

ANNULAR HOLE VOLUME

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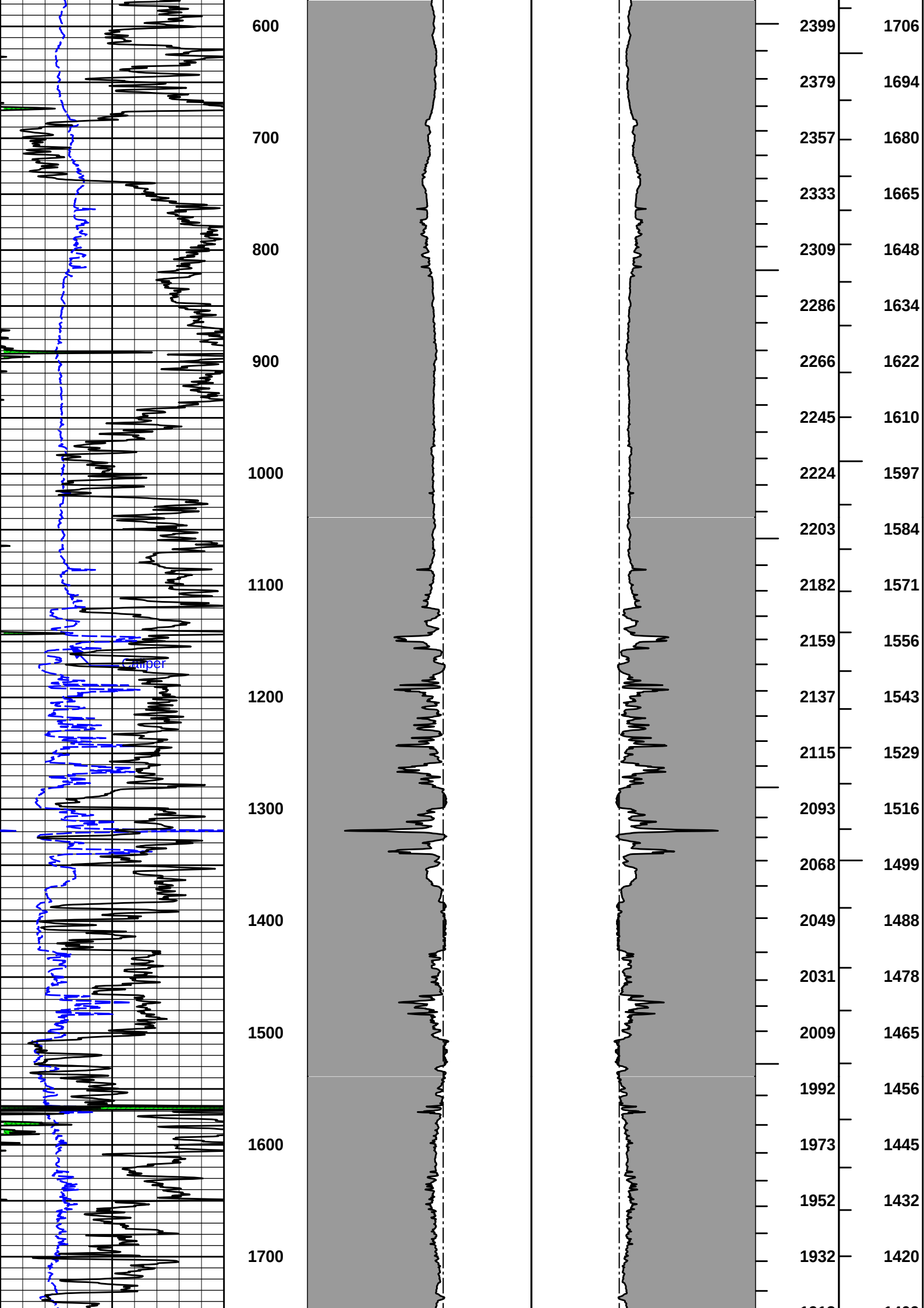
Service Ticket No.: 903556483						API No.: 15-109-21479-00-00						PGM Version: WL INSITE R5.0.5 (Build 8)											
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE												RESISTIVITY SCALE CHANGES											
Date		Sample No.										Type Log		Depth		Scale Up Hole				Scale Down Hole			
Depth-Driller																							
Type Fluid in Hole																							
Density		Viscosity																					
Ph		Fluid Loss																					
Source of Sample												RESISTIVITY EQUIPMENT DATA											
Rm @ Meas. Temp				@				@				Run No.		Tool Type & No.		Pad Type		Tool Pos.		Other			
Rmf @ Meas. Temp.				@				@				ONE		ACRT		NONE		1.19 in S.O.		N/A			
Rmc @ Meas. Temp.				@				@						I-11026095									
Source Rmf		Rmc		CALC		CALC						S-11005908											
Rm @ BHT				0.23 ohmm @ 122 degF				@															
Rmf @ BHT				0.19 ohmm @ 122 degF				@															
Rmc @ BHT				0.26 ohmm @ 122 degF				@															
EQUIPMENT DATA																							
GAMMA				ACOUSTIC				DENSITY				NEUTRON											
Run No.		ONE		Run No.		ONE		Run No.		ONE		Run No.		ONE									
Serial No.		11048627		Serial No.		10939064		Serial No.		10950489		Serial No.		1101643									
Model No.		GTET		Model No.		BSAT		Model No.		SDLT		Model No.		DSNT									
Diameter		3.625"		No. of Cent.		2		Diameter		4.5"		Diameter		3.625"									
Detector Model No.		GTET		Spacing		0.5'		Log Type		GAM-GAM		Log Type		NEU-NEU									
Type		SCINT						Source Type		Cs-137		Source Type		Am241Be									
Length		8"		LSA [Y/N]				Serial No.		5168GW		Serial No.		DSN-424									
Distance to Source		N/A		FWDA [Y/N]				Strength		1.5 Ci		Strength		15Ci									
LOGGING DATA																							
GENERAL				GAMMA		ACOUSTIC				DENSITY				NEUTRON									
Run		Depth		Speed		Scale		Scale		Matrix		Scale		Matrix		Scale		Matrix					
No.		From To		ft/min		L R		L R				L R				L R							
ONE		TD		CSG		PEC		0 150		30 -10		47.6 us/ft		30 -10		2.71 g/cc		30 -10		LIME			

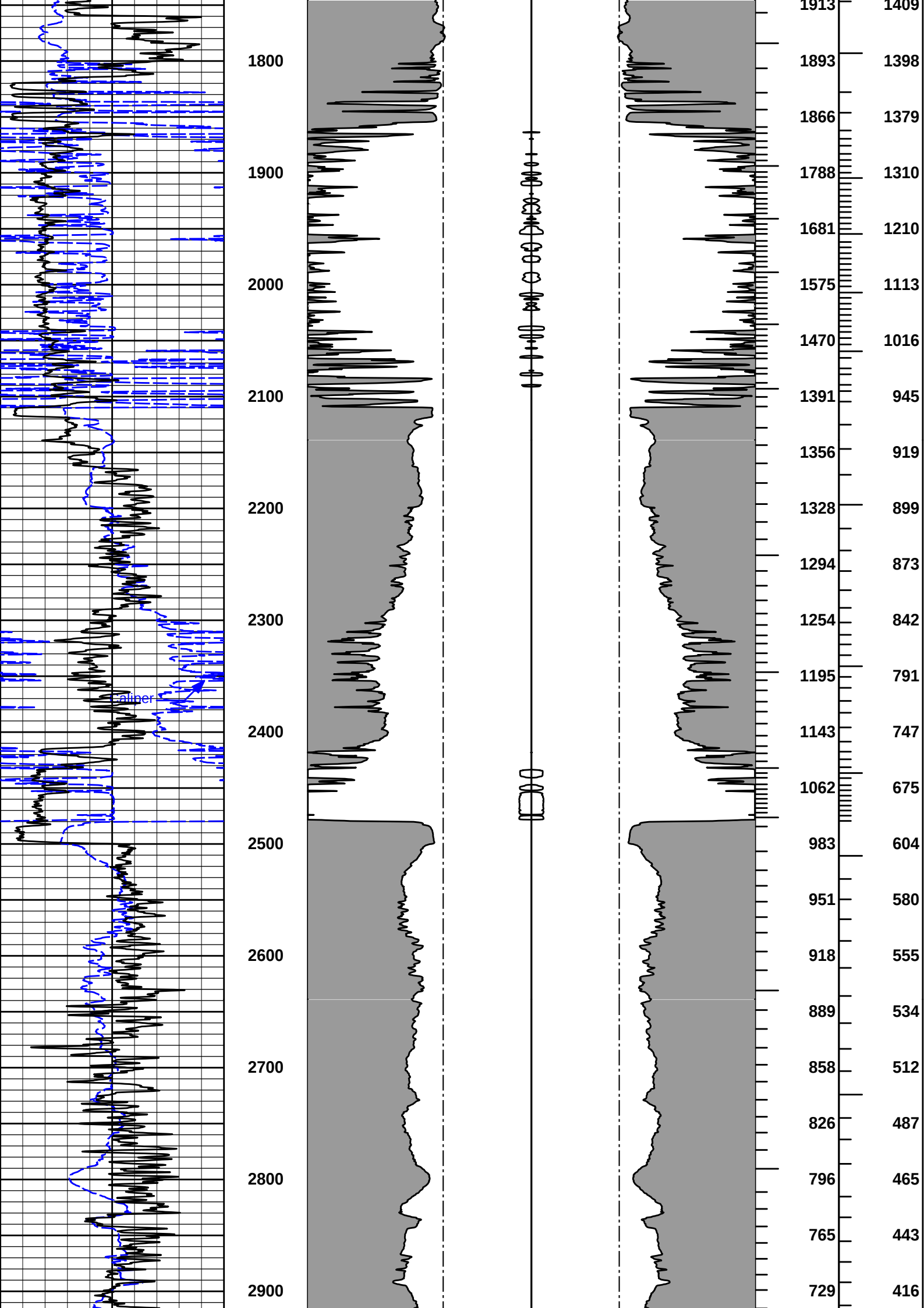
ONE	TD	CSG	REC	0	100	30	-10	47.0 us/hr	30	-10	2.71 g/cc	30	-10	TIME	
DIRECTIONAL INFORMATION															
Maximum Deviation					1.35 deg		@	4514.0 ft			KOP		@	306.0 ft	
DIRECTIONAL DATA PROVIDED BY INSITE DIRECTIONAL TOOL															
Remarks: GTET-IDT-DSNT-SDLT-BSAT-ACRT RUN IN COMBINATION															
ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING															
REPEAT TAKEN FROM 4300'-4800' PER CLIENT REQUEST															
CHLORIDES REPORTED AT 11,000ppm															
RIG: SOUTHWIND - RIG 9															
CREW: K. KING, L. CROW															
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES -- EL RENO, OK -- 405.278.9685															
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.															
HALLIBURTON															

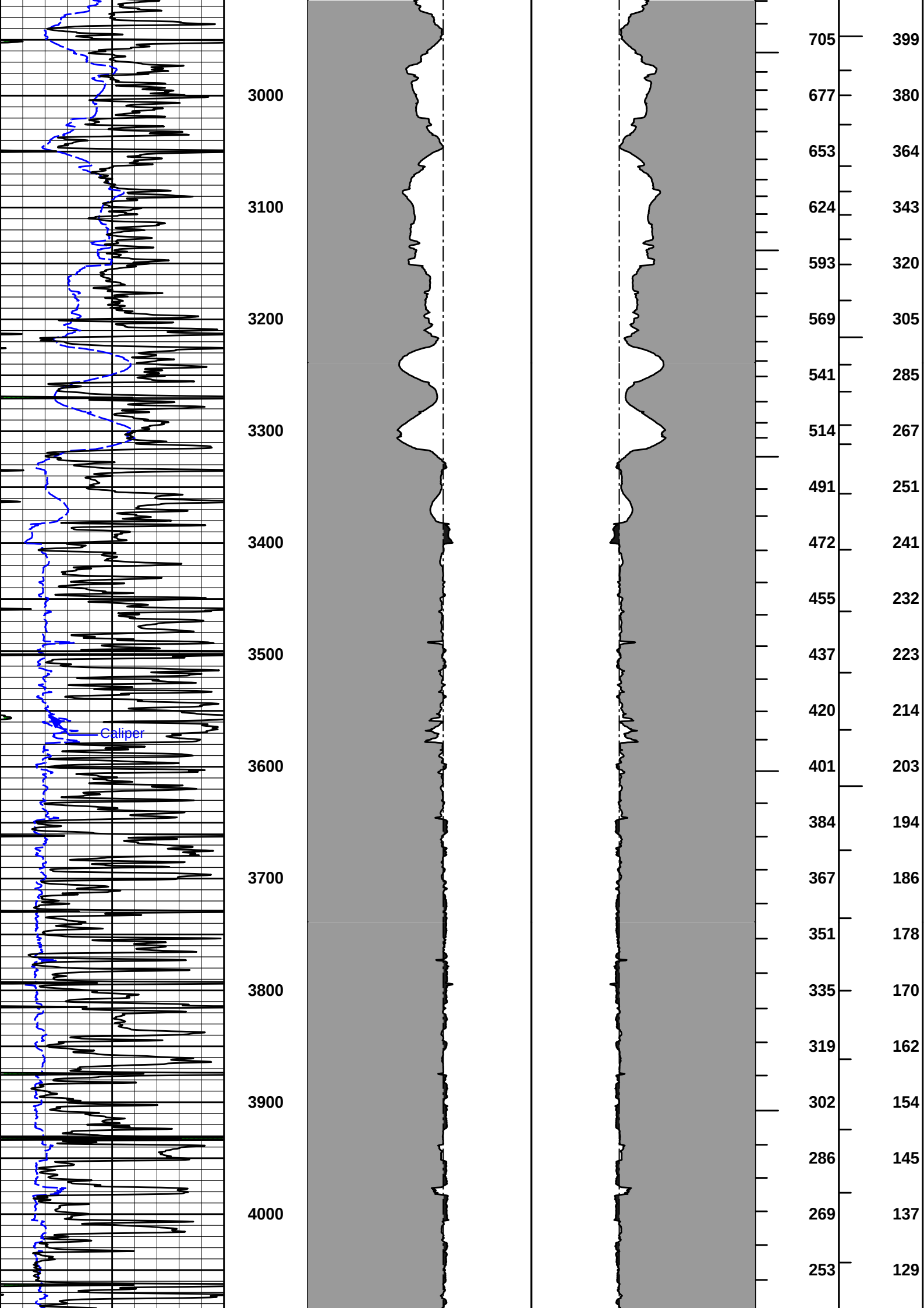
HALLIBURTON Plot Time: 25-Sep-16 02:32:18 Plot Range: 285 ft to 4810 ft Data: CULB_BAKER 2-21\Well Based\DAQ-0001-004\ Plot File: \\-LOCAL-\\CULB_BAKER 2-21\0001 GTET-IDT-DSN-SDL-BSAT-ACRT\AHV\ELR_AHV_PLOT
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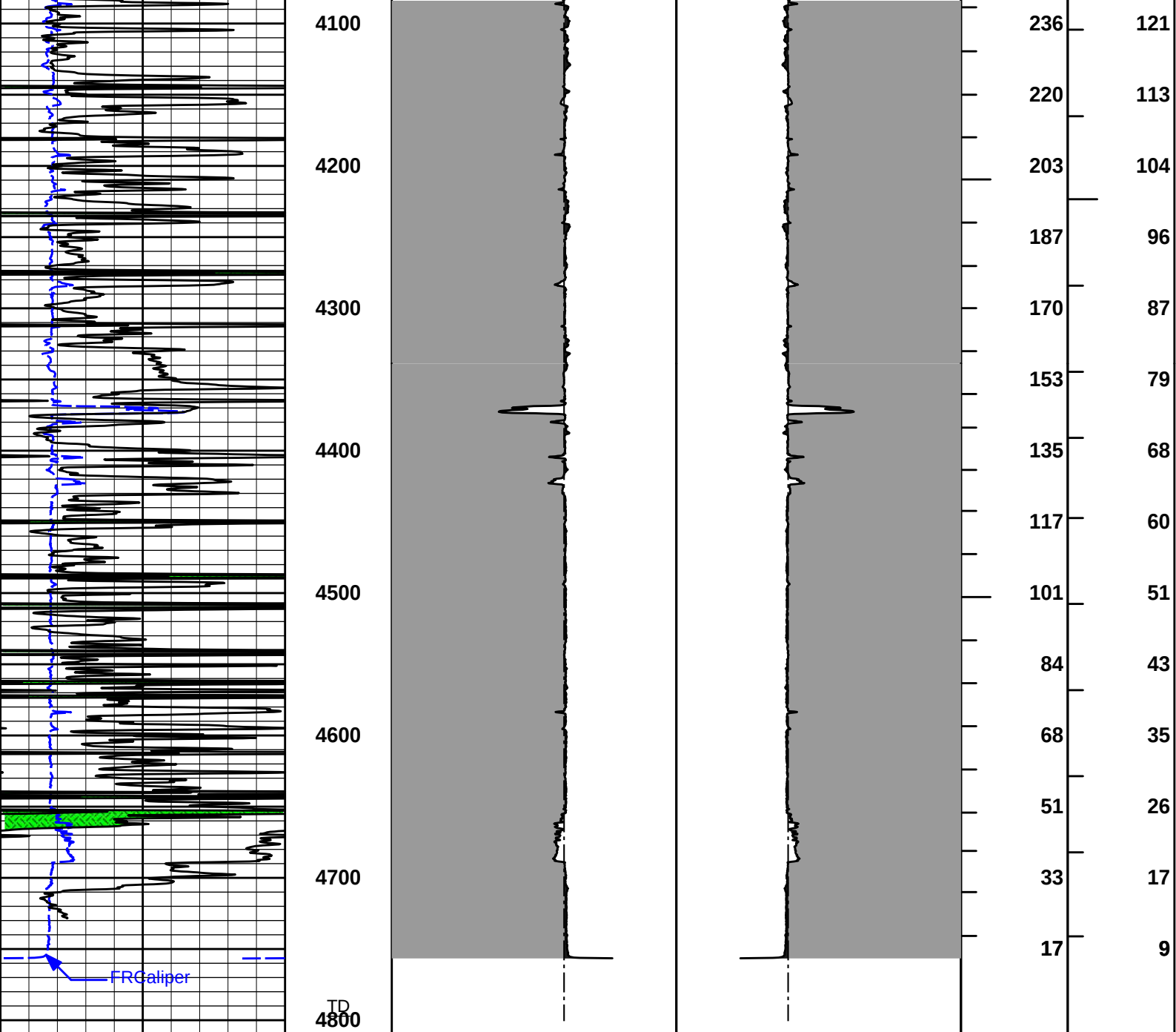
1 IN = 100 FT MD ANNULAR HOLE VOLUME PLOT
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SHALE		MUDCAKE	MUDCAKE		
0 Gamma API 150		20 Bit Size 0	0 Bit Size 20		
api					
6 CALI 16	1 : 1200 ft	20 CALI 0	0 CALI 20	BHVT	AHVT
inches		inches	inches		
	300			2546	1803
				2519	1785
400				2492	1766
				2466	1748
500				2442	1732
				2420	1719









6	CALI		16	1 : 1200 ft	20	CALI		0	0	CALI		20	BHVT	AHVT		
	inches				inches											
	Gamma API				20	Bit Size		0	0	Bit Size		20				
	api															
SHALE					MUDCAKE				MUDCAKE							

HALLIBURTON

Plot Time: 25-Sep-16 02:32:21
Plot Range: 285 ft to 4810 ft
Data: CULB_BAKER 2-21\Well Based\DAQ-0001-004\
Plot File: \\LOCAL-ICULB_BAKER 2-21\0001 GTET-IDT-DSN-SDL-BSAT-ACRT\AHV\ELR_AHV_PLOT

1 IN = 100 FT MD
ANNULAR HOLE VOLUME PLOT

COMPANY	CULBREATH OIL & GAS COMPANY, LLC		
WELL	KS BAKER 2-21		
FIELD	UNNAMED		
COUNTY	LOGAN	STATE	KANSAS
HALLIBURTON		ANNULAR HOLE VOLUME	