PHOENIX SURVEYS, INC.

HIGH RESOLUTION INDUCTION

Company
Well
Field
County
State/Prv

Company Great Western Oil & Gas LLC
Well Binder 13-20
Field Wattenberg
County Weld **State/Province** Colorado

Location
SHL: 2479' FSL & 2232' FWL NESW
BHL: 2004' FSL & 608' FWL NWSW
Sec. 20, Twp. 4N, Rge. 67W

Other Services
Density
Neutron

Permanent Datum	GL	Elevation	4902
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4916
D.F. 4915
G.L. 4902

Date	January 8, 2012		
Run Number	1		
Depth Driller	7700		
Depth Logger	7688		
Bottom Logged Interval	7688		
Top Log Interval	Casing		
Casing Driller	521		
Casing Logger	521		
Bit Size	7-7/8"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.4 / 60		
pH / Fluid Loss	8.0 / 8.8		
Source of Sample	Flowline		
Rm @ Meas. Temp	3.45 @ 70 F		
Rmf @ Meas. Temp	2.76 @ 70 F		
Rmc @ Meas. Temp	4.14 @ 70 F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.09 @ 211 F		
Time Circulation Stopped	0545		
Time Logger on Bottom	1250		
Maximum Recorded Temperature	211 F		
Equipment Number	50		
Location	Brighton, CO		
Recorded By	Matt Gill		
Witnessed By	Jay Pape		

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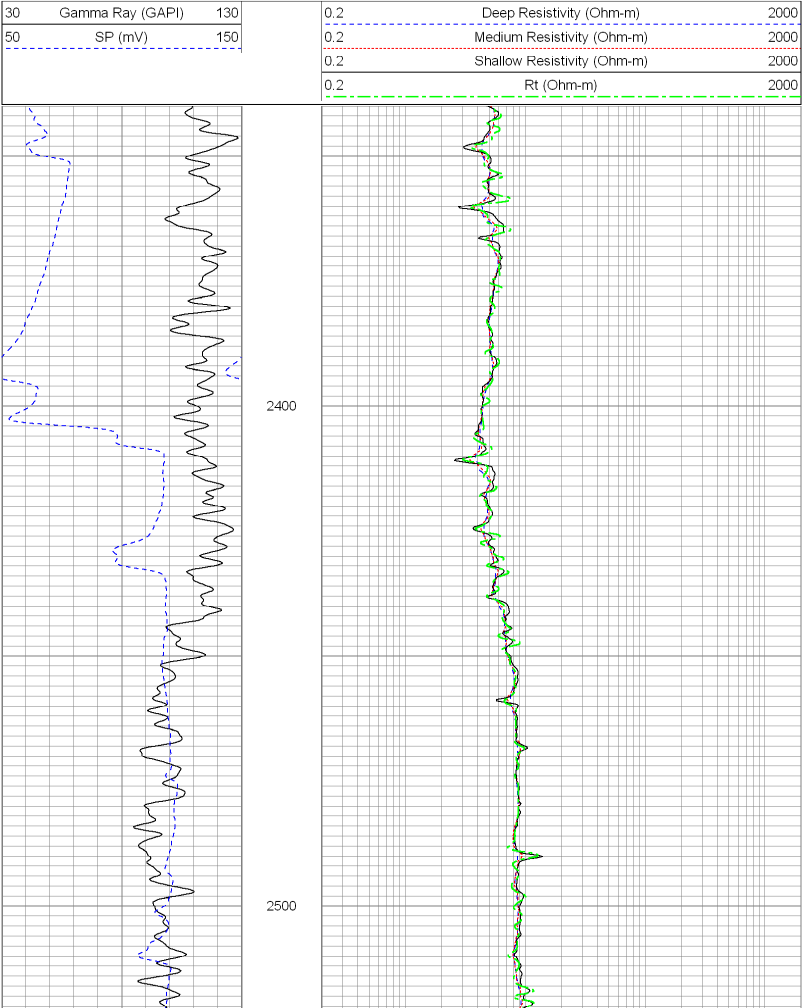
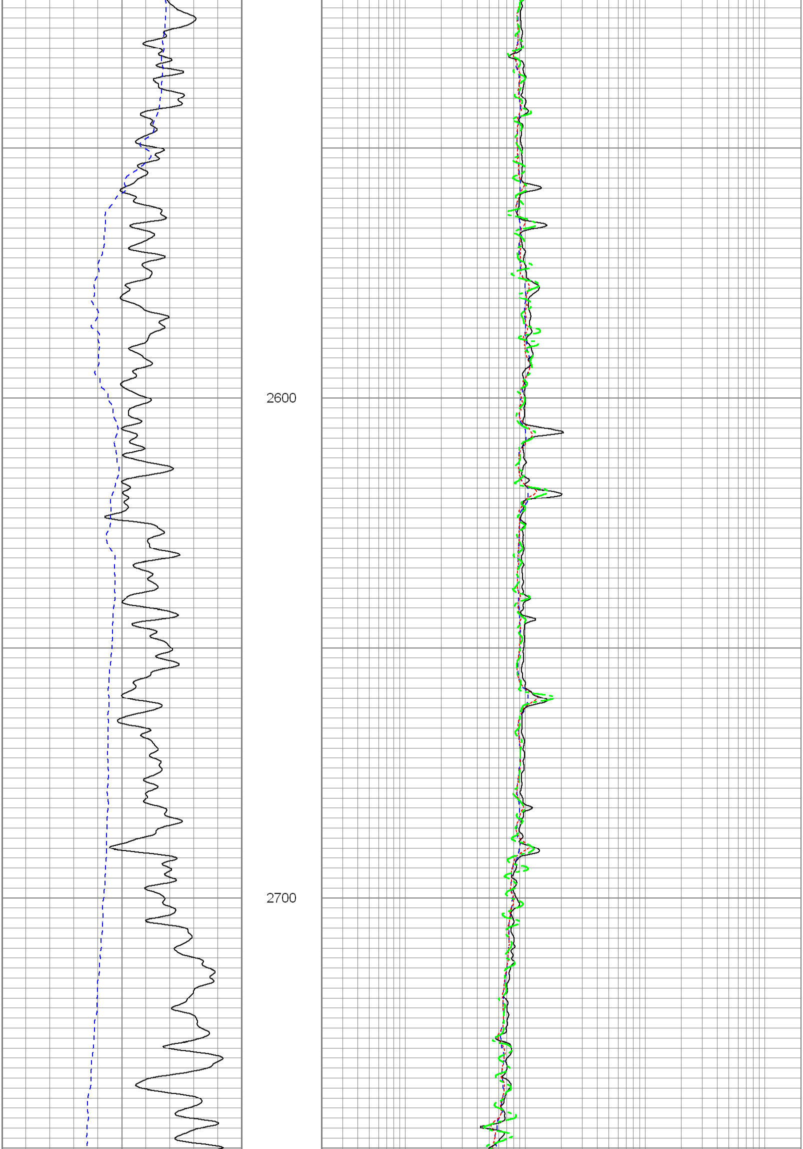
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

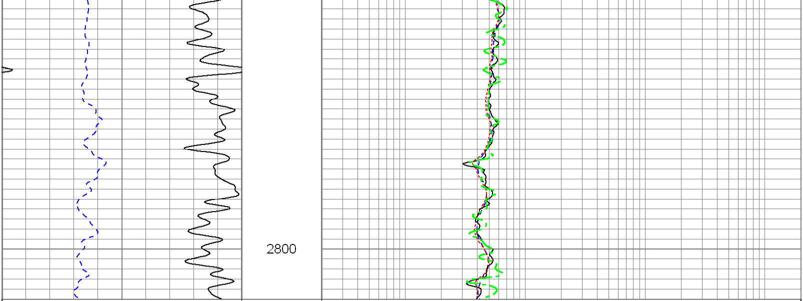
Comments

Annular volume calculated for 4-1/2" casing
Cade Drilling Rig 22
Thank you for using Phoenix Surveys!!
API #: 05-123-32765-00
No Repeat Due to Hole Conditions

Database File: 12528.db
Dataset Pathname: final
Presentation Format: dil1
Dataset Creation: Sun Jan 08 13:17:00 2012
Charted by: Depth in Feet scaled 1:240







30	Gamma Ray (GAPI)	130
50	SP (mV)	150

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
0.2	Rt (Ohm-m)	2000

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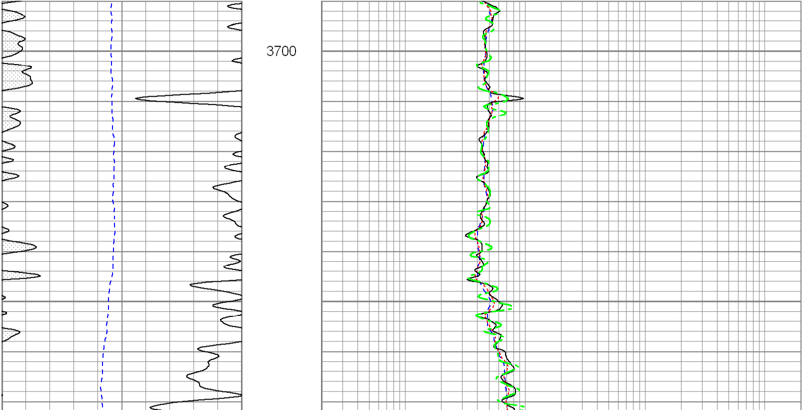

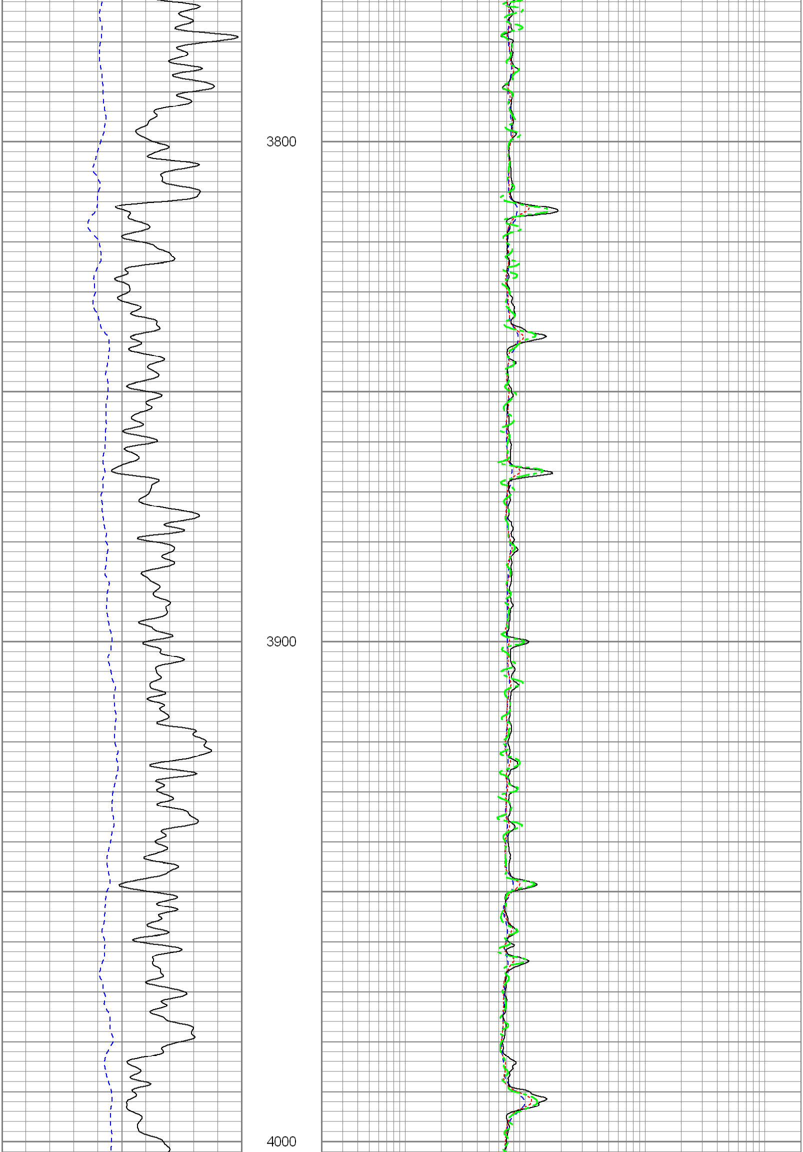

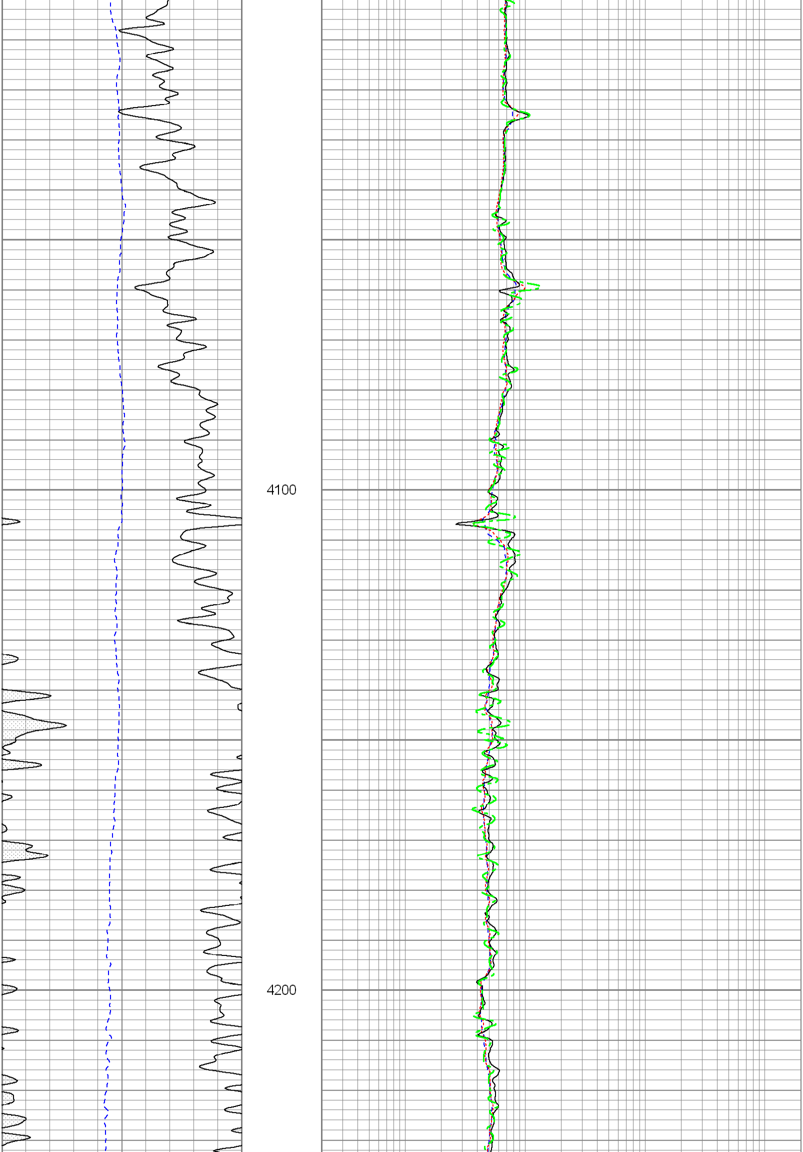

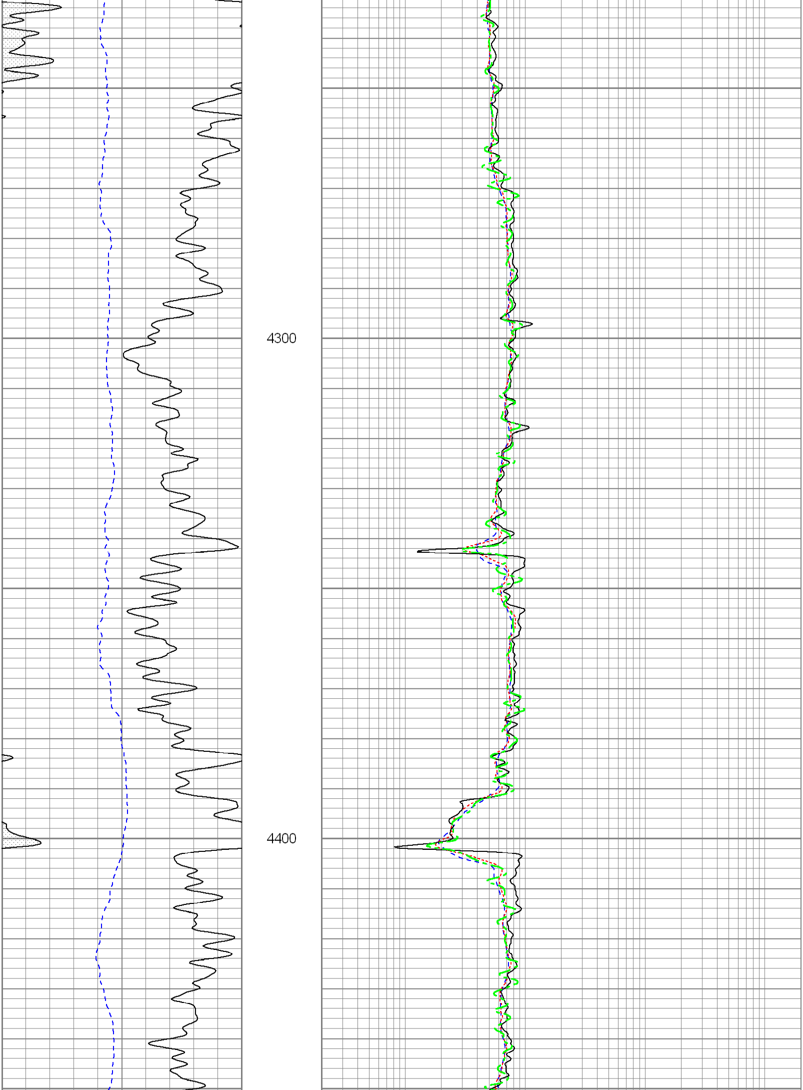

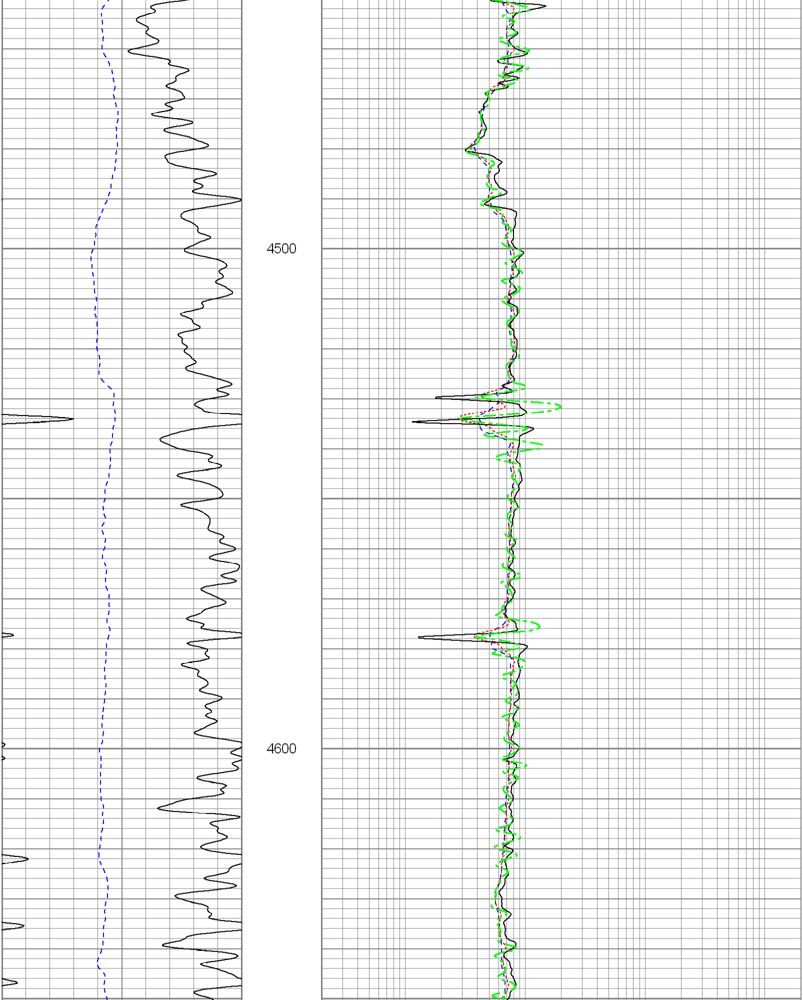

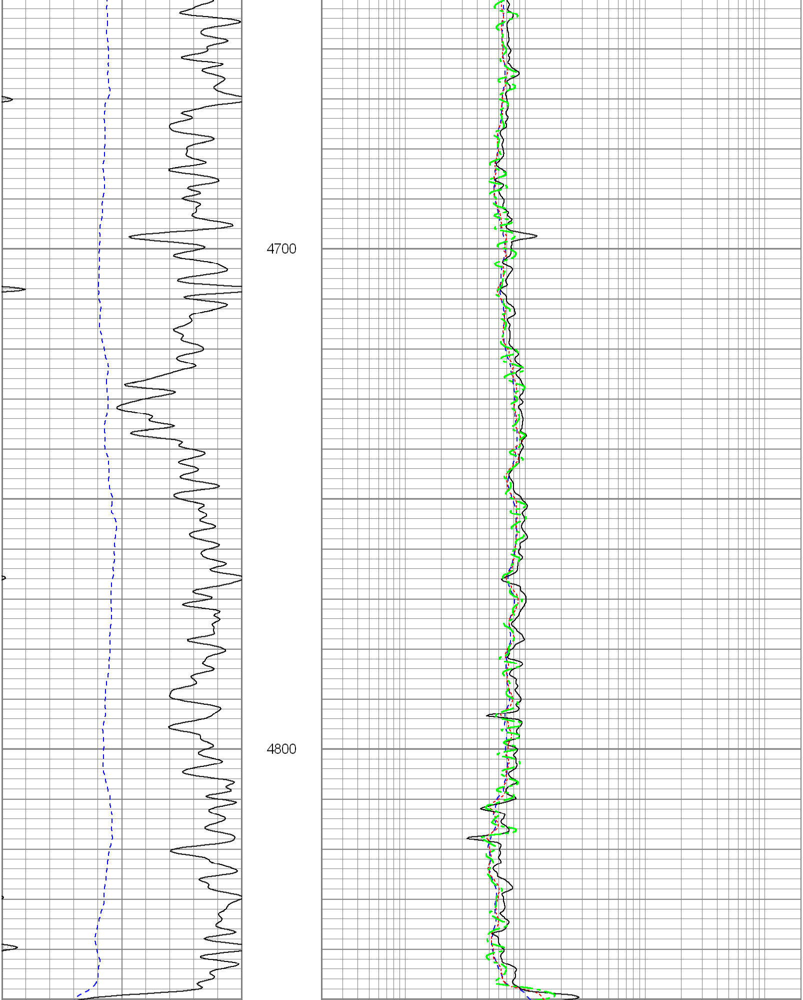

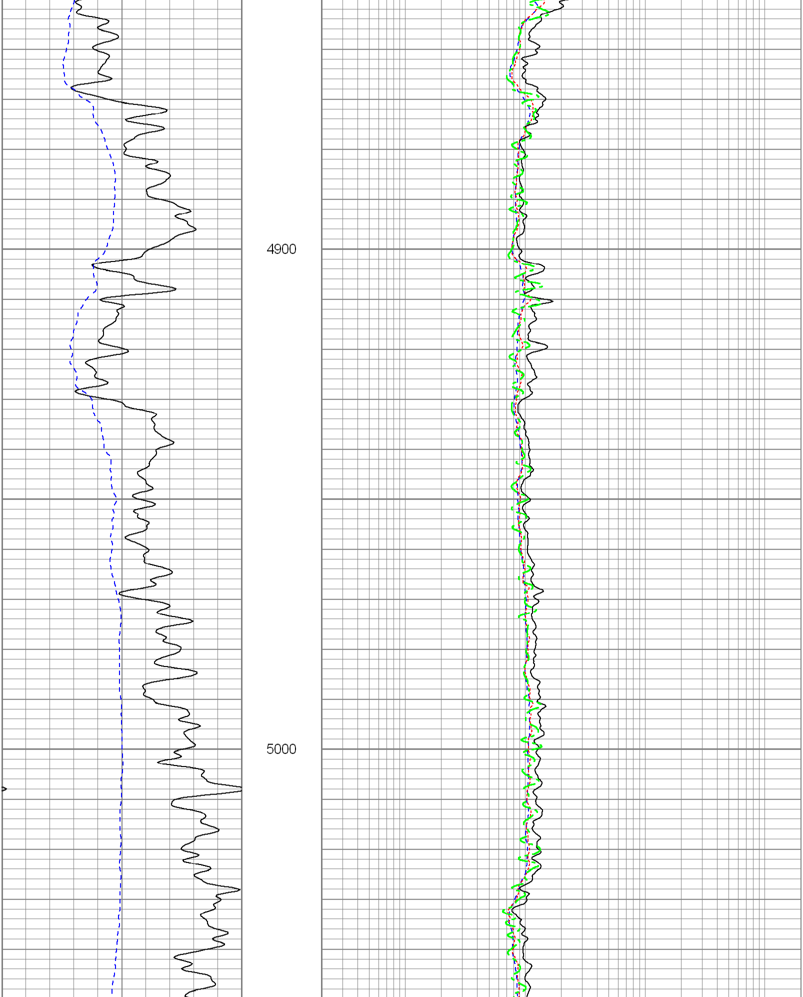

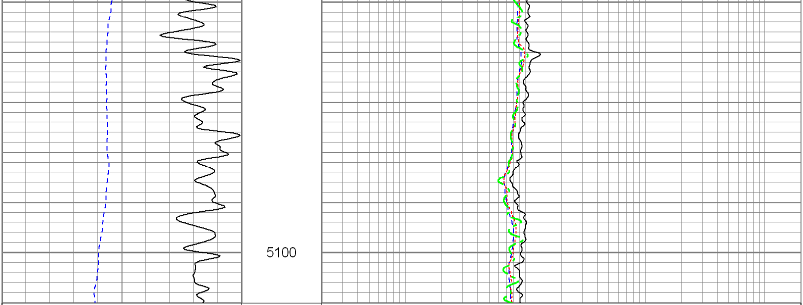

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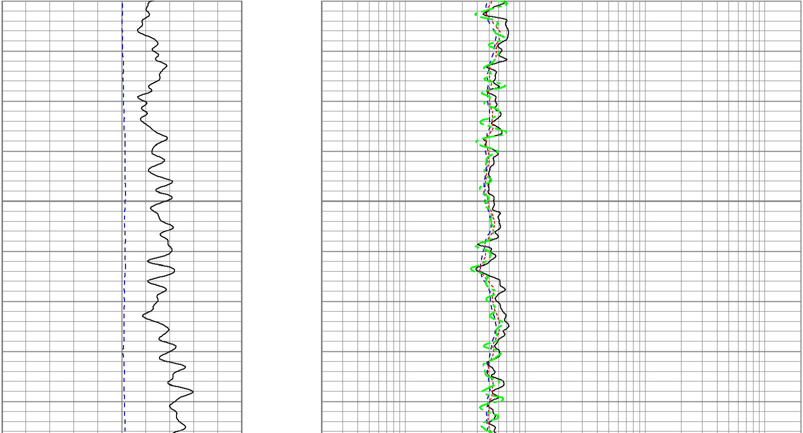

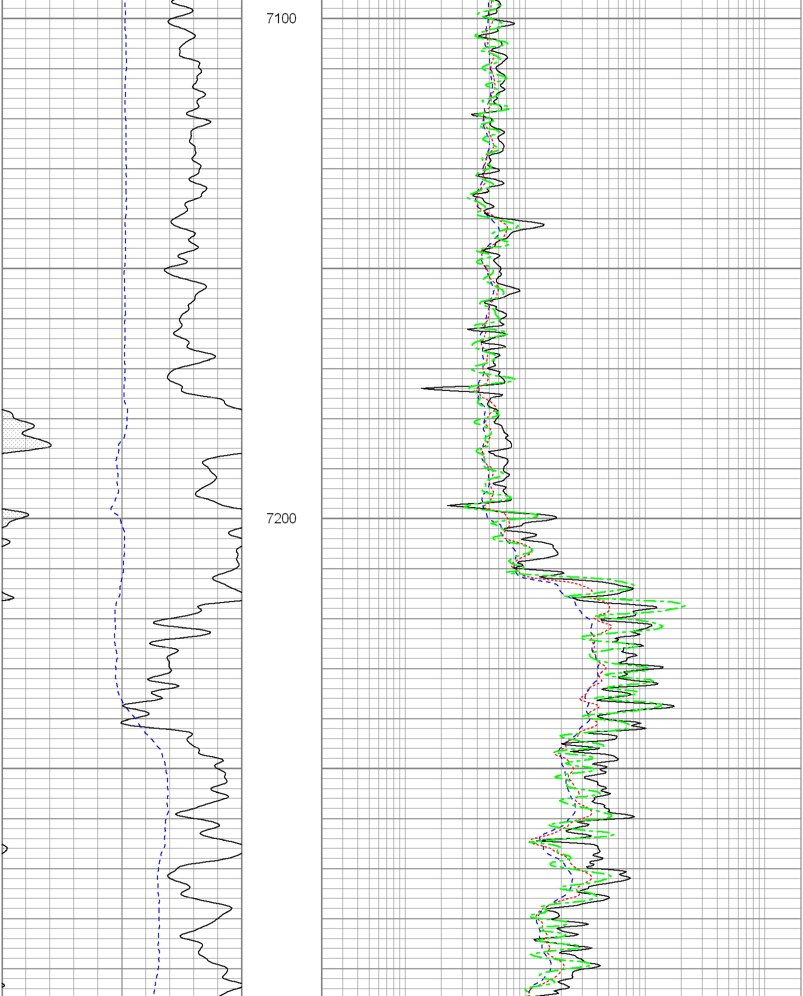

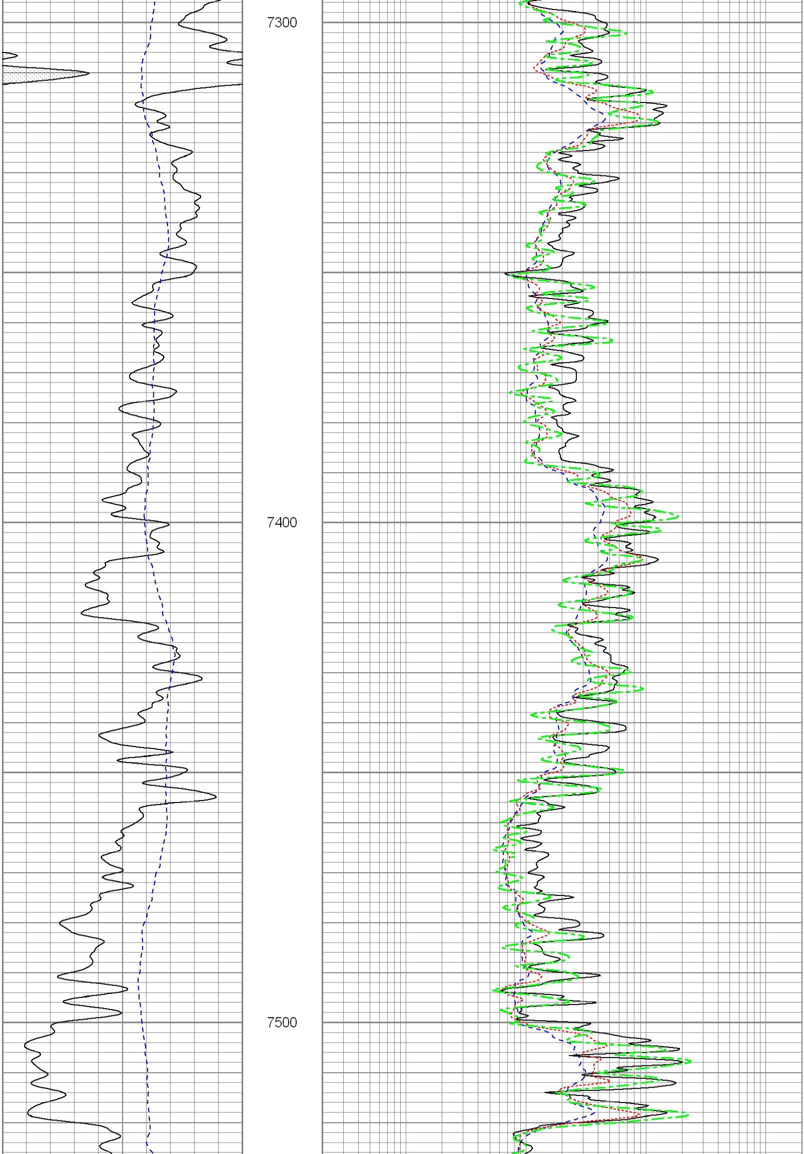

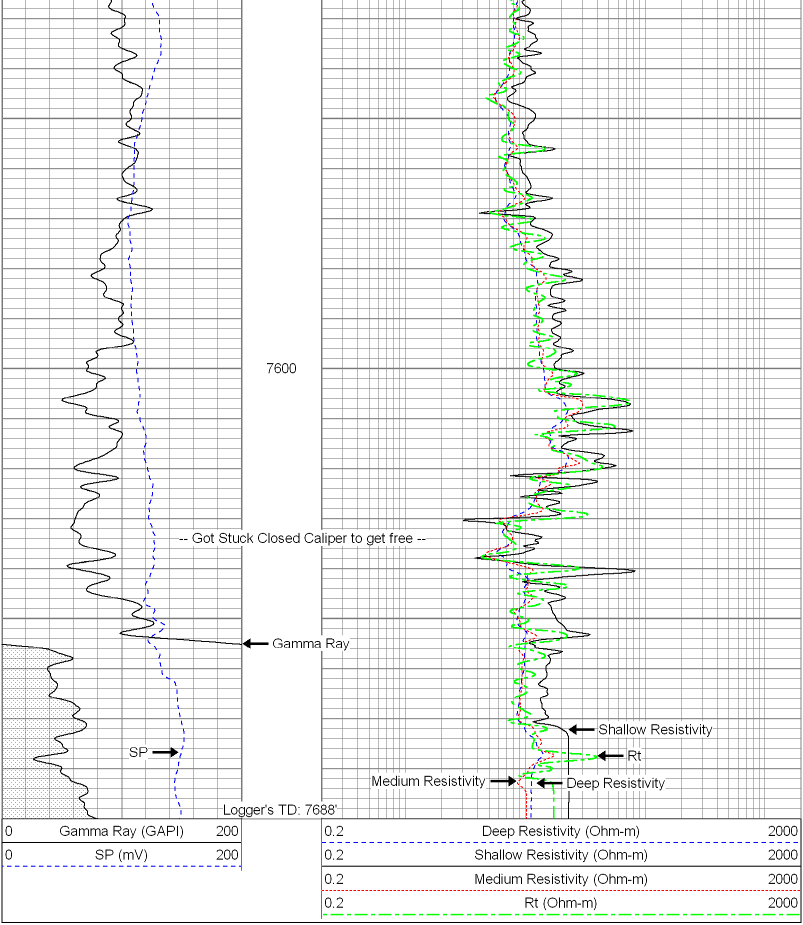
7600
-- Got Stuck Closed Caliper to get free --
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Shallow Resistivity
Rt
Medium Resistivity
Deep Resistivity
Logger's TD: 7688'
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