

PCG Pressure Case Gamma PCD Pressure Case Directional

[illegible]

WELL INFORMATION

MWD Run Number	100				
Date run completed	10-Aug-14				
Rig Bit Number	2				
Bit Size (in)	8.750				
Tool Nominal OD (in)	6.750				
Log Start Depth (TVD, ft)	638.98				
Log End Depth (TVD, ft)	7,105.24				
Drill or Wipe	Drill				
Drill/Wipe Start Date and Time	08-Aug-14 07:00				
Drill/Wipe End Date and Time	09-Aug-14 18:00				
Min Inc (deg) @ Depth (TVD, ft)	1.57 @ 6,116.48				
Max Inc (deg) @ Depth (TVD, ft)	81.28 @ 7,097.64				
Bit TFA(in2) / Bit Type	1.53 / PDC				
Flow Rate (gpm)	661.21				
Max AV (fpm) / CV (fpm) @ MWD	NA / NA				
Fluid Type	Native/Spud Mud				
Density (ppg) / Viscosity (spqt)	10.20 / 36.00				
Filtrate CL (ppm)	2,000.00				
pH / Fluid Loss (mptm)	9.40 / 8				
PV (cP) / YP (lbf2)	11 / 13.00				
% Solids / % Sand	6 / 0.25				
% Oil / Oil:Water Ratio	NA / NA				
Rm @ Measured Temp (degF)	N/A @ N/A				
Rmf @ Measured Temp (degF)	N/A @ N/A				
Rmc @ Measured Temp (degF)	N/A @ N/A				
Max Tool Temp (degF) @ Depth (ft)	175.01 / PDC				

Max Tool Temp (degF) / Source	175.21 / PCM				
Rm @ Max Tool Temp (degF)	N/A @ N/A				
Lead MWD Engineer	Gary Eifert				
Customer Representative	Johnny Sanchez				

SENSOR INFORMATION

Downhole Processor Information

Tool Type	PCM				
Software Version	5.93				
Sub Serial Number	11341339				
Insert Serial Number	11680736				
Date and Time Initialized	07-Aug-14 08:26				
Date and Time Read	10-Aug-14 04:30				
ECMB SW Version	N/A				

Directional Sensor Information

Tool Type	PCDC				
Distance From Bit (ft)	56.00				
Software Version	6.21				
Sub Serial Number	11341339				
Sonde Serial Number	11638497				
Sensor ID Number	N/A				
Toolface Offset (deg)	316.29				

Gamma Ray Sensor Information

Tool Type	PCG				
Distance From Bit (ft)	48.86				
Recorded Sample Period (sec)	10				
Software Version	8.15				
Sub Serial Number	11341339				
Insert/Sonde Serial Number	11293301				

REMARKS

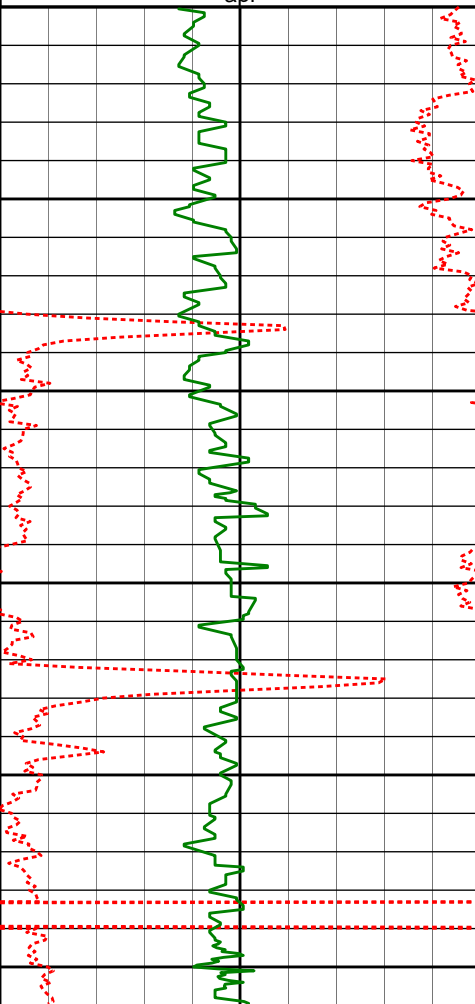
1. All depths are true vertical depths, referenced to the Driller's pipe tally and are measured from the Drill Floor, unless otherwise specified.
2. No depth corrections have been made for pipe stretch or compression.
3. Critical annual velocities are calculated using the "Power Law" model for water based fluids and the "Bingham Plastic" model for oil and synthetic based fluids.
4. All data presented is recorded data unless otherwise specified.
5. The following smoothing parameters have been applied to the data:
PGRC (Corrected Gamma Ray):
Interval Resolution: 0.5 ft
Interval Distance: 0.6 ft
Gap Fill: 3.0 ft
ROPA (Average Rate of Penetration)
Interval Resolution: 0.5 ft
Interval Distance: 1.2 ft
Gap Fill: 3.0 ft
6. INSITE version 8.0.2

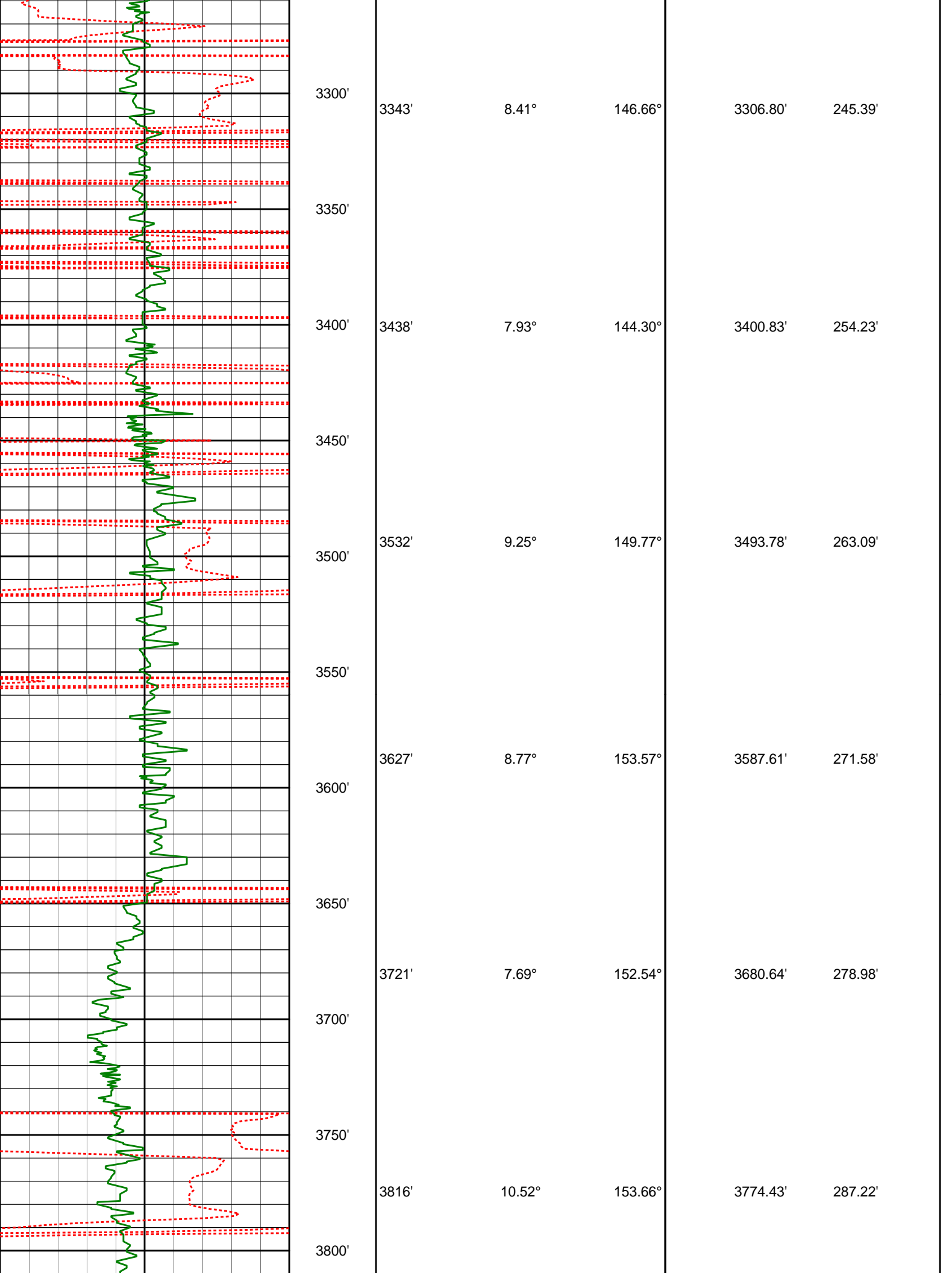
WARRANTY

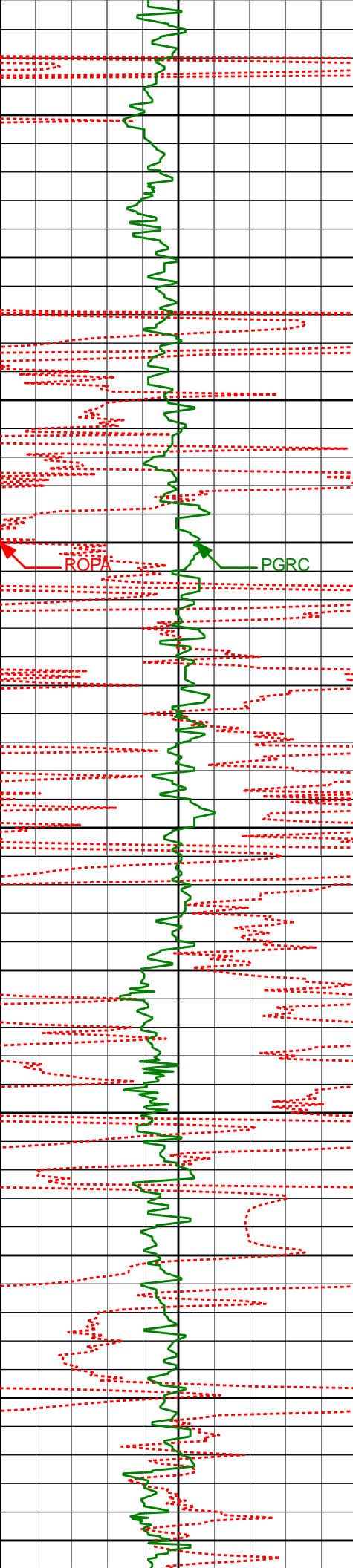
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HALLIBURTON

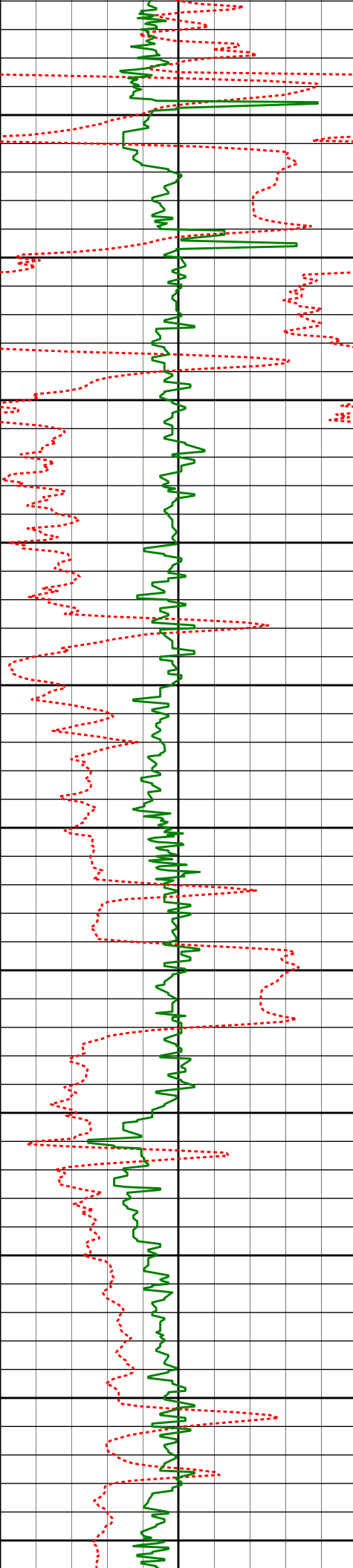
TVD Main Log 1:600

Average Rate of Penetration ROPA						
1K	0					
feet per hr						
PCG GR XHi-Range RT PGRC		True Vertical Depth (ft) 1:600	Depth	Inc	Azi.	TVD V.S.
0	200					
api						
						
		3000'				
		3059'	9.27°	150.66°	3025.71'	220.95'
		3050'				
		3100'				
		3154'	8.37°	151.24°	3119.59'	229.41'
		3150'				
		3200'				
		3248'	7.39°	147.81°	3212.70'	237.13'
		3250'				





3850'	3910'	11.77°	155.94°	3866.66'	296.74'
3900'					
3950'	4004'	11.44°	156.71°	3958.73'	306.23'
4000'					
4050'	4099'	9.91°	155.90°	4052.09'	315.05'
4100'					
4150'	4194'	8.35°	154.42°	4145.88'	322.86'
4200'					
4250'	4288'	9.58°	148.13°	4238.73'	331.33'
4300'					
4350'	4383'	8.82°	144.12°	4332.51'	341.14'



4400'

4478'

9.59°

149.92°

4426.29'

350.75'

4450'

4573'

9.61°

154.92°

4519.96'

359.60'

4550'

4600'

4667'

8.45°

153.73°

4612.79'

367.44'

4650'

4700'

4761'

9.34°

149.68°

4705.66'

375.74'

4750'

4800'

4856'

9.39°

152.12°

4799.40'

384.72'

4850'

4900'

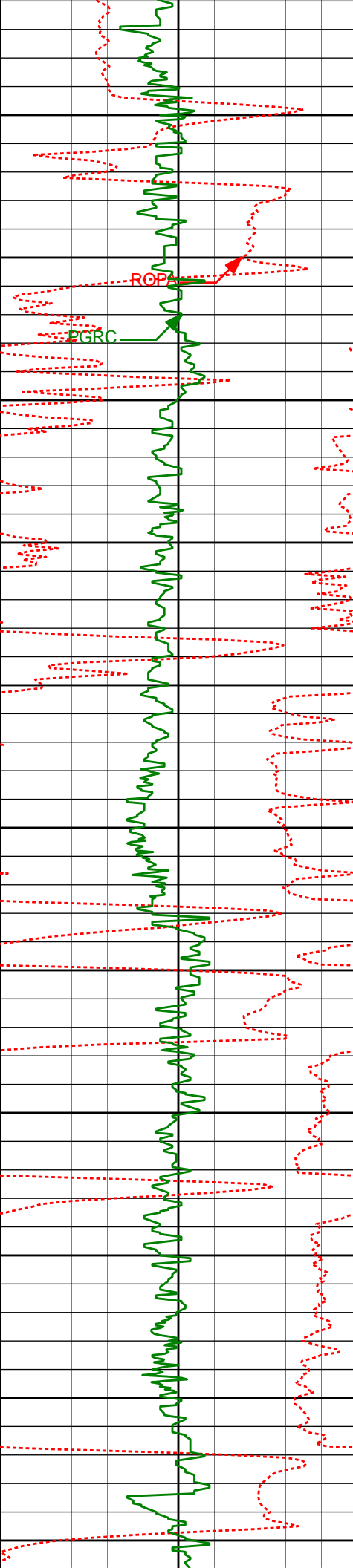
4950'

8.78°

150.89°

4892.22'

393.21'



4950'

5045'

8.94°

146.77°

4986.09'

402.14'

5000'

5139'

8.95°

140.99°

5078.94'

412.02'

5100'

5150'

5234'

7.74°

138.94°

5172.94'

422.00'

5200'

5250'

5329'

8.50°

135.31°

5266.99'

432.18'

5300'

5350'

5424'

8.08°

130.73°

5360.99'

443.16'

5400'

5450'

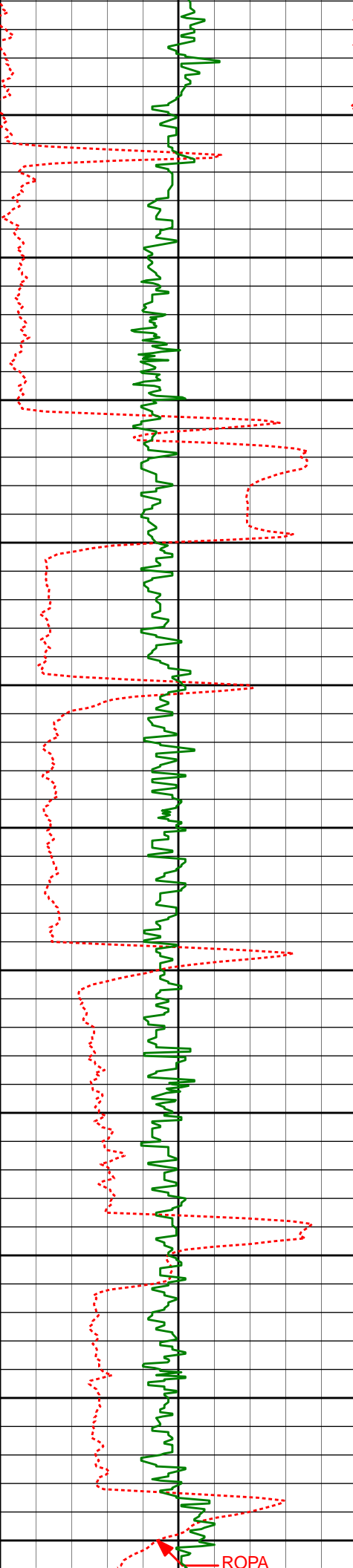
5518'

5.32°

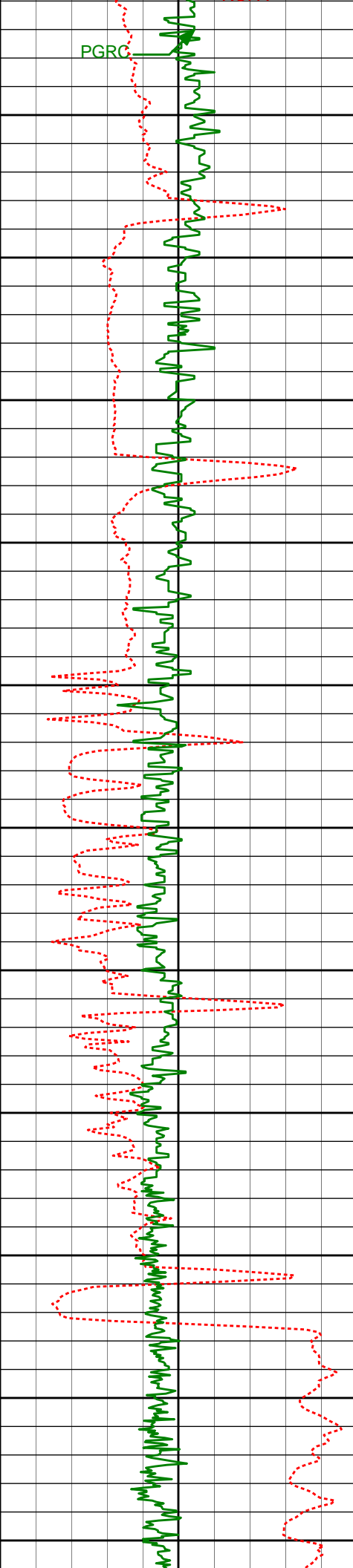
136.64°

5454.34'

451.95'



5500'					
5550'	5612'	4.32°	132.85°	5548.01'	458.13'
5600'					
5650'	5707'	3.05°	153.05°	5642.82'	462.40'
5700'					
5750'	5802'	2.59°	162.33°	5737.70'	464.67'
5800'					
5850'	5897'	2.10°	165.10°	5832.62'	466.18'
5900'					
5950'	5991'	1.85°	161.16°	5926.56'	467.45'
6000'					



6086'

6050'

6100'

6150'

6200'

6250'

6300'

6350'

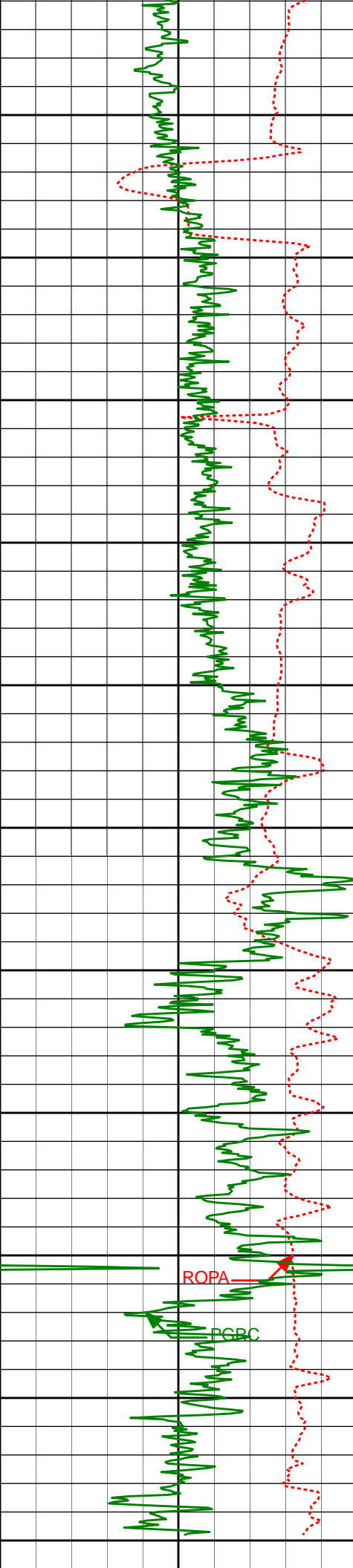
6400'

6450'

6500'

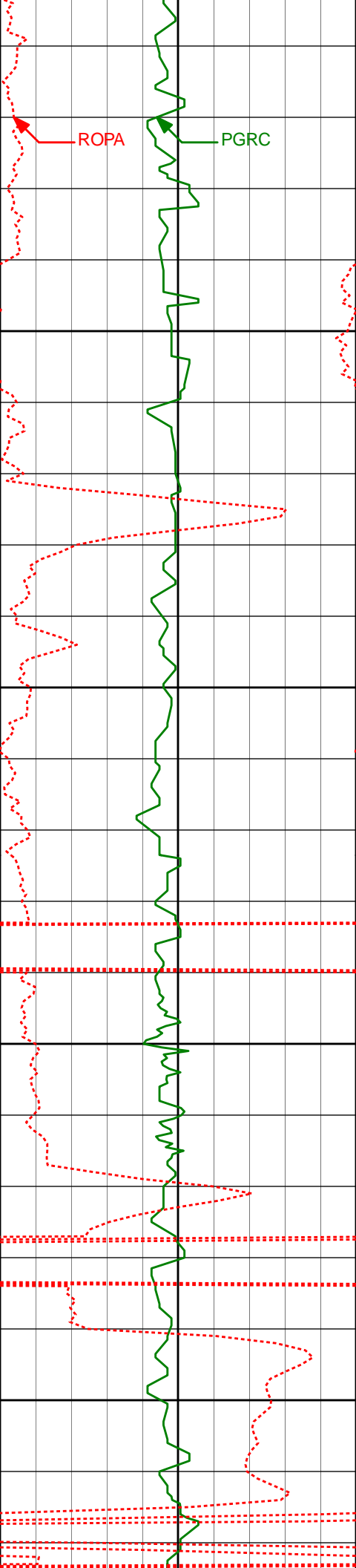
6550'

6086'	1.73°	157.32°	6021.52'	468.81'
6181'	1.57°	143.57°	6116.48'	470.39'
6276'	1.73°	140.93°	6211.44'	472.30'
6370'	1.79°	147.45°	6305.40'	474.23'
6465'	1.86°	145.37°	6400.35'	476.18'
6559'	1.92°	160.39°	6494.30'	477.87'

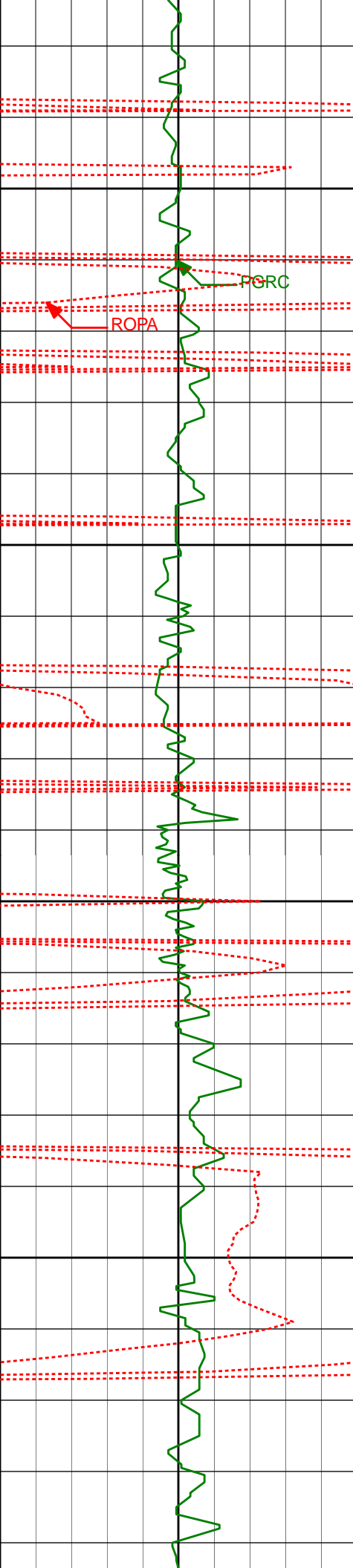


6600'	6653'	4.80°	84.19°	6588.16'	482.41'
6650'					
6700'	6748'	10.78°	78.23°	6682.24'	494.75'
6750'					
6800'	6843'	19.33°	76.63°	6773.90'	518.02'
6850'					
6900'	6931'	27.15°	83.20°	6860.01'	554.03'
6950'					
7000'	7032'	37.69°	87.94°	6939.85'	604.42'
7050'					
7100'	7126'	49.22°	88.58°	7007.97'	668.31'
	7221'	62.73°	88.81°	7061.00'	746.15'
	7315'	77.17°	92.10°	7093.15'	833.73'
	7339'	81.28°	93.10°	7097.64'	857.25'

Casing Shoe @ 7104'



3154'	8.37°	151.24°	3119.59'	229.41'
3150'				
3200'				
3248'	7.39°	147.81°	3212.70'	237.13'
3250'				
3300'				
3343'	8.41°	146.66°	3306.80'	245.39'



3350'

3400'

3450'

3500'

3438'

3532'

7.93°

9.25°

144.30°

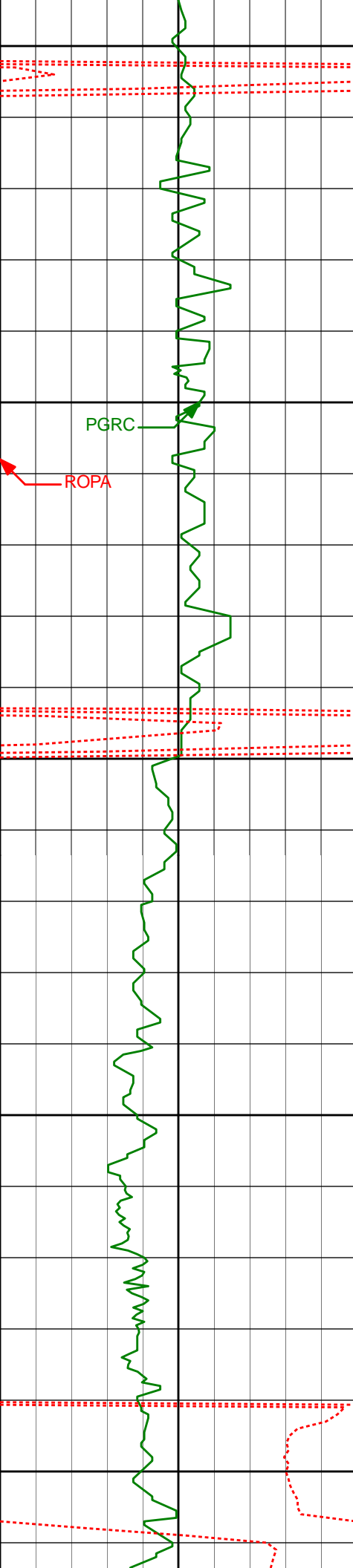
149.77°

3400.83'

3493.78'

254.23'

263.09'



3550'

3627'

8.77°

153.57°

3587.61'

271.58'

3600'

PGRC

ROPA

3650'

3721'

7.69°

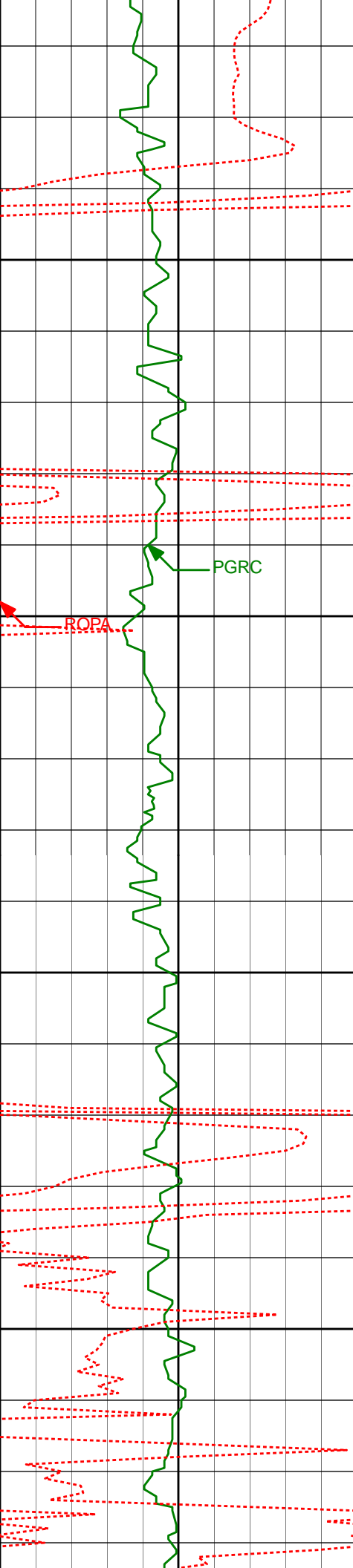
152.54°

3680.64'

278.98'

3700'

3750'



3800'

3850'

3900'

3950'

3816'

10.52°

153.66°

3774.43'

287.22'

3910'

11.77°

155.94°

3866.66'

296.74'

4004'

11.44°

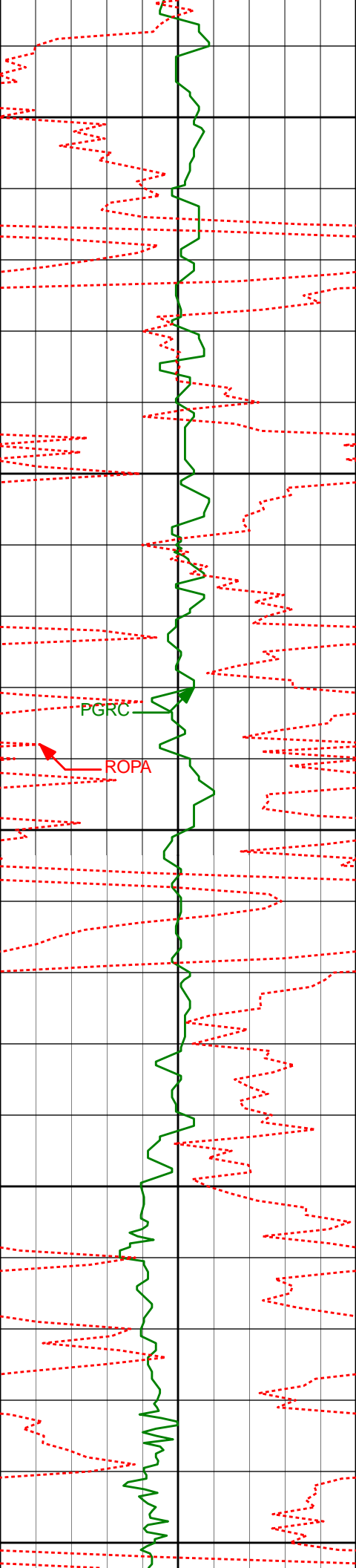
156.71°

3958.73'

306.23'

PGRC

ROPA



4000'

4050'

4100'

4150'

4200'

4099'

9.91°

155.90°

4052.09'

315.05'

4194'

8.35°

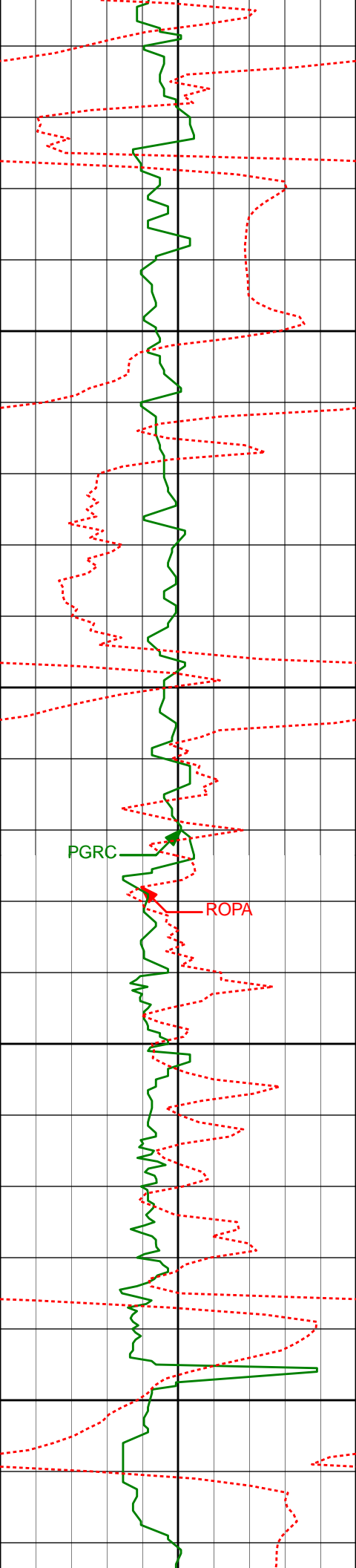
154.42°

4145.88'

322.86'

PGRC

ROPA



4288'

4250'

4300'

4350'

4400'

4288'

9.58°

148.13°

4238.73'

331.33'

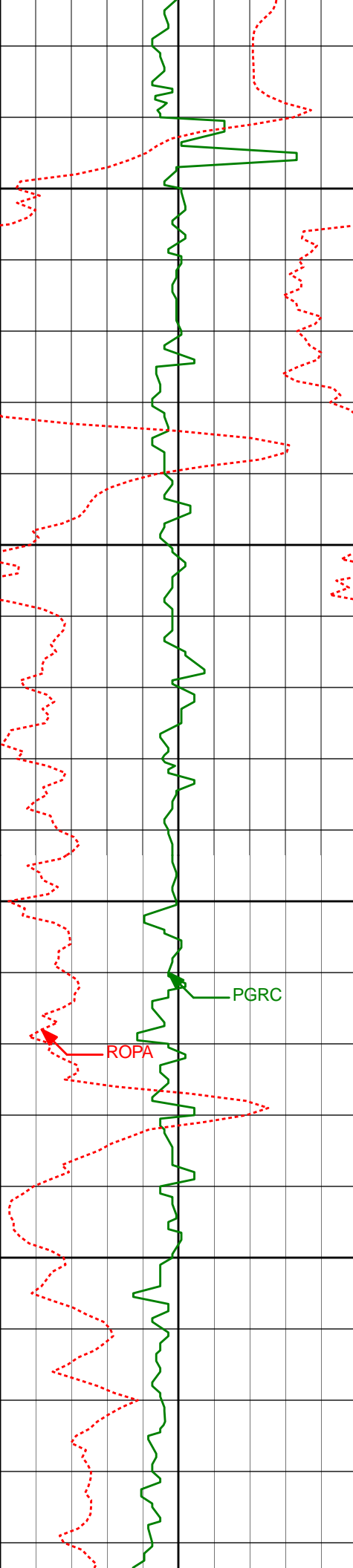
4383'

8.82°

144.12°

4332.51'

341.14'



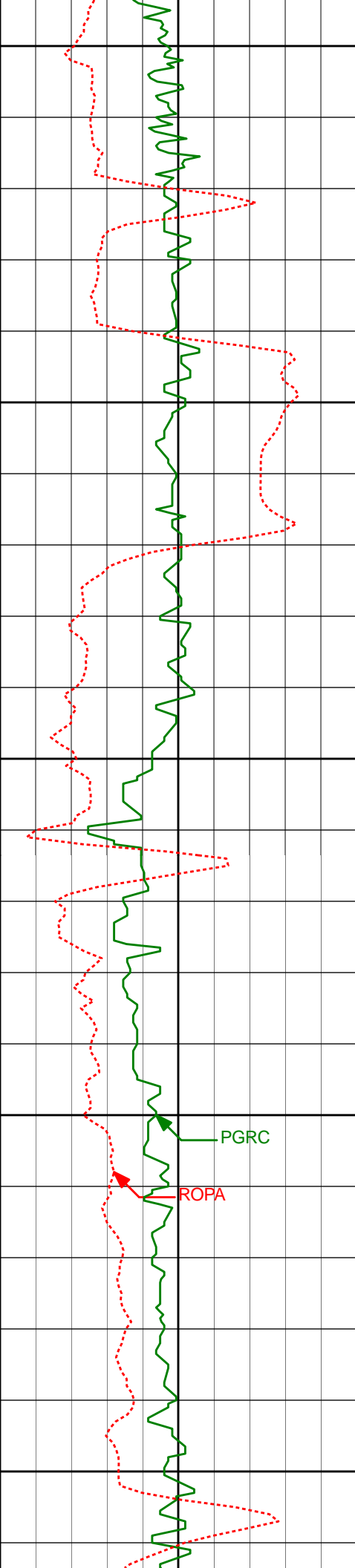
4450'

4500'

4550'

4600'

4478'	9.59°	149.92°	4426.29'	350.75'
4573'	9.61°	154.92°	4519.96'	359.60'
4667'	8.45°	153.73°	4612.79'	367.44'



4650'

4700'

4750'

4800'

4850'

4761'

9.34°

149.68°

4705.66'

375.74'

4856'

9.39°

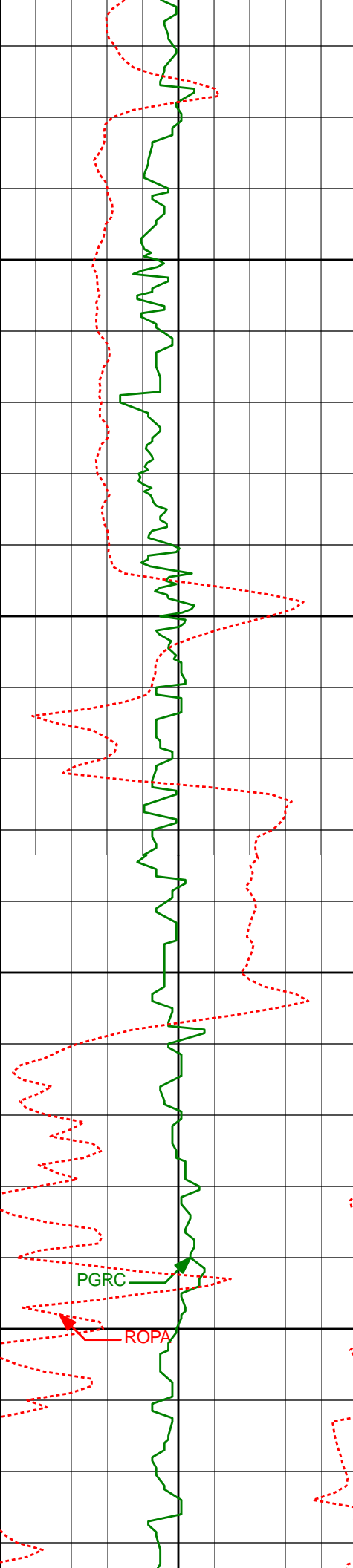
152.12°

4799.40'

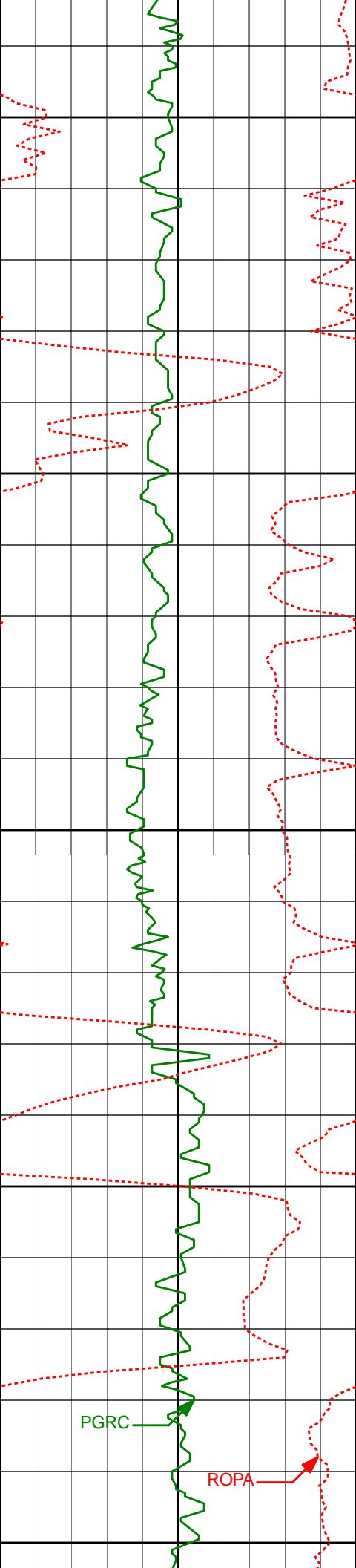
384.72'

PGRC

ROPA



4950'	8.78°	150.89°	4892.22'	393.21'
4900'				
4950'				
5045'	8.94°	146.77°	4986.09'	402.14'
5000'				
5050'				
5139'	8.95°	140.99°	5078.94'	412.02'



5100'

5150'

5200'

5250'

5300'

5234'

7.74°

138.94°

5172.94'

422.00'

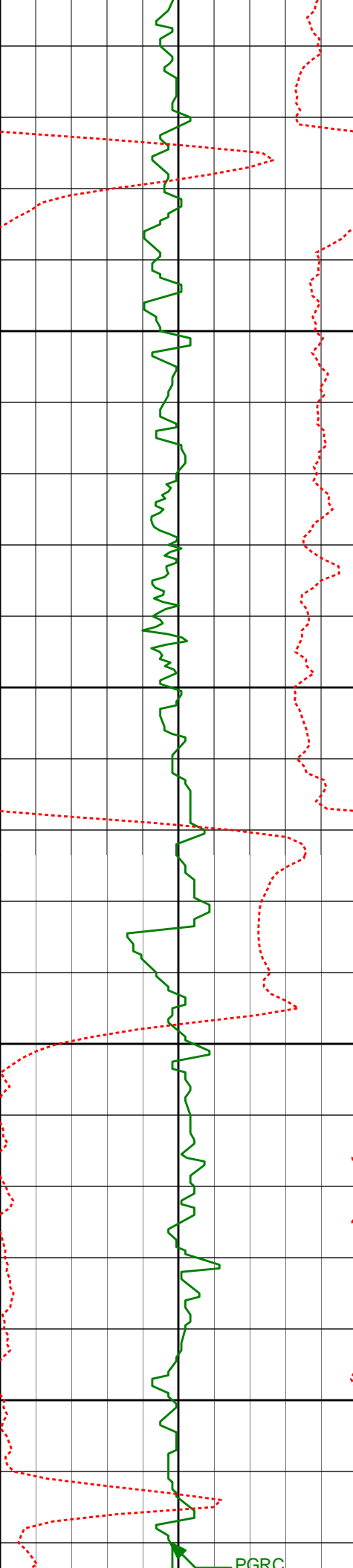
5329'

8.50°

135.31°

5266.99'

432.18'



5350'

5424'

8.08°

130.73°

5360.99'

443.16'

5400'

5450'

5518'

5.32°

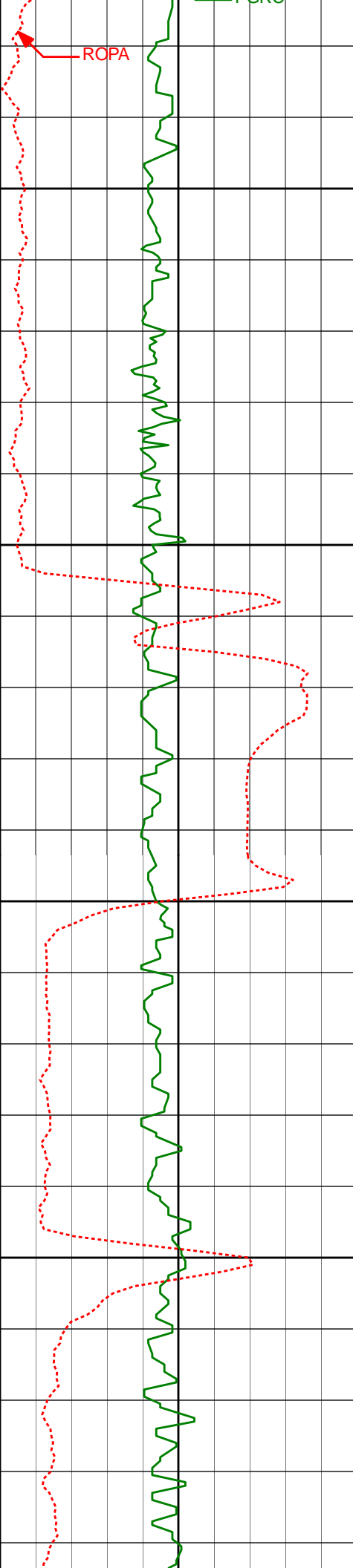
136.64°

5454.34'

451.95'

5500'

PGRC



5550'

5600'

5650'

5700'

5612'

5707'

5802'

4.32°

3.05°

2.59°

132.85°

153.05°

162.33°

5548.01'

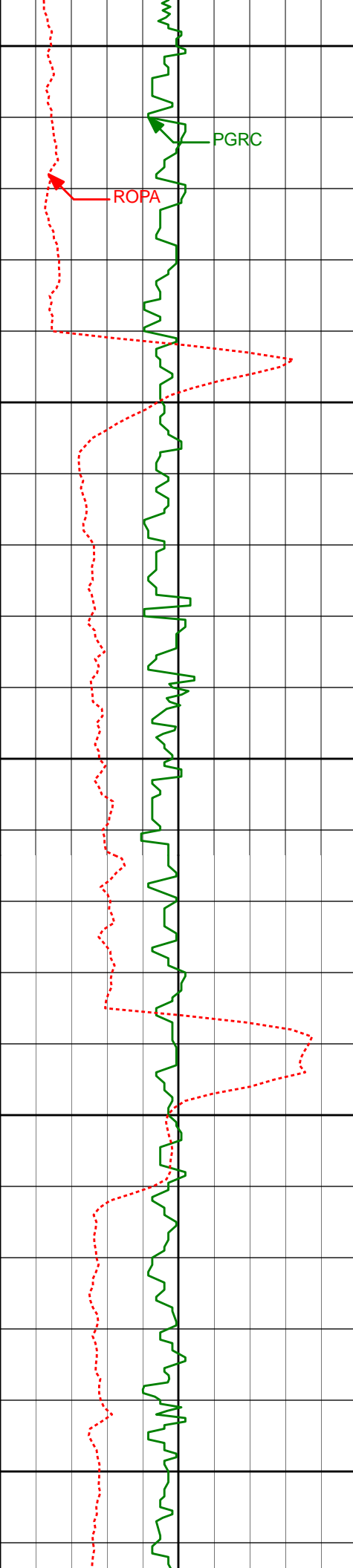
5642.82'

5737.70'

458.13'

462.40'

464.67'



Run 200

5750'

PGRC

ROPA

5800'

5897'

2.10°

165.10°

5832.62'

466.18'

5850'

5900'

5991'

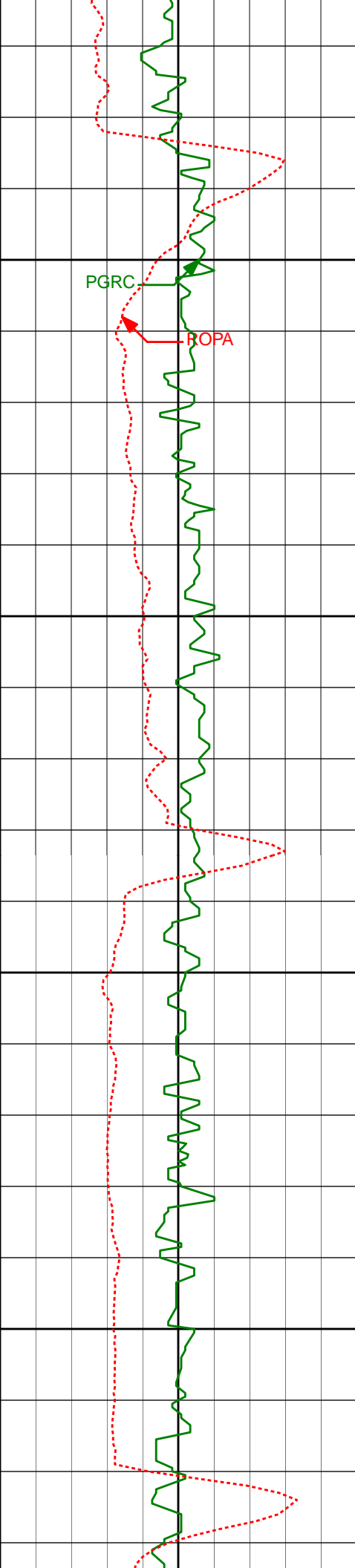
1.85°

161.16°

5926.56'

467.45'

5950'



6000'

PGRC

ROPA

6086'

1.73°

157.32°

6021.52'

468.81'

6050'

6100'

6181'

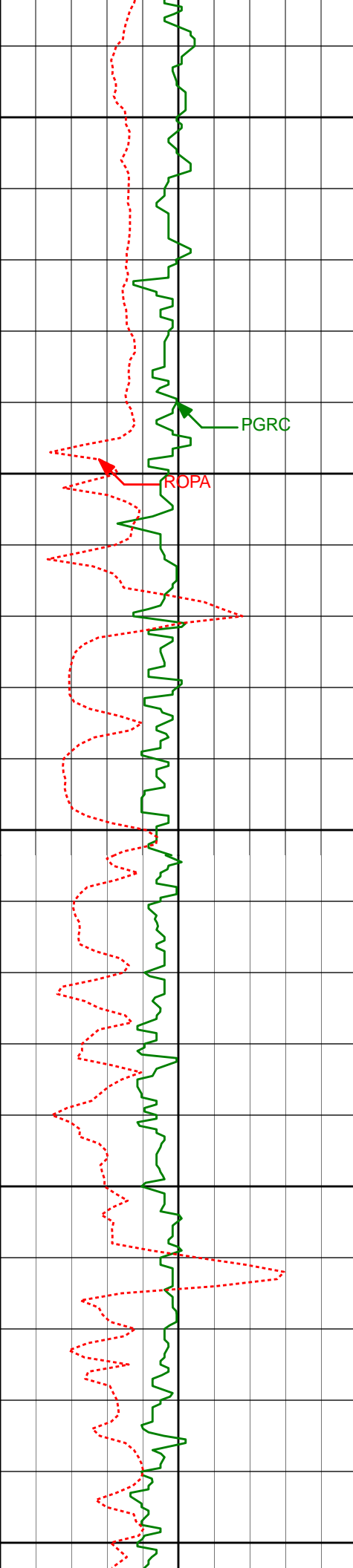
1.57°

143.57°

6116.48'

470.39'

6150'



6200'

6276'

1.73°

140.93°

6211.44'

472.30'

6250'

PGRC

ROPA

6300'

6370'

1.79°

147.45°

6305.40'

474.23'

6350'

6400'

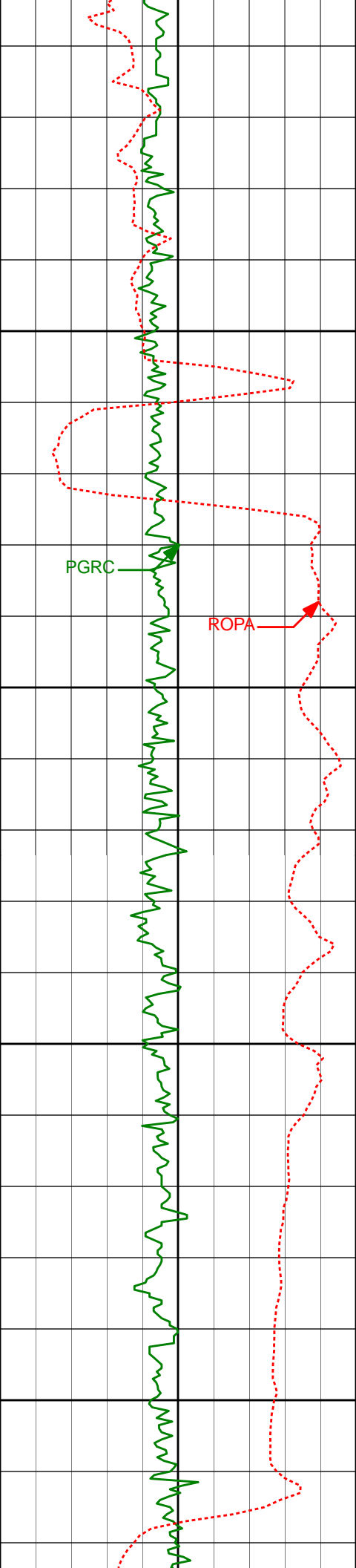
6465'

1.86°

145.37°

6400.35'

476.18'



6450'

6559'

1.92°

160.39°

6494.30'

477.87'

6500'

6550'

6653'

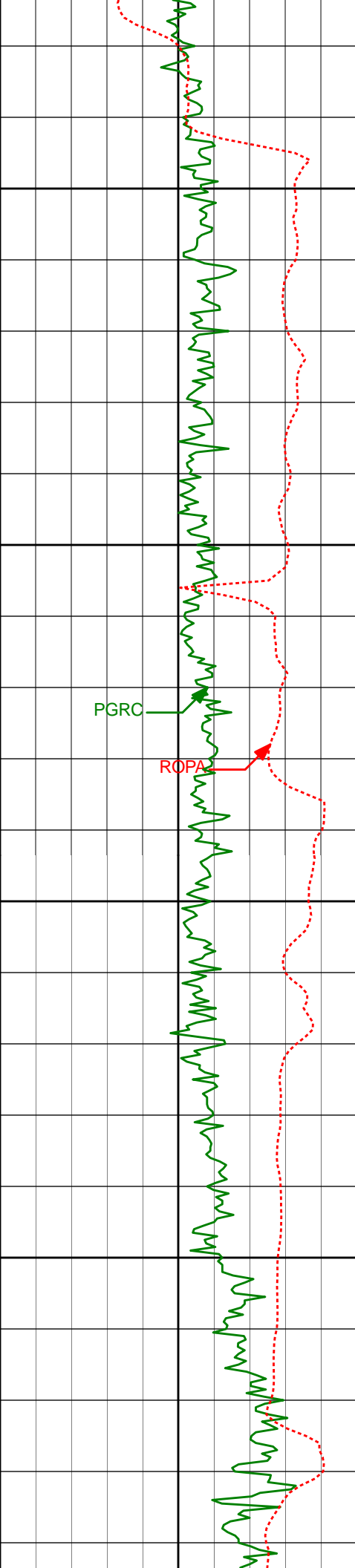
4.80°

84.19°

6588.16'

482.41'

6600'



6650'

6748'

10.78°

78.23°

6682.24'

494.75'

6700'

PGRC

ROPA

6750'

6843'

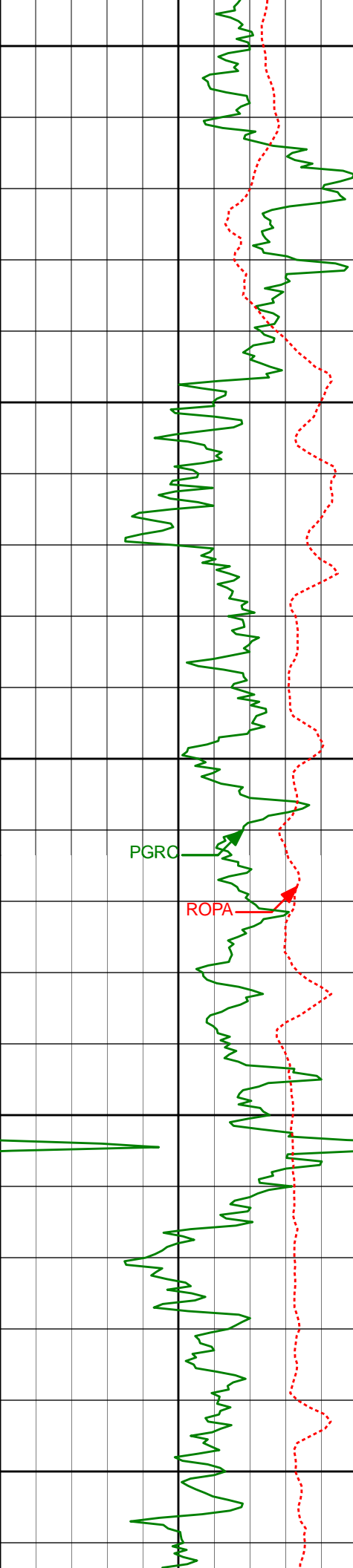
19.33°

76.63°

6773.90'

518.02'

6800'



6850'

6937'

27.75°

83.20°

6860.01'

554.03'

6900'

7032'

37.69°

87.94°

6939.85'

604.42'

6950'

PGRC

ROPA

7000'

7126'

49.22°

88.58°

7007.97'

668.31'

7050'

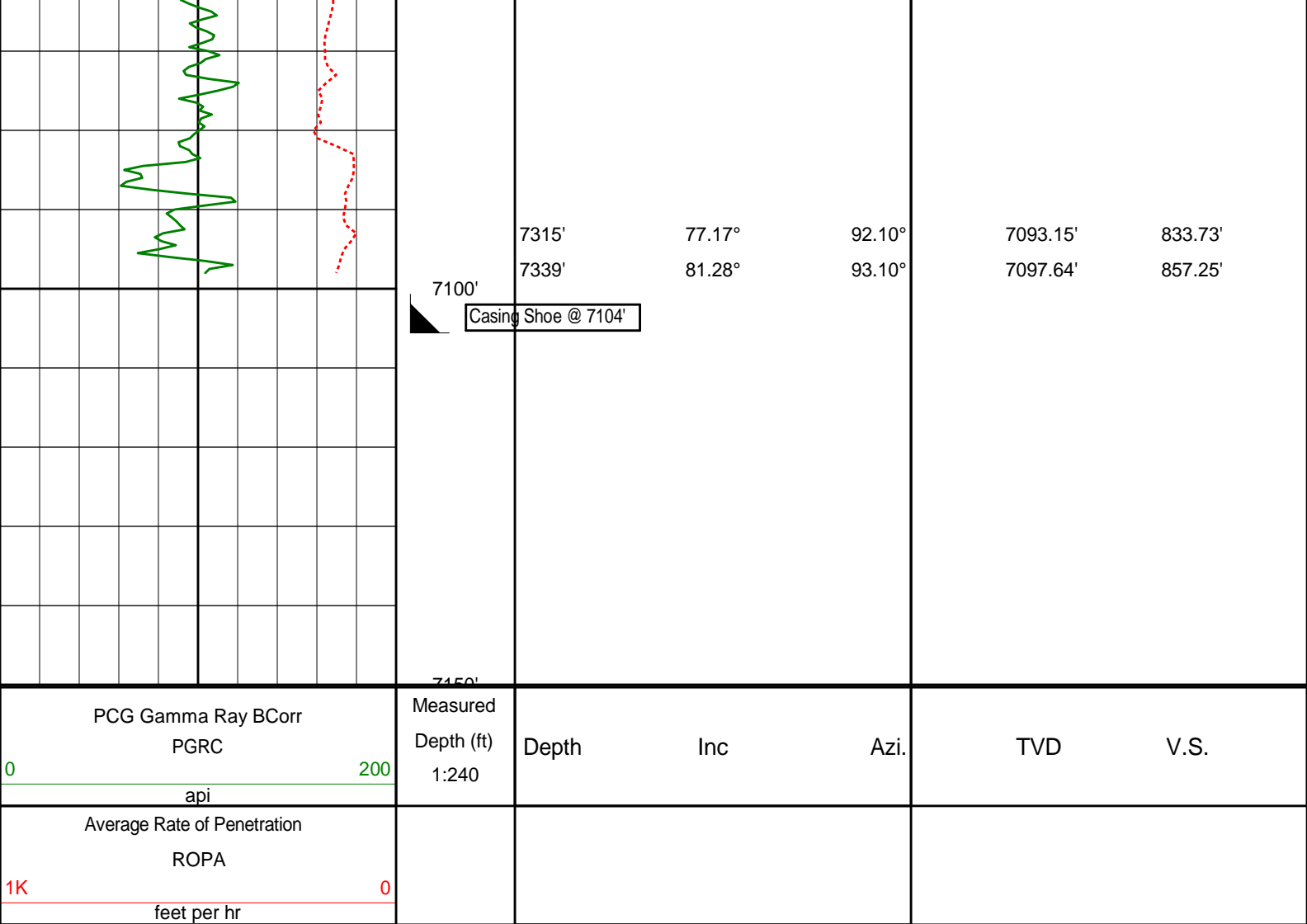
7221'

62.73°

88.81°

7061.00'

746.15'



HALLIBURTON

DIRECTIONAL SURVEY REPORT

Noble Energy
Five Rivers K09-62-1HN
Wattenberg
Weld Colorado
USA
CA-XX-0901434934

The first two surveys at 362' and 613' are provided by HP.

Measured Depth (feet)	Inclination (degrees)	Direction (degrees)	Vertical Depth (feet)	Latitude (feet)	Departure (feet)	Vertical Section (feet)	Dogleg (deg/100ft)
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	TIE-IN
362.00	0.60	321.75	361.99	1.49 N	1.17 W	-1.33	0.17
613.00	0.70	353.35	612.98	4.04 N	2.16 W	-2.60	0.15
823.00	1.96	179.29	822.95	1.73 N	2.27 W	-2.45	1.27
917.00	2.06	178.70	916.89	1.57 S	2.21 W	-2.02	0.11
1012.00	1.97	185.47	1011.83	4.90 S	2.33 W	-1.76	0.27
1106.00	4.32	165.71	1105.68	9.94 S	1.61 W	-0.48	2.72
1201.00	7.22	152.52	1200.20	18.71 S	2.03 E	4.12	3.34
1292.00	11.02	143.61	1290.03	30.79 S	9.83 E	13.22	4.44
1384.00	10.89	139.86	1380.36	44.51 S	20.65 E	25.51	0.79
1477.00	10.17	135.56	1471.79	57.09 S	32.06 E	38.27	1.15
1568.00	10.95	139.11	1561.25	69.36 S	43.35 E	50.85	1.12
1659.00	10.98	145.51	1650.59	83.04 S	53.91 E	62.89	1.34
1753.00	10.20	144.41	1742.99	97.18 S	63.83 E	74.32	0.86
1846.00	9.65	153.71	1834.61	110.87 S	72.07 E	84.05	1.82

1940.00	9.06	154.56	1927.36	124.62 S	78.74 E	92.22	0.64
2033.00	10.60	155.10	2018.99	138.99 S	85.49 E	100.54	1.66
2126.00	10.35	153.64	2110.44	154.23 S	92.80 E	109.51	0.39
2218.00	9.40	146.62	2201.08	167.91 S	100.60 E	118.80	1.67
2311.00	11.22	141.46	2292.57	181.33 S	110.42 E	130.06	2.19
2403.00	11.41	136.37	2382.79	194.92 S	122.28 E	143.37	1.10
2495.00	11.44	145.56	2472.97	209.03 S	133.71 E	156.32	1.98
2588.00	11.97	151.88	2564.04	225.14 S	143.48 E	167.82	1.49
2680.00	12.46	151.91	2653.96	242.31 S	152.65 E	178.86	0.53
2775.00	12.92	151.71	2746.64	260.71 S	162.51 E	190.72	0.49
2869.00	10.80	151.11	2838.63	277.67 S	171.74 E	201.80	2.26
2964.00	10.04	151.32	2932.06	292.73 S	180.02 E	211.71	0.80
3059.00	9.27	150.66	3025.71	306.67 S	187.74 E	220.95	0.82
3154.00	8.37	151.24	3119.59	319.40 S	194.82 E	229.41	0.95
3248.00	7.39	147.81	3212.70	330.51 S	201.33 E	237.13	1.16
3343.00	8.41	146.66	3306.80	341.49 S	208.40 E	245.39	1.09
3438.00	7.93	144.30	3400.83	352.61 S	216.04 E	254.23	0.62
3532.00	9.25	149.77	3493.78	364.41 S	223.63 E	263.09	1.65
3627.00	8.77	153.57	3587.61	377.49 S	230.70 E	271.58	0.80
3721.00	7.69	152.54	3680.64	389.49 S	236.79 E	278.98	1.16
3816.00	10.52	153.66	3774.43	402.90 S	243.57 E	287.22	2.98
3910.00	11.77	155.94	3866.66	419.35 S	251.29 E	296.74	1.41
4004.00	11.44	156.71	3958.73	436.67 S	258.88 E	306.23	0.39
4099.00	9.91	155.90	4052.09	452.78 S	265.94 E	315.05	1.62
4194.00	8.35	154.42	4145.88	466.47 S	272.26 E	322.86	1.66
4288.00	9.58	148.13	4238.73	479.27 S	279.34 E	331.33	1.67
4383.00	8.82	144.12	4332.51	491.88 S	287.78 E	341.14	1.05
4478.00	9.59	149.92	4426.29	504.63 S	296.02 E	350.75	1.27
4573.00	9.61	154.92	4519.96	518.66 S	303.34 E	359.60	0.88
4667.00	8.45	153.73	4612.79	531.96 S	309.73 E	367.44	1.25
4761.00	9.34	149.68	4705.66	544.74 S	316.63 E	375.74	1.16
4856.00	9.39	152.12	4799.40	558.24 S	324.15 E	384.72	0.42
4950.00	8.78	150.89	4892.22	571.29 S	331.23 E	393.21	0.68
5045.00	8.94	146.77	4986.09	583.80 S	338.80 E	402.14	0.69
5139.00	8.95	140.99	5078.94	595.59 S	347.40 E	412.02	0.96
5234.00	7.74	138.94	5172.94	606.16 S	356.26 E	422.00	1.31
5329.00	8.50	135.31	5266.99	615.97 S	365.40 E	432.18	0.96
5424.00	8.08	130.73	5360.99	625.32 S	375.40 E	443.16	0.82
5518.00	5.32	136.64	5454.34	632.80 S	383.39 E	451.95	3.02
5612.00	4.32	132.85	5548.01	638.38 S	388.98 E	458.13	1.12
5707.00	3.05	153.05	5642.82	643.06 S	392.75 E	462.40	1.89
5802.00	2.59	162.33	5737.70	647.36 S	394.55 E	464.67	0.68
5897.00	2.10	165.10	5832.62	651.09 S	395.65 E	466.18	0.53
5991.00	1.85	161.16	5926.56	654.19 S	396.58 E	467.45	0.30
6086.00	1.73	157.32	6021.52	656.96 S	397.63 E	468.81	0.18
6181.00	1.57	143.57	6116.48	659.33 S	398.95 E	470.39	0.45
6276.00	1.73	140.93	6211.44	661.49 S	400.63 E	472.30	0.19
6370.00	1.79	147.45	6305.40	663.83 S	402.31 E	474.23	0.22
6465.00	1.86	145.37	6400.35	666.35 S	403.99 E	476.18	0.10
6559.00	1.92	160.39	6494.30	669.09 S	405.38 E	477.87	0.53
6653.00	4.80	84.19	6588.16	670.18 S	409.83 E	482.41	5.03
6748.00	10.78	78.23	6682.24	667.96 S	422.49 E	494.75	6.34
6843.00	19.33	76.63	6773.90	662.50 S	446.53 E	518.02	9.01
6937.00	27.75	83.20	6860.01	656.30 S	483.47 E	554.03	9.37
7032.00	37.69	87.94	6939.85	652.63 S	534.59 E	604.42	10.80
7126.00	49.22	88.58	7007.97	650.71 S	599.10 E	668.31	12.27
7221.00	62.73	88.81	7061.00	648.93 S	677.64 E	746.15	14.22
7315.00	77.17	92.10	7093.15	649.75 S	765.69 E	833.73	15.71
7339.00	81.28	93.10	7097.64	650.82 S	789.23 E	857.25	17.61
7501.00	86.58	91.50	7114.77	657.27 S	950.13 E	1017.86	3.42
7596.00	88.40	90.77	7118.93	659.15 S	1045.02 E	1112.36	2.06
7690.00	88.43	89.55	7121.53	659.41 S	1138.98 E	1205.75	1.30
7785.00	87.47	88.87	7124.92	658.10 S	1233.91 E	1299.94	1.24
7879.00	90.22	89.68	7126.82	656.91 S	1327.87 E	1393.17	3.05
7973.00	89.66	88.96	7126.92	655.80 S	1421.87 E	1486.45	0.97
8067.00	91.39	90.35	7126.06	655.23 S	1515.85 E	1579.78	2.36
8161.00	90.46	90.24	7124.54	655.71 S	1609.84 E	1673.23	1.00
8256.00	90.31	90.51	7123.90	656.34 S	1704.83 E	1767.69	0.33
8351.00	89.97	87.76	7123.67	654.90 S	1799.81 E	1861.91	2.92
8446.00	90.03	88.70	7123.67	651.97 S	1894.77 E	1955.94	0.99
8540.00	89.91	89.64	7123.72	650.61 S	1988.76 E	2049.18	1.01
8635.00	90.34	90.63	7123.51	650.83 S	2083.76 E	2143.61	1.14
8729.00	89.60	90.06	7123.56	651.40 S	2177.75 E	2237.07	0.99
8824.00	90.18	91.26	7123.74	652.49 S	2272.74 E	2331.59	1.40
8918.00	89.08	90.24	7124.35	653.72 S	2366.73 E	2425.12	1.60

9013.00	89.85	93.12	7125.24	656.51 S	2461.68 E	2519.78	3.14
9108.00	89.85	93.02	7125.49	661.59 S	2556.54 E	2614.61	0.11
9202.00	91.23	93.20	7124.60	666.69 S	2650.39 E	2708.45	1.48
9297.00	89.66	91.07	7123.86	670.23 S	2745.32 E	2803.17	2.79
9391.00	91.97	90.59	7122.52	671.59 S	2839.29 E	2896.70	2.51
9486.00	91.73	89.66	7119.46	671.80 S	2934.24 E	2991.08	1.01
9581.00	91.63	89.16	7116.67	670.82 S	3029.19 E	3085.32	0.54
9675.00	90.19	88.33	7115.18	668.76 S	3123.16 E	3178.46	1.77
9770.00	91.75	90.03	7113.57	667.40 S	3218.13 E	3272.68	2.43
9865.00	91.33	89.27	7111.02	666.82 S	3313.09 E	3366.98	0.91
9960.00	90.22	88.36	7109.73	664.86 S	3408.06 E	3461.12	1.51
10054.00	90.09	90.70	7109.48	664.09 S	3502.05 E	3554.44	2.49
10149.00	90.12	89.89	7109.30	664.58 S	3597.05 E	3648.89	0.85
10244.00	91.14	89.72	7108.26	664.25 S	3692.04 E	3743.25	1.09
10338.00	91.26	91.64	7106.29	665.37 S	3786.01 E	3836.75	2.05
10433.00	89.11	93.35	7105.98	669.50 S	3880.91 E	3931.51	2.89
10528.00	86.82	93.40	7109.36	675.09 S	3975.68 E	4026.31	2.41
10622.00	87.69	91.01	7113.86	678.70 S	4069.49 E	4119.94	2.70
10716.00	88.28	89.90	7117.17	679.45 S	4163.43 E	4213.36	1.34
10811.00	87.53	90.06	7120.64	679.42 S	4258.36 E	4307.70	0.81
10905.00	88.89	89.26	7123.57	678.86 S	4352.31 E	4400.99	1.68
10999.00	89.05	88.63	7125.26	677.13 S	4446.28 E	4494.17	0.69
11094.00	90.55	90.13	7125.60	676.10 S	4541.27 E	4588.45	2.23
11188.00	89.72	89.34	7125.37	675.67 S	4635.27 E	4681.80	1.22
11288.00	91.82	87.74	7124.03	673.12 S	4735.22 E	4780.84	2.64
11383.00	91.33	87.30	7121.42	669.01 S	4830.09 E	4874.65	0.69
11478.00	92.28	89.40	7118.43	666.28 S	4925.00 E	4968.65	2.43
11572.00	92.50	88.82	7114.51	664.82 S	5018.90 E	5061.80	0.66
11667.00	91.91	88.67	7110.85	662.74 S	5113.81 E	5155.88	0.64
11762.00	91.97	87.81	7107.64	659.82 S	5208.71 E	5249.85	0.91
11857.00	91.66	89.65	7104.63	657.72 S	5303.64 E	5343.94	1.96
11952.00	90.65	89.63	7102.71	657.12 S	5398.61 E	5438.25	1.06
12047.00	91.08	91.45	7101.28	658.02 S	5493.59 E	5532.73	1.97
12142.00	87.75	92.11	7102.25	660.97 S	5588.53 E	5627.40	3.57
12237.00	89.91	91.47	7104.19	663.93 S	5683.46 E	5722.06	2.37
12332.00	89.78	90.50	7104.44	665.57 S	5778.44 E	5816.63	1.03
12393.00	89.91	90.84	7104.61	666.28 S	5839.44 E	5877.32	0.60
12454.00	89.91	90.84	7104.71	667.17 S	5900.43 E	5938.03	0.00

CALCULATION BASED ON MINIMUM CURVATURE METHOD

**SURVEY COORDINATES RELATIVE TO WELL SYSTEM REFERENCE POINT
TVD VALUES GIVEN RELATIVE TO DRILLING MEASUREMENT POINT**

**VERTICAL SECTION RELATIVE TO WELL HEAD
VERTICAL SECTION IS COMPUTED ALONG A DIRECTION OF 96.44 DEGREES (GRID)
A TOTAL CORRECTION OF 7.95 DEG FROM MAGNETIC NORTH TO GRID NORTH HAS BEEN APPLIED**

**HORIZONTAL DISPLACEMENT IS RELATIVE TO THE WELL HEAD.
HORIZONTAL DISPLACEMENT(CLOSURE) AT 12454.00 FEET
IS 5938.03 FEET ALONG 96.45 DEGREES (GRID)**

Final survey is a straight line projection to TD.