Schlumberger

Company: **KERR MCGEE OIL & GAS ONSHORE LP**
Well: **UIV 22-20**
Field: **WATTENBERG**
County: **WELD** State: **COLORADO**

County: WELD
Field: WATTENBERG
Location: NE SW Sec. 20, T5N, R67W
Well: UIV 22-20
Company: KERR MCGEE OIL & GAS ONSH

CEMENT BOND LOG
GR CCL

LOCATION
NE SW Sec. 20, T5N, R67W
SHL: 2165' FNL & 2130' FWL
BHL: 2500' FSL & 1470' FWL

Elev.: K.B. 4936 ft
G.L. 4920 ft
D.F. 4935 ft

Permanent Datum: GROUND LEVEL Elev.: 4920 ft
Log Measured From: KELLY BUSHING 16.0 ft above Perm. Datum
Drilling Measured From: KELLY BUSHING

API Serial No.	Section	Township	Range
05-123-24083-00	20	5N	67W

Logging Date	6-Dec-2006		
Run Number	1		
Depth Driller	7405 ft		
Schlumberger Depth	7362 ft		
Bottom Log Interval	7362 ft		
Top Log Interval	1500 ft		
Casing Fluid Type	WATER		
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	7.875 in		
From			
To			
Casing/Tubing Size	4.500 in		
Weight	11.6 lbm/ft		
Grade	I-80		
From			
To			
Maximum Recorded Temperatures	235 degF		
Logger On Bottom Time	6-Dec-2006		
Unit Number Location	309 6650		
Recorded By	KEITH KRENTZ		
Witnessed By	LEWIS CAMP		

PVT DATA

	Run 1	Run 2	Run 3	Run 4
Oil Density				
Water Salinity				
Gas Gravity				
Bo				
Bw				
1/Bg				
Bubble Point Pressure				
Bubble Point Temperature				
Solution GOR				
Maximum Deviation				
CEMENTING DATA				
Primary/Squeeze	Primary			
Casing String No				
Lead Cement Type				
Volume				
Density				
Water Loss				
Additives				
Tail Cement Type				
Volume				
Density				
Water Loss				
Additives				
Expected Cement Top				
Logging Date				
Run Number				
Depth Driller				
Schlumberger Depth				
Bottom Log Interval				
Top Log Interval				
Casing Fluid Type				
Salinity				
Density				
Fluid Level				
BIT/CASING/TUBING STRING				
Bit Size				
From				
To				
Casing/Tubing Size				
Weight				
Grade				
From				
To				
Maximum Recorded Temperatures				
Logger On Bottom Time				
Unit Number Location				
Recorded By				
Witnessed By				

DISCLAIMER
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1	OTHER SERVICES2
OS1: MAST	OS1:
OS2: PERF	OS2:
OS3: MAP	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
DEPTH REFENCE TO PSI LOG DATED 9-NOV-2006	
PERF 7248' - 7264' @ 4 spf, at 64 shots, 3 3/8 POWER JET	
22 gm, EH .45, PENE 39", 120 deg PHASING	
SCHLUMBERGER CREW: ROBERT POGORELZ	
THANK YOU FOR CHOOSING SCHLUMBERGER!	

RUN 1		RUN 2	
SERVICE ORDER #:	11382443	SERVICE ORDER #:	
PROGRAM VERSION:	13C0-300	PROGRAM VERSION:	
FLUID LEVEL:		FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

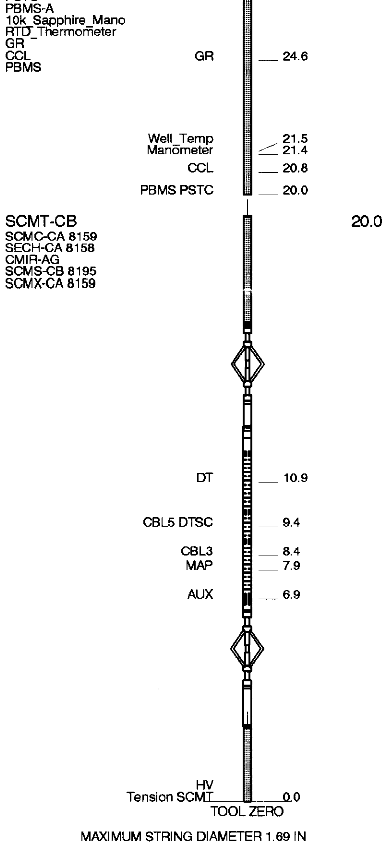
EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT

WITM-A

DOWNHOLE EQUIPMENT



MAXIMUM STRING DIAMETER 1.69 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Company: KERR MCGEE OIL & GAS ONSHORE LP **Well: UIV 22-20**

Input DLIS Files

DEFAULT	SPLICE_SCMT_PSP_009L	FN:1	PRODUCER	06-Dec-2006 09:49	7386.0 FT	1465.1 FT

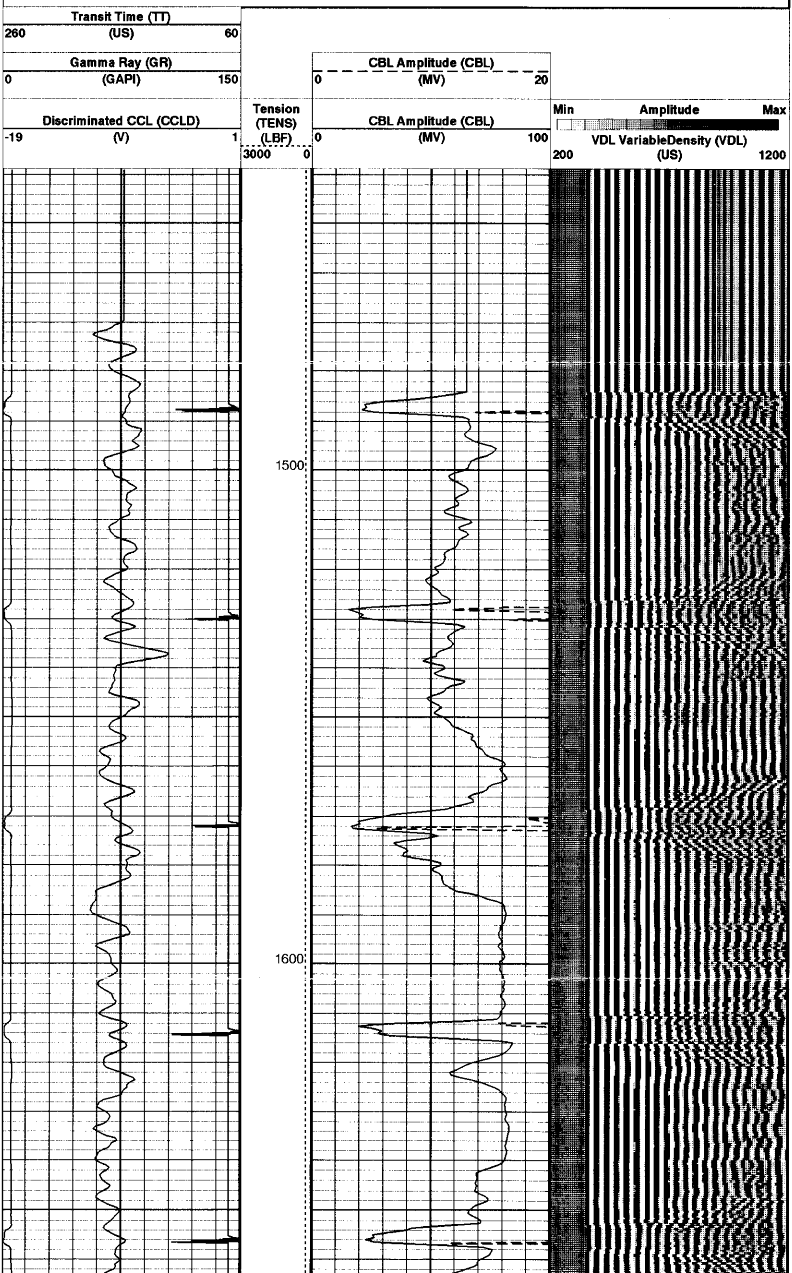
Output DLIS Files

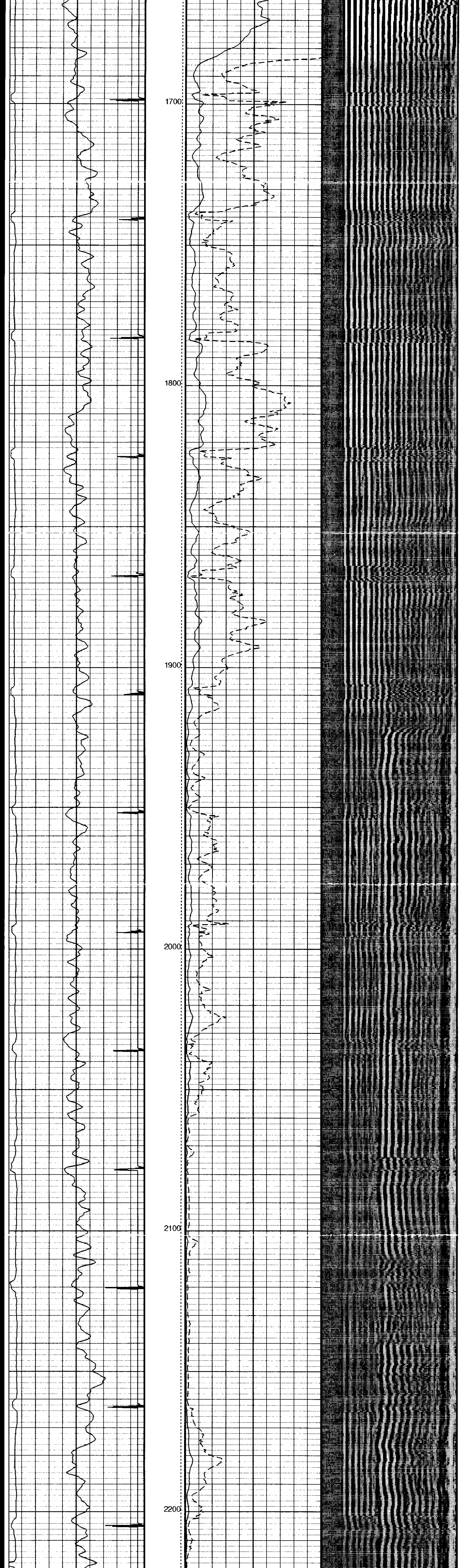
DEFAULT	SCMT_PSP_011PUP	FN:8	PRODUCER	06-Dec-2006 09:57	7386.0 FT	1438.5 FT

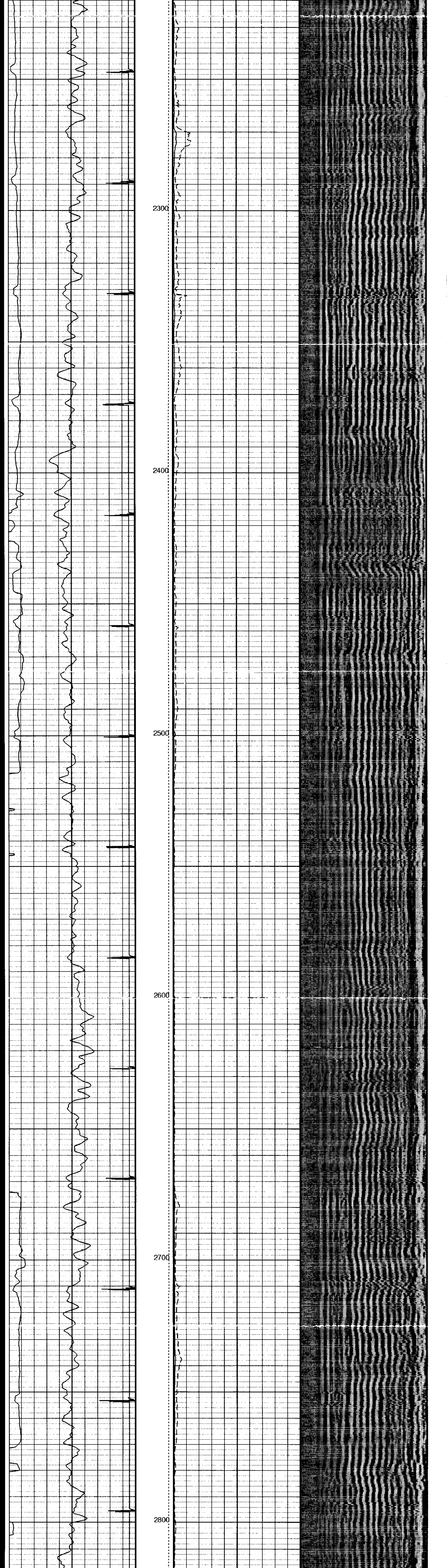
OP System Version: 13C0-300

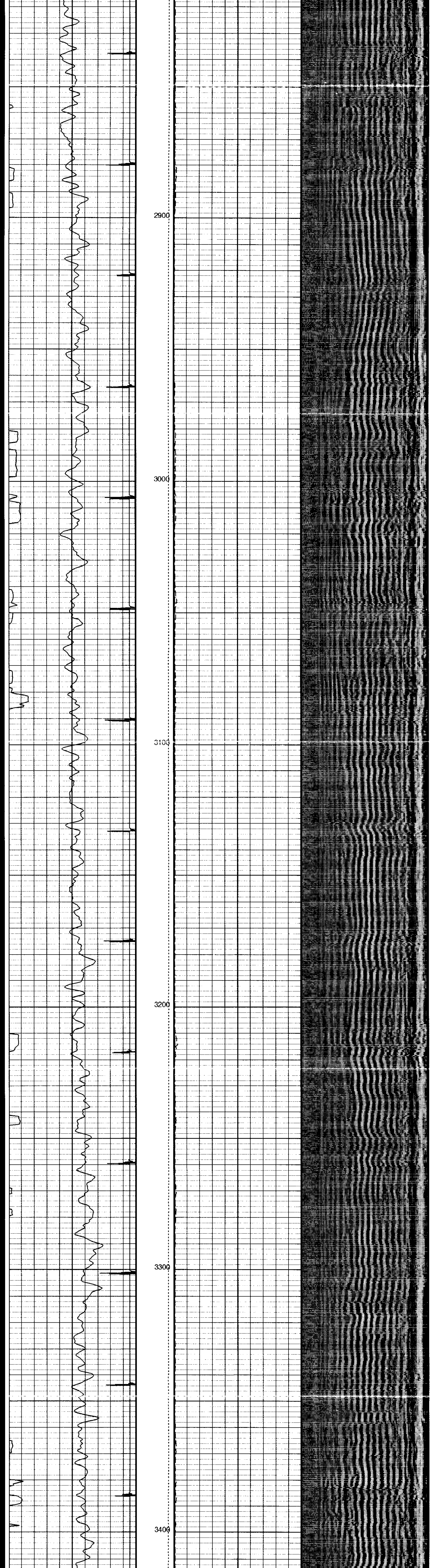
MCM

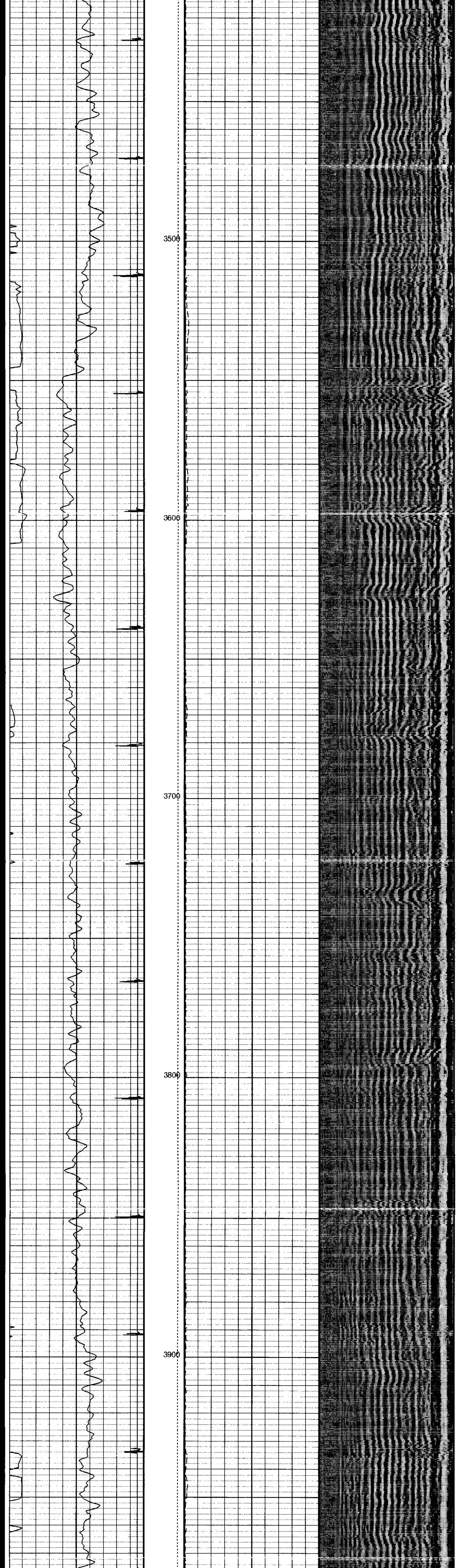
SCMT-CB	SKK-2799-SCMT	PSPT-A/B	13C0-300

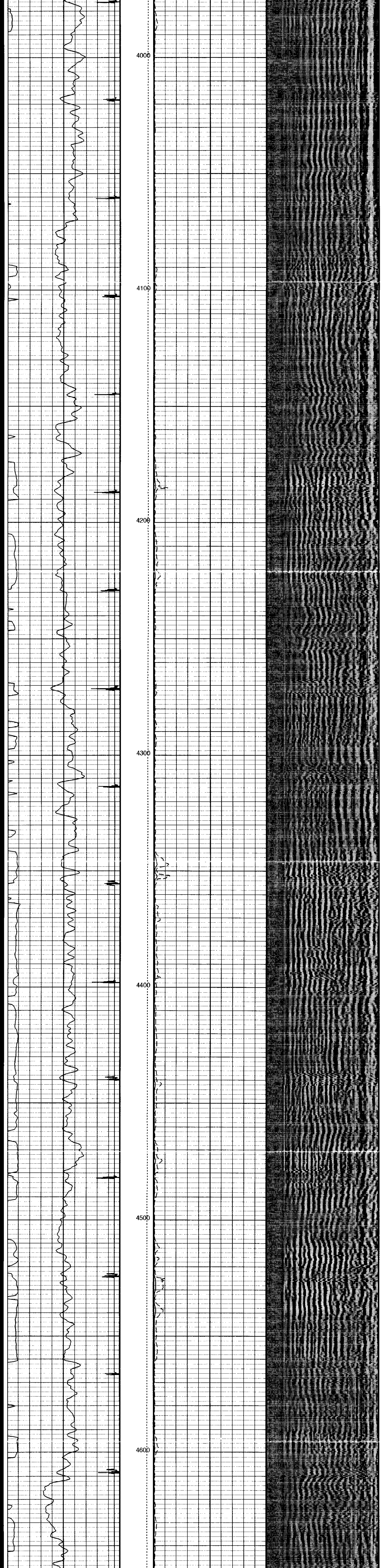


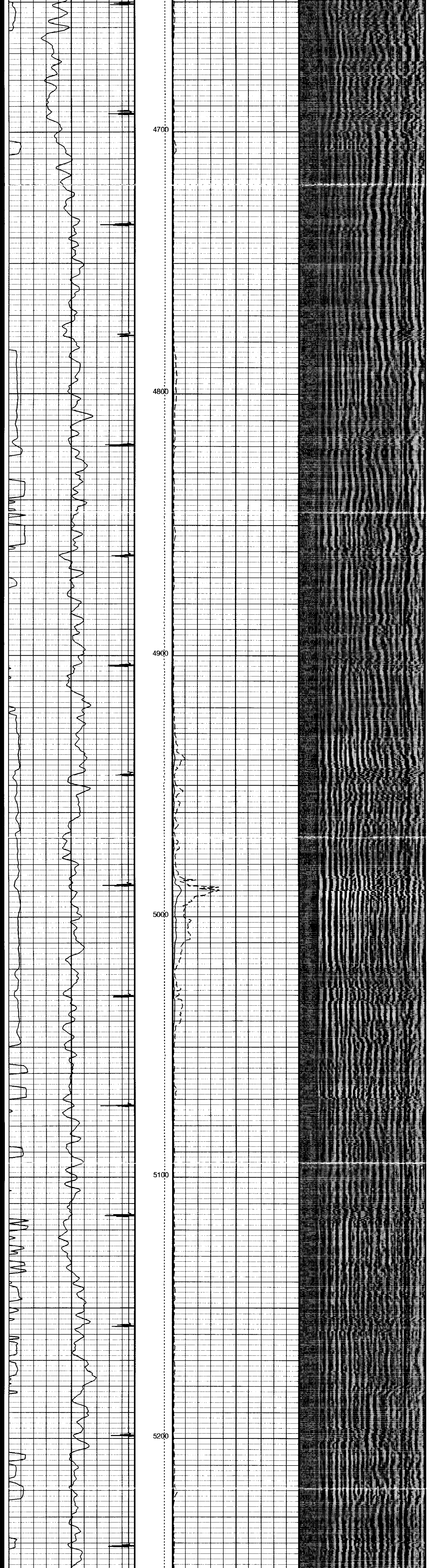


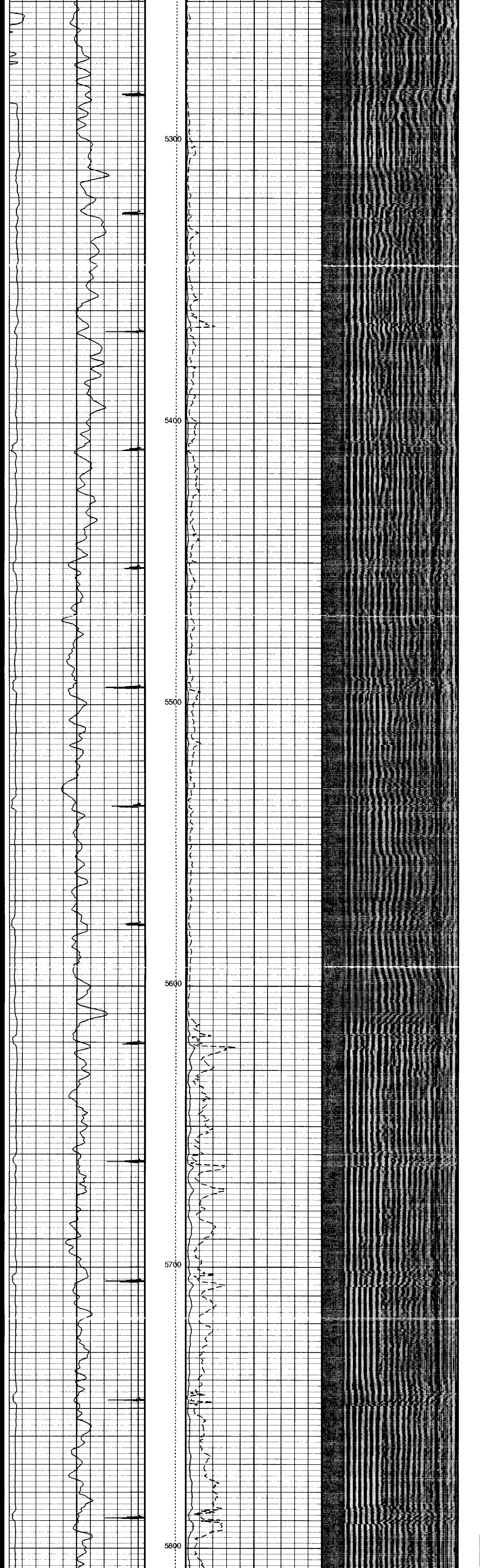


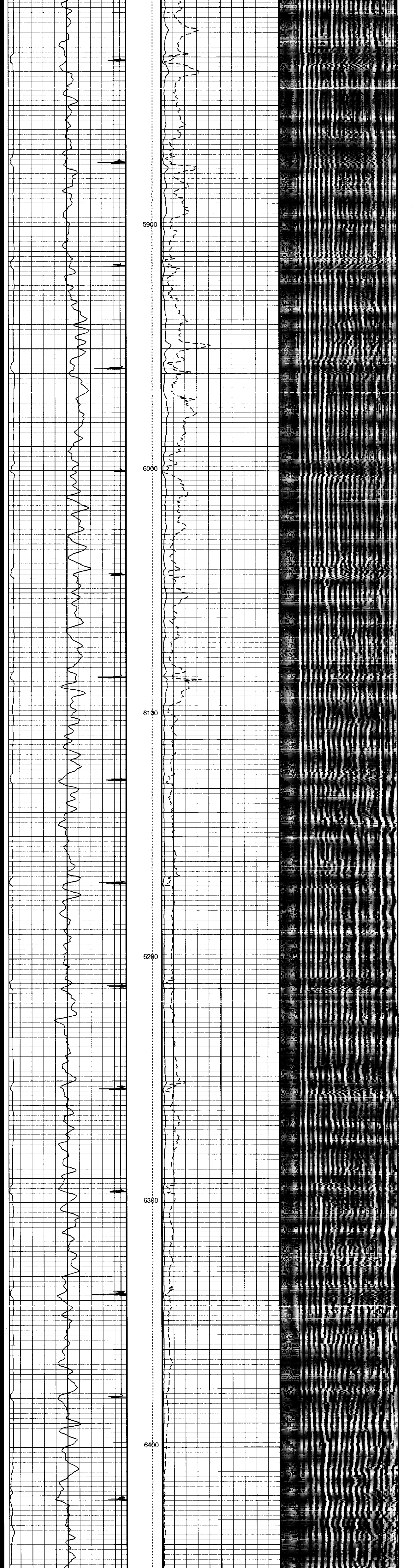


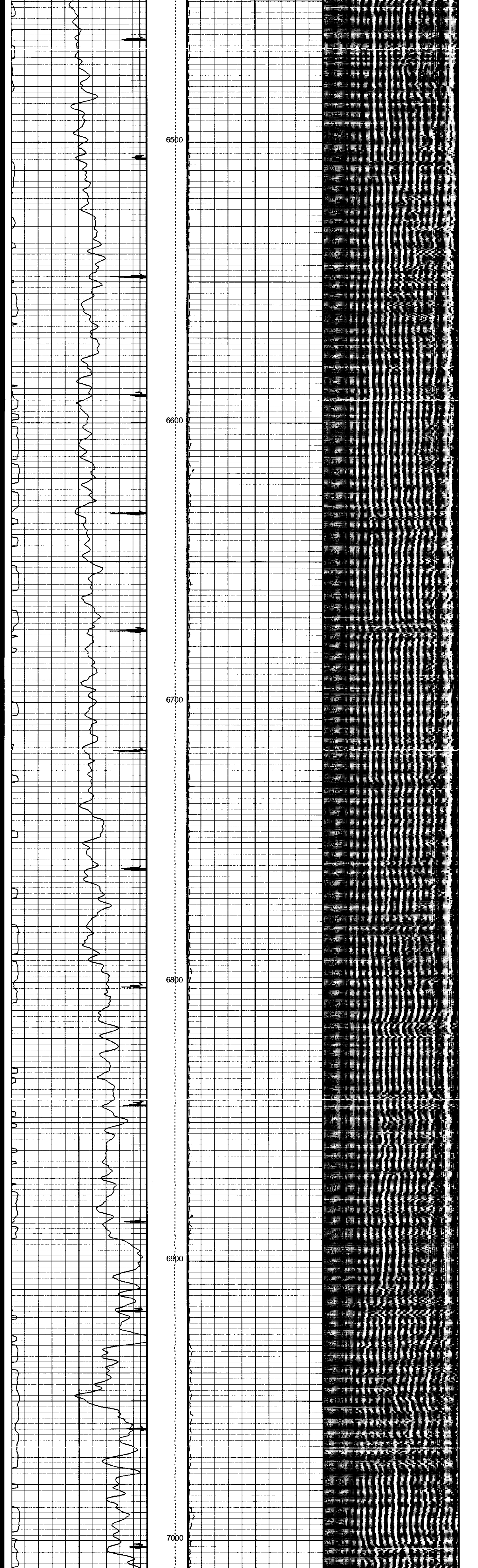


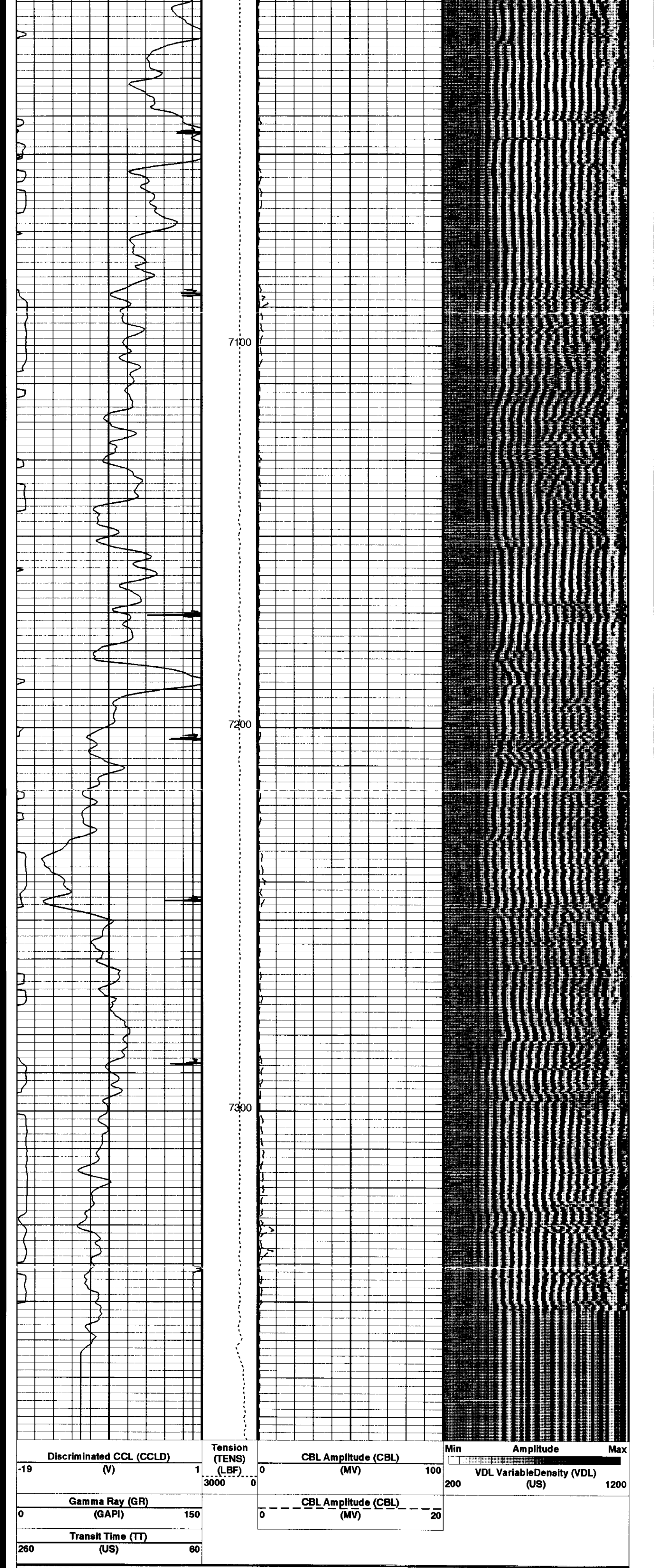












Format: CBL_VDL Vertical Scale: 5" per 100' Graphics File Created: 06-Dec-2006 09:57

OP System Version: 13C0-300

MCM

SCMT-CB	SKK-2799-SCMT	PSPT-A/B	13C0-300

<<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number	SCMS-CB 8195		
Current Casing Size	4.50000 IN		
Casing Weight	11.6000 LB/F		
Expected CBL Amplitude in Free Pipe Section	80 MV	Minimum Sonic Amplitude	0.572557 MV (100% Cement) 1.53770 MV (80% Cement)
		MAP Minimum Sonic Amplitude	4.27364 MV (100% Cement) 8.02857 MV (80% Cement)
Master Calibration (Normalization)		Before Calibration (Adjustment)	
Date of Master Calibration	7-FEB-2005		
CBL Correction Factor	0.0655663	CBL Adjustment Factor (CBAF)	0.980000
MAP 1 Correction Factor	0.0935772	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.106967		
MAP 3 Correction Factor	0.106098		
MAP 4 Correction Factor	0.108723		
MAP 5 Correction Factor	0.106564		
MAP 6 Correction Factor	0.116069		
MAP 7 Correction Factor	0.117807		
MAP 8 Correction Factor	0.0925897		

Parameters

DLIS Name	Description	Value	
SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD			
BILI	Bond Index Level for Zone Isolation	0.8	
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	228.549	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	342.549	US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLG	CBL Gate Width	40	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80	MV
CMCF	CBL Cement Type Compensation Factor	0.105354	
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.255617	IN
DTF	Delta-T Fluid	205	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	1	
GOBO	Good Bond	1.5377	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	171.549	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	9.47363	DB/F
MCCF	MAP Cement Type Compensation Factor	0.237802	
MCI	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	4.27364	MV
MSA	Minimum Sonic Amplitude	0.572557	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	3.22	MRAY
System and Miscellaneous			
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	11.60	LB/F
DFD	Drilling Fluid Density	-50000.00	LB/G
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	
TD	Total Depth	-50000	FT

Input DLIS Files

DEFAULT	SPLICE_SCMT_PSP_009L	FN:1	PRODUCER	06-Dec-2006 09:49	7386.0 FT	1465.1 FT

Output DLIS Files

DEFAULT	SCMT_PSP_011PUP	FN:8	PRODUCER	06-Dec-2006 09:57

Company: KERR MCGEE OIL & GAS ONSHORE LP
Schlumberger
Well: UIV 22-20
Field: WATTENBERG
County: WELD
State: COLORADO

CEMENT BOND LOG
GR CCL