



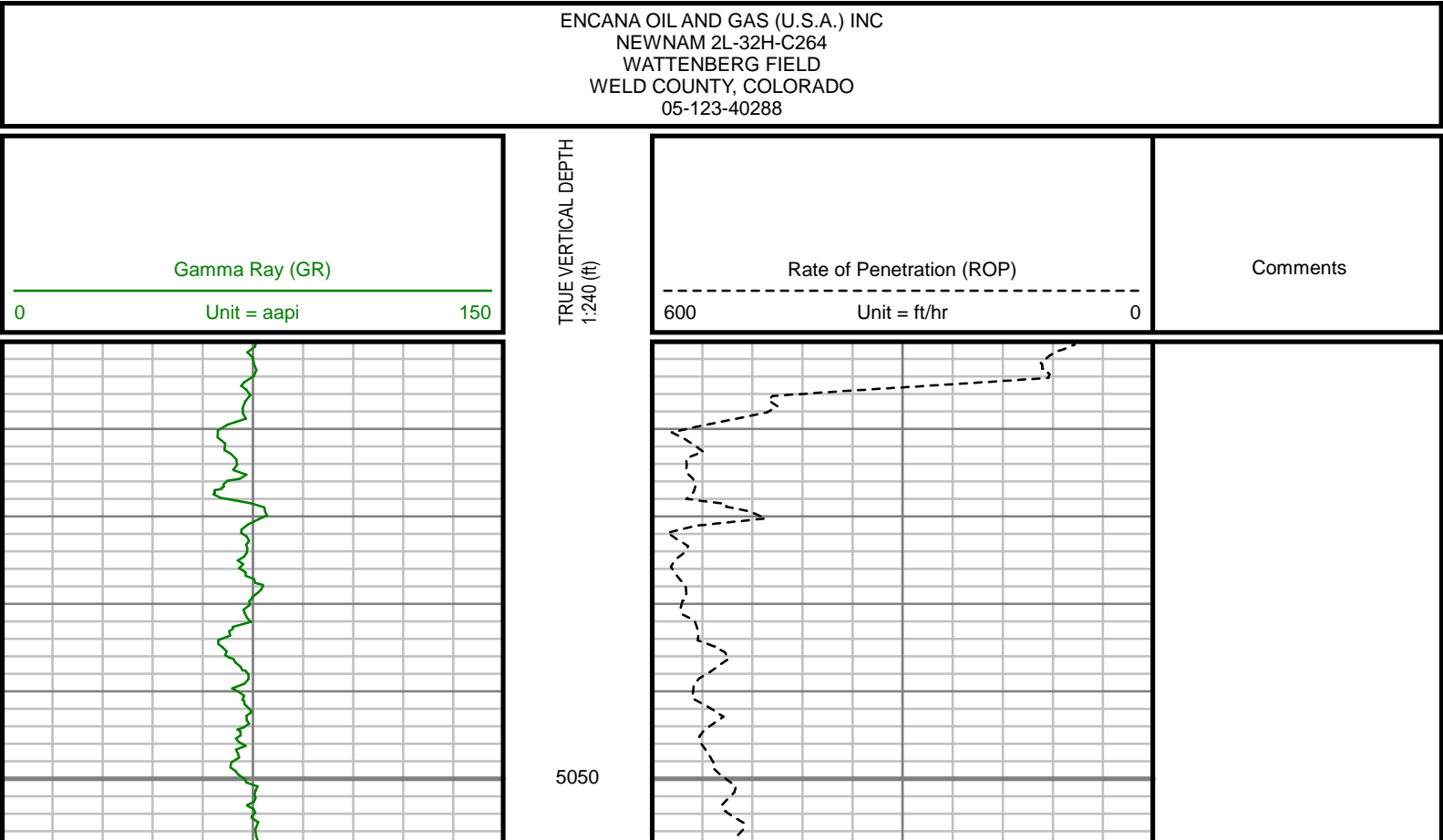
GAMMA RAY

5" = 100' FEET TVD

COMPANY : ENCANA OIL AND GAS (U.S.A) INC						WELL : NEWNAM 2L-32H-C264					
FIELD : WATTENBERG						COUNTY : WELD					
STATE : COLORADO						COUNTRY : U.S.A.					
UWI : 05-123-40288											
DEPTH REF. : RKB						REF. HEIGHT : 13.000 ft					
GROUND LEVEL : 4956.000 ft						RKB to Ground Level					
SEC:32						TWP:2N					
RANGE:64W						DIRECTIONAL					
ROD						OTHER SERVICES					
LAT:40°6'5.274"N LONG:104°34'41.934"W						WELL LOCATION					
N:1281147.97 ft E:3257824.55 ft											
COUNTRY : U.S.A.						COUNTY : WELD					
STATE : COLORADO						FIELD : WATTENBERG					
UWI : 05-123-40288						COMPANY : ENCANA OIL AND GAS (U.S.A) INC					
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FIELD : WATTENBERG						FIELD : WATTENBERG					
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Remarks
ENCANA OIL AND GAS (U.S.A) INC PRODUCTION AFE# 14182695
SCIENTIFIC DRILLING INTERNATIONAL JOB# 253963
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO GAMMA RAY CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
RUN #1: MWD / DIRECTIONAL RUN
SENSORS S/N: PULSER = 128-425 / CONT = 844 / MWD EYE = 0661
BIT TO SENSOR OFFSET: SURVEY = 61.53 FT.
RUN #2: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-164 / CONT = 227 / MWD EYE = 0522 / GAMMA RAY = 1053
BIT TO SENSOR OFFSETS: SURVEY = 60.77 FT. / GAMMA RAY = 56.71 FT.
RUN #3: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 78-095 / CONT = 844 / MWD EYE = 0661 / GAMMA RAY = 1403
BIT TO SENSOR OFFSETS: SURVEY = 60.34 FT. / GAMMA RAY = 56.28 FT.
MNEMONICS LIST:
GR = GAMMA RAY
ROP = RATE OF PENETRATION

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 interpretations, 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 as set out in our current price schedule.



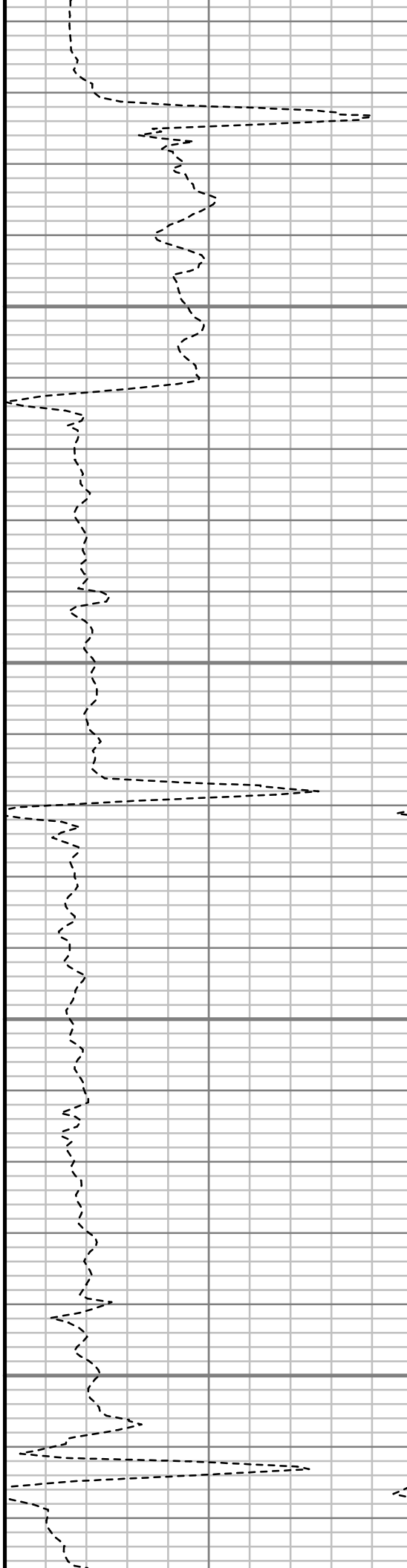


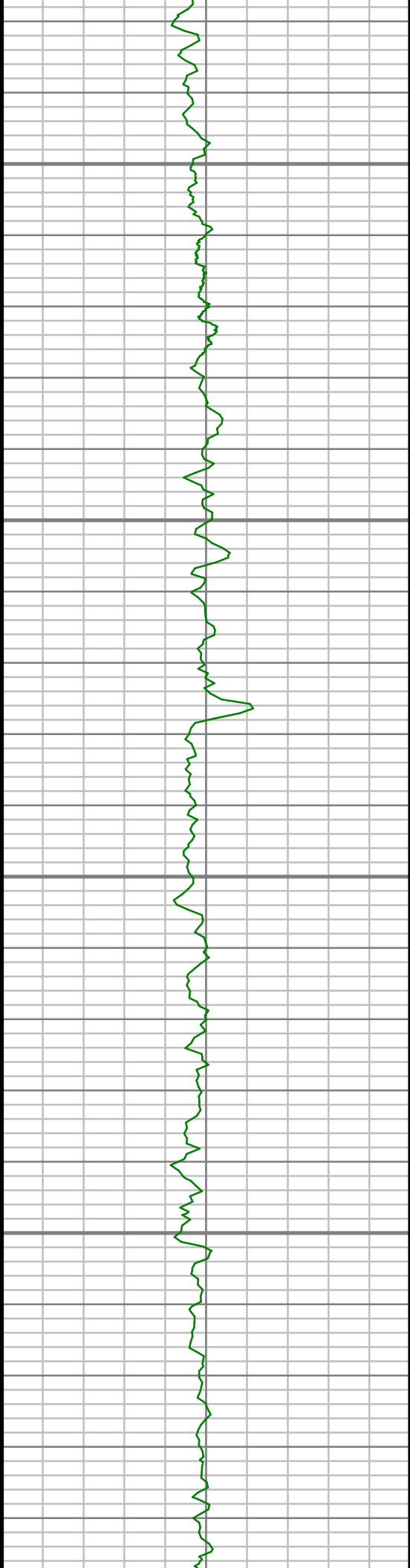
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5150

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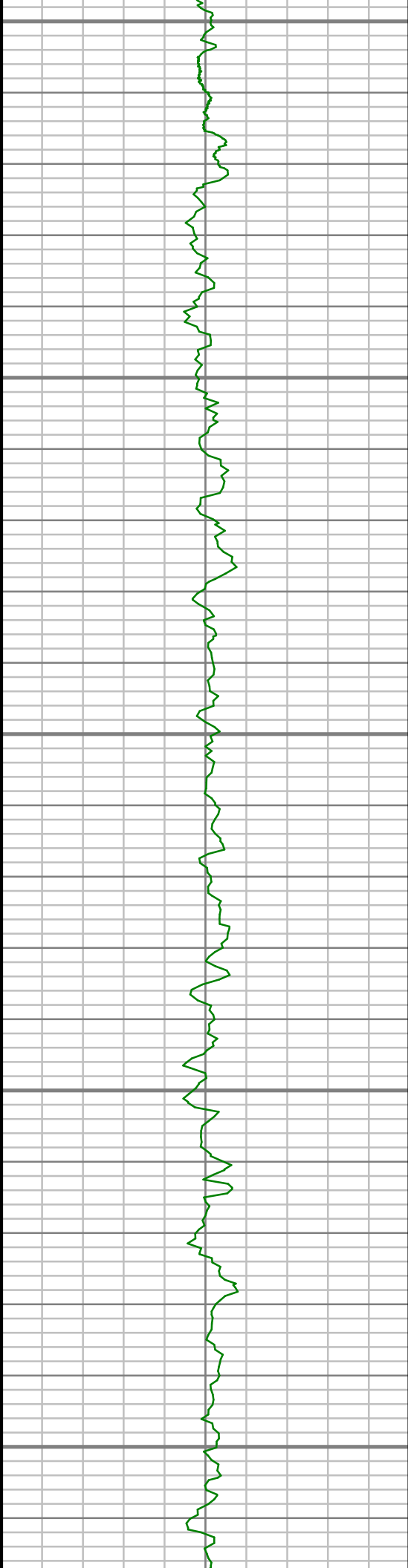
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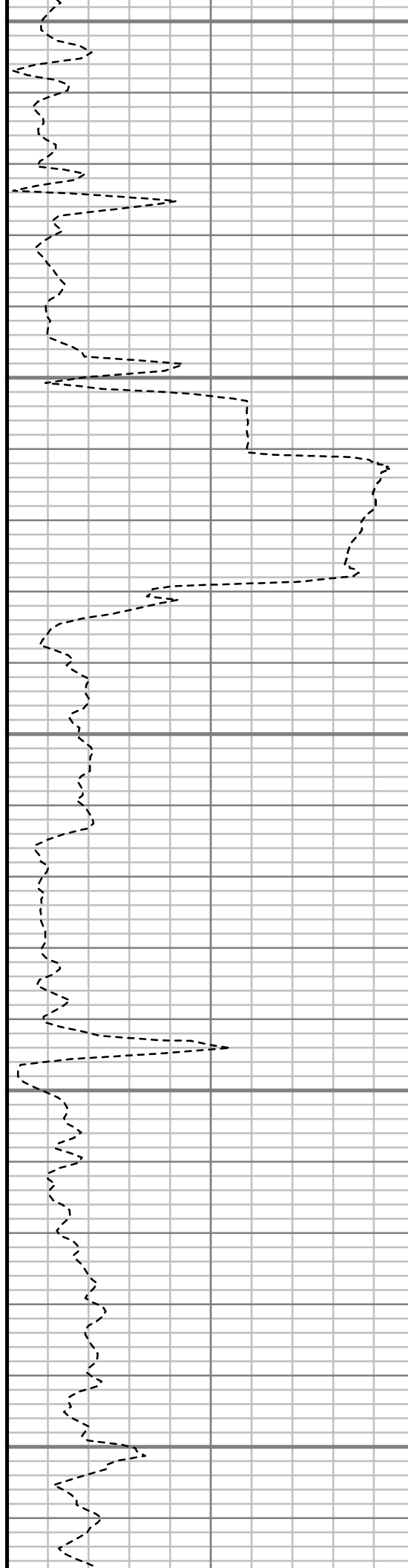
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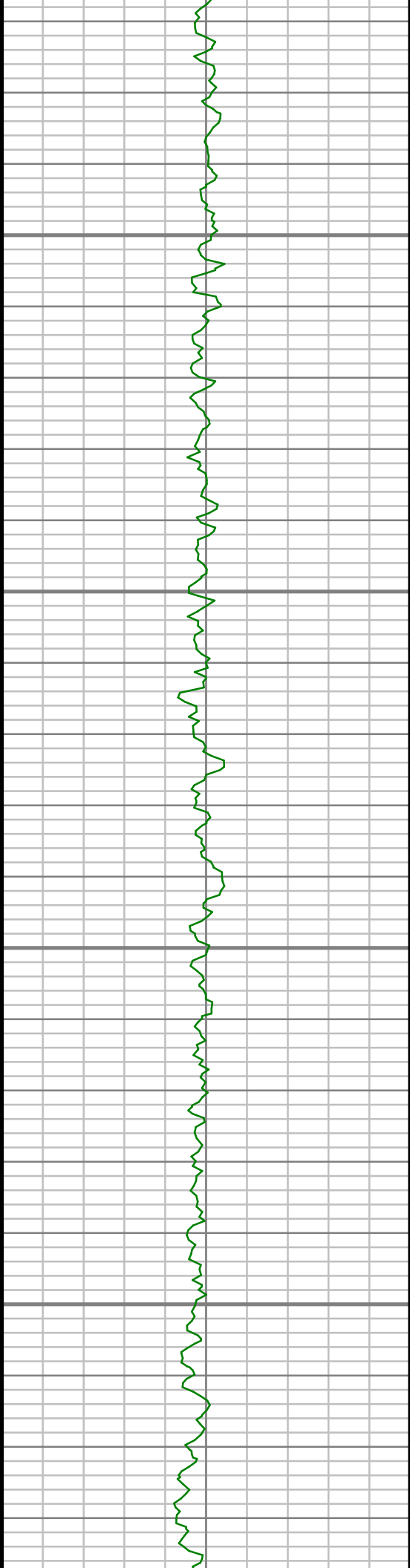
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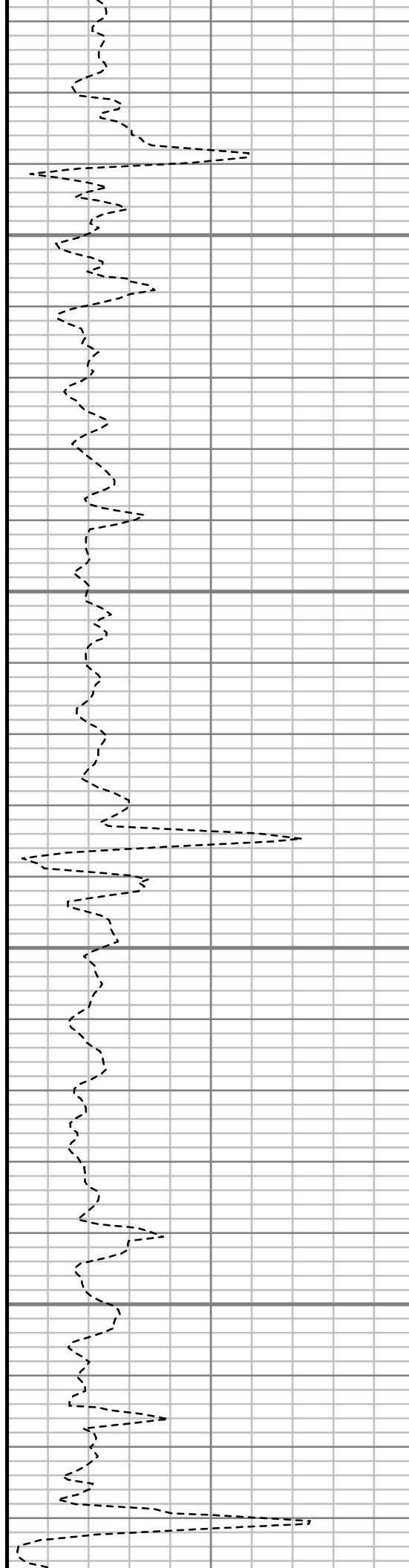


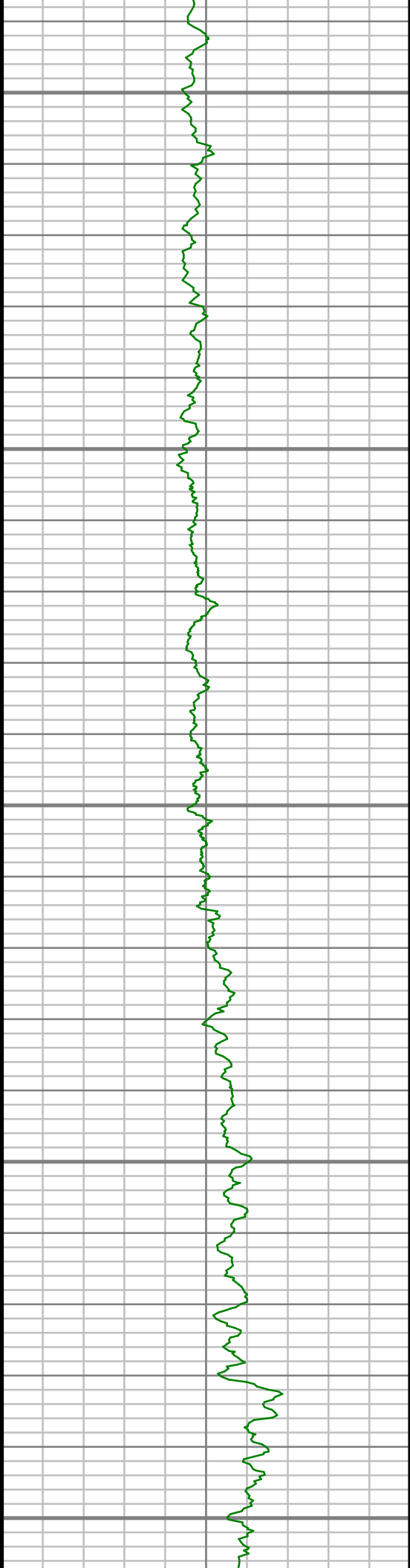
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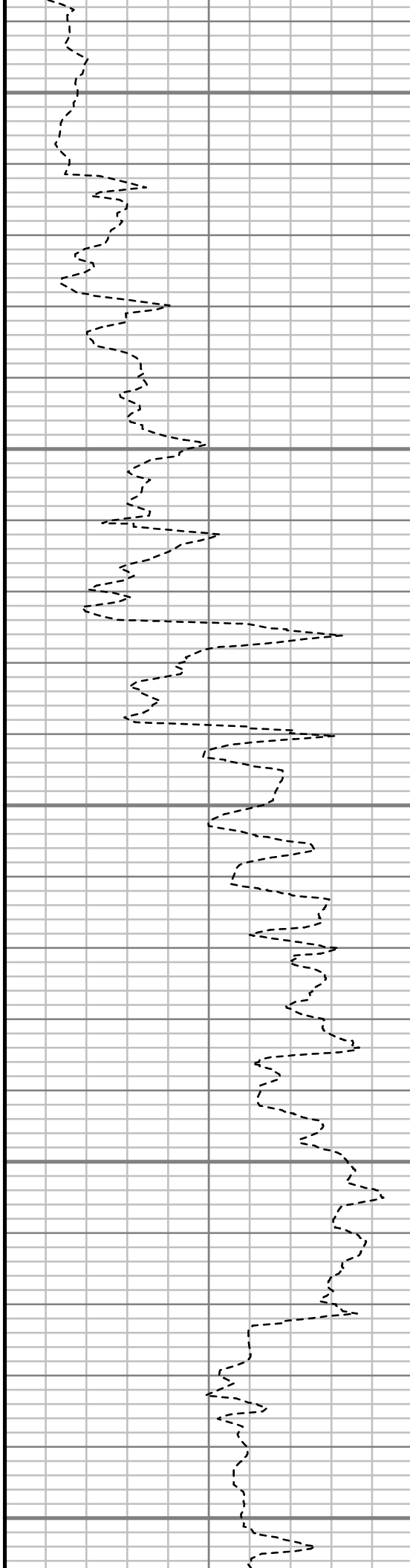
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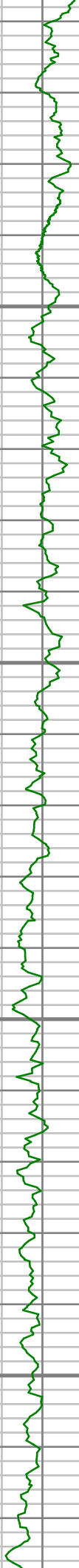
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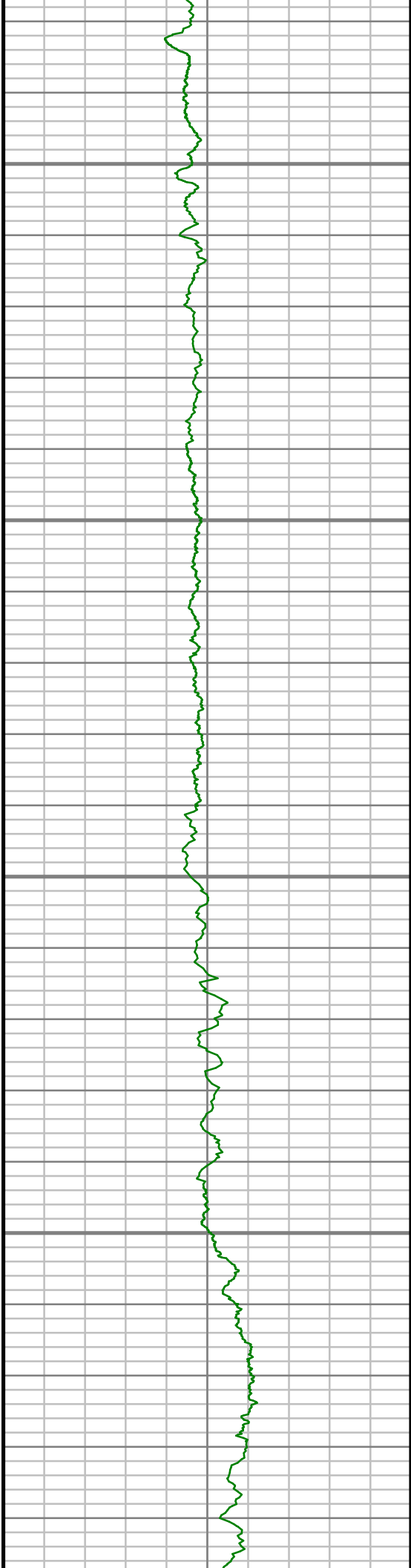
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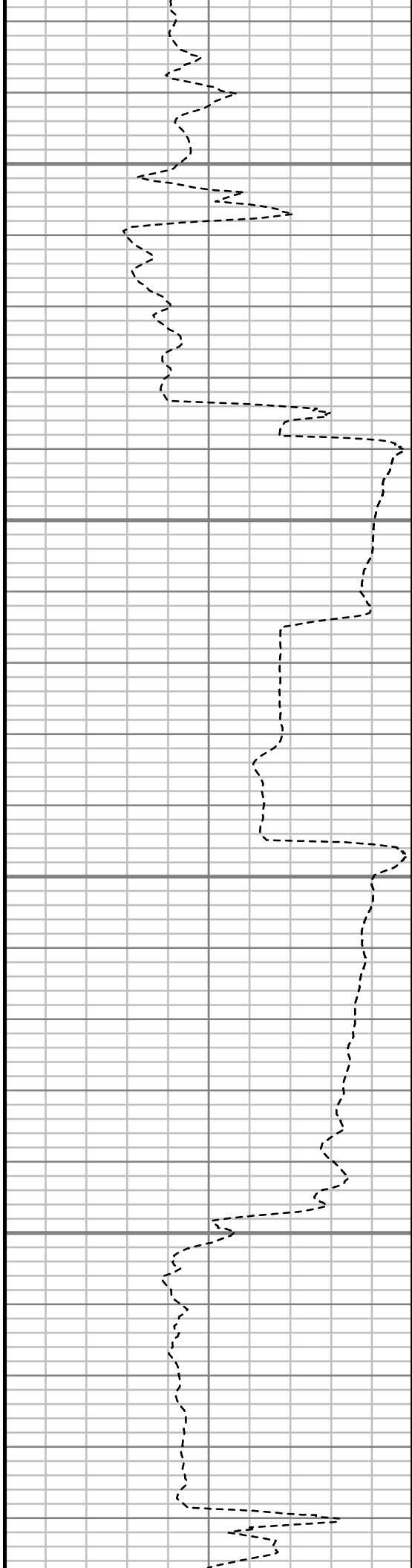


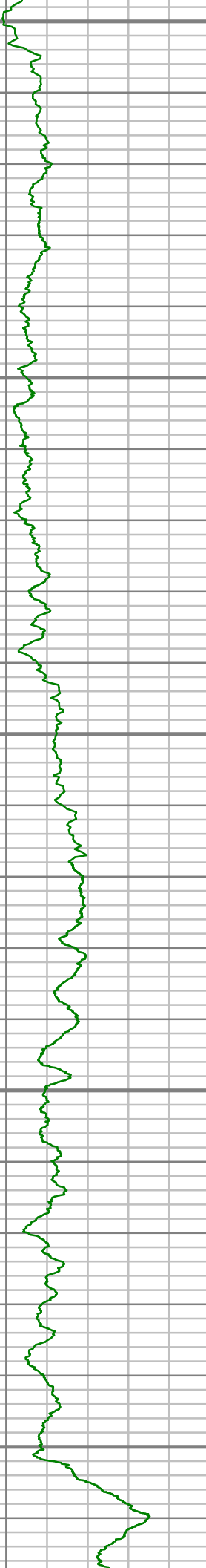
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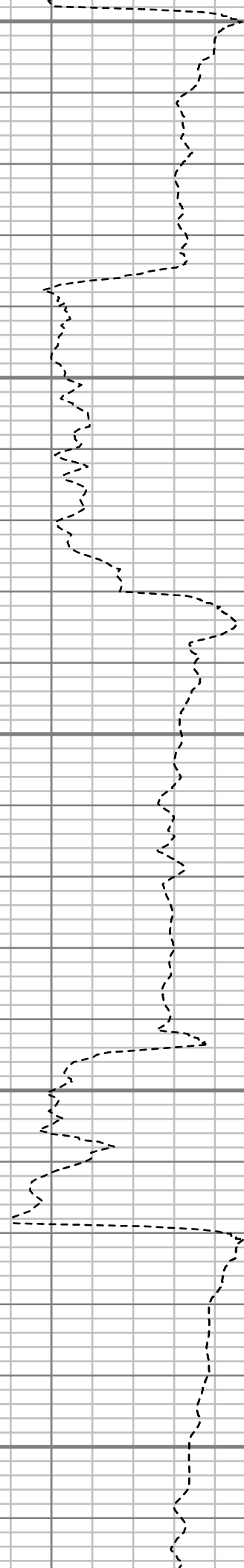
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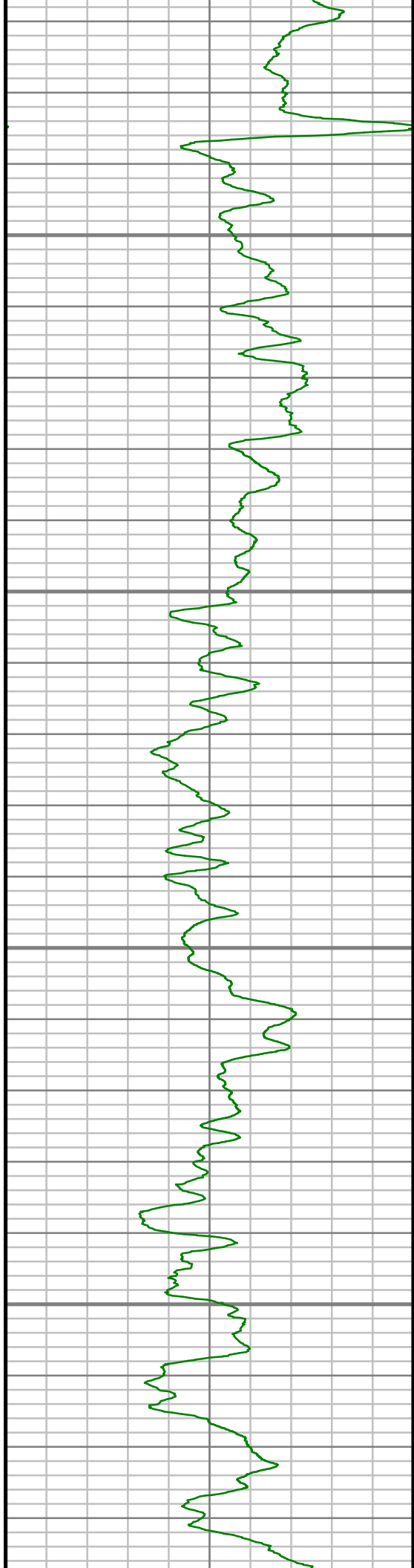
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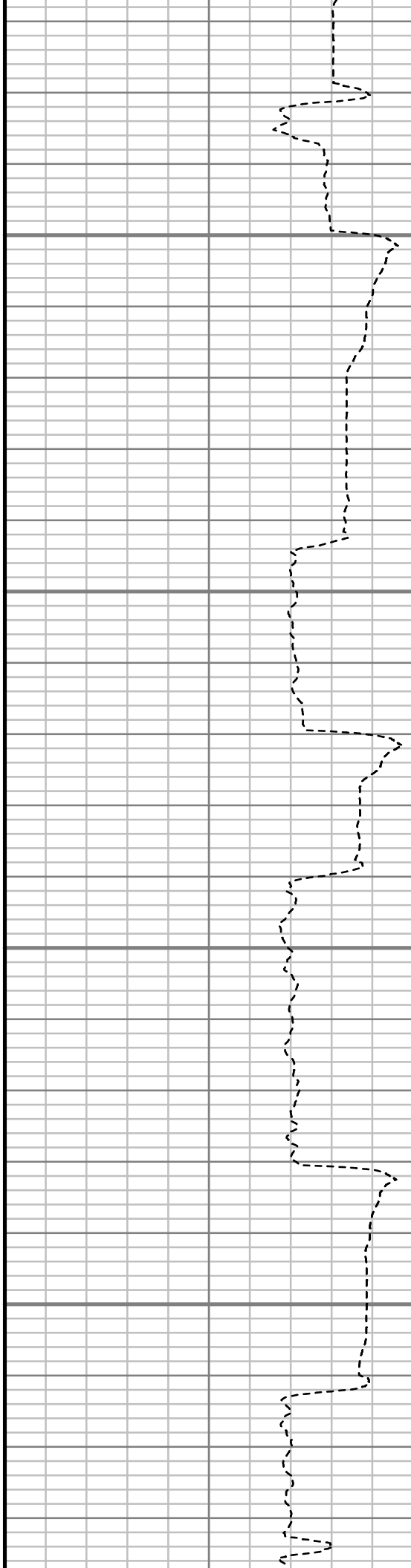


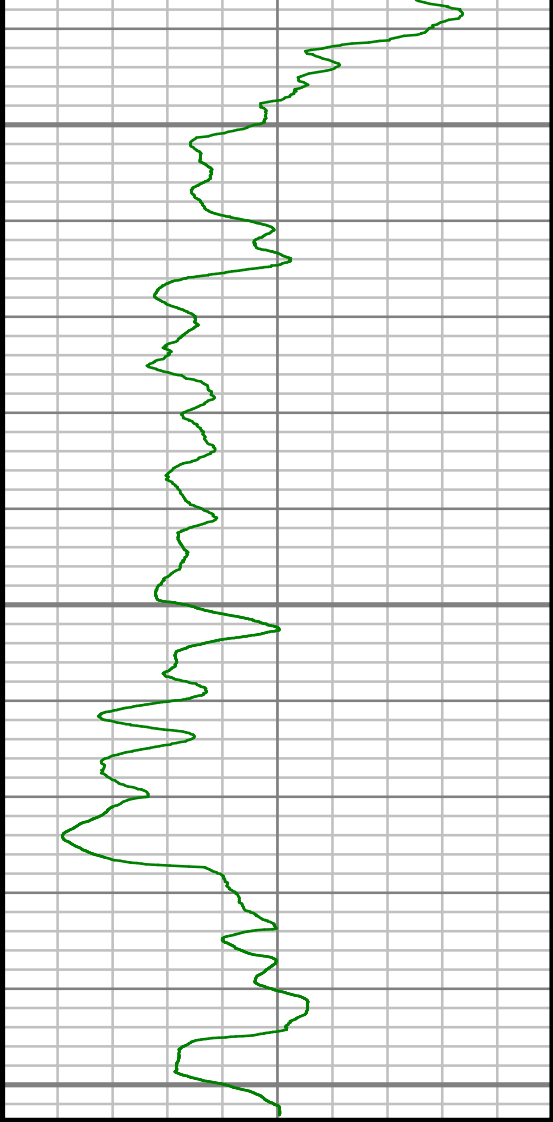
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Gamma Ray (GR)

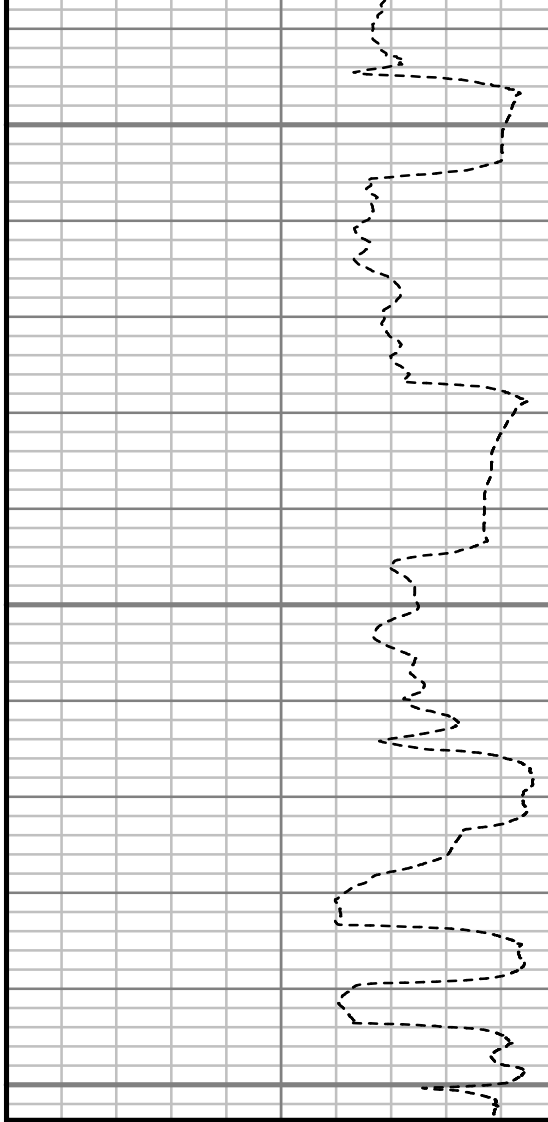
0 Unit = aapi 150

7050

7100

7150

TRUE VERTICAL DEPTH
1-240 (ft)



Rate of Penetration (ROP)

600 Unit = ft/hr 0

Comments



MWD Survey Report

Well Location	NEWNAM
Well Name	NEWNAM 2L-32H-C264
Survey Date	2/9/2015
Latitude	40°6'5.274"N
Longitude	104°34'41.934"W
Btotal	52489 nT
Dip	66.71 deg
Magnetic Declination	8.36 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (13.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 180.00Azim (deg)
Operator(s)	J. PARISEE, M. SMITH

Well Notes

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	"/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
240.00	2.04	96.00	239.95	0.45	-0.45	4.25	96.00	4.27	0.85
333.00	3.49	99.64	332.84	1.09	-1.09	8.68	97.18	8.75	1.57
610.00	8.21	92.05	608.32	3.21	-3.21	36.76	94.99	36.90	1.72
796.00	10.74	88.93	791.77	3.36	-3.36	67.36	92.86	67.44	1.39
889.00	9.42	84.18	883.34	2.43	-2.43	83.59	91.67	83.63	1.67
982.00	10.10	79.65	974.99	0.19	-0.19	99.19	90.11	99.19	1.10
1092.00	9.97	73.97	1083.31	-4.17	4.17	117.82	87.97	117.90	0.91
1272.00	9.71	75.62	1260.67	-12.24	12.24	147.50	85.26	148.01	0.21
1458.00	11.80	63.26	1443.41	-24.70	24.70	179.71	82.17	181.39	1.67
1648.00	11.33	65.69	1629.55	-41.13	41.13	214.06	79.12	217.98	0.36
1839.00	11.25	64.05	1816.86	-57.00	57.00	247.90	77.05	254.37	0.17
2030.00	10.53	60.91	2004.42	-73.63	73.63	279.90	75.26	289.42	0.49
2220.00	10.42	70.45	2191.27	-87.82	87.82	311.26	74.24	323.41	0.91
2411.00	8.81	69.82	2379.58	-98.64	98.64	341.26	73.88	355.23	0.85
2601.00	9.55	73.44	2567.15	-108.15	108.15	370.01	73.71	385.49	0.49
2792.00	8.08	73.39	2755.89	-116.51	116.51	398.05	73.69	414.75	0.77
2982.00	9.43	74.98	2943.68	-124.35	124.35	425.87	73.72	443.66	0.72
3173.00	10.84	71.48	3131.69	-134.11	134.11	458.01	73.68	477.24	0.80

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
3363.00	10.38	67.34	3318.45	-146.38	146.38	490.74	73.39	512.10	0.47
3554.00	9.46	62.66	3506.59	-160.22	160.22	520.56	72.89	544.66	0.64
3744.00	9.38	62.78	3694.03	-174.47	174.47	548.19	72.35	575.29	0.04
3934.00	10.09	76.86	3881.33	-185.34	185.34	578.16	72.23	607.14	1.30
4125.00	10.25	65.87	4069.34	-196.08	196.08	609.96	72.18	640.70	1.02
4316.00	9.54	66.71	4257.50	-209.29	209.29	640.00	71.89	673.35	0.38
4506.00	9.94	61.61	4444.77	-223.31	223.31	668.89	71.54	705.18	0.50
4696.00	10.36	55.93	4631.80	-240.69	240.69	697.48	70.96	737.84	0.57
4887.00	8.65	57.74	4820.16	-257.98	257.98	723.86	70.38	768.46	0.91
5078.00	7.66	72.23	5009.25	-269.53	269.53	748.13	70.19	795.20	1.19
5268.00	5.51	71.05	5197.99	-276.36	276.36	768.82	70.23	816.98	1.13
5458.00	3.52	76.48	5387.39	-280.69	280.69	783.12	70.28	831.90	1.07
5647.00	1.05	24.32	5576.24	-283.62	283.62	789.47	70.24	838.87	1.58
5838.00	0.74	329.27	5767.22	-286.29	286.29	789.56	70.07	839.86	0.46
6028.00	1.03	237.17	5957.20	-286.42	286.42	787.49	70.01	837.96	0.68
6218.00	2.33	230.77	6147.12	-283.05	283.05	783.07	70.13	832.66	0.69
6408.00	0.33	100.97	6337.07	-280.51	280.51	780.62	70.23	829.49	1.34
6503.00	1.50	124.53	6432.05	-279.75	279.75	781.91	70.31	830.45	1.27

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
6598.00	10.34	165.97	6526.47	-270.75	270.75	785.01	70.97	830.39	9.76
6693.00	14.68	170.61	6619.20	-250.59	250.59	789.05	72.38	827.88	4.68
6788.00	20.47	179.65	6709.74	-222.08	222.08	791.12	74.32	821.69	6.72
6884.00	29.72	179.49	6796.59	-181.41	181.41	791.43	77.09	811.96	9.64
6979.00	41.73	174.81	6873.59	-126.17	126.17	794.51	80.98	804.47	12.96
7074.00	48.84	175.24	6940.38	-58.96	58.96	800.35	85.79	802.52	7.50
7169.00	56.13	177.56	6998.20	16.19	-16.19	805.00	91.15	805.17	7.91
7265.00	60.71	178.69	7048.46	97.91	-97.91	807.65	96.91	813.57	4.87
7360.00	68.76	181.38	7088.99	183.74	-183.74	807.54	102.82	828.18	8.85
7455.00	74.32	182.16	7119.06	273.77	-273.77	804.75	108.79	850.04	5.90
7551.00	80.02	183.15	7140.36	367.23	-367.23	800.40	114.65	880.63	6.02
7577.00	82.05	182.56	7144.42	392.88	-392.88	799.12	116.18	890.48	8.12
7687.00	89.06	183.37	7152.93	502.34	-502.34	793.46	122.34	939.10	6.42
7721.00	90.47	183.00	7153.07	536.28	-536.28	791.57	124.12	956.13	4.28
7814.00	91.04	181.81	7151.85	629.19	-629.19	787.66	128.62	1008.11	1.43
7908.00	90.57	181.11	7150.53	723.15	-723.15	785.27	132.64	1067.52	0.90
8004.00	89.90	180.05	7150.14	819.14	-819.14	784.30	136.24	1134.08	1.31
8099.00	91.01	180.66	7149.38	914.14	-914.14	783.72	139.39	1204.10	1.33

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
8194.00	90.97	179.98	7147.74	1009.12	-1009.12	783.19	142.18	1277.38	0.72
8289.00	90.40	179.03	7146.60	1104.11	-1104.11	784.00	144.62	1354.15	1.16
8384.00	90.17	177.41	7146.13	1199.06	-1199.06	786.96	146.72	1434.24	1.73
8479.00	90.40	179.68	7145.66	1294.02	-1294.02	789.37	148.62	1515.78	2.41
8574.00	90.70	179.73	7144.74	1389.01	-1389.01	789.86	150.38	1597.89	0.32
8669.00	90.80	179.10	7143.49	1484.00	-1484.00	790.84	151.95	1681.57	0.67
8764.00	90.94	178.34	7142.05	1578.96	-1578.96	792.96	153.33	1766.89	0.81
8860.00	89.80	180.07	7141.43	1674.95	-1674.95	794.28	154.63	1853.74	2.16
8955.00	90.54	179.61	7141.15	1769.95	-1769.95	794.54	155.82	1940.11	0.92
9050.00	92.11	179.11	7138.95	1864.91	-1864.91	795.61	156.90	2027.53	1.74
9145.00	90.00	179.97	7137.20	1959.89	-1959.89	796.37	157.89	2115.50	2.41
9241.00	90.07	180.04	7137.14	2055.89	-2055.89	796.36	158.83	2204.73	0.10
9336.00	88.99	178.75	7137.92	2150.87	-2150.87	797.36	159.66	2293.91	1.76
9431.00	90.90	178.40	7138.01	2245.84	-2245.84	799.71	160.40	2383.98	2.05
9527.00	92.75	180.92	7134.94	2341.78	-2341.78	800.28	161.13	2474.75	3.25
9622.00	91.71	181.36	7131.24	2436.69	-2436.69	798.38	161.86	2564.15	1.19
9717.00	90.37	181.97	7129.52	2531.63	-2531.63	795.62	162.55	2653.70	1.55
9812.00	90.50	181.93	7128.79	2626.57	-2626.57	792.38	163.21	2743.49	0.15

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
9907.00	88.22	180.66	7129.85	2721.53	-2721.53	790.23	163.81	2833.94	2.75
10002.00	90.91	180.69	7130.57	2816.51	-2816.51	789.11	164.35	2924.97	2.83
10098.00	91.85	180.90	7128.26	2912.47	-2912.47	787.77	164.86	3017.13	1.00
10193.00	91.41	181.33	7125.56	3007.42	-3007.42	785.92	165.35	3108.41	0.65
10288.00	89.53	182.85	7124.78	3102.34	-3102.34	782.45	165.84	3199.50	2.54
10383.00	88.29	182.84	7126.59	3197.21	-3197.21	777.74	166.33	3290.44	1.31
10479.00	90.23	181.78	7127.83	3293.12	-3293.12	773.86	166.78	3382.82	2.31
10574.00	91.14	182.41	7126.69	3388.04	-3388.04	770.39	167.19	3474.53	1.16
10669.00	89.56	179.27	7126.10	3483.02	-3483.02	769.00	167.55	3566.90	3.70
10764.00	89.66	178.38	7126.74	3577.99	-3577.99	770.95	167.84	3660.11	0.95
10860.00	90.44	178.49	7126.66	3673.96	-3673.96	773.57	168.11	3754.51	0.81
10955.00	91.58	178.71	7124.99	3768.91	-3768.91	775.89	168.37	3847.95	1.22
11050.00	90.24	178.92	7123.49	3863.88	-3863.88	777.84	168.62	3941.40	1.43
11145.00	88.83	179.08	7124.27	3958.86	-3958.86	779.50	168.86	4034.87	1.49
11241.00	89.33	178.57	7125.81	4054.83	-4054.83	781.47	169.09	4129.44	0.74
11336.00	88.19	179.06	7127.87	4149.78	-4149.78	783.43	169.31	4223.08	1.31
11431.00	87.61	177.49	7131.35	4244.67	-4244.67	786.28	169.51	4316.88	1.76
11526.00	88.93	177.47	7134.22	4339.53	-4339.53	790.45	169.68	4410.94	1.38

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Direction deg	Closure Distance ft	DLS "/100ft
11618.00	88.56	176.70	7136.24	4431.39	-4431.39	795.13	169.83	4502.16	0.93

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft



GAMMA RAY

5" = 100' FEET TVD