Company	Augustus Energy Resources, LLC
Well	Franson 42-33 4N47W
Field	Buffalo Grass
County	Yuma
State	Colorado

HIGH RESOLUTION INDUCTION GUARD LOG - SP GAMMA RAY

PIONEER
Pioneer Energy Services

Company Augustus Energy Resources, LLC
Well Franson 42-33 4N47W
Field Buffalo Grass
County Yuma State Colorado

Location: API # : 05 125 12121
SHL: 2326' FNL & 990' FEL SENE
SEC 33 TWP 4N RGE 47W

Other Services
Neutron
Density

Permanent Datum	GL	Elevation 3995
Log Measured From	KB	
Drilling Measured From	KB	

Elevation
K.B. 4001
D.F. 4000
G.L. 3995

Date	October 13, 2014			
Run Number	1			
Depth Driller	2975			
Depth Logger	2958			
Bottom Logged Interval	2958			
Top Log Interval	Casing			
Casing Driller	406			
Casing Logger	406			
Bit Size	6.25			
Type Fluid in Hole	WBM			
Density / Viscosity	8.6 / 28			
pH / Fluid Loss	NA			
Source of Sample	Mudpit			
Rm @ Meas. Temp	0.35 @ 68 F			
Rmf @ Meas. Temp	0.25 @ 68 F			
Rmc @ Meas. Temp	0.35 @ 68 F			
Source of Rmf / Rmc	Calc / Calc			
Rm @ BHT	0.21 @ 111 F			
Time Circulation Stopped	1130			
Time Logger on Bottom	1530			
Maximum Recorded Temperature	111 F			
Equipment Number	36			
Location	Ft. Morgan, CO			
Recorded By	Shaun Stump			
Witnessed By	Justin Stone			

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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.

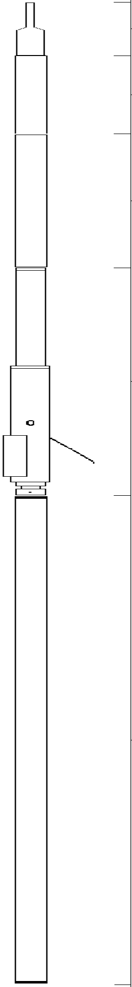
Comments

Annular volume calculated for 7" casing
Excell Drilling Rig 2
Thank you for using Pioneer Energy Services.

SO# 2-013716

Sensor	Offset (ft)
GR	0.00
CNLSC	-3.67
CNSSC	-4.17
DCAL	-11.84
LSD	-12.67
SSD	-13.17
RLL3	-17.52
CILD	-24.97
CILM	-28.42
SP	-32.42

Schematic



Description	Len (ft)	OD (in)	Wt (lb)
CHD (~0)	2.00	3.50	30.00
GR-PSI (43)	2.92	3.50	40.00
CNT-PSI (853)	5.00	3.50	70.00
CDL-PSI (771)	8.50	5.00	285.00
DIL-PSI (1010)	18.25	3.75	175.00

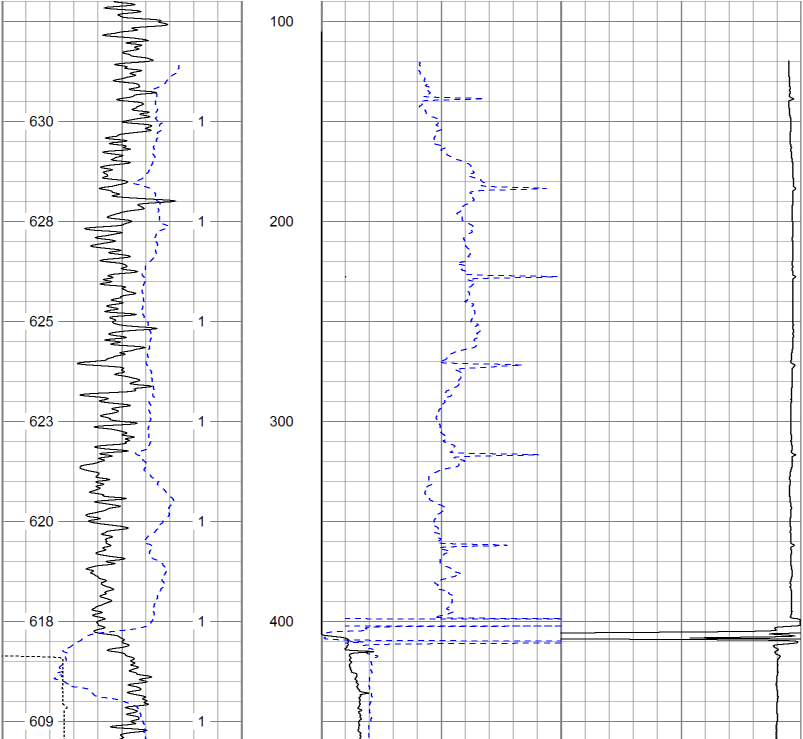
Dataset:	13716.db: field/well/run1/pass4
Total Length:	36.67 ft
Total Weight:	600.00 lb
O.D.	5.00 in

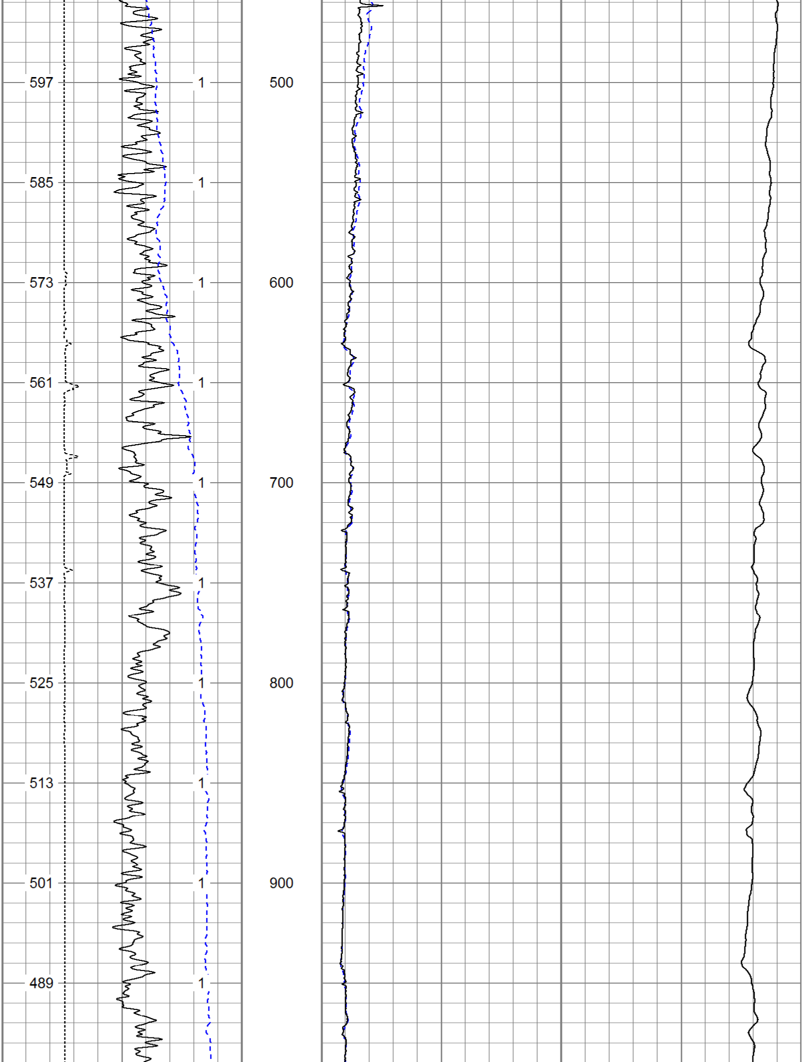
Database File: c:\warrior\data\augustus energy resources,llc_franson 42-33 4n47w_0512512121_20141013_gr-
Dataset Pathname: pass4
Presentation Format: dilin60
Dataset Creation: Mon Oct 13 15:57:59 2014 by Log Open-Cased 110302
Charted by: Depth in Feet scaled 1:600

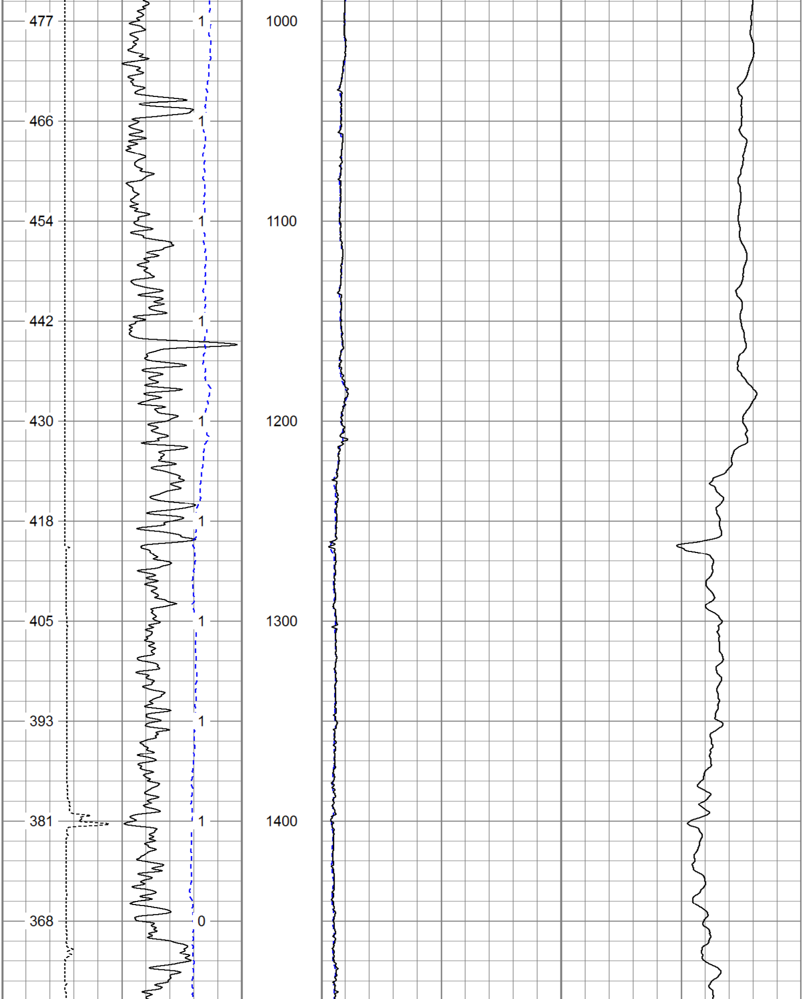
0 Gamma Ray (GAPI) 200
0 SP (mV) 200
4 Caliper (in) 14
TBHV (ft3) ABHV (ft3)

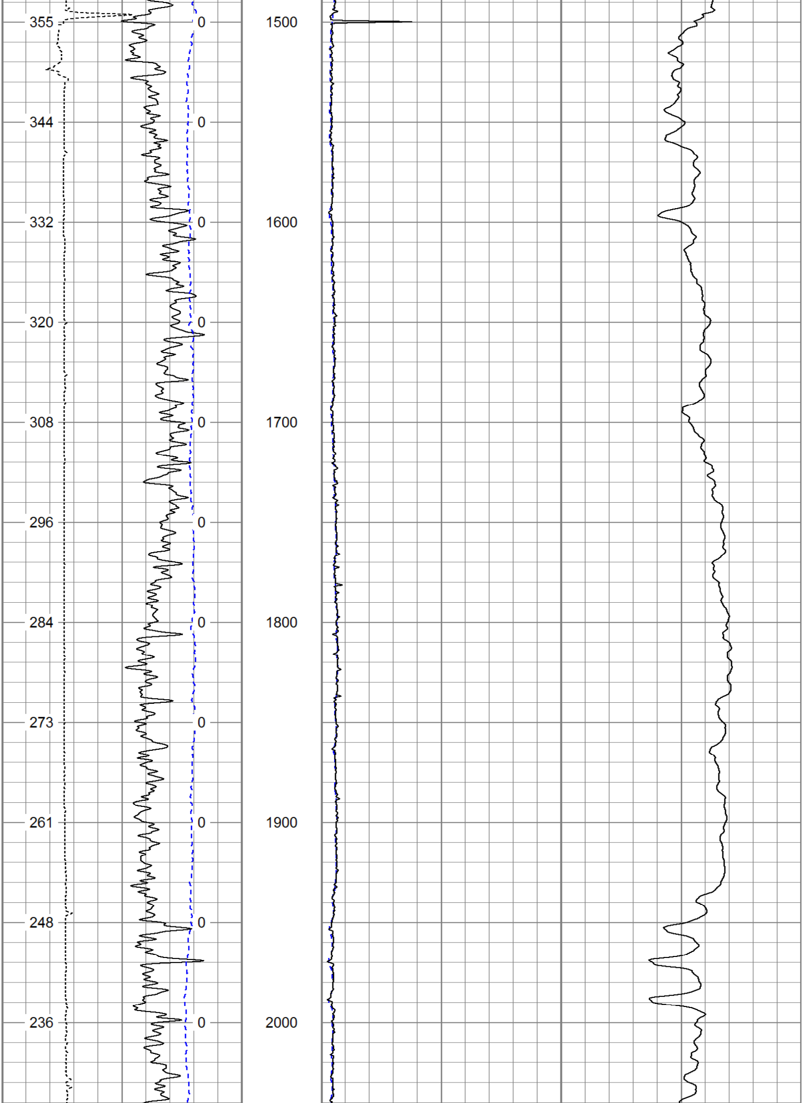
0 Deep Resistivity (Ohm-m) 50
0 Shallow Resistivity (Ohm-m) 50
50 RILD (Ohm-m) 500
50 RLL3 (Ohm-m) 500

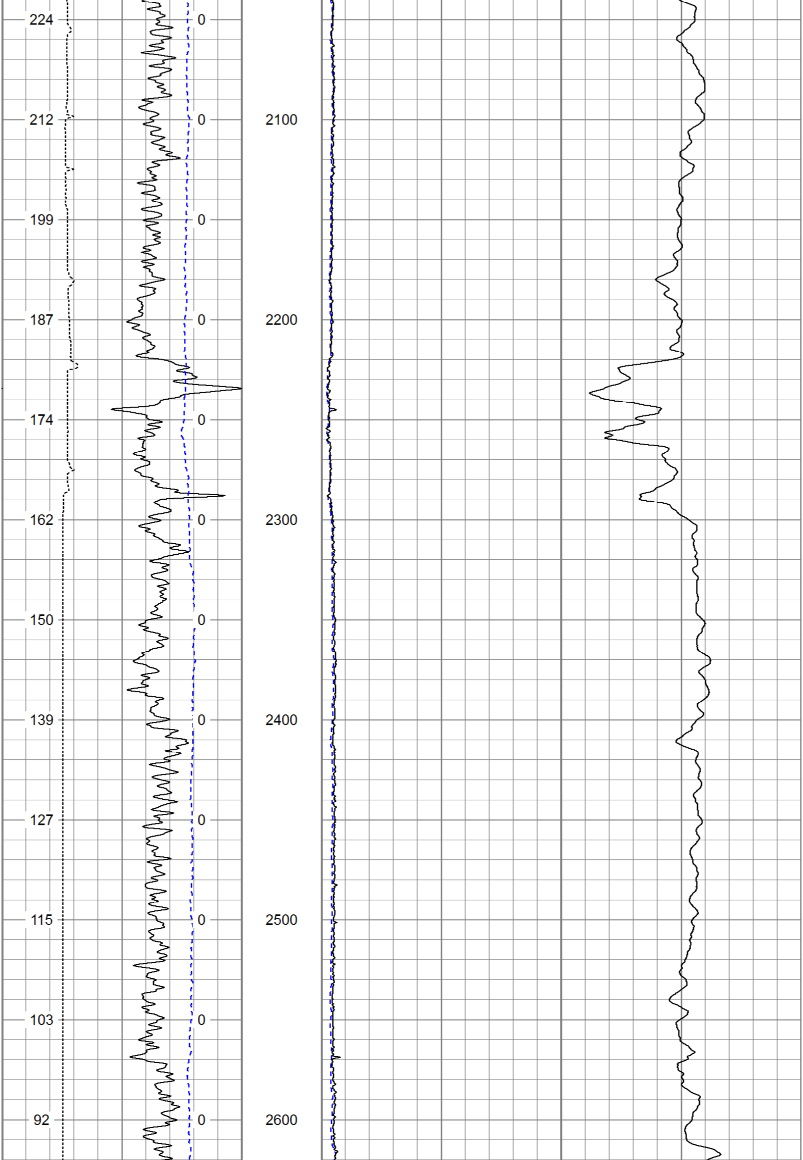
1000 CILD (mmho/m) 0

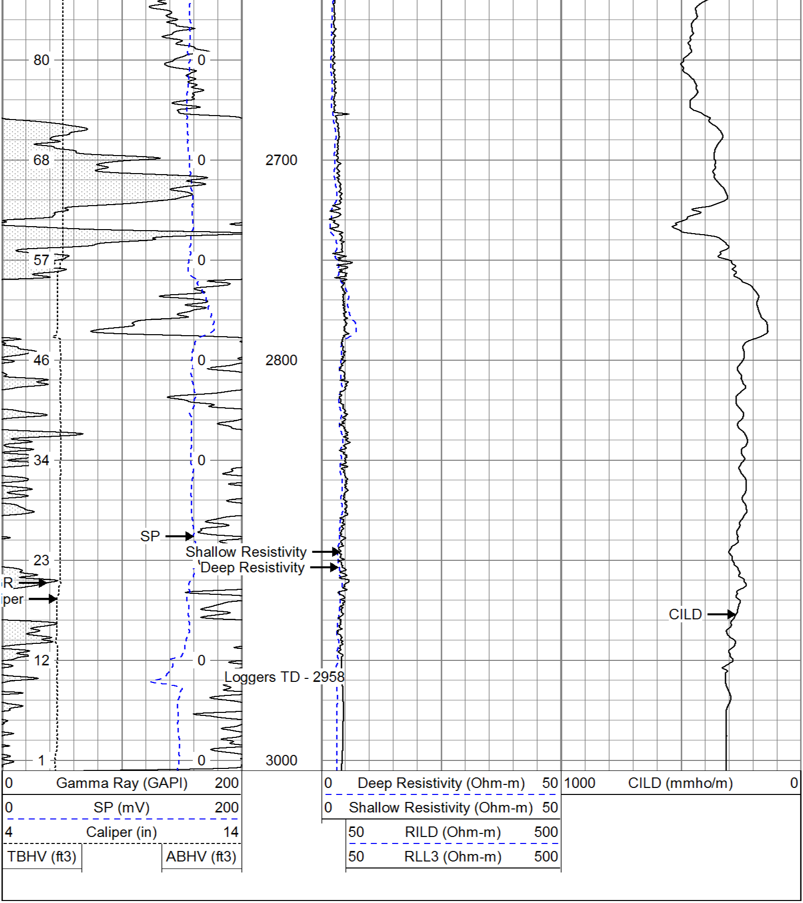












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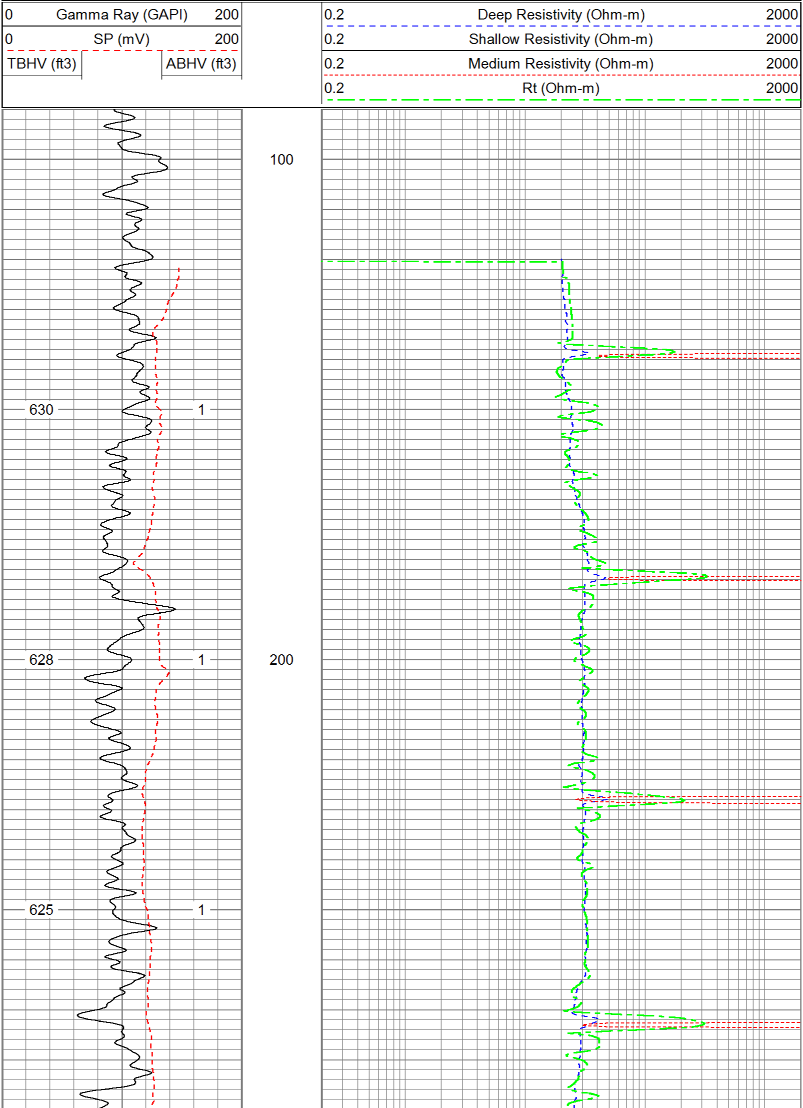
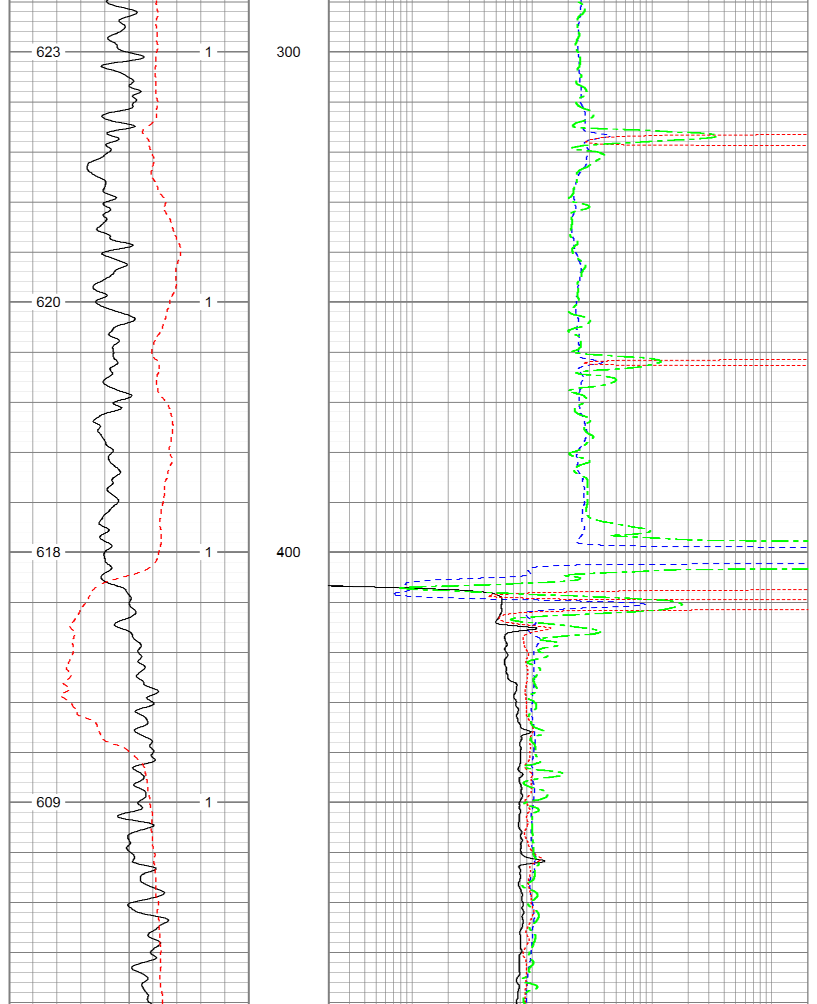
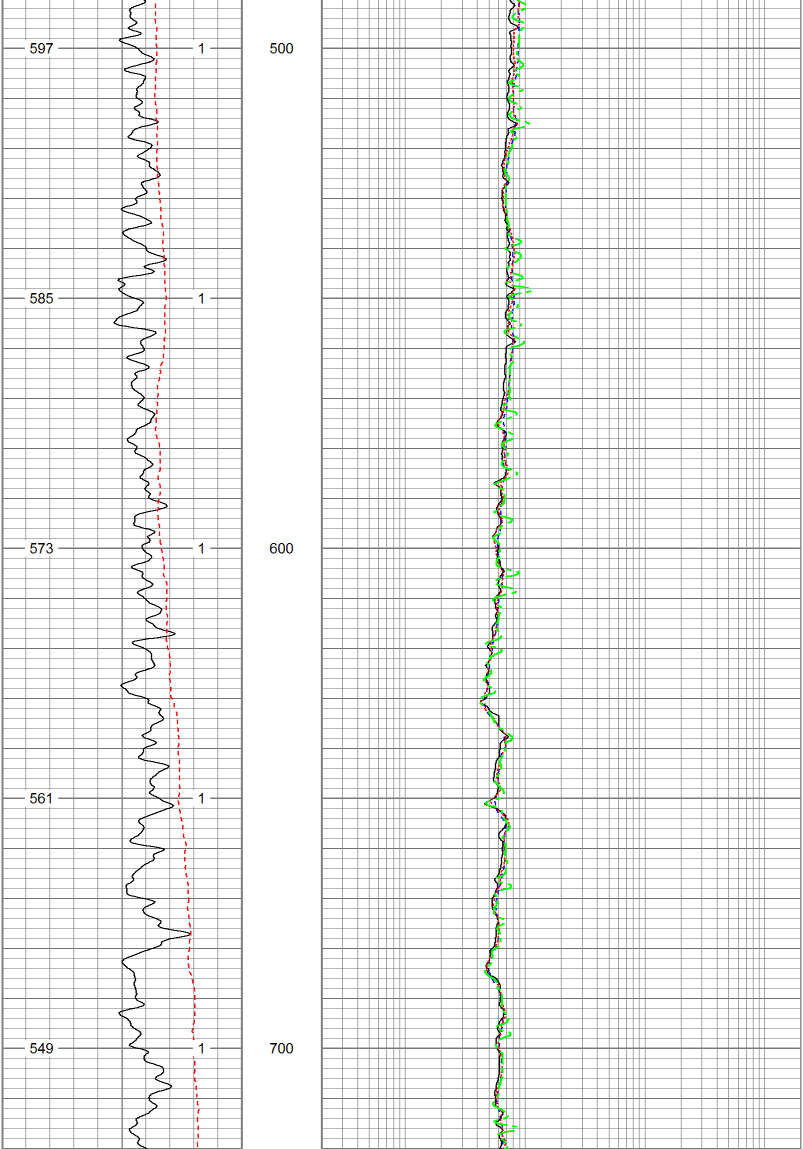
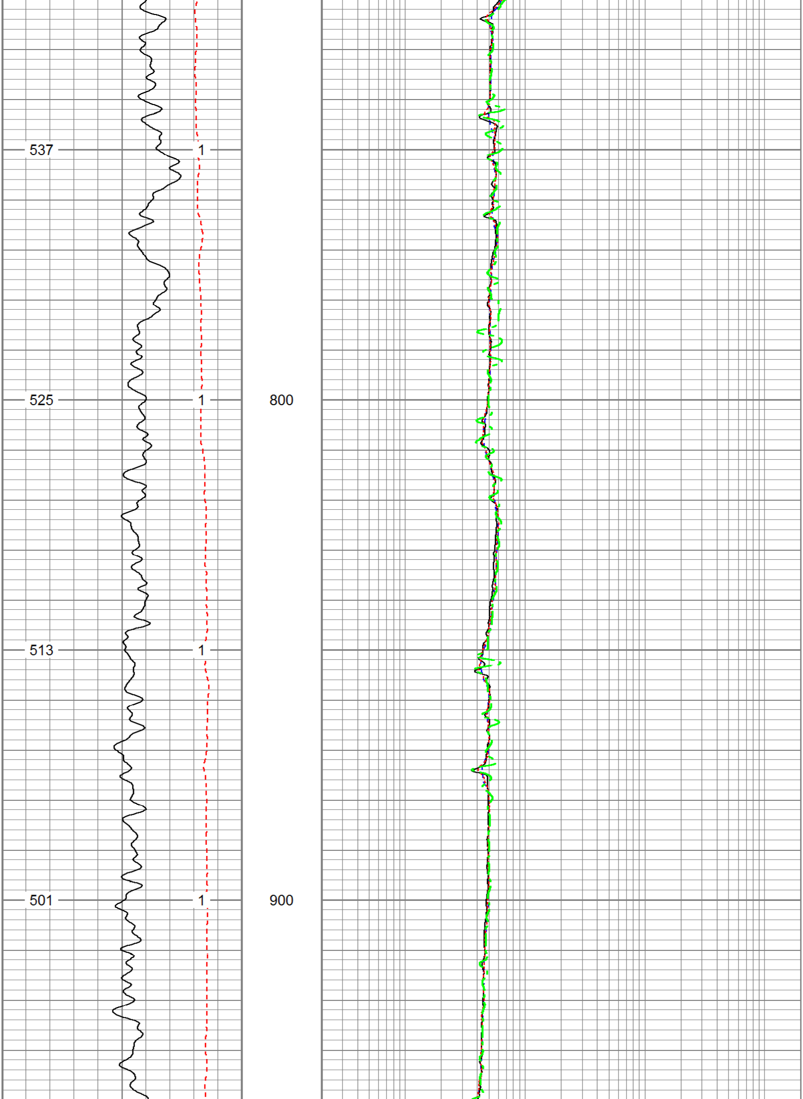
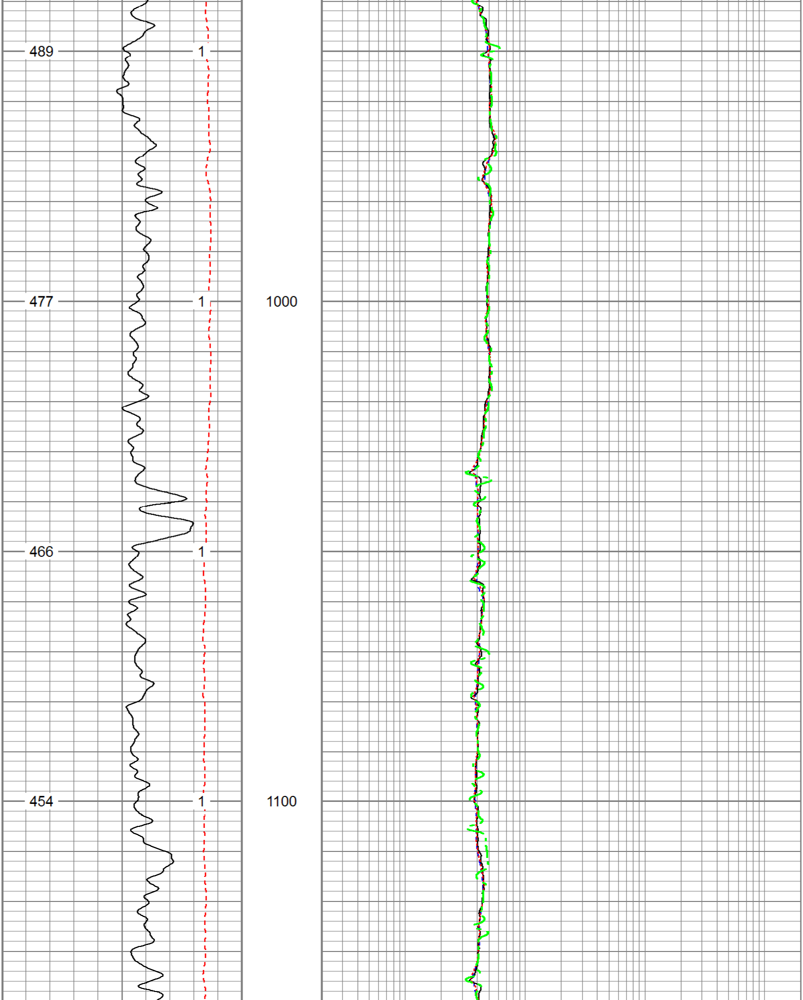
Dataset Pathname:	pass4
Presentation Format:	dil
Dataset Creation:	Mon Oct 13 15:57:59 2014 by Log Open-Cased 110302
Charted by:	Depth in Feet scaled 1:240

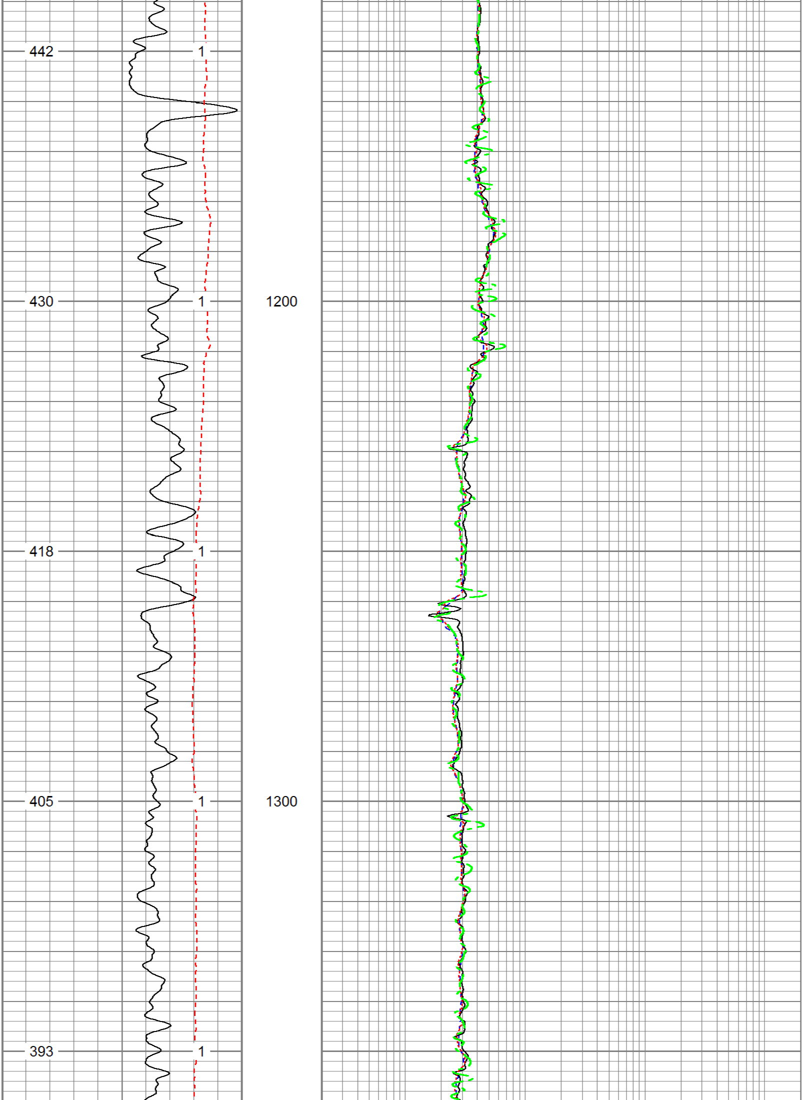


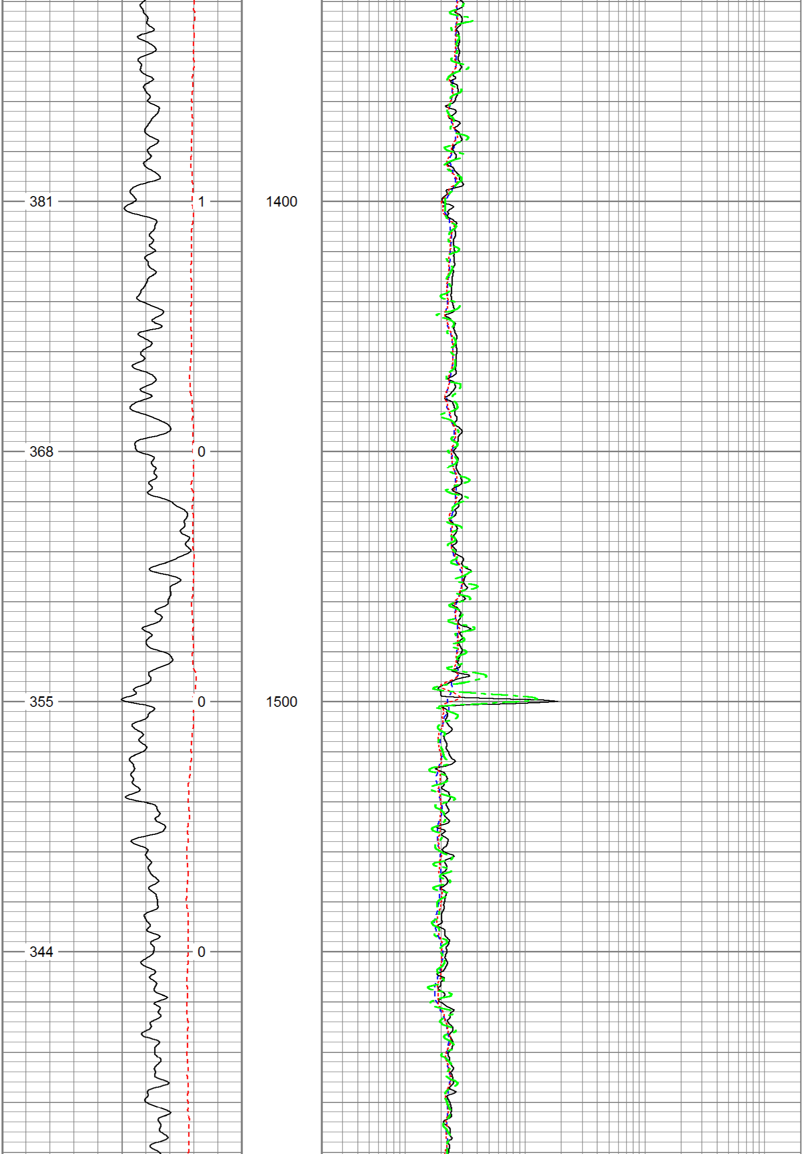


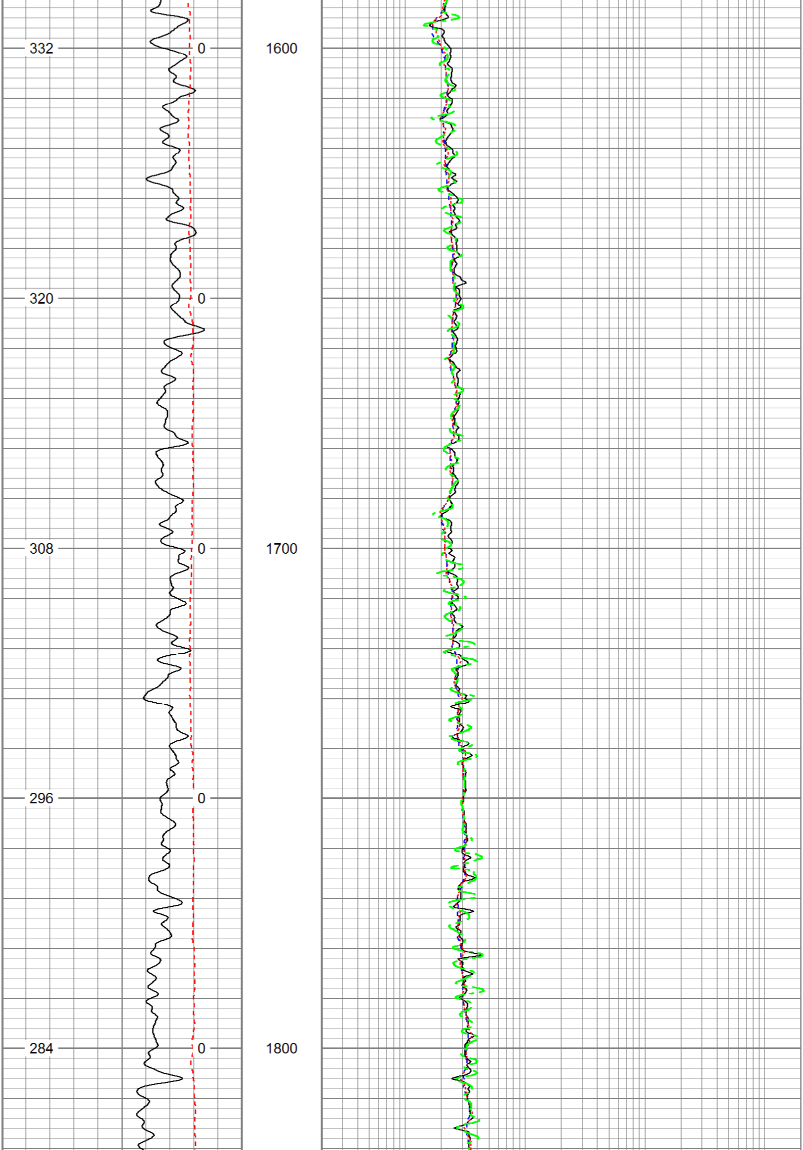


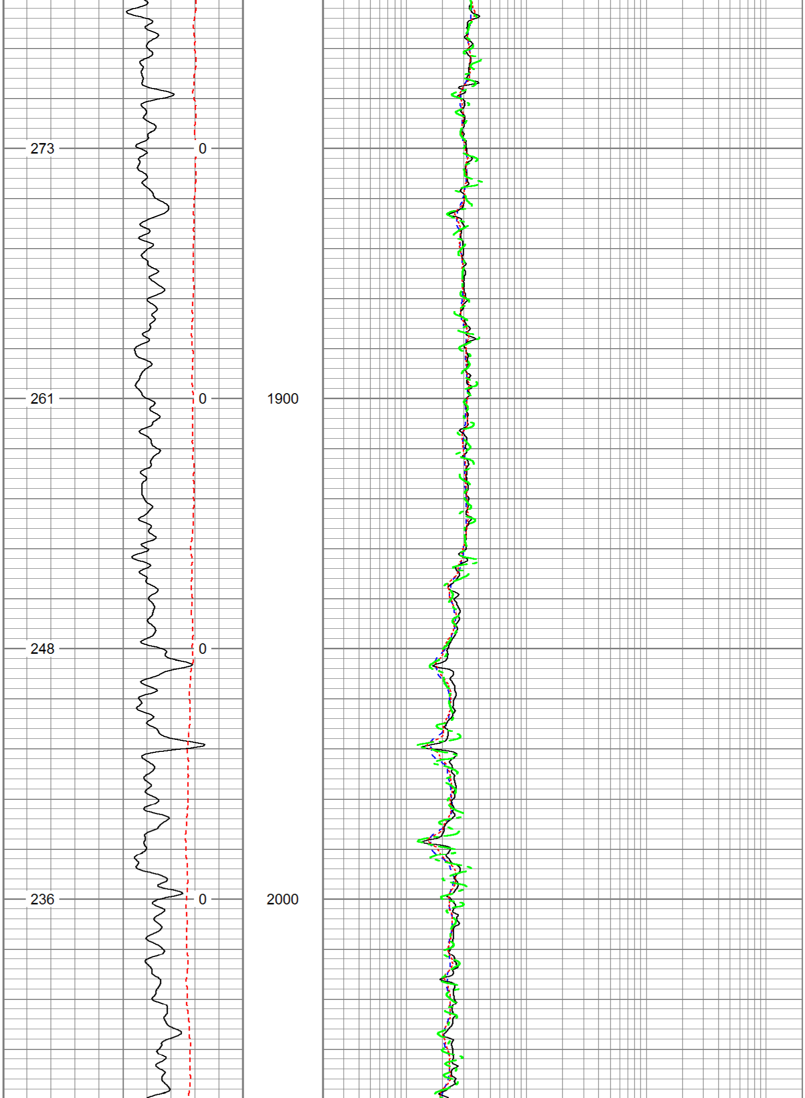


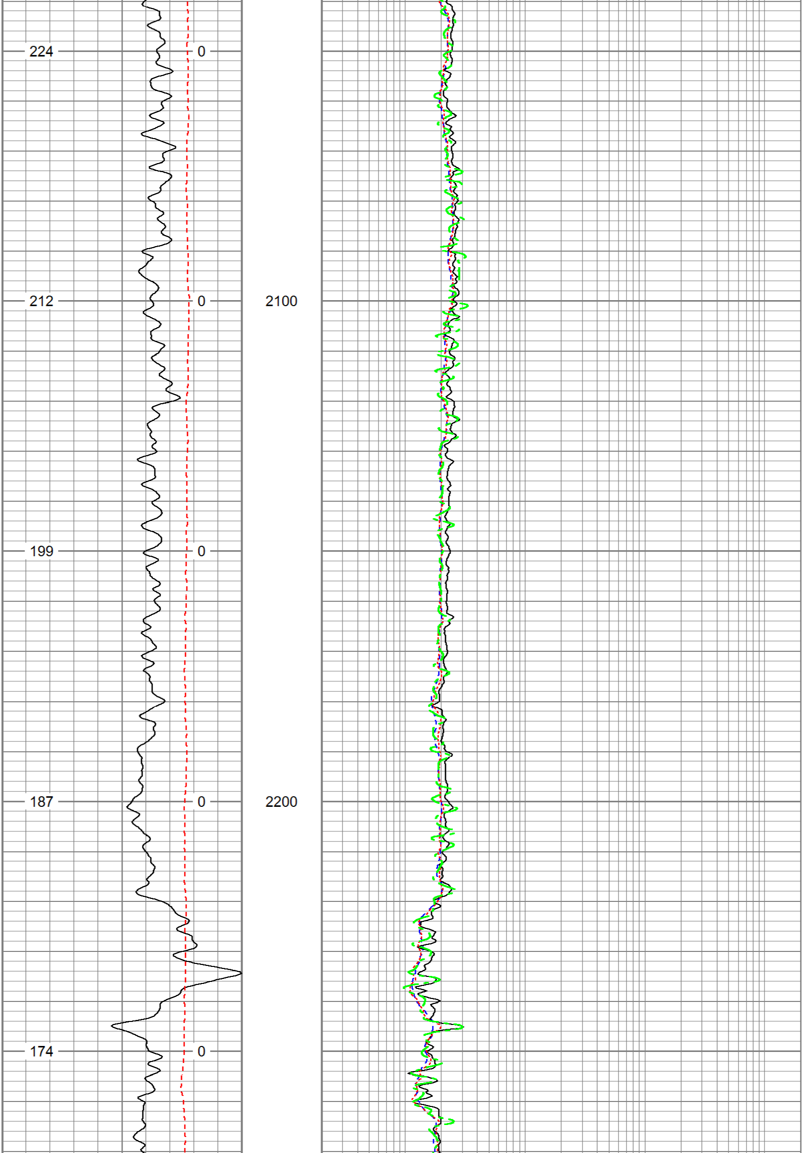


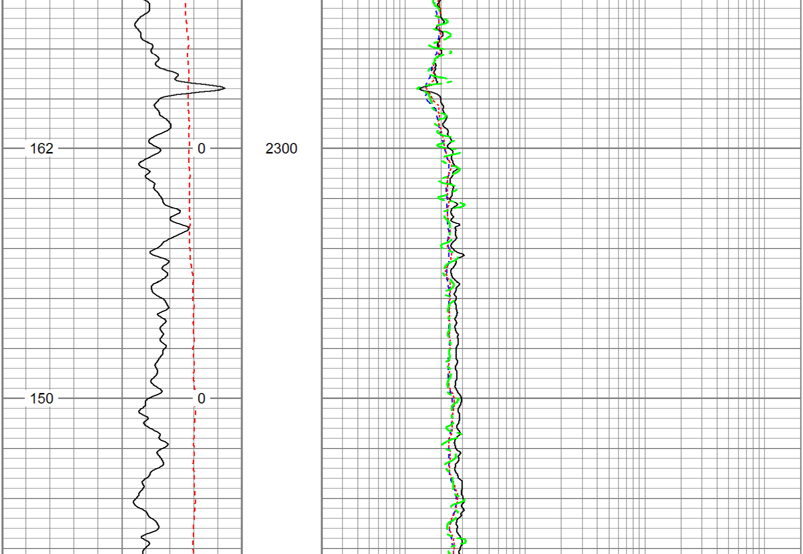












Calibration Report

Database File: C:\Warrior\Data\Augustus Energy Resources,LLC_Franson 42-33 4N47W_0512512121_2014101
Dataset Pathname: pass2
Dataset Creation: Mon Oct 13 15:33:50 2014 by Log Open-Cased 110302

Dual Induction Calibration Report

Serial-Model: 1010-PSI
Surface Cal Performed:

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	0.000	1.000	0.000	1.000	mmho/m	0.550	-33.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.480	-27.000

Compensated Density Calibration Report

Serial-Model: 771-PSI
Master Calibration Performed: Wed Aug 20 14:19:31 2014

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	6323.60	8557.33	cps
Aluminum	2.690	g/cc	1148.13	5455.46	cps

	Size		Reading
Small Ring		in	
Medium Ring		in	
Large Ring		in	

Compensated Neutron Calibration Report

Serial Number: 853
Tool Model: PSI

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.9000
Long Space	1.00	cps	1.00	cps	1.9200

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 43
Tool Model: PSI
Performed: Tue Oct 18 17:42:20 2011

Calibrator Value: 275.0 GAPI

Background Reading: 32.0 cps
Calibrator Reading: 340.0 cps

Sensitivity: 0.6000 GAPI/cps

Log Variables

Database: C:\Warrior\Data\Augustus Energy Resources,LLC_Franson 42-33 4N47W_
Dataset: field/well/run1/pass2

Top - Bottom

SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m	SNDERR mmho/m
On	Limestone	1	2.71	0	0	0

CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
7	0	0	111	7.875