



Pioneer Energy Services

Dual Induction Log

API No.

15-017-20914-00-00

Company Kremeier Production & Operating

Well Miller #1

Field Koegeboehn

County Chase State

Kansas

Location

E2 SW SE NE
2310' FNL / 830' FEL

Sec: 20

Twp: 19S

Rge: 6E

Elevation

Permanent Datum Ground Level Elevation 1453
Log Measured From Ground Level 0 Ft. Above Perm. Datum
Drilling Measured From Ground Level

Other Services
CNL/CDL
MEL
K.B.
D.F.
G.L. 1453

Date 10/26/2013

Run Number One

Depth Driller 644

Depth Logger 644

Bottom Logged Interval 643

Top Log Interval 200

Casing Driller 8.625 @ 207

Casing Logger 204

Bit Size 6.75

Type Fluid in Hole Chemical

Salinity, ppm CL NA

Density / Viscosity 9.3 40

pH / Fluid Loss NA NA

Source of Sample Flowline

Rm @ Meas. Temp 3.00 @ 59

Rmf @ Meas. Temp 2.25 @ 59

Rmc @ Meas. Temp 4.05 @ 59

Source of Rmf / Rmc Charts

Rm @ BHT 2.15 @ 82

Operating Rig Time 2 Hours

Max Rec. Temp. F 82

Equipment Number 17

Location Hays

Recorded By R. Barnhart

Witnessed By Les Kremeier

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

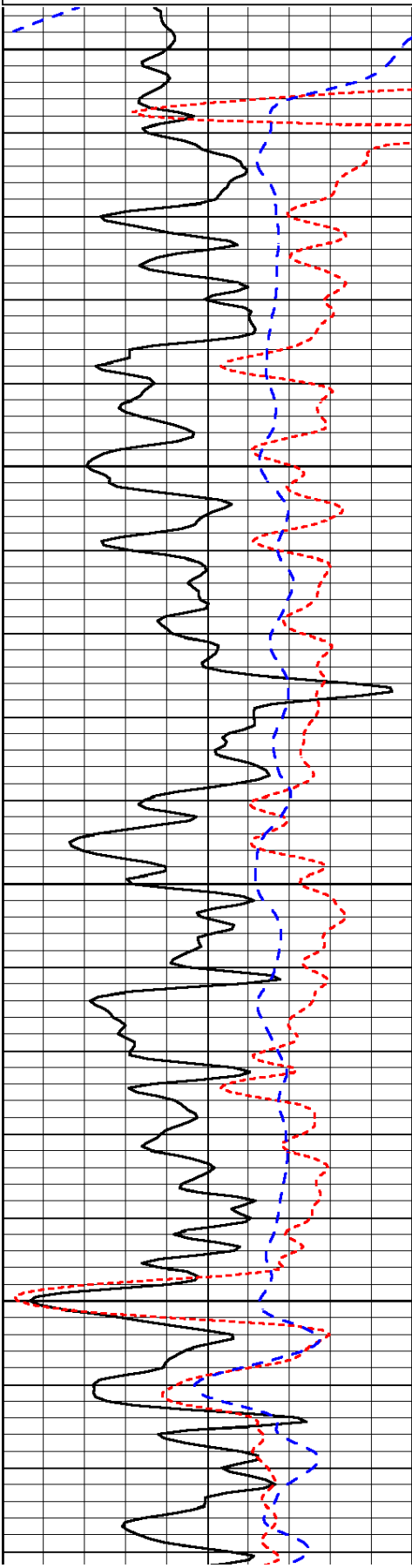
Thank you for using Log-Tech, Inc.
(785) 625-3858

Marion, KS:
Hwy 56 & 77: 9E to C Rd., 2N, E into

0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)

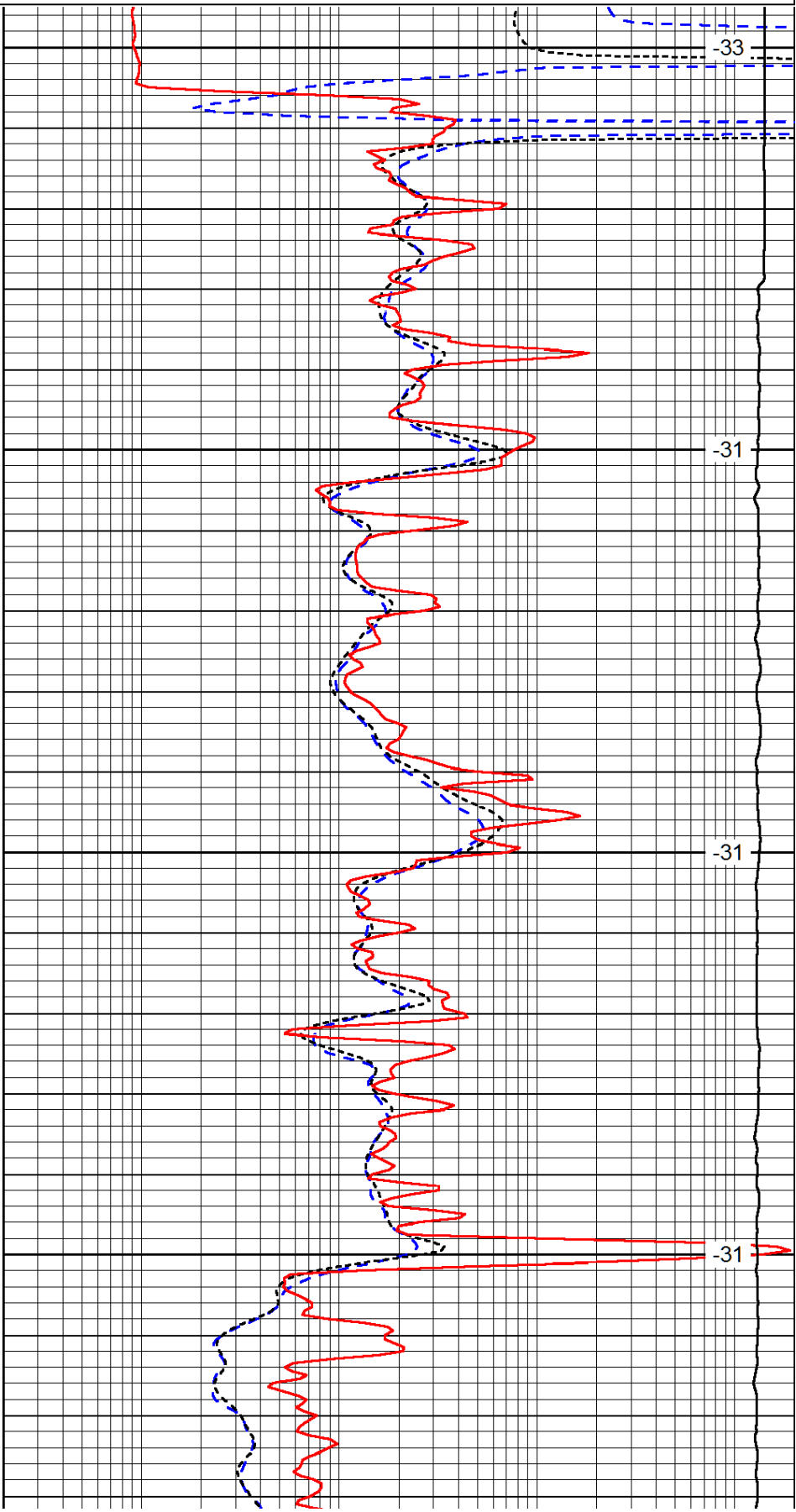


200

250

300

350

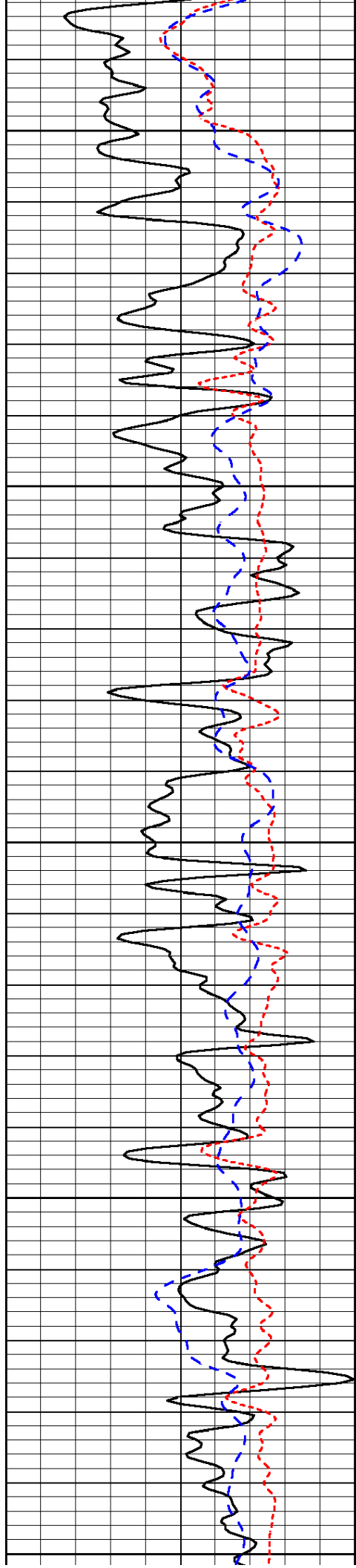


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-31



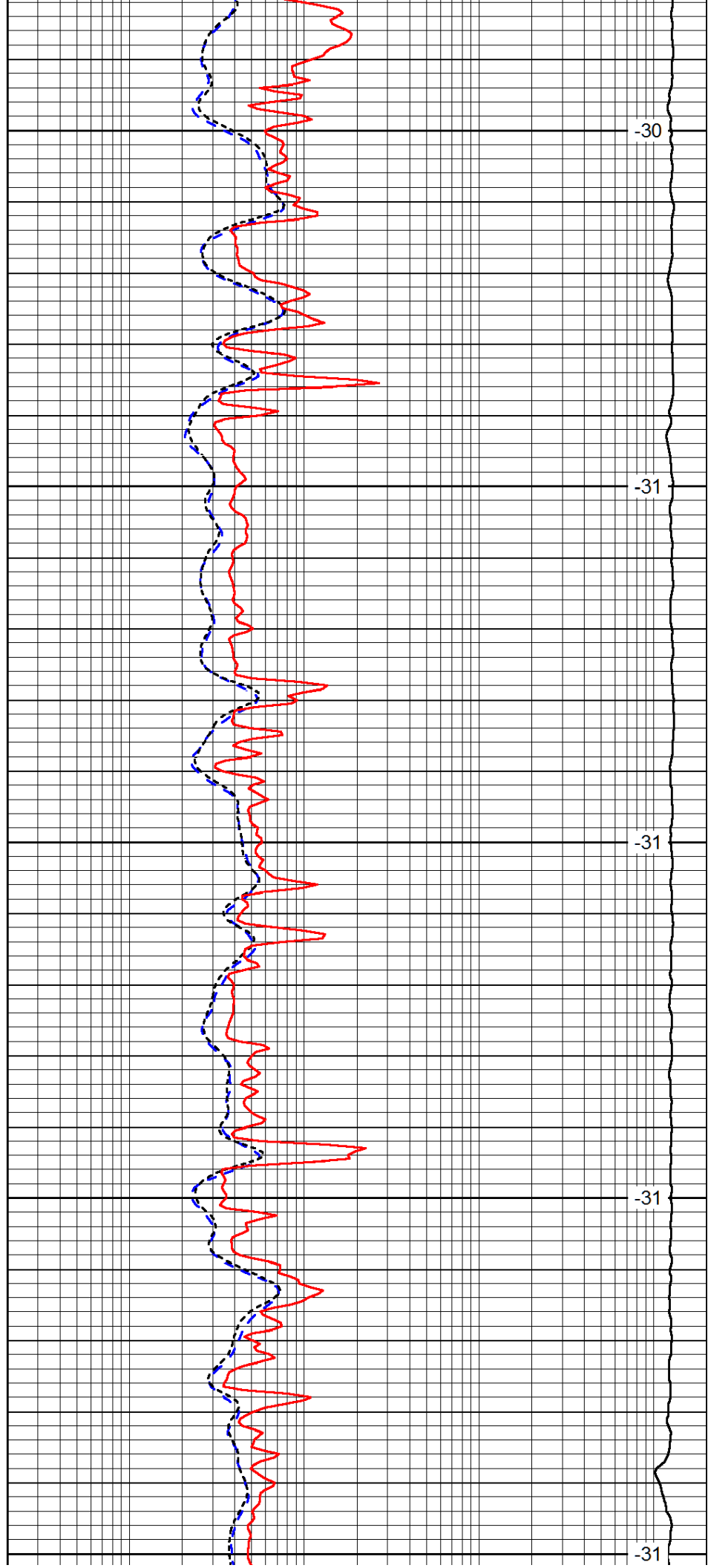
400

450

500

550

600



-30

-31

-31

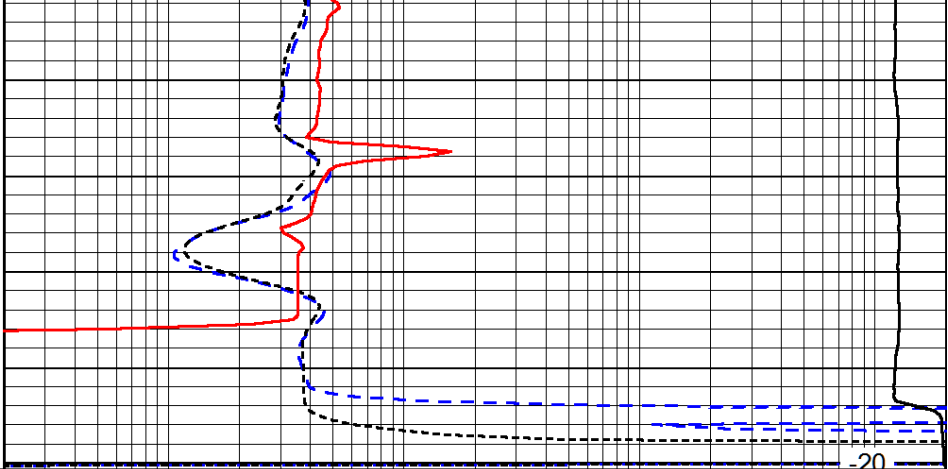
-31

-31



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-200	SP (mV)	0

650



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0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)