



Weatherford

**HOLE VOLUME
CALIPER
LOG**

COMPANY	ALTA MESA SERVICES, LP		
WELL	ML INVESTMENTS 2-3		
FIELD	WILDCAT		
PROVINCE/COUNTY	PAYETTE		
COUNTRY/STATE	U.S.A. / IDAHO		
LOCATION	SHL: 2444' FNL & 1352' FWL		
SEC 3	TWP 8N	RGE 4W	Other Services
			PHOTO DENSITY
			DUAL SPACED NEUTRON
			ARRAY INDUCTION
API Number	11-075-20029		
Permanent Datum G.L., Elevation	2635 feet		
Log Measured From	KB	Elevations:	feet
Drilling Measured From	KB @ 13.5 FT	KB	2648.50
		DF	2647.00
		GL	2635.00
Date	3-JAN-2016		
Run Number	ONE		
Service Order	2653-138717807		
Depth Driller	5034.00	feet	
Depth Logger	5034.00	feet	
First Reading	5006.00	feet	
Last Reading	1111.00	feet	
Casing Driller	1105.00	feet	
Casing Logger	1111.00	feet	
Bit Size	8.750	inches	
Hole Fluid Type	WBM		
Density / Viscosity	9.70 lb/USg	55.00 sec/qt	
PH / Fluid Loss	9.50	9.20 ml/30Min	
Sample Source	FLOWLINE		
Rm @ Measured Temp	1.84 @ 75.0	ohm-m	
Rmf @ Measured Temp	1.47 @ 75.0	ohm-m	
Rmc @ Measured Temp	2.21 @ 75.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.83 @ 170.0	ohm-m	
Time Since Circulation	0 HOURS		
Max Recorded Temp	170.00	deg F	
Equipment / Base	13173	CASPER	
Recorded By	W. HANKS		S. BATEMAN
Witnessed By	MIKE MCMENNAMY		

BOREHOLE RECORD			Last Edited: 01-JAN-2016 20:41	
Bit Size inches	Depth From feet	Depth To feet		
8.750	1105.00	5034.00		
CASING RECORD				
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	1105.00	40.00

REMARKS

SOFTWARE VERSION USED: 15.03.5939
 TOOLS CONVEYED VIA DRILL PIPE/COMPACT WELL SHUTTLE

LOGS RECORDED USING A 200V MEMORY LOGGING SYSTEM
 200V EXTENDED BATTERIES USED TO POWER TOOLSTRING

ALL DEPTHS RECORDED WITH WEATHERFORD ADVANTAGE DEPTH SYSTEM IN CONJUNCTION WITH RIG PASON EDR SYSTEM
 ALL DEPTHS CORRECTED TO DRILLER'S STRAP DEPTH

TIGHT PULLS, BOREHOLE SIZE, AND RUGOSITY MAY AFFECT DATA QUALITY

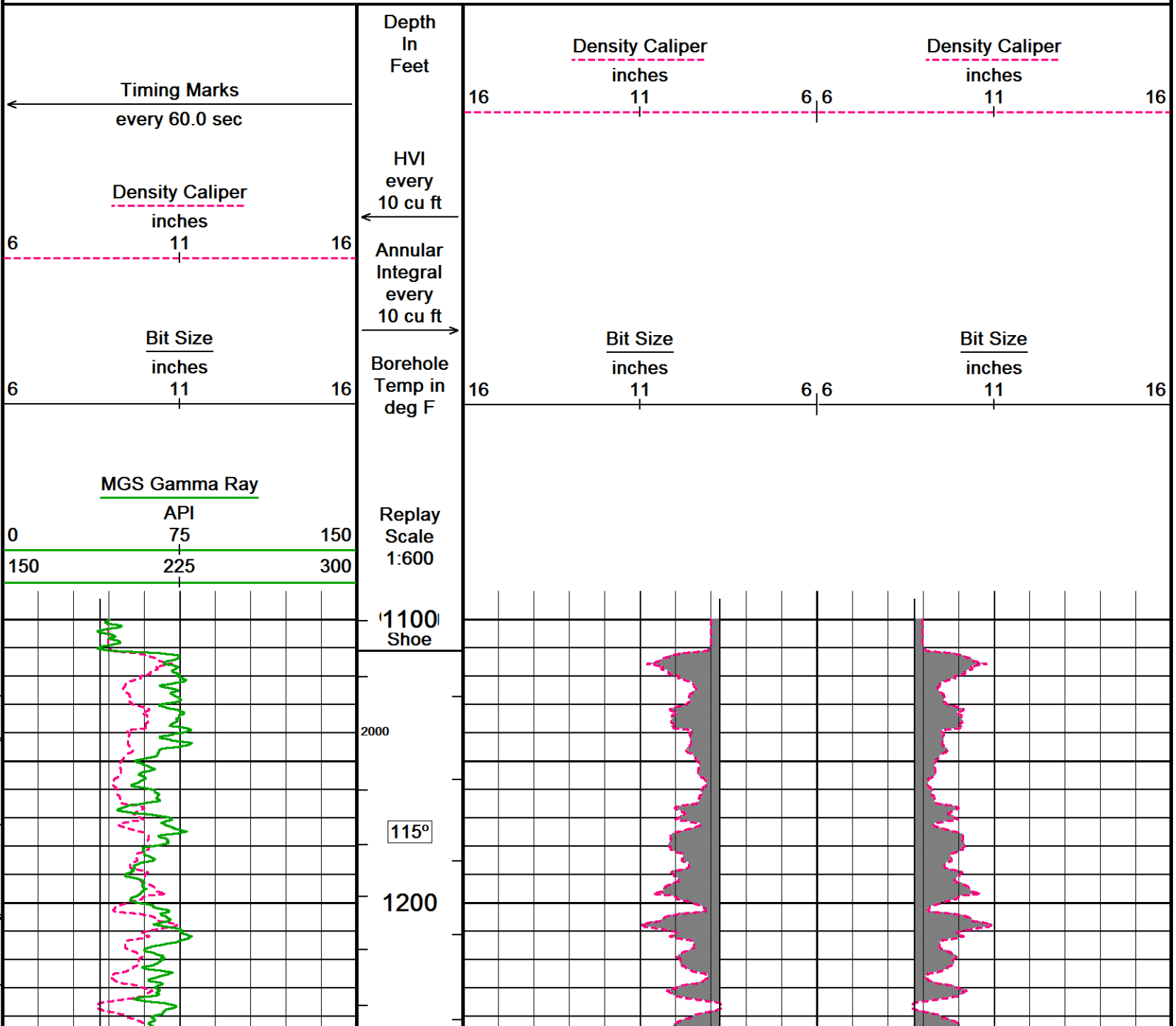
HARDWARE USED: MPD - 4 INCH PROFILE PLATE
 MAI - INDUCTION STANDOFF ASSEMBLY
 MFE AND MAI STOOD OFF 0.5 INCHES USING ISA AND MISE ANCILLARIES

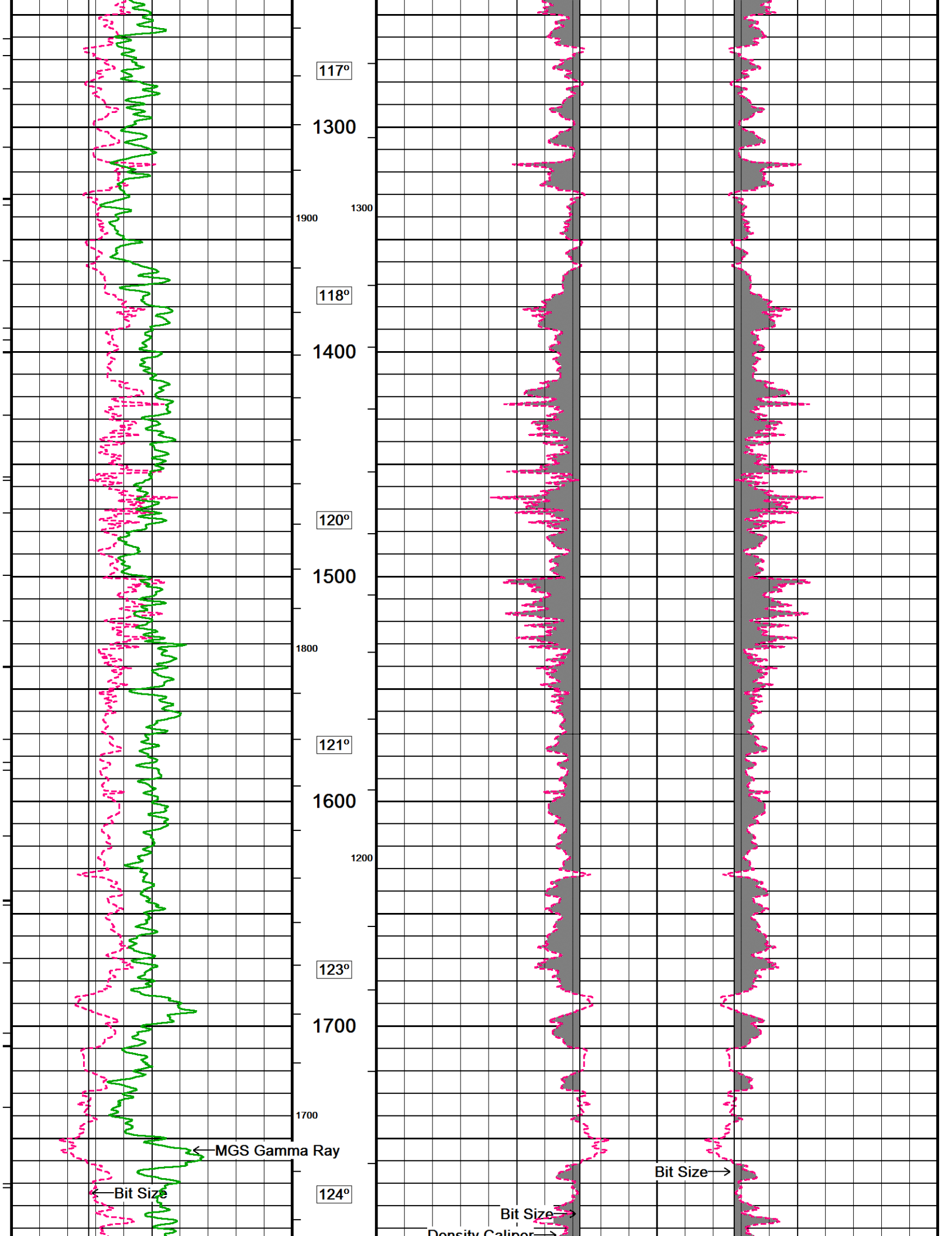
5.5 INCH PRODUCTION CASING SIZE USED TO CALCULATE ANNULAR HOLE VOLUME
 ANNULAR HOLE VOLUME FROM T.D. TO SURFACE CASING : 1375 CUBIC FEET
 TOTAL HOLE VOLUME FROM T.D. TO SURFACE CASING: 2015 CUBIC FEET

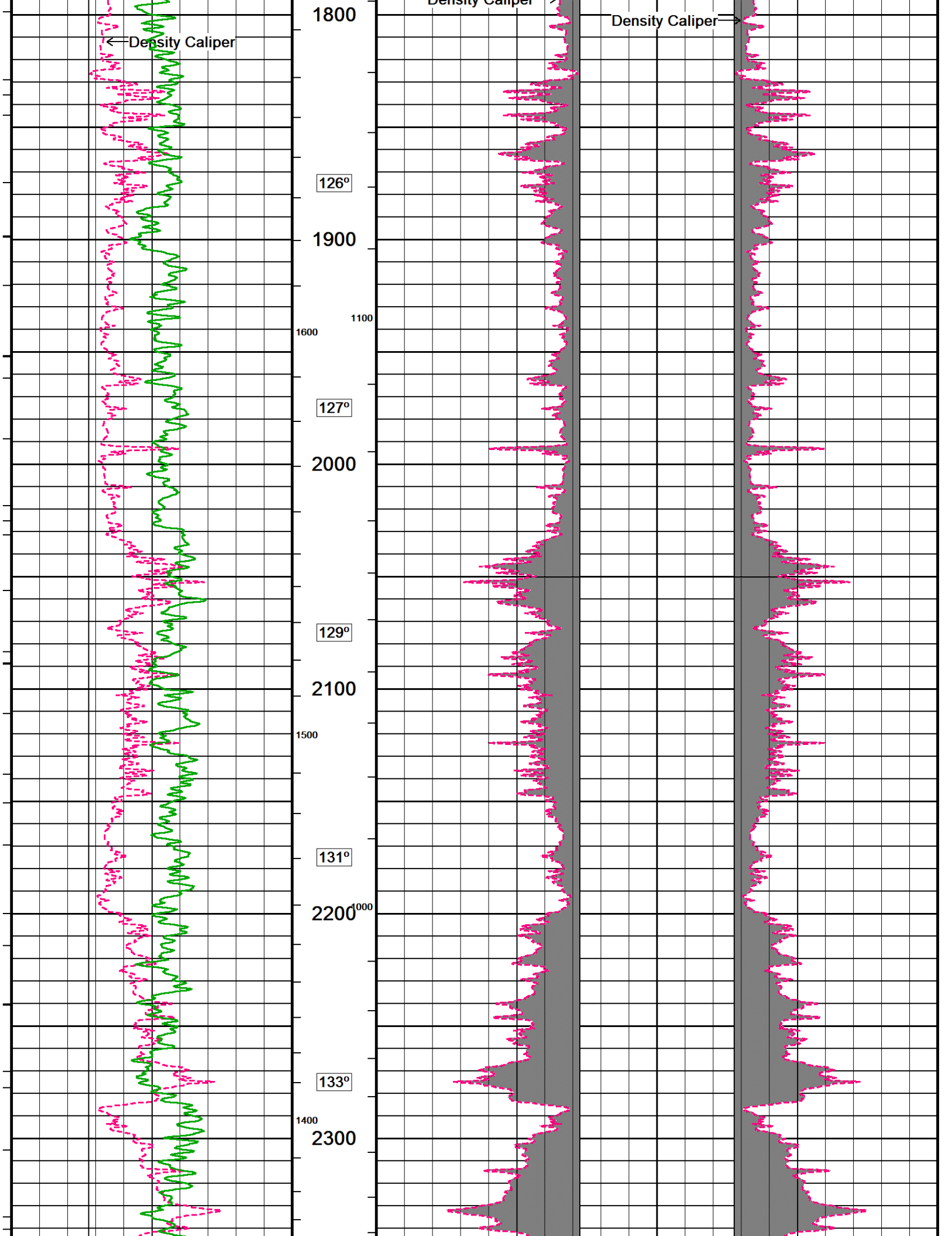
In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.

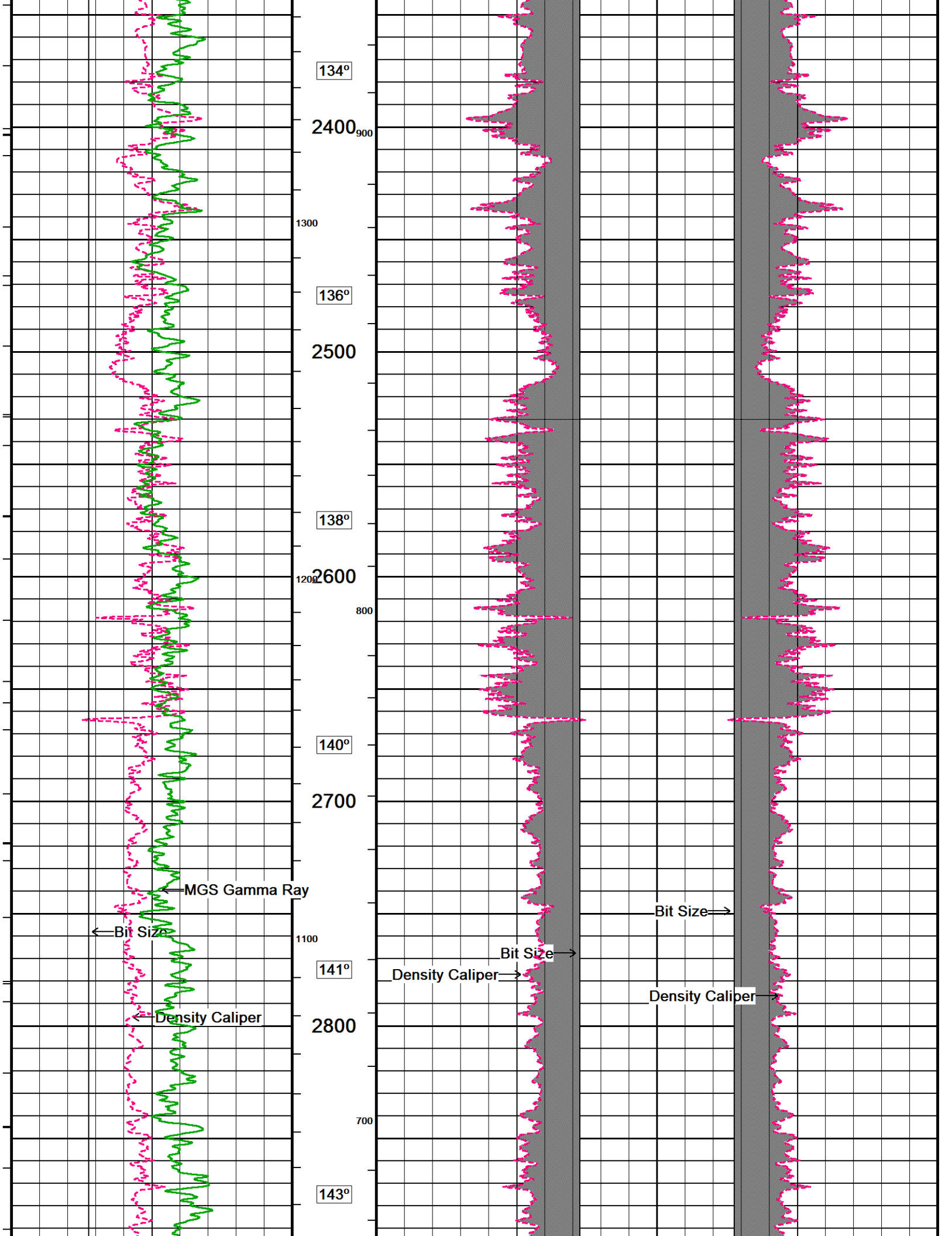
2 INCH MAIN LOG

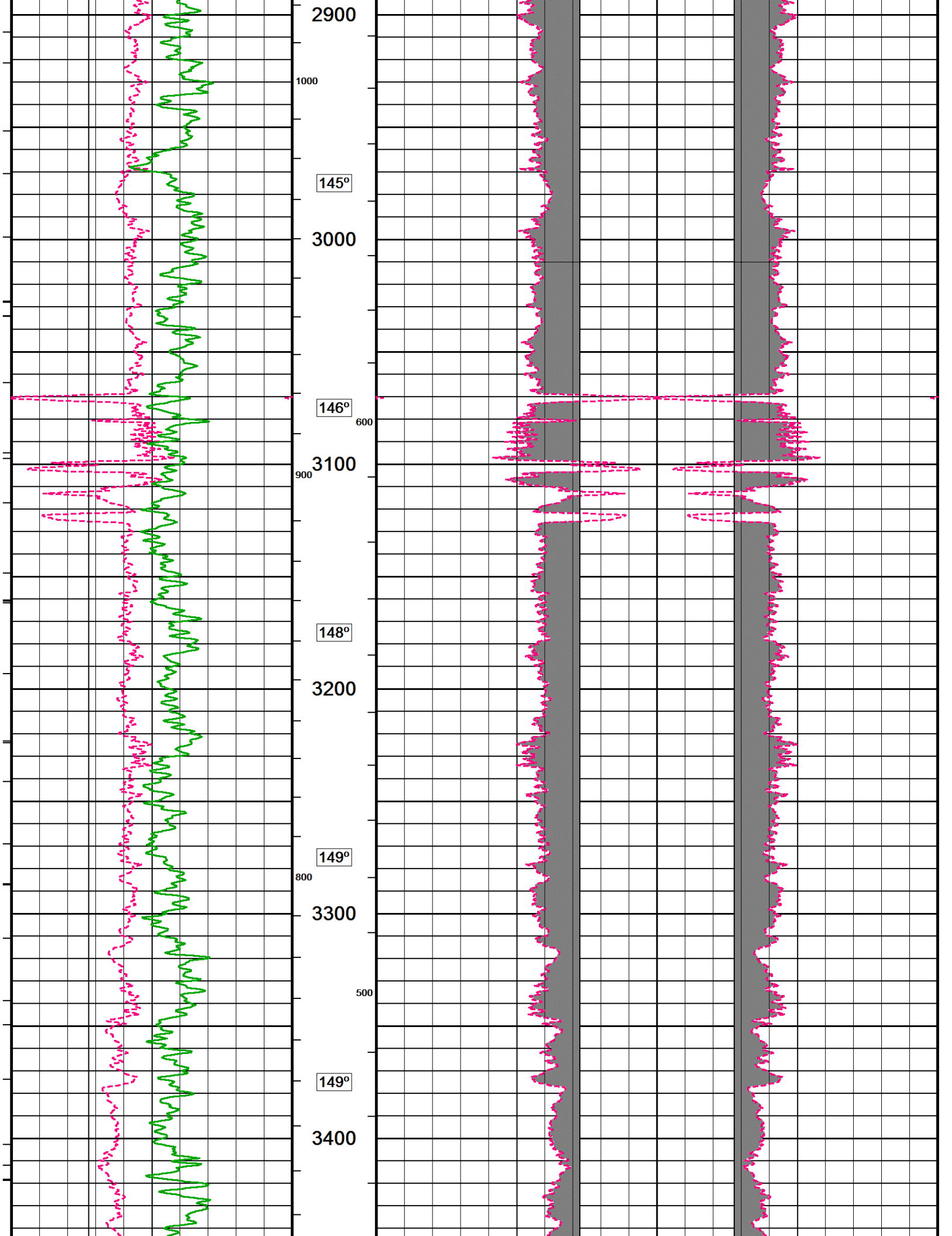
Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 12-JAN-2016 12:01
 Filename: C:\Users\jenkinlm\AppData\Local\Temp\Weatherford ...ML Investments 2-3_MMS Depth.dta Recorded on 03-JAN-2016 21:46
 System Versions: Logged with 15.03.5939 Processed with 15.03.4802 Plotted with 13.08.1505

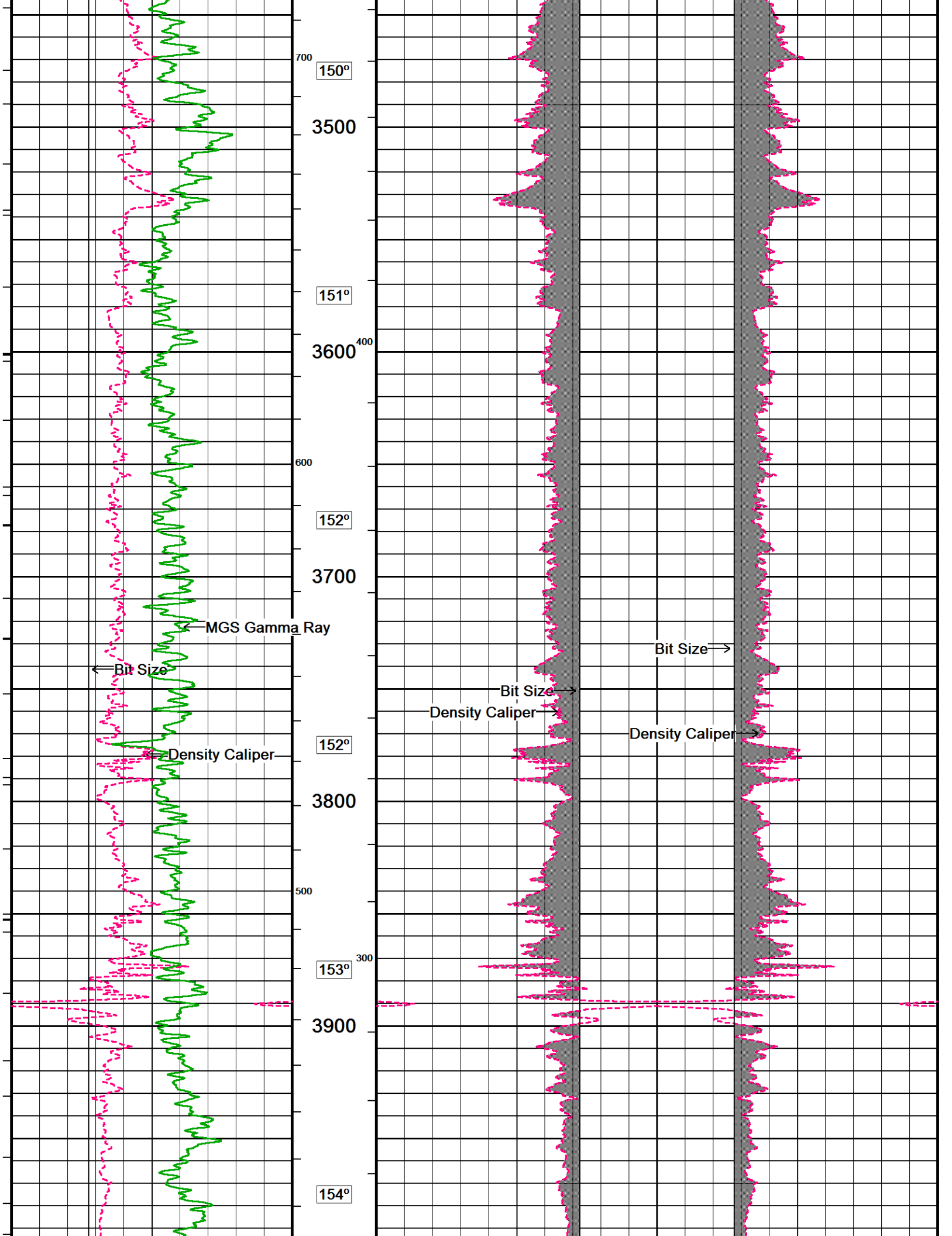


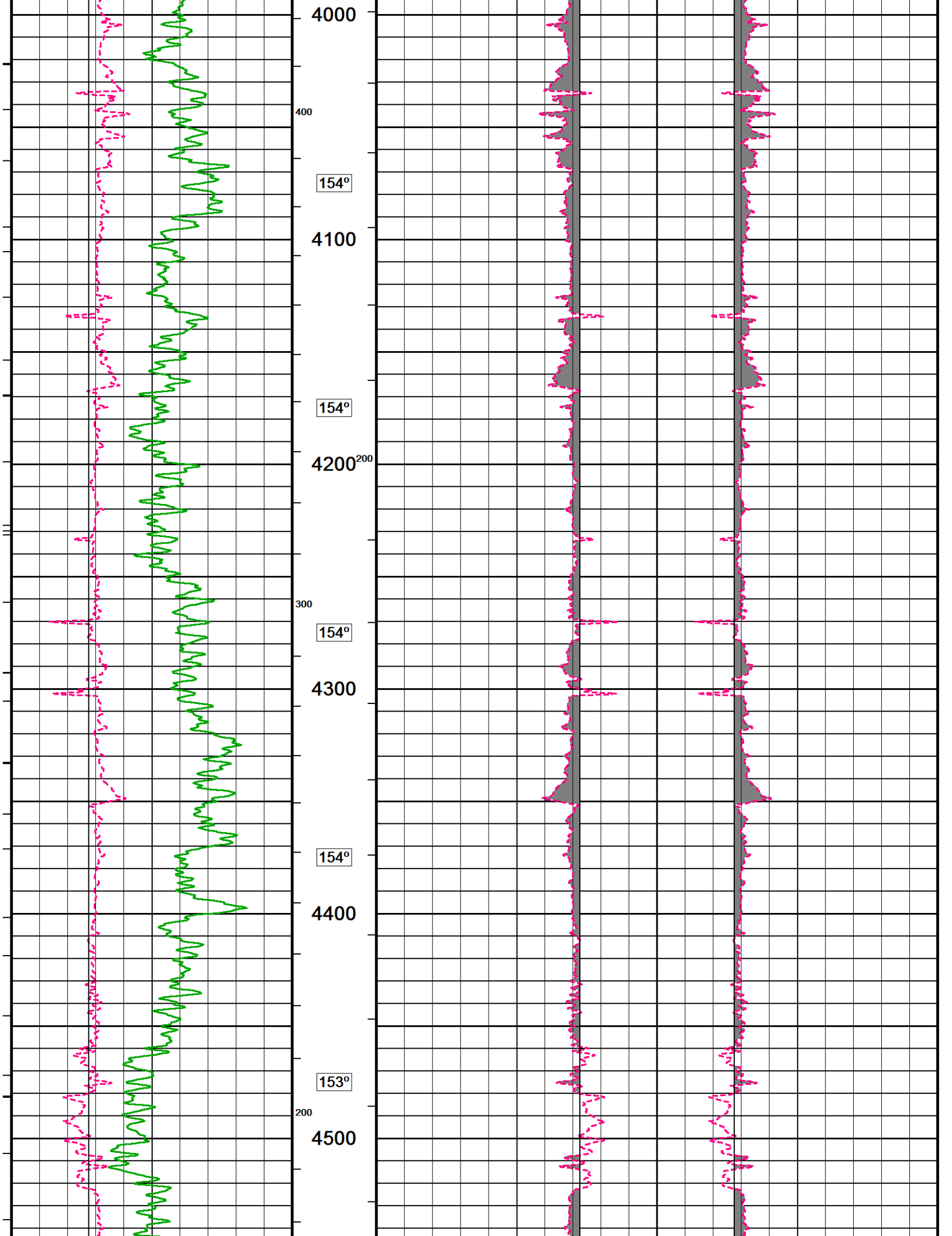


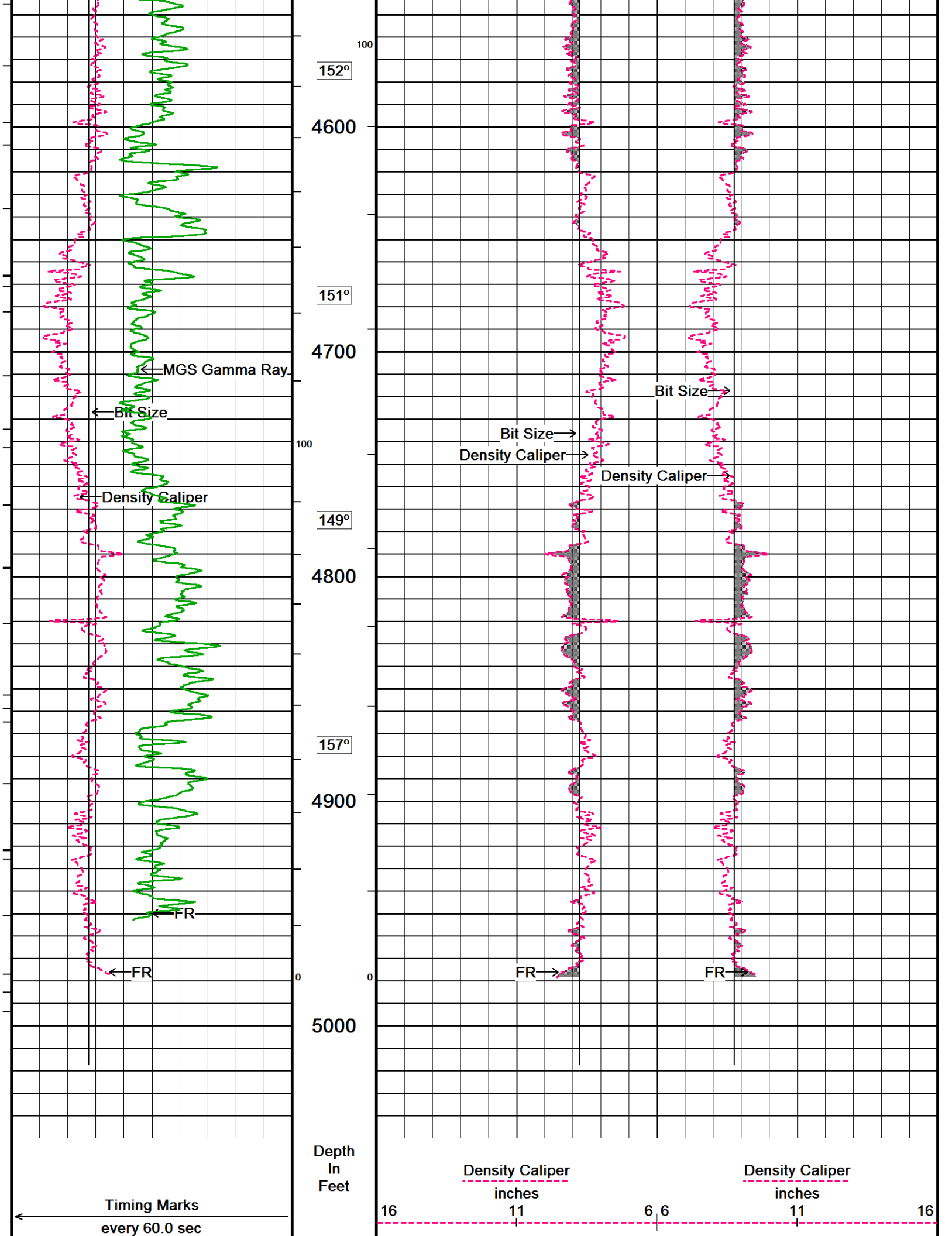


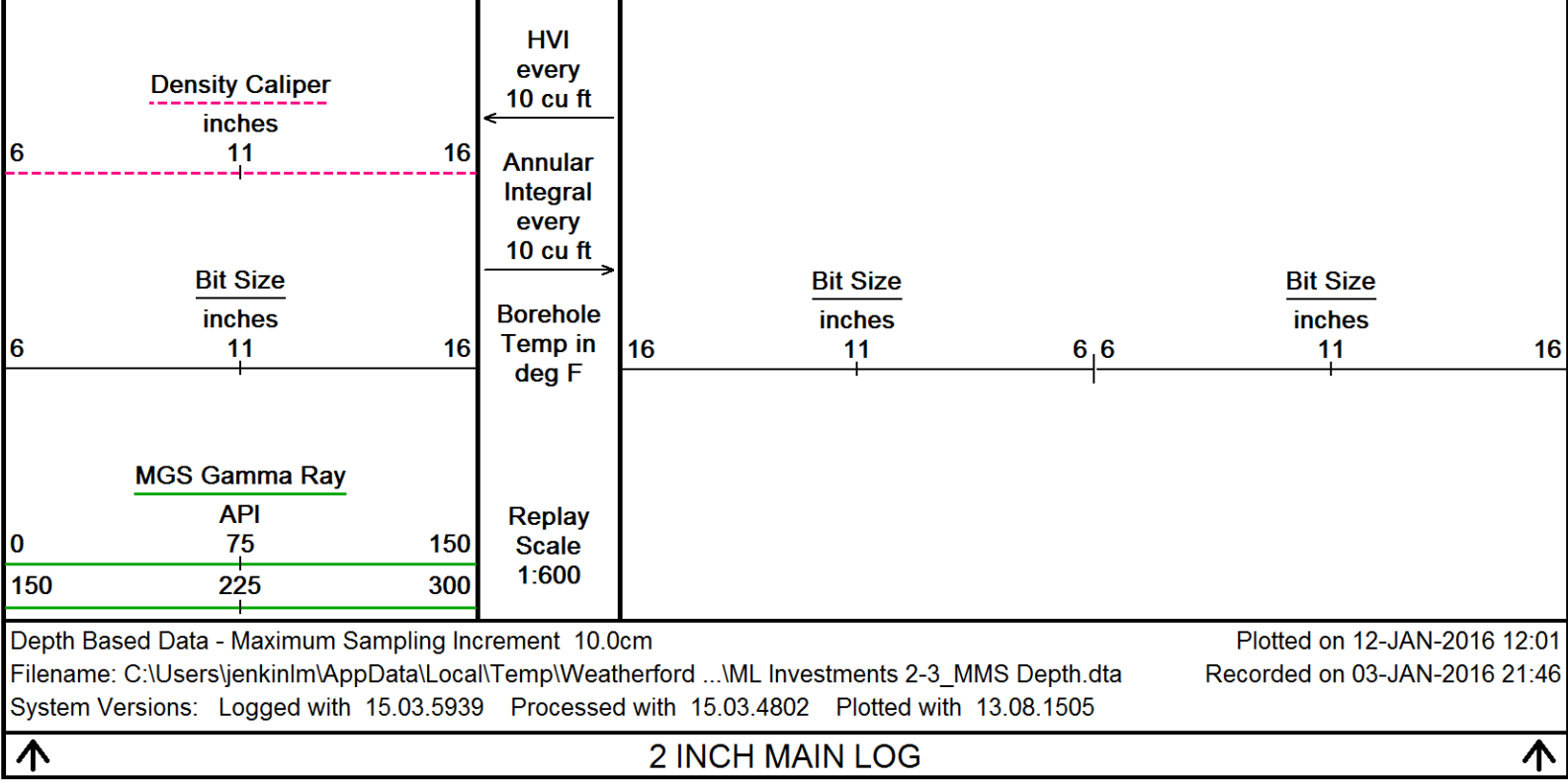






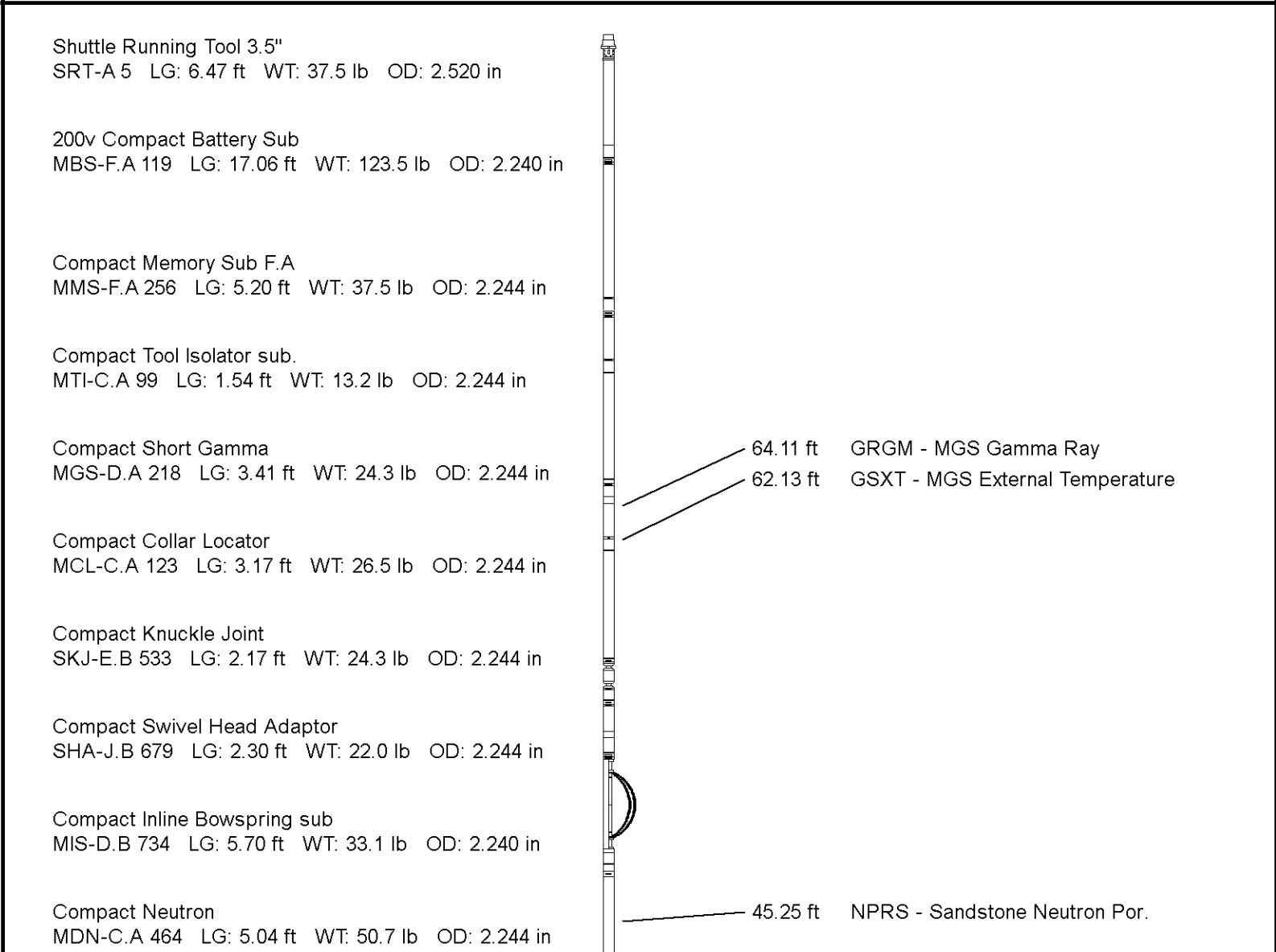






↑ 2 INCH MAIN LOG ↑

DOWNHOLE EQUIPMENT
 C:\Users\jenkinlm\AppData\Local\Temp\Weatherford PreView17\0\ML Investments 2-3_MMS Depth.dta



Compact Density/Caliper
MPD-D.A 460 LG: 9.59 ft WT: 90.4 lb OD: 2.244 in

Compact Vee Arm Caliper
MVC-A.A 142 LG: 8.06 ft WT: 61.7 lb OD: 2.244 in

Compact Swivel Head Adaptor
SHA-J.B 511 LG: 2.30 ft WT: 22.0 lb OD: 2.244 in

Compact Knuckle Joint
SKJ-E.B 611 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

Compact Inline Standoff sub
MIS-E.B 643 LG: 2.14 ft WT: 15.4 lb OD: 2.244 in

Compact Focussed Electric
MFE-C.A 416 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Inline Standoff sub
MIS-E.B 786 LG: 2.14 ft WT: 15.4 lb OD: 2.244 in

Compact Induction
MAI-B.J 374 LG: 12.52 ft WT: 48.5 lb OD: 2.240 in

Total Length: 97.02 ft Weight: 718.7 lb



38.01 ft AVOL - Annular Volume
38.01 ft HVOL - Hole Volume
38.01 ft CLDC - Density Caliper
36.08 ft DPRS - Sandstone Density Por.
36.08 ft DCOR - Density Correction
36.01 ft PDPE - PE

3.34 ft R200 - Array Ind. One Res 20
3.34 ft R600 - Array Ind. One Res 60
3.34 ft R400 - Array Ind. One Res 40
3.34 ft R300 - Array Ind. One Res 30
3.34 ft R850 - Array Ind. One Res 85
3.34 ft RTAO - Array Ind. One Res Rt
Tool Zero (1.84ft from bottom)
All measurements relative to tool zero.

COMPANY	ALTA MESA SERVICES, LP
WELL	ML INVESTMENTS 2-3
FIELD	WILDCAT
PROVINCE/COUNTY	PAYETTE
COUNTRY/STATE	U.S.A. / IDAHO

Elevation Kelly Bushing	2648.50	feet	First Reading		feet
Elevation Drill Floor	2647.00	feet	Depth Driller	5034.00	feet
Elevation Ground Level	2635.00	feet	Depth Logger	5034.00	feet



Weatherford[®]

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