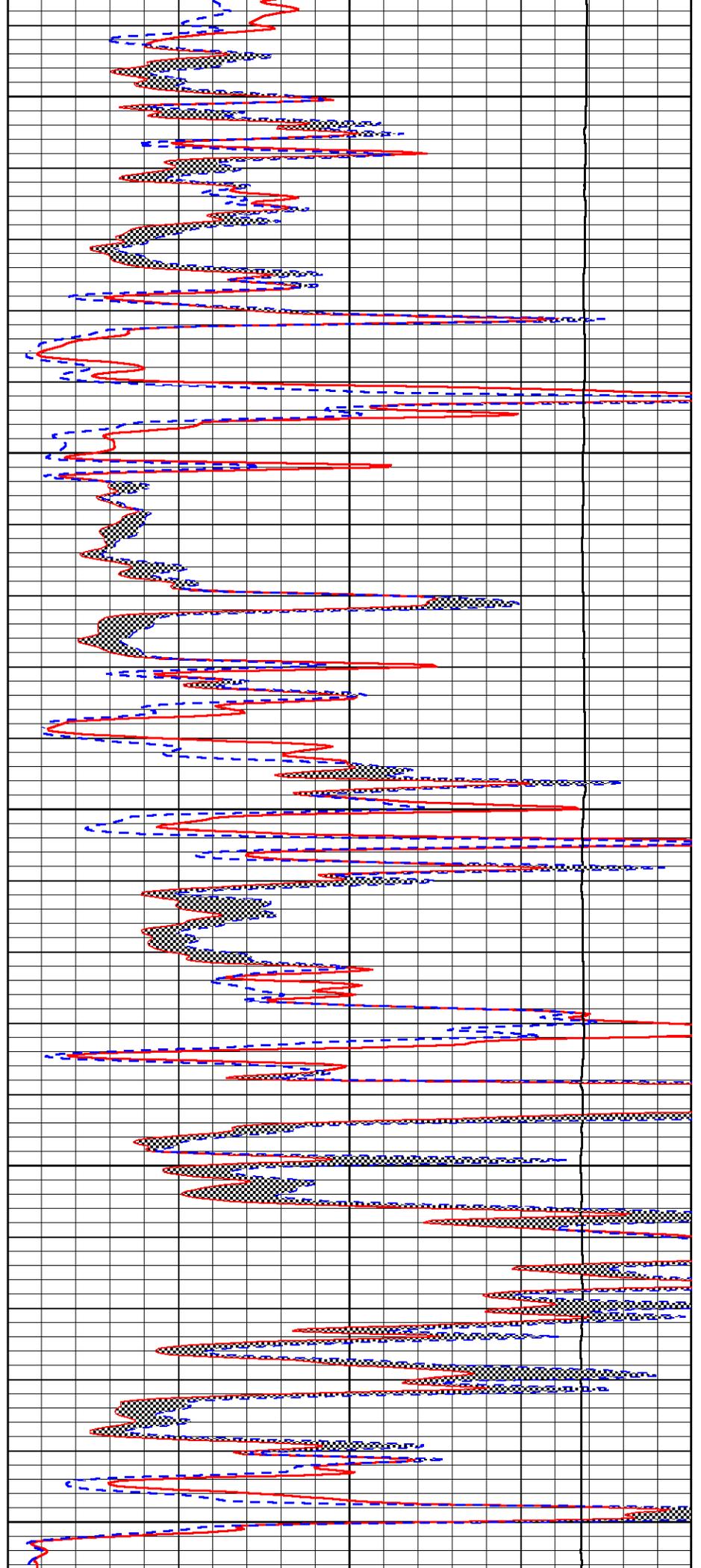
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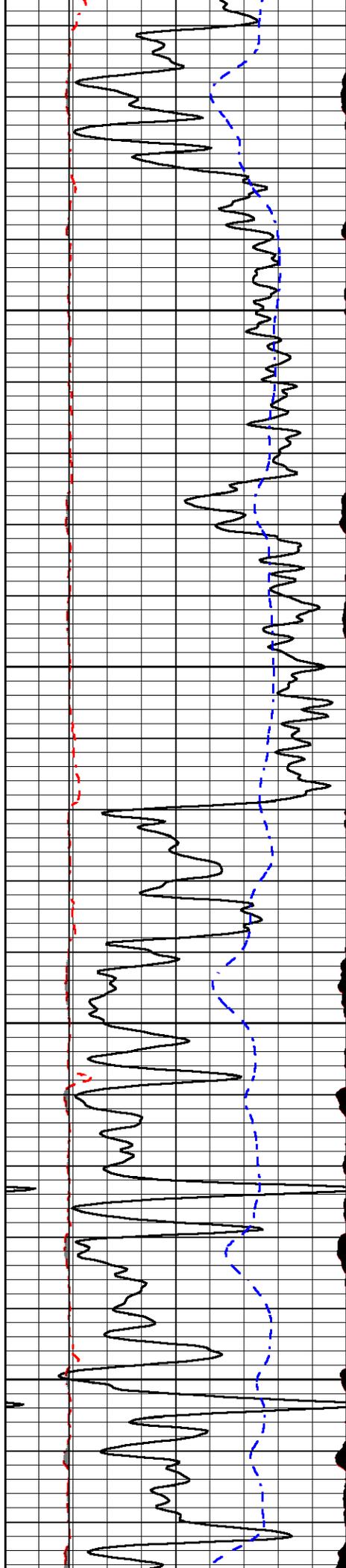
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2800

2850

2900



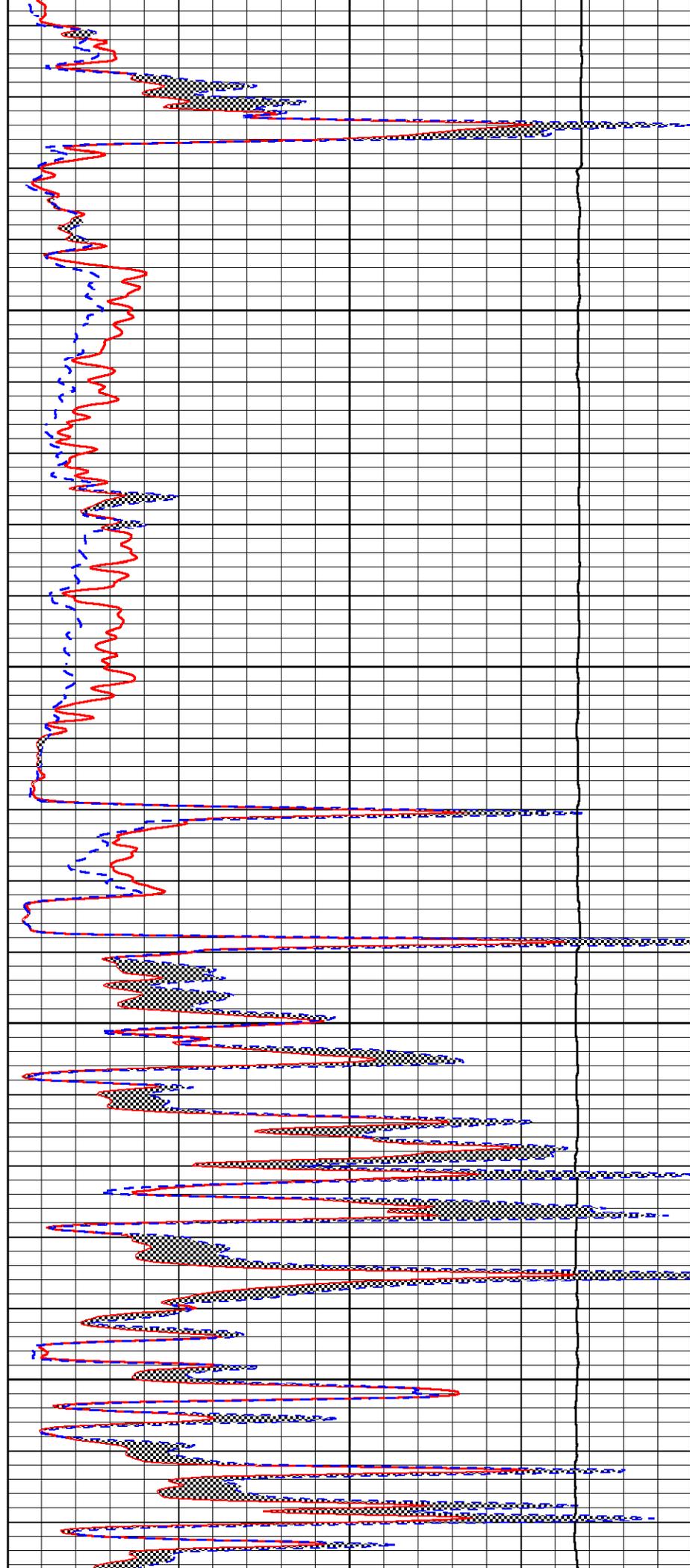


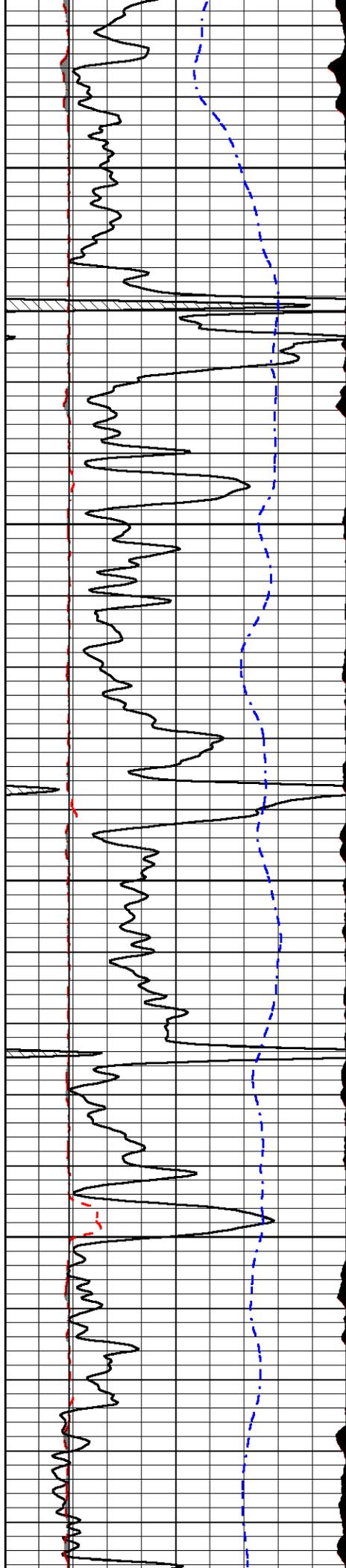
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3000

3050

3100



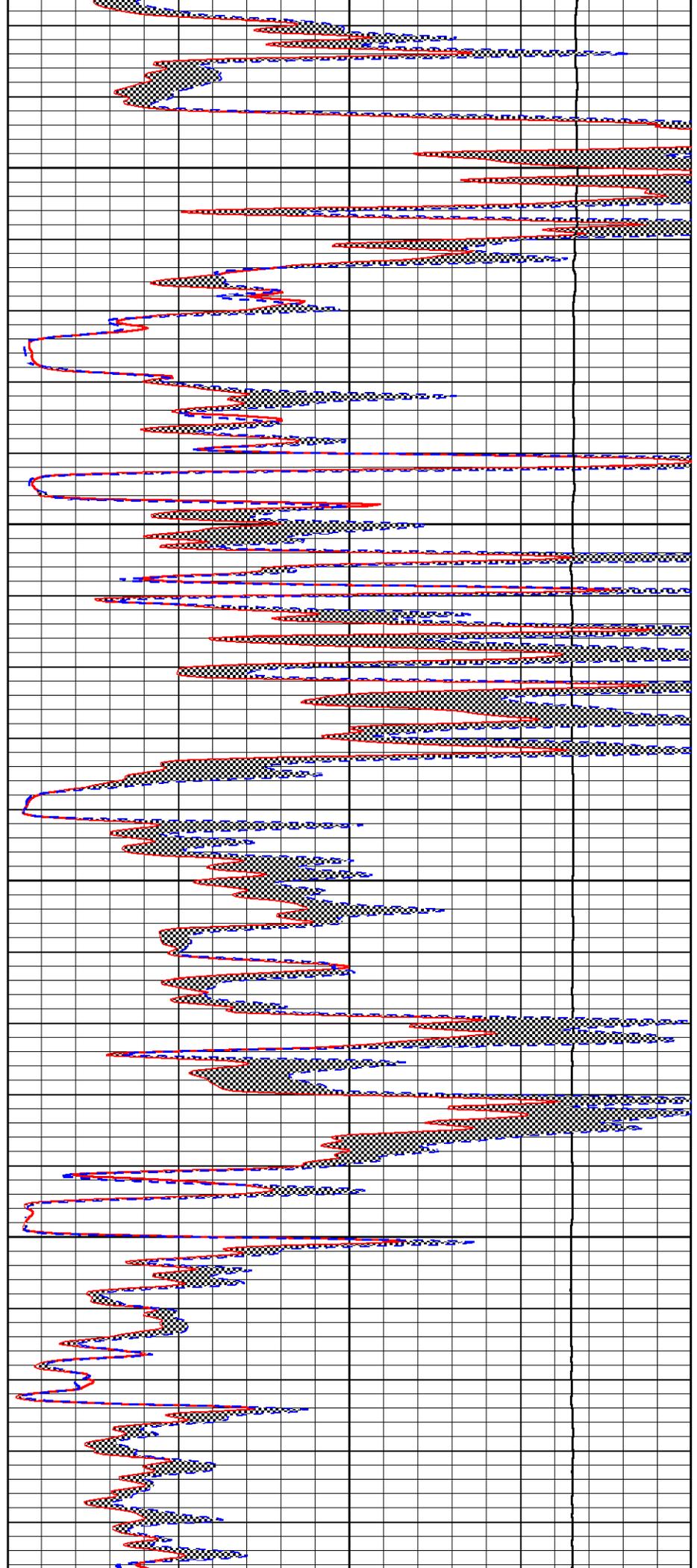


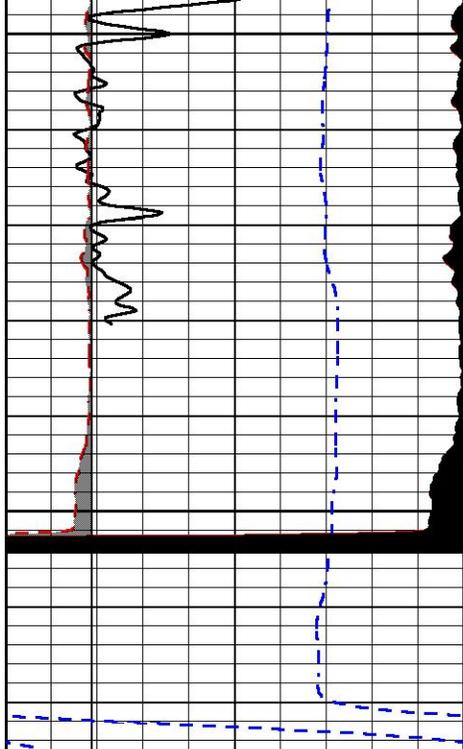
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3200

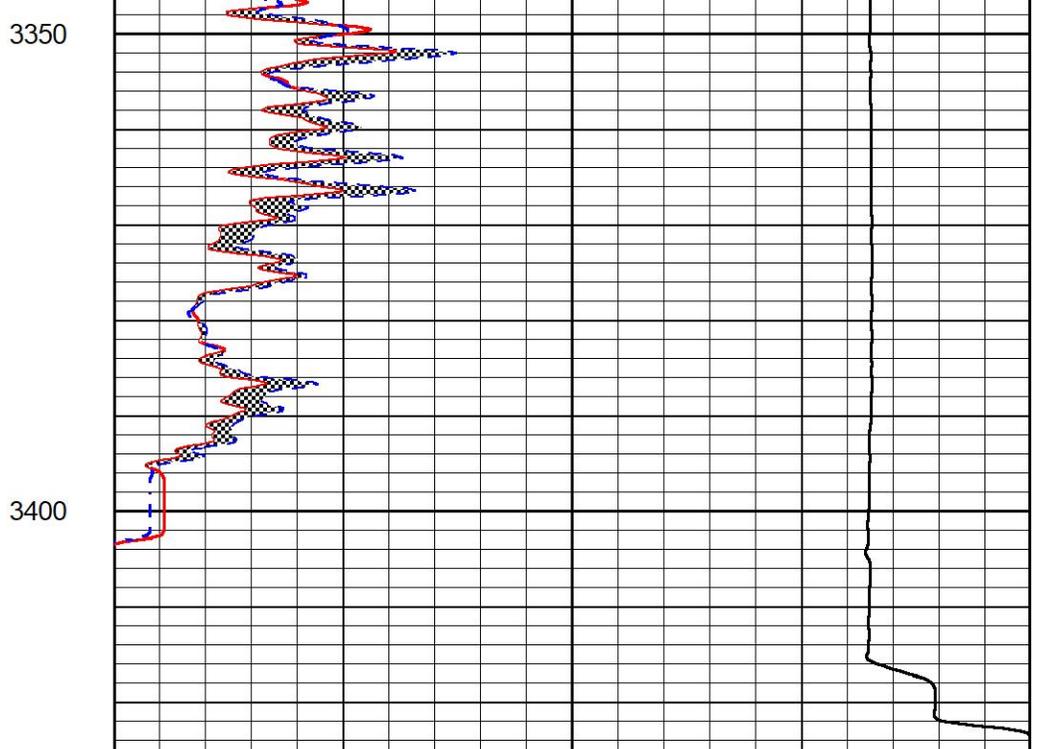
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3300





0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
-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

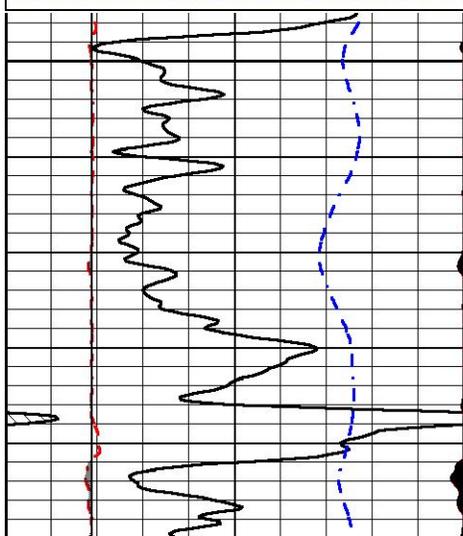


## REPEAT SECTION

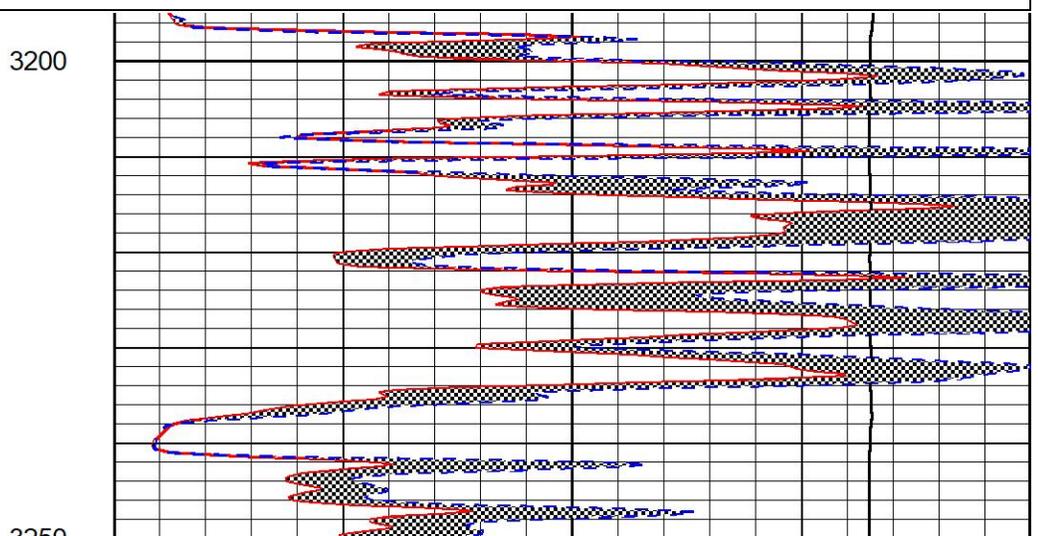
### REPEAT PASS

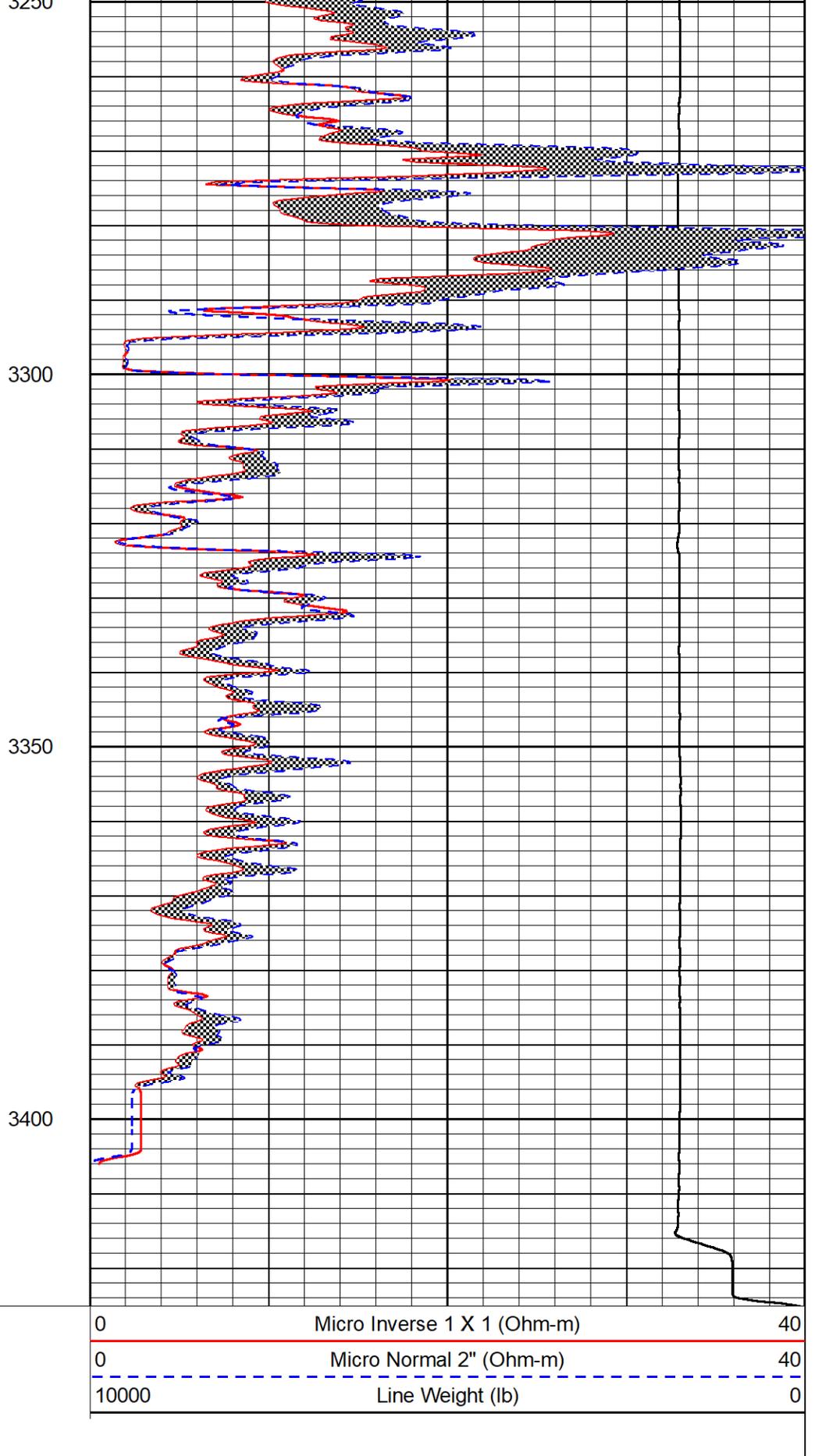
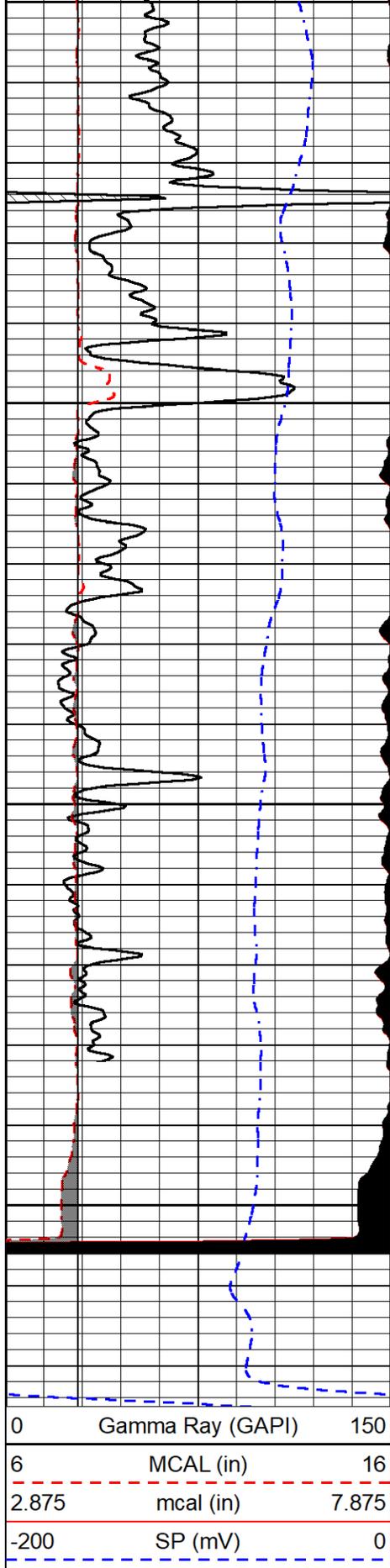
Database File      mike kelso\_thomas farms c-4.db  
 Dataset Pathname    stkml/pass3.1  
 Presentation Format    \_micro  
 Dataset Creation      Mon Mar 13 15:13:04 2023  
 Charted by            Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
-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     mike kelso\_thomas farms c-4.db  
 Dataset Pathname     stkml/pass4.1  
 Dataset Creation     Mon Mar 13 15:23:15 2023

Dual Induction Calibration Report

Serial-Model: 505 HT-M&W  
 Surface Cal Performed: Sun Mar 12 19:32:56 2023

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	167.000	835.000	0.000	255.800	mmho/m	0.480	-53.000
Medium	1348.000	1348.000	0.000	255.800	mmho/m	0.380	-50.000

Microlog Calibration Report

Serial-Model: 402-PSI STKBL ML  
 Performed: Wed Jan 25 21:26:04 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	26000.0000	-1.0000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	30000.0000	-0.5000
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.5200

Compensated Density Calibration Report

Serial-Model: 303-03-M&W  
 Source #: 21170B  
 Master Calibration Performed: Wed Jan 25 21:25:40 2023

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3841.78	5151.73	cps
Aluminum	2.635	g/cc	700.98	3068.49	cps
Spine Angle = 73.06			Density/Spine Ratio = 0.495		
	Size		Reading		
Small Ring	4.00	in	1.17		
Large Ring	14.00	in	1.07		

Compensated Neutron Calibration Report

Serial-Model: 210-M&W  
 Source #: N-1238  
 Master Calibration Performed: Fri Dec 3 09:16:24 2021

Master Calibration

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: 103  
 Tool Model: M&W  
 Performed: Wed Jan 25 21:25:33 2023

Calibrator Value:	500.0	GAPI
Background Reading:	28.0	cps
Calibrator Reading:	986.0	cps
Sensitivity:	0.5700	GAPI/cps



Company	Mike Kelso Oil, Inc.
Well	Thomas Farms C-4
Field	Chase-Silica
County	Barton
State	Kansas