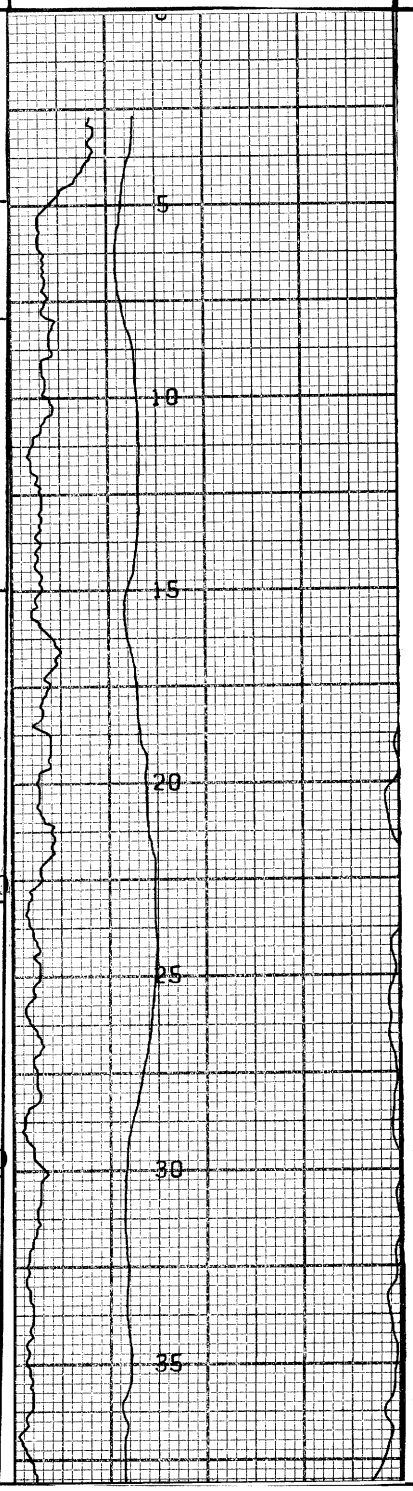
Converse Ward Davis Dixon, Inc. Geotechnical Consultants	WELL LOG	WELL NO. CM-01

PROJECT	Virginia Beach Groundwater Development Project (Phase I)	SHT. NO. 1 OF 5
CLIENT	Betz, Converse, Murdoch, Inc.	PROJ. NO. 80-07203-01
CONTRACTOR	A. C. Shultes and Sons, Inc.	ELEVATION 12.0
GROUND WATER		DATUM City of V.B.
		DATE START 2/16/81
		DATE FINISH 2/18/81
		DRILLER Ed Kelly
		CWDD REP. S.D.O.

GROUND WATER DATE	TIME	DEPTH	CASING	Boring	CAS.	SAMP.	CORE	TUBE
				TYPE	mud	S.S.S		
		7.67'		DIA.		2"		
				WT.		140#		
				FALL		30"		

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	STRATIGRAPHY	E - LOG	WELL
2, 4					Light gray clayey fine Sand (SC) 5.0		
6, 8					Light gray silty fine to medium Sand (SM) 8.0		
10, 12, 14					Light brown fine to medium Sand (SP) 15.0		
16, 18, 20, 22					Light brown silty fine to medium Sand (SM) 23.0		
24, 26, 28, 30, 32, 34, 36, 38					Light brown silty fine to coarse Sand (SP) 30.0		



FOR INTERPRETATION OF SOIL, ROCK AND GROUNDWATER CONDITIONS, SEE TEXT OF CONVERSE WARD DAVIS DIXON REPORT, OF WHICH THIS LOG IS A PART.

Converse Ward Davis Dixon, Inc. Geotechnical Consultants	WELL LOG	WELL NO. CM-01
PROJECT Virginia Beach Groundwater Development Project (Phase I)		SHT. NO. 2 OF 5
CLIENT Betz Converse Murdoch, Inc.		PROJ. NO. 80-07203-01

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	STRATIGRAPHY	E - LOG	WELL
40					Gray coarse to fine Sand (SW) 42.0	40	
42							
44					Gray sandy sift (ML) 45.0	45	
46							
48							
50					Gray clayey Sand, little shells (SC) 51.0	50	
52							
54					Gray sandy clay and shells (CL) 54.0		
56					Gray silty fine to coarse Sand some shells (SM) 57.0	55	
58							
60						60	
62							
64							
66					Dark gray sandy silt, trace mica (ML) 67.0	65	
68							
70					Dark gray sandy clay, trace mica (CL) 72.0	70	
72							
74							
76						75	
78					Gray coarse to find Sand, intercalated layers of sandy silt (SW) 80.0		
80						80	
82							

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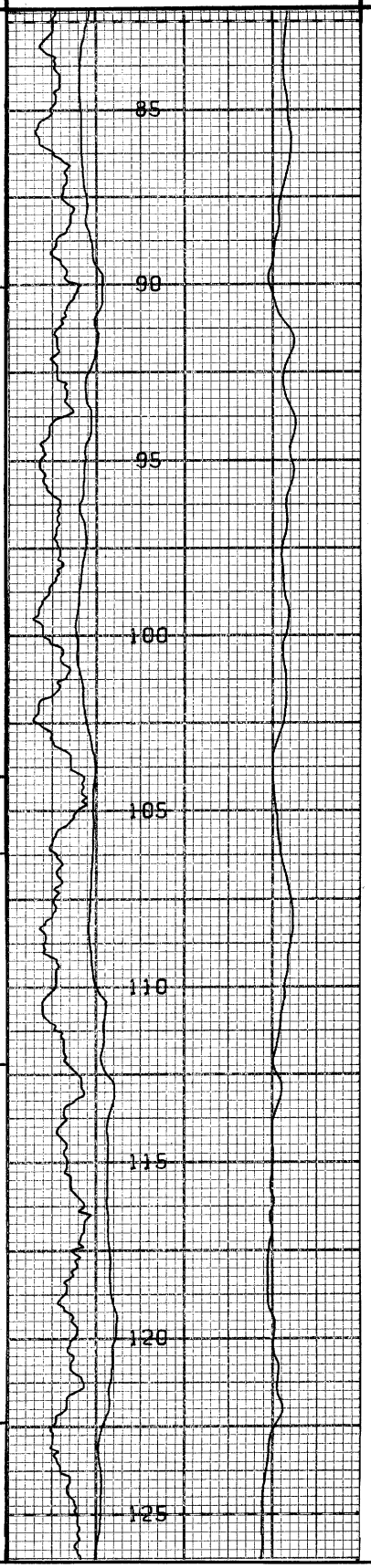
Converse Ward Davis Dixon, Inc. Geotechnical Consultants	WELL LOG	WELL NO. CM-01
PROJECT Virginia Beach Groundwater Development (Phase I)		SHT. NO. 3 OF 5
CLIENT Betz, Converse, Murdoch, Inc.		PROJ. NO. 80-07203-01

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	STRATIGRAPHY	E - LOG	WELL
84							
86							
88					Gray silty fine to medium Sand, some shells (SM) 90.0		
90							
92							
94							
96							
98					Greenish gray clayey Sand, some shells (SC)		
100							
102							
104					Greenish gray sandy clay and shells (CL) 103.0		
106					106.0		
108							
110					Greenish gray silty fine to coarse Sand and shells (SM)		
112					112.0		
114							
116							
118					Greenish gray clayed Sand and shells (SC)		
120							
122					122.0		
124					Greenish gray sandy clay and shells (CL)		
126							



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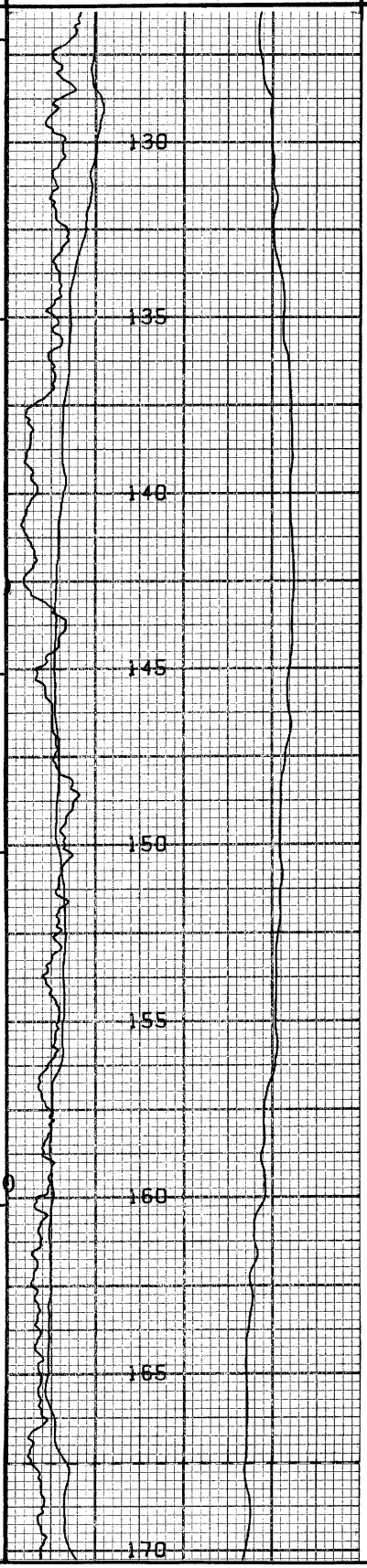
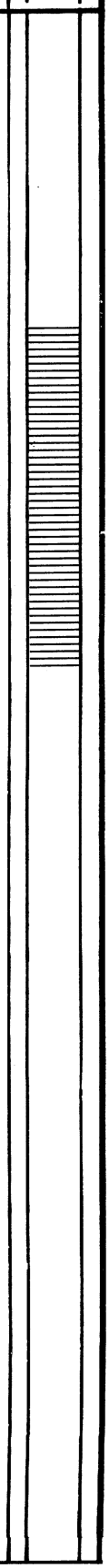
Converse Ward Davis Dixon, Inc. Geotechnical Consultants	WELL LOG	WELL NO. CM-01
PROJECT Virginia Beach Groundwater Development Project (Phase I)		SHT. NO. 4 OF 5
CLIENT Betz, Converse, Murdoch, Inc.		PROJ. NO. 80-07203-01

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	STRATIGRAPHY
					127.0
128					
130					
132					Gray silty medium to fine Sand and shells (SM)
134					135.0
136					
138					
140					
142					Gray silty fine to coarse Sand and shells (SP) 145.0
144					
146					
148					Gray clayey fine to medium Sand, some shells (SC) 150.0
150					
152					
154					
156					Gray silty fine to medium Sand, some shells (SM)
158					
160					160.0
162					
164					
166					
168					
170					

E - LOG



WELL



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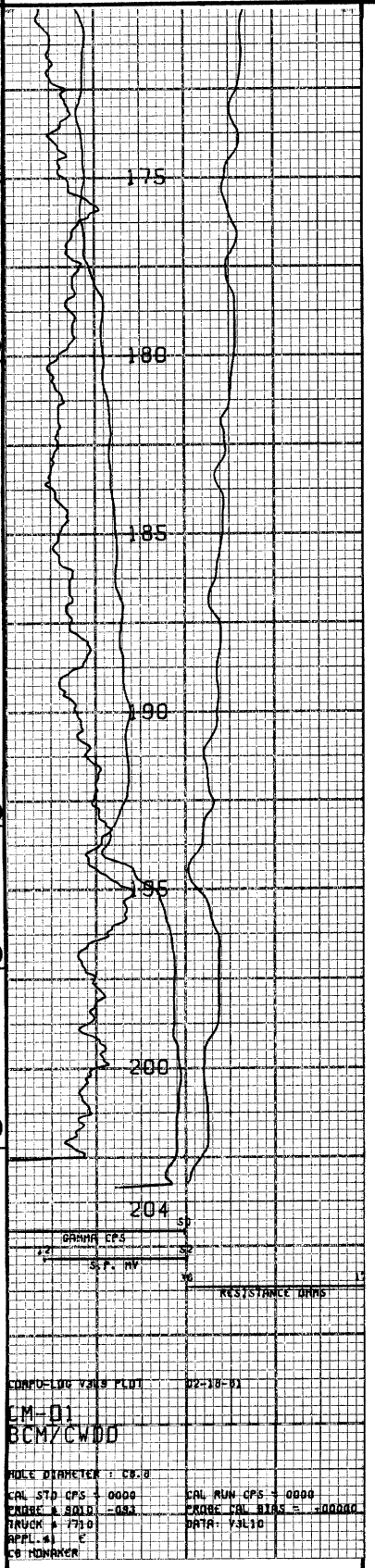
Converse Ward Davis Dixon, Inc. Geotechnical Consultants	WELL LOG	WELL NO. CM-01
PROJECT Virginia Beach Groundwater Development Project (Phase I)		SHT. NO. 5 OF 5
CLIENT Betz, Converse, Murdoch, Inc.		PROJ. NO. 80-07203-01

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	STRATIGRAPHY	E - LOG	WELL
172					Gray silty fine to medium Sand and shells (SM)		
174							
					175.0		
176					Gray clayey fine to medium Sand and shells (SC)		
178							
180					180.0		
182							
184							
186							
188							
190					Greenish gray silty fine to medium Sand and shells (SM)		
192							
					193.0		
194					Grayish green sandy clay, trace shells (CL)		
196							
					197.0		
198					Grayish green clayey silt, trace shells (MH)		
200							
202					202.0		
204							
206							
208							
210							
212							
214							



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CENTURY GEOPHYSICAL CORPORATION

Tulsa, Oklahoma

BOREHOLE	DATE
CM-01	18 FEB 81
UNIT/OPERATOR	**FIELD OFFICE**
7710/HONAKER	LEXINGTON

COMPANY: BCM/CWDD

BOREHOLE: CM-01

AREA:

ELEVATION:

COUNTY: VA BEACH CITY

STATE: VA

SECTION:

TOWNSHIP:

RANGE:

HOLE DATA

TOTAL DEPTH — DRILLER	204'	BIT SIZE	8 3/4"
TOTAL DEPTH — LOGGER	204'	CASING — TYPE & SIZE	NA
TOTAL FOOTAGE LOGGED	204'	CASING DEPTH	NA
LOGGING SPEED	30 FT/MIN	BOREHOLE FLUID	HOH
REFERENCE LEVEL	GL	FLUID RESISTIVITY	22.4 @ 56°F
PROBE NO.	9010-093	SOFTWARE LEVEL	V3L10
TIME IN: 1036		SCALE SELECTION	☒ OPERATOR ☐ CLIENT
TIME OUT: 1100		TP8-TK4	

REMARKS:

EQUIPMENT DATA

	PROBE MODEL	9010	9030	9050/55	9060
	PROBE DIAMETER	1.87"	2.0"	1.87"	1.4"
NATURAL GAMMA	DETECTOR TYPE	NaI	NaI	NaI	NaI
	DETECTOR SIZE	.875" x 1.25"	1.125" x 4.5"	.875" x 4.0"	.5" x 3.0"
	STD. K-FACTOR	1.59×10^{-5}	—	$.558 \times 10^{-5}$	1.62×10^{-5}
	STD. DEADTIME	1 μsec	—	1.18 μsec	1 μsec
	CALIB. MODEL LOC.		—		
	CALIB DATE		—		
	K-FACTOR $\times 10^{-5}$		—		
	DEADTIME μsec		—		
	TEST READING		—		
	WATER FACTOR		—		
	CASING FACTOR		—		
DENSITY	DETECTOR TYPE	—	NaI	—	NaI
	DETECTOR SIZE	—	.5" x 1.5"	—	.5" x 3.0"
	SOURCE TYPE	—	Cs^{137}	—	Cs^{137}
	SOURCE NO.	—		—	
	SOURCE STRENGTH	—		—	
	SOURCE SPACING	—		—	
NEUTRON	DETECTOR TYPE	—	—	He^3	—
	DETECTOR SIZE	—	—	1.0" x 6.0"	—
	SOURCE TYPE	—	—	AmBe	—
	SOURCE NO.	—	—		—
	SOURCE STRENGTH	—	—		—
	SOURCE SPACING	—	—		—
	SNGL. PT RESISTANCE	1.4"D x 2.5"L	—	1.4"D x 2.5"L	1.1"D x 2.5"L
	RESISTIVITY	—	6" FOCUSED	—	—
	SELF POTENTIAL	YES	—	YES	YES
	TEMPERATURE	—	—	YES	—
	DEVIATION	—	—	NO / YES	—
	CALIPER	—	YES	—	—

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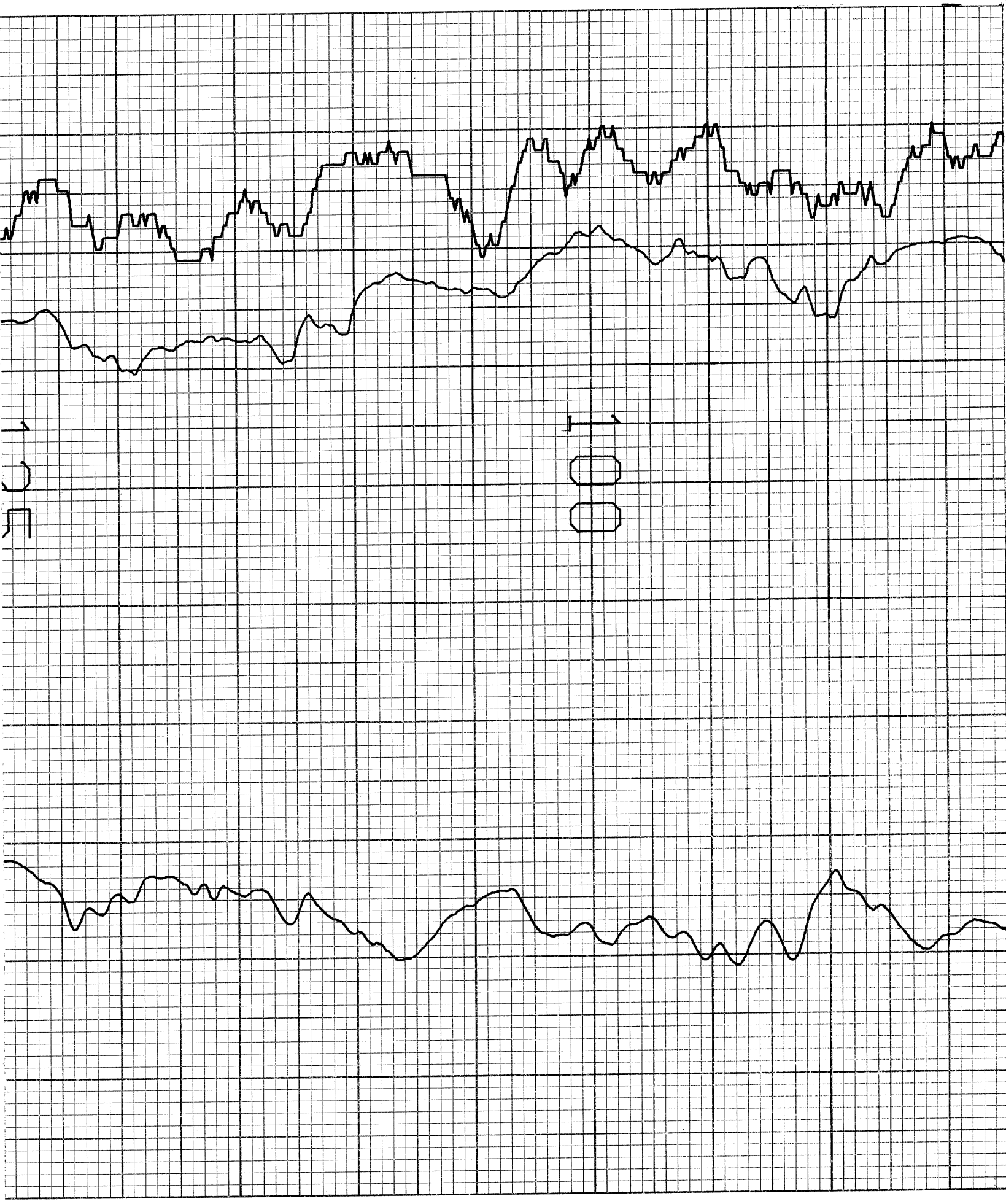

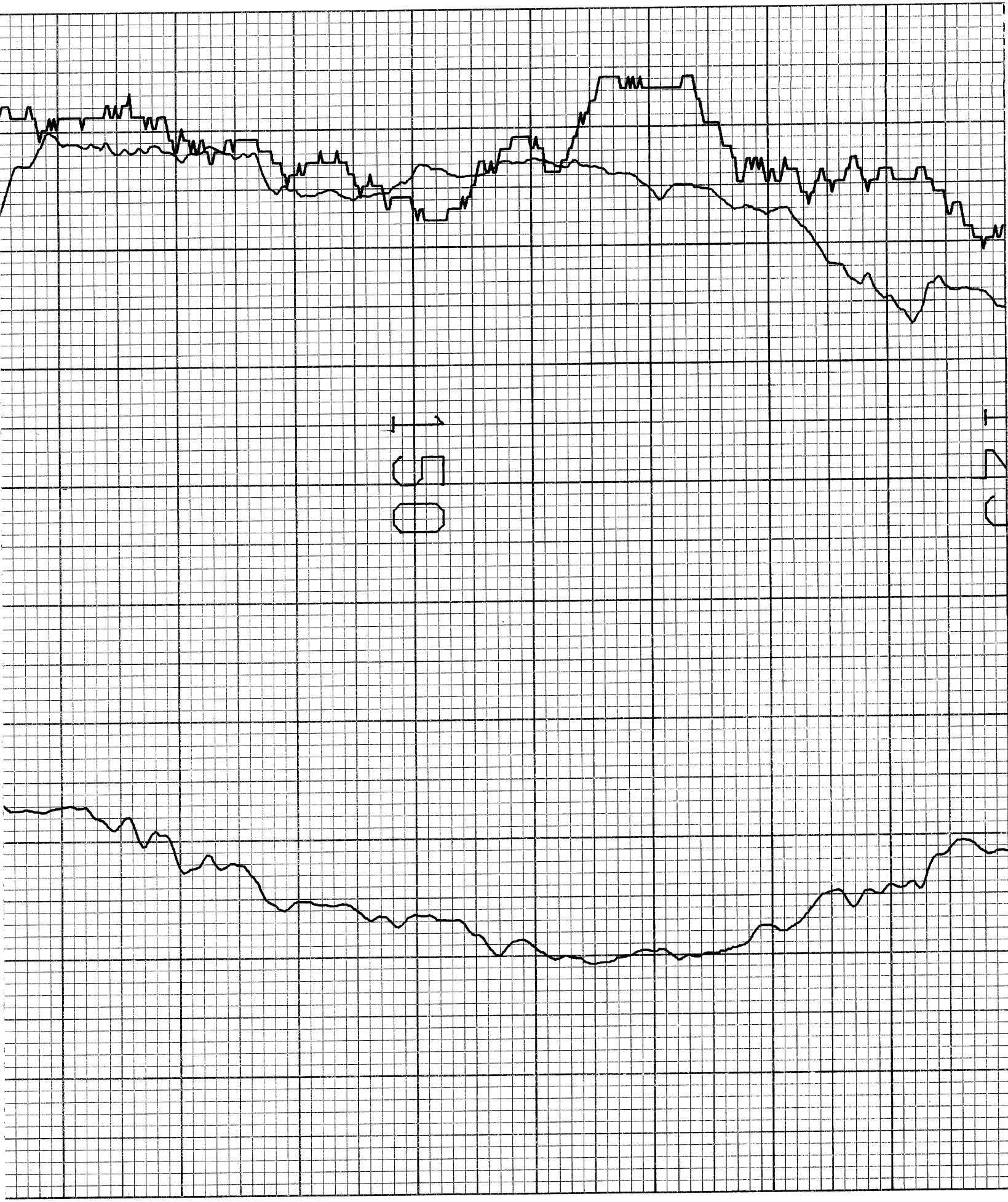

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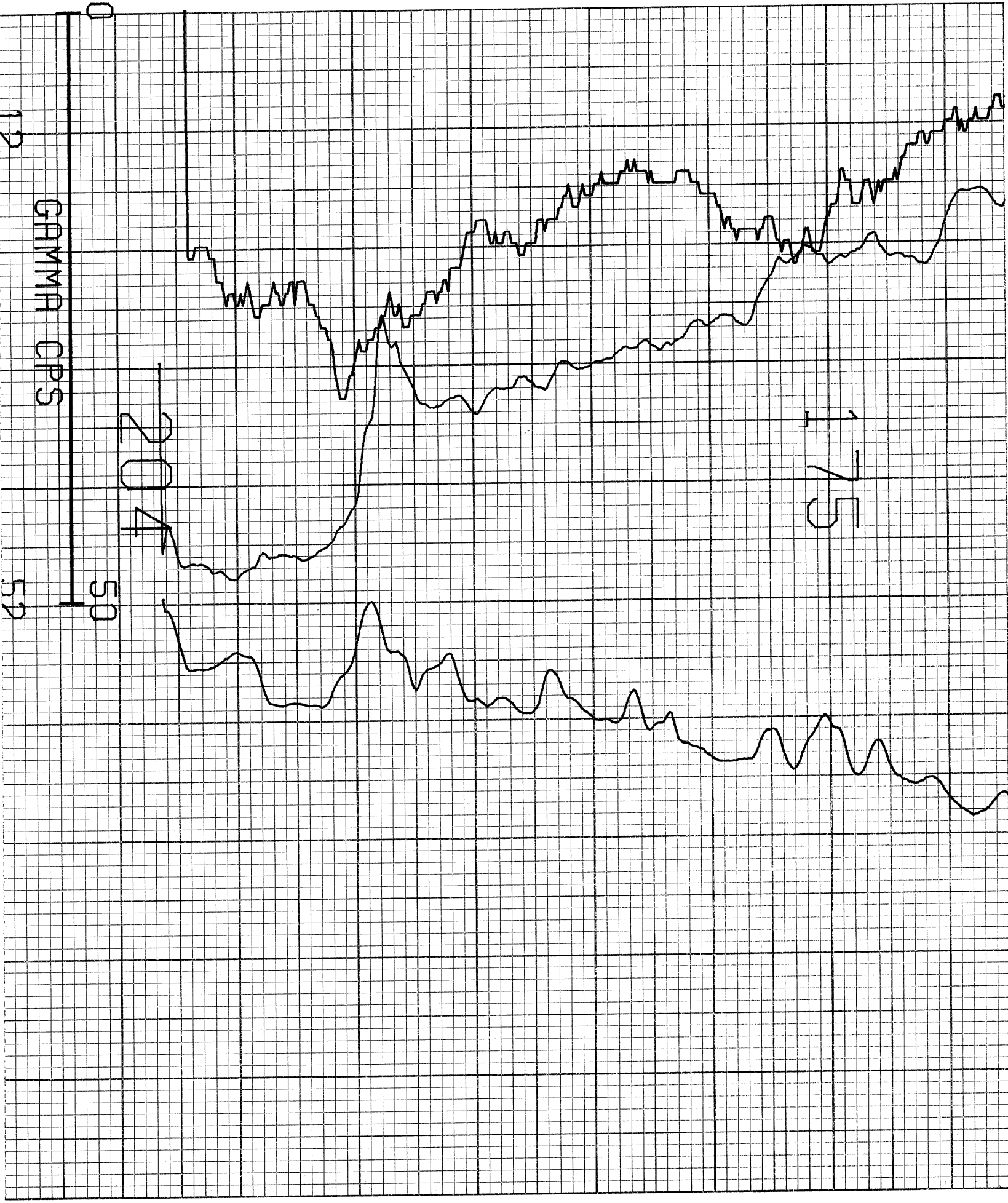

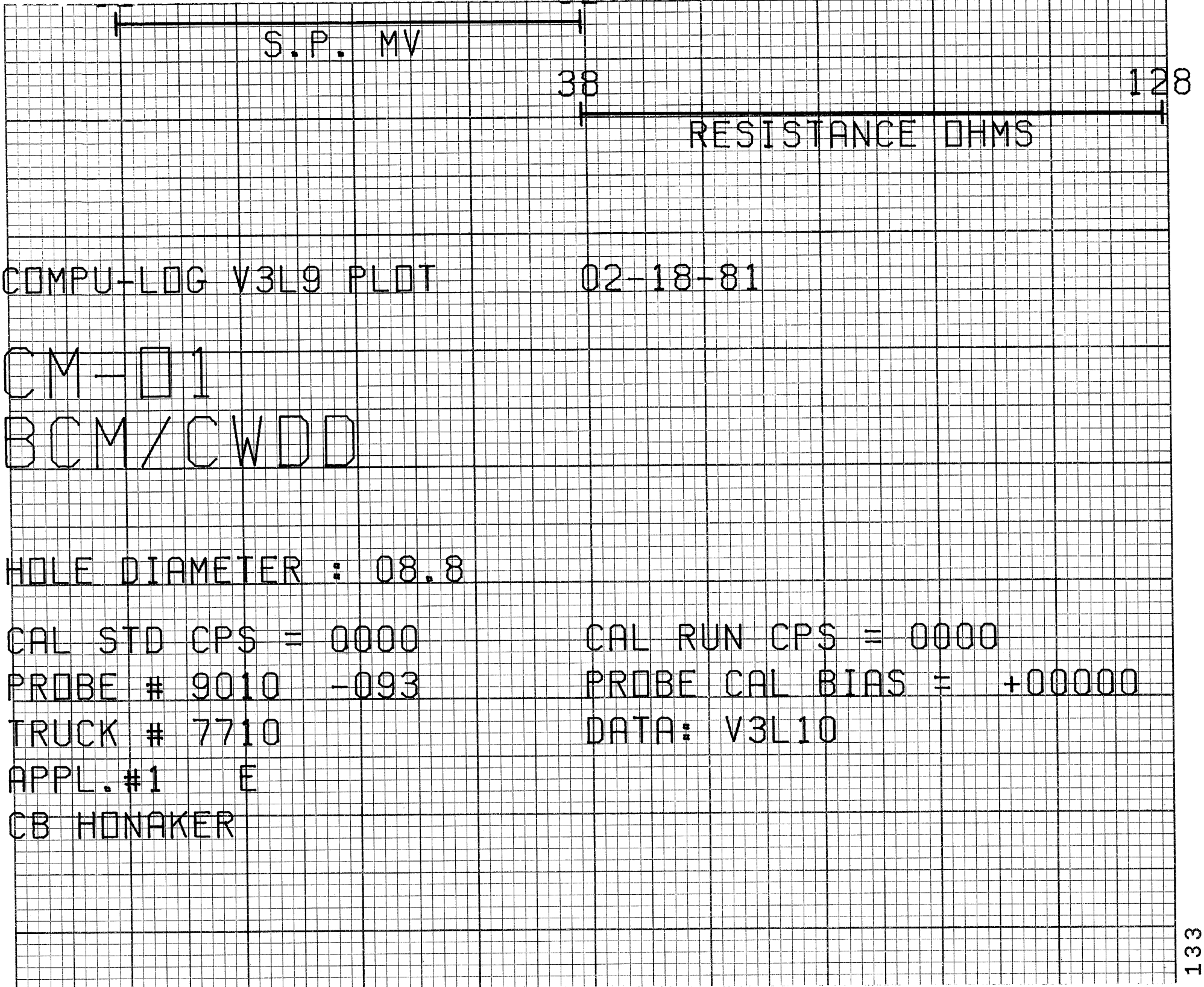

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