PIONEER
Pioneer Energy Services

RADIAL CEMENT BOND GAMMA RAY CCL LOG

Company	ENCANA OIL & GAS
Well	HALEY #1
Field	WATTENBERG
County	WELD
State	COLORADO
Country	

Company ENCANA OIL & GAS
Well HALEY #1
Field WATTENBERG
County WELD
State COLORADO
Country

Location: API #: 05-123-09015
1650 FNL & 2070 FEL
SENE
SEC 22 TWP 2N RGE 68W

Other Services

Permanent Datum	Ground Level	Elevation	4943'
Log Measured From	K.B. 10' A.G.L.		
Drilling Measured From	K.B.		

Elevation
K.B. 4953'
D.F. 4952'
G.L. 4943'

Date	23-DEC-2014
Run Number	ONE
Depth Driller	8111'
Depth Logger	7930'
Bottom Logged Interval	7930'
Top Log Interval	SURFACE
Open Hole Size	N/A
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	SEE LOG
Time Well Ready	12:00
Time Logger on Bottom	12:30
Equipment Number	P-96
Location	FT. MORGAN
Recorded By	TIM REESE
Witnessed By	CARL R.

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String				
Liner				

<<< Fold Here >>>

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

Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CSS_MID	2.79	3.00	36.00
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 10.63	RBT-Probe (130433) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
		PTS275	2.83	2.75	
CCL GR	3.63 2.30	GR_CCL-Probe (110249) Probe Gamma CCL	4.54	2.75	100.00

Dataset: haley #1.db: field/well/run1/merge2
Total Length: 19.08 ft
Total Weight: 226.00 lb
O.D. 3.00 in

Calibration Report

Database File: haley #1.db
Dataset Pathname: pass1
Dataset Creation: Tue Dec 23 11:27:51 2014 by Log SCH 120430

Gamma Ray Calibration Report

Serial Number:	110249	
Tool Model:	Probe	
Performed:	Wed Dec 17 15:01:34 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.1000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	130433	
Tool Model:	Probe	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	450.600	ft

Master Calibration, performed Mon Dec 15 18:57:30 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.015	0.976	1.000	62.165	63.670	0.049
CAL	0.015	0.262				
5'	0.015	0.974	1.000	62.165	63.784	0.035
SUM						
S1	0.015	0.970	0.000	100.000	104.724	-1.601
S2	0.015	0.991	0.000	100.000	102.456	-1.563
S3	0.015	0.987	0.000	100.000	102.836	-1.548
S4	0.015	1.010	0.000	100.000	100.502	-1.522
S5	0.015	1.040	0.000	100.000	97.548	-1.494
S6	0.015	1.035	0.000	100.000	98.050	-1.509
S7	0.016	0.993	0.000	100.000	102.295	-1.607
S8	0.015	0.968	0.000	100.000	105.012	-1.627

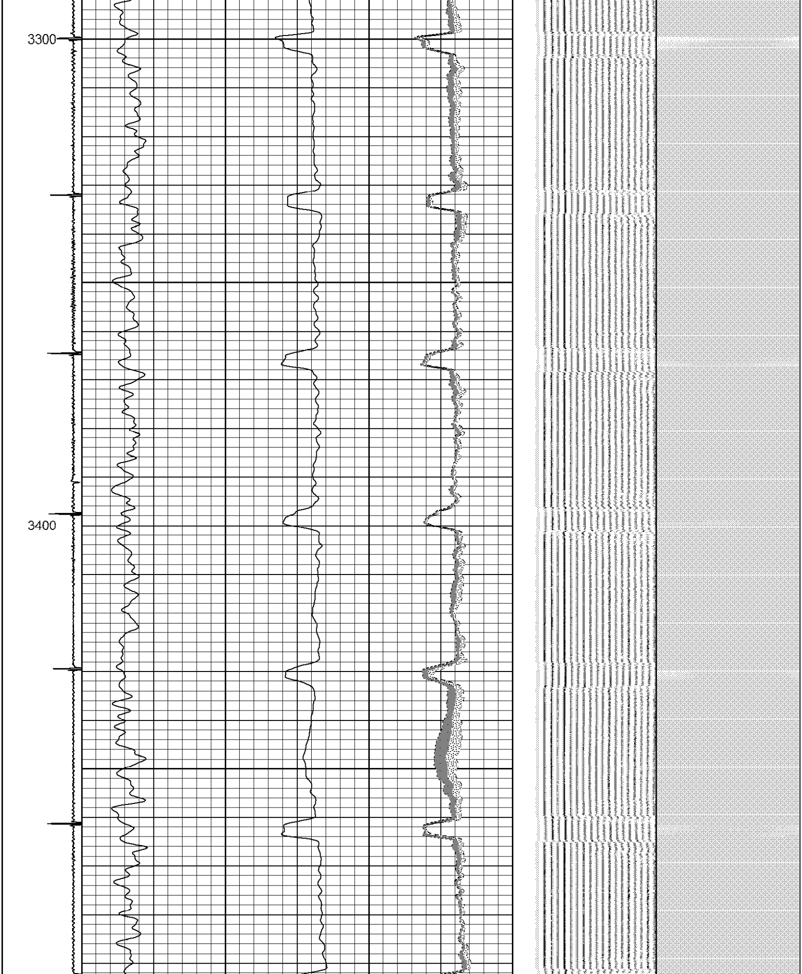
Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

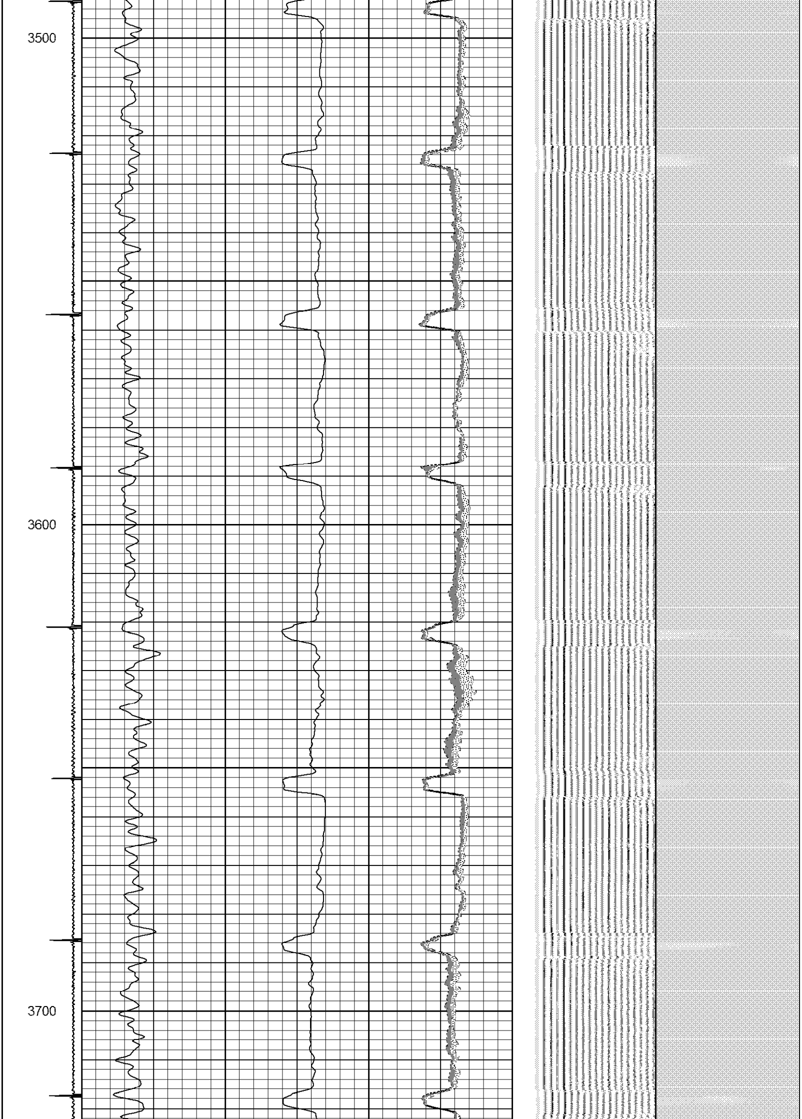
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.015	0.262	1.000	0.000

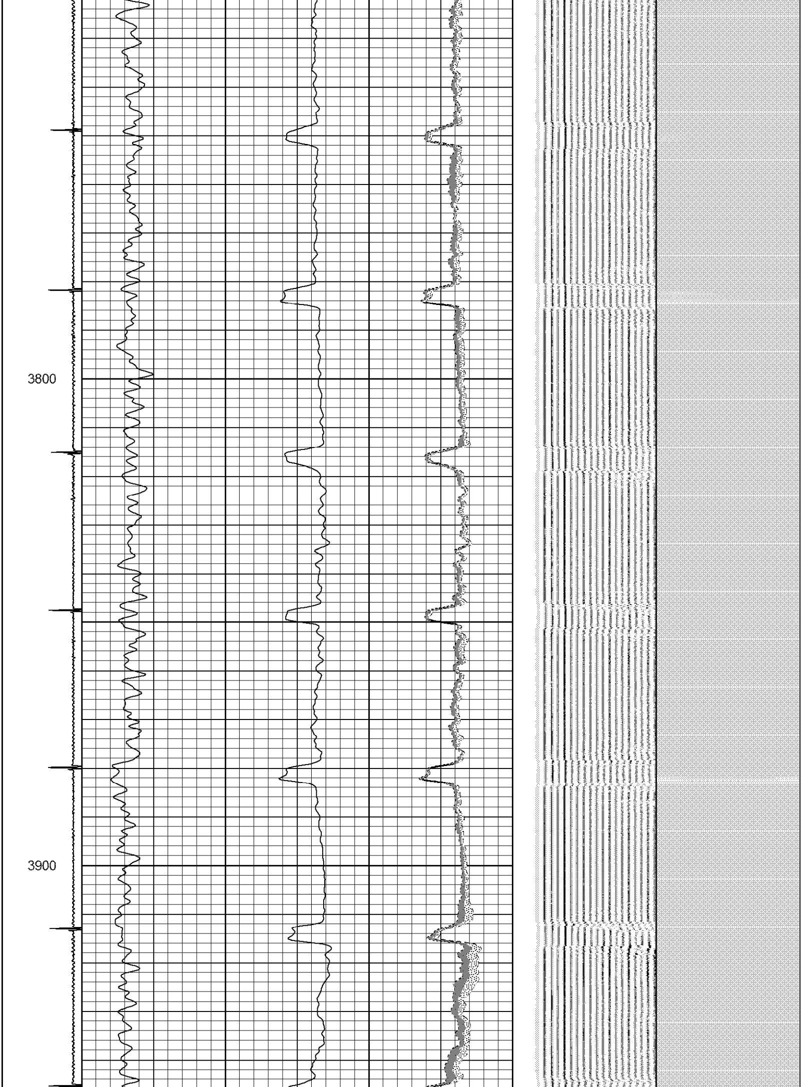
Air Zero Calibration, performed Wed Dec 31 17:00:00 1969:

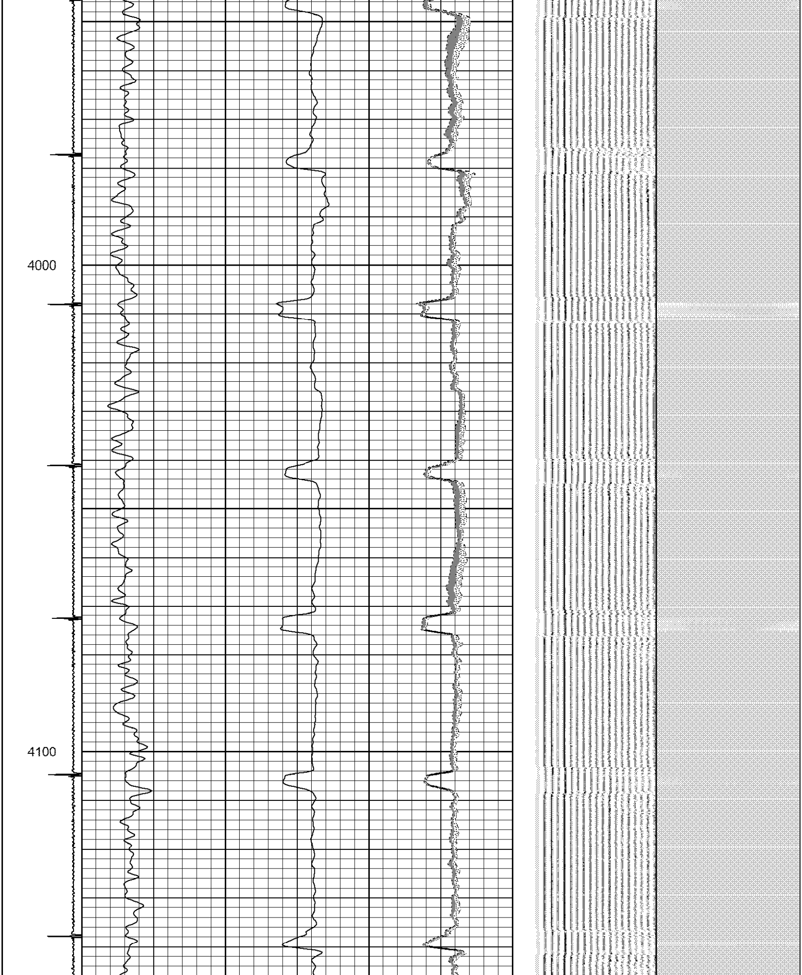
	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

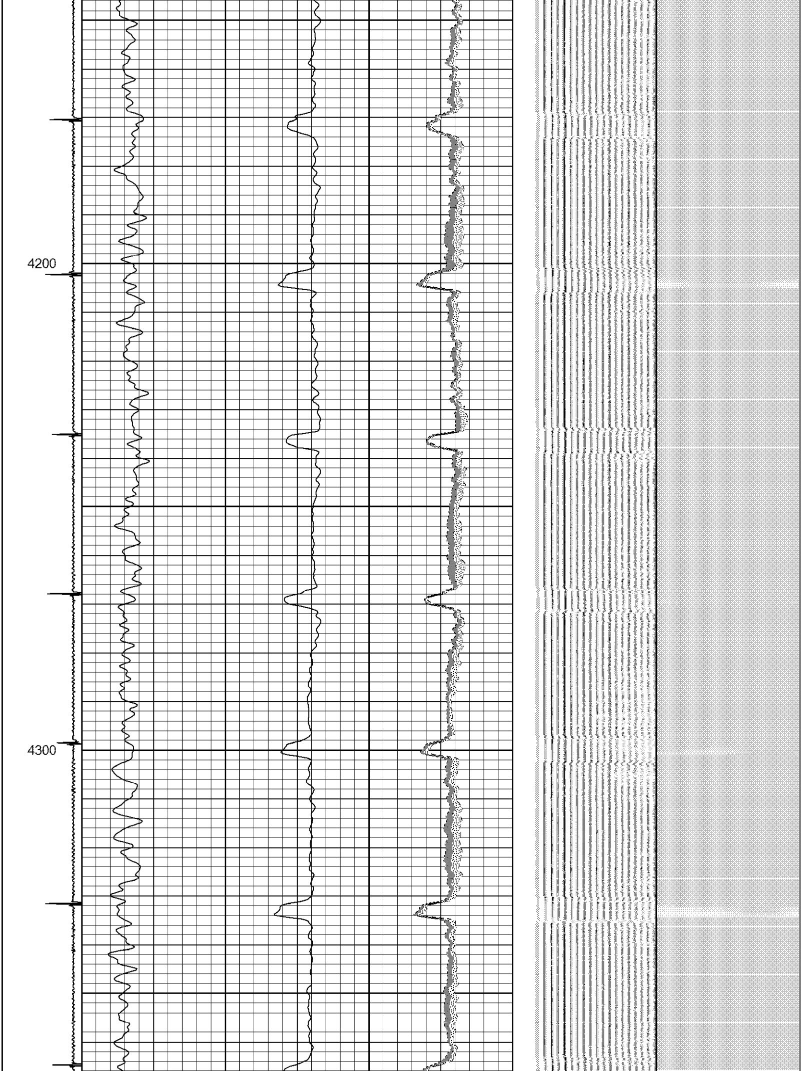
Database File: haley #1.db
Dataset Pathname: merge2
Presentation Format: scbl02
Dataset Creation: Tue Dec 23 14:28:28 2014 by Calc 7.0 B1
Charted by: Depth in Feet scaled 1:240

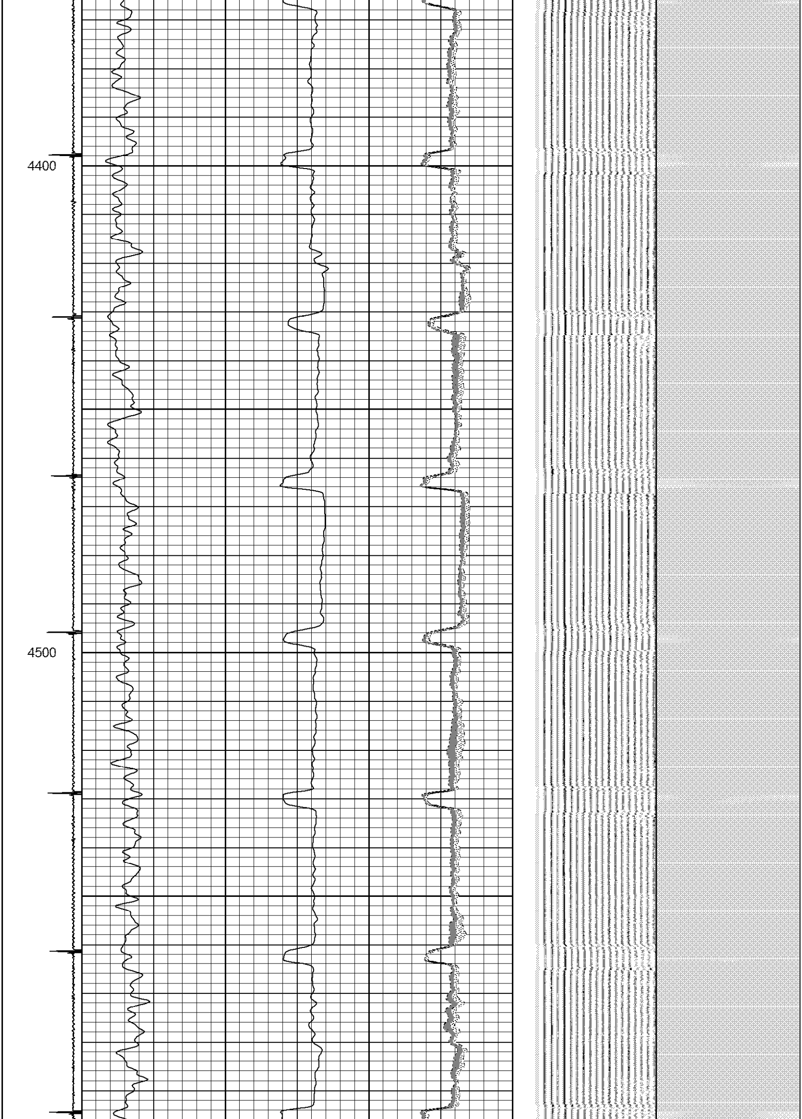

3300
3400

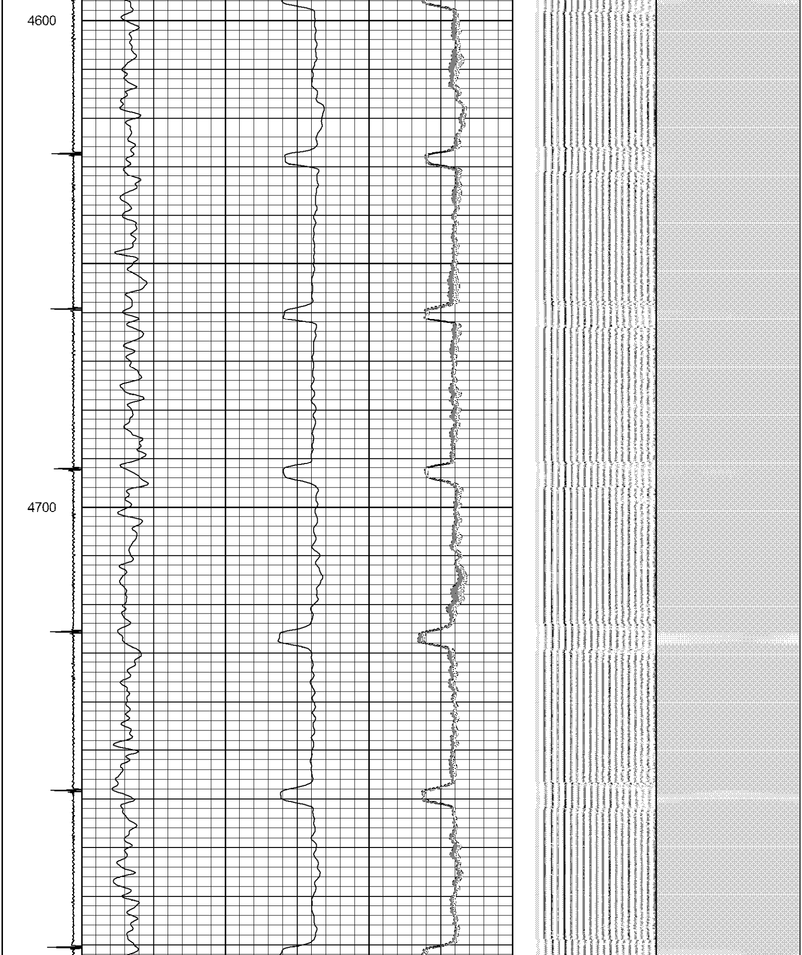

3500
3600
3700

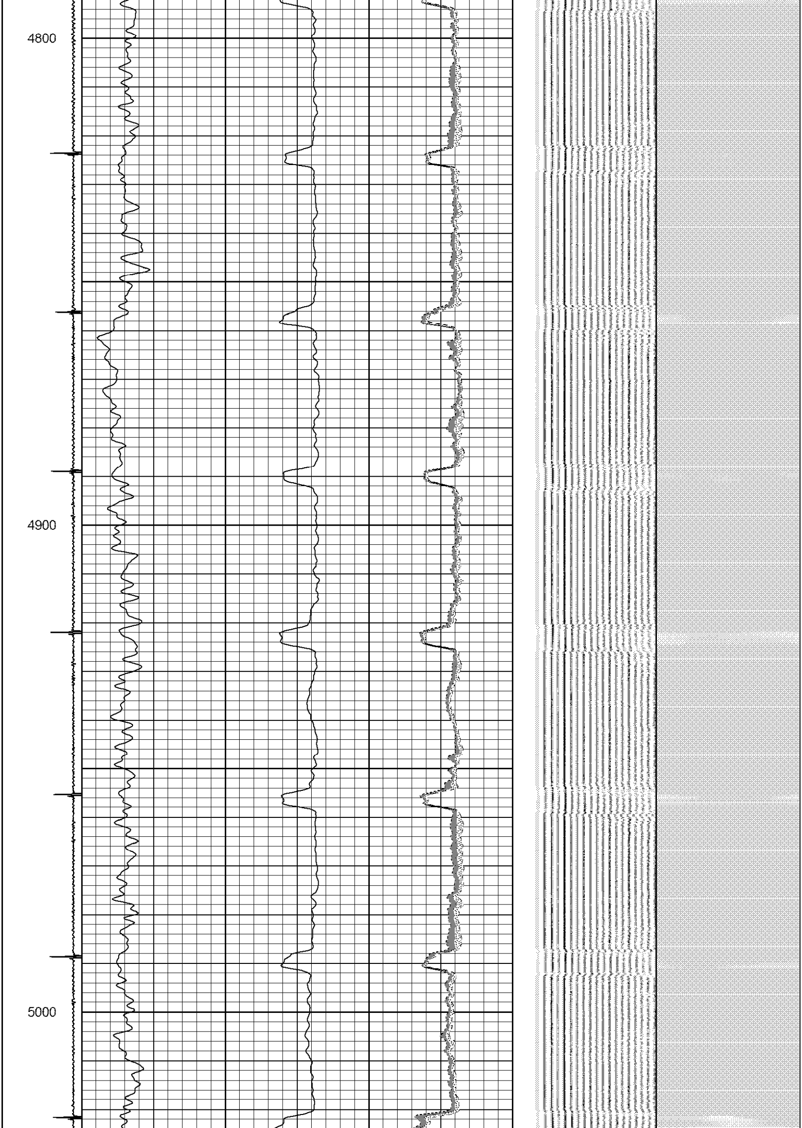

3800
3900

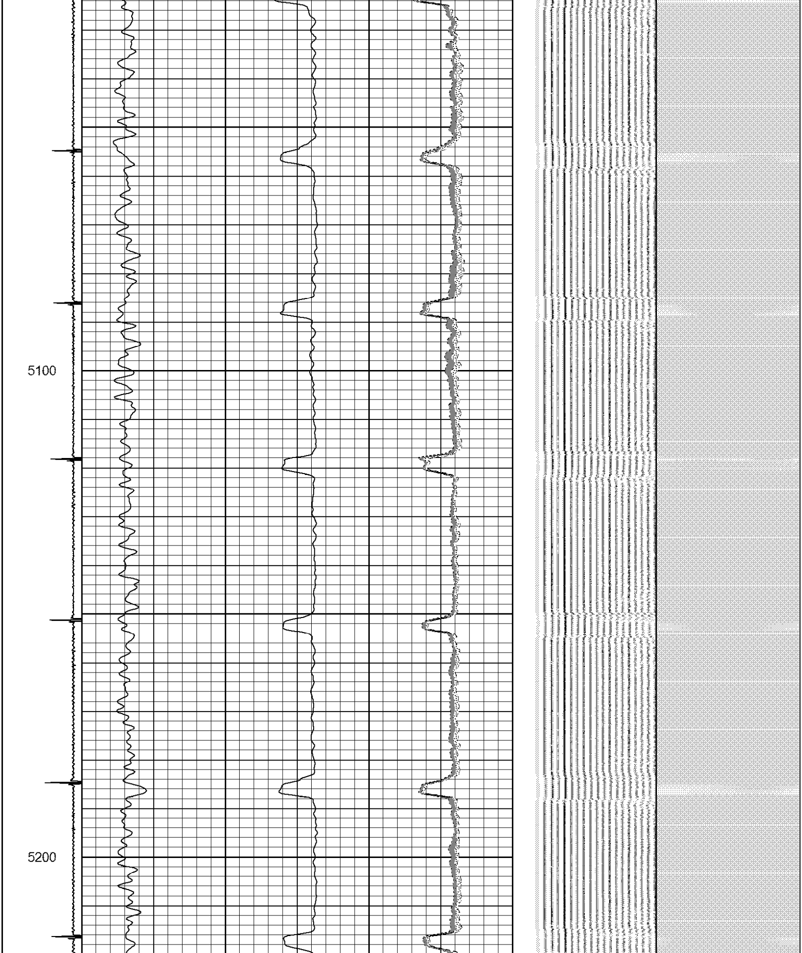

4000
4100

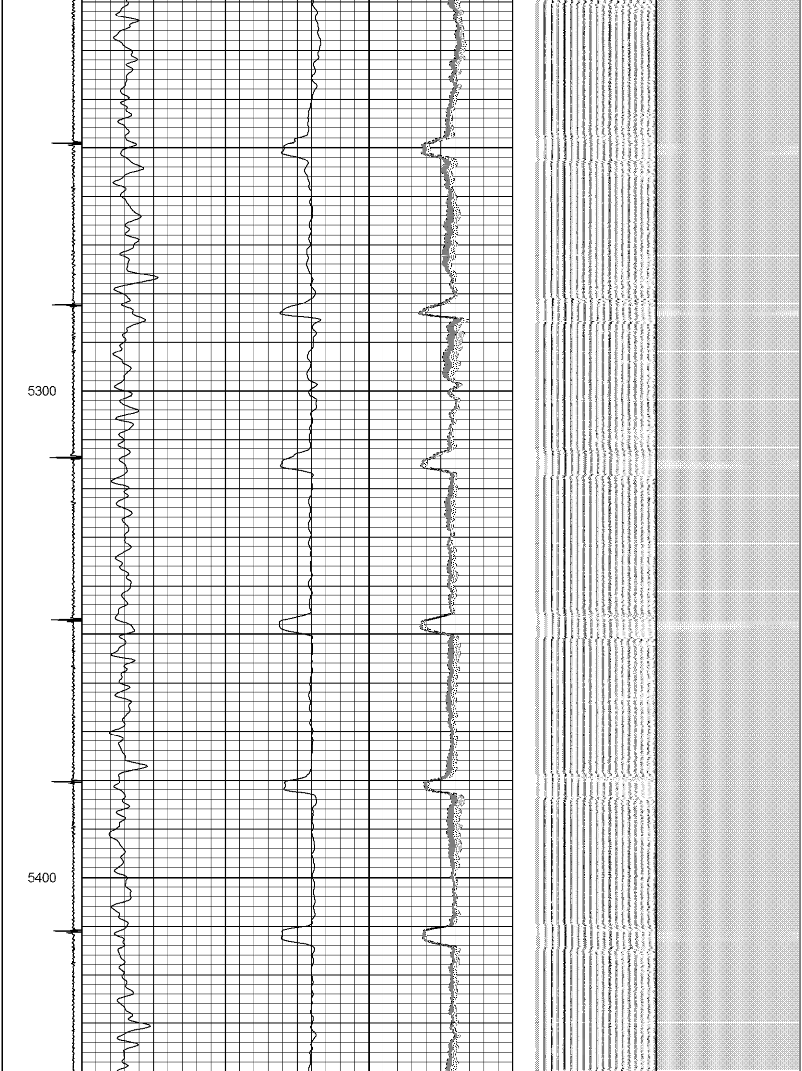

4200
4300

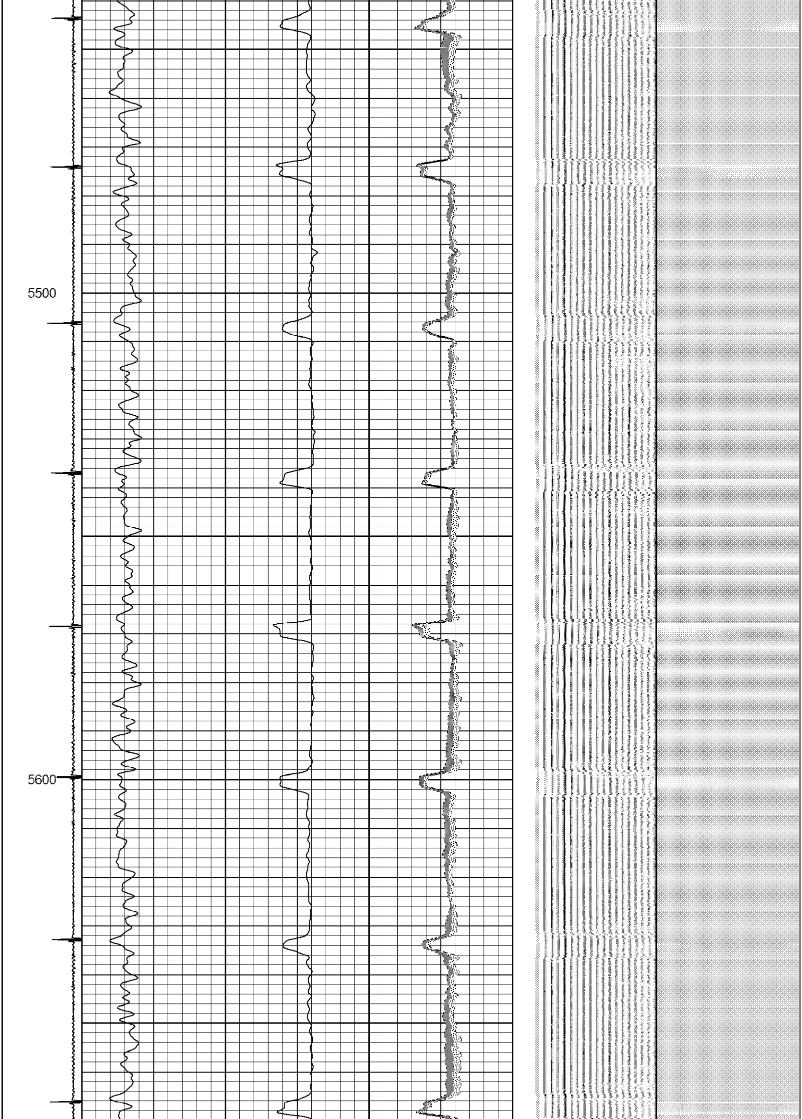

4400
4500

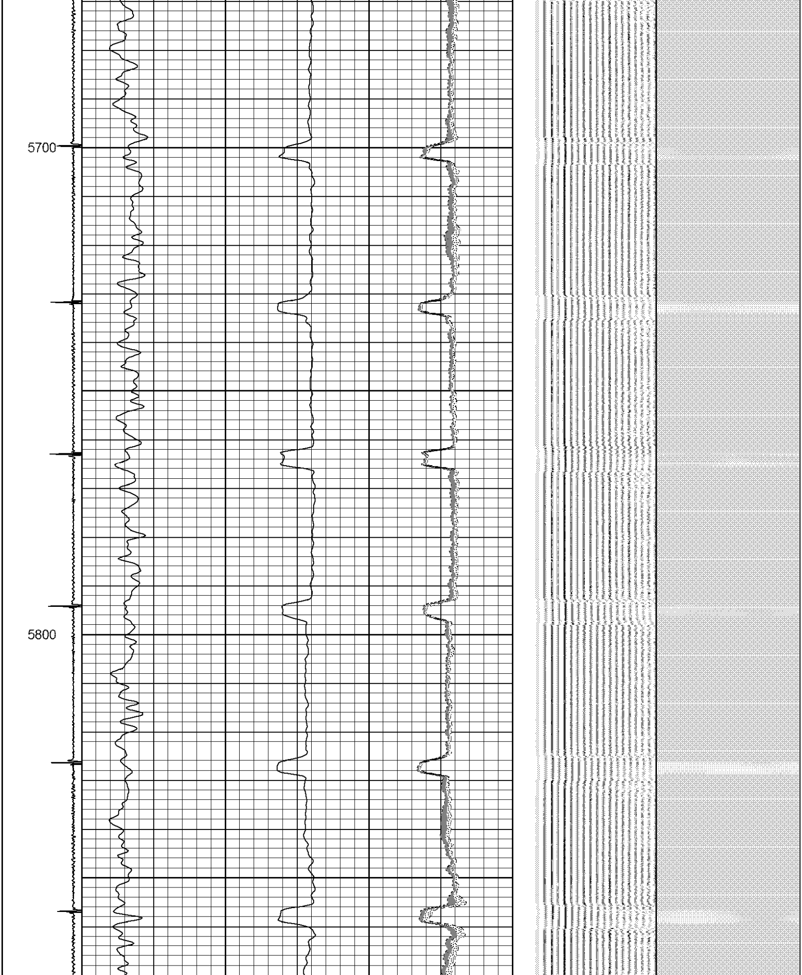

4600
4700

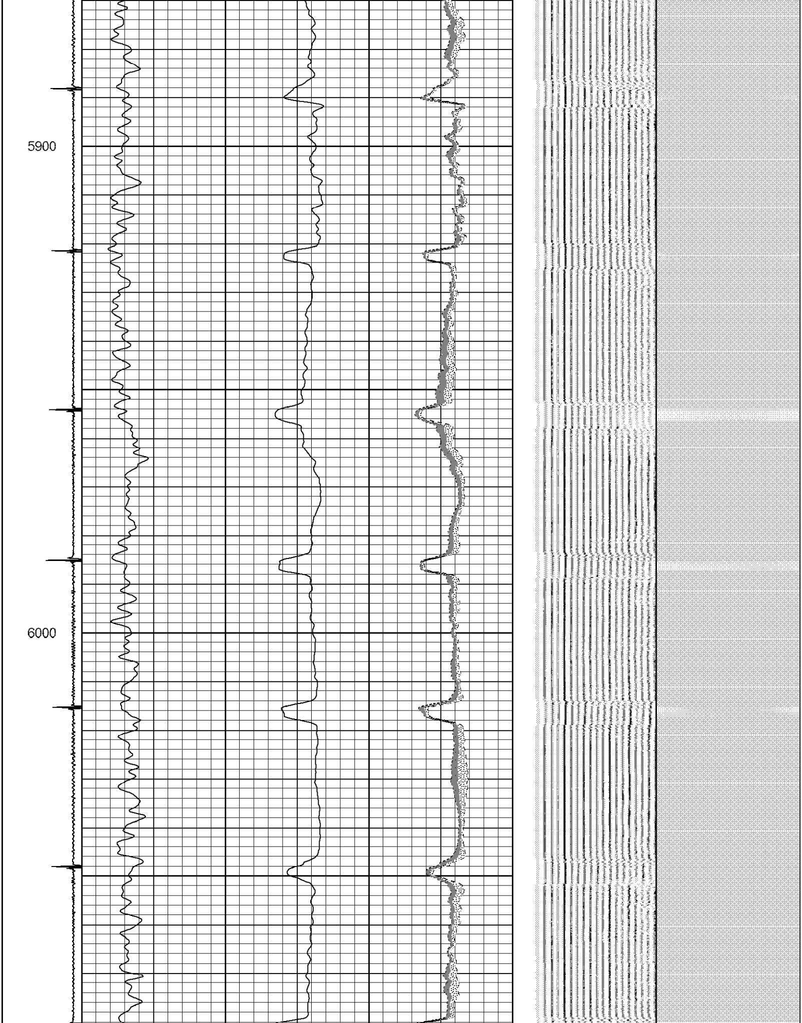

4800
4900
5000

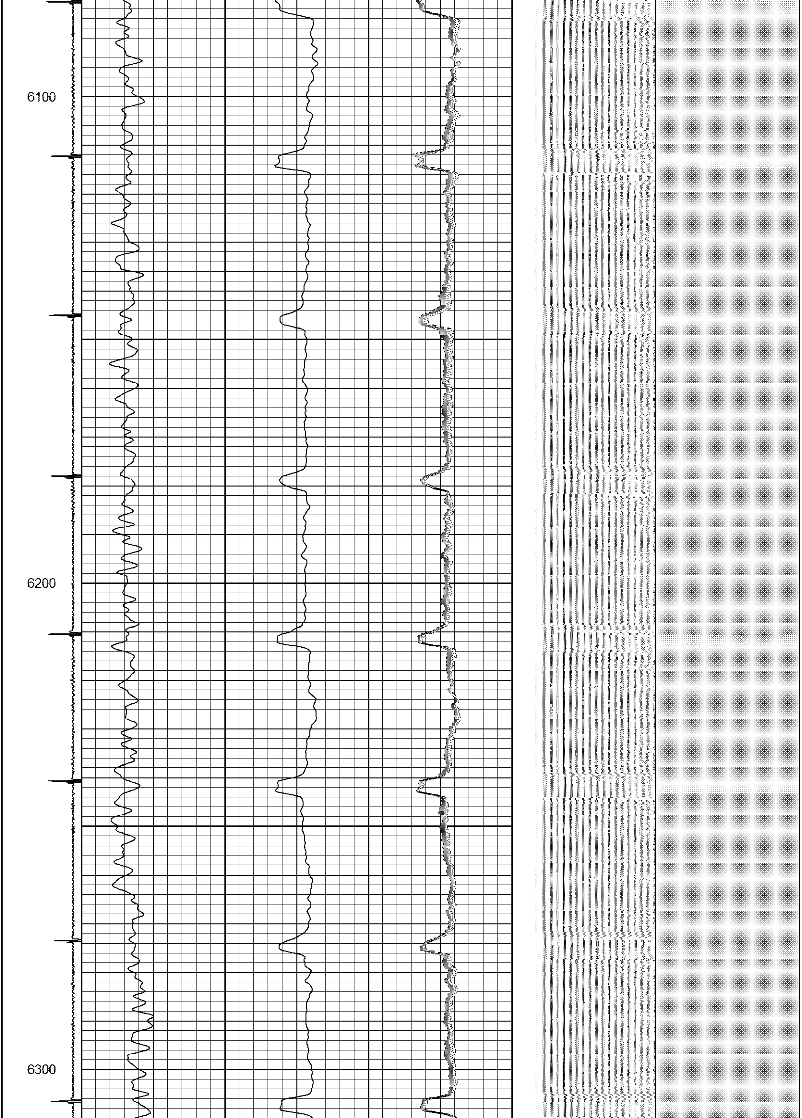

5100
5200

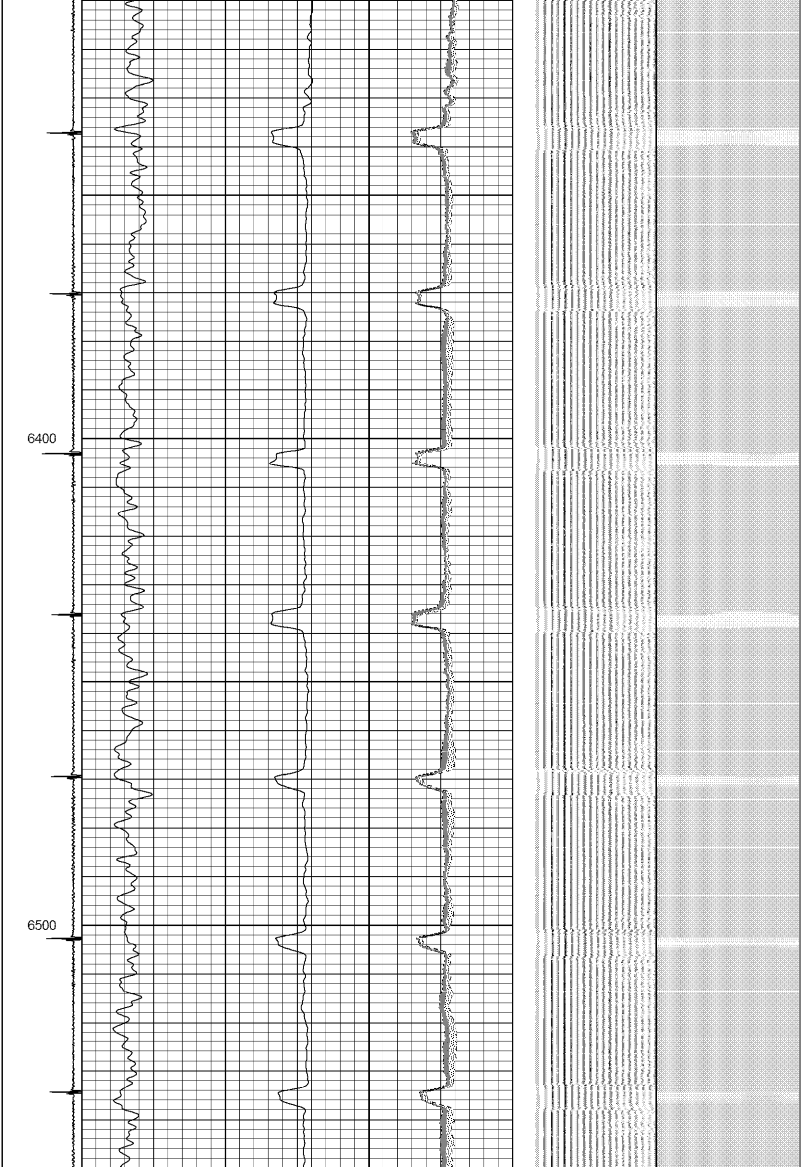

5300
5400

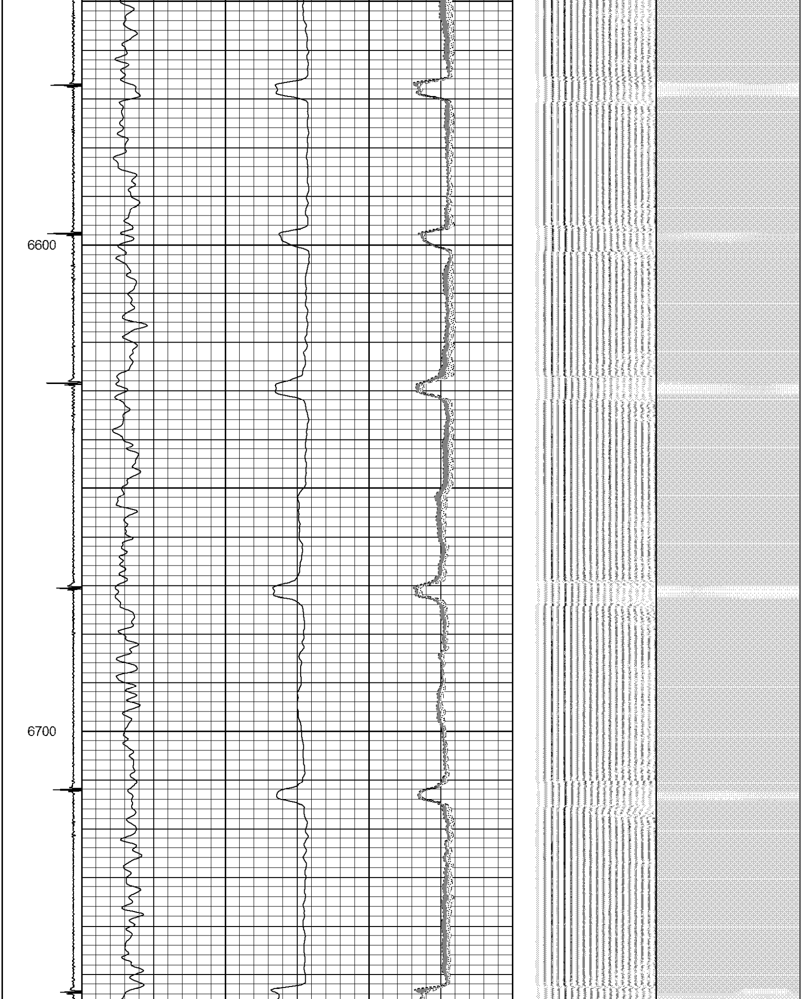

5500
5600

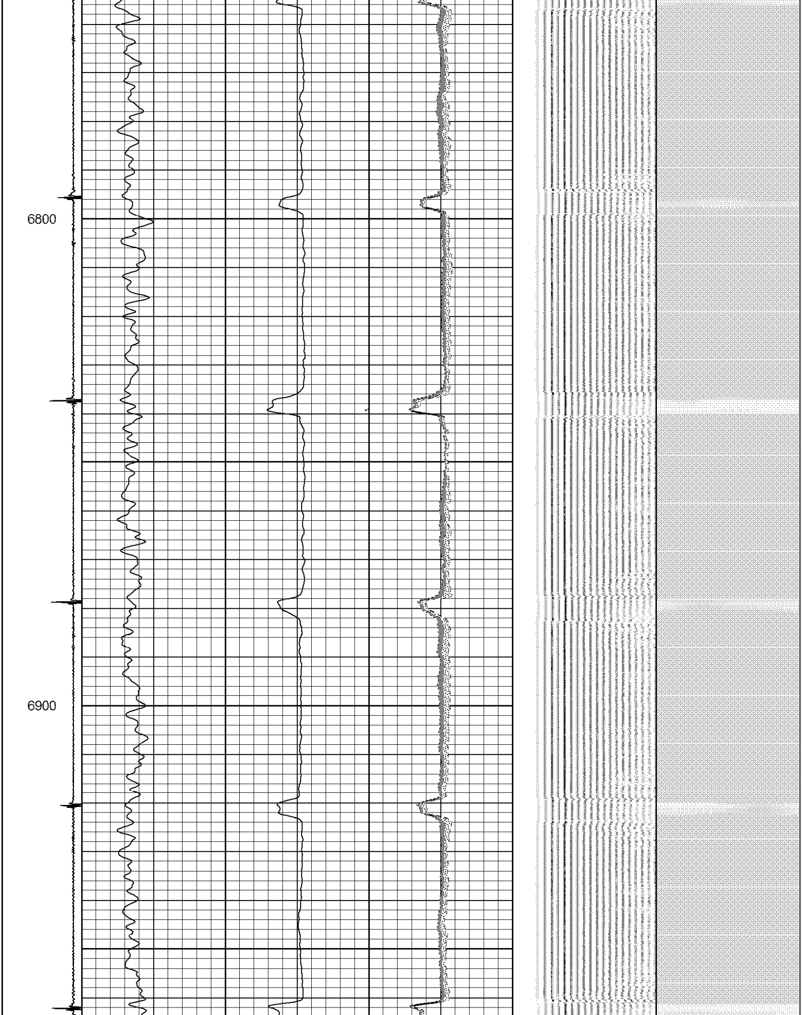

5700
5800

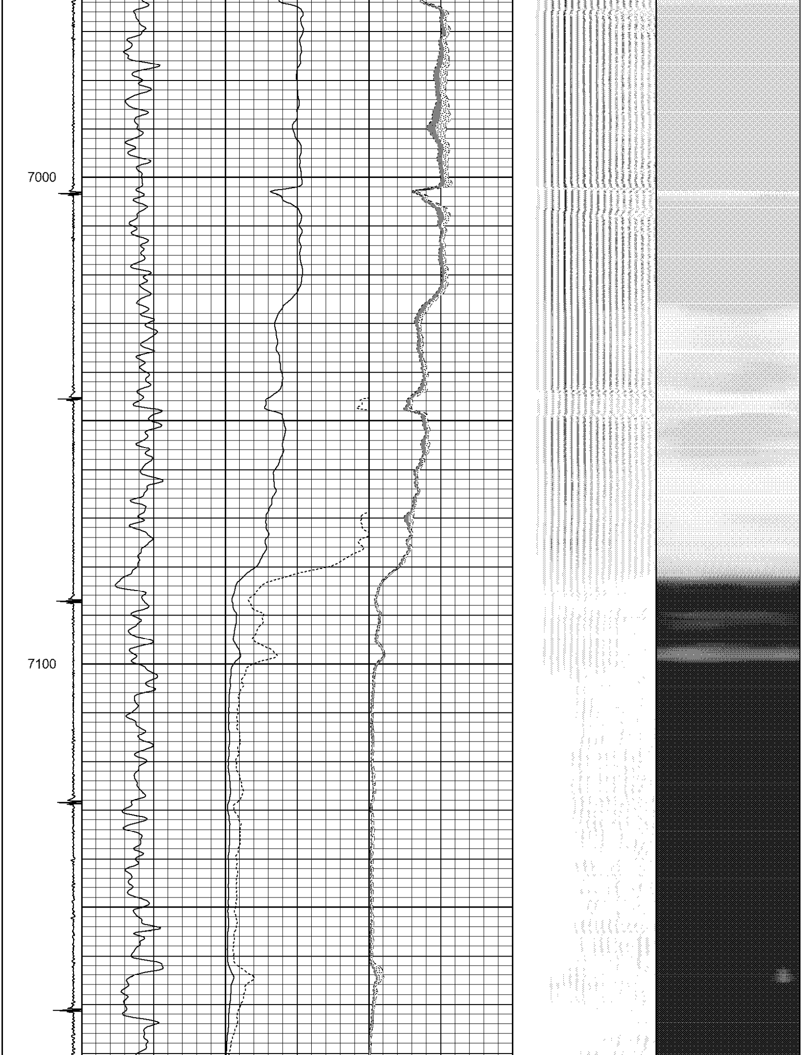

5900
6000

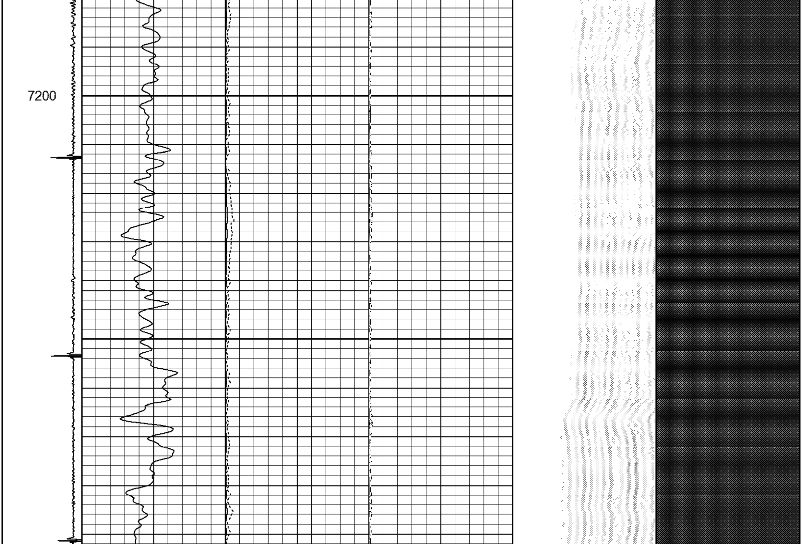

6100
6200
6300


6400
6500


6600
6700


6800
6900


7000
7100


7200

PIONEER

Pioneer Energy Services

Company	ENCANA OIL & GAS
Well	HALEY #1
Field	WATTENBERG
County	WELD
State	COLORADO
Country	