J-W WIRELINE COMPANY

CEMENT BOND
GAMMA RAY VDL
COLLAR CORRELATION LOG

Company BLACK RAVEN ENERGY INC
Well H. J. CLAR A-5
Field ADENA
County MORGAN
State COLORADO

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Location: API # : 05-087-05323-0000
SE NE NE
4280' FSL & 4950' FWL
LAT: 40.056013 LONG:-103.812419
SEC 13 TWP 1N RGE 58W

Other Services
PERF

Permanent Datum	GL	Elevation	5426
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 5438
D.F. 5437
G.L. 5426

Date	MARCH 28, 2014		
Run Number	ONE		
Depth Driller	5670		
Depth Logger	5654		
Bottom Logged Interval	5653		
Top Log Interval	3700		
Open Hole Size	7.875"		
Type Fluid	WATER		
Density / Viscosity	---		
Max. Recorded Temp.	158 F		
Estimated Cement Top			
Time Well Ready	---		
Time Logger on Bottom	---		
Equipment Number	2400		
Location	STERLING CO.		
Recorded By	PHIL LOPEZ		
Witnessed By	BILLY HATAWAY		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8 5/8"	28	SURFACE	103
Prot. String				
Production String	5.50	14 & 15 1/5	SURFACE	5668
Liner				

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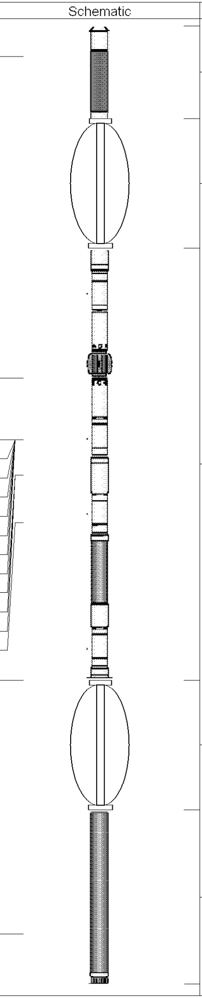
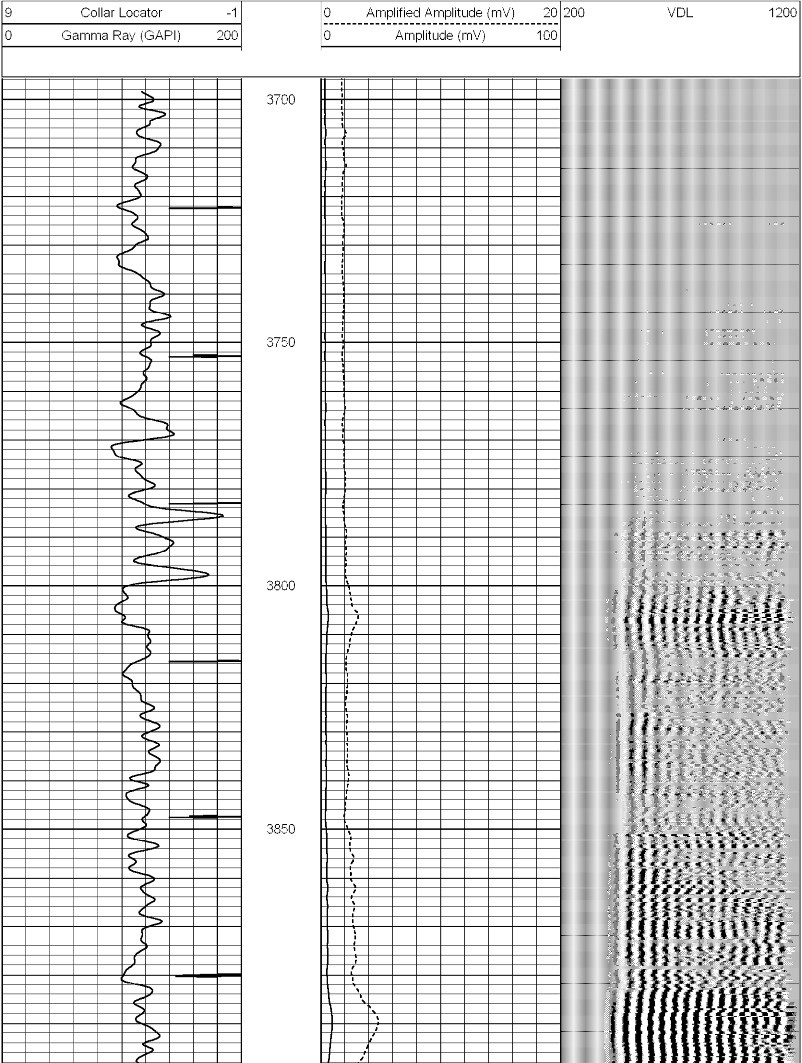
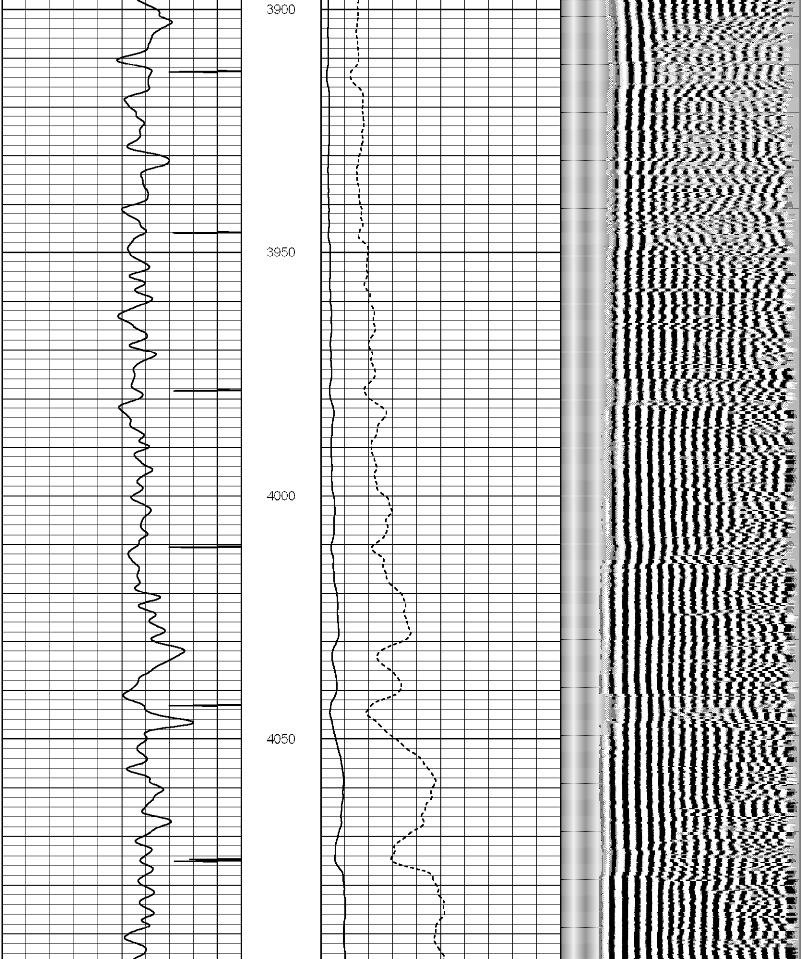
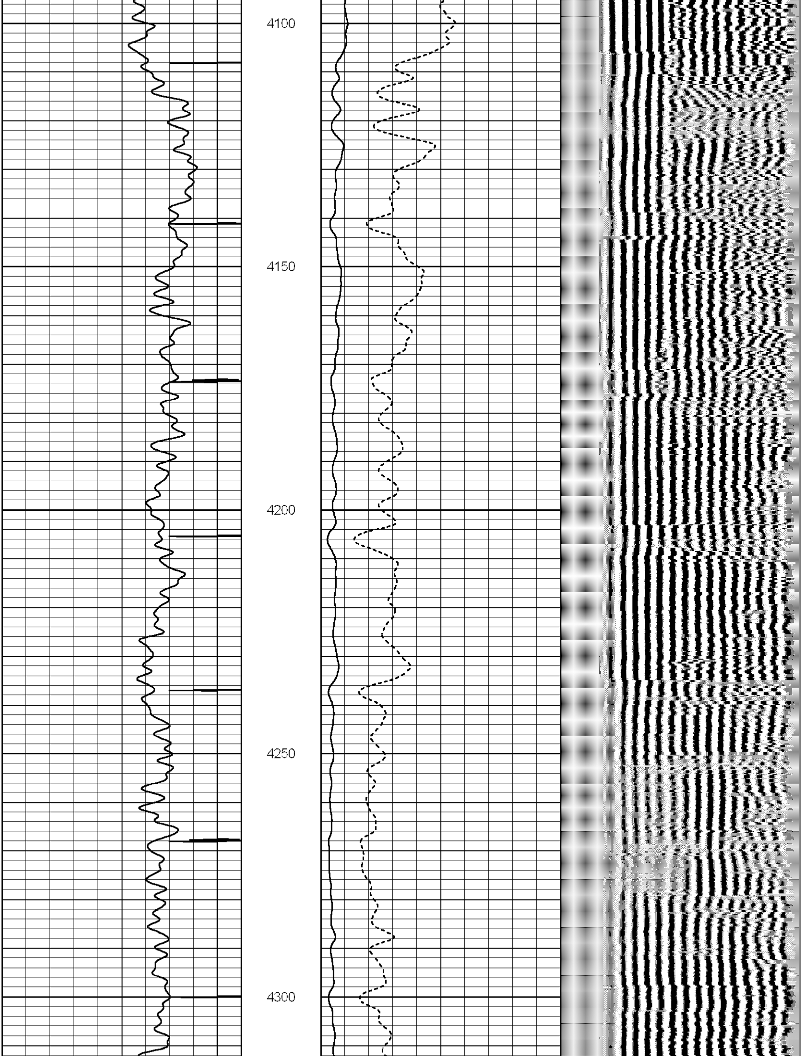
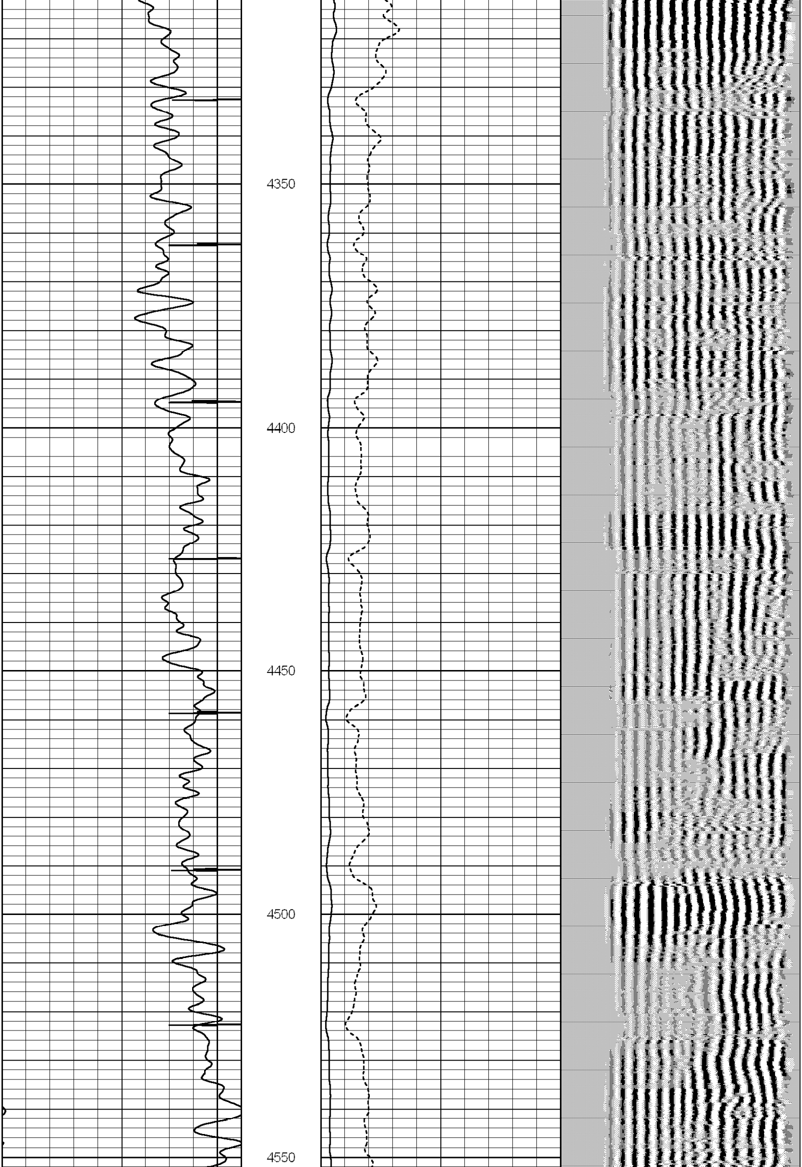
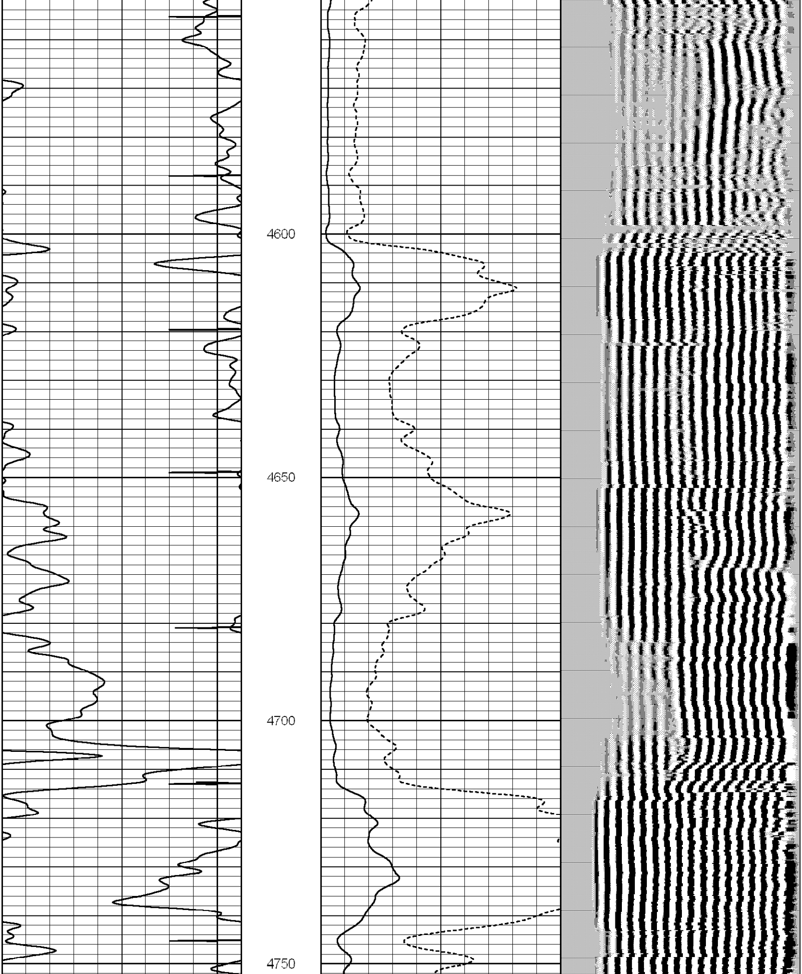
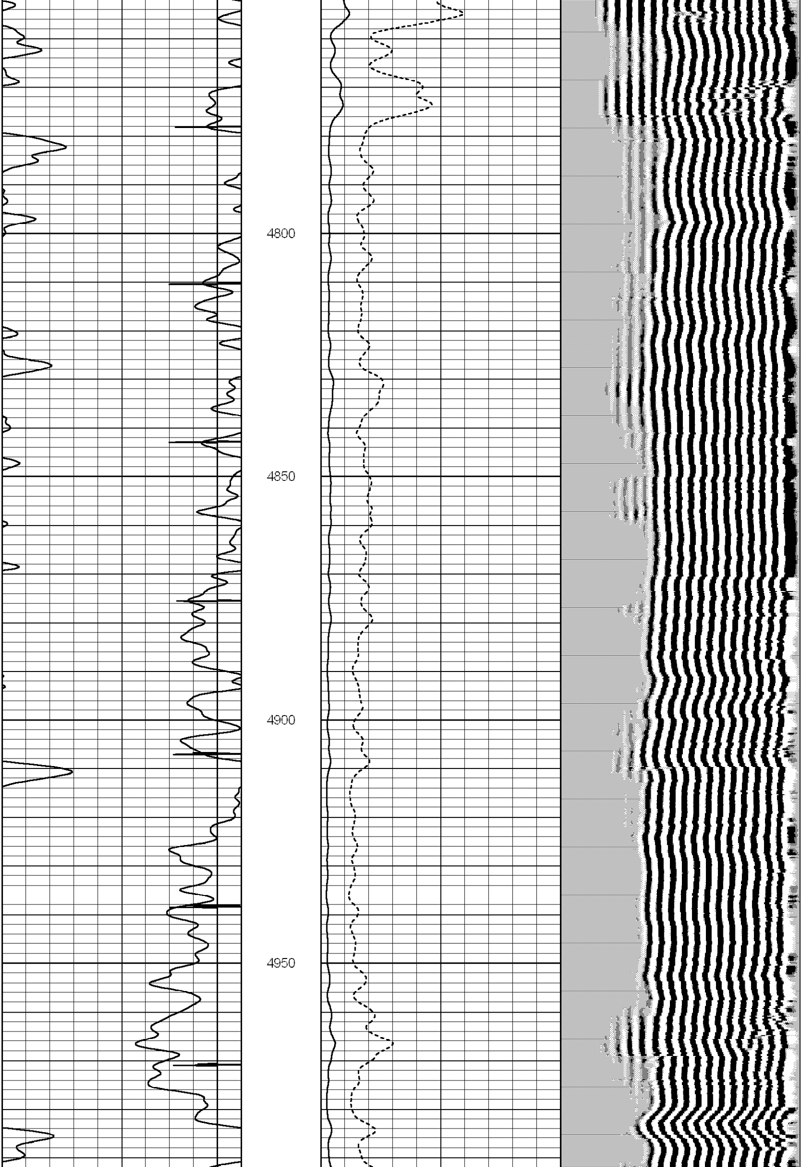
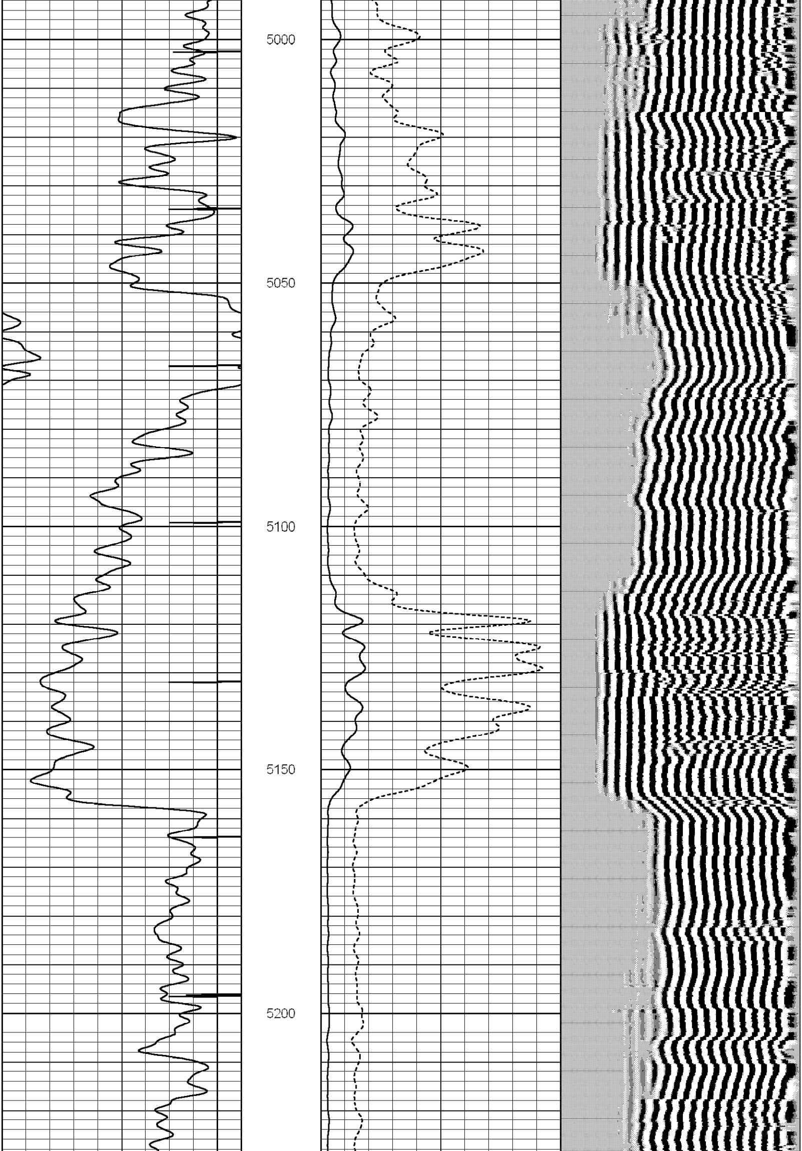
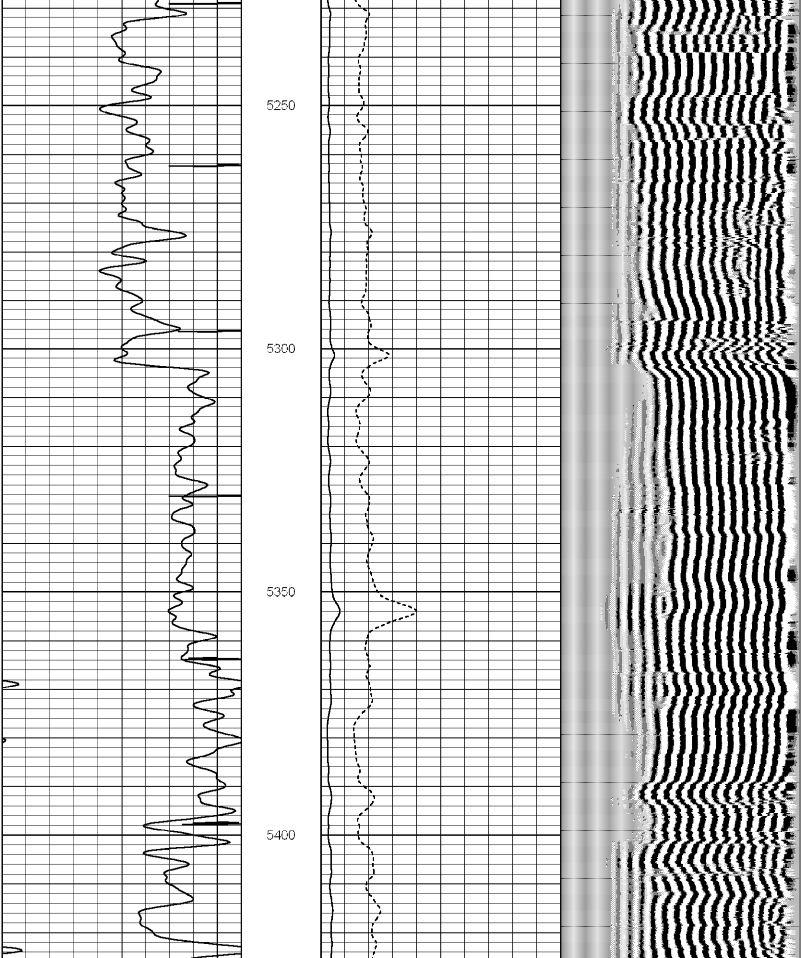
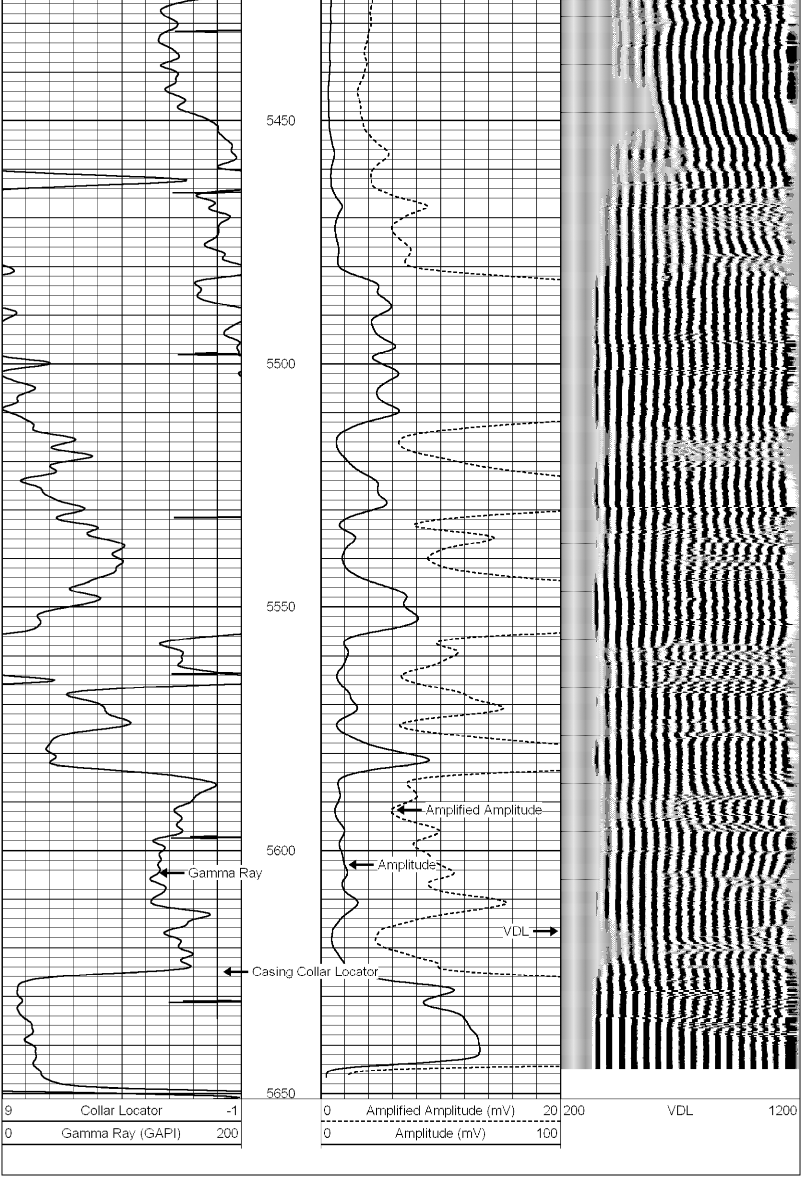
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 CHOOSING J-W WIRELINE
DEPTH REFERENCES TO ELECTRICAL LOG DATED 4-23-54

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	19.57		CCL-275tekco (2.75TEKCO) 2 3/4 TEK CCL Earth Mag	1.96	2.75	20.00
			CENT-TEKCO (101)	2.73	2.75	10.00
TEMP	12.78					
WVFS1	11.49					
WVFS2	11.49		275CTEKSECWTWSLCANS-275RIB (123 2 3/4" (R.I.B.) TOOL 3FT, 5FT and 8EA RIB SIGNALS 400 DEG "F" @20K PSI With Sliding Cans For Pressure Ballance	9.13	2.75	102.00
WVFS3	11.49					
WVFS4	11.49					
WVFS5	11.49					
WVFS6	11.49					
WVFS7	11.49					
WVFS8	11.49					
WVF3FT	10.74					
WVFCAL	10.74					
WVFSYNC	10.74					
WVF5FT	9.74					
WVFTEMP	6.41					
			CENT-TEKCO (101)	2.73	2.75	10.00
			GR-TEKCO (101sgr)	3.68	2.75	30.00
GR	1.06					

Dataset:	clar #a-5.db: field/well/run1/pass2
Total Length:	20.22 ft
Total Weight:	172.00 lb
O.D.	2.75 in

Database File: clar #a-5.db
Dataset Pathname: pass2
Presentation Format: scbl_sr
Dataset Creation: Fri Mar 28 14:18:33 2014 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240