GEMINI WIRELINE

COMPENSATED DENSITY NEUTRON LOG

Company John O' Farmer, Inc.
Well Morgenstern B #1
Field Trapp
County Barton
State KS

Company John O' Farmer, Inc.
Well Morgenstern B #1
Field Trapp
County Barton State KS

Location: API # : 15 009 26174
2310' FNL & 2310' FEL
SEC 13 TWP 16S RGE 14W

Other Services
DIL
ML

Permanent Datum Ground Level Elevation 1906'
Log Measured From KB 8' AGL
Drilling Measured From KB

Elevation
K.B. 1914'
D.F. 1913'
G.L. 1906'

Date	6/12/17					
Run Number	One					
Depth Driller	3410'					
Depth Logger	3412'					
Bottom Logged Interval	3390'					
Top Log Interval	2800'					
Casing Driller	8 5/8" @ 473'					
Casing Logger	473'					
Bit Size	7 7/8"					
Type Fluid in Hole	Chemical					
Density / Viscosity	9.0/49					
pH / Fluid Loss	10.5/8.0					
Source of Sample	Calculted					
Rm @ Meas. Temp	.57@80degf					
Rmf @ Meas. Temp	.46@80degf					
Rmc @ Meas. Temp	.73@80degf					
Source of Rmf / Rmc	Calculated					
Rm @ BHT	.38@120degf					
Time Circulation Stopped	9:00 P.M.					
Time Logger on Bottom	11:00 P.M					
Maximum Recorded Temperature	120degf					
Equipment Number	T173					
Location	Hays, KS					
Recorded By	C. Patterson					
Witnessed By	Mr. Austin Klaus					

<<< Fold Here >>>

Comments

South out of Russell on Hwy 281 to 210 Rd., Then East 1 1/4 mi on 210 Rd.
South into Location By tank batteries

Thank you for using Gemini Wireline
785-625-1182

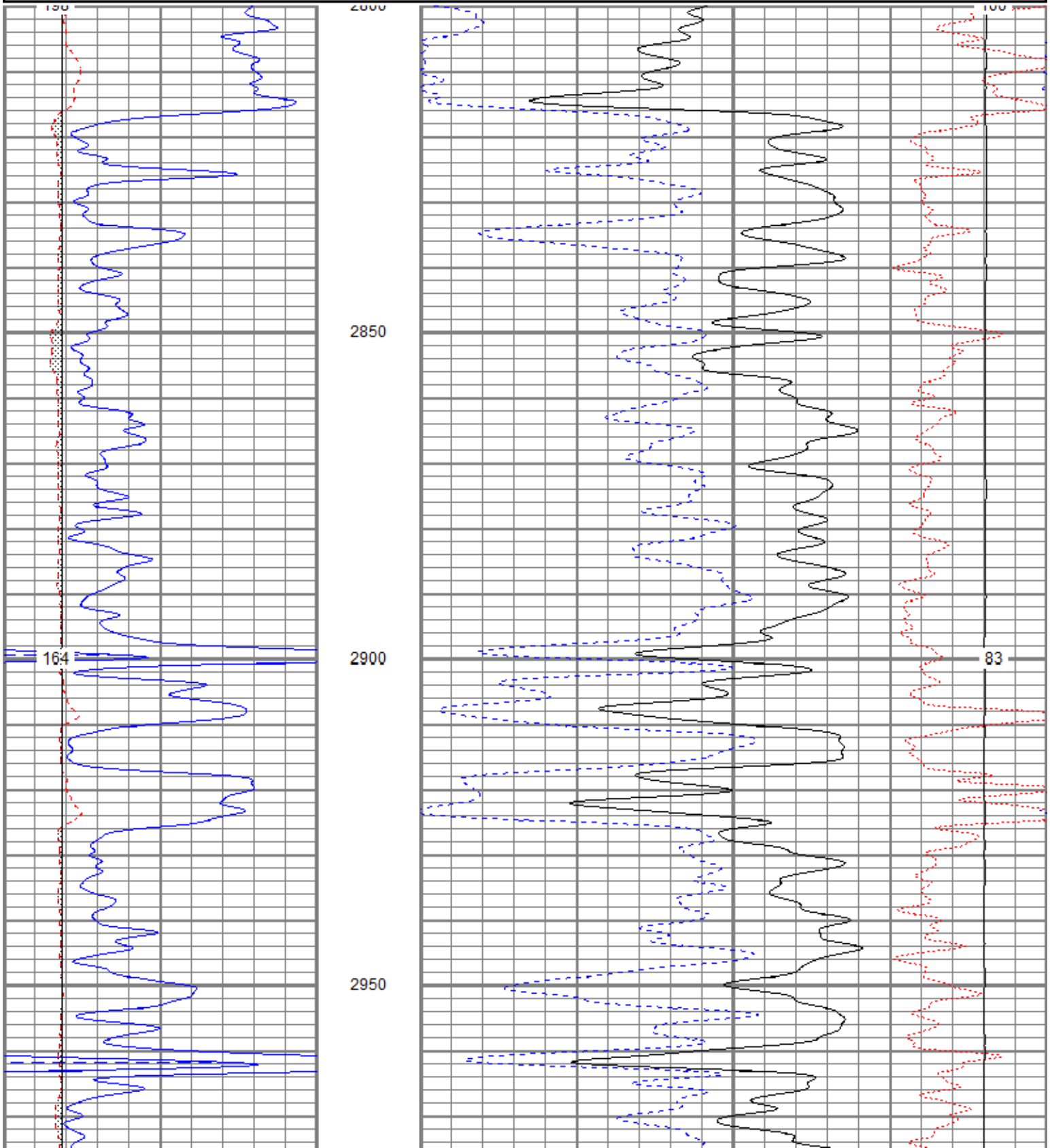
GEMINI WIRELINE

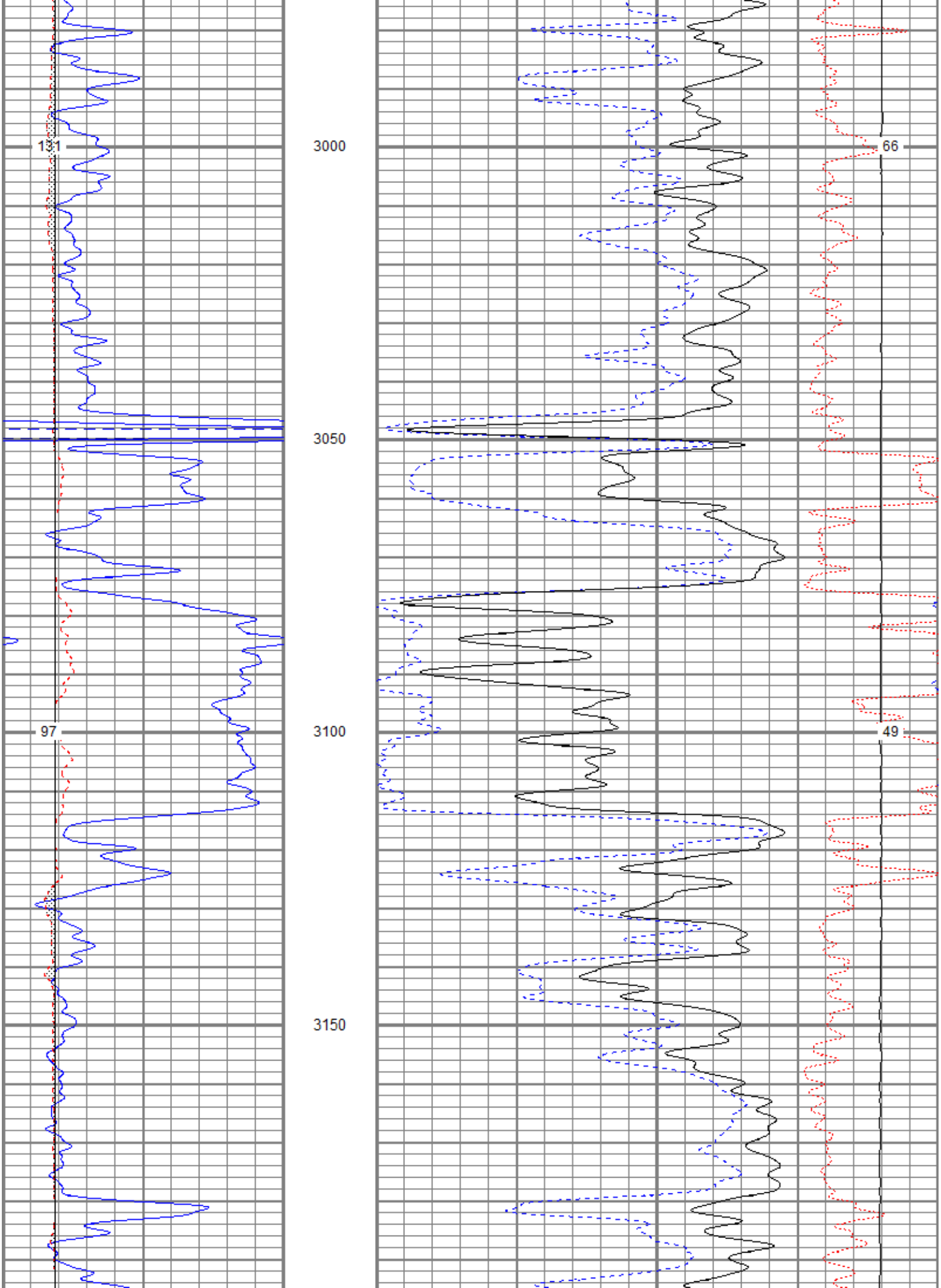
MAIN PASS

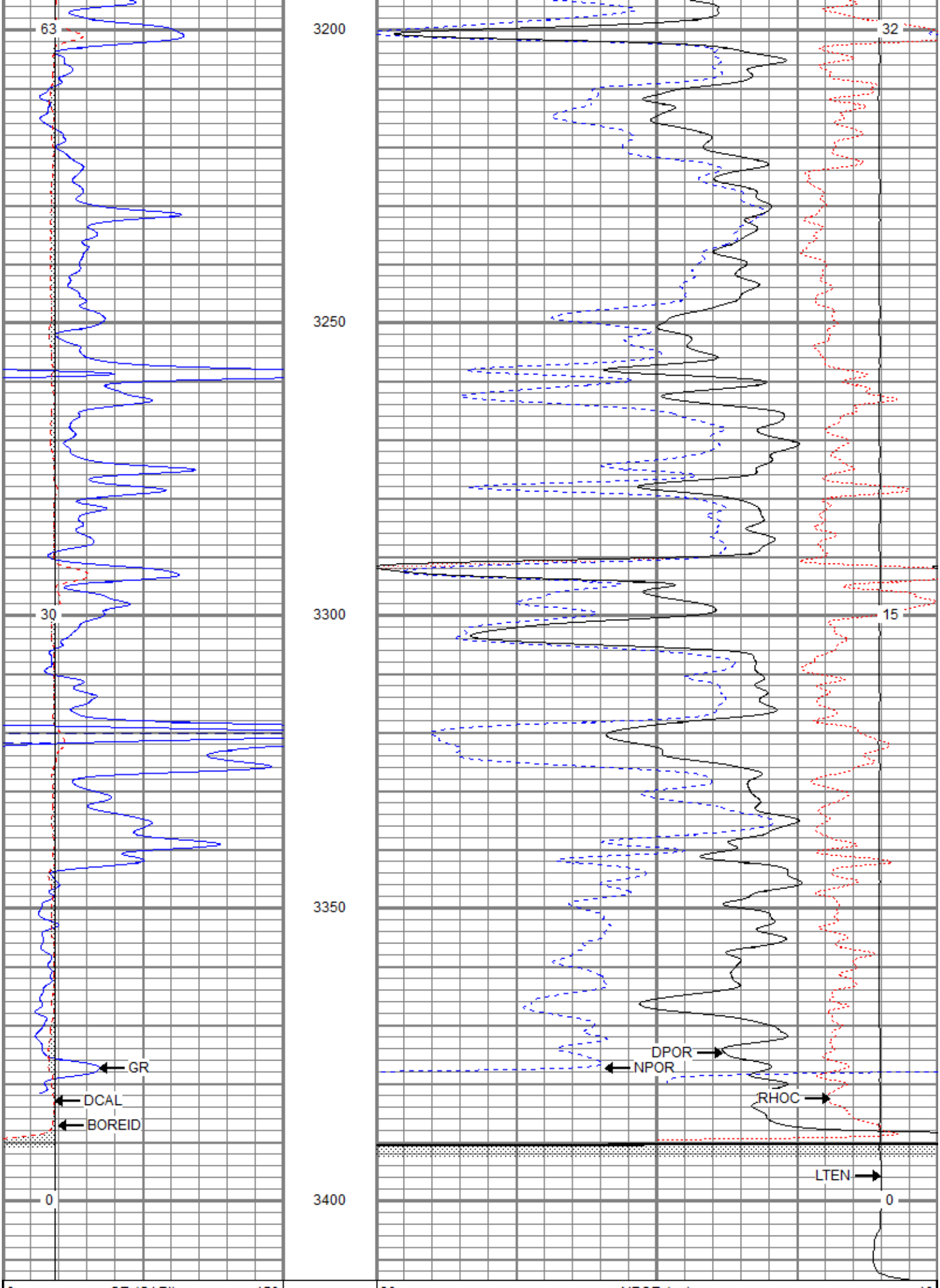
Database File	jofmorgensternb#1oh.db
Dataset Pathname	pass4.1
Presentation Format	kcdnl
Dataset Creation	Tue Jun 13 01:13:39 2017
Charted by	Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16
TBHV (ft3)		

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30
-0.25	RHOC (g/cc)	0.25
10000	LTEN (lb)	0
	ABHV (ft3)	




131
3000
66
3050
97
3100
49
3150


63
30
0
3200
3250
3300
3350
3400
32
15
0
GR
DCAL
BOREID
DPOR
NPOR
RHOC
LTEN

0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16
TBHV (ft3)		

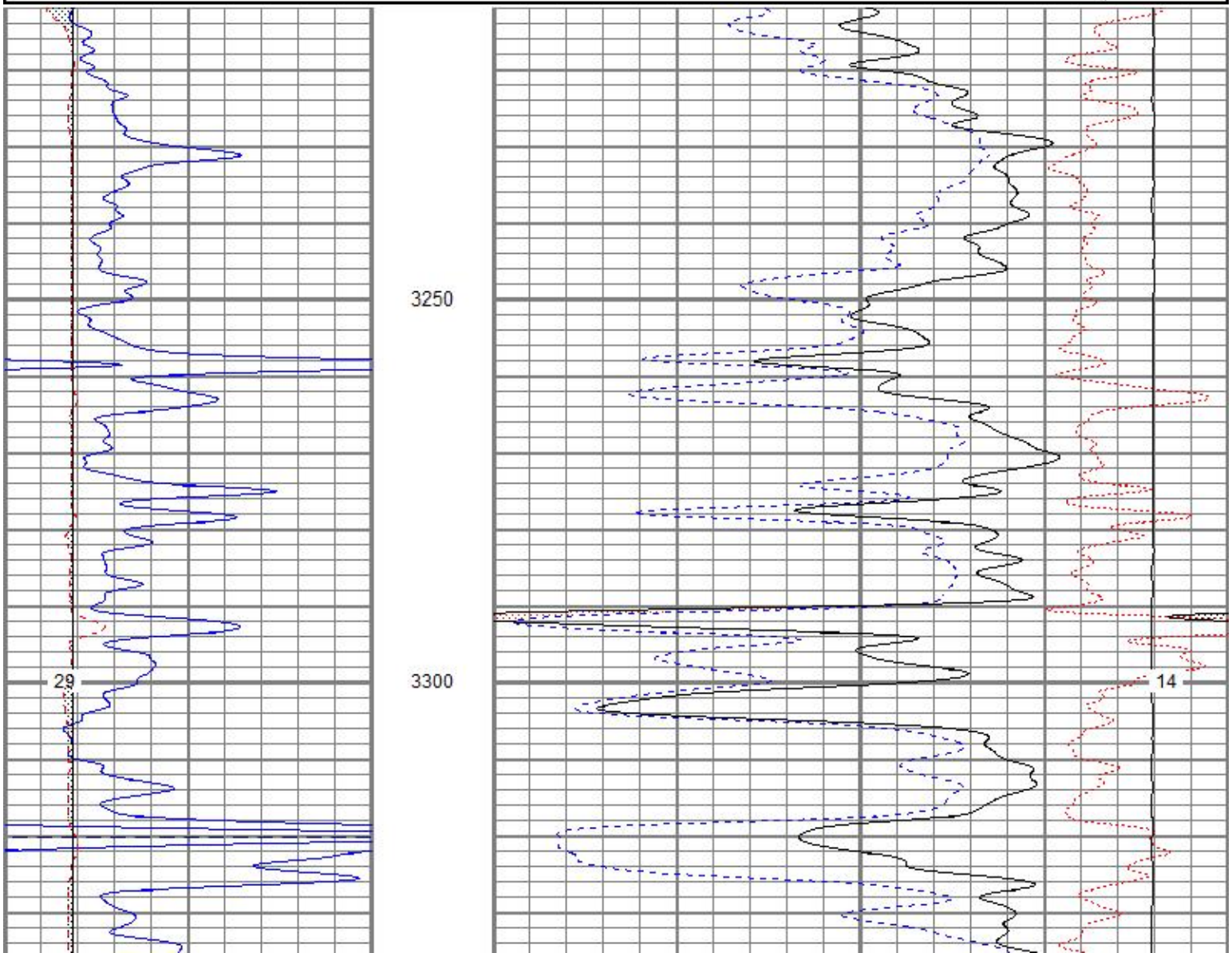
30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30
-0.25	RHOC (g/cc)	0.25
10000	LTEN (lb)	0
	ABHV (ft3)	

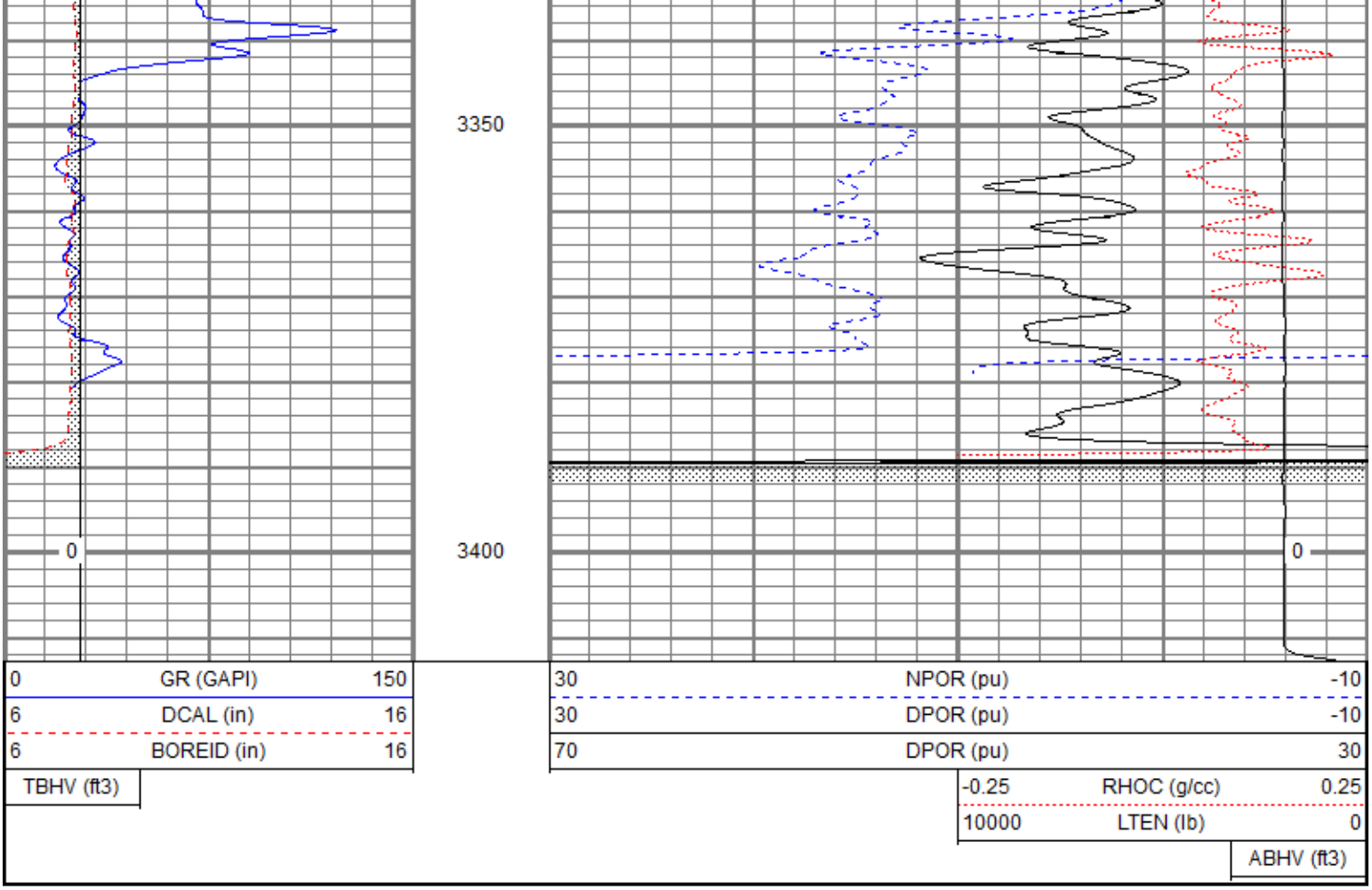
REPEAT SECTION

Database File	jofmorgensternb#1oh.db
Dataset Pathname	pass1.1
Presentation Format	kcdnl
Dataset Creation	Tue Jun 13 01:16:32 2017
Charted by	Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16
TBHV (ft3)		

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30
-0.25	RHOC (g/cc)	0.25
10000	LTEN (lb)	0
	ABHV (ft3)	





Calibration Report

Database File jofmorgensternb#1oh.db
Dataset Pathname pass4.1
Dataset Creation Tue Jun 13 01:13:39 2017

Dual Induction Calibration Report

Serial-Model:	080522-Probe
Surface Cal Performed:	Thu Oct 08 10:16:27 2015
Downhole Cal Performed:	Thu Oct 08 10:17:08 2015
After Survey Verification Performed:	Thu Oct 08 10:17:08 2015

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.641	V	0.000	400.000	mmho/m	624.950	-0.824
Medium	0.004	0.742	V	0.000	464.000	mmho/m	628.752	-2.706
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.001	0.641	V	0.000	400.000	mmho/m	625.200	-0.870
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.931	-2.579

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.282	399.760	mmho/m	0.046	399.886	mmho/m	1.001	-0.237
Medium	-0.077	464.284	mmho/m	-0.123	464.484	mmho/m	1.001	-0.046
LL3		7.298	V		750.000	Ohm-m		
		0.004	V		12.000	Ohm-m		
		-7.329	V		3745.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.282	399.760	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-0.077	464.284	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		750.000	Ohm-m		
		0.000	Ohm-m		12.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Compensated Density Calibration Report

Serial-Model: 2113TN-Aoilex
Source / Verifier: csv n-20 /
Master Calibration Performed: Thu Jun 09 06:25:13 2016
Before Survey Verification Performed:
After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	466.46	301.08	cps
Aluminum	2.690	g/cc	85.94	195.82	cps

Spine Angle = 75.73 Density/Spine Ratio = 0.539

	Size		Reading	
Small Ring	9.17	in	1.49	V
Large Ring	14.00	in	3.25	V

Before Survey Verification

Target		Measured	
	g/cc		g/cc
	g/cc		g/cc
	g/cc		g/cc

After Survey Verification

Target		Measured	
	g/cc		g/cc
	g/cc		g/cc
	g/cc		g/cc

Gamma Ray Calibration Report

Serial Number: 2213TN
Tool Model: Aoilex
Performed: Mon Feb 20 13:34:10 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.1000 GAPI/cps

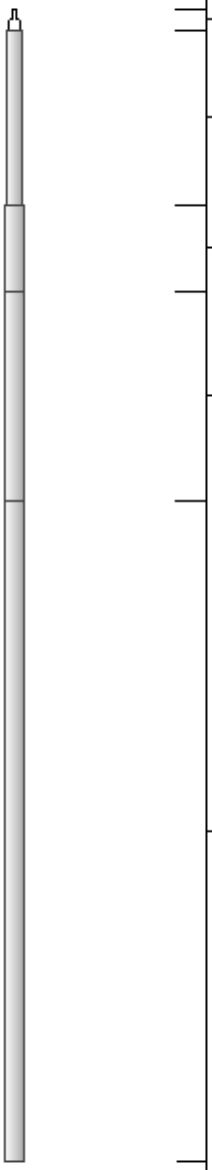
Neutron Calibration Report

Serial Number: 5138
Tool Model: G
Performed: Fri Feb 20 03:21:36 2015

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-None	0.75	1.50	5.00
NEU	35.44		NEU-G (5138) Gearhart Epithermal	5.65	3.50	85.00
GR	29.60		GR-Aoilex (2213TN) Admyr GR	2.84	4.00	50.00
LSD	24.57		CDL-Aoilex (2113TN) Admyr Oilex	6.80	4.00	250.00
DCAL	24.30					
SSD	24.05					
SP	10.60		DIL-Probe (080522) Probe Dual Induction	21.47	4.00	345.00
CILD	10.60					
CILM	6.89					
RLL3	1.70					

Dataset: jofmorgensternb#1oh.db: field/well/run1/pass4.1
Total length: 37.51 ft
Total weight: 735.00 lb
O.D.: 4.00 in