HALLIBURTON

ACOUSTIC CEMENT ACOUSTIC LOG

Company	KINDER MORGAN
Well	DOE CANYON # 10
Field	DOE CANYON
County	DOLORES State CO

Company KINDER MORGAN
Well DOE CANYON # 10
Field DOE CANYON
County DOLORES State CO

API No.: 05033061120000 Serv #: 9050472
Location: SHL: 0650' FNL & 0450' FEL
Other Services: JUNK BASKET, GAUGE RING, CAST -M

Sec: 8 Twp: 40N Rge: 17W

Permanent Datum	GROUND LEVEL	Elevation 7724.7'	Elevation	
Log Measured From	K.B. , 19.5 Ft. above perm. datum		K.B.	7744.2'
Drilling Measured From	K.B.		D.F.	7743.2'
			G.L.	7724.7'

Date @ Time Logged	26/NOV/11 @ 13:30	Type Fluid in Hole	WATER
Run No.	ONE	Density of Fluid	8.3 PPG
Depth - Driller	9178'	Fluid Level	SURFACE
Depth - Logger	8799'	Cement Top Est. Logged	LOGGED
Bottom - Logged Interval	8799'	Equipment / Location	11726117 / GJ
Top - Log Interval	SURFACE	Recorded by	J.ARRASCUE
Max. Recorded Temp.	187 DGF	Witnessed by	J.HALE

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented				
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record				Casing & Tubing Record		
Run Number	Bit	From	To	Size	Weight	From	To
ONE	12.25"	SURFACE	2622'	10.75"	40.5 #	SURFACE	2622'
ONE	9.875"	2622'	8962'	7 5/8"	26.4 #	SURFACE	9131'

<<< Fold Here >>>

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHCIH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

GR-CCL-CBL RAN IN COMBINATION

CORRELATED TO SCHLUMBERGER CCL-GR LOG DATED 13/JUN/1991

LOGGED INTERVALS PER CUSTOMER REQUEST

SHORT JOINTS : 5288' - 5326' & 8500' - 8537'
E.I.T. : LORENS KIARIS
CREW: B.BIGELOW & M.MACIAS

THANK YOU FOR USING HALLIBURTON ENERGY SERVICES GRAND JUNCTION, CO

Service Ticket No. 9050472 API No. 05033061120000 PGM Ver 101102_R1

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

CBL		GR					
Run No.	ONE	Run No.	ONE	Run No.		Run No.	
Serial No.	081113	Serial No.	081008	Serial No.		Serial No.	
Model No.	CBL-PROBE	Model No.	GR-PROBE	Model No.		Model No.	
Diameter	2.75"	Diameter	2.75"	Diameter		Diameter	

LOGGING DATA

General Data

Pass No.	Depths From	Depths To	Well Head Pressure	Speed Ft/Min	Logging Run Comments
ONE	8799'	SURFACE	0 PSI	60	MAIN LOG SECTION

Pass	GAMMA RAY Scale		CCL Scale		AMPLITUDE Scale		Scale	
No.	L	R	L	R	L	R	L	L
ONE	0	150	-18	2	0	100		

DIRECTIONAL INFORMATION

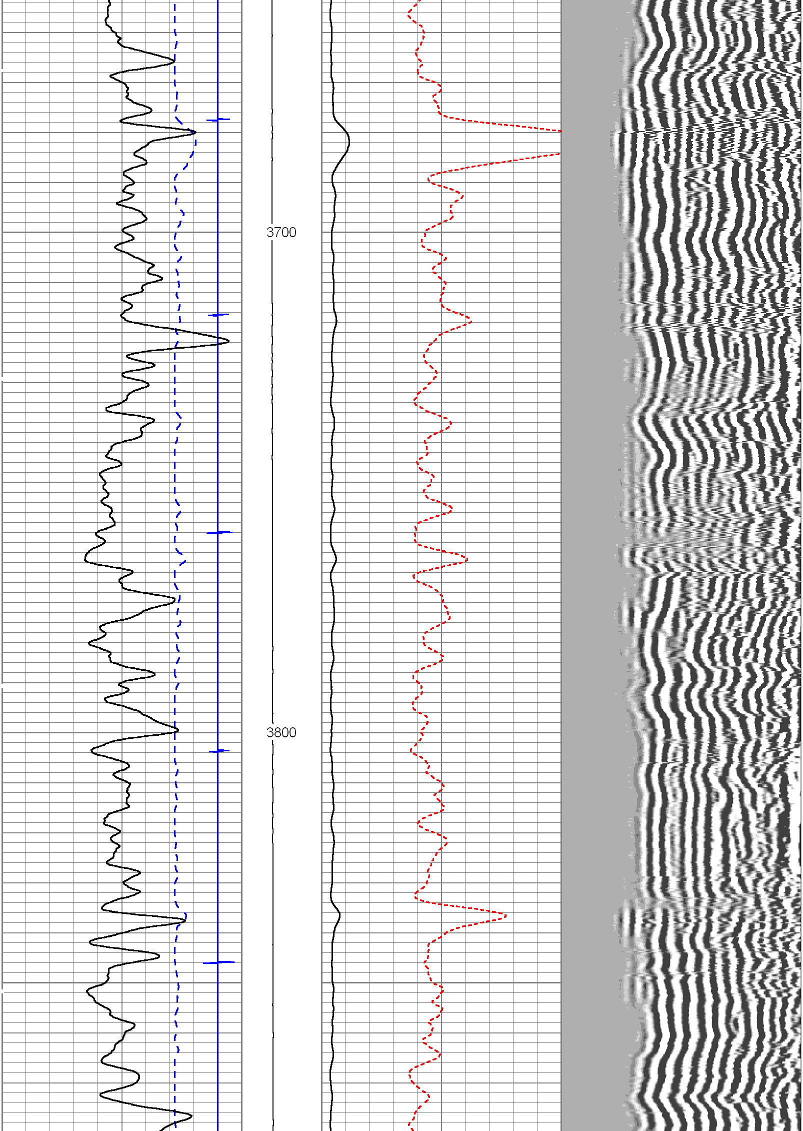
Maximum Deviation		deg. @		KOP	

HALLIBURTON

MAIN LOG SECTION

5"=100'

Database File: c:\warrior\data\kinder_morgan\dc-10\dc-10_cbl.db
Dataset Pathname: DOE_CANYO/DC10/run1/MAIN_1
Presentation Format: cbl_main
Dataset Creation: Sat Nov 26 22:24:19 2011 by Calc Halliburton Casedho
Charted by: Depth in Feet scaled 1:240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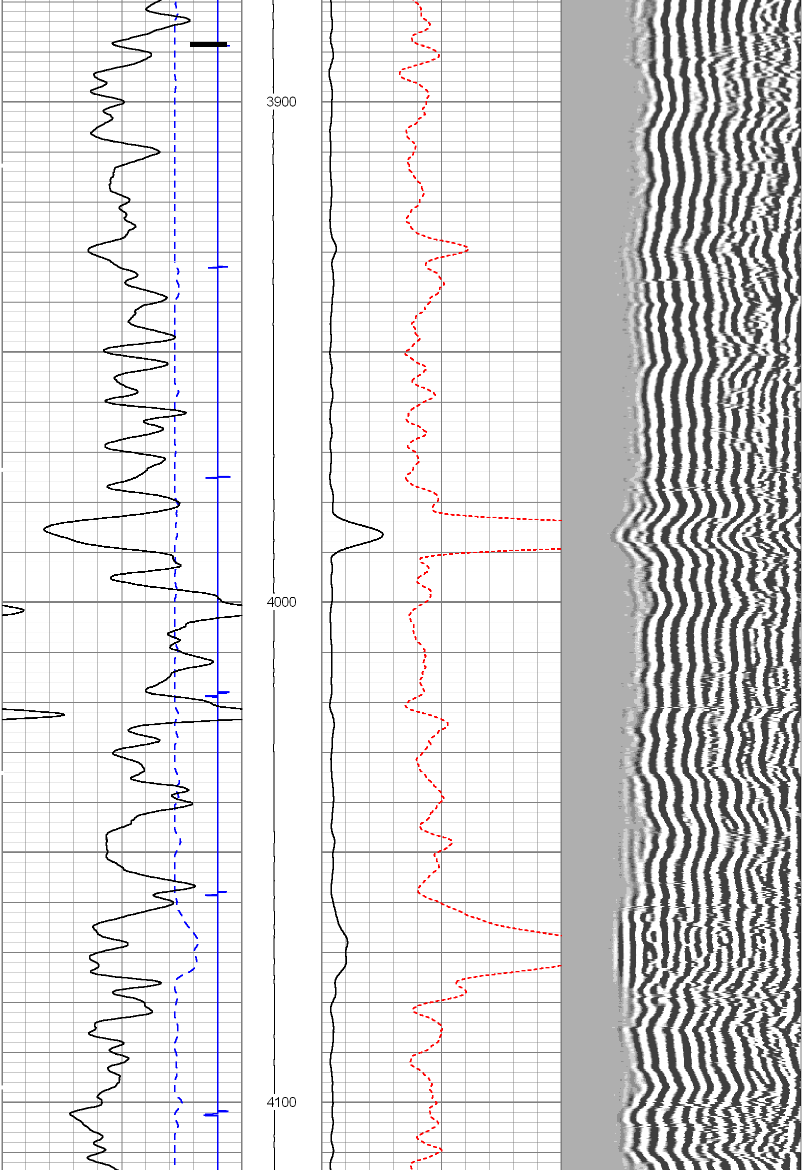
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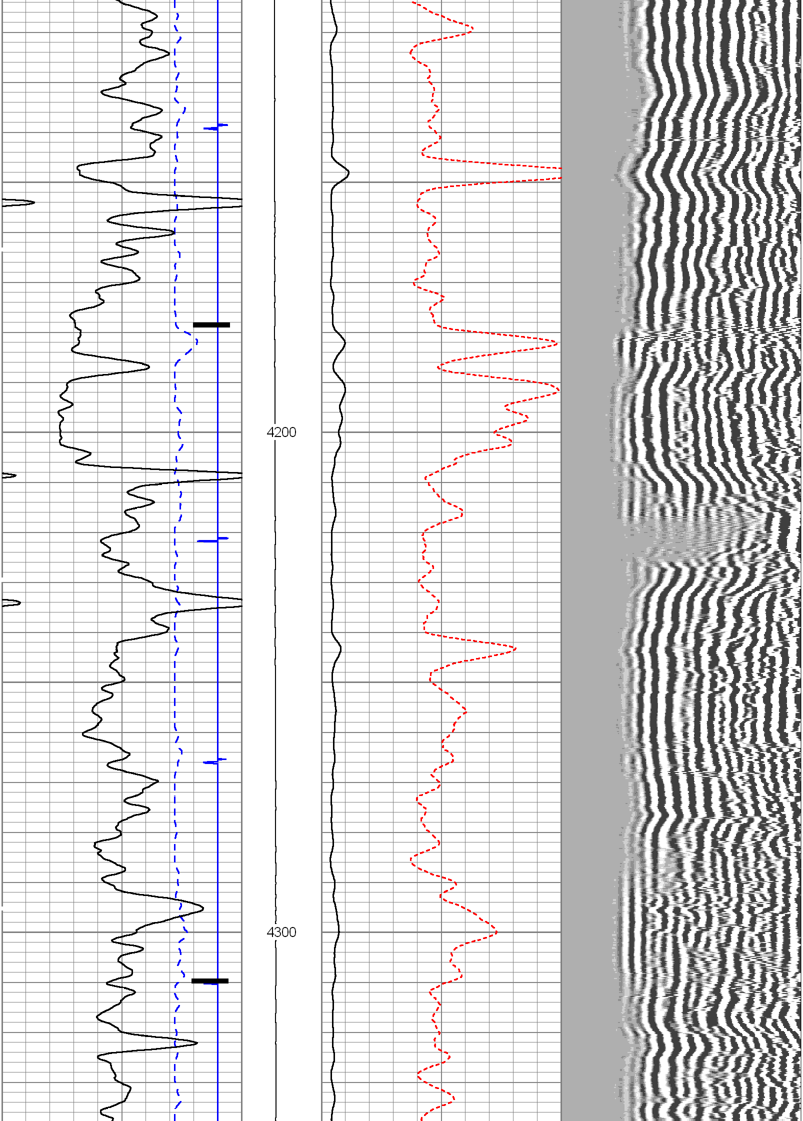
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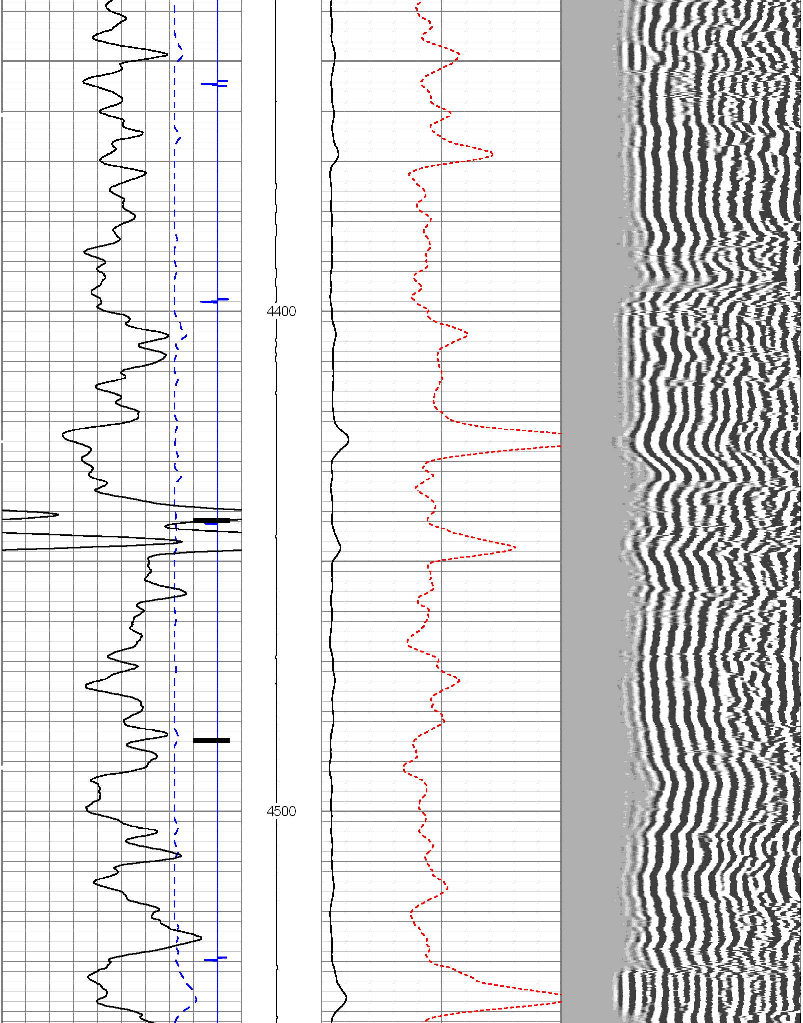
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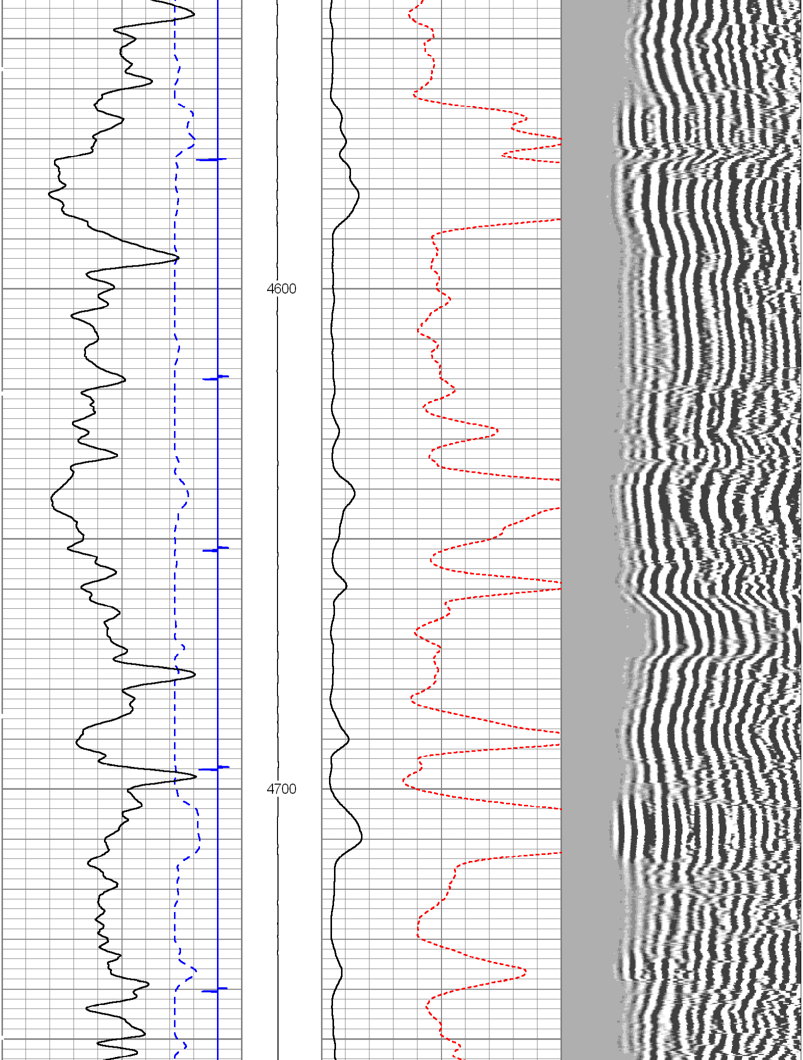
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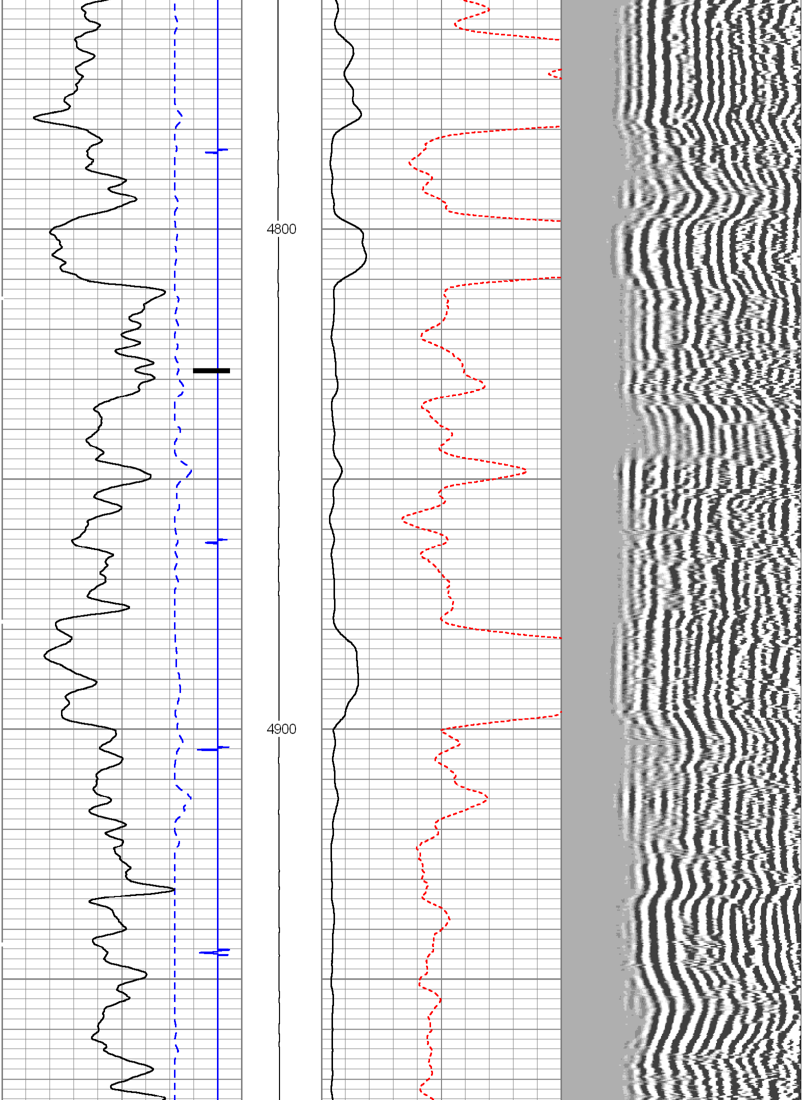
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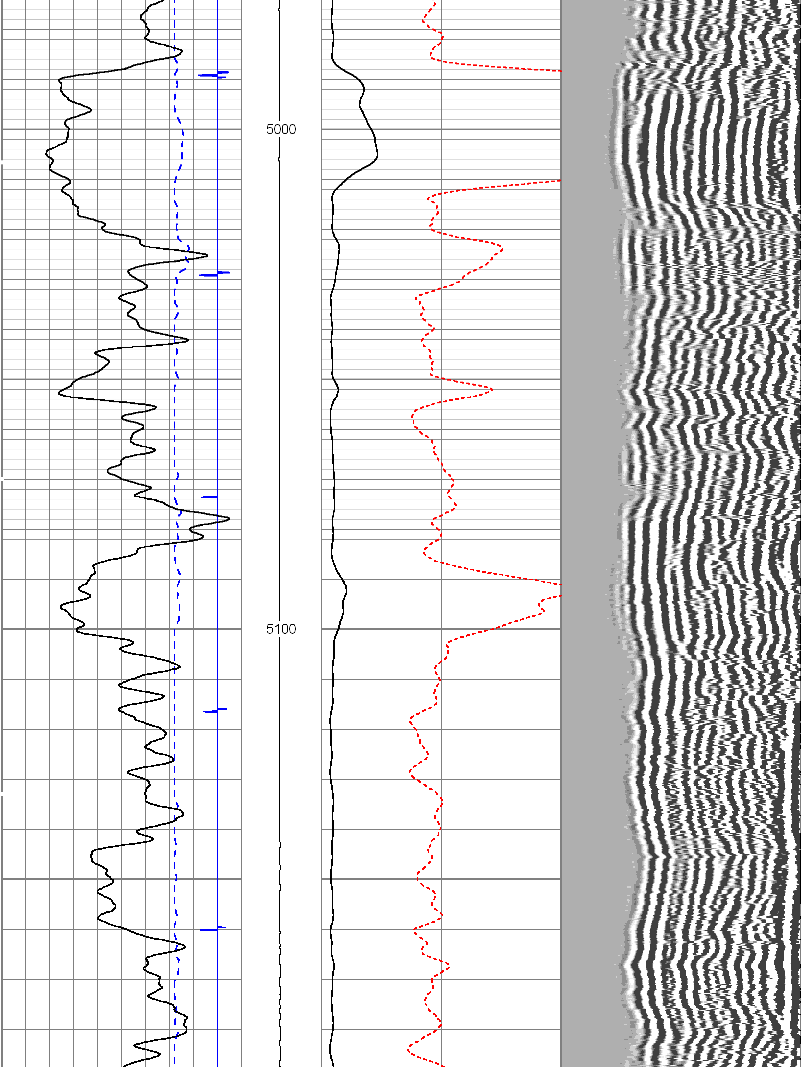
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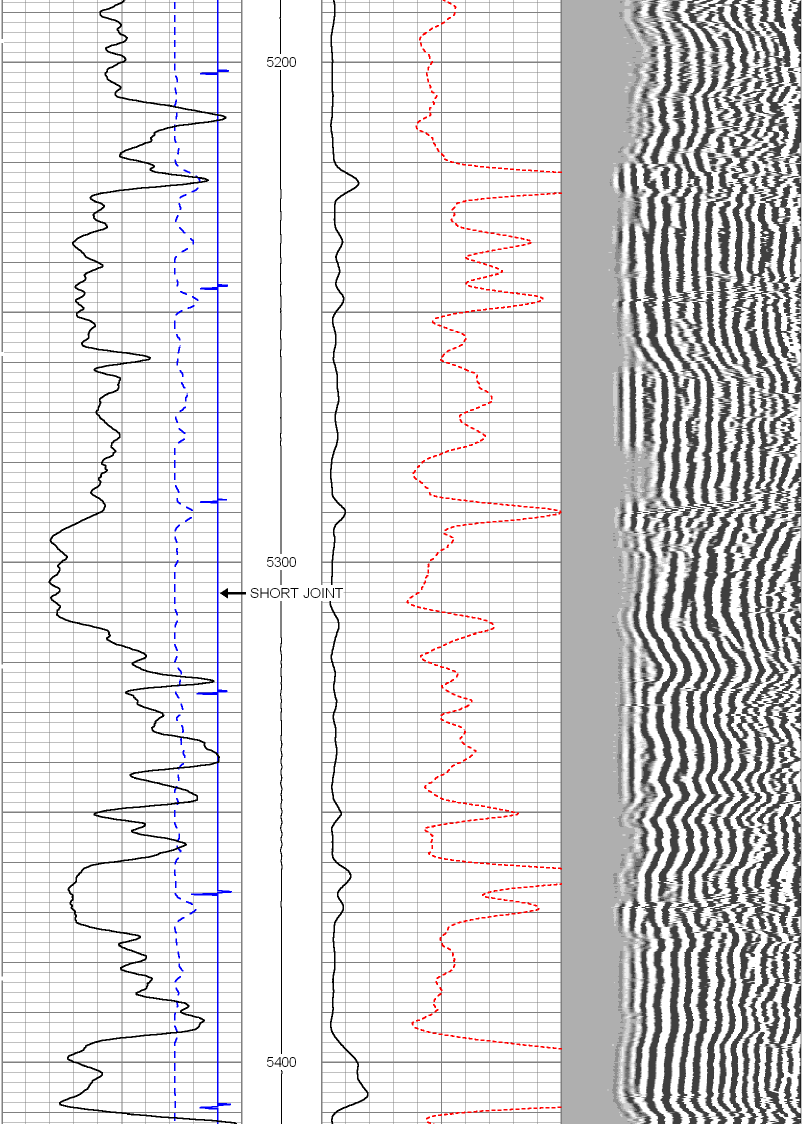
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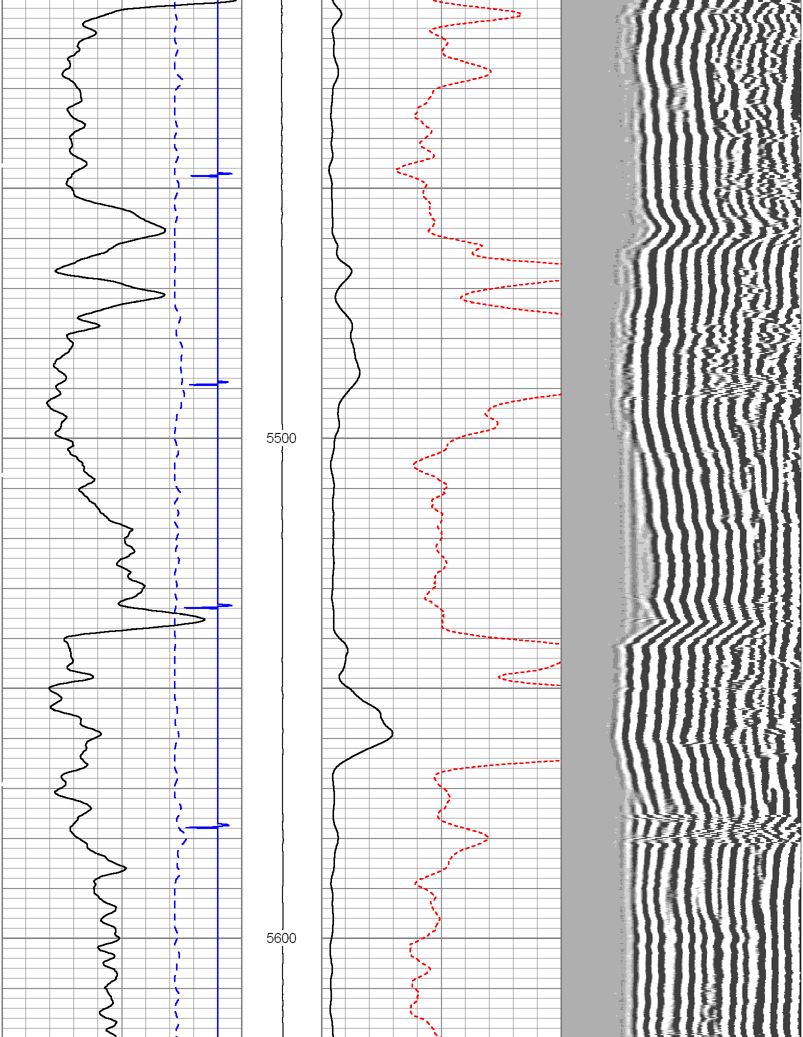
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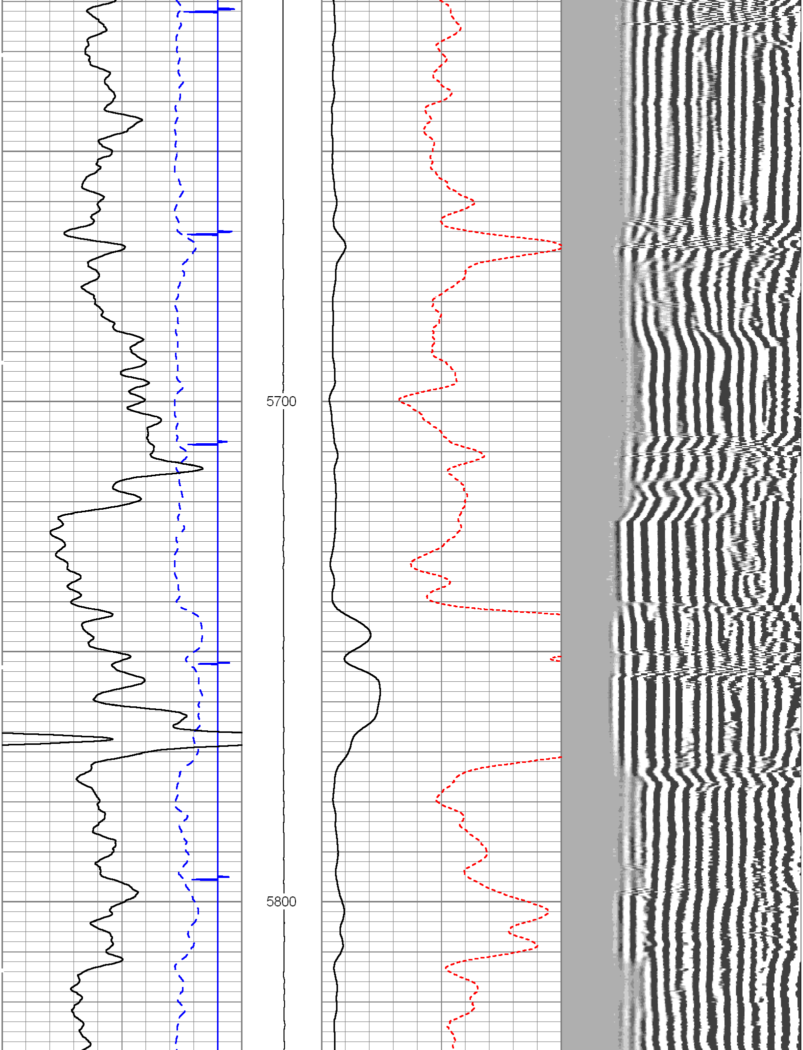
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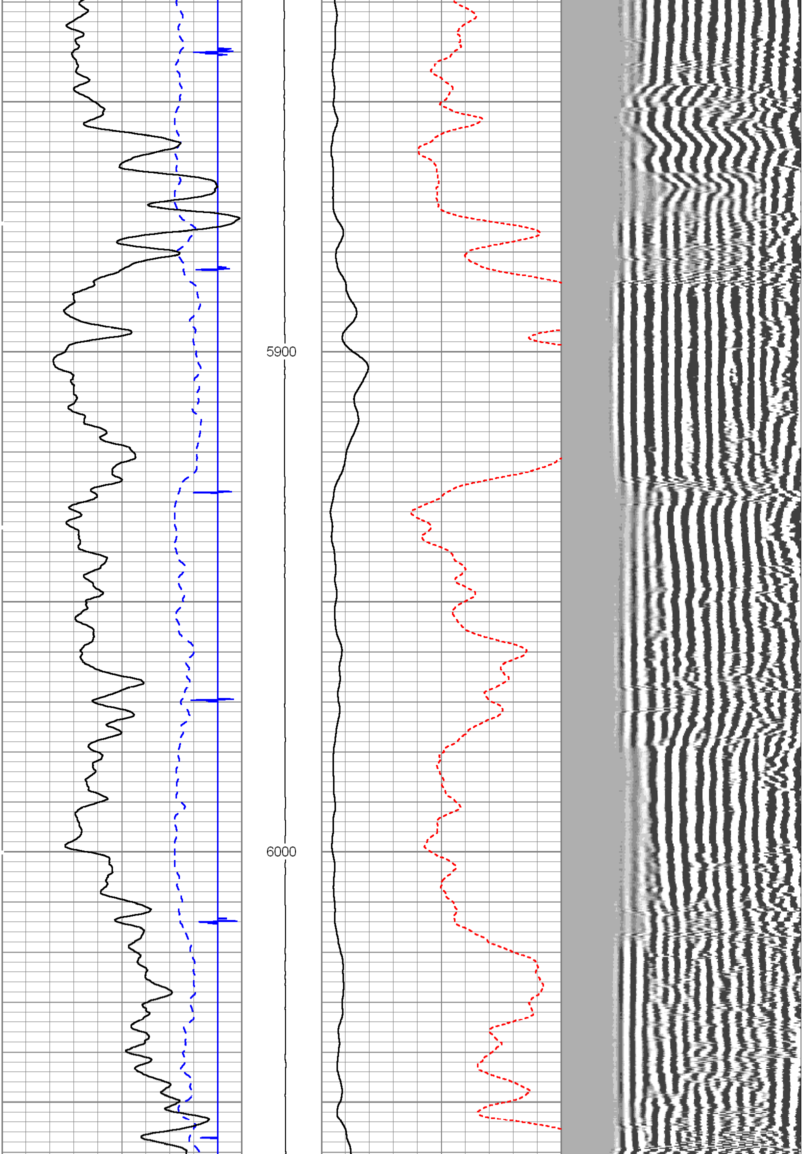
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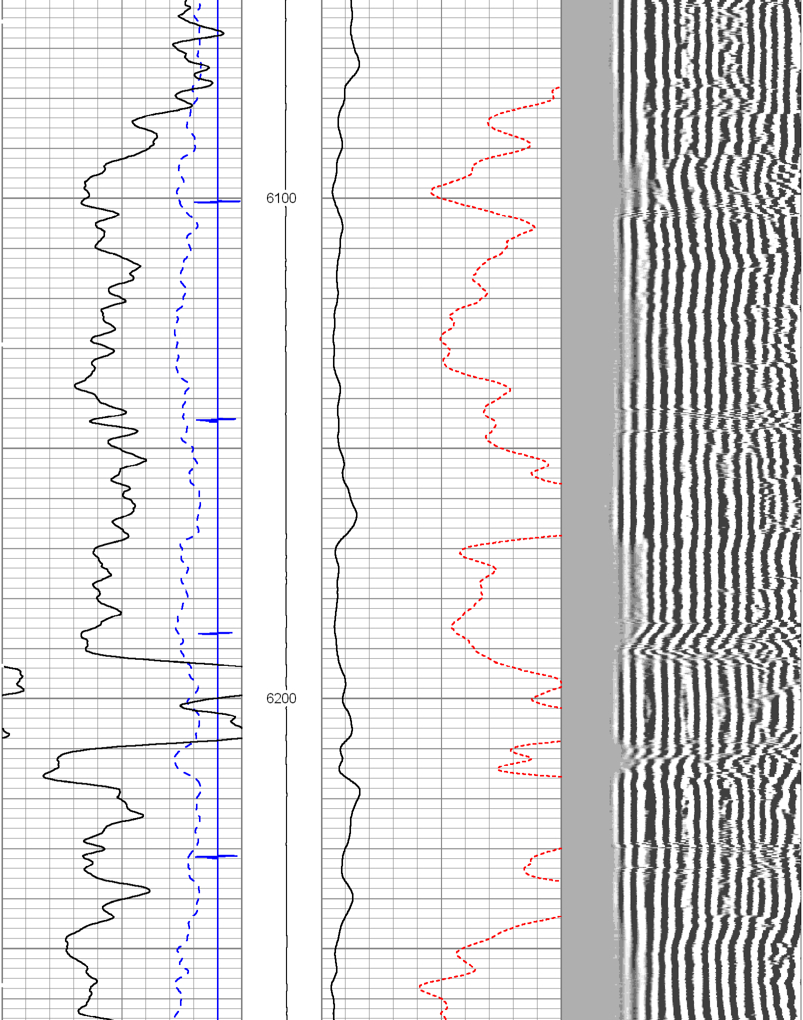
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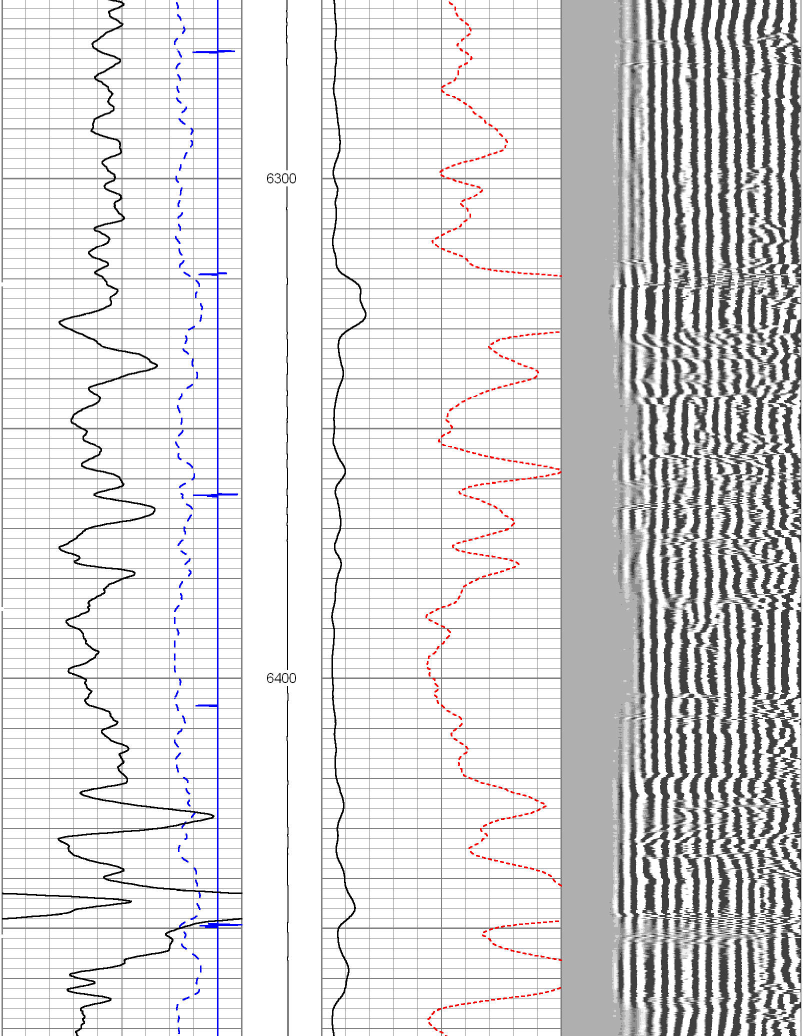
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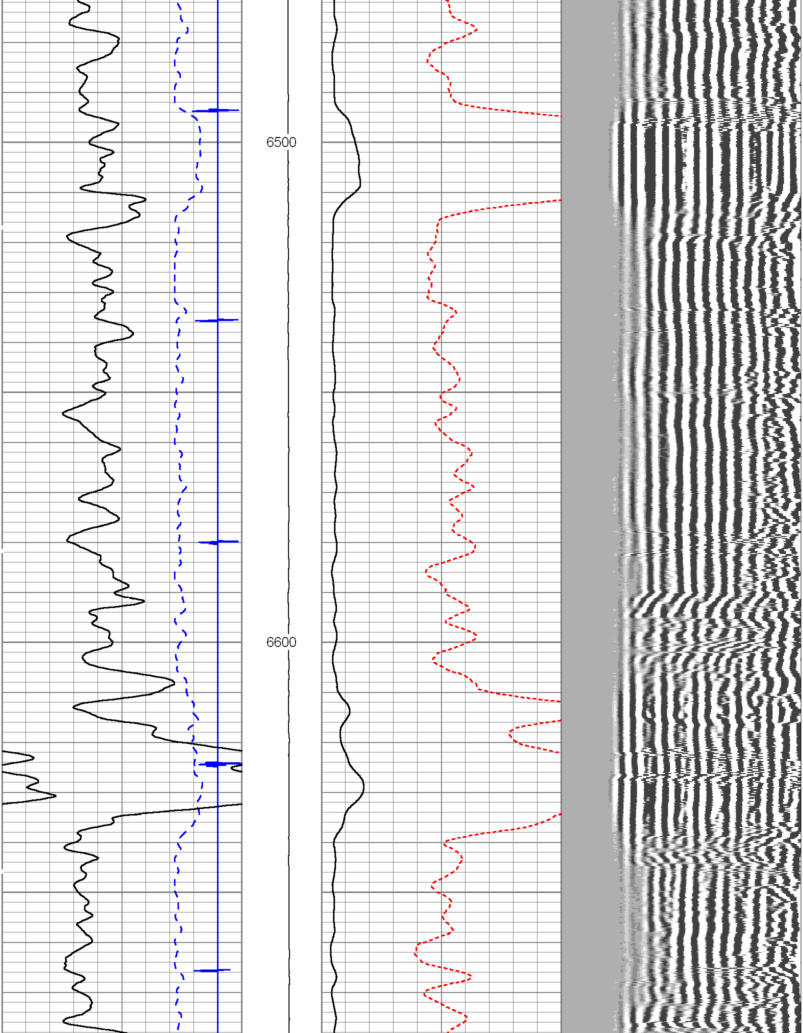
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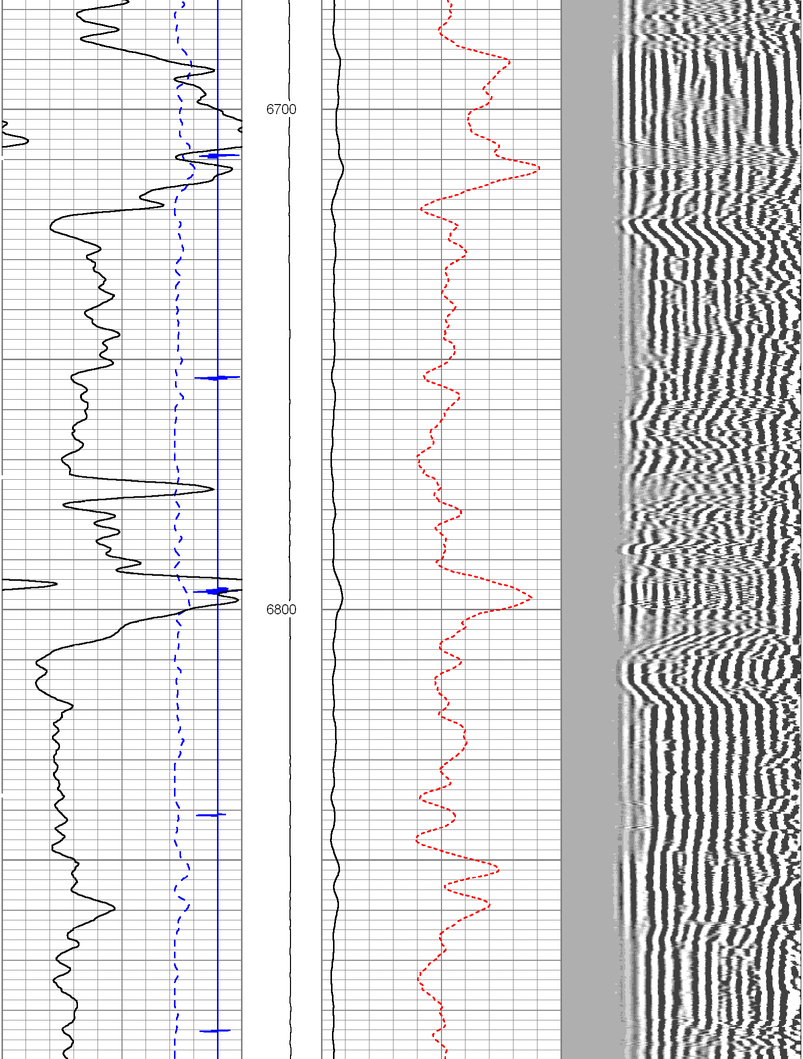
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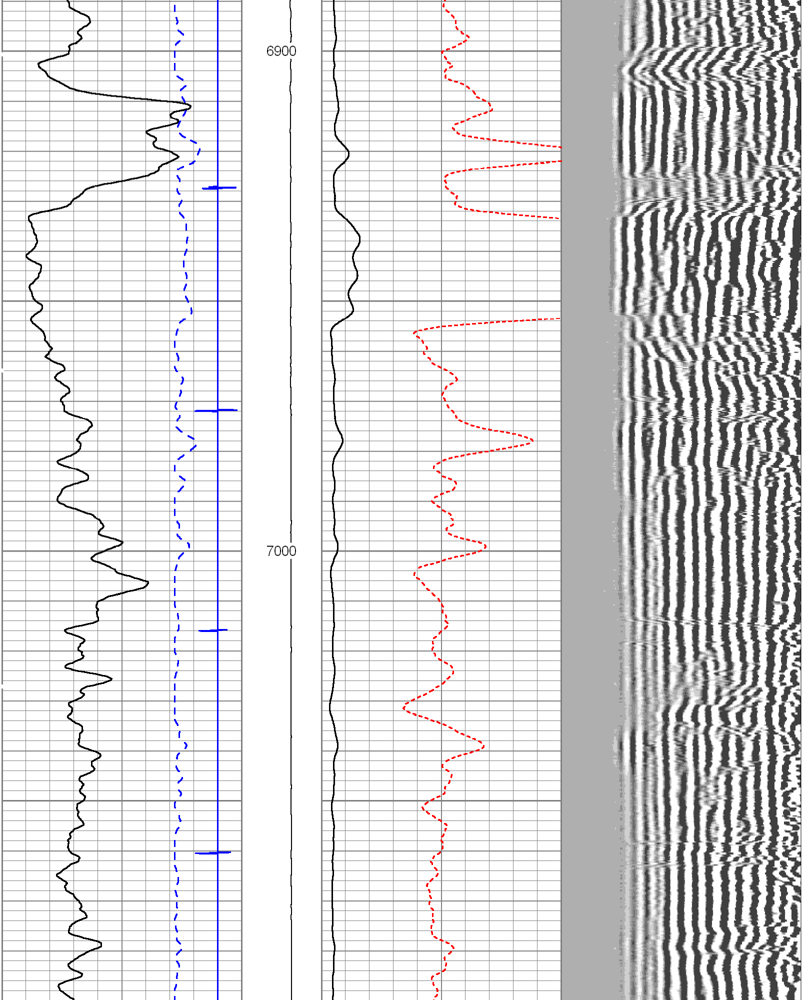
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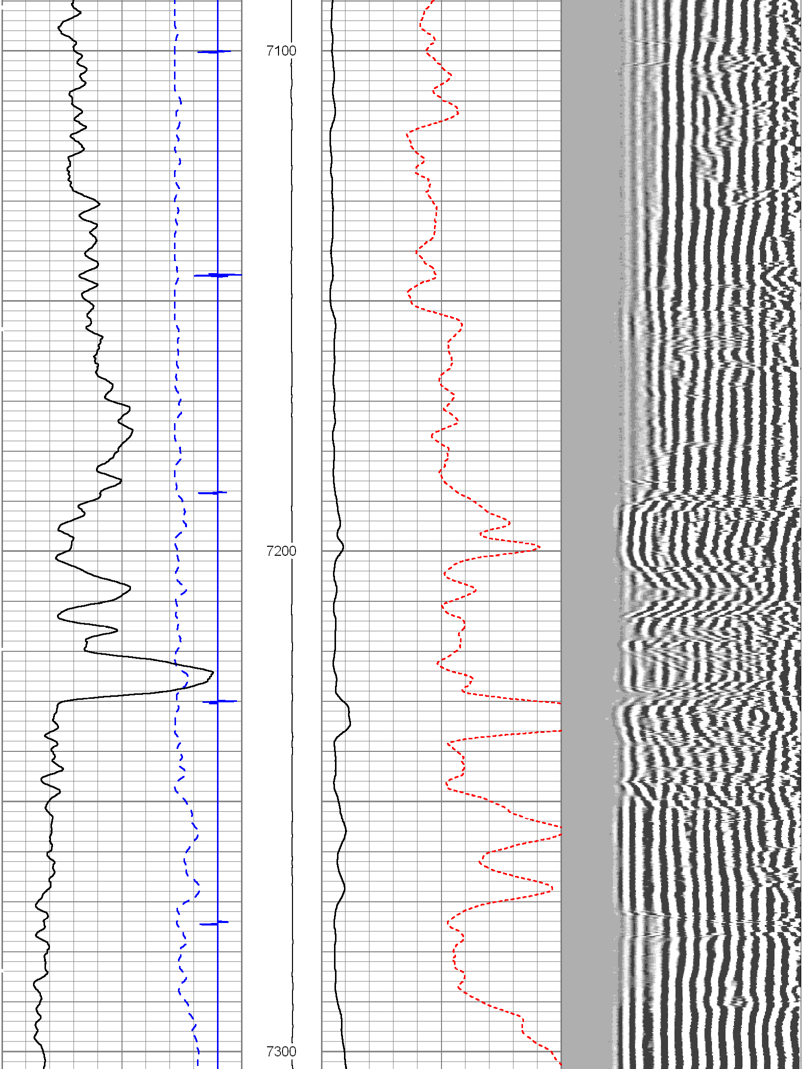
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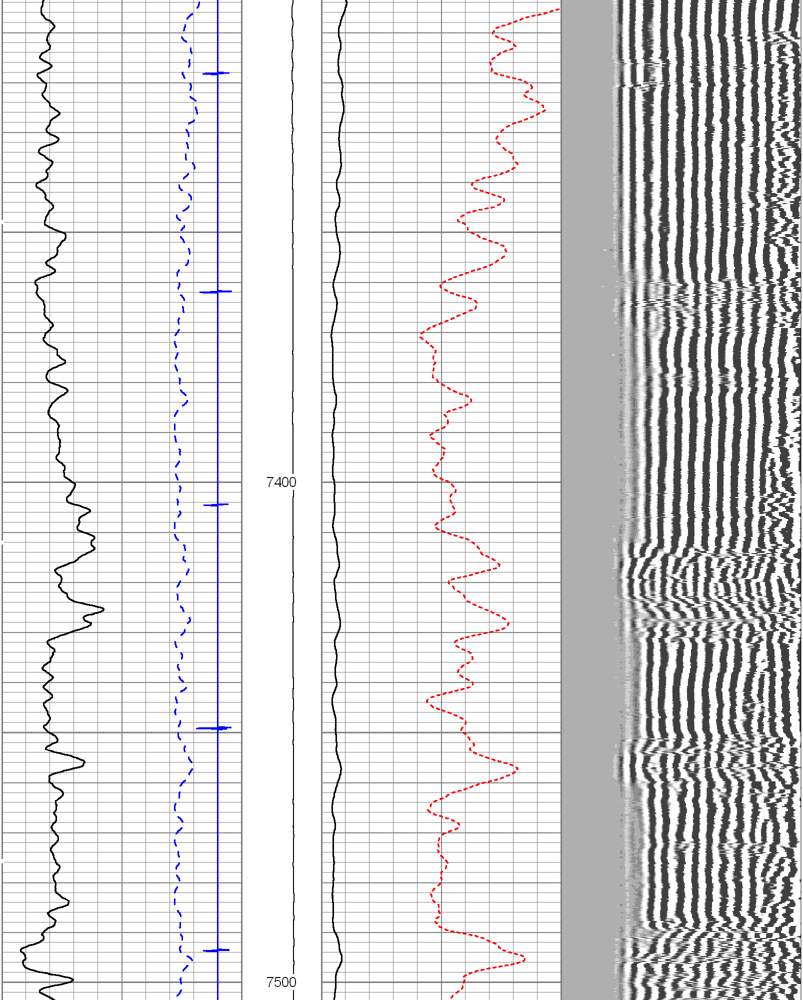
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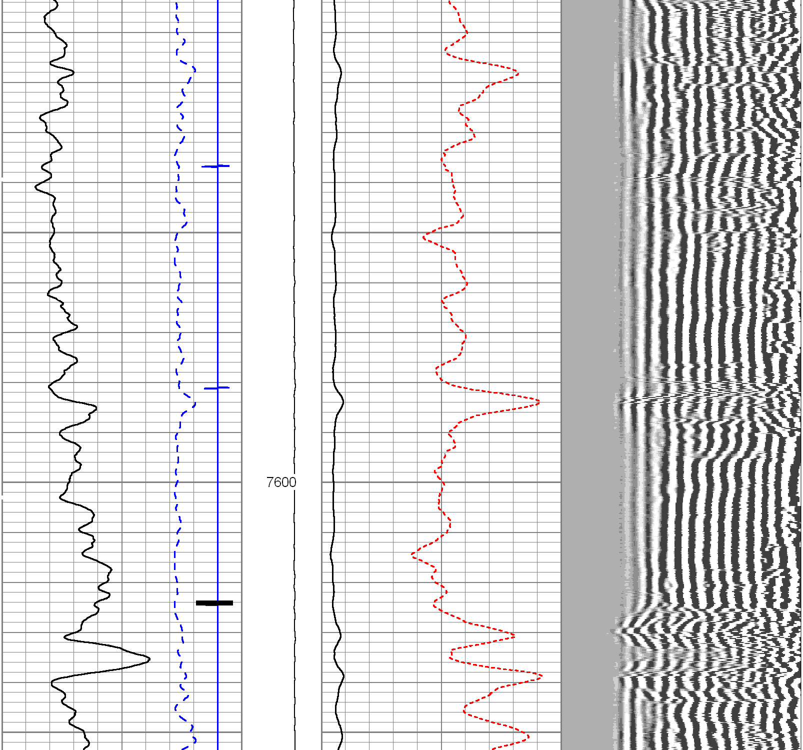
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HALLIBURTON

MAIN LOG SECTION

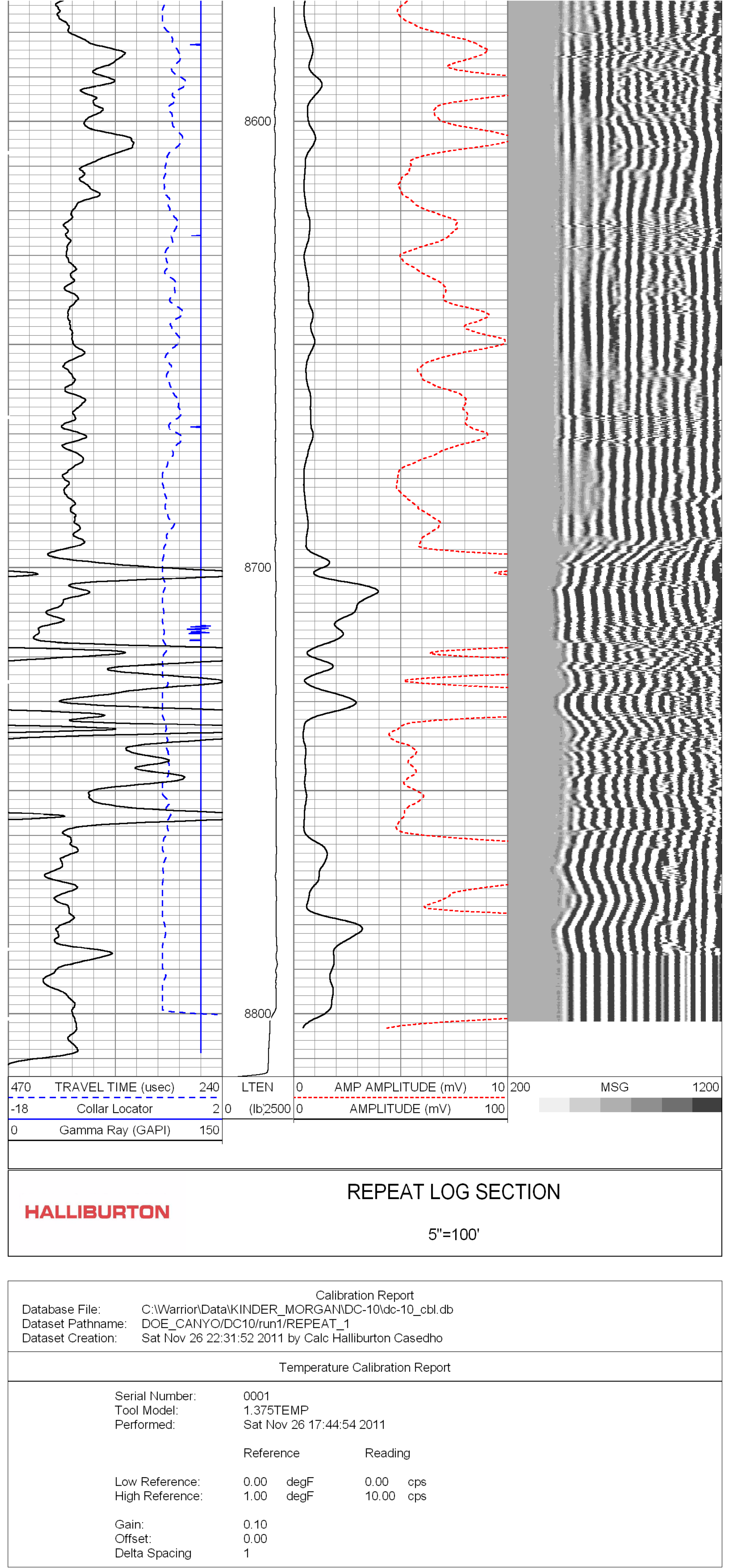
5"=100'

HALLIBURTON

REPEAT LOG SECTION

5"=100'

Database File: c:\warrior\data\kinder_morgan\dc-10\dc-10_cbl.db
Dataset Pathname: DOE_CANYO/DC10/run1/REPEAT_1
Presentation Format: cbl_main
Dataset Creation: Sat Nov 26 22:31:52 2011 by Calc Halliburton Casedho
Charted by: Depth in Feet scaled 1:240



REPEAT LOG SECTION

5"=100'

HALLIBURTON

Calibration Report

Database File: C:\Warrior\Data\KINDER_MORGAN\DC-10\dc-10_cbl.db
Dataset Pathname: DOE_CANYO/DC10/run1/REPEAT_1
Dataset Creation: Sat Nov 26 22:31:52 2011 by Calc Halliburton Casedho

Temperature Calibration Report

Serial Number: 0001
Tool Model: 1.375TEMP
Performed: Sat Nov 26 17:44:54 2011

	Reference		Reading	
Low Reference:	0.00	degF	0.00	cps
High Reference:	1.00	degF	10.00	cps

Gain: 0.10
Offset: 0.00
Delta Spacing: 1

Gamma Ray Calibration Report

Serial Number: 081008
Tool Model: Probe
Performed: Sat Nov 26 17:52:36 2011

Calibrator Value: 243.0 GAPI

Background Reading: 45.7 cps
Calibrator Reading: 355.3 cps

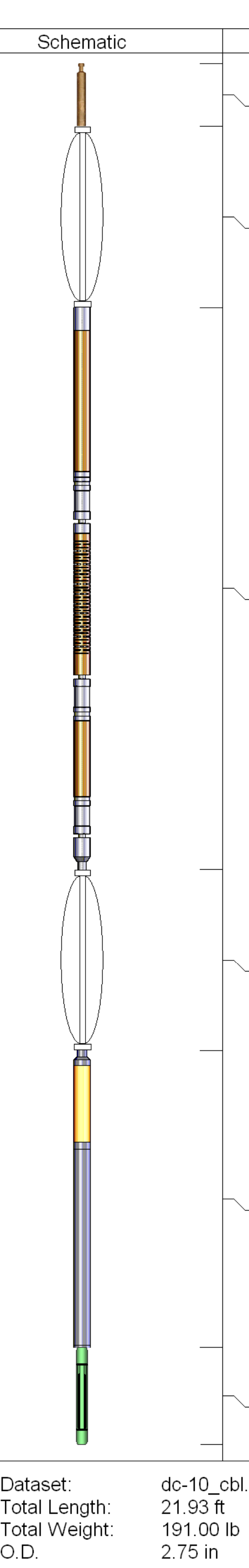
Sensitivity: 0.7850 GAPI/cps

Cement Bond Log Calibration Report

Serial Number: 081113
Tool Model: Probe
Performed: Sat Nov 26 18:10:27 2011

Depth: 100.215 ft
Casing Diameter: 7.625 in

	3' Spacing	5' Spacing	
Signal Zero:	2	2	mV
Calibrated Amplitude:	59.0331	59.0331	mV
Reading at Signal Zero:	-0.00349121	0.00192871	V
Reading in Free Pipe:	0.262622	0.0530029	V
Gain:	83.5	435.24	
Offset:	4.24823	1.35374	



Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			STND_CH 1.4375 IN CABLE HEAD	1.00	1.44	1.00
			CENT-Probe (PTS_MONO) Probe 2 3/4 Centralizer	2.88	2.75	35.00
WVF3 WVF5	13.32 12.32		CBL-Probe (081113) Probe 2.75" Dual Receiver Bond	8.92	2.75	60.00
			CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
CCL GR	5.17 4.08		GR-Probe (081008) Probe 2.75" 4 Channel Pulse	4.71	2.75	30.00
TEMP LLMTEN	0.58 0.00		TEMP-1.375TEMP (0001) Temperature Tool	1.54	1.38	30.00

Dataset: dc-10_cbl.db: DOE_CANYO/DC10/run1/REPEAT_1
Total Length: 21.93 ft
Total Weight: 191.00 lb
O.D.: 2.75 in

Company	KINDER MORGAN
Well	DOE CANYON # 10
Field	DOE CANYON
County	DOLORES
State	CO

ACOUSTIC CEMENT BOND LOG

HALLIBURTON