PIONEER
Pioneer Energy Services

COMPENSATED NEUTRON GAMMA RAY

Company	CARRIZO NIOBRARA LLC
Well	O'HARE 2-29-11-57
Field	WATTENBERG
County	WELD
State	CO

Company CARRIZO NIOBRARA LLC
Well O'HARE 2-29-11-57
Field WATTENBERG
County WELD **State** CO

Location: API # : 05-123-40082
677' FSL & 2205' FEL SWSE
SEC 29 TWP 11N RGE 57W

Other Services
NONE

Permanent Datum GL Elevation 4927
Log Measured From KB
Drilling Measured From KB

Elevation
K.B. 4944
D.F. 4943
G.L. 4927

Date	October 13, 2014		
Run Number	1		
Depth Driller	NA		
Depth Logger	5100		
Bottom Logged Interval	5100		
Top Log Interval	0		
Casing Driller	NA		
Casing Logger	NA		
Bit Size	8.75		
Type Fluid in Hole	NA		
Density / Viscosity	NA		
pH / Fluid Loss	NA		
Source of Sample	NA		
Rm @ Meas. Temp	NA		
Rmf @ Meas. Temp	NA		
Rmc @ Meas. Temp	NA		
Source of Rmf / Rmc	NA		
Rm @ BHT	NA		
Time Circulation Stopped	NA		
Time Logger on Bottom	1100		
Maximum Recorded Temperature	NA		
Equipment Number	48		
Location	Ft. Morgan		
Recorded By	Clint Christensen		
Witnessed By	Jeff Myers		

<<< Fold Here >>>

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.

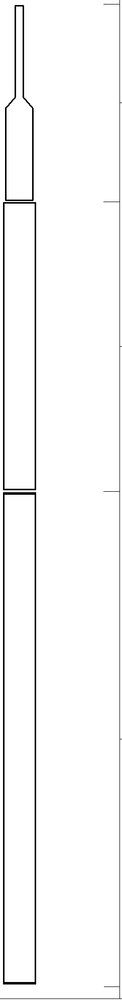
Comments

N/A Denotes Not Available or Non-Applicable

Neutron Logged on SS matrix

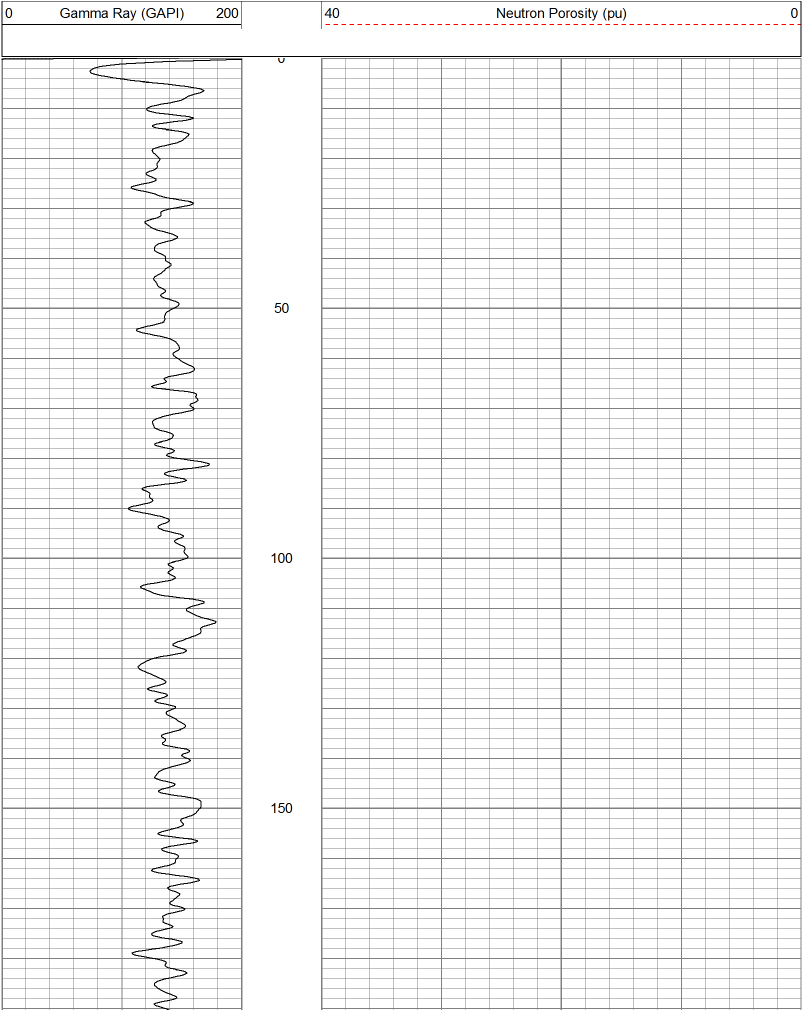
Thank You for Using Pioneer Energy Services.

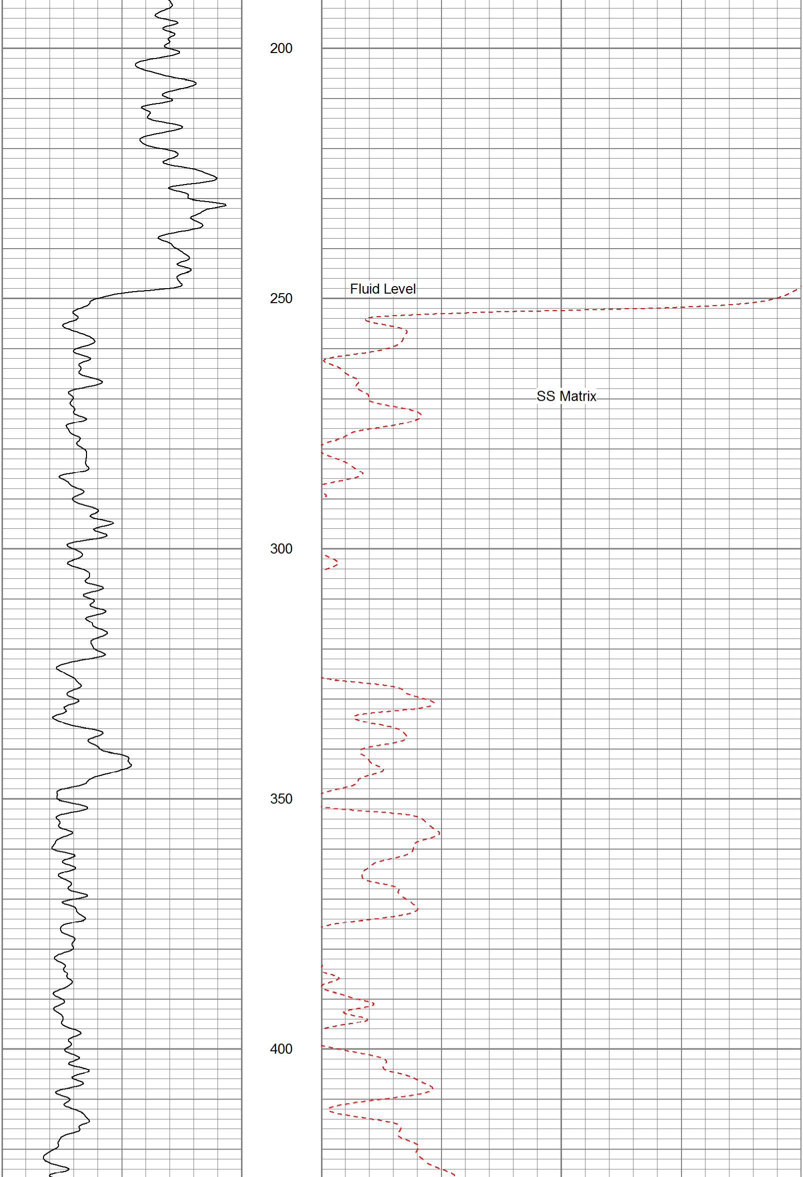
SO# 2-013756

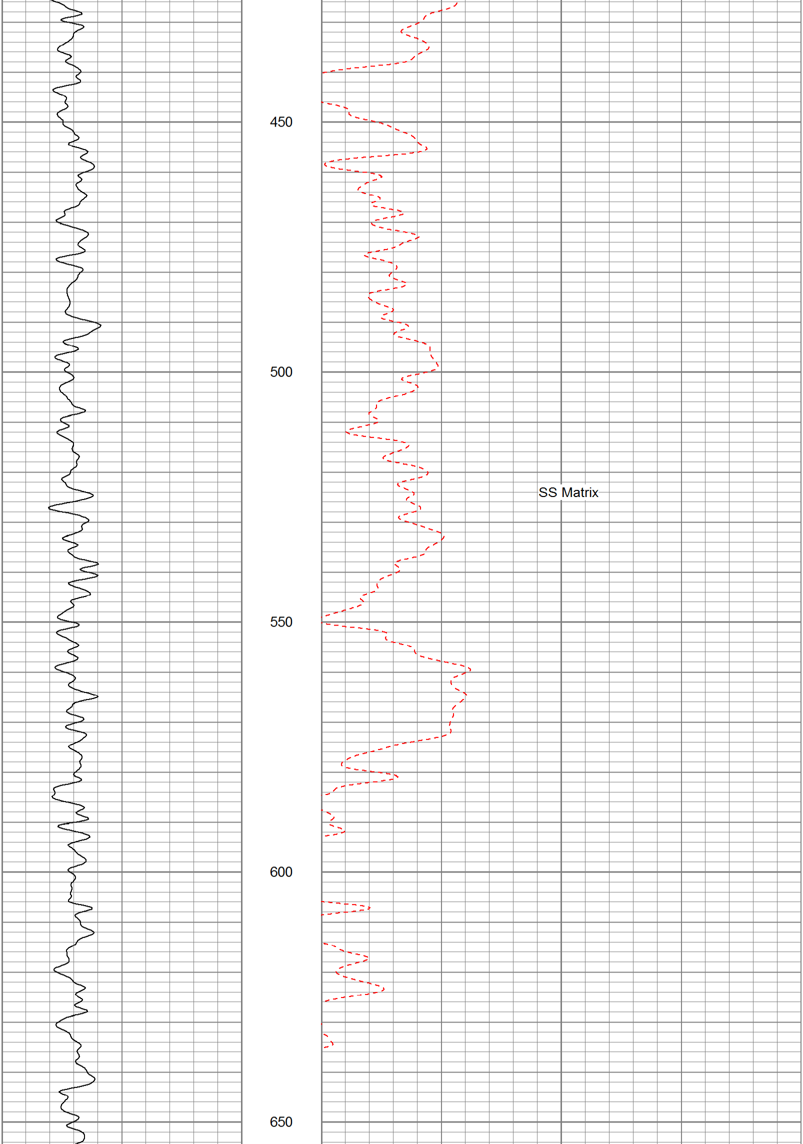
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD (~0)	2.00	3.50	30.00
			GR-PSI (939)	2.92	3.50	40.00
GR	0.00					
			CNT-PSI (856)	5.00	3.50	70.00
CNLSC	-3.67					
CNSSC	-4.17					

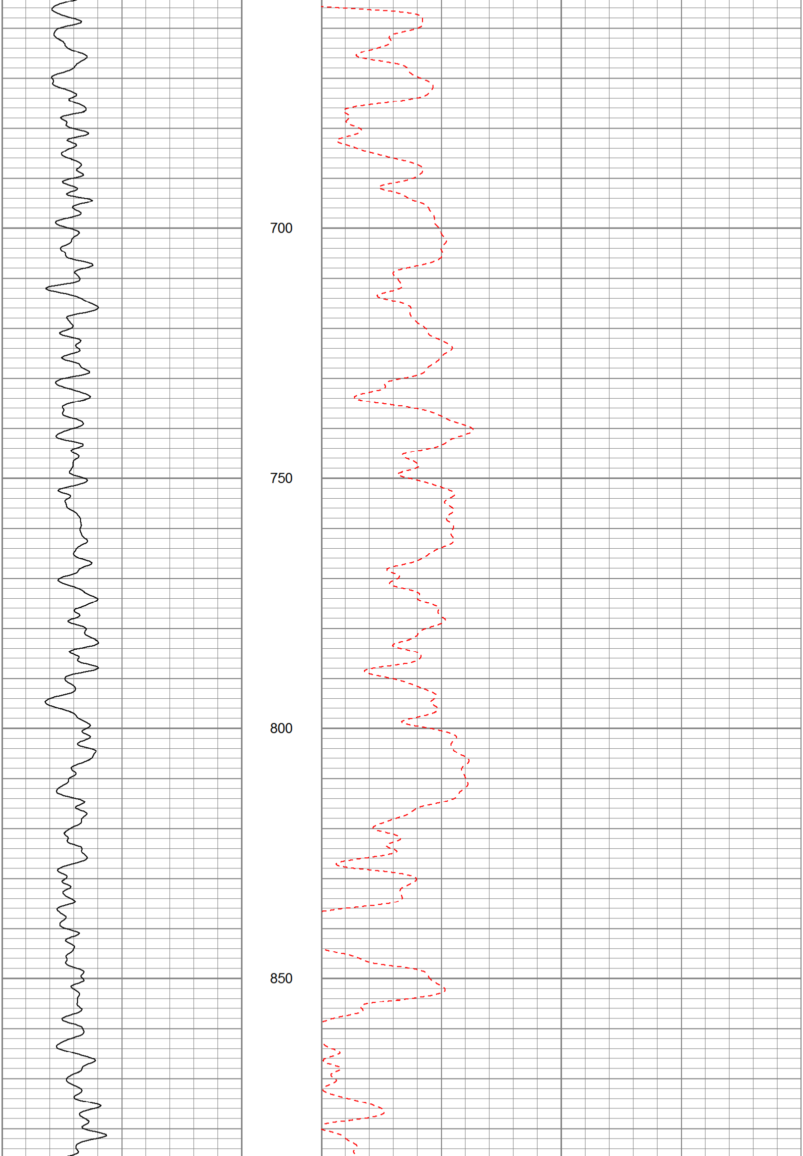
Dataset: 13756.db: field/well/run1/pass2
Total Length: 9.92 ft
Total Weight: 140.00 lb
O.D. 3.50 in

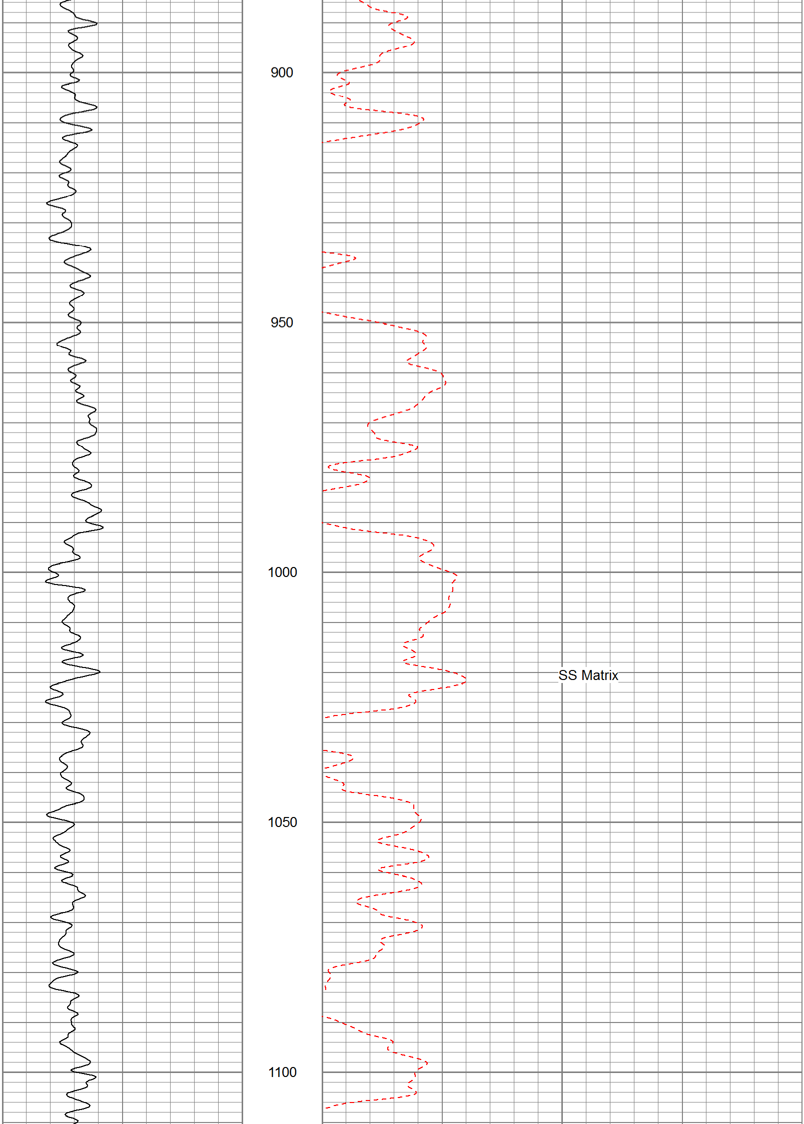
Database File:	13756.db
Dataset Pathname:	pass2
Presentation Format:	den_neu
Dataset Creation:	Mon Oct 13 11:03:32 2014 by Log 0
Charted by:	Depth in Feet scaled 1:240

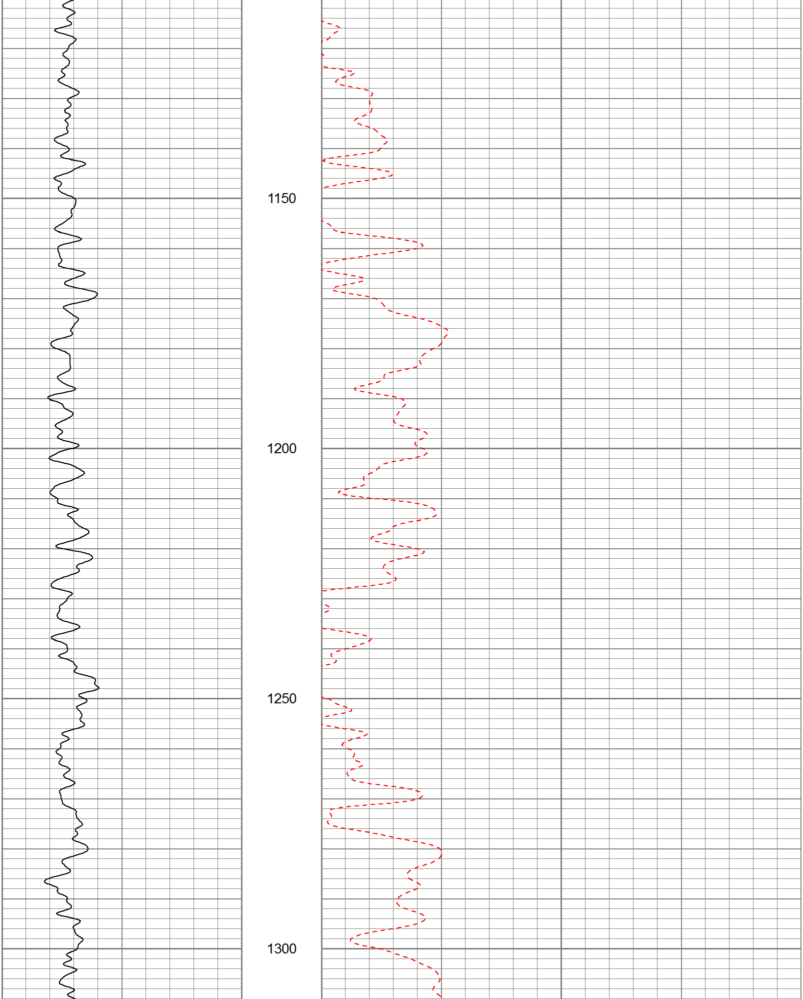


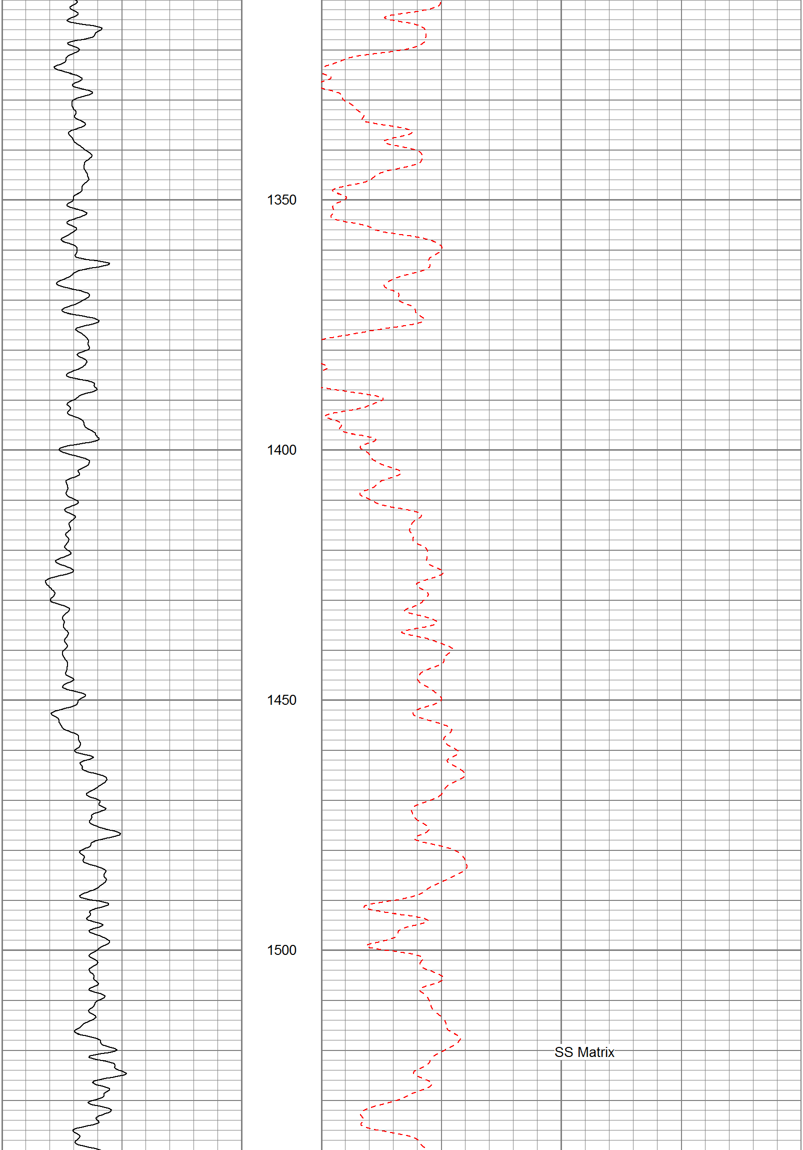


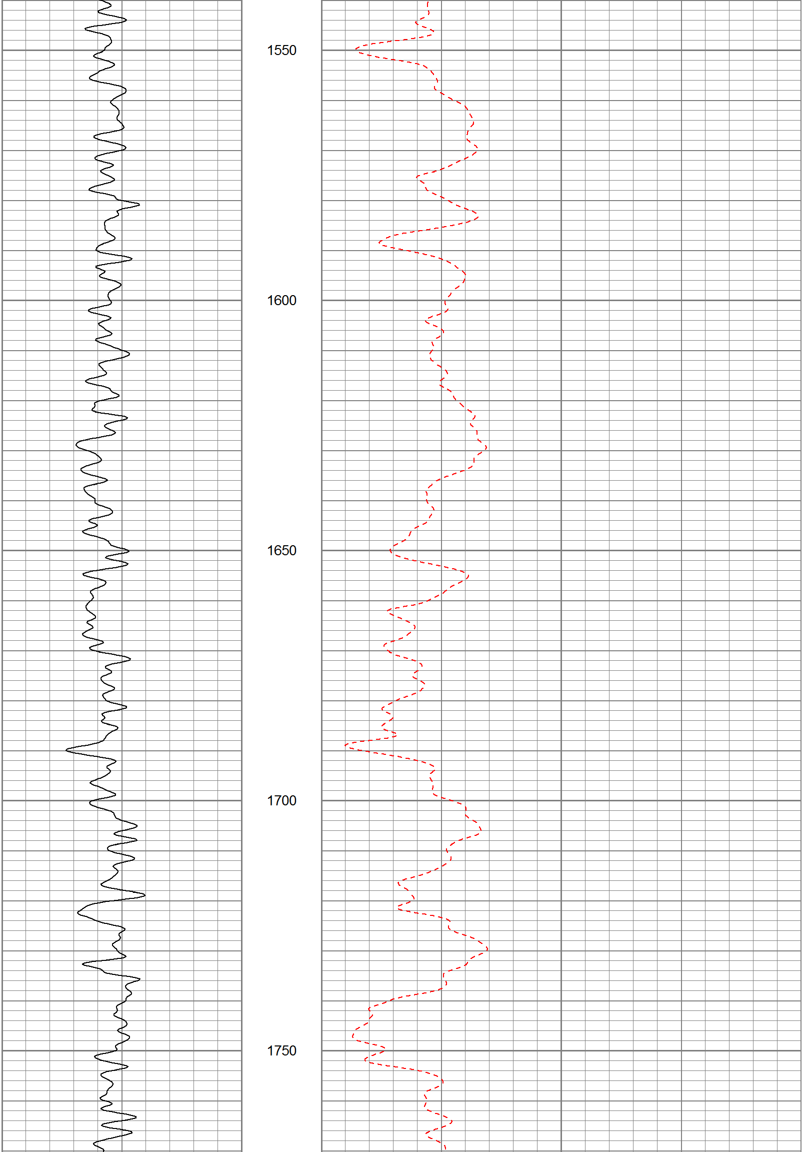


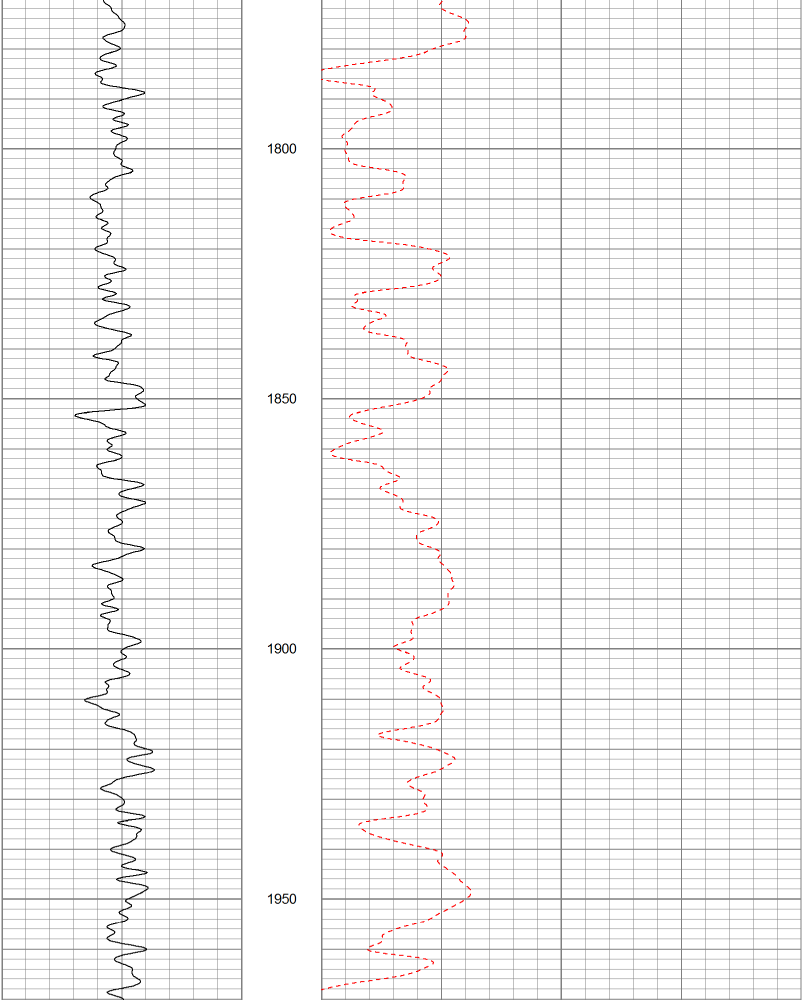


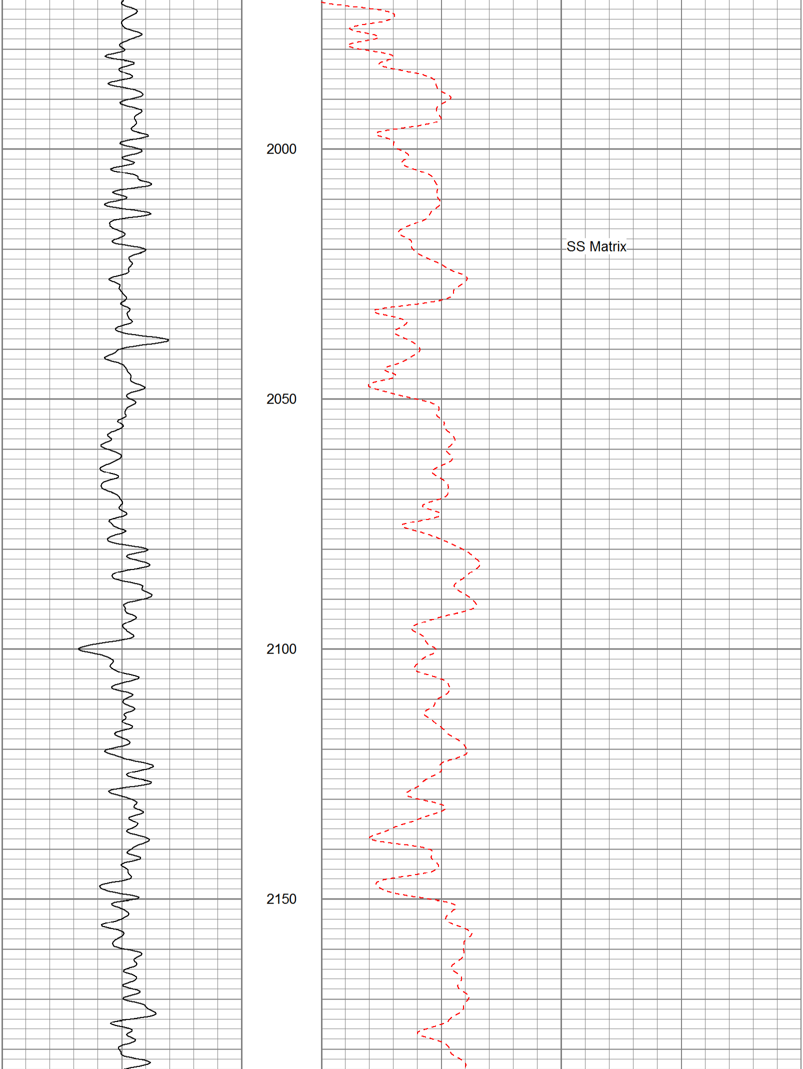


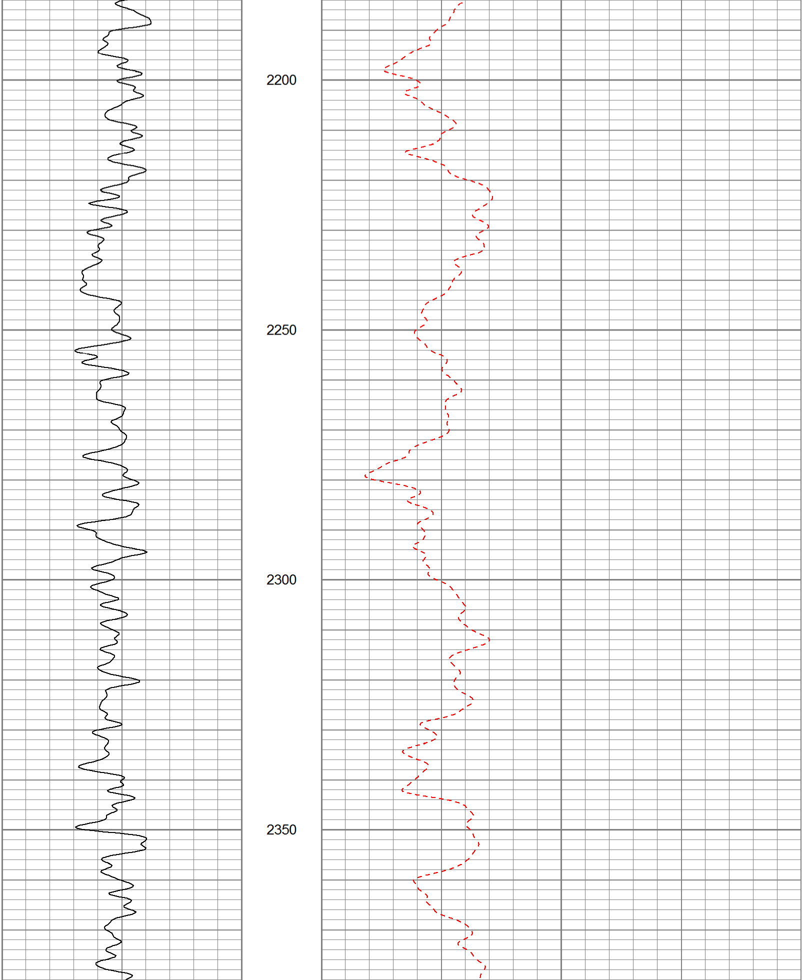


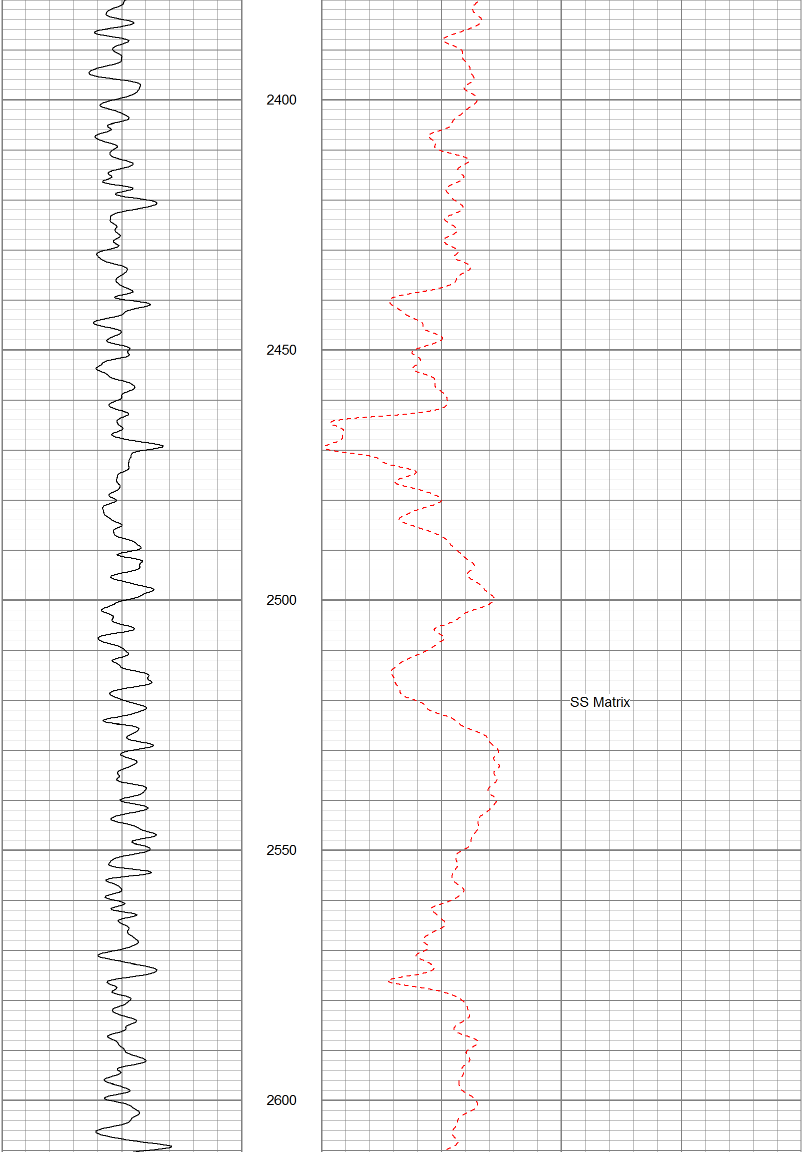


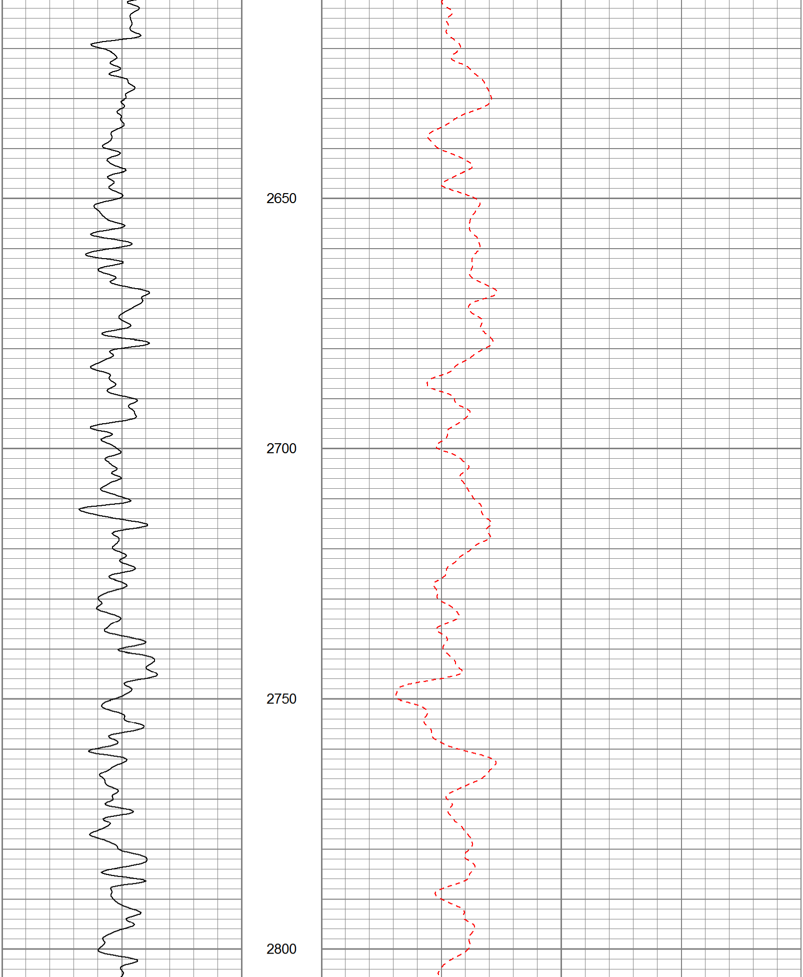


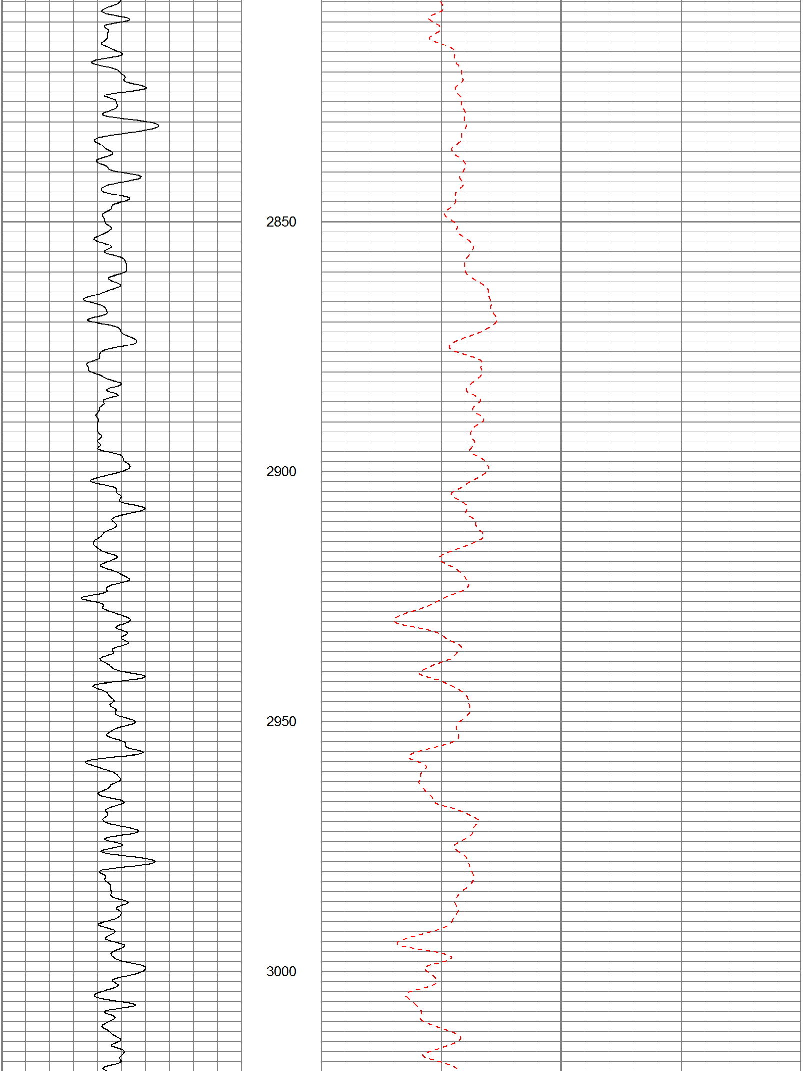


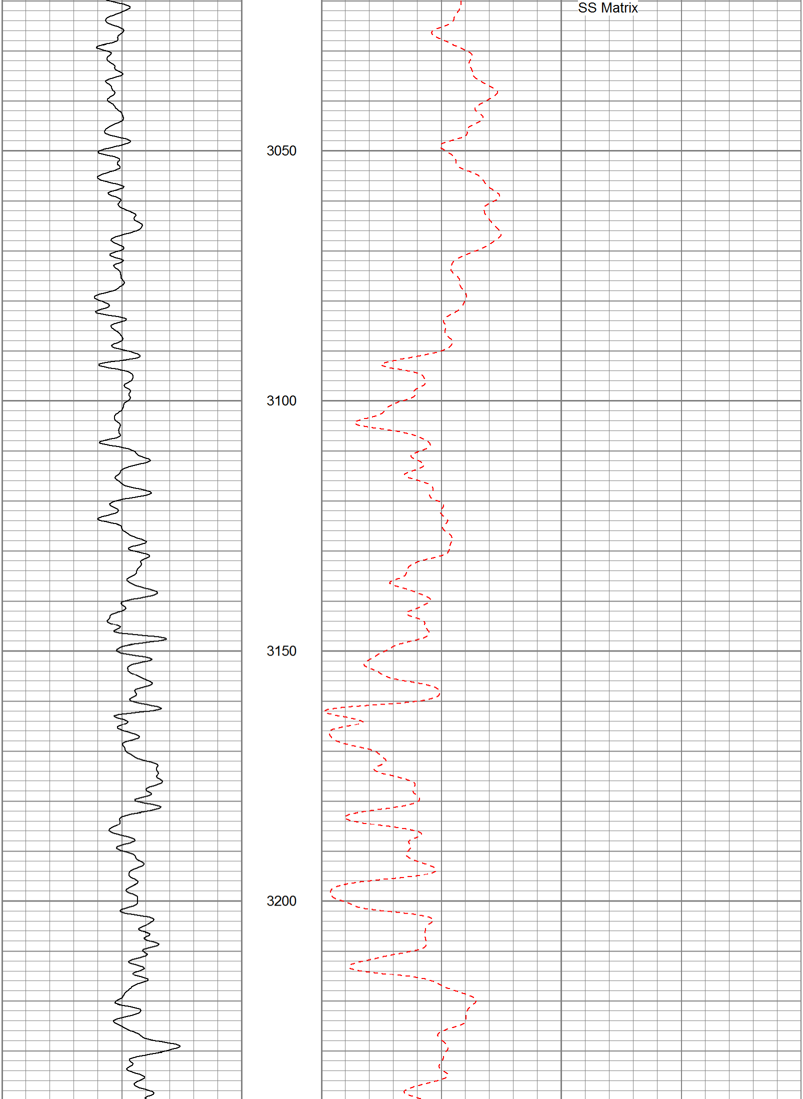


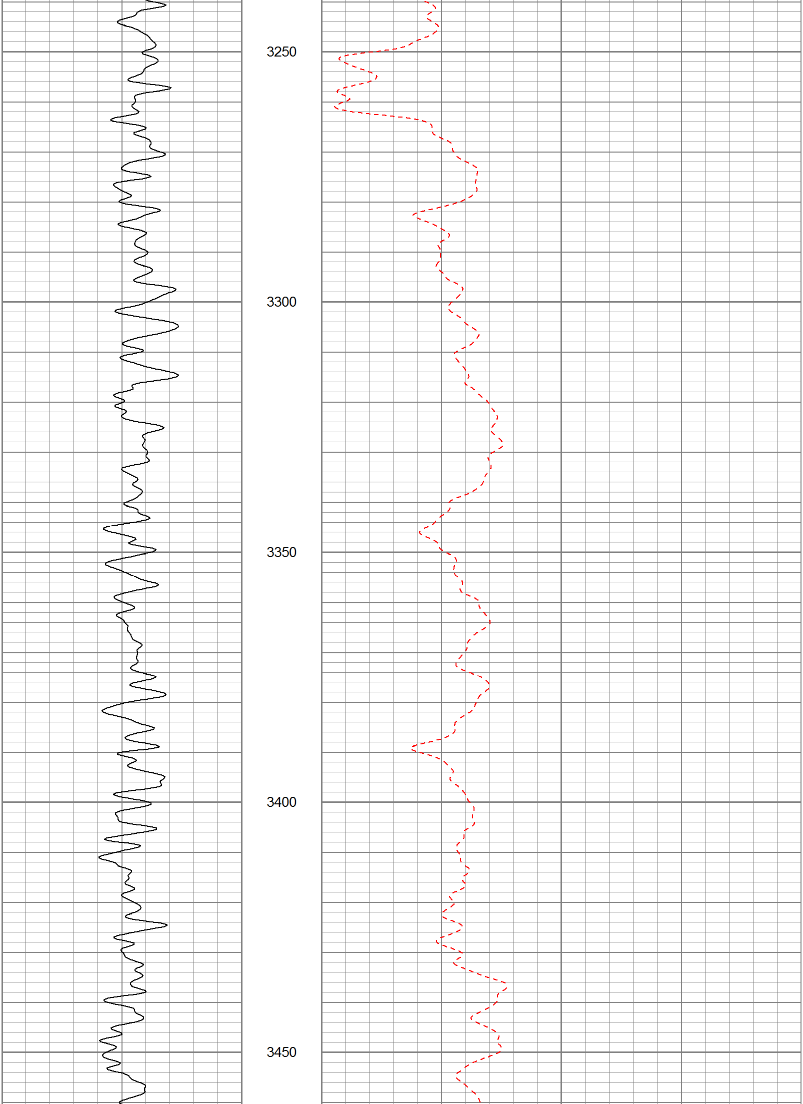


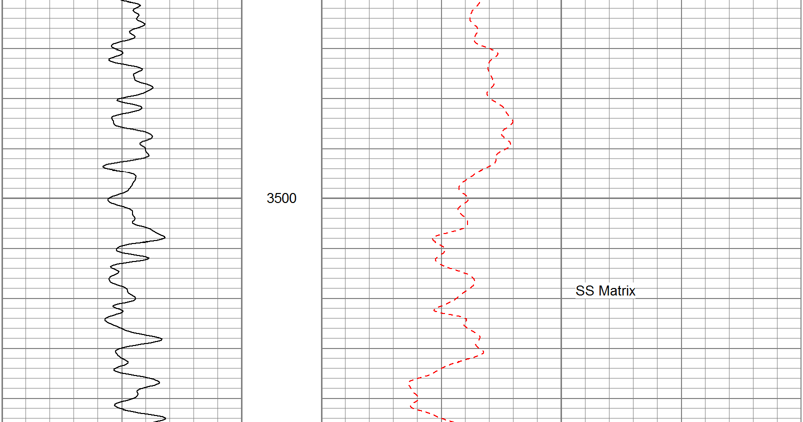


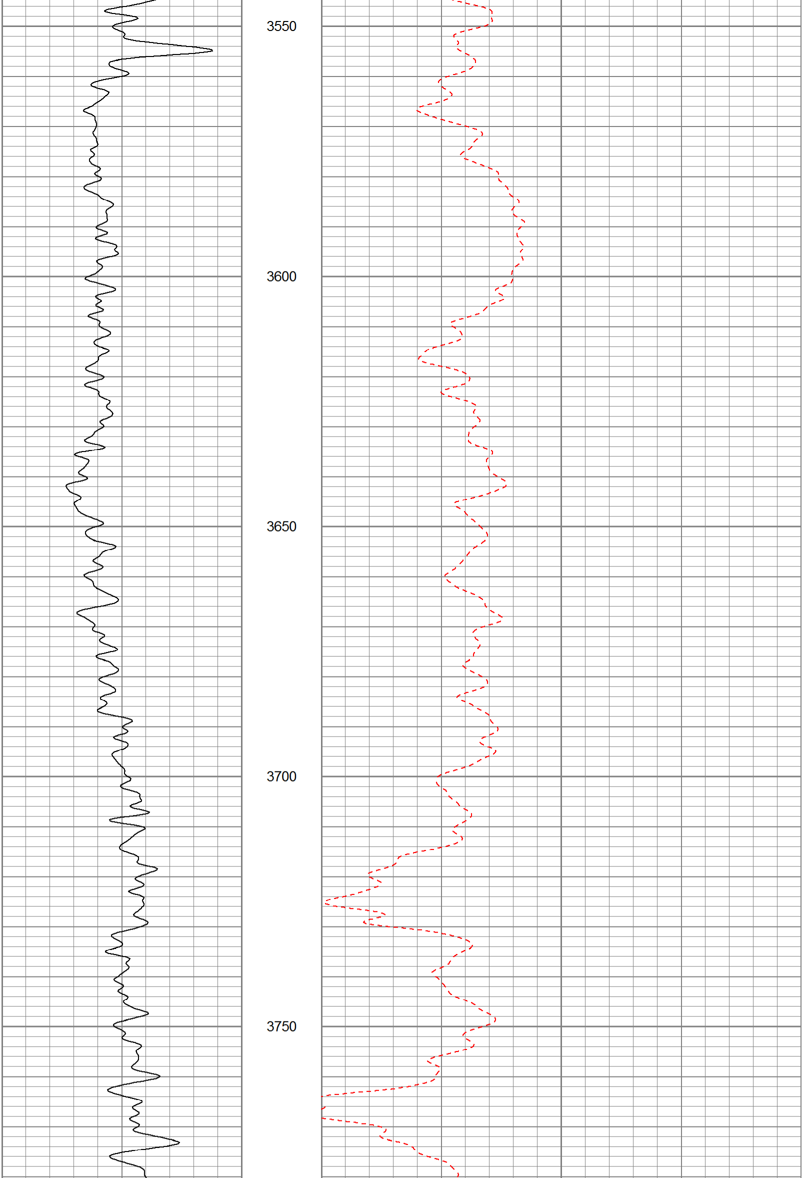


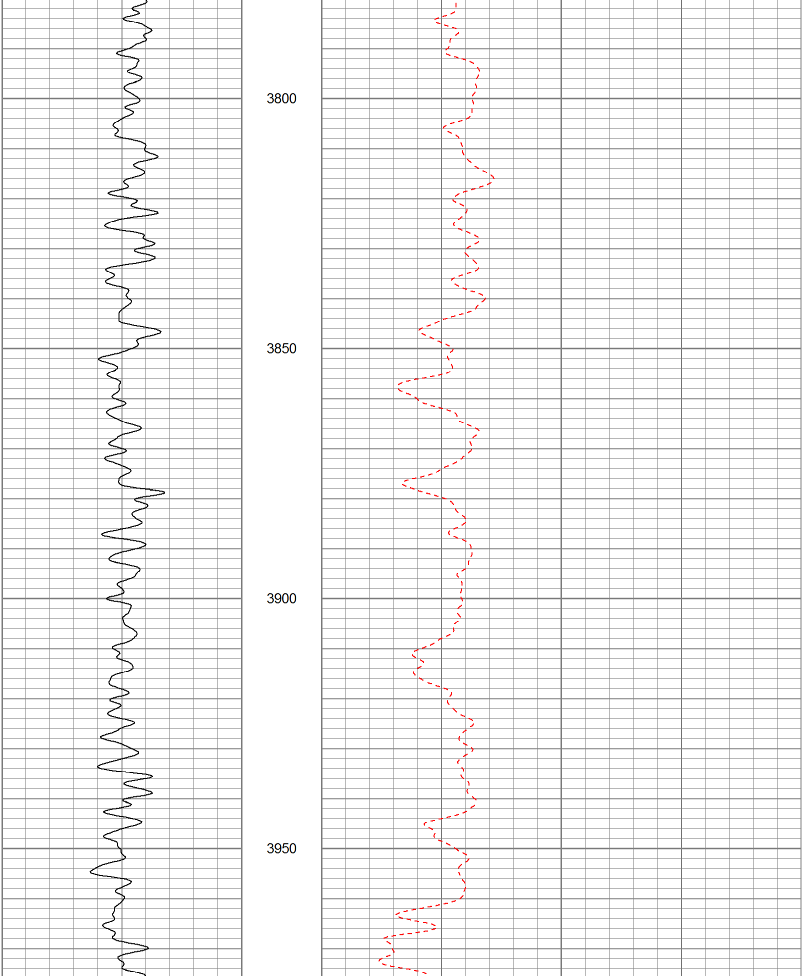


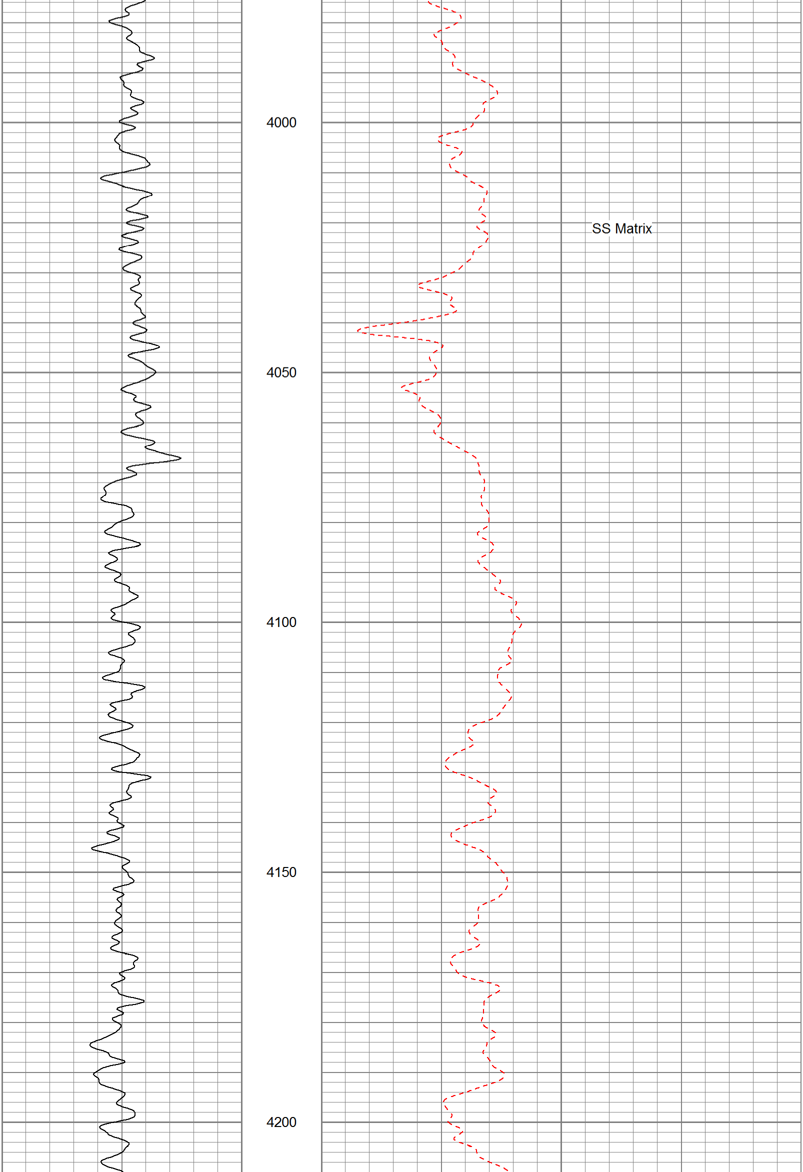


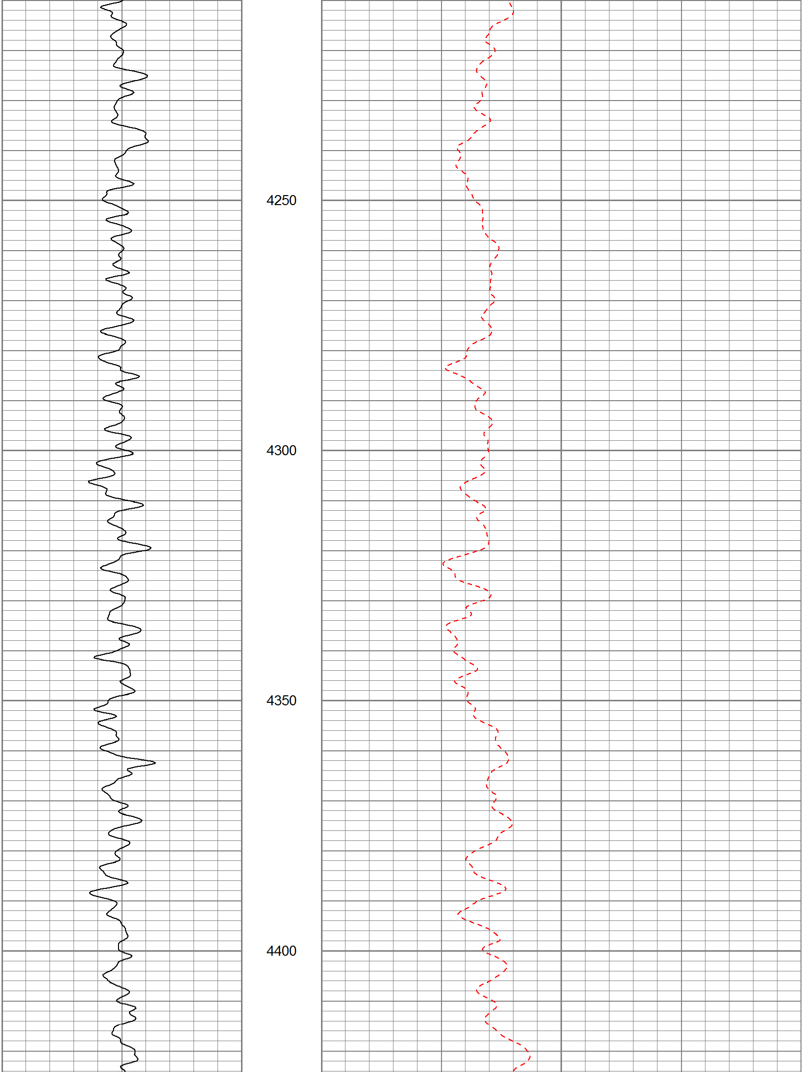


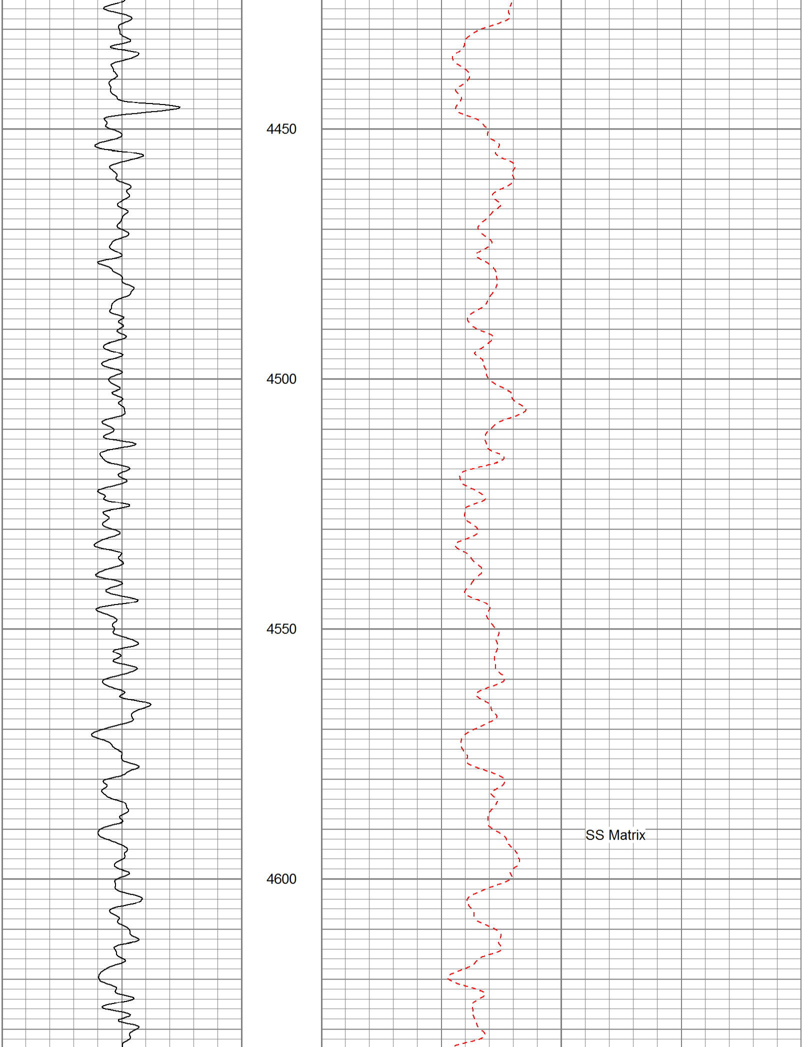


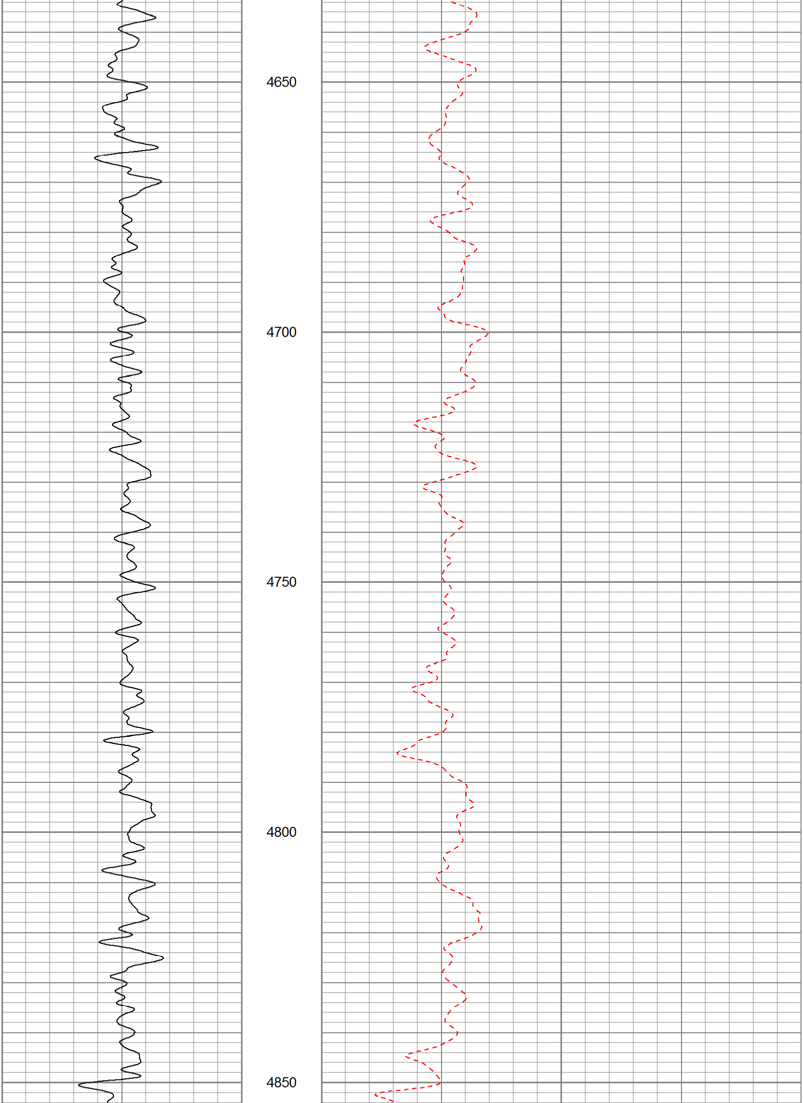


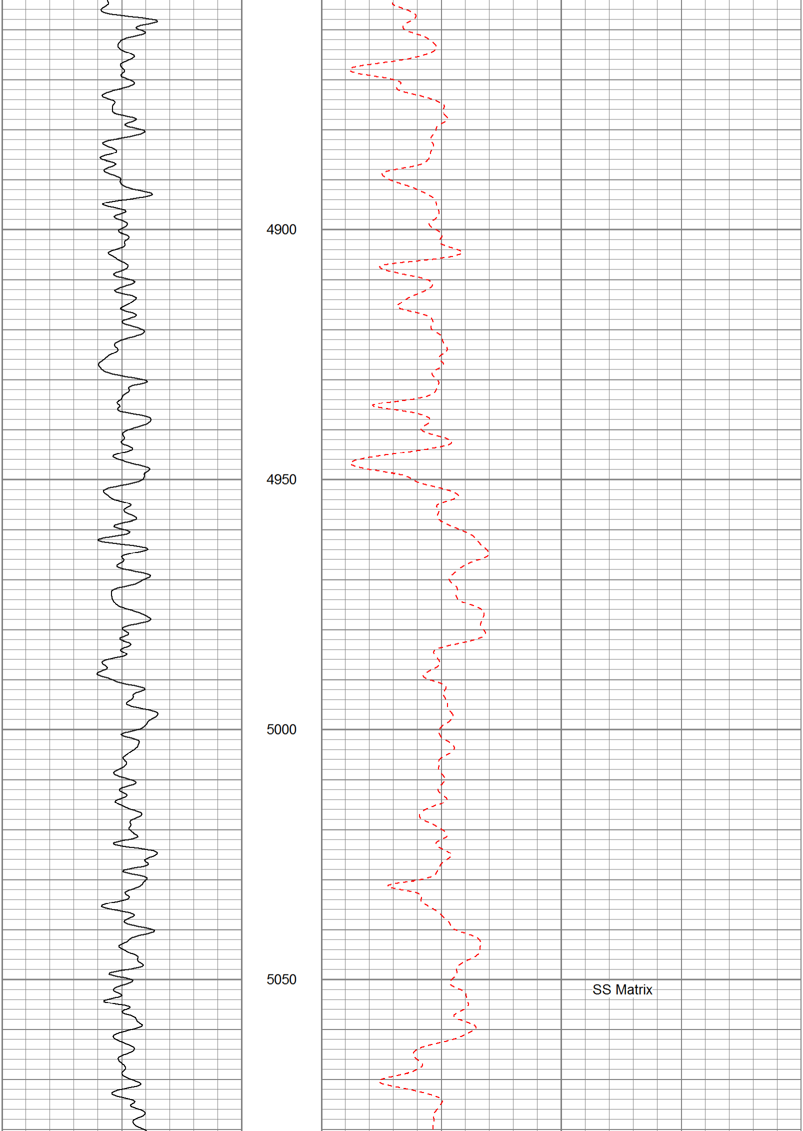


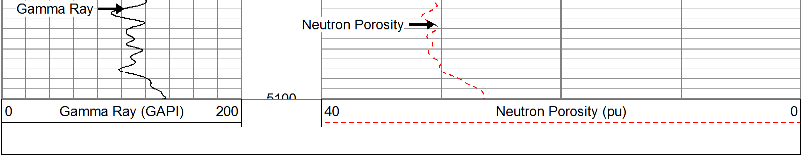












Calibration Report

Database File:	13756.db
Dataset Pathname:	pass2
Dataset Creation:	Mon Oct 13 11:03:32 2014 by Log 0

Compensated Neutron Calibration Report

Serial Number:	856
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	2.1650

Gamma Ray Calibration Report

Serial Number:	939	
Tool Model:	PSI	
Performed:	Mon Oct 13 09:05:42 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8400	GAPI/cps