



2" = 100' FEET TVD

COMPANY : BP
WELL : TUBBS 32-6-9 A 2
FIELD : LA PLATA
COUNTY : LA PLATA
STATE : COLORADO
COUNTRY : USA
UWI : 05-067-09928

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WELL LOCATION
LAT: 37.0322891°N LONG: 107.5043066°W

SEC: 9 TWP: 32N RANGE: 6W

OTHER SERVICES
DIRECTIONAL
ROP
CONDUCTIVITY
PETR

DEPTH REF. : RKB
REF. HEIGHT : 11,000 ft
GROUND LEVEL : 6358.000 ft
RKB to Ground Level
G.L. to MEAN SEA LEVEL

BOREHOLE RECORD

DEVIATION RECORD

HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft
12 1/4	0	735	0	0	150
7 7/8	735	3590	0 - 41.8	150	985
			41.8 (+/-)	985	2384
			41.8 - 0	2384	3220
			0	3220	3590

CASING RECORD

CASING SIZE in	FROM ft	TO ft
8 5/8	0	726

DRILLING CO. : AZTEC
RIG : 507
LMD UNIT NO. :
SPUD DATE : 05/29/2015
LMD START DATE : 5/31/2015
LMD END DATE : 6/2/2015
DISTRICT : GRAND JUNCTION
DEPTH : 619 ft
DEPTH : 3590 ft
TOTAL DEPTH : 3590 ft

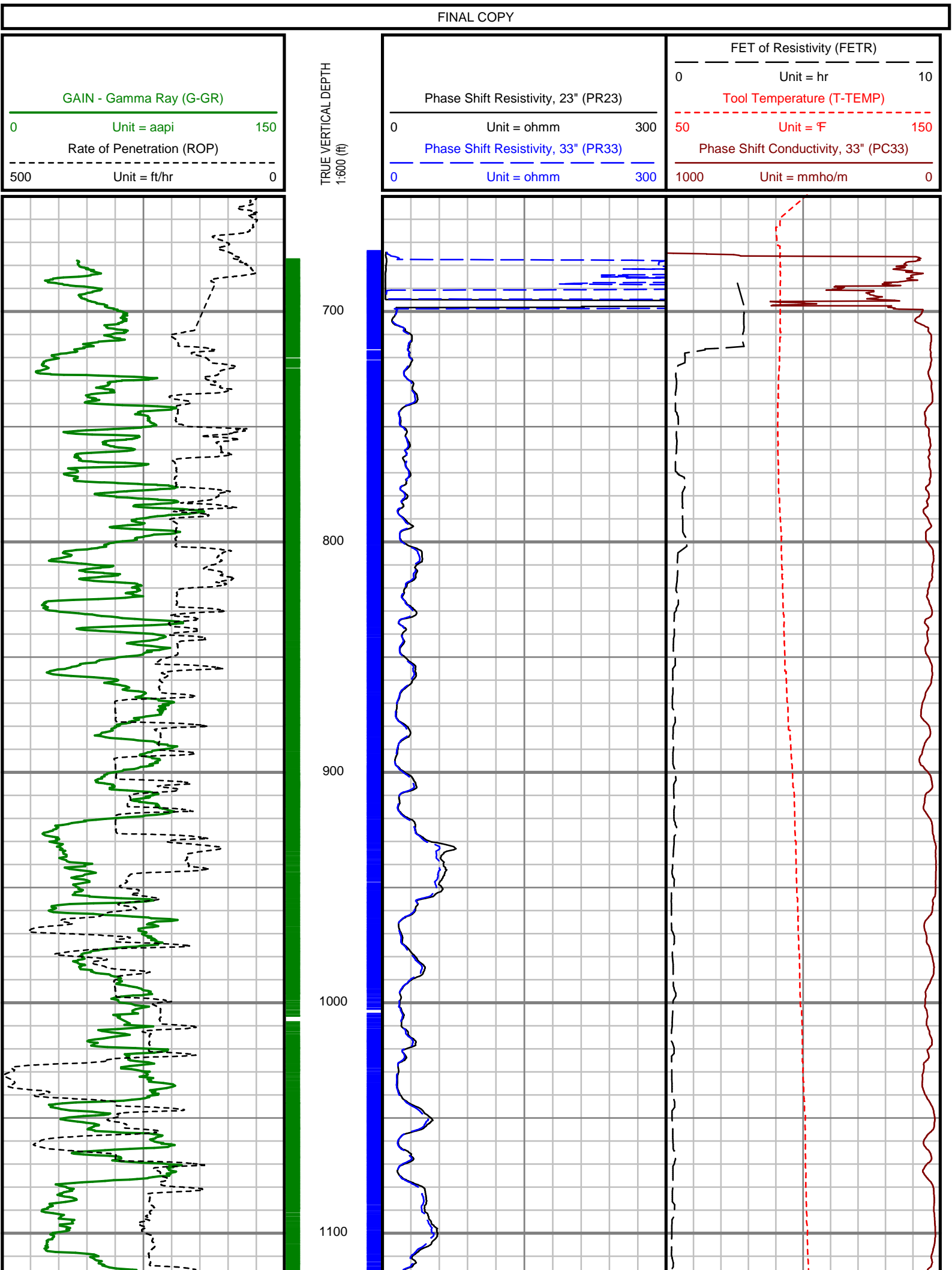
Run Data

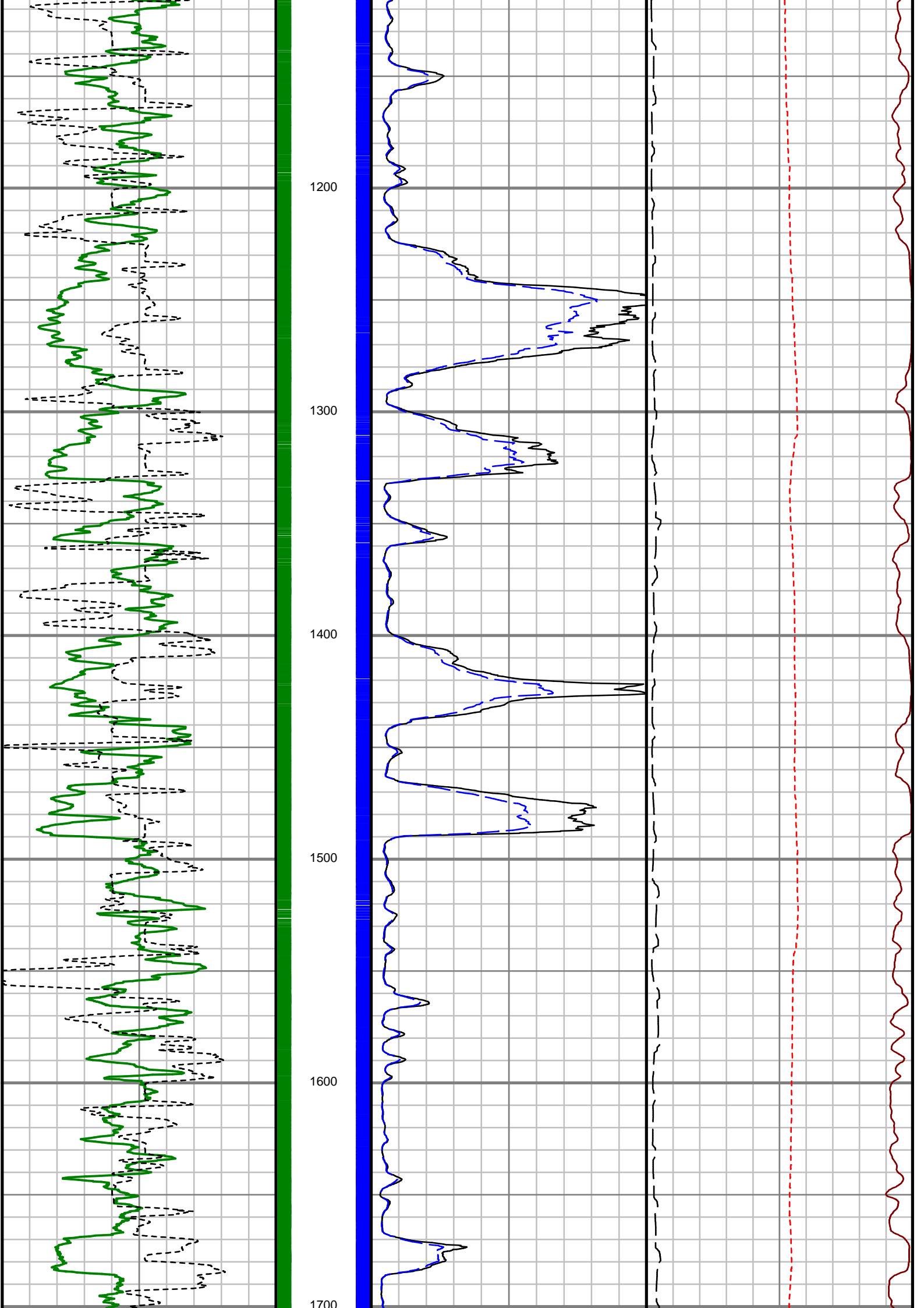
RUN NUMBER	1	2				
START DATE	5/29/2015	5/31/2015				
START TIME	13:00	11:30				
END DATE	5/30/2015	6/2/2015				
END TIME	7:00	4:00				
DEPTH IN (ft)	0	735				
DEPTH OUT (ft)	735	3590				
LOG TOP (ft)	-	775				
LOG BOTTOM (ft)	-	3590				
HOLE SIZE (in)	12 1/4	7 7/8				
MUD DATA @ (ft)	707	3216				
MUD TYPE	SPUD MUD	LSND				
DENSITY (lb / gal)	8.45	9.15				
VISCOSITY (s / qt)	44	36				
pH	11.7	8.3				
FLUID LOSS (cm3 / 30)	10.0	7.2				
SALINITY (ppm)	1400	700				
Rm (ohmm @ deg F)	-	-				
Rmf (ohmm @ deg F)	-	-				
MAX TEMP (deg F)	105	117				
Rm @ MAX TEMP (ohmm)	-	-				
LWD ENGINEER #1	L. CLEVINGER	L. CLEVINGER				
LWD ENGINEER #2	M. MILLER	M. MILLER				
LWD ENGINEER #3	K. TEMPLE	K. TEMPLE				
LOG WITNESS #1						
LOG WITNESS #2						

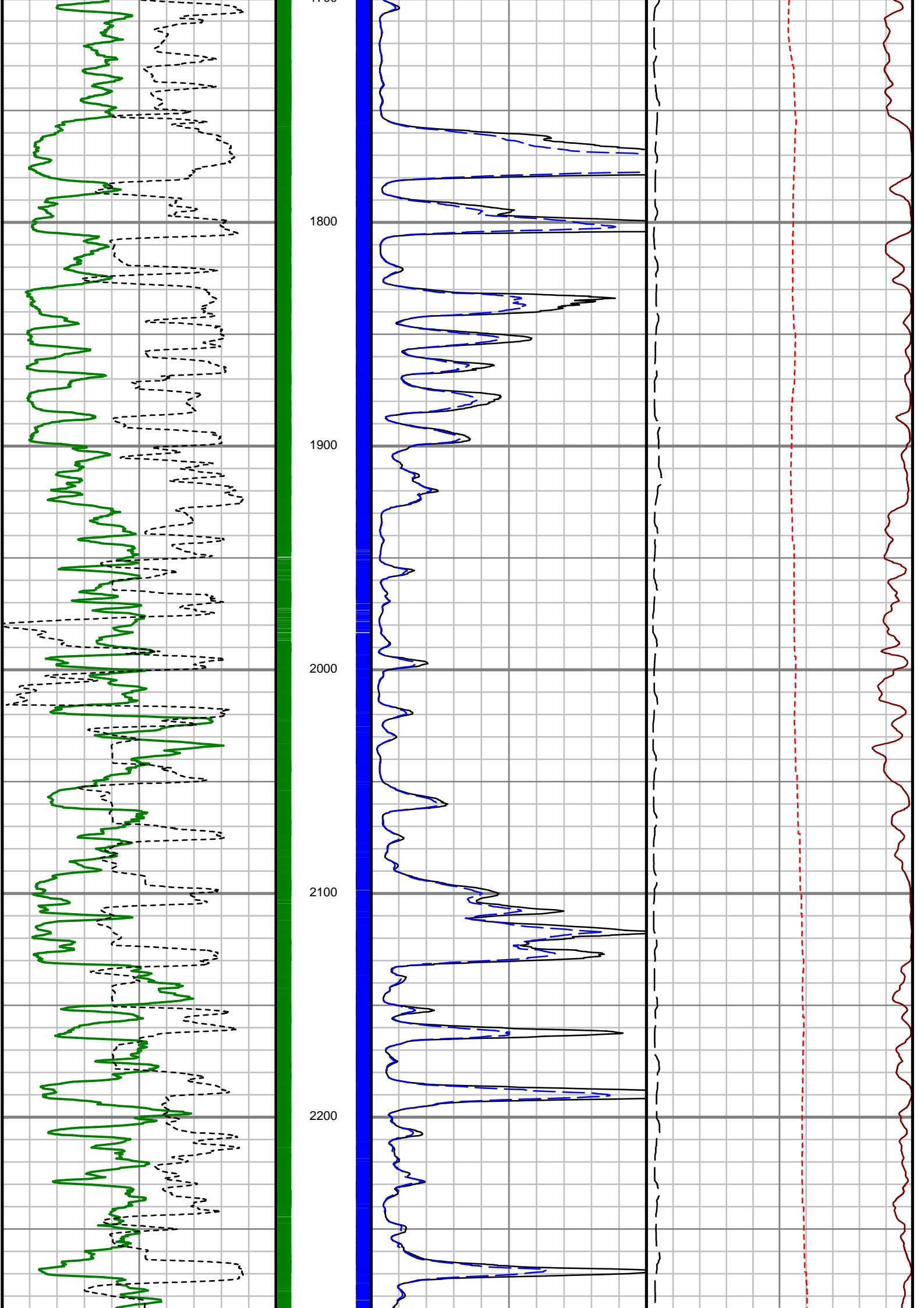
Remarks	
BP PRODUCTION AFE# X3-01660	
SCIENTIFIC DRILLING INTERNATIONAL JOB# 284836	
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.	
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.	
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO GAIN - GAMMA RAY CURVE	
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE	
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO PHASE SHIFT RESISTIVITY, 23" CURVE	
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO PHASE SHIFT RESISTIVITY, 33" CURVE	
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO FET OF RESISTIVITY CURVE	
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO PHASE SHIFT CONDUCTIVITY, 33" CURVE	
RUN #1: MWD	
SENSORS S/N: CONTROLLER = 1171 / MWD EYE = 326	
BIT TO SENSOR OFFSETS: SURVEYS = 54.2	
RUN #2: MWD / PRT / GAIN	
SENSORS SN: CONNTROLLOR = 1143 / MWD EYE = 503 / GAIN = 24 / PRT = 352	
BIT TO SENSOR OFFSETS: SURVEYS = 58.7 / GAIN GAMMA RAY = 34.05 / PRT = 38.07	
MNEMONICS LIST:	
G-GR = GAIN - GAMMA RAY	T-TEMP = TOOL TEMPERATURE
ROP = RATE OF PENETRATION	PC33 = PHASE SHIFT CONDUCTIVITY, 33"
PR23 = PHASE SHIFT RESISTIVITY, 23"	

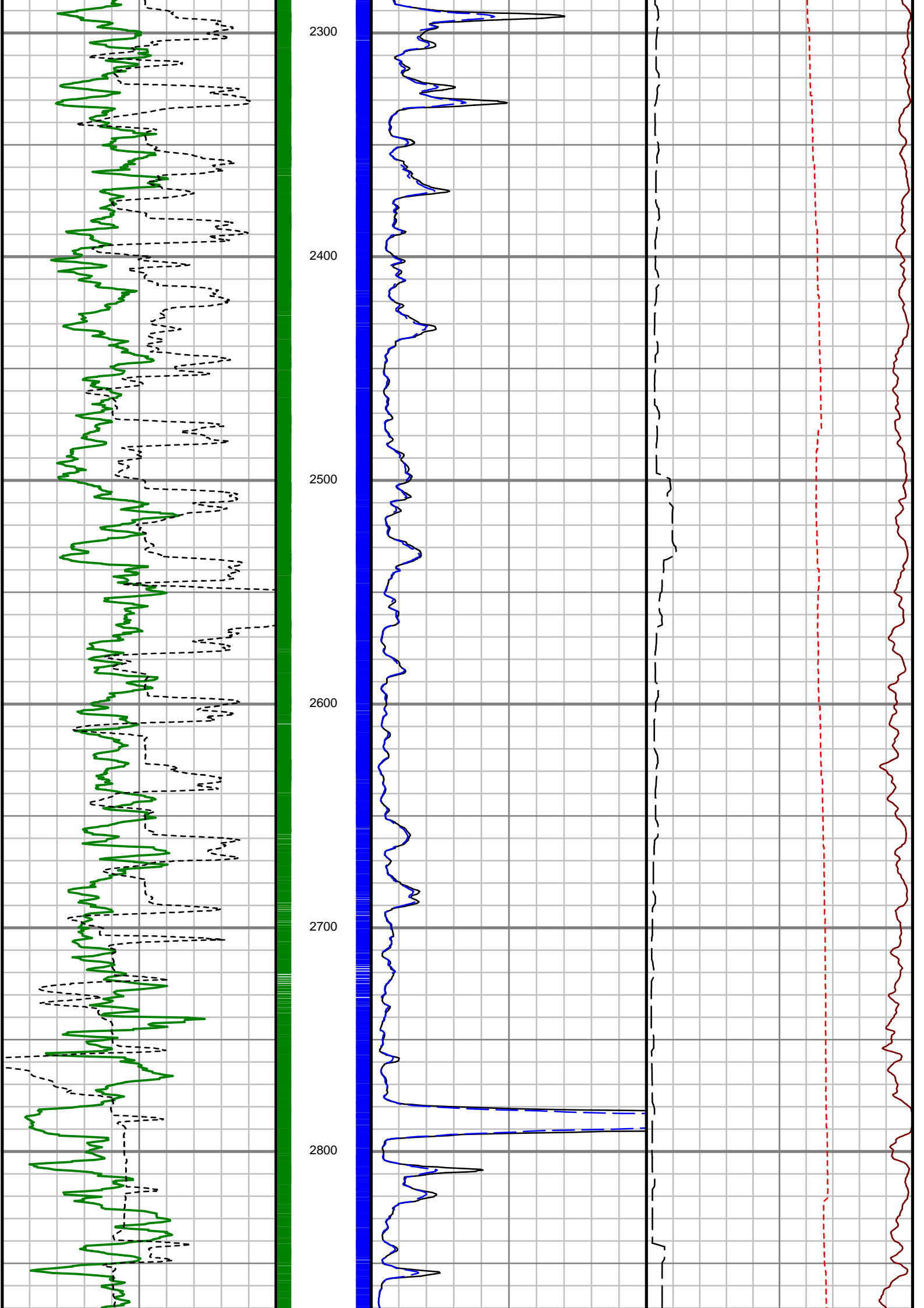
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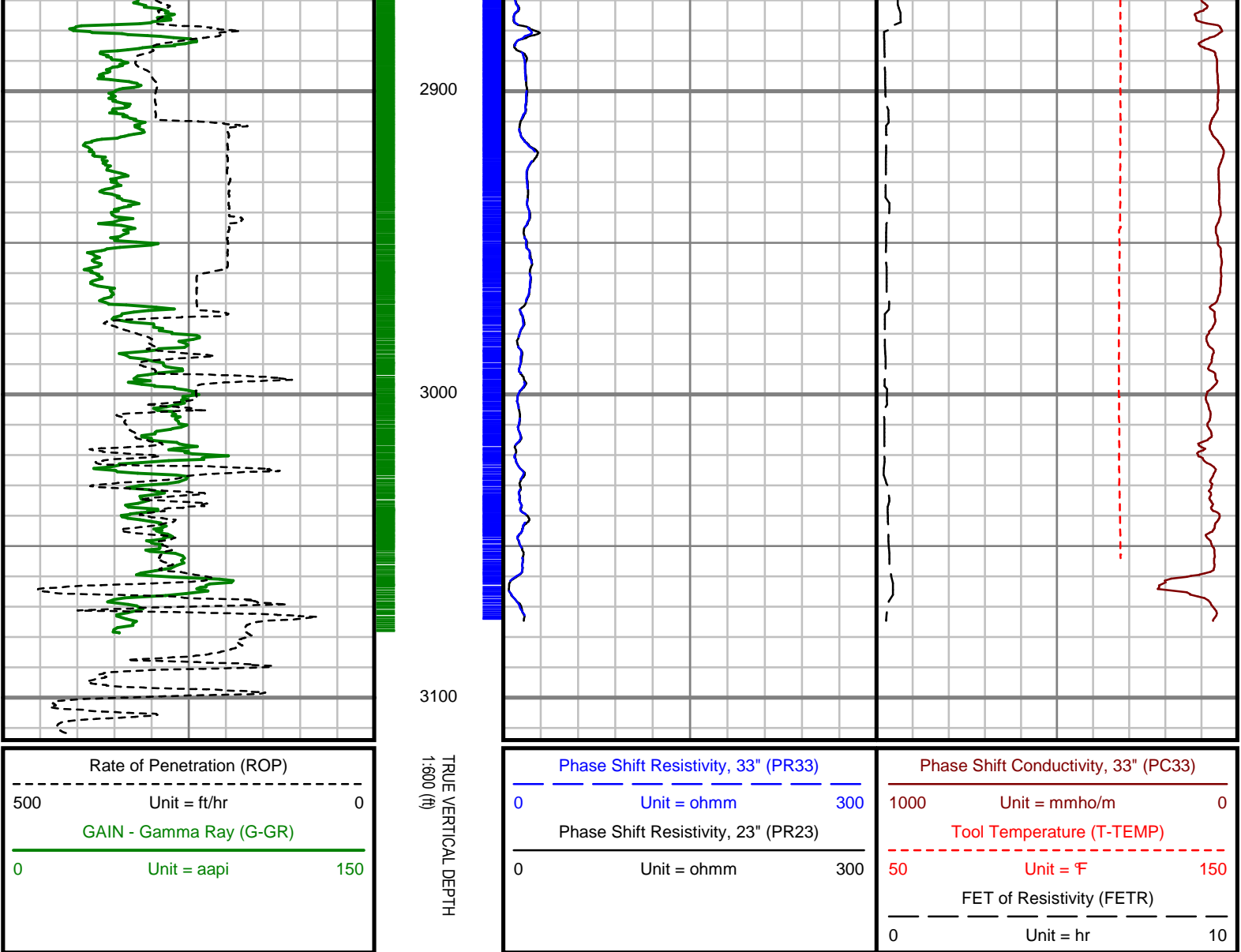
All interpretations are opinions based on inferences from other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or 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.











PROPAGATION RESISTIVITY
GAMMA RAY

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