

Weatherford
WFT Survey Report X & Y's

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Emerald PWU 20-8H
Well: Emerald PWU 20-8H
Wellpath: 1

Date: 5/6/2013 Time: 05:26:47 Page: 1
Co-ordinate(NE) Reference: Well: Emerald PWU 20-8H, Grid North
Vertical (TVD) Reference: SITE 3344.0
Section (VS) Reference: Well (0.00N,0.00E,272.10Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: Wft Svy Start Date: 4/29/2013

Company: Weatherford Engineer: Russell W. Joyner
Tool: MWD;MWD - Standard Tied-to: User Defined

Site: Emerald PWU 20-8H

Site Position: Northing: 596491.28 ft Latitude: 32 38 22.418 N
From: Map Easting: 616784.38 ft Longitude: 104 5 17.645 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3326.00 ft Grid Convergence: 0.13 deg

Well: Emerald PWU 20-8H Slot Name:

Well Position: +N/-S 0.00 ft Northing: 596491.28 ft Latitude: 32 38 22.418 N
+E/-W 0.00 ft Easting: 616784.38 ft Longitude: 104 5 17.645 W
Position Uncertainty: 0.00 ft

Wellpath: 1

Current Datum: SITE Height 3344.00 ft
Magnetic Data: 4/25/2013
Field Strength: 48649 nT
Vertical Section:Depth From (TVD) +N/-S
ft ft
0.00 0.00

Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 7.63 deg
Mag Dip Angle: 60.44 deg
+E/-W Direction
ft deg
0.00 272.10

Survey	MD	Incl	Azim	TVD	N/S	E/W	DLS	VS	MapN	MapE	Comment
	ft	deg	deg	ft	ft	ft	deg/100ft	ft	ft	ft	
	6279.00	2.13	261.85	6277.11	97.07	-43.56	0.00	47.09	596588.35	616740.82	Tie On VES
	6428.00	2.27	265.77	6426.00	96.46	-49.24	0.14	52.75	596587.74	616735.14	First wft Svy

30-015-40513

					DVN	EMERALD	PWU	20-8H	SVY.TXT		
6460.00	5.37	284.38	6457.92	96.79	-51.33	10.31	54.84		596588.07	616733.05	
6491.00	9.53	290.74	6488.66	98.05	-55.13	13.66	58.69		596589.33	616729.25	
6523.00	13.49	292.10	6520.01	100.40	-61.07	12.40	64.71		596591.68	616723.31	
6555.00	16.78	288.41	6550.89	103.26	-68.91	10.71	72.65		596594.54	616715.47	
6586.00	19.60	286.27	6580.34	106.13	-78.15	9.35	81.99		596597.41	616706.23	
6618.00	22.66	285.83	6610.19	109.32	-89.24	9.58	93.19		596600.60	616695.14	
6649.00	26.07	285.31	6638.42	112.75	-101.56	11.02	105.62		596604.03	616682.82	
6681.00	29.67	284.55	6666.70	116.59	-116.01	11.30	120.21		596607.87	616668.37	
6712.00	32.97	283.85	6693.18	120.54	-131.63	10.71	135.96		596611.82	616652.75	
6744.00	35.81	282.71	6719.59	124.69	-149.22	9.10	153.69		596615.97	616635.16	
6775.00	39.13	281.42	6744.19	128.62	-167.66	11.00	172.26		596619.90	616616.72	
6807.00	42.57	280.66	6768.39	132.62	-188.20	10.86	192.94		596623.90	616596.18	
6838.00	46.08	280.72	6790.56	136.64	-209.48	11.32	214.35		596627.92	616574.90	
6870.00	49.83	280.03	6811.99	140.92	-232.86	11.83	237.86		596632.20	616551.52	
6901.00	53.84	278.55	6831.14	144.84	-256.90	13.47	262.04		596636.12	616527.48	
6933.00	57.98	277.41	6849.08	148.51	-283.14	13.27	288.40		596639.79	616501.24	
6964.00	62.43	275.75	6864.48	151.59	-309.86	15.09	315.21		596642.87	616474.52	
6996.00	66.00	274.37	6878.40	154.12	-338.56	11.81	343.98		596645.40	616445.82	
7028.00	69.61	273.90	6890.48	156.26	-368.10	11.36	373.58		596647.54	616416.28	
7060.00	72.82	274.18	6900.78	158.39	-398.32	10.07	403.86		596649.67	616386.06	
7091.00	77.15	274.86	6908.81	160.75	-428.16	14.13	433.76		596652.03	616356.22	
7123.00	80.72	275.28	6914.95	163.53	-459.44	11.23	465.12		596654.81	616324.94	
7154.00	83.27	275.43	6919.27	166.39	-490.00	8.24	495.77		596657.67	616294.38	
7186.00	84.60	275.62	6922.65	169.46	-521.67	4.20	527.53		596660.74	616262.71	
7217.00	85.23	274.74	6925.40	172.24	-552.42	3.48	558.36		596663.52	616231.96	
7249.00	86.71	272.82	6927.65	174.35	-584.27	7.56	590.27		596665.63	616200.11	
7312.00	88.32	271.20	6930.38	176.55	-647.17	3.62	653.21		596667.83	616137.21	
7406.00	88.81	270.07	6932.73	177.60	-741.13	1.31	747.14		596668.88	616043.25	
7501.00	90.49	269.68	6933.32	177.39	-836.13	1.82	842.07		596668.67	615948.25	
7596.00	90.70	269.88	6932.33	177.02	-931.12	0.31	936.98		596668.30	615853.26	
7690.00	90.07	270.44	6931.70	177.29	-1025.12	0.90	1030.93		596668.57	615759.26	
7785.00	88.67	269.93	6932.74	177.59	-1120.11	1.57	1125.87		596668.87	615664.27	
7879.00	89.44	268.48	6934.29	176.29	-1214.08	1.75	1219.73		596667.57	615570.30	
7974.00	88.67	268.09	6935.86	173.45	-1309.03	0.91	1314.51		596664.73	615475.35	
8068.00	90.14	269.06	6936.83	171.11	-1402.99	1.87	1408.32		596662.39	615381.39	
8163.00	91.33	269.18	6935.62	169.65	-1497.97	1.26	1503.18		596660.93	615286.41	
8258.00	91.61	269.54	6933.18	168.59	-1592.93	0.48	1598.04		596659.87	615191.45	
8352.00	91.05	270.20	6931.00	168.38	-1686.91	0.92	1691.94		596659.66	615097.47	
8447.00	90.70	270.41	6929.55	168.88	-1781.89	0.43	1786.89		596660.16	615002.49	
8542.00	90.49	270.69	6928.56	169.79	-1876.88	0.37	1881.85		596661.07	614907.50	

DVN EMERALD PWU 20-8H SVY.TXT									
8636.00	90.00	271.01	6928.16	171.19	-1970.87	0.62	1975.82	596662.47	614813.51
8731.00	89.79	271.79	6928.33	173.51	-2065.84	0.85	2070.81	596664.79	614718.54
8826.00	90.35	271.44	6928.22	176.19	-2160.80	0.70	2165.81	596667.47	614623.58
8920.00	90.49	271.71	6927.53	178.77	-2254.77	0.32	2259.80	596670.05	614529.61
9015.00	92.31	270.11	6925.21	180.28	-2349.72	2.55	2354.75	596671.56	614434.66
9109.00	92.52	270.12	6921.25	180.47	-2443.64	0.22	2448.61	596671.75	614340.74
9204.00	91.82	270.74	6917.65	181.18	-2538.56	0.98	2543.50	596672.46	614245.82
9298.00	91.47	270.79	6914.95	182.43	-2632.52	0.38	2637.43	596673.71	614151.86
9393.00	90.63	270.96	6913.21	183.88	-2727.49	0.90	2732.39	596675.16	614056.89
9487.00	91.33	270.22	6911.60	184.85	-2821.47	1.08	2826.35	596676.13	613962.91
9582.00	93.43	269.41	6907.66	184.55	-2916.38	2.37	2921.18	596675.83	613868.00
9677.00	93.78	269.33	6901.68	183.50	-3011.19	0.38	3015.89	596674.78	613773.19
9771.00	92.52	269.28	6896.52	182.36	-3105.03	1.34	3109.63	596673.64	613679.35
9865.00	92.73	270.01	6892.21	181.78	-3198.93	0.81	3203.45	596673.06	613585.45
9960.00	91.61	270.20	6888.62	181.96	-3293.86	1.20	3298.32	596673.24	613490.52
10054.00	90.98	270.42	6886.49	182.47	-3387.84	0.71	3392.25	596673.75	613396.54
10150.00	91.40	270.16	6884.50	182.95	-3483.82	0.51	3488.18	596674.23	613300.56
10244.00	91.33	270.18	6882.26	183.23	-3577.79	0.08	3582.10	596674.51	613206.59
10339.00	92.24	270.30	6879.30	183.63	-3672.74	0.97	3677.00	596674.91	613111.64
10434.00	91.89	270.33	6875.88	184.15	-3767.68	0.37	3771.90	596675.43	613016.70
10528.00	91.33	270.52	6873.23	184.85	-3861.64	0.63	3865.82	596676.13	612922.74
10623.00	91.82	270.23	6870.62	185.47	-3956.60	0.60	3960.74	596676.75	612827.78
10718.00	91.33	270.02	6868.01	185.68	-4051.56	0.56	4055.65	596676.96	612732.82
10812.00	92.87	269.90	6864.57	185.61	-4145.50	1.64	4149.51	596676.89	612638.88
10907.00	92.73	269.84	6859.93	185.39	-4240.38	0.16	4244.33	596676.67	612544.00
11002.00	93.29	270.63	6854.94	185.78	-4335.25	1.02	4339.15	596677.06	612449.13
11097.00	93.08	270.64	6849.66	186.83	-4430.10	0.22	4433.97	596678.11	612354.28
11191.00	93.49	271.21	6844.27	188.35	-4523.93	0.75	4527.79	596679.63	612260.45
11286.00	93.01	271.35	6838.89	190.47	-4618.75	0.53	4622.63	596681.75	612165.63
11381.00	92.38	271.22	6834.42	192.60	-4713.62	0.68	4717.52	596683.88	612070.76
11476.00	91.26	271.09	6831.40	194.51	-4808.56	1.19	4812.45	596685.79	611975.82
11571.00	90.56	271.32	6829.90	196.51	-4903.52	0.78	4907.43	596687.79	611880.86
11610.00	90.49	271.53	6829.54	197.48	-4942.51	0.57	4946.42	596688.76	611841.87
11684.00	90.49	271.53	6828.91	199.45	-5016.48	0.00	5020.42	596690.73	611767.90

Last wft Svy

Proj. To Bit

DVN EMERALD PWU 20-8H SVY.TXT

Weatherford
WFT Survey Report X & Y's

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Emerald PWU 20-8H
Well: Emerald PWU 20-8H
Wellpath: 1

Date: 5/6/2013 Time: 05:26:47 Page: 3
Co-ordinate(NE) Reference: Well: Emerald PWU 20-8H, Grid North
Vertical (TVD) Reference: SITE 3344.0
Section (VS) Reference: Well (0.00N,0.00E,272.10Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Annotation

MD ft	TVD ft	
6279.00	6277.11	Tie On VES
6428.00	6426.00	First wft Svy
11610.00	6829.54	Last wft Svy
11684.00	6828.91	Proj. To Bit

DVN EMERALD PWU 20-8H SVY.TXT

DVN EMERALD PWU 20-8H SVY.TXT

Weatherford
WFT Survey Report X & Y's

Company:	Devon Energy	Date:	5/6/2013	Time:	05:26:47	Page:	1
Field:	Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference:	well: Emerald PWU 20-8H, Grid North				
Site:	Emerald PWU 20-8H	Vertical (TVD) Reference:	SITE 3344.0				
Well:	Emerald PWU 20-8H	Section (VS) Reference:	Well (0.00N,0.00E,272.10Azi)				
Wellpath:	1	Survey Calculation Method:	Minimum Curvature			Db:	Sybase

Survey:	Wft Svy	Start Date:	4/29/2013
Company:	Weatherford	Engineer:	Russell W. Joyner
Tool:	MWD;MWD - Standard	Tied-to:	User Defined
Site:	Emerald PWU 20-8H		

Site Position:		Northing:	596491.28 ft	Latitude:	32 38 22.418 N
From: Map		Easting:	616784.38 ft	Longitude:	104 5 17.645 W
Position Uncertainty:	0.00 ft			North Reference:	Grid
Ground Level:	3326.00 ft			Grid Convergence:	0.13 deg

Well:	Emerald PWU 20-8H	Slot Name:			
Well Position:	+N/-S 0.00 ft	Northing:	596491.28 ft	Latitude:	32 38 22.418 N
	+E/-W 0.00 ft	Easting:	616784.38 ft	Longitude:	104 5 17.645 W
Position Uncertainty:	0.00 ft				

Wellpath:	1	Drilled From:	Surface
Current Datum:	SITE	Tie-on Depth:	0.00 ft
Magnetic Data:	4/25/2013	Above System Datum:	Mean Sea Level
Field Strength:	48649 nT	Declination:	7.63 deg
Vertical Section:Depth From (TVD)		Mag Dip Angle:	60.44 deg
	+N/-S	+E/-W	Direction
	ft	ft	deg
	0.00	0.00	272.10

Survey	Incl	Azim	TVD	N/S	E/W	DLS	VS	MapN	MapE	Comment
MD										

ft	deg	deg	ft	ft	ft	DVN EMERALD PWU 20-8H SVY.TXT deg/100ft	ft	ft	ft	ft
6279.00	2.13	261.85	6277.11	97.07	-43.56	0.00	47.09	596588.35	616740.82	Tie On VES First wft Svy
6428.00	2.27	265.77	6426.00	96.46	-49.24	0.14	52.75	596587.74	616735.14	
6460.00	5.37	284.38	6457.92	96.79	-51.33	10.31	54.84	596588.07	616733.05	
6491.00	9.53	290.74	6488.66	98.05	-55.13	13.66	58.69	596589.33	616729.25	
6523.00	13.49	292.10	6520.01	100.40	-61.07	12.40	64.71	596591.68	616723.31	
6555.00	16.78	288.41	6550.89	103.26	-68.91	10.71	72.65	596594.54	616715.47	
6586.00	19.60	286.27	6580.34	106.13	-78.15	9.35	81.99	596597.41	616706.23	
6618.00	22.66	285.83	6610.19	109.32	-89.24	9.58	93.19	596600.60	616695.14	
6649.00	26.07	285.31	6638.42	112.75	-101.56	11.02	105.62	596604.03	616682.82	
6681.00	29.67	284.55	6666.70	116.59	-116.01	11.30	120.21	596607.87	616668.37	
6712.00	32.97	283.85	6693.18	120.54	-131.63	10.71	135.96	596611.82	616652.75	
6744.00	35.81	282.71	6719.59	124.69	-149.22	9.10	153.69	596615.97	616635.16	
6775.00	39.13	281.42	6744.19	128.62	-167.66	11.00	172.26	596619.90	616616.72	
6807.00	42.57	280.66	6768.39	132.62	-188.20	10.86	192.94	596623.90	616596.18	
6838.00	46.08	280.72	6790.56	136.64	-209.48	11.32	214.35	596627.92	616574.90	
6870.00	49.83	280.03	6811.99	140.92	-232.86	11.83	237.86	596632.20	616551.52	
6901.00	53.84	278.55	6831.14	144.84	-256.90	13.47	262.04	596636.12	616527.48	
6933.00	57.98	277.41	6849.08	148.51	-283.14	13.27	288.40	596639.79	616501.24	
6964.00	62.43	275.75	6864.48	151.59	-309.86	15.09	315.21	596642.87	616474.52	
6996.00	66.00	274.37	6878.40	154.12	-338.56	11.81	343.98	596645.40	616445.82	
7028.00	69.61	273.90	6890.48	156.26	-368.10	11.36	373.58	596647.54	616416.28	
7060.00	72.82	274.18	6900.78	158.39	-398.32	10.07	403.86	596649.67	616386.06	
7091.00	77.15	274.86	6908.81	160.75	-428.16	14.13	433.76	596652.03	616356.22	
7123.00	80.72	275.28	6914.95	163.53	-459.44	11.23	465.12	596654.81	616324.94	
7154.00	83.27	275.43	6919.27	166.39	-490.00	8.24	495.77	596657.67	616294.38	
7186.00	84.60	275.62	6922.65	169.46	-521.67	4.20	527.53	596660.74	616262.71	
7217.00	85.23	274.74	6925.40	172.24	-552.42	3.48	558.36	596663.52	616231.96	
7249.00	86.71	272.82	6927.65	174.35	-584.27	7.56	590.27	596665.63	616200.11	
7312.00	88.32	271.20	6930.38	176.55	-647.17	3.62	653.21	596667.83	616137.21	
7406.00	88.81	270.07	6932.73	177.60	-741.13	1.31	747.14	596668.88	616043.25	
7501.00	90.49	269.68	6933.32	177.39	-836.13	1.82	842.07	596668.67	615948.25	
7596.00	90.70	269.88	6932.33	177.02	-931.12	0.31	936.98	596668.30	615853.26	
7690.00	90.07	270.44	6931.70	177.29	-1025.12	0.90	1030.93	596668.57	615759.26	
7785.00	88.67	269.93	6932.74	177.59	-1120.11	1.57	1125.87	596668.87	615664.27	
7879.00	89.44	268.48	6934.29	176.29	-1214.08	1.75	1219.73	596667.57	615570.30	

					DVN	EMERALD PWU	20-8H SVY.TXT		
7974.00	88.67	268.09	6935.86	173.45	-1309.03	0.91	1314.51	596664.73	615475.35
8068.00	90.14	269.06	6936.83	171.11	-1402.99	1.87	1408.32	596662.39	615381.39
8163.00	91.33	269.18	6935.62	169.65	-1497.97	1.26	1503.18	596660.93	615286.41
8258.00	91.61	269.54	6933.18	168.59	-1592.93	0.48	1598.04	596659.87	615191.45
8352.00	91.05	270.20	6931.00	168.38	-1686.91	0.92	1691.94	596659.66	615097.47
8447.00	90.70	270.41	6929.55	168.88	-1781.89	0.43	1786.89	596660.16	615002.49
8542.00	90.49	270.69	6928.56	169.79	-1876.88	0.37	1881.85	596661.07	614907.50
8636.00	90.00	271.01	6928.16	171.19	-1970.87	0.62	1975.82	596662.47	614813.51
8731.00	89.79	271.79	6928.33	173.51	-2065.84	0.85	2070.81	596664.79	614718.54
8826.00	90.35	271.44	6928.22	176.19	-2160.80	0.70	2165.81	596667.47	614623.58
8920.00	90.49	271.71	6927.53	178.77	-2254.77	0.32	2259.80	596670.05	614529.61
9015.00	92.31	270.11	6925.21	180.28	-2349.72	2.55	2354.75	596671.56	614434.66
9109.00	92.52	270.12	6921.25	180.47	-2443.64	0.22	2448.61	596671.75	614340.74
9204.00	91.82	270.74	6917.65	181.18	-2538.56	0.98	2543.50	596672.46	614245.82
9298.00	91.47	270.79	6914.95	182.43	-2632.52	0.38	2637.43	596673.71	614151.86
9393.00	90.63	270.96	6913.21	183.88	-2727.49	0.90	2732.39	596675.16	614056.89
9487.00	91.33	270.22	6911.60	184.85	-2821.47	1.08	2826.35	596676.13	613962.91
9582.00	93.43	269.41	6907.66	184.55	-2916.38	2.37	2921.18	596675.83	613868.00
9677.00	93.78	269.33	6901.68	183.50	-3011.19	0.38	3015.89	596674.78	613773.19
9771.00	92.52	269.28	6896.52	182.36	-3105.03	1.34	3109.63	596673.64	613679.35
9865.00	92.73	270.01	6892.21	181.78	-3198.93	0.81	3203.45	596673.06	613585.45
9960.00	91.61	270.20	6888.62	181.96	-3293.86	1.20	3298.32	596673.24	613490.52
10054.00	90.98	270.42	6886.49	182.47	-3387.84	0.71	3392.25	596673.75	613396.54
10150.00	91.40	270.16	6884.50	182.95	-3483.82	0.51	3488.18	596674.23	613300.56
10244.00	91.33	270.18	6882.26	183.23	-3577.79	0.08	3582.10	596674.51	613206.59
10339.00	92.24	270.30	6879.30	183.63	-3672.74	0.97	3677.00	596674.91	613111.64
10434.00	91.89	270.33	6875.88	184.15	-3767.68	0.37	3771.90	596675.43	613016.70
10528.00	91.33	270.52	6873.23	184.85	-3861.64	0.63	3865.82	596676.13	612922.74
10623.00	91.82	270.23	6870.62	185.47	-3956.60	0.60	3960.74	596676.75	612827.78
10718.00	91.33	270.02	6868.01	185.68	-4051.56	0.56	4055.65	596676.96	612732.82
10812.00	92.87	269.90	6864.57	185.61	-4145.50	1.64	4149.51	596676.89	612638.88
10907.00	92.73	269.84	6859.93	185.39	-4240.38	0.16	4244.33	596676.67	612544.00
11002.00	93.29	270.63	6854.94	185.78	-4335.25	1.02	4339.15	596677.06	612449.13
11097.00	93.08	270.64	6849.66	186.83	-4430.10	0.22	4433.97	596678.11	612354.28
11191.00	93.49	271.21	6844.27	188.35	-4523.93	0.75	4527.79	596679.63	612260.45
11286.00	93.01	271.35	6838.89	190.47	-4618.75	0.53	4622.63	596681.75	612165.63

						DVN EMERALD PWU 20-8H SVY.TXT				
11381.00	92.38	271.22	6834.42	192.60	-4713.62	0.68	4717.52	596683.88	612070.76	
11476.00	91.26	271.09	6831.40	194.51	-4808.56	1.19	4812.45	596685.79	611975.82	
11571.00	90.56	271.32	6829.90	196.51	-4903.52	0.78	4907.43	596687.79	611880.86	
11610.00	90.49	271.53	6829.54	197.48	-4942.51	0.57	4946.42	596688.76	611841.87	Last wft Svy
11684.00	90.49	271.53	6828.91	199.45	-5016.48	0.00	5020.42	596690.73	611767.90	Proj. To Bit

Weatherford
WFT Survey Report X & Y's

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Emerald PWU 20-8H
Well: Emerald PWU 20-8H
Wellpath: 1

Date: 5/6/2013 Time: 05:26:47 Page: 3
Co-ordinate(NE) Reference: Well: Emerald PWU 20-8H, Grid North
Vertical (TVD) Reference: SITE 3344.0
Section (VS) Reference: Well (0.00N,0.00E,272.10Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Annotation		
MD	TVD	
ft	ft	
6279.00	6277.11	Tie On VES
6428.00	6426.00	First wft Svy
11610.00	6829.54	Last wft Svy
11684.00	6828.91	Proj. To Bit

DVN EMERALD PWU 20-8H SVY.TXT

DVN EMERALD PWU 20-8H SVY.TXT

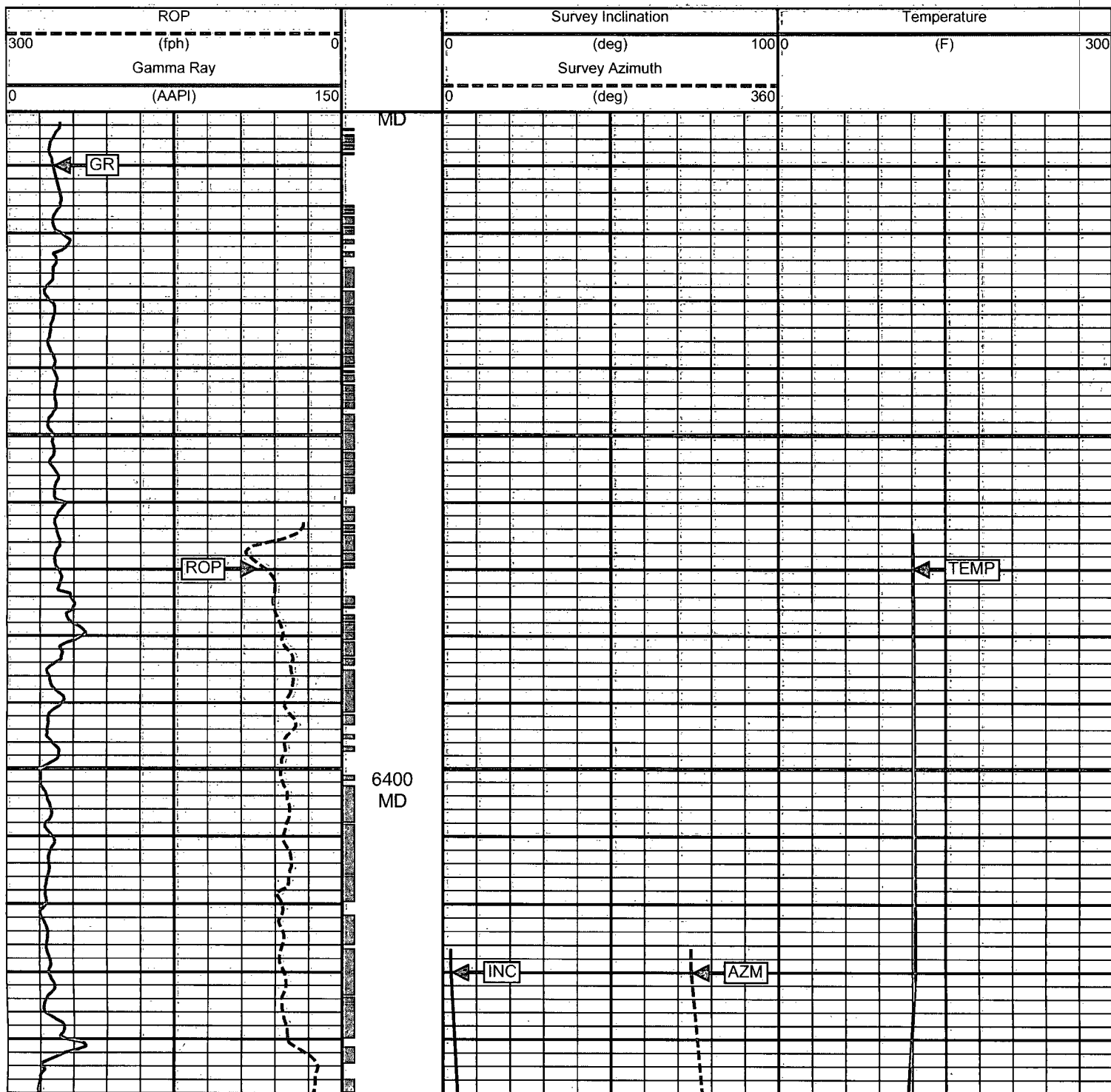


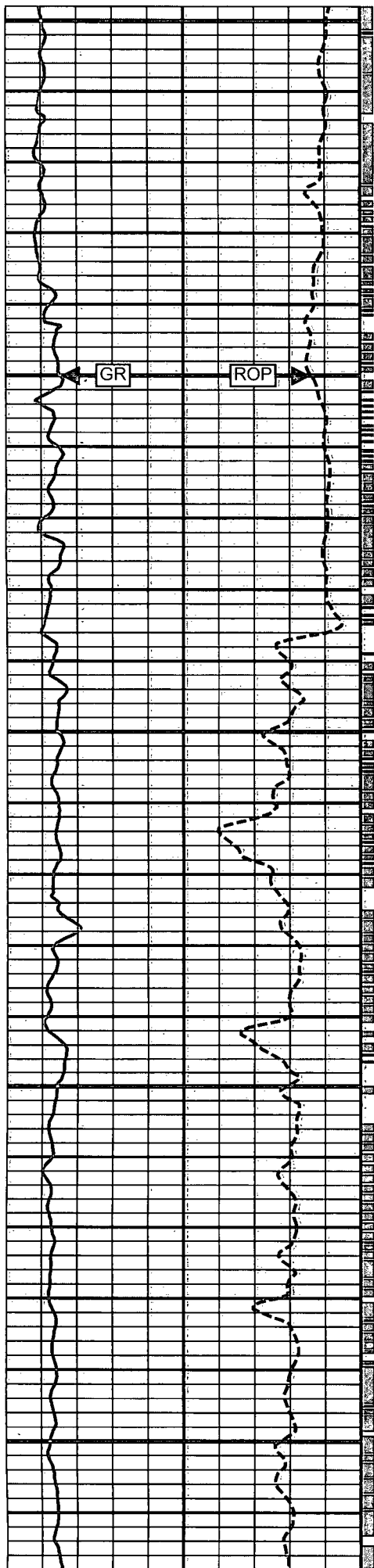
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COMPANY: **Devon Energy**
WELL: **Emerald PWU 20-8H**
FIELD: **Hackberry**
COUNTRY: **United States**

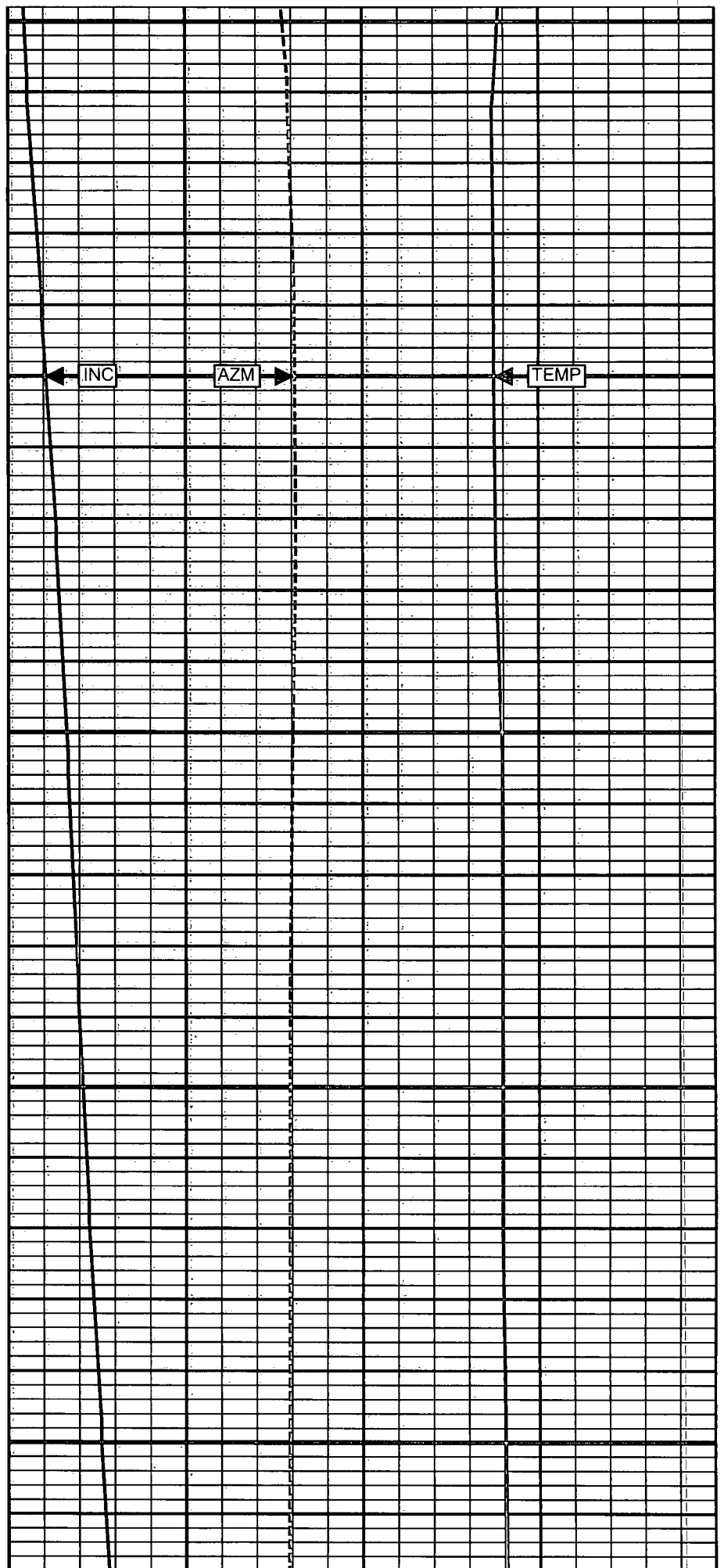
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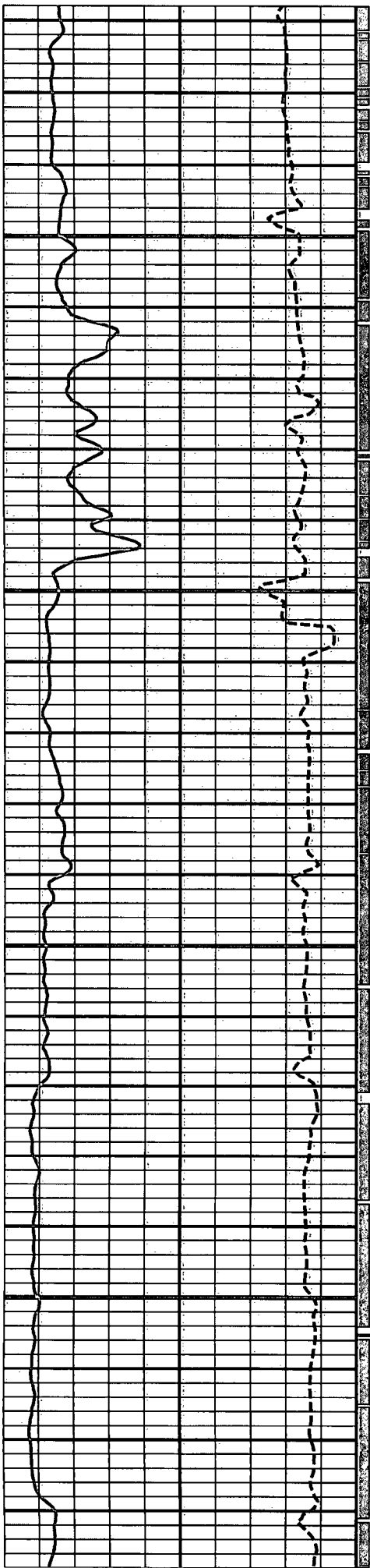




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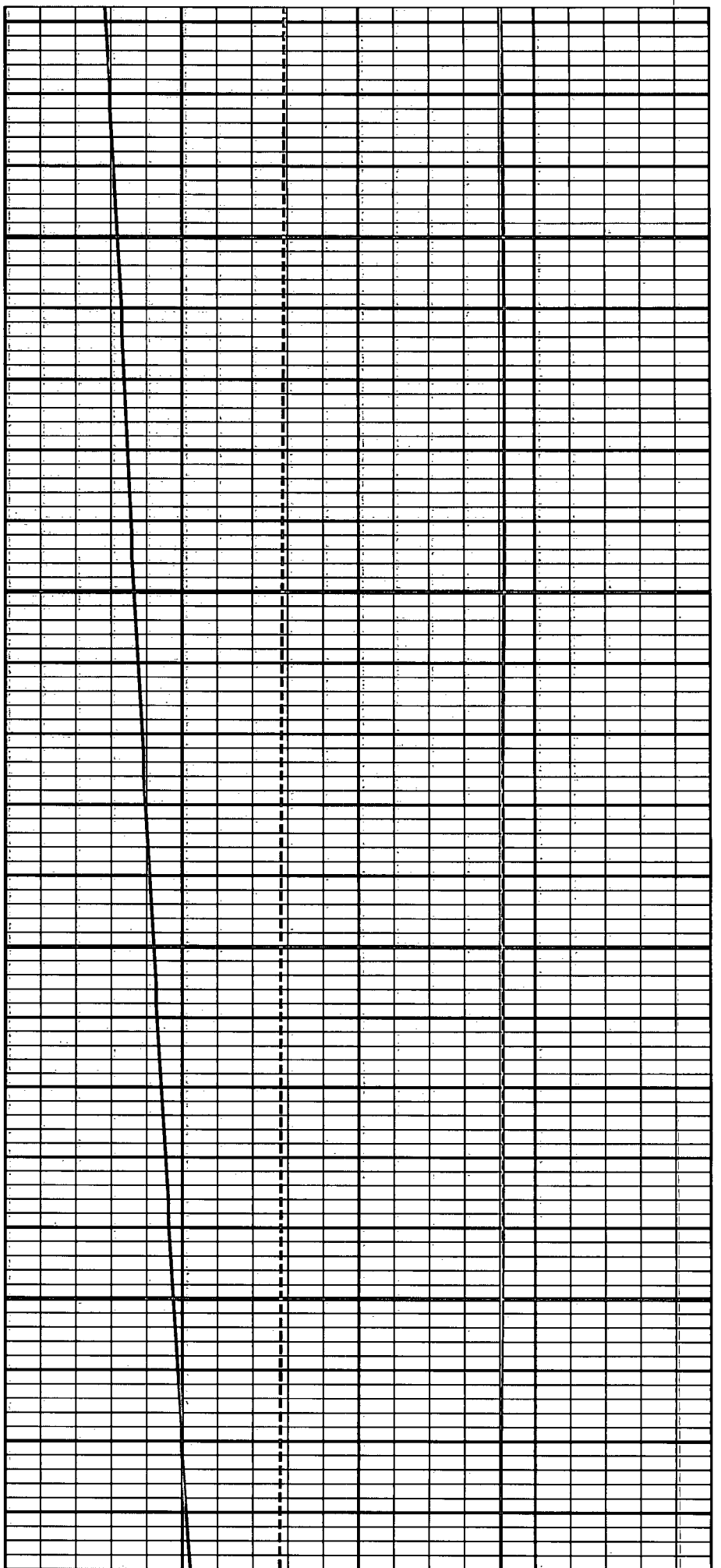
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6700
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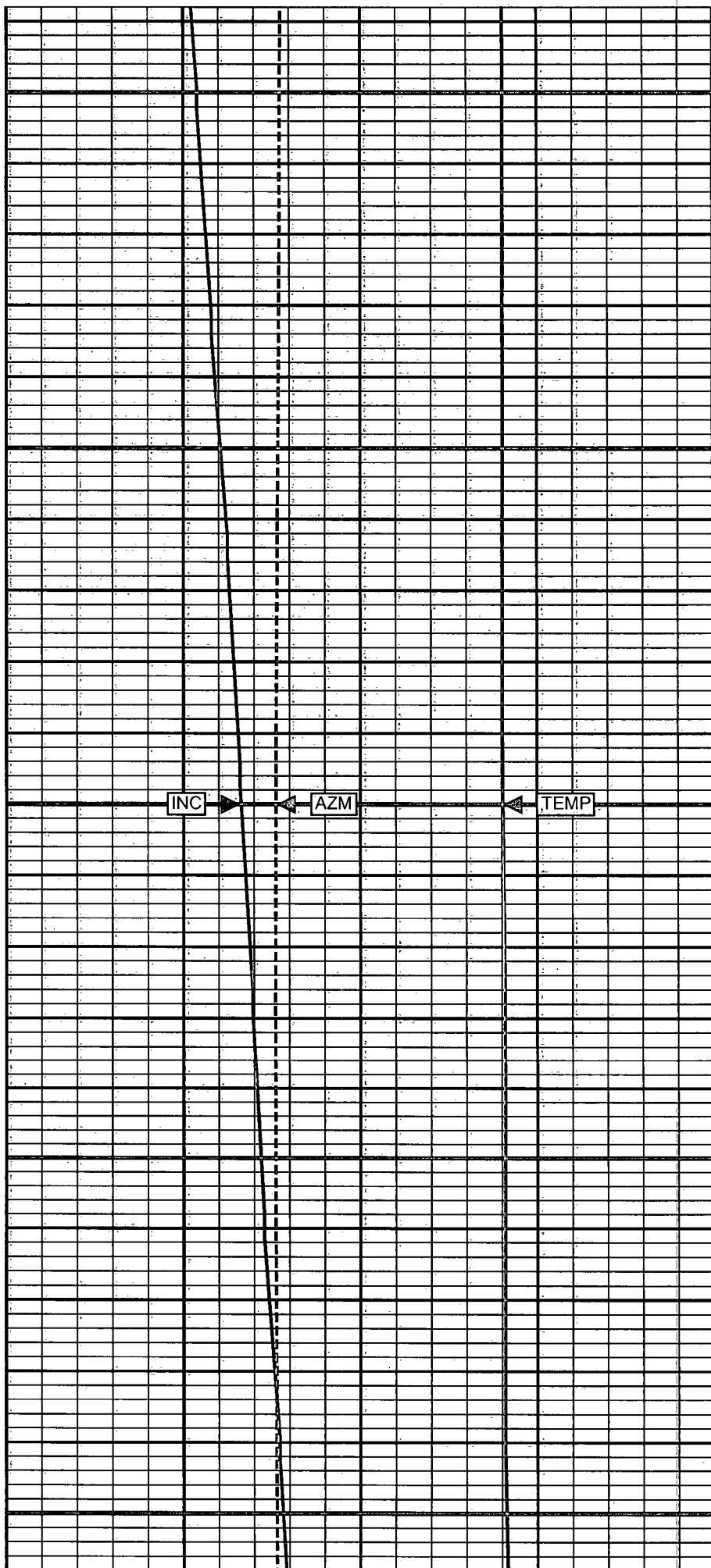
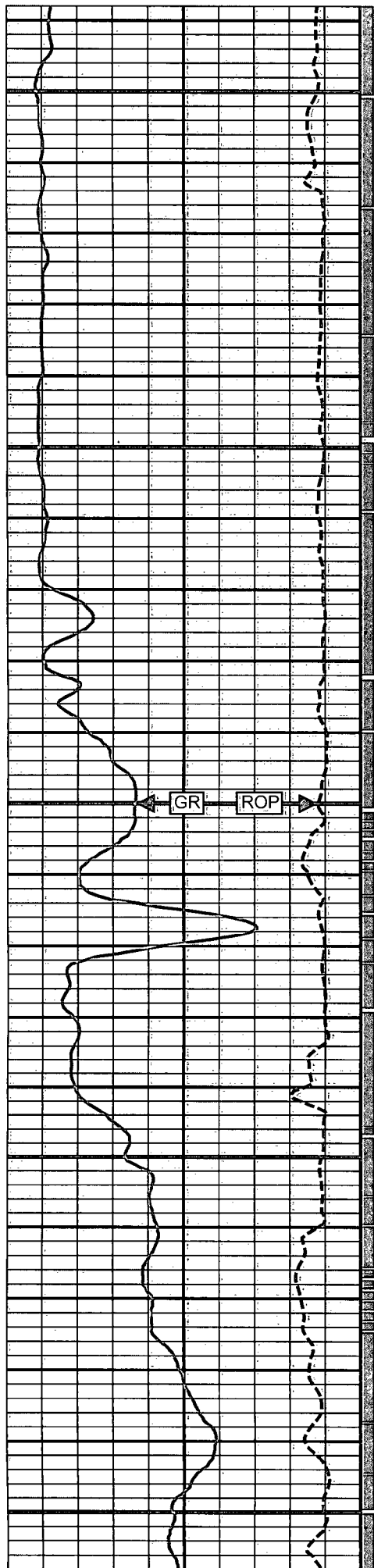
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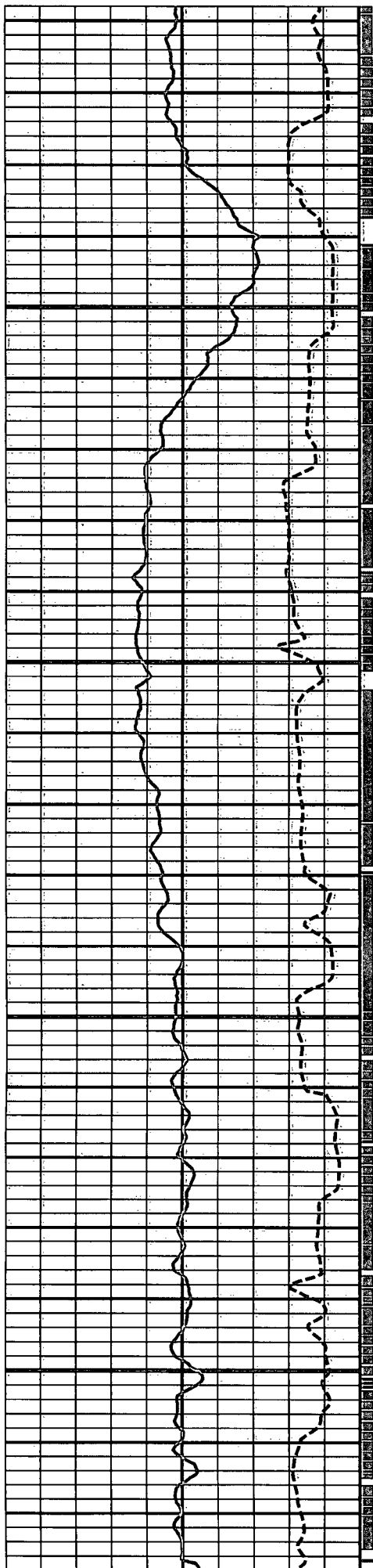


6900
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7000
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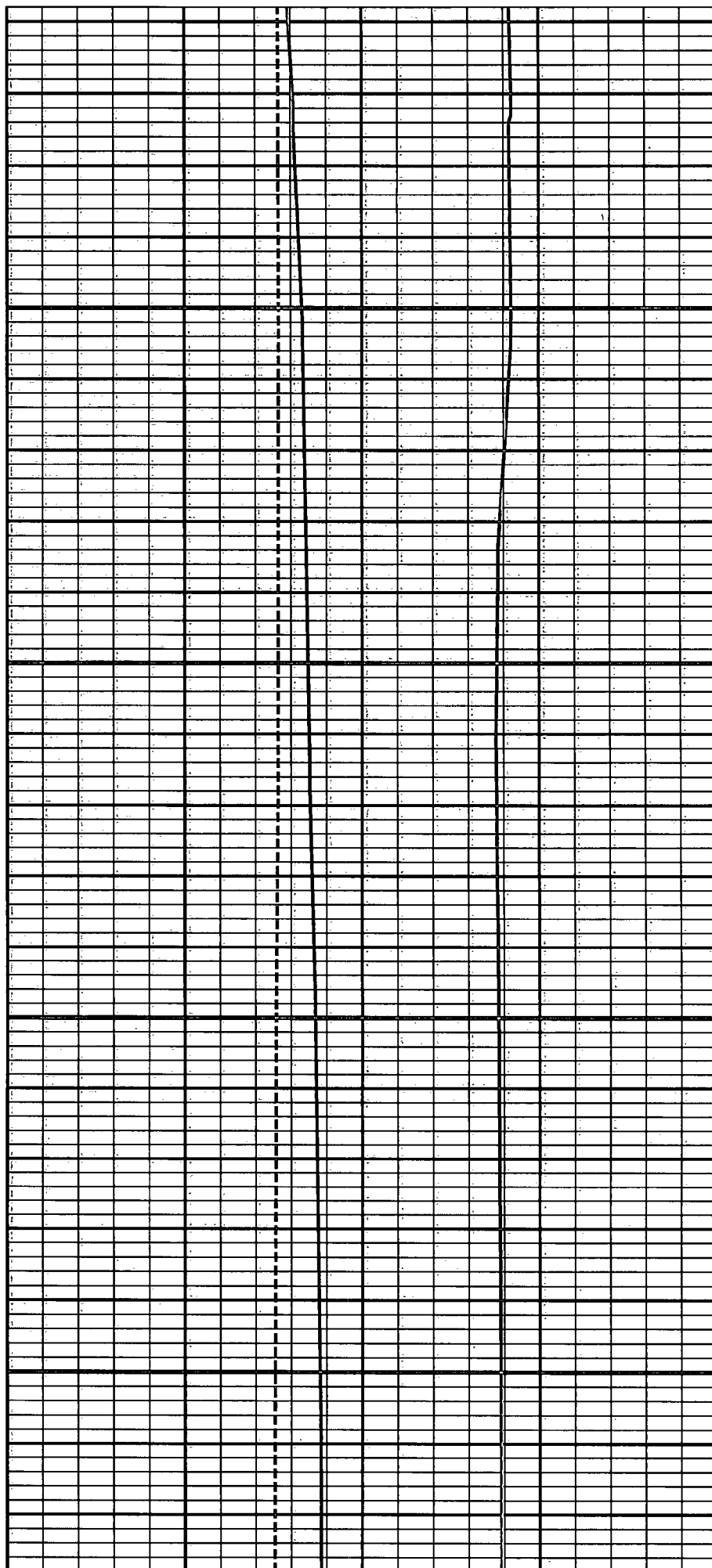
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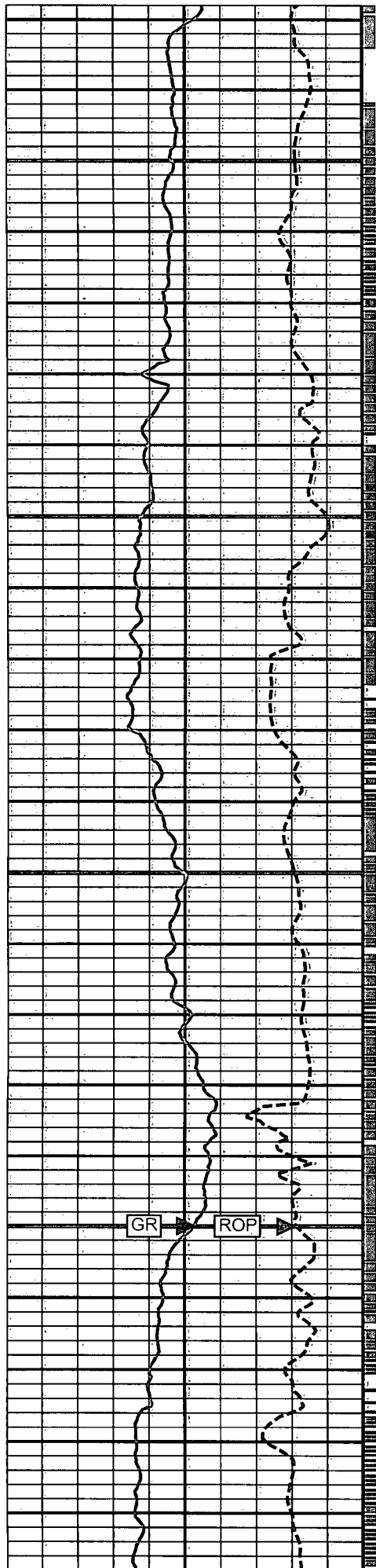




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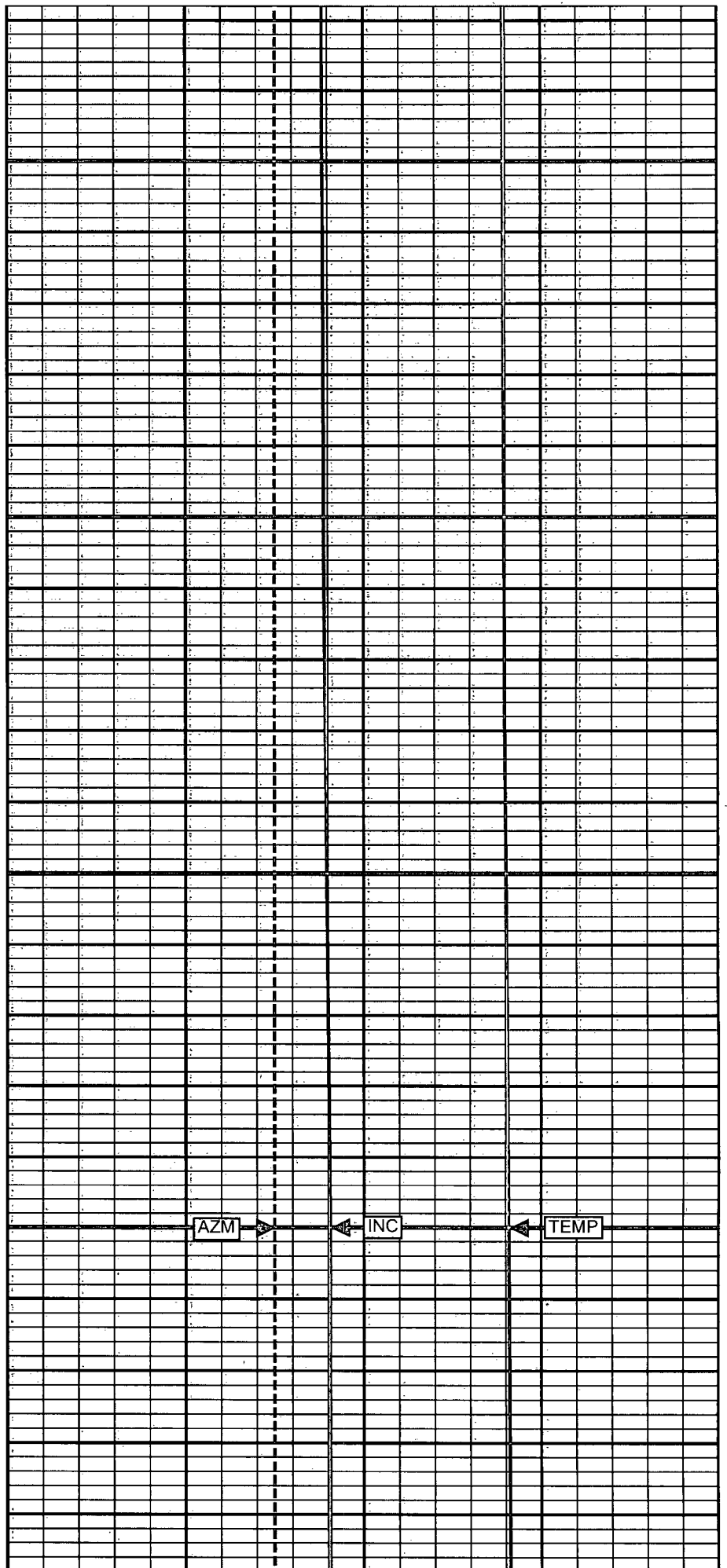
7300
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7400
MD

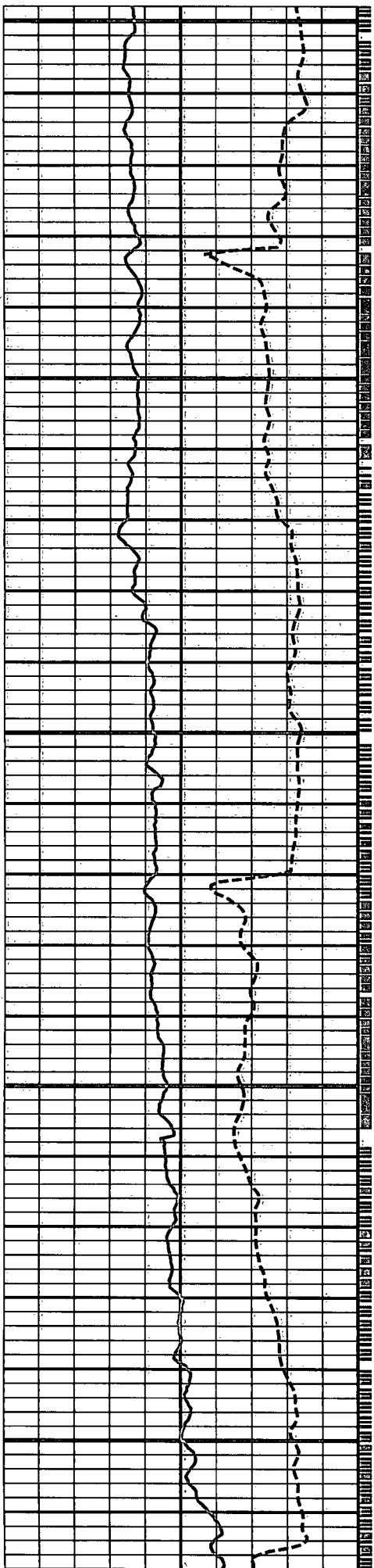
7500
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AZM

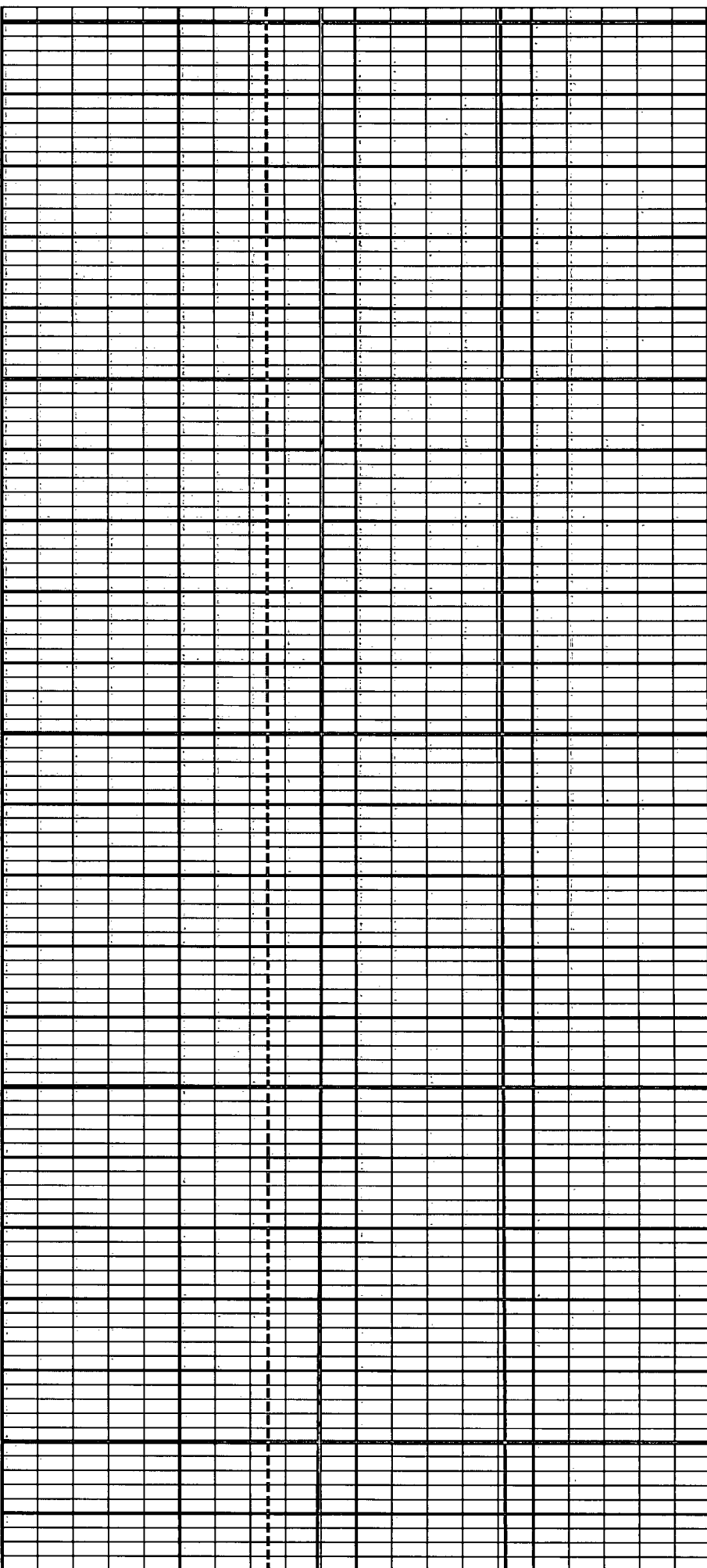
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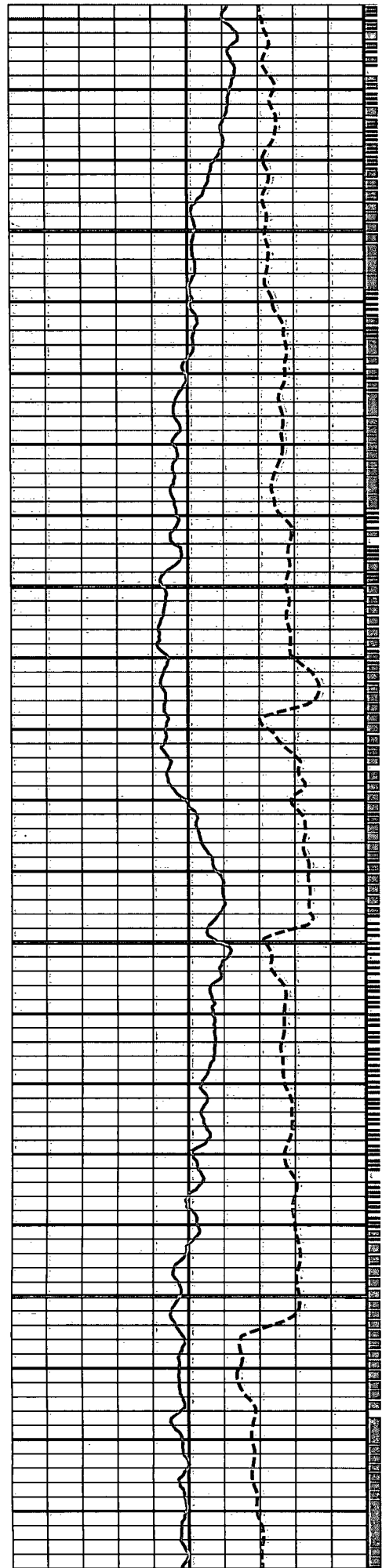
TEMP



7600
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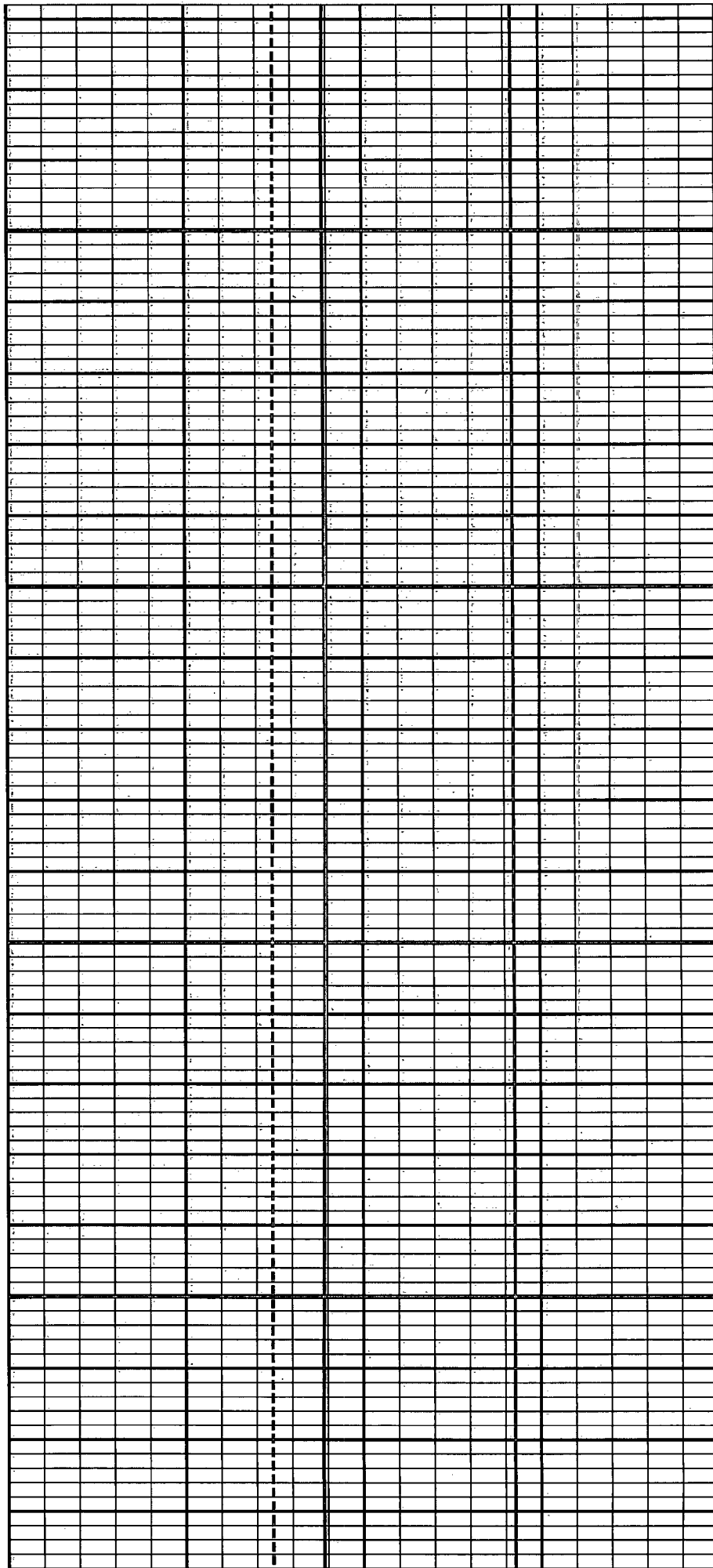
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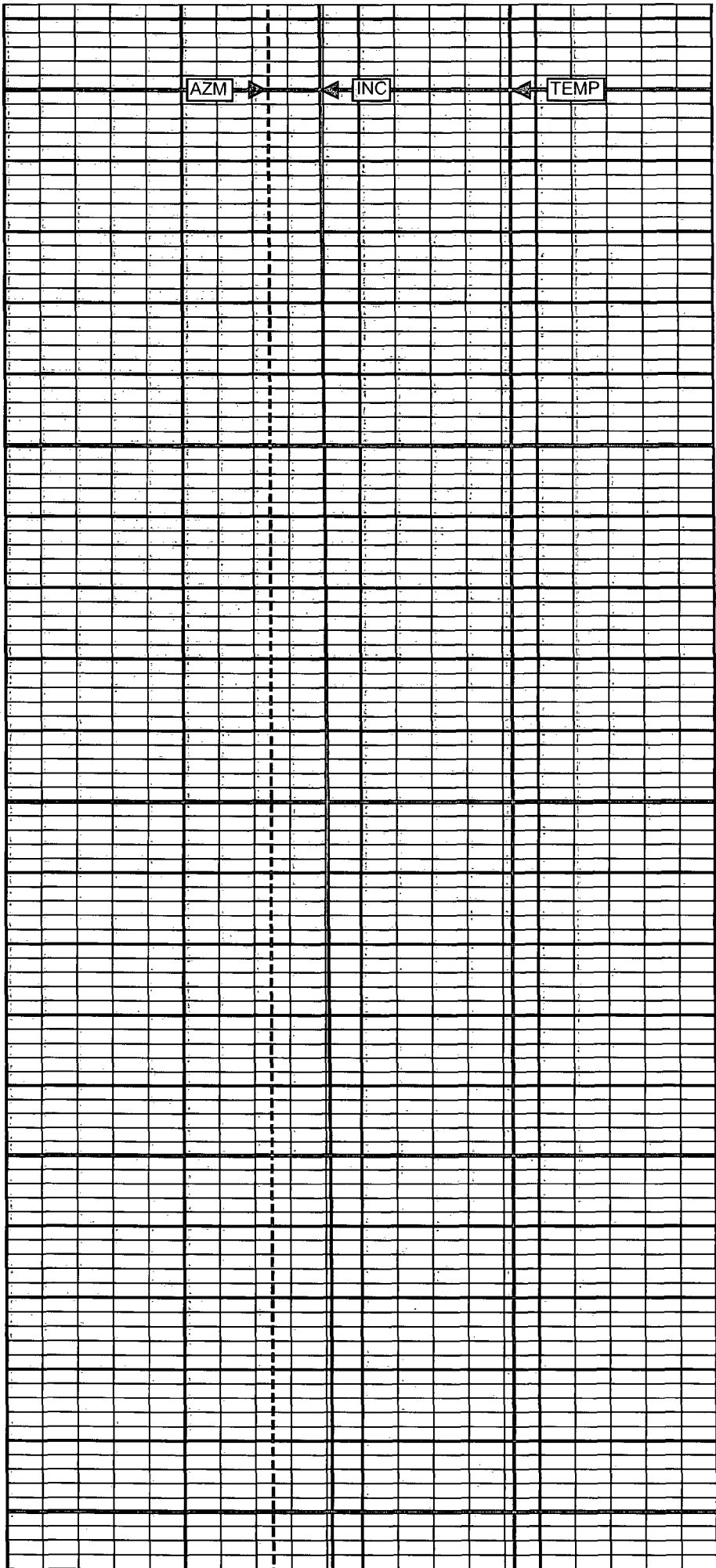
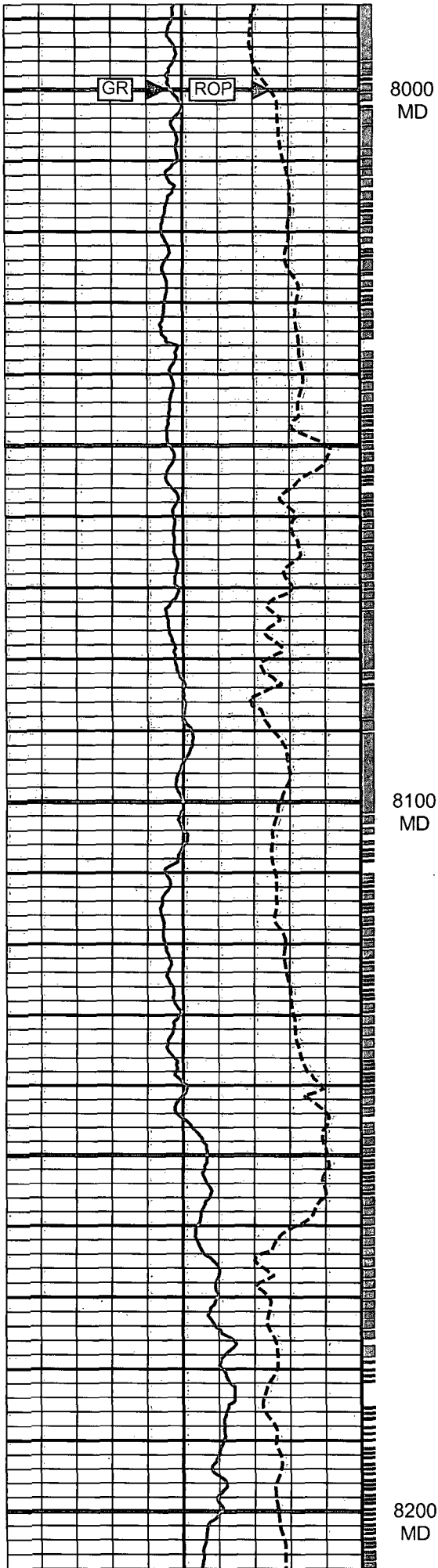


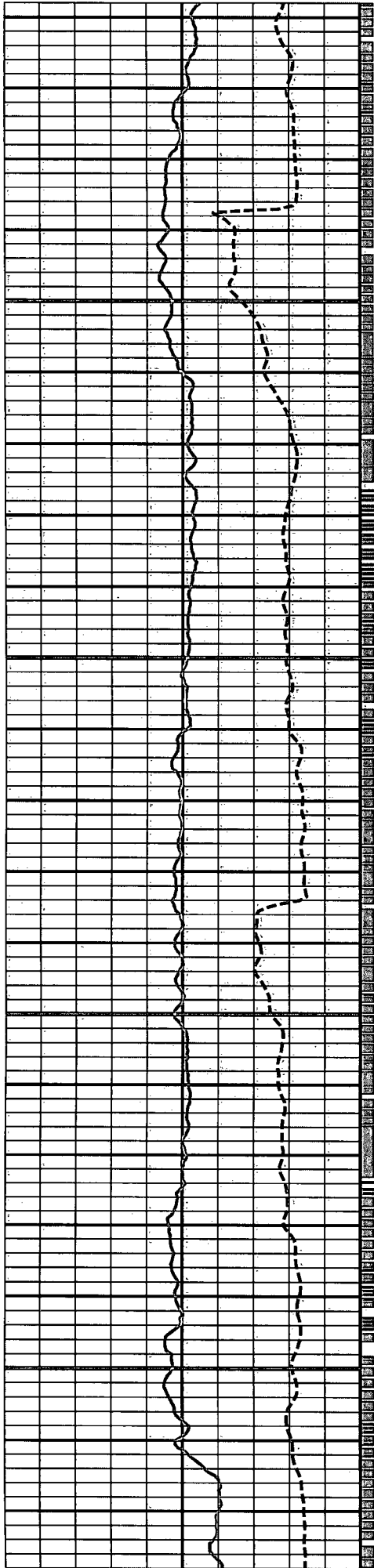


7800
MD

7900
MD

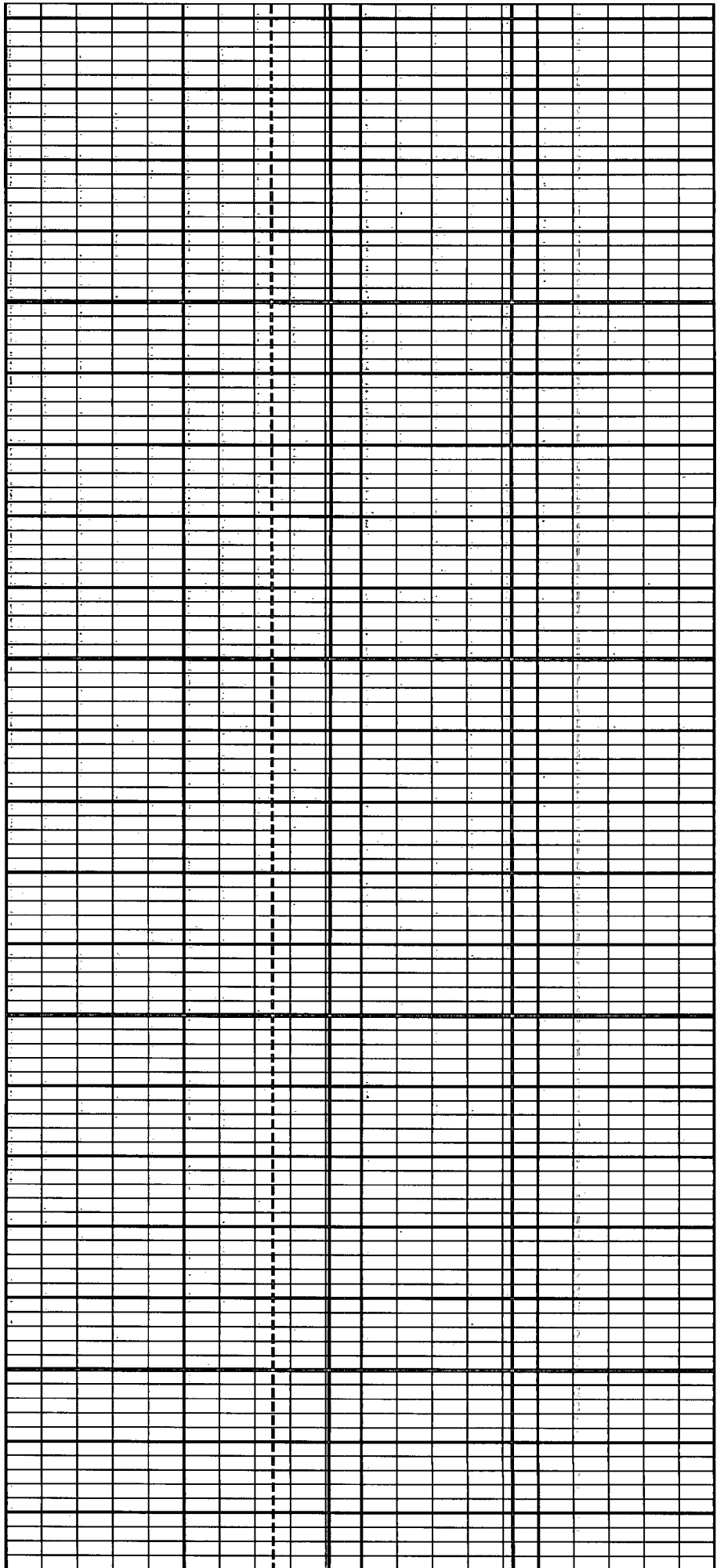


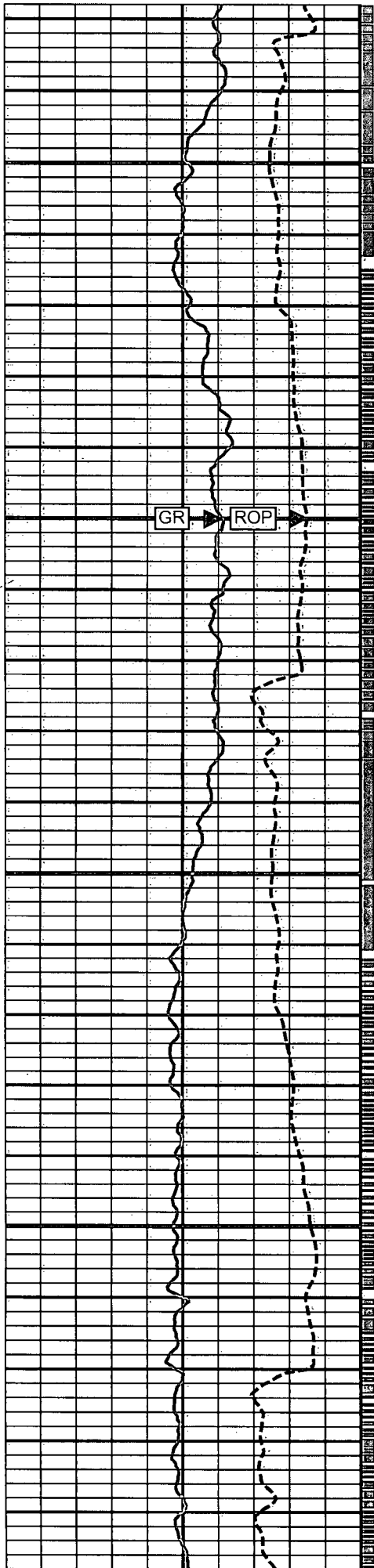




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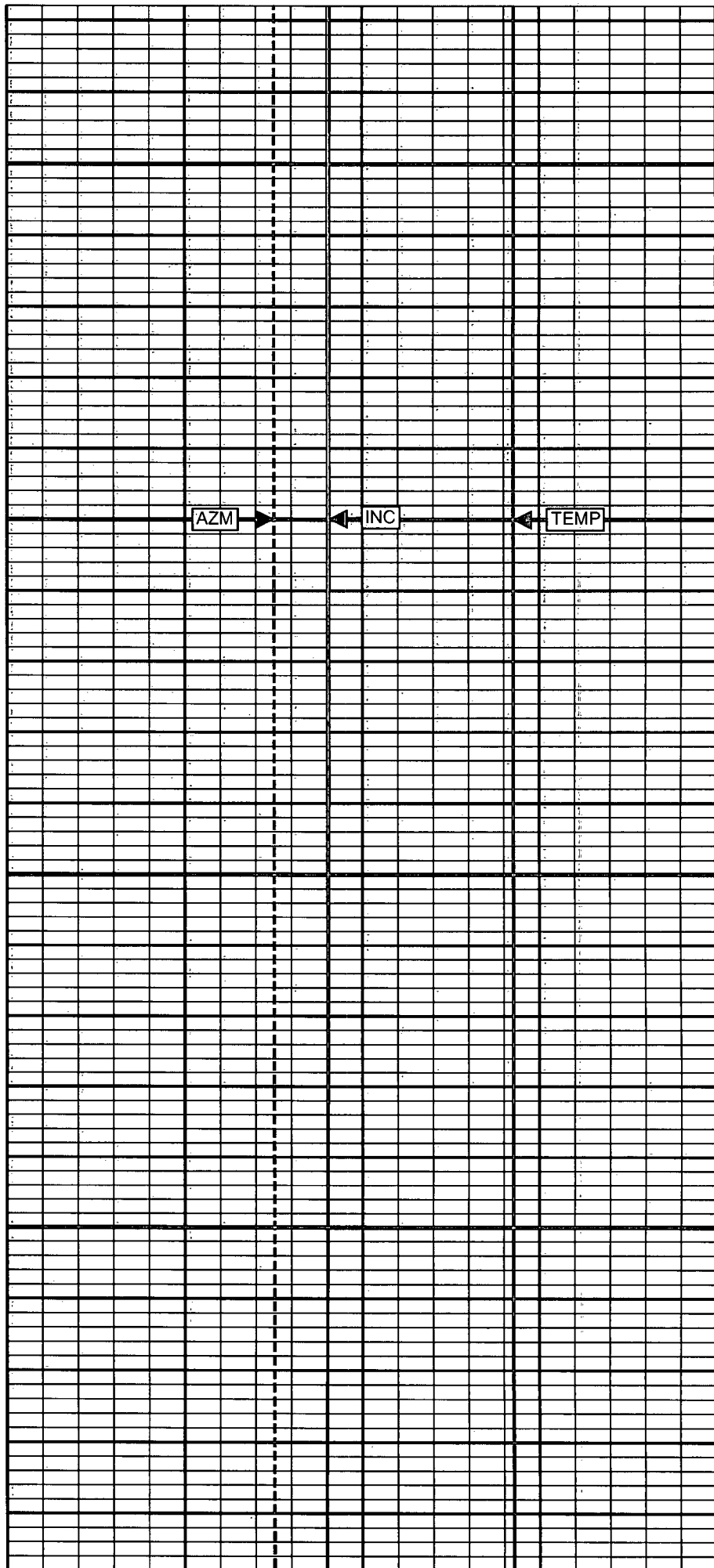
8400
MD





8500
MD

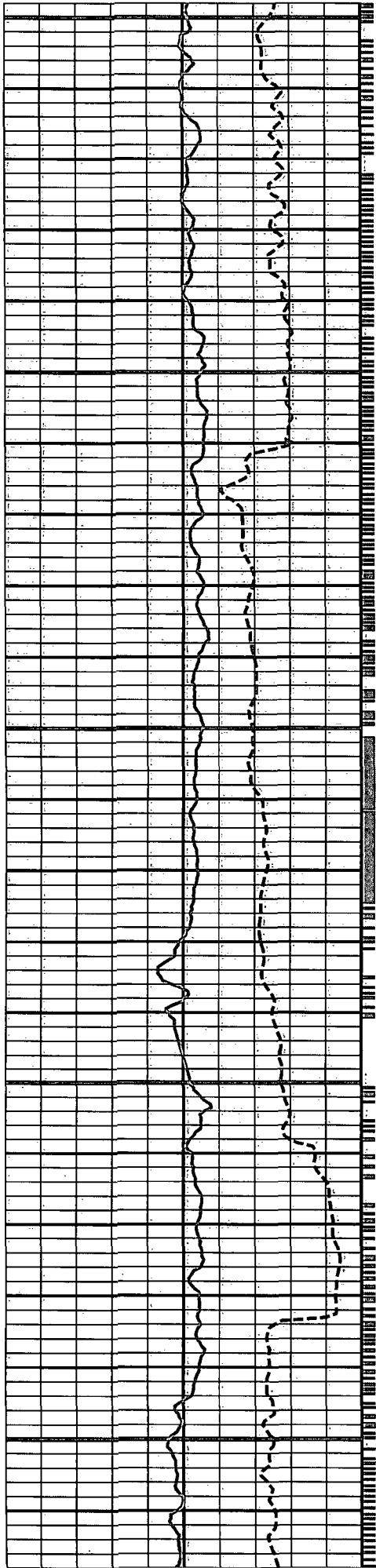
8600
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AZM

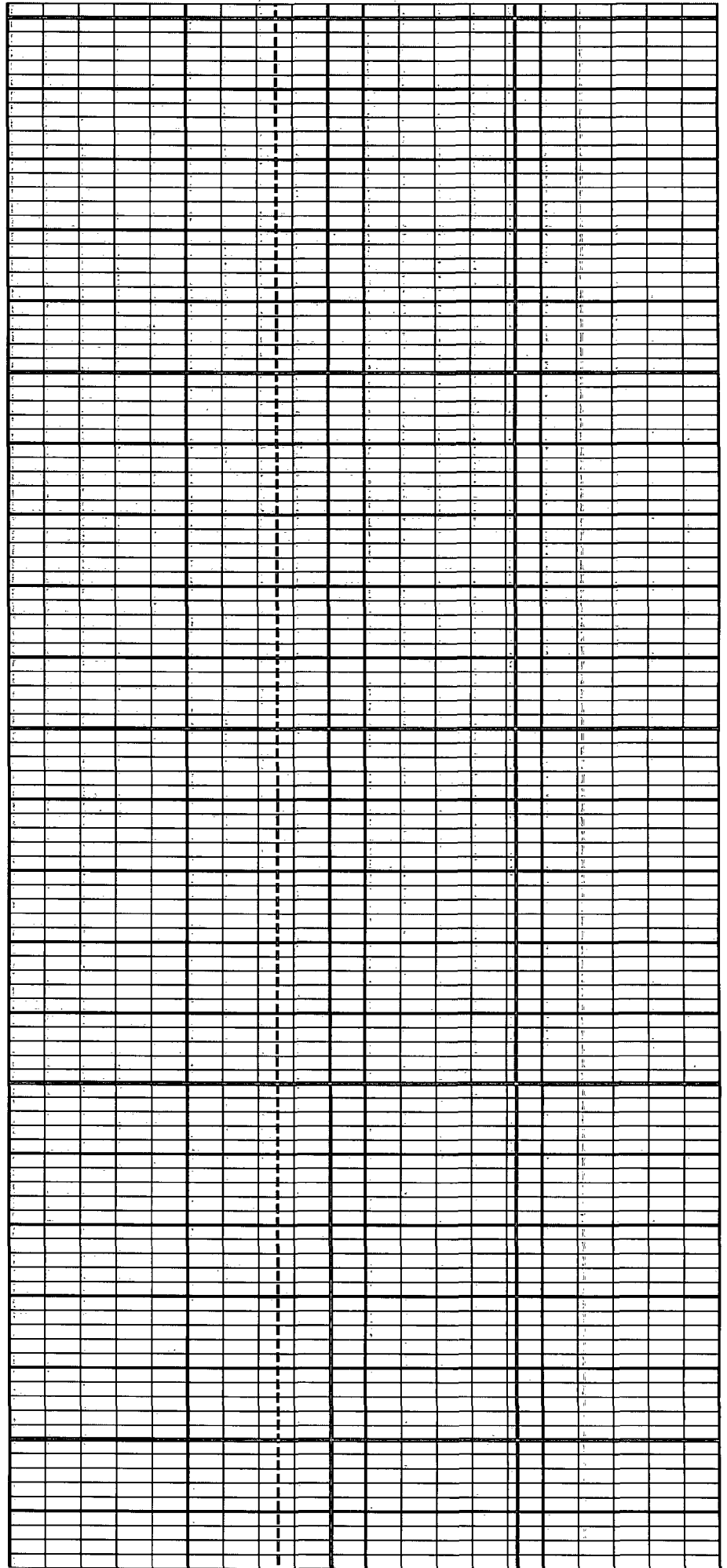
INC

TEMP



8700
MD

8800
MD



8900
MD

9000
MD

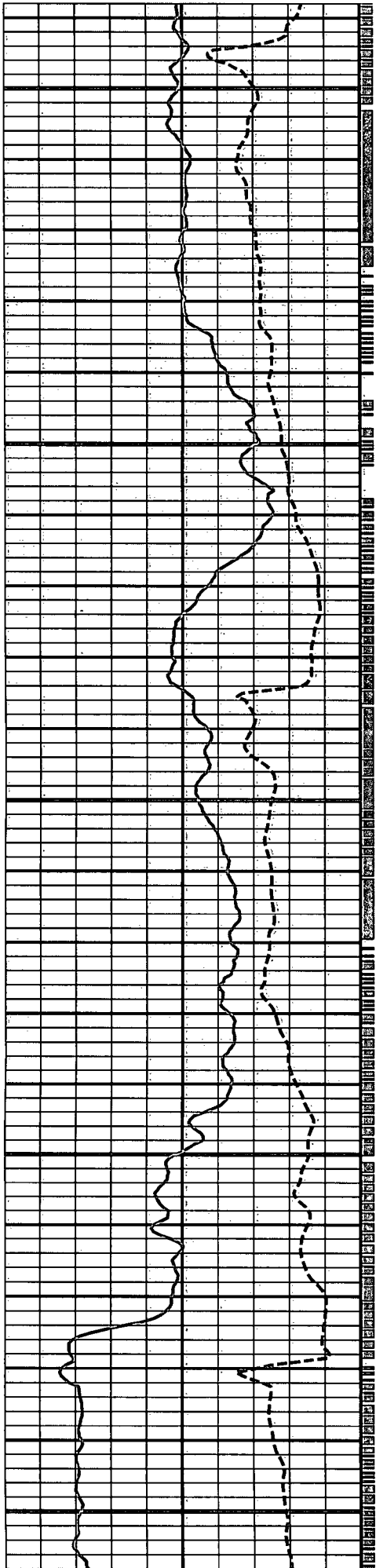
GR

ROP

AZM

INC

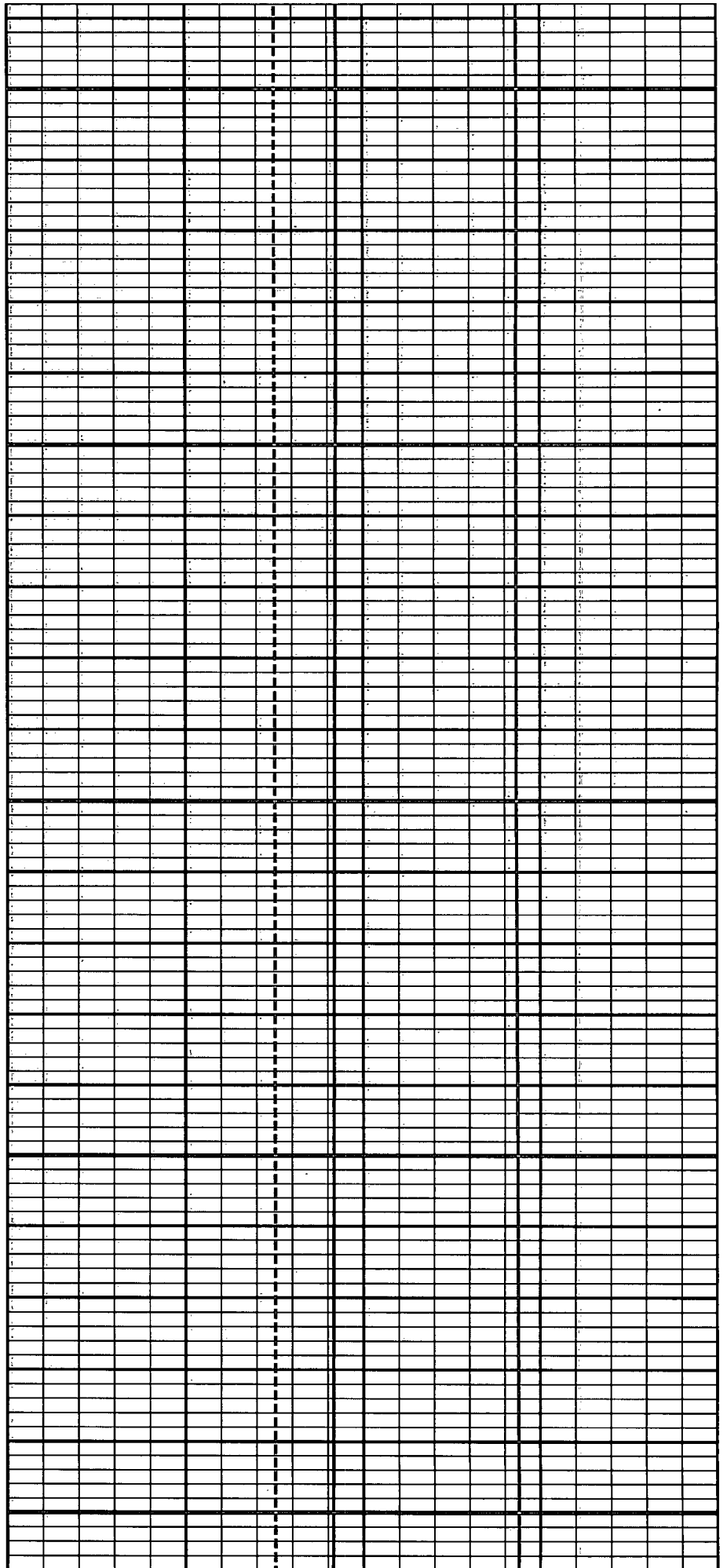
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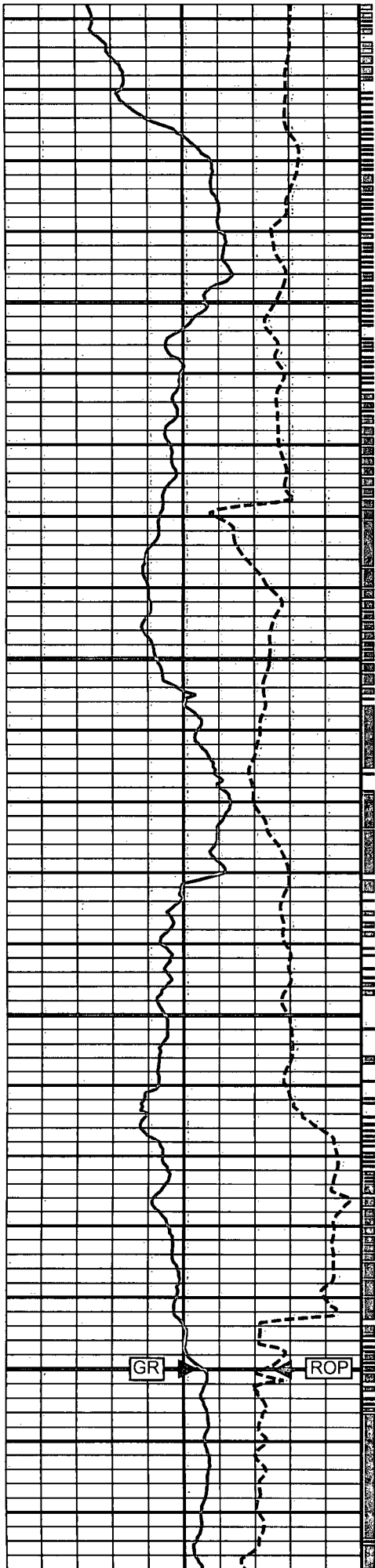


9100 MD

9200 MD

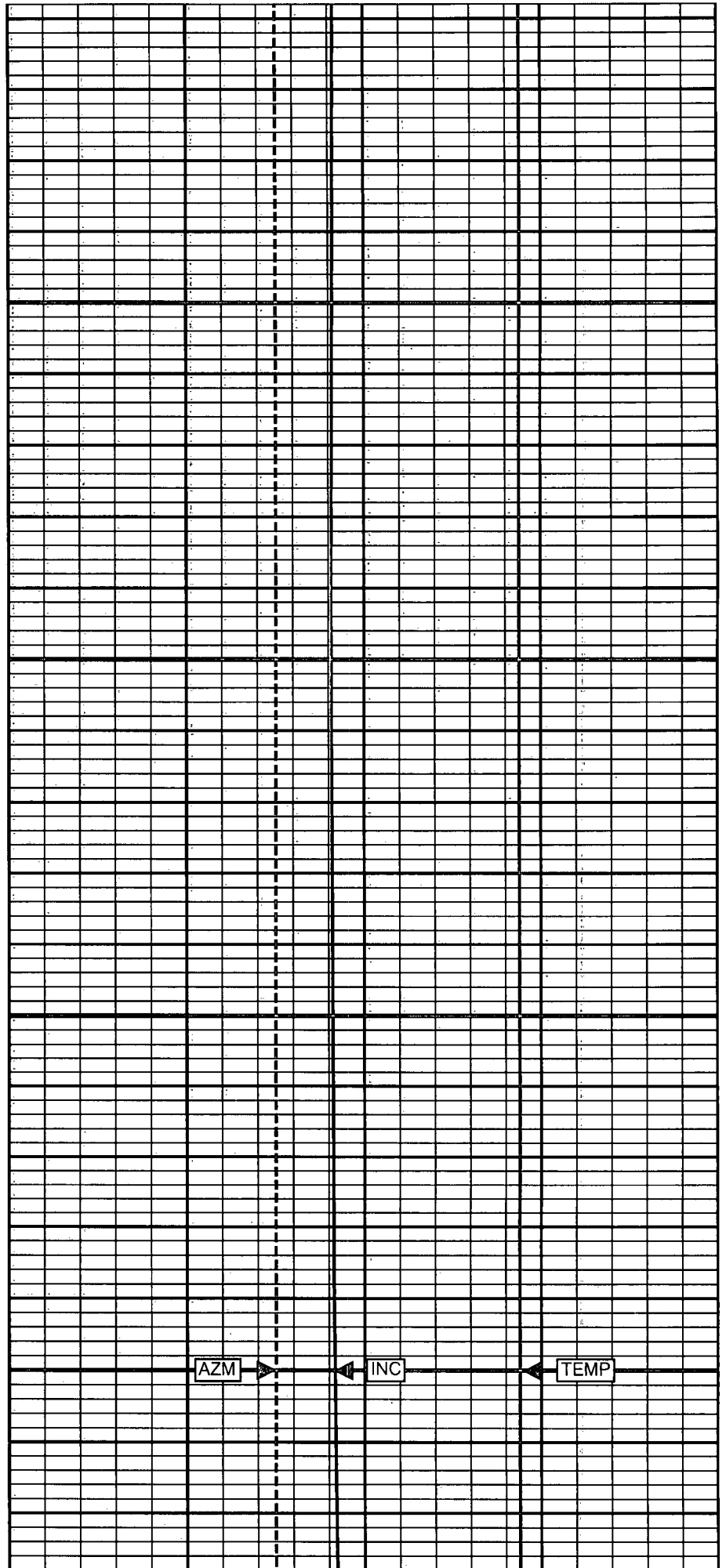
9300 MD





9400
MD

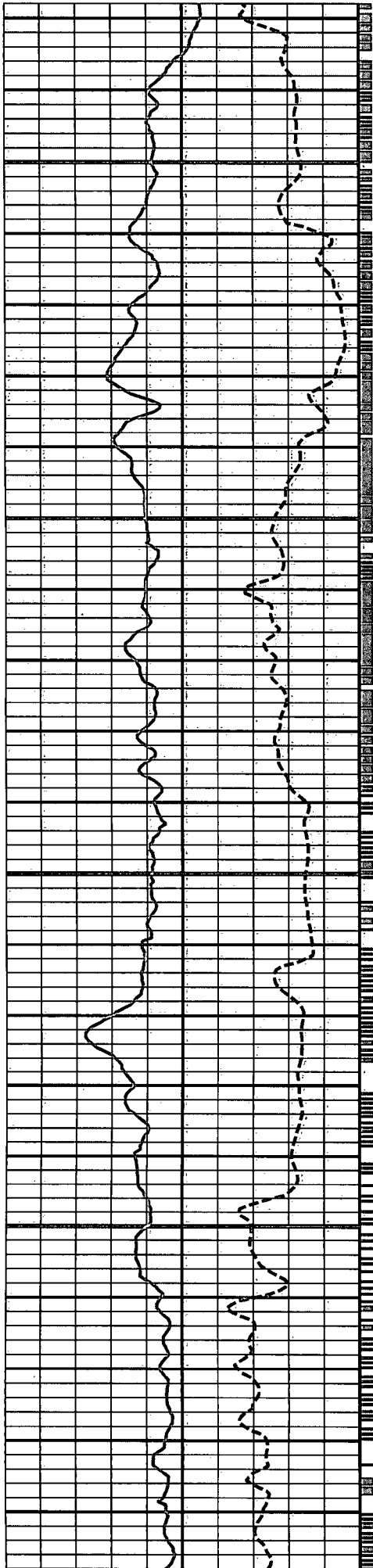
9500
MD



AZM

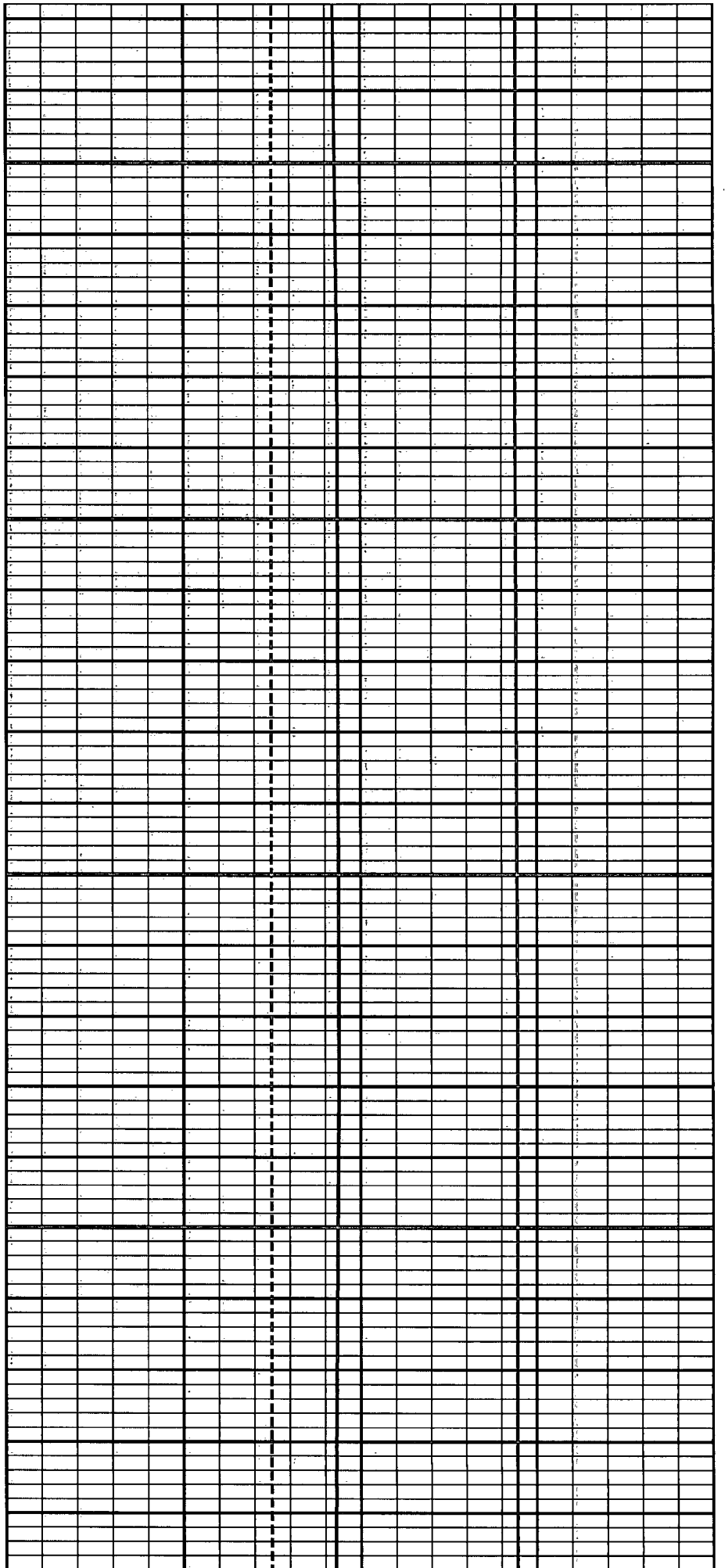
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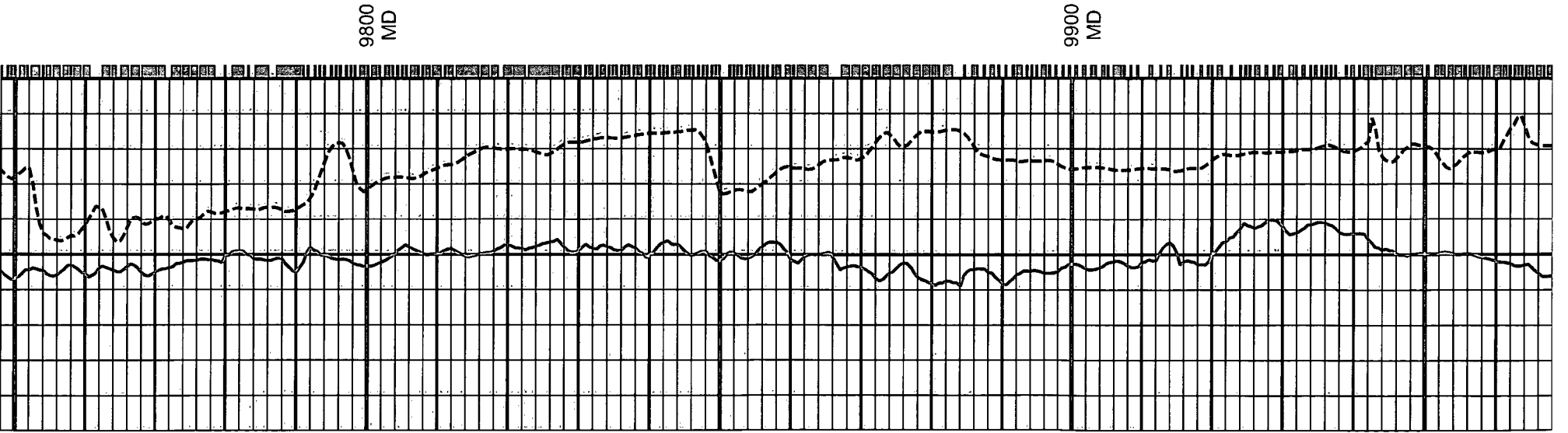
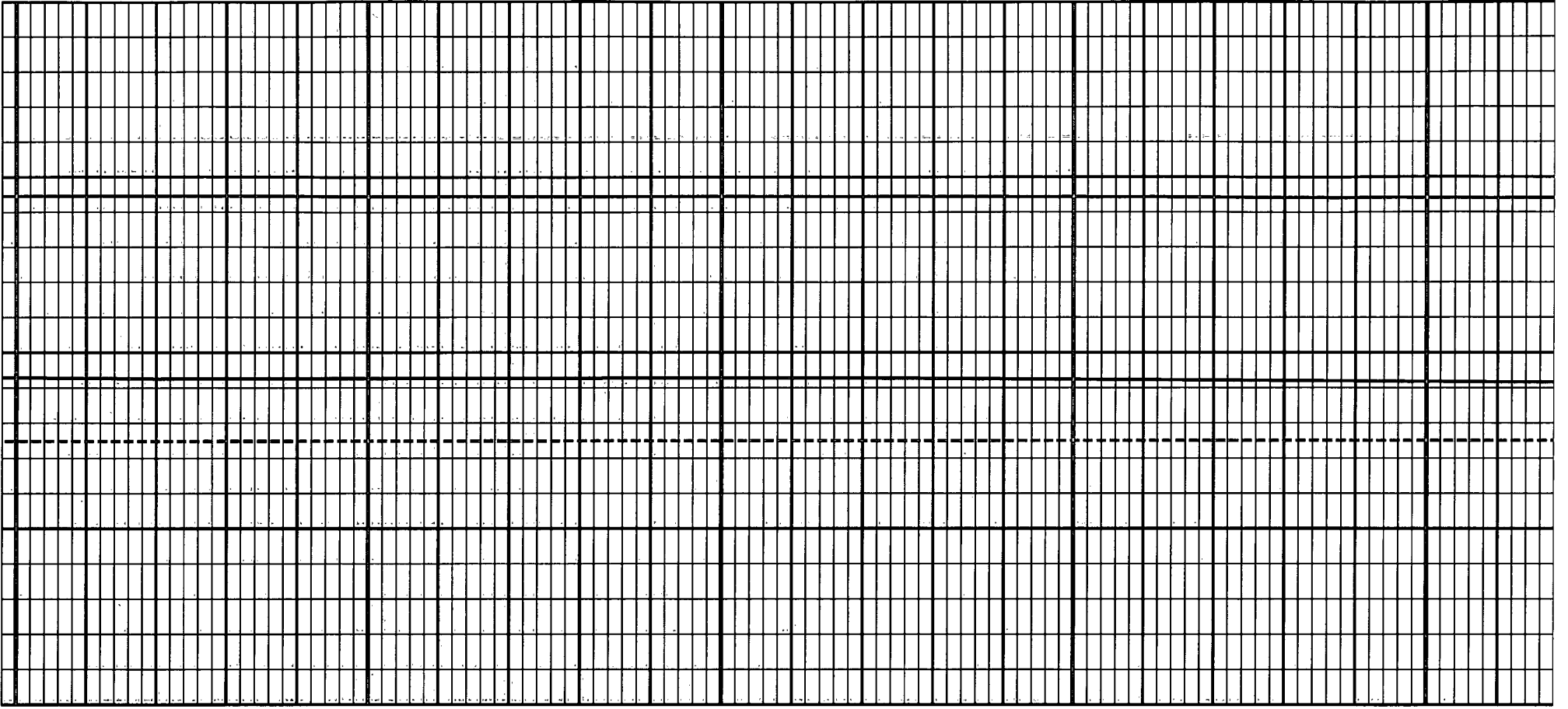
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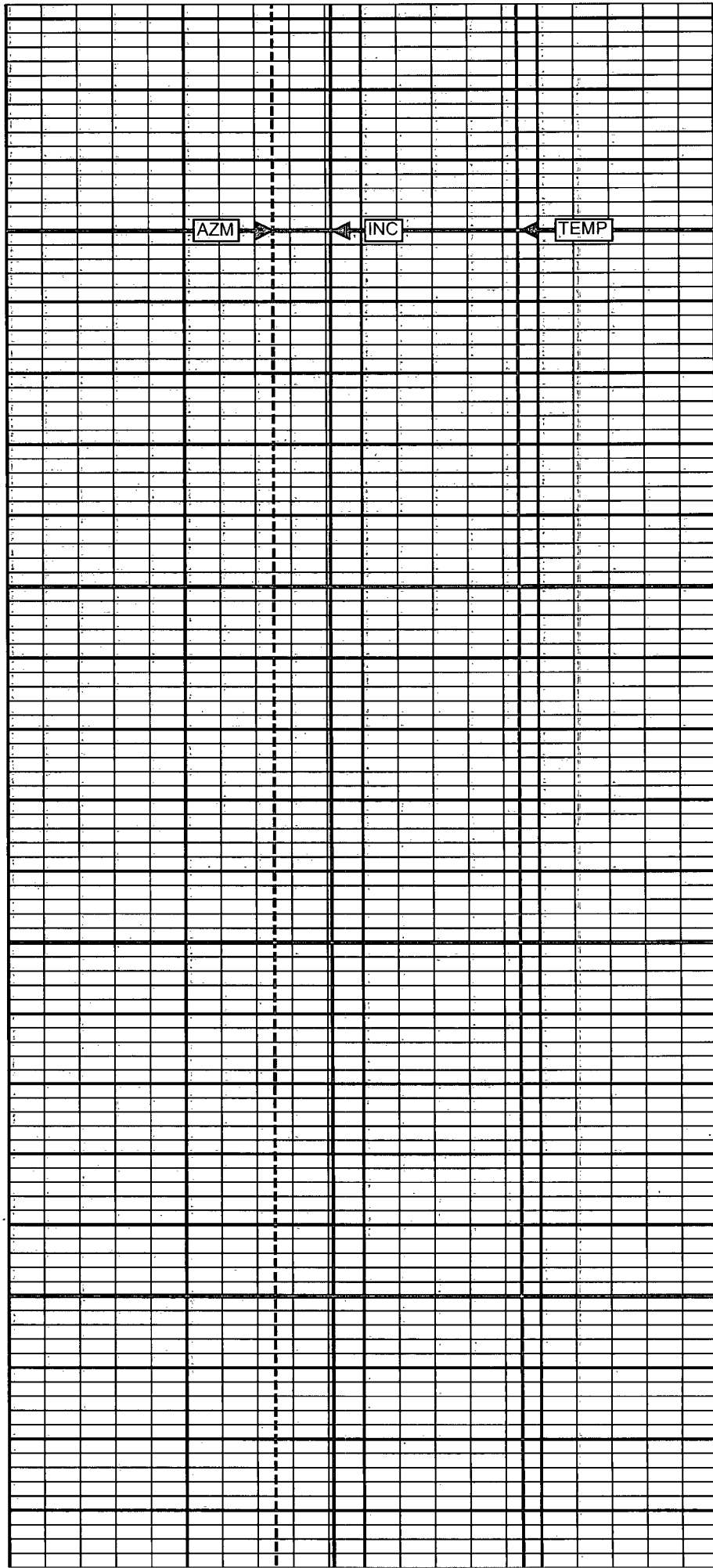
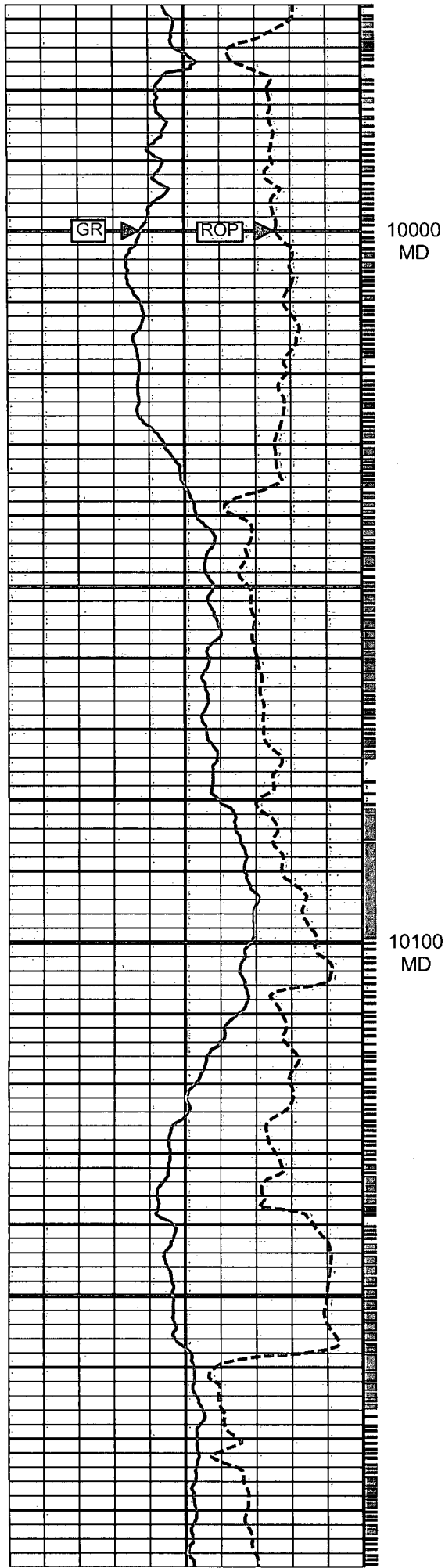


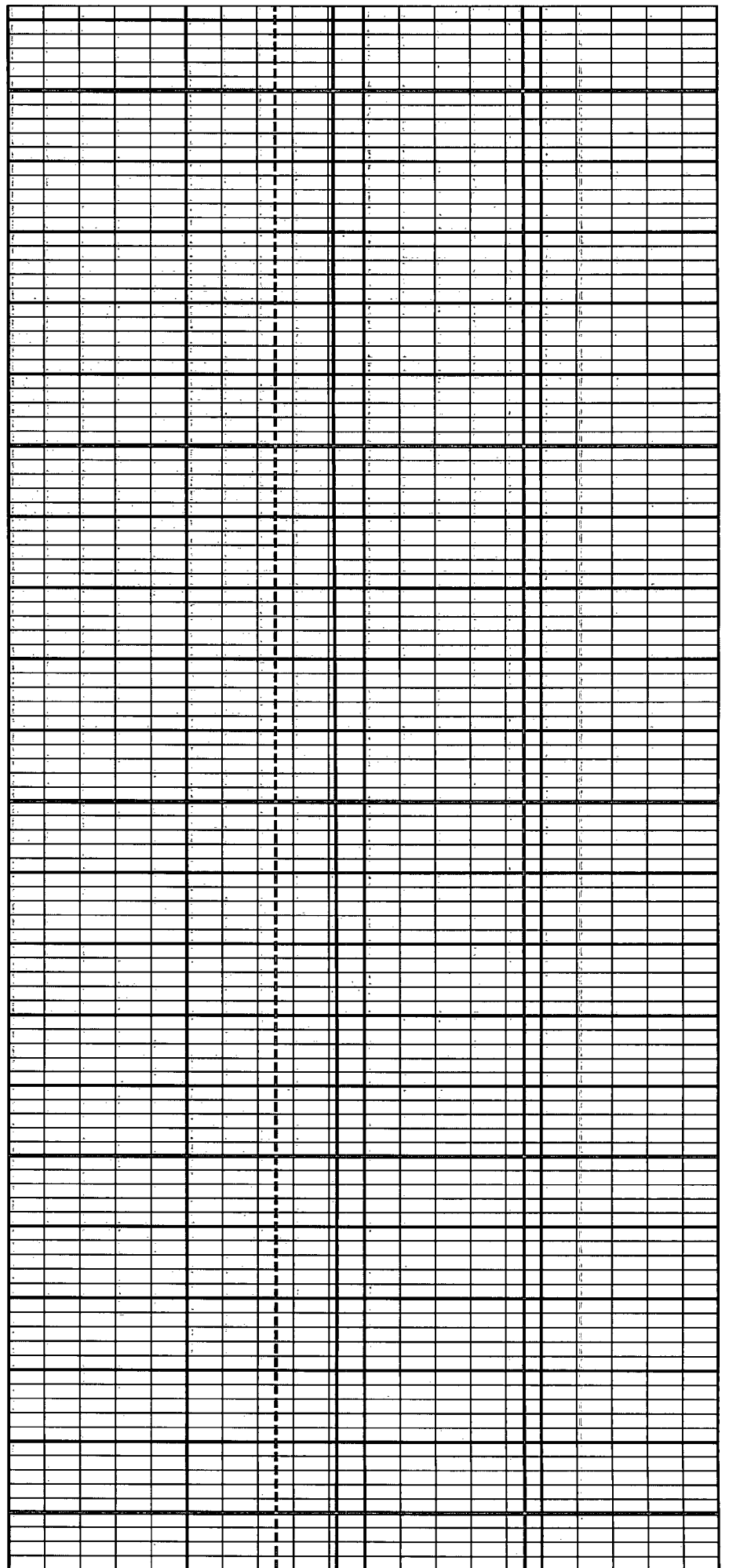
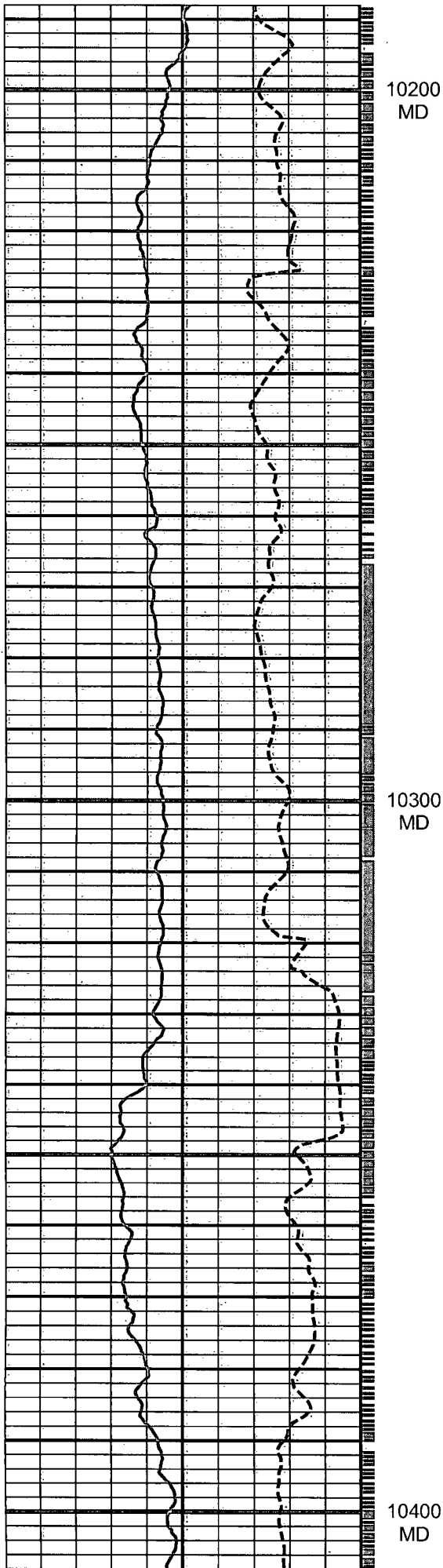
9600
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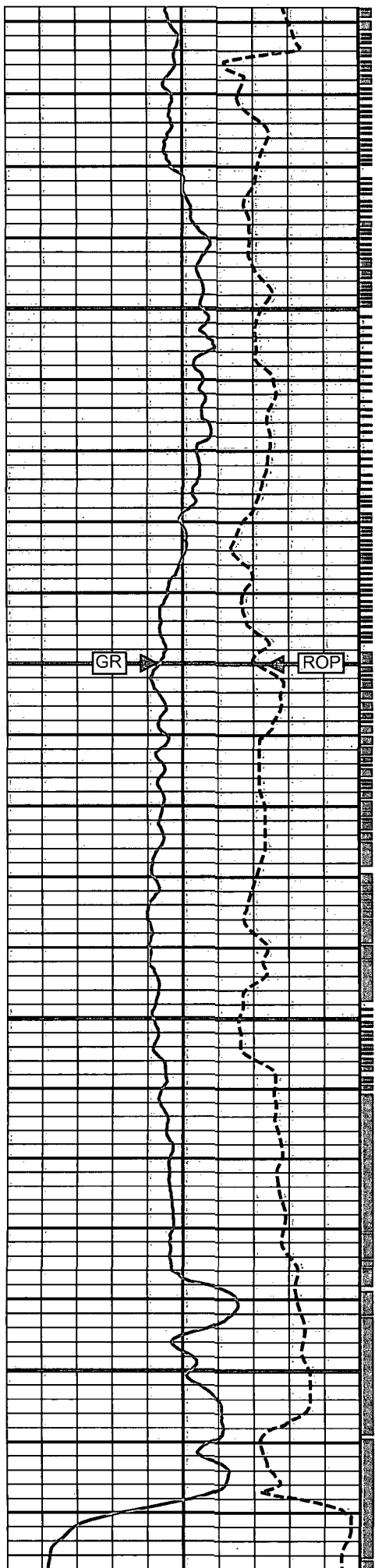
9700
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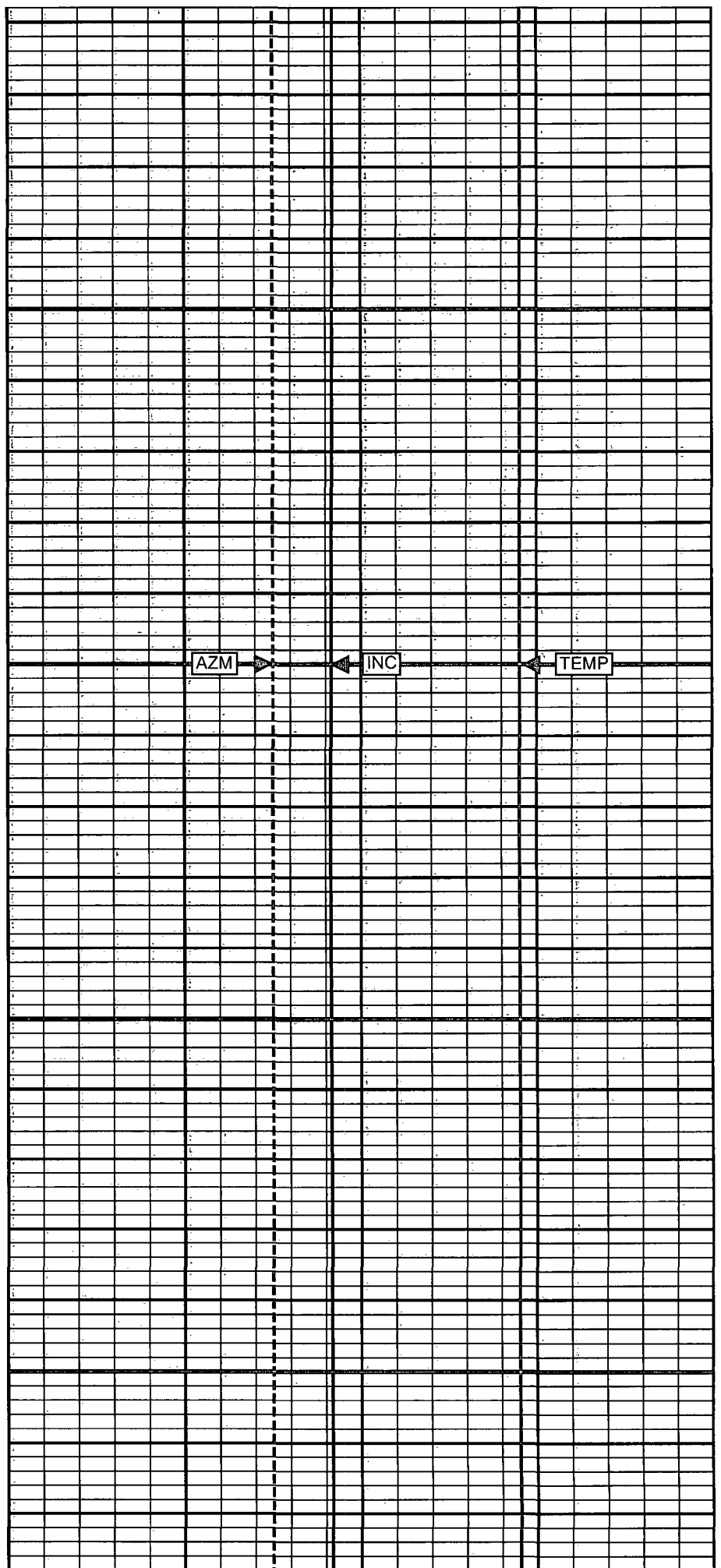


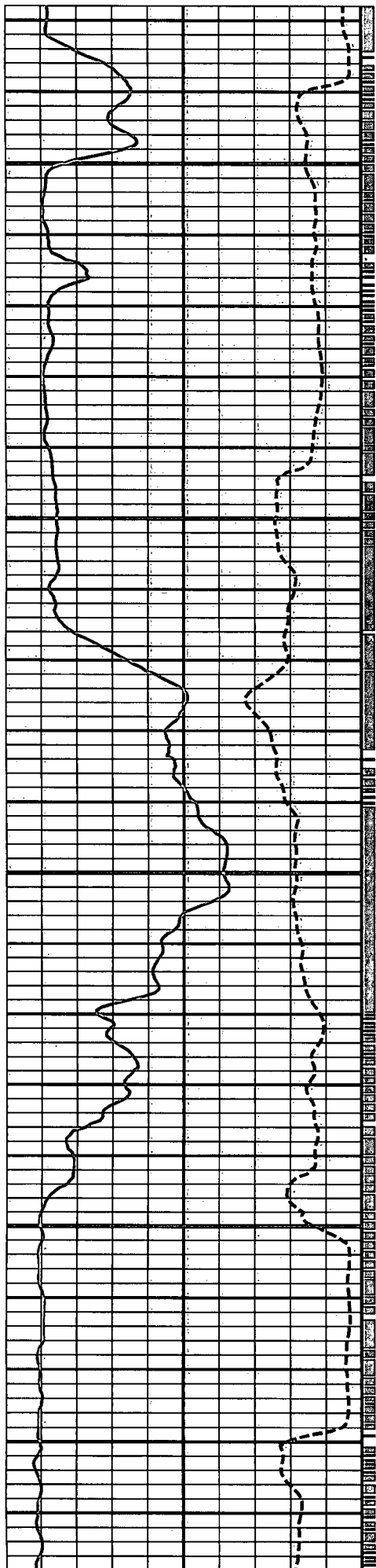




1050 MD

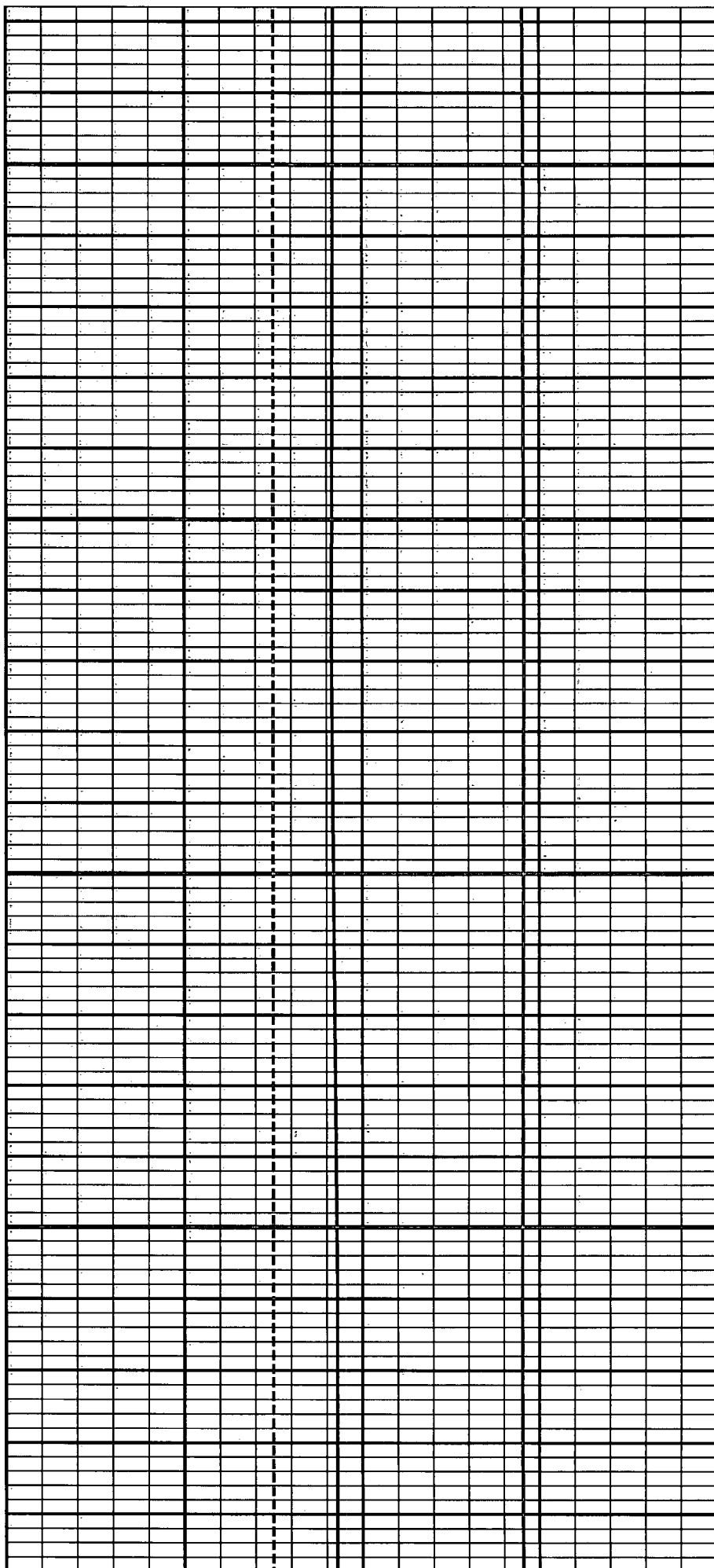
1060 MD

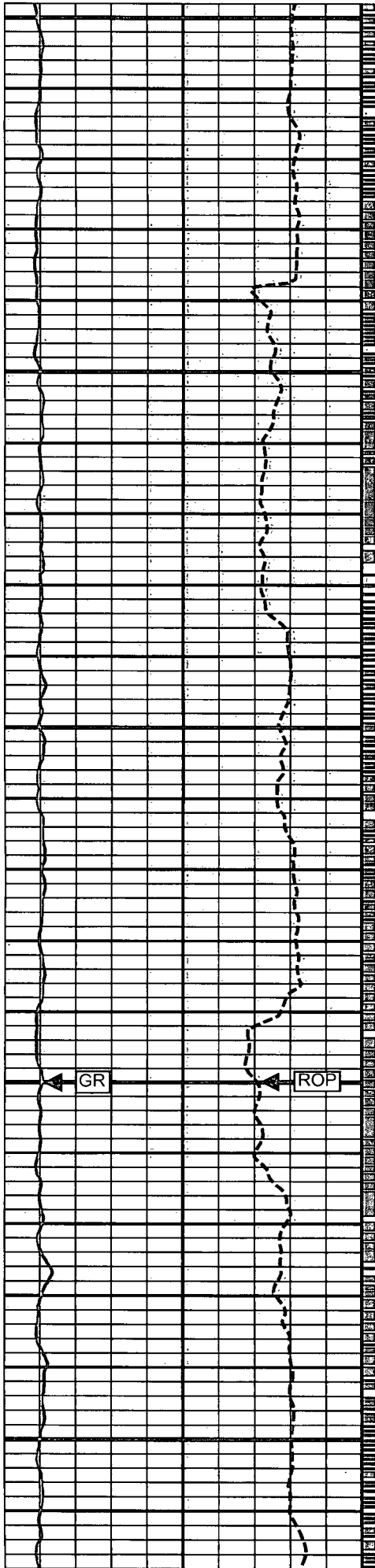




10700
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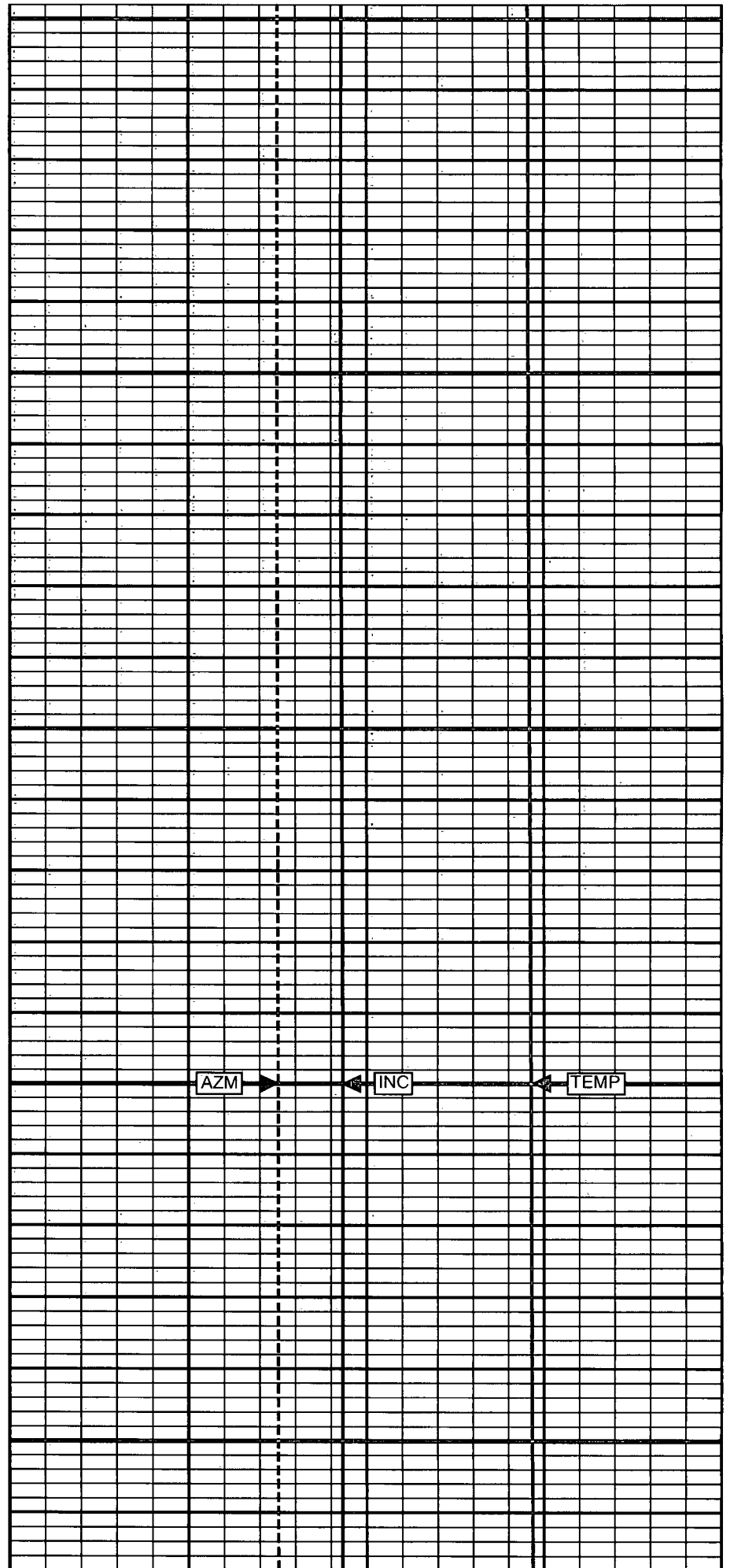
10800
MD





10900
MD

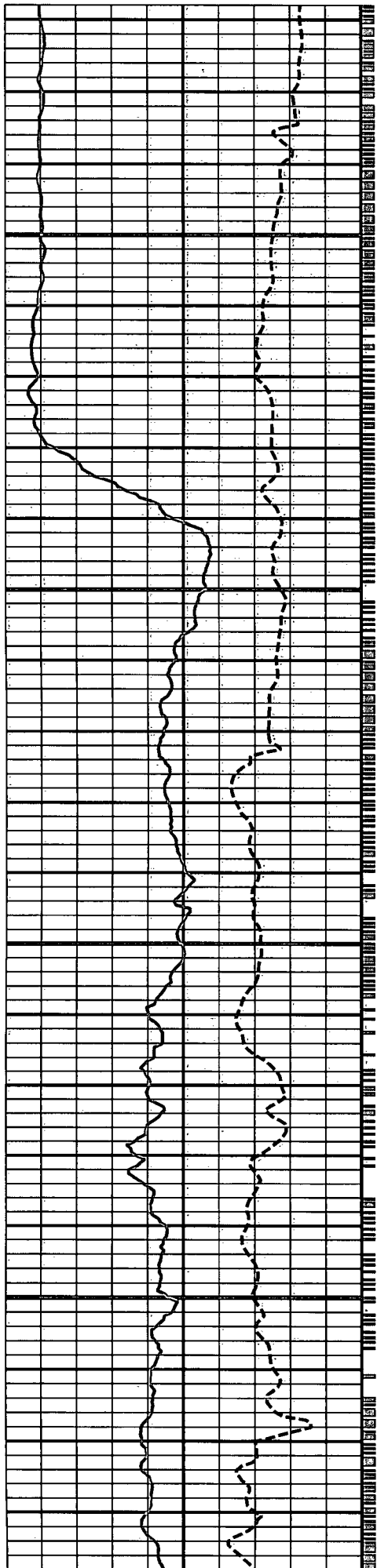
11000
MD



AZM

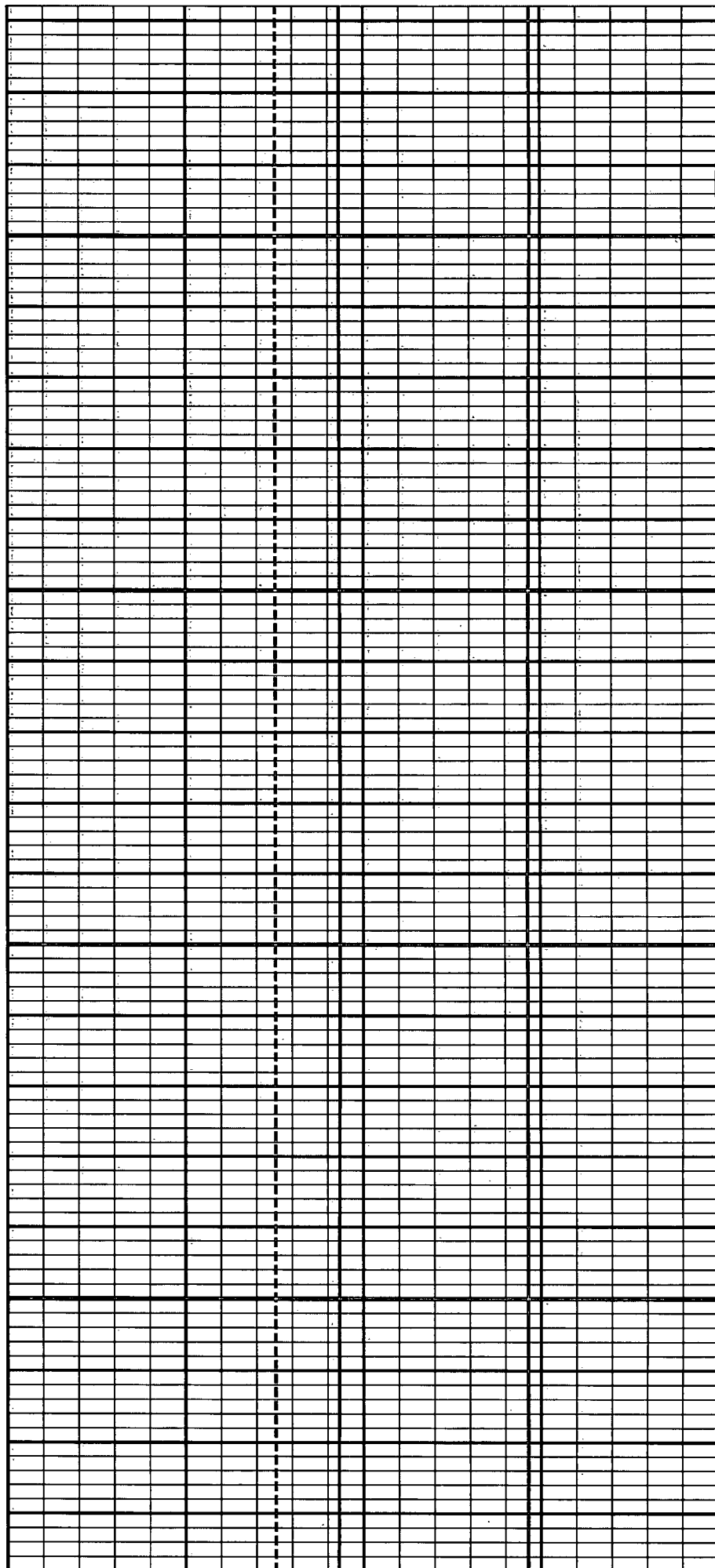
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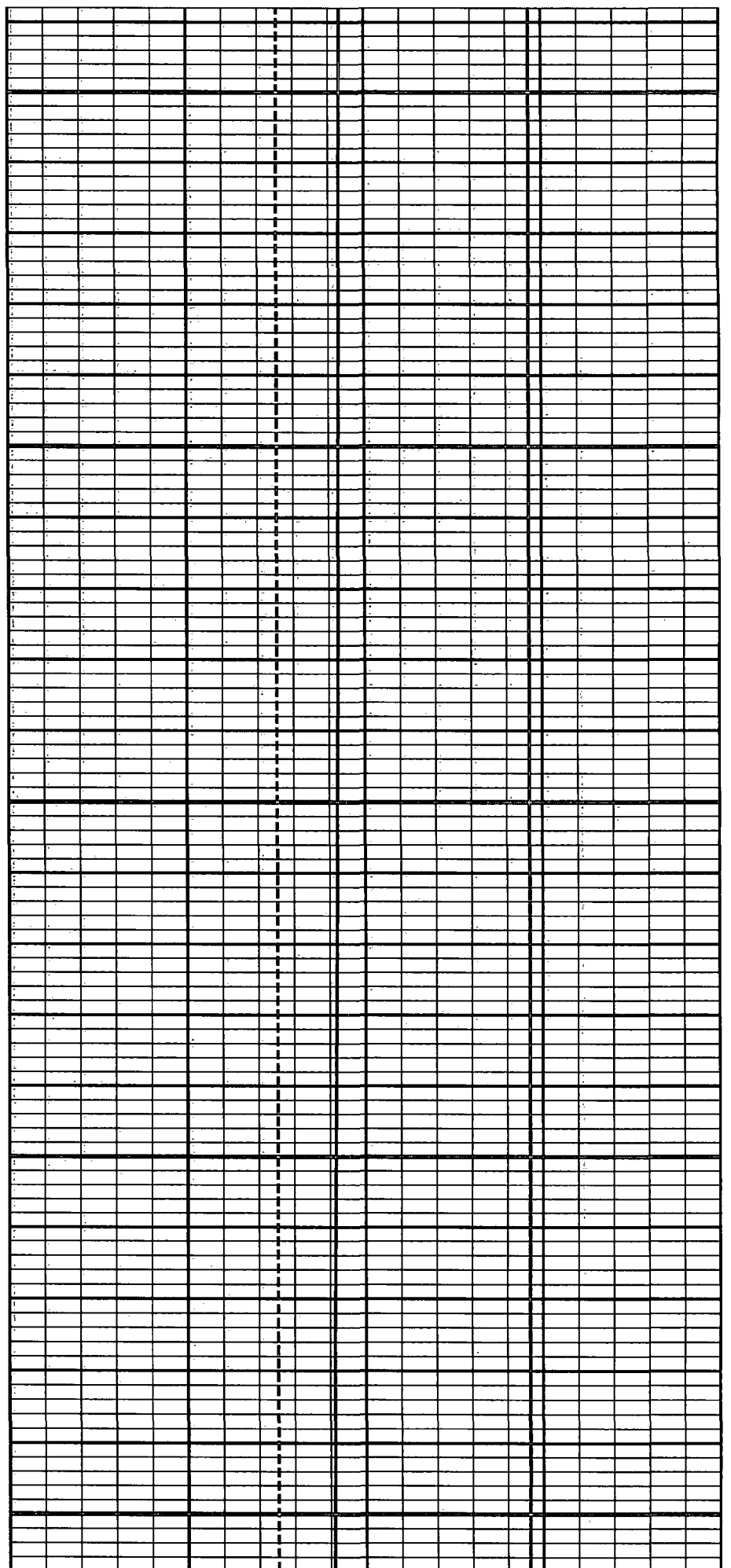
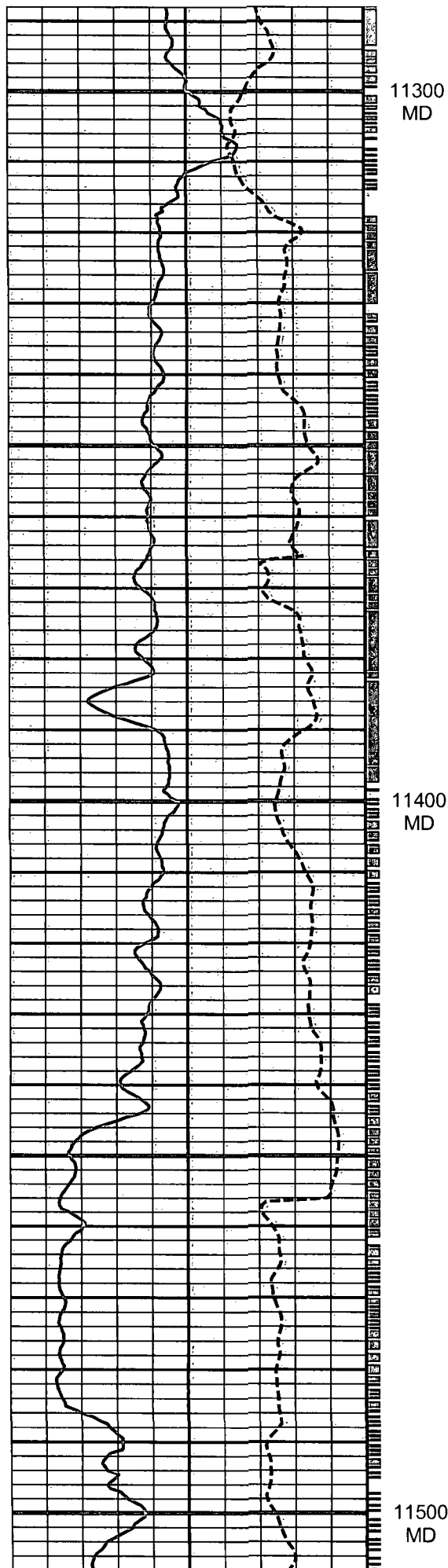
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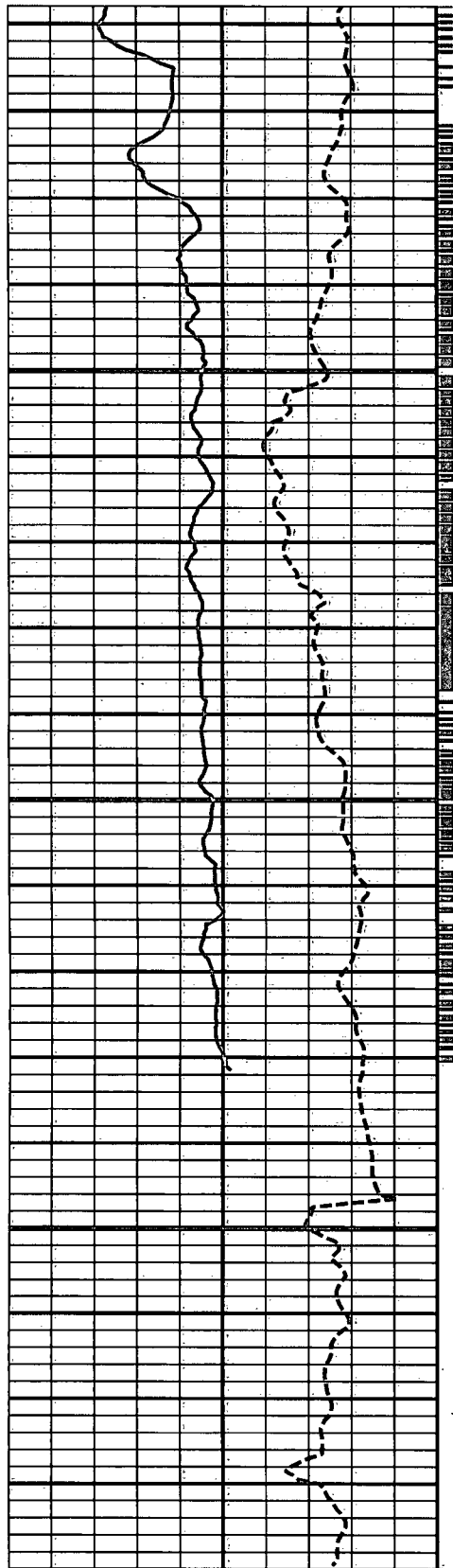


11100
MD

11200
MD







11600
MD

ROP
(fph)
Gamma Ray
(AAPI)

Survey Inclination
(deg)
Survey Azimuth
(deg)

Temperature
(F)



Weatherford

COMPANY: **Devon Energy**

WELL: **Emerald PWU 20-8H**

FIELD: **Hackberry**

FIELD: **Hackberry**

COUNTRY: **United States**

EMERALD PWU 20-8H - Permian Basin Stimulation Summary - Page No. 1 - Date: 10/1/2013

Stage #	Date	Type	Zone	Min Top Depth (ftKB)	Max Btm Depth (ftKB)	Proppant Fm (lb)	Proppant Design (lb)	Total Clean Volume Pumped (bbl)	Conc Max (lb/gal)	P Max (psi)	ISIP (psi)	Q Start Max (bbl/min)
1	6/17/2013 02:38	SLICKWATER FRAC	BONE SPRING 1ST, OH	11,346.0	11,666.0	145,391.2	155,250.0	6674.00	1.47	6,689.0	1,146.0	81
2	6/17/2013 08:45	SLICKWATER FRAC	BONE SPRING 1ST, OH	10,870.0	11,190.0	146,261.4	155,250.0	6534.34	1.48	6,631.0	1,230.0	81
3	6/17/2013 14:30	SLICKWATER FRAC	BONE SPRING 1ST, OH	10,394.0	10,713.0	155,028.5	155,250.0	6612.81	1.49	7,218.0	1,538.0	83
4	6/18/2013 02:32	SLICKWATER FRAC	BONE SPRING 1ST, OH	9,917.0	10,237.0	143,580.9	155,250.0	6544.12	1.48	6,730.0	1,475.0	81
5	6/18/2013 05:39	SLICKWATER FRAC	BONE SPRING 1ST, OH	9,441.0	9,761.0	153,305.6	155,250.0	6521.85	1.65	7,168.0	1,849.0	80
6	6/18/2013 08:47	SLICKWATER FRAC	BONE SPRING 1ST, OH	8,965.0	9,285.0	151,978.8	155,250.0	6572.28	1.49	7,619.0	2,240.0	81
7	6/18/2013 12:02	SLICKWATER FRAC	BONE SPRING 1ST, OH	8,499.0	8,808.0	154,136.8	155,250.0	6496.17	1.64	7,289.0	0.0	81
8	6/19/2013 02:43	SLICKWATER FRAC	BONE SPRING 1ST, OH	8,012.0	8,332.0	157,202.0	155,250.0	6507.78	1.72	6,235.0	2,162.0	81
9	6/19/2013 09:45	SLICKWATER FRAC	BONE SPRING 1ST, OH	7,536.0	7,856.0	149,324.5	155,250.0	6442.68	1.76	5,389.0	2,028.0	80
10	6/19/2013 13:45	SLICKWATER FRAC	BONE SPRING 1ST, OH	7,060.0	7,379.0	178,642.8	155,250.0	6599.90	1.74	6,780.0	2,015.0	81

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