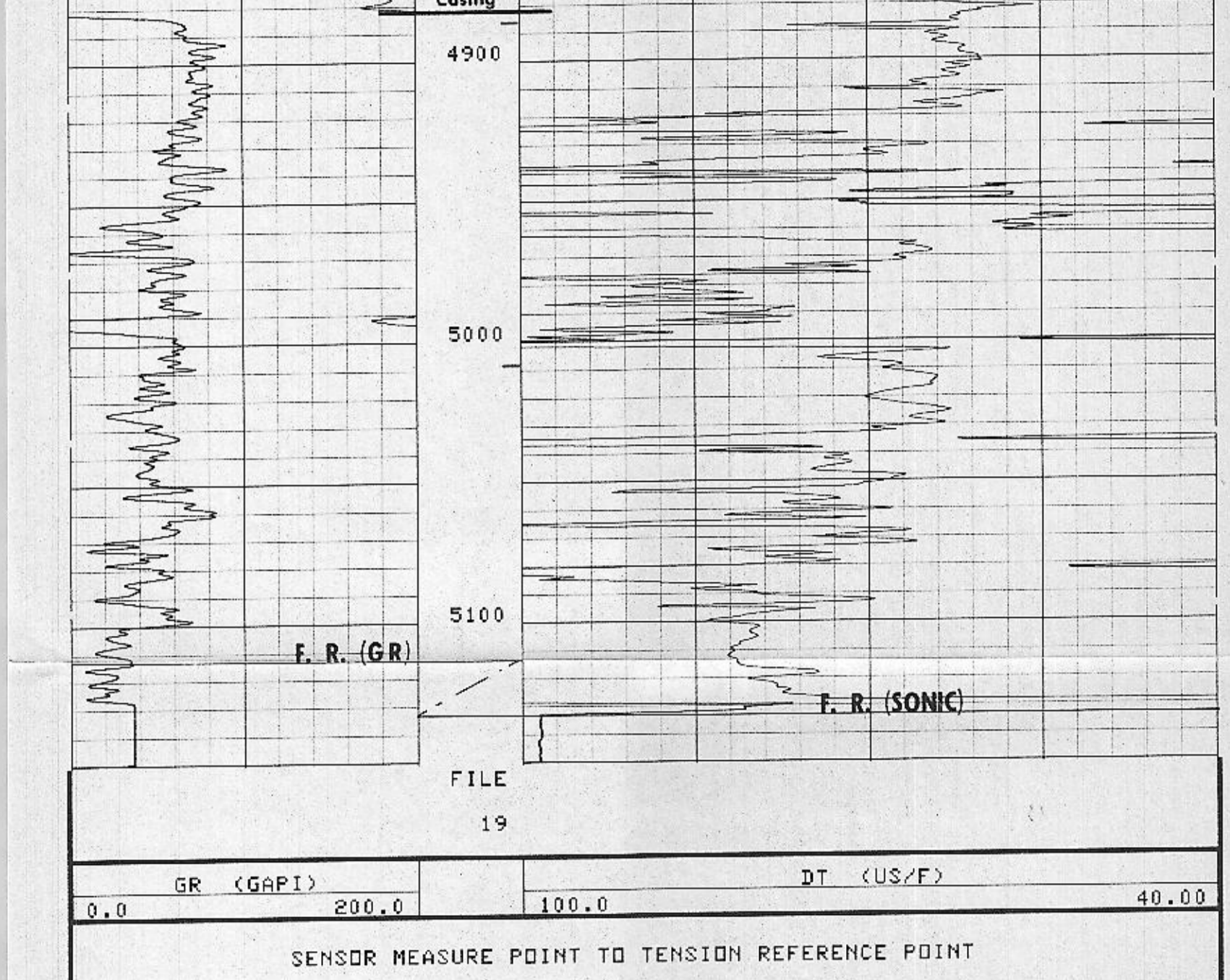


**Schlumberger**  
**BOREHOLE COMPENSATED SONIC LOG**

COMPANY UNION GEOTHERMAL COMPANY OF NEW MEXICO  
 WELL BACA 20 - REDRILL-1  
 FIELD REDONDO CREEK  
 COUNTY SANDOVAL STATE NEW MEXICO  
 LOCATION BACA 20 - REDRILL-1  
 COUNTY SANDOVAL STATE NEW MEXICO  
 FIELD REDONDO CREEK  
 WELL BACA 20 - REDRILL-1  
 DATE NOV 14 1981  
 COUNTY SANDOVAL, N.M.  
 FIELD REDONDO CREEK  
 WELL BACA 20 - REDRILL-1  
 COMPANY UNION GEO. CO OF NM  
 PERMITS: 12  
 DATE: 1981  
 TIME: 3-5  
 LOCATION: G.L. # 9065  
 LOG MEASURED FROM: K.B. 24 ft. Above Perm. Datum  
 DRILLING MEASURED FROM: K.B.  
 DATE: 10-8-81  
 RUN NO. FOUR  
 DEPTH-DRILLER: 5120  
 DEPTH-LOGGER (SCL): 5138  
 BIN. LOG INTERVAL: 5133  
 CORING-DRILLER: 7182  
 CORING-LOGGER: 4882  
 BIN. LOG INTERVAL: 4880  
 TYPE FLUID IN HOLE: FOT WATER  
 OPEN: Visc. ml  
 PH: ml  
 SOURCE OF SAMPLE: ml  
 RM @ Meas. Temp.: F  
 RM @ 75°F: F  
 RM @ 50°F: F  
 RM @ 25°F: F  
 RM @ 0°F: F  
 RM @ -25°F: F  
 RM @ -50°F: F  
 RM @ -75°F: F  
 RM @ -100°F: F  
 RM @ -125°F: F  
 RM @ -150°F: F  
 RM @ -175°F: F  
 RM @ -200°F: F  
 RM @ -225°F: F  
 RM @ -250°F: F  
 RM @ -275°F: F  
 RM @ -300°F: F  
 RM @ -325°F: F  
 RM @ -350°F: F  
 RM @ -375°F: F  
 RM @ -400°F: F  
 RM @ -425°F: F  
 RM @ -450°F: F  
 RM @ -475°F: F  
 RM @ -500°F: F  
 RM @ -525°F: F  
 RM @ -550°F: F  
 RM @ -575°F: F  
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 RM @ -10000°F: F

FOUR 227846 FULL  
 SCALE CHANGES  
 TYPE LOG Depth Scale Up Hole Scale Down Hole  
 EQUIPMENT DATA  
 Sonic Panel No. 505  
 Sonic Cart No. 46  
 Sonic Sonde No. 45  
 Mem. Panel No. 1189  
 G.R. Cart No. 2073  
 G.S. Panel No. 659  
 Caliper No.  
 TTR No.  
 Centralizers: No. 2  
 Type CME-Z  
 Standoffs: No.  
 Type  
 Time Const.-Sec.  
 Speed - F.P.M. 60  
 LOGGING DATA  
 Porosity Selectors  
 Δt Δt Cp Δ Scale From To  
 46 189 100  
 From To  
 CSG TD  
 REMARKS  
 DEPTH DISCREPANCY BETWEEN LOGGING  
 UP AND DOWN.  
 Velocity (ft/sec) = Interval Transit Time (microseconds per foot)

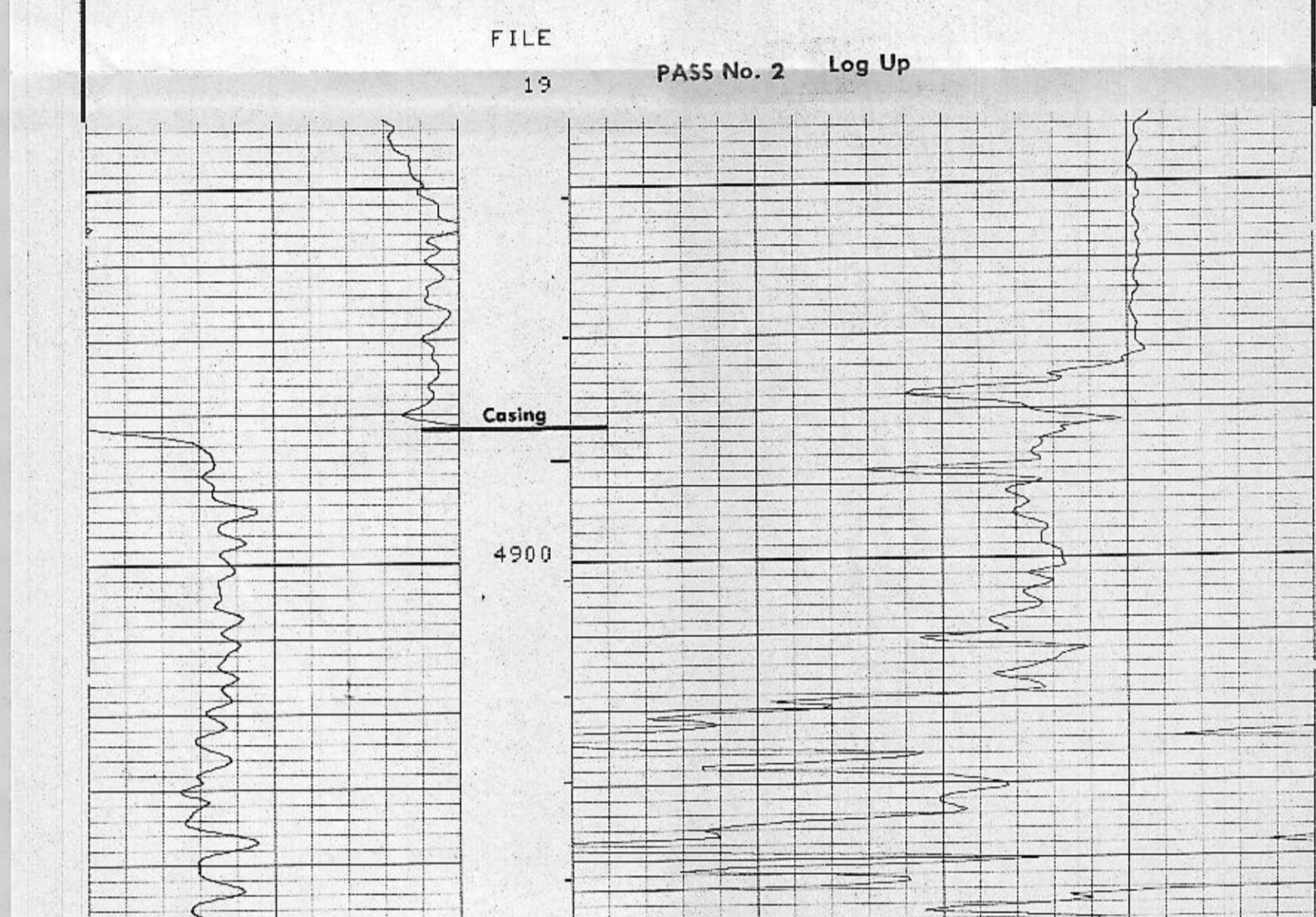


SENSDR MEASURE POINT TO TENSION REFERENCE POINT

AMPL	2.5 FEET	DT	.0 FEET
SRAT	.0 FEET	CBL	2.5 FEET
GR	22.7 FEET	TT	2.5 FEET
NOIS	-5.8 FEET	TENS	.0 FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.0		BS	6.125	IN
DTF	189.0	US/F	DTM	46.00	US/F
DO	0.0		BHS	OPEN	



SENSDR MEASURE POINT TO TENSION REFERENCE POINT

AMPL	2.5 FEET	DT	.0 FEET
SRAT	.0 FEET	CBL	2.5 FEET
GR	22.7 FEET	TT	2.5 FEET
NOIS	-5.8 FEET	TENS	.0 FEET

PARAMETERS

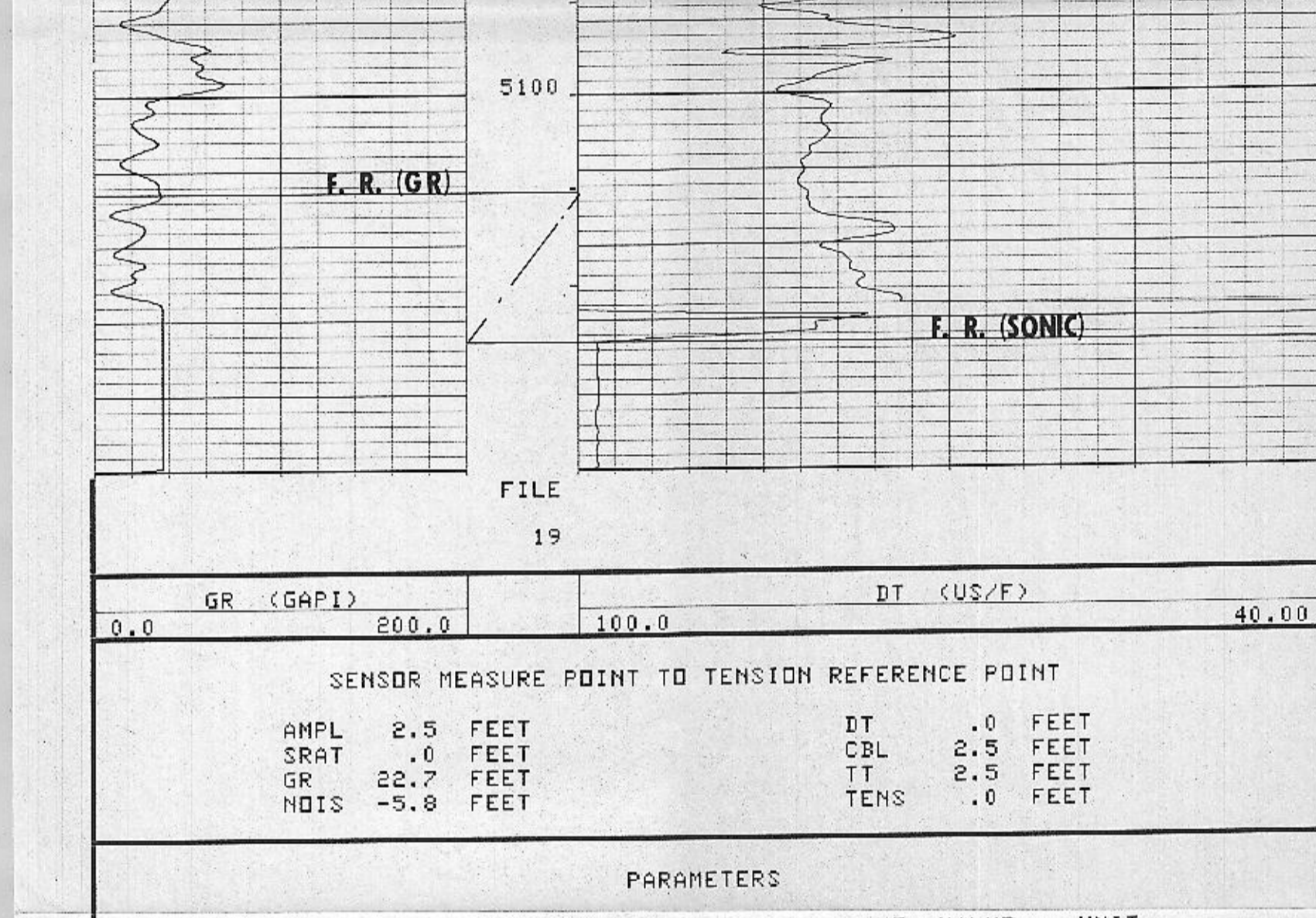
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CDTS	100.0		BS	6.125	IN
DTF	189.0	US/F	DTM	46.00	US/F
DO	0.0		BHS	OPEN	

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
DO	0.0		BHS	OPEN	
DTF	189.0	US/F	DTM	46.00	US/F
CDTS	100.0		BS	6.125	IN

SENSDR MEASURE POINT TO TENSION REFERENCE POINT

NOIS	-33.4 FEET	TENS	.0 FEET
GR	-5.0 FEET	TT	-25.2 FEET
SRAT	-27.7 FEET	CBL	-25.2 FEET
AMPL	-25.2 FEET	DT	-27.7 FEET

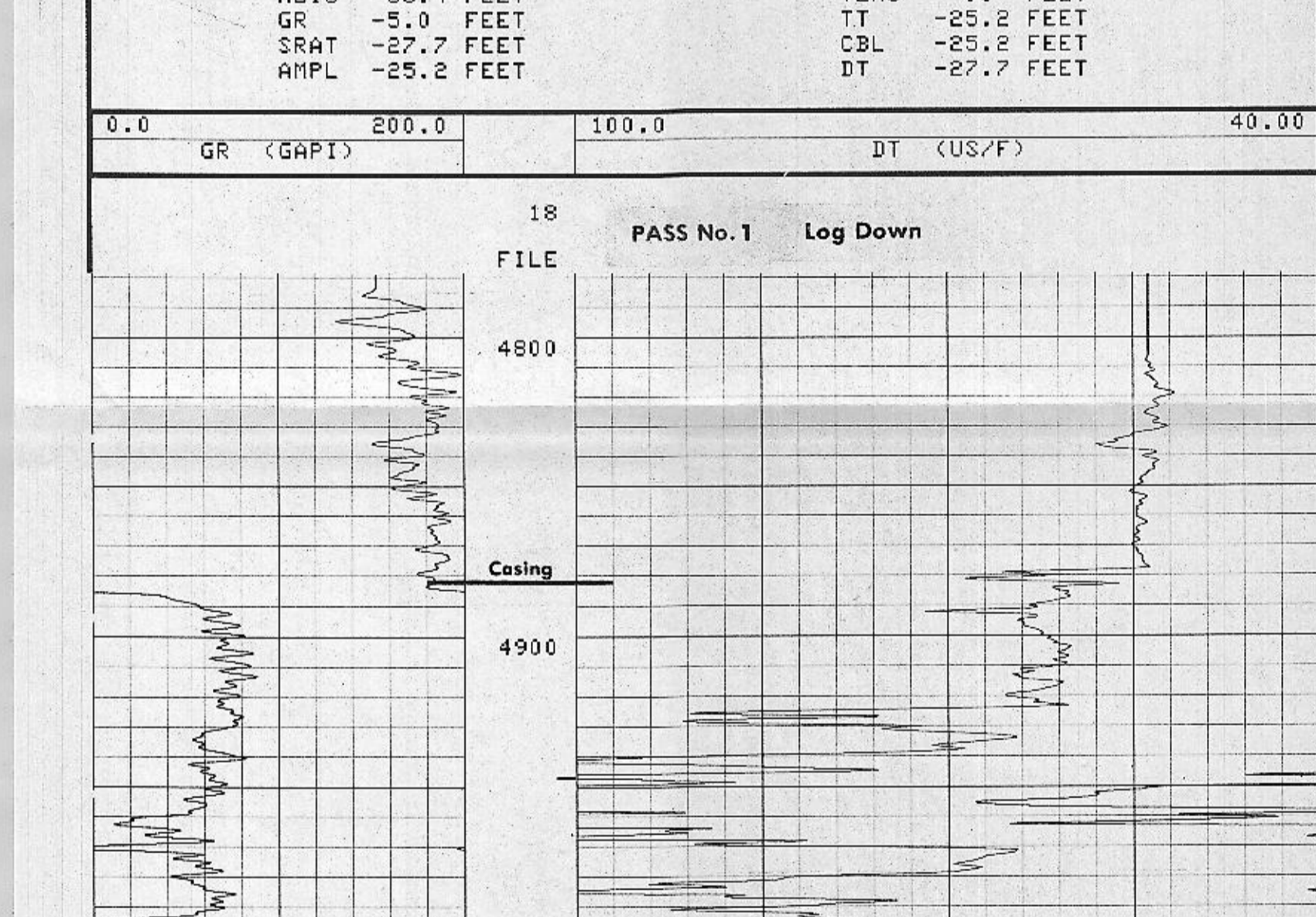


PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
DO	0.0		BHS	OPEN	
DTF	189.0	US/F	DTM	46.00	US/F
CDTS	100.0		BS	6.125	IN

SENSDR MEASURE POINT TO TENSION REFERENCE POINT

NOIS	-33.4 FEET	TENS	.0 FEET
GR	-5.0 FEET	TT	-25.2 FEET
SRAT	-27.7 FEET	CBL	-25.2 FEET
AMPL	-25.2 FEET	DT	-27.7 FEET

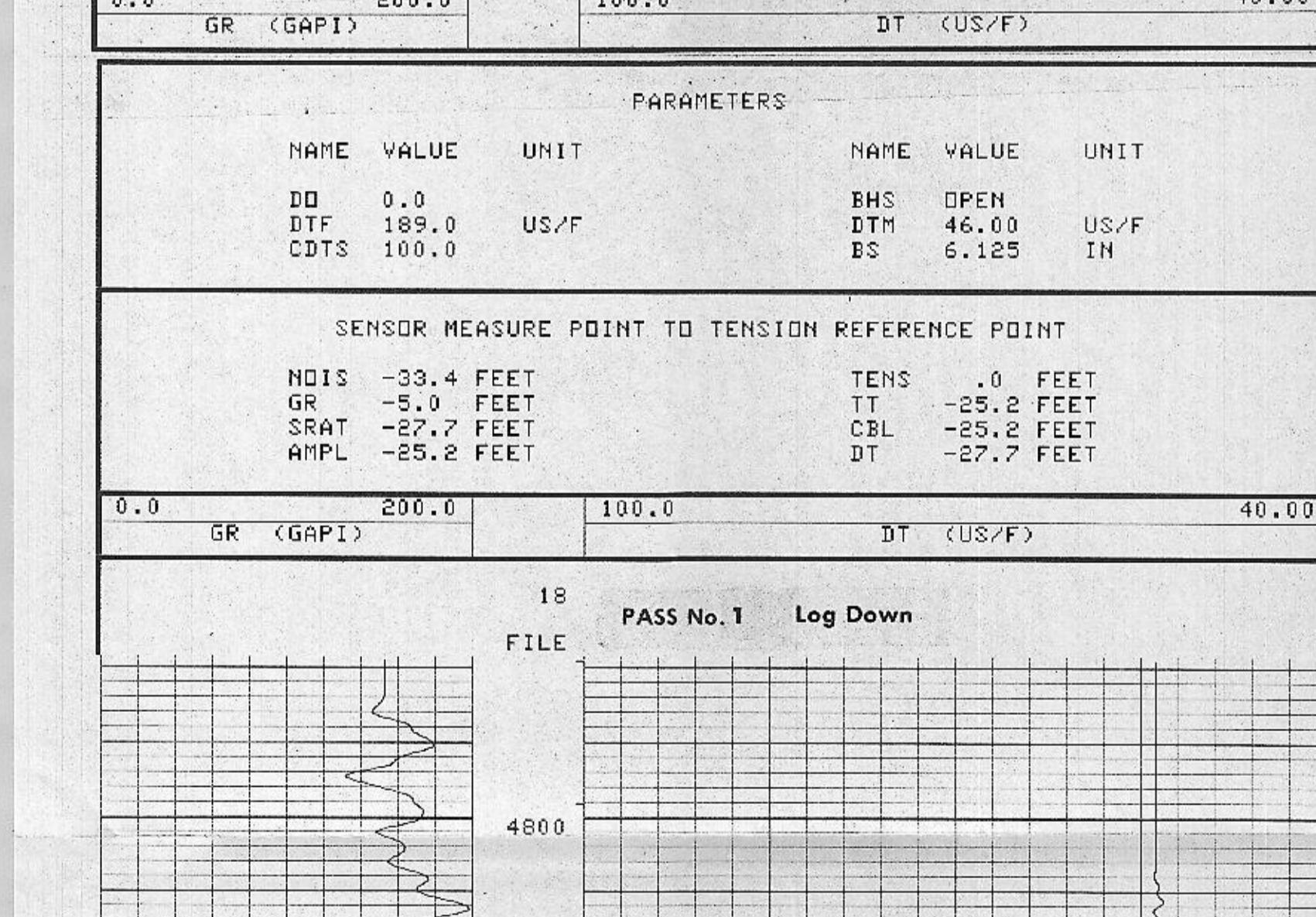


PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
DO	0.0		BHS	OPEN	
DTF	189.0	US/F	DTM	46.00	US/F
CDTS	100.0		BS	6.125	IN

SENSDR MEASURE POINT TO TENSION REFERENCE POINT

NOIS	-33.4 FEET	TENS	.0 FEET
GR	-5.0 FEET	TT	-25.2 FEET
SRAT	-27.7 FEET	CBL	-25.2 FEET
AMPL	-25.2 FEET	DT	-27.7 FEET



BEFORE SURVEY CALIBRATION SUMMARY

PERFORMED: 81/10/07  
 PROGRAM FILE: ISN (VERSION 20.2 81/1/30)

SGTE DETECTOR CALIBRATION SUMMARY

MEASURED		CALIBRATED		UNITS	
GR	76	JIG	165	GAPI	
		FILE			

COMPANY UNION GEOTHERMAL CO. OF NEW MEXICO  
 WELL BACA 20 - REDRILL-1  
 FIELD REDONDO CREEK  
 COUNTY SANDOVAL STATE NEW MEXICO

SCHL. FR. 5133  
 SCHL. TD. 5138  
 DRLR. TD. 5120  
 Elev: KB 9089  
 DF 9088  
 GL 9065