



**CCLV/DL  
GAMMI RAY  
CEMENT BOND LOG**

**Company** CHEVRON  
**Well** RAY H12-24D  
**Field** WATTENBERG  
**County** WELD **State** CO

**Location:** API #: 05-123-32007  
 LAT: 40.235524736  
 LONG: -104.614252087  
 SEC 12 TWP 3N RGE 65W  
**Permanent Datum** GL **Elevation** 4858'  
**Log Measured From** GL **K.B.** 4871'  
**Drilling Measured From** KB **D.F.** 4870'  
**G.L.** 4858'

**Date** 9/5/2024  
**Run Number** 1  
**Depth Driller** 7873'  
**Depth Logger** 508'  
**Bottom Logged Interval** 500'  
**Top Log Interval** SURFACE  
**Open Hole Size** 7.875"  
**Type Fluid** H2O  
**Density / Viscosity** 8.3#  
**Max. Recorded Temp.** N/A  
**Estimated Cement Top** SEE LOG  
**Time Well Ready** 730AM  
**Time Logger on Bottom** 850AM  
**Equipment Number** UNIT 473  
**Location** GREELEY, CO  
**Recorded By** K.STICKLEY  
**Witnessed By** B.TRACY  
**Recorded By** RAZEVEDO

Run Number	Borehole Record			Tubing Record			
	Bit	From	To	Size	Weight	From	To
Casing Record							
Surface String		Size 8.625"		Wgt/Ft 24#		Top 13'	Bottom 695'
Prot. String							
Production String		Size 4.5"		Wgt/Ft 11.6#		Top 13'	Bottom 7863'
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**

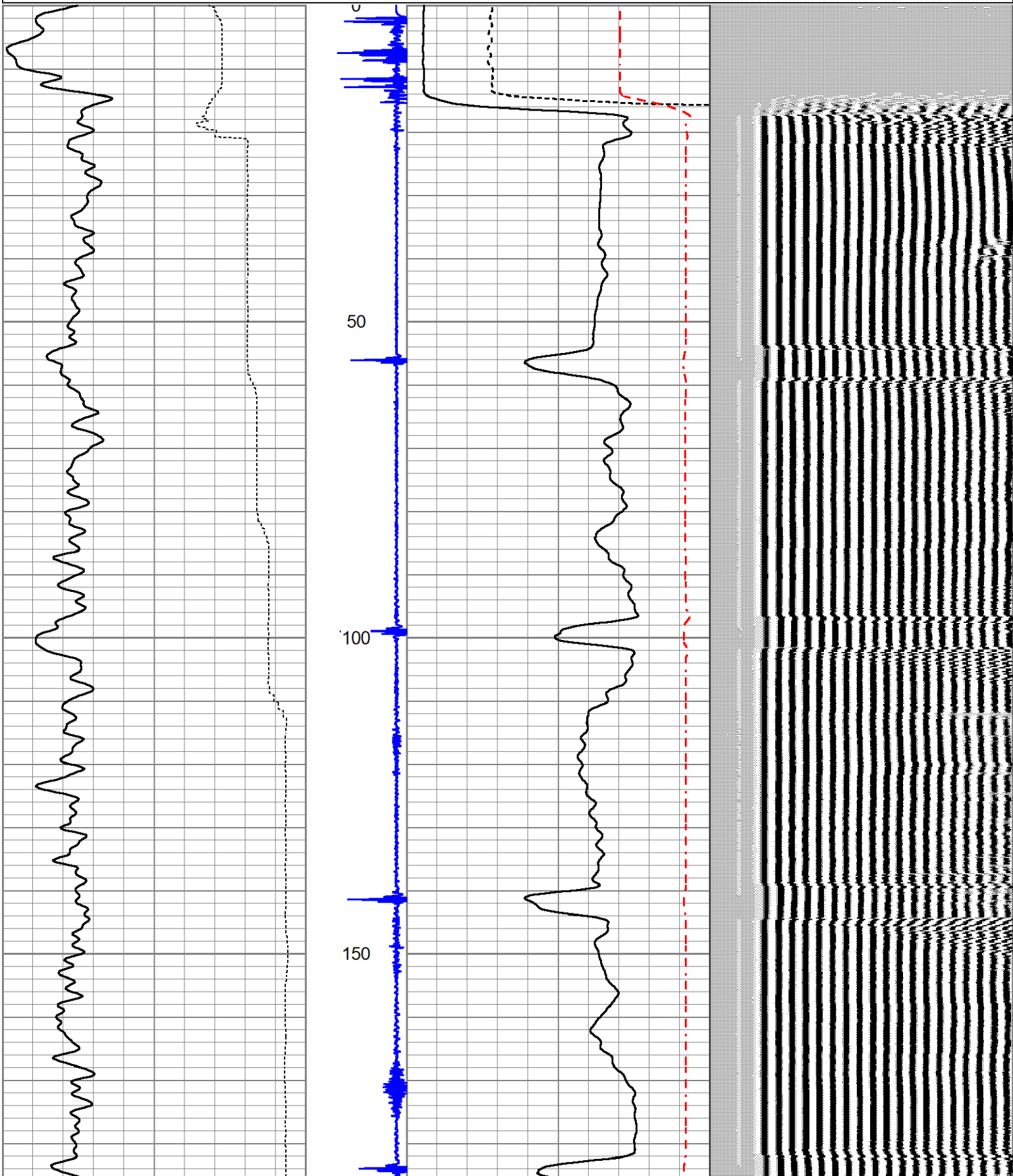
LOG RAN PER CUSTOMER REQUEST  
 500 PSI APPLIED  
 FREE PIPE = 81mV  
 THANK YOU FOR CHOOSING A-PLUS P&A LLC.

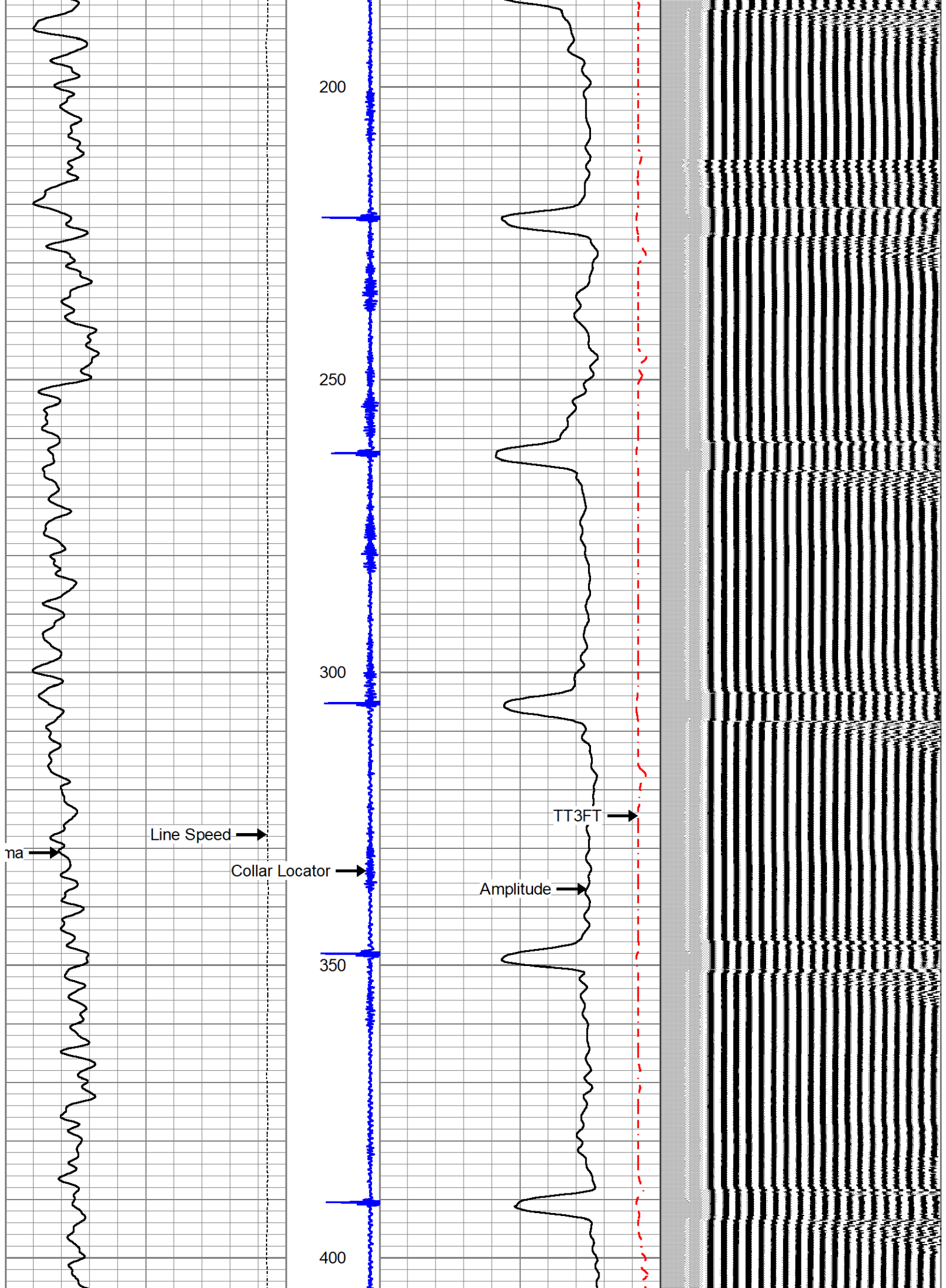


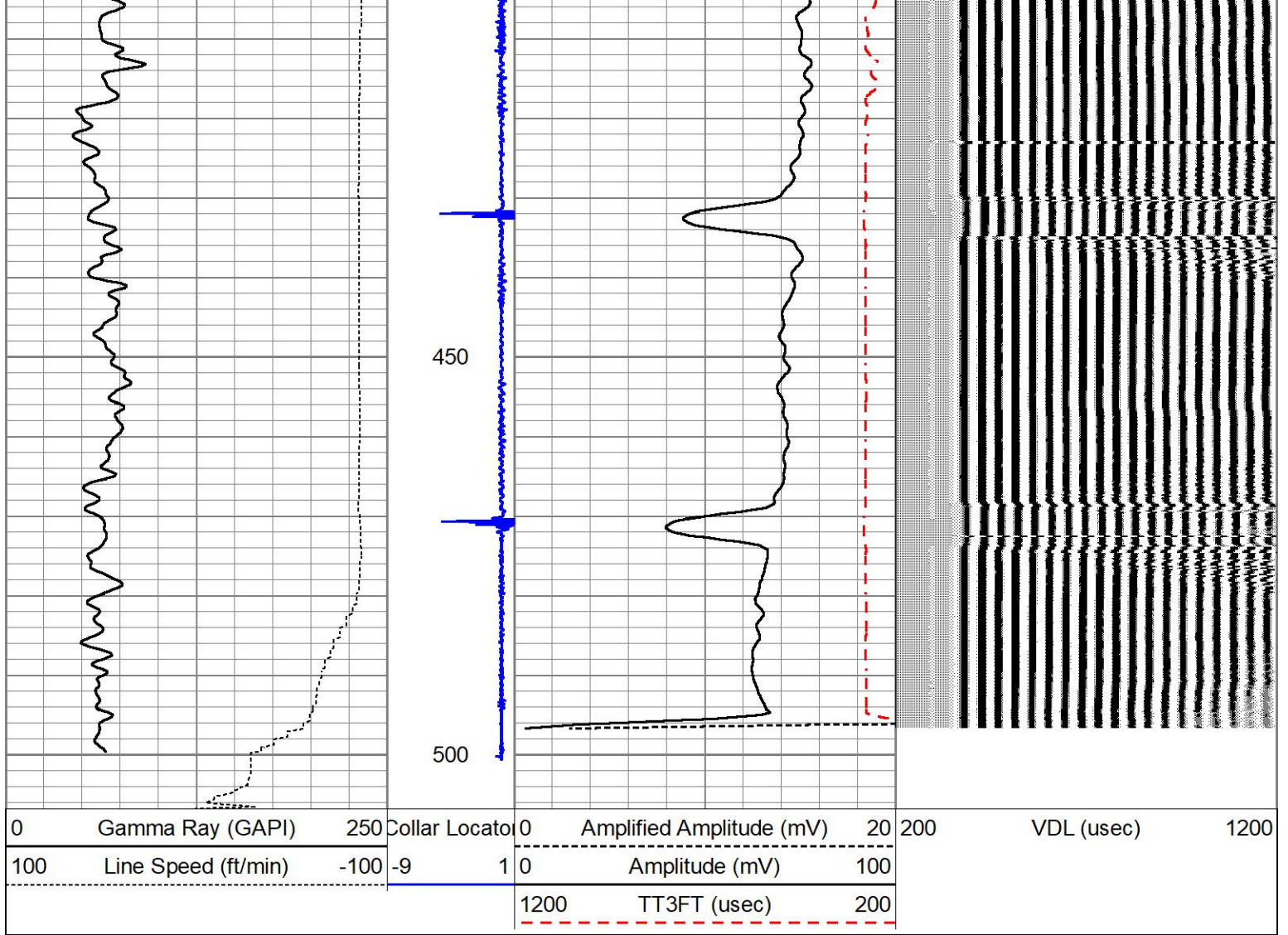
# MAIN PASS- UNDER

Database File chevron\_ray\_h12-24d.db  
 Dataset Pathname pass9  
 Presentation Format cbl\_dr  
 Dataset Creation Thu Sep 05 09:37:50 2024  
 Charted by Depth in Feet scaled 1:240

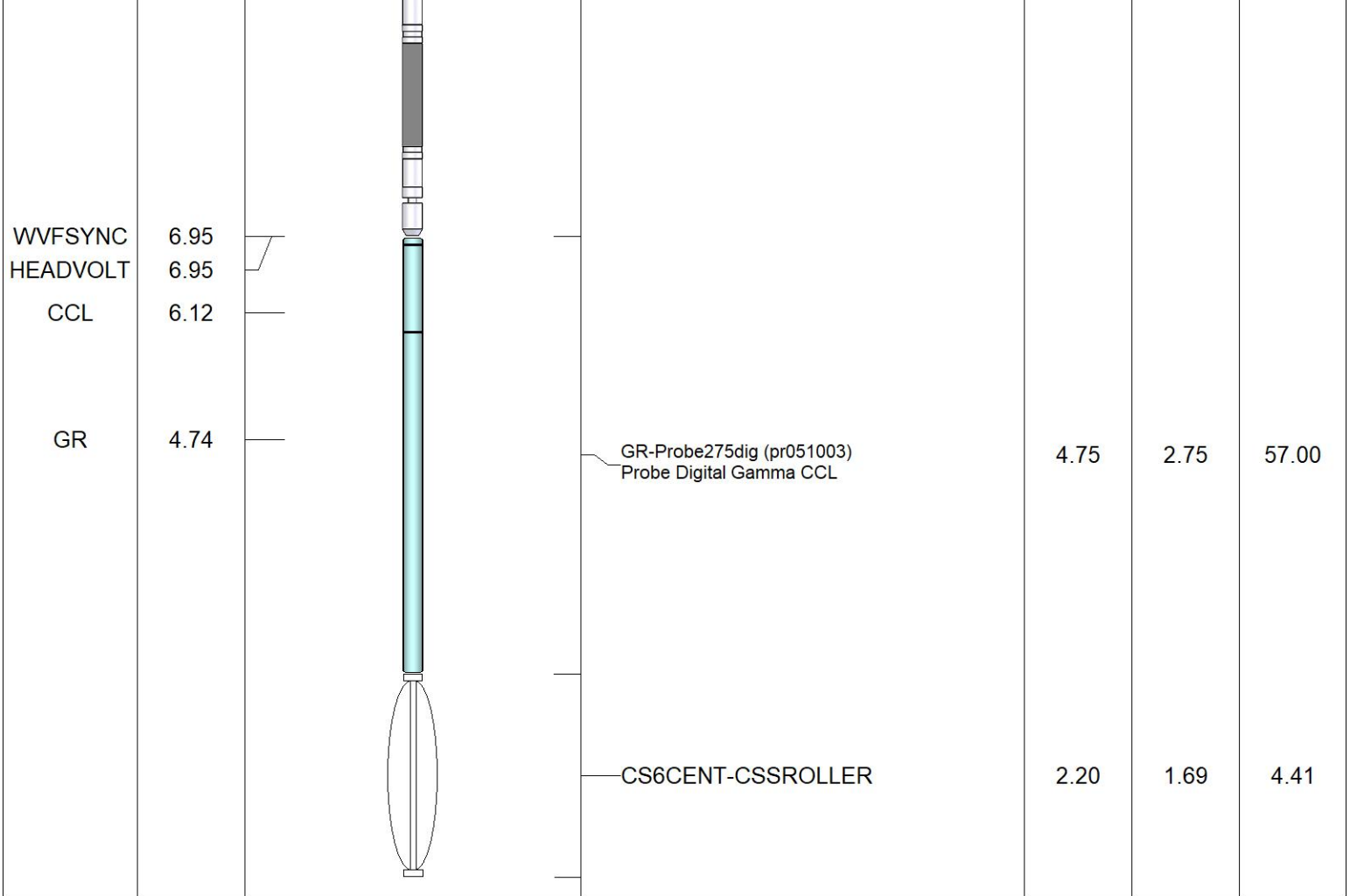
0	Gamma Ray (GAPI)	250	Collar Location	0	Amplified Amplitude (mV)	20	200	VDL (usec)	1200
100	Line Speed (ft/min)	-100	-9	1	0	Amplitude (mV)	100		
					1200	TT3FT (usec)	200		







Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CS6CENT-CSSROLLER	2.20	1.69	4.41
WVF3FT	11.14		CBL-Probe (275) Probe 2.75" Dual Receiver Bond	8.75	2.75	60.00
WVF5FT	10.14					



Dataset: chevron\_ray\_h12-24d.db: field/well/run1/pass9  
 Total length: 17.90 ft  
 Total weight: 125.82 lb  
 O.D.: 2.75 in

**Calibration Report**

Database File chevron\_ray\_h12-24d.db  
 Dataset Pathname pass9  
 Dataset Creation Thu Sep 05 09:37:50 2024

**Gamma Ray Calibration Report**

Type / Serial: Probe275dig / pr051003

**SHOP CALIBRATION** Thu Oct 27 14:35:18 2005

	Counts/Sec.	Gain	Offset	Jig	Units
Background	41.0				cps
Calibrator	340.3				cps
		0.8720			GAPI/cps

**PRIMARY VERIFICATION** 00:00:00

Background	33.2				cps
Calibrator	288.5				cps
Difference				255.3	GAPI

**BEFORE SURVEY VERIFICATION** 00:00:00

Background	34.4				cps
Calibrator	292.8				cps
Difference				258.4	GAPI

Background	33.6		cps
Calibrator	289.8		cps
Difference		256.2	GAPI

Segmented Cement Bond Log Calibration Report

Serial Number:	275		
Tool Model:	Probe		
Calibration Casing Diameter:	4.500	in	
Calibration Depth:	329.273	ft	

Master Calibration, performed Thu Sep 5 08:44:13 2024:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.011	1.010	1.000	81.196	80.237	0.129
CAL						
5'	0.010	0.862	1.000	81.196	94.117	0.074
SUM						
S1						
S2						
S3						
S4						
S5						
S6						
S7						
S8						

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL						

Air Zero Calibration, performed Thu May 28 09:57:00 2020:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero			Offset
3'	0.000		0.000			0.000
5'	0.000		0.000			0.000
SUM						
S1						
S2						
S3						
S4						
S5						
S6						
S7						
S8						

Log Variables

DatabaseC:\ProgramData\Warrior\Data\chevron\_ray\_h12-24d.db  
 Dataset field/well/run1/pass9/\_vars\_

Top - Bottom

BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL	MINATTN
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in 7.875	degF 100	in 4.5	in 0	lb/ft 11.6	mV 0	mV 1	db/ft 0.8
PERFS No	PPT usec 0	SRFTEMP degF 0	TDEPTH ft 0				

**Variable Description**

BOREID : Borehole I.D.

BOTTEMP : Bottom Hole Temperature

CASEOD : Casing O.D.

CASETHCK : Casing Thickness

CASEWGHT : Casing Weight

MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude

MINATTN : Minimum Attenuation

PERFS : Perforation Flag

PPT : Predicted Pipe Time

SRFTEMP : Surface Temperature

TDEPTH : Total Depth