

PRECISION
Wireline Technologies

DUAL-LATEROLOG

N.E.B. COPY



PROVINCE	NORTHWEST TERRITORIES
FIELD	NETLA
WELL	ANADARKO EMILE LAKE A-77
COMPANY	ANADARKO CANADA CORPORATION
WELL	ANADARKO EMILE LAKE A-77
FIELD	NETLA
PROVINCE	NORTHWEST TERRITORIES
LOG	Sec. 77 Twp. R98. Elev. 524.70 m Perm. Datum GROUND LEVEL Log measured from KB, 5.10 m above Permanent Datum.
Other Services:	SI-3P HMI MDA SPED-CNT ELEV. K.B. 530.80 m G.L. 524.70 m CBF
UML	300A775046122430
Licence	1954
Date	15-MAR-2004
Run No.	ONE
Bot. Driller	2285.0 m
Bot. Logger	2261.5 m
First Reading	2250.3 m
Last Reading	1955.7 m
Meters Meas.	283.6 m
CS9. Driller	1989.0 m
CS9. Logger	1956.7 m
Bit Size	155.6 mm
Fluid Type	GEL CHEMICAL
Dens. Visc.	1025 47
pH Fluid Loss	10.5 N/A
Sample Source	FLOMLINE
Rm	1.5 21 °C
Rmf	N/A °C
Rmc	N/A °C
Rm BHT	0.5 98 °C
Max Rec. Temp	102 °C
Spacing	N/A
Operating Time	4.5 HRS
Unit #	360
Location	GRANDE PRAIRIE
Recorded By	V. LONG
Witnessed By	H. COMAN

All interpretations of log data are opinions based on inferences from electrical or other measurements. We do not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

REMARKS Rig: AKITA 37 Service Order # 30028933
Drilling Stopped 13:00/16 Circulation Stopped 13:45/16 Tool on Bottom 00:45/16 BHT 102 °C
SPED-CNT-GR-CAL-DLL LOGGED IN COMBINATION

Prints: 2

PRESENTATION AS PER CUSTOMER REQUEST

CHANGES IN MUD TYPE OR NEW SAMPLE

Date	Sample No.
Depth - Driller	
Type Fluid in Hole	
Dens. Visc.	
pH Water Loss	
Source of Sample	
Rm @ Meas. Temp.	@ °C
Rmf @ Meas. Temp.	@ °C
Rmc @ Meas. Temp.	@ °C
Source Rmf Rmc	
Rm @ BHT	@ °C
Rmf @ BHT	@ °C
Rmc @ BHT	@ °C

SCALE CHANGES

Type Log	Interval	Scale

EQUIPMENT DATA

Run No.	Tool Type	Tool No.	Other
ONE	DLT-HA	113113	
	UGR-JB	202	RA-205-677

REMARKS

MAIN PASS
1:600 SCALE
CONDUCTIVITY PRESENTATION

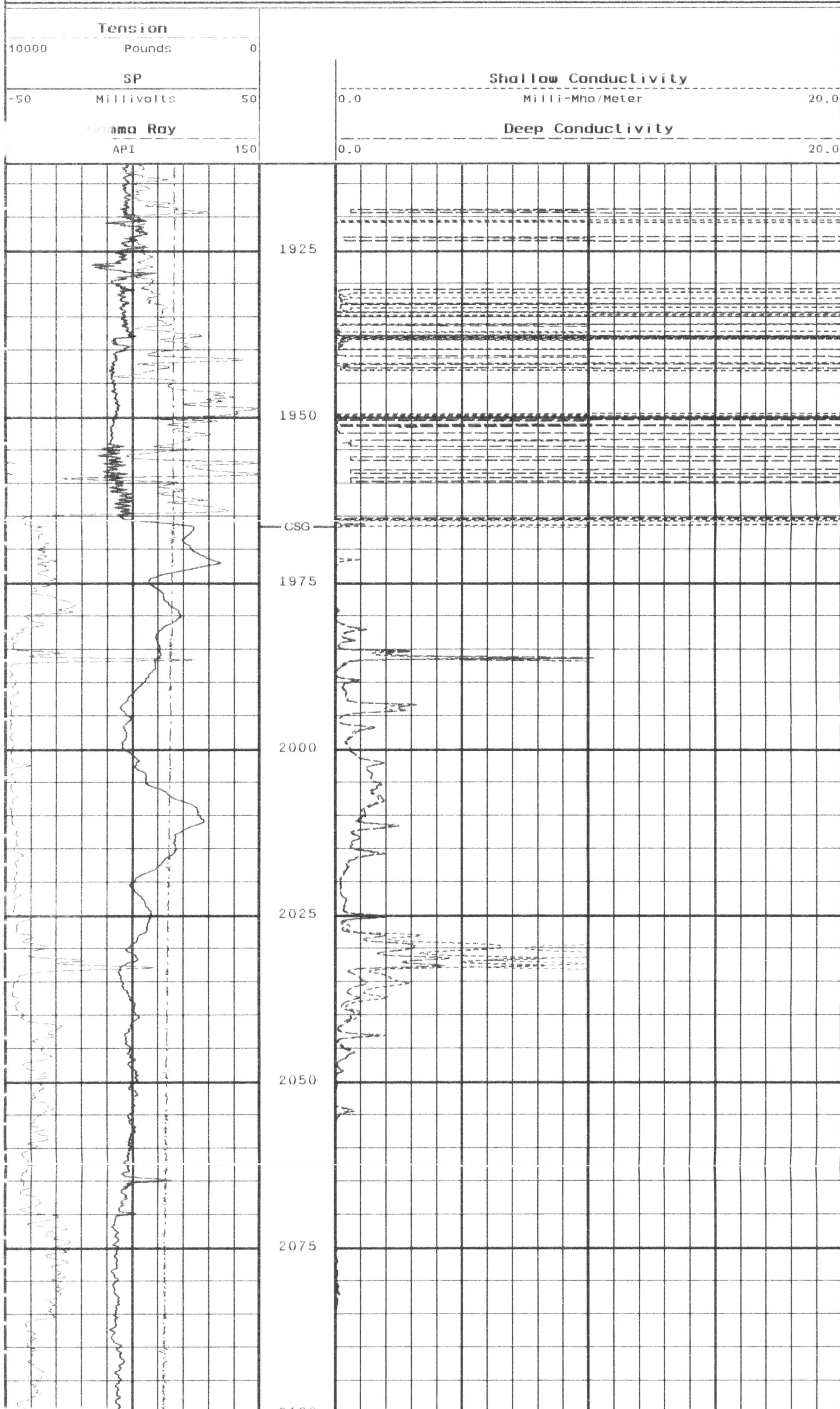
DEPTH SCALE: 1:600

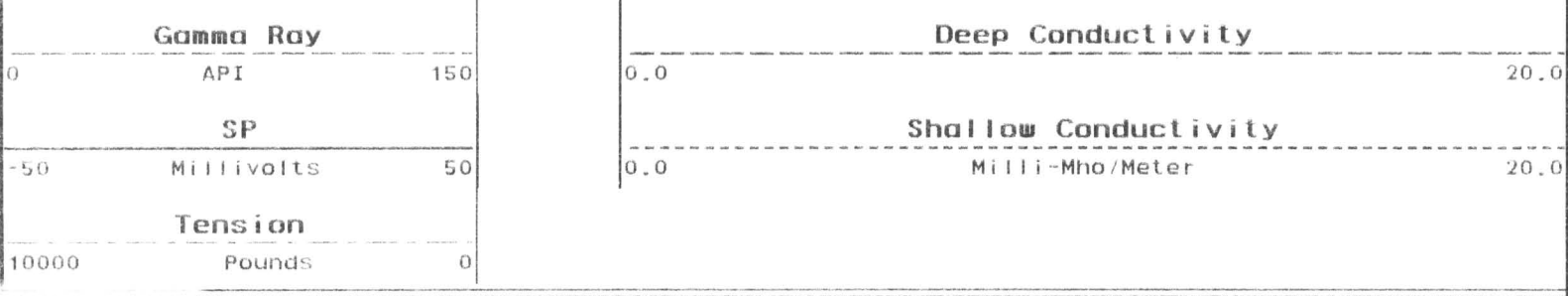
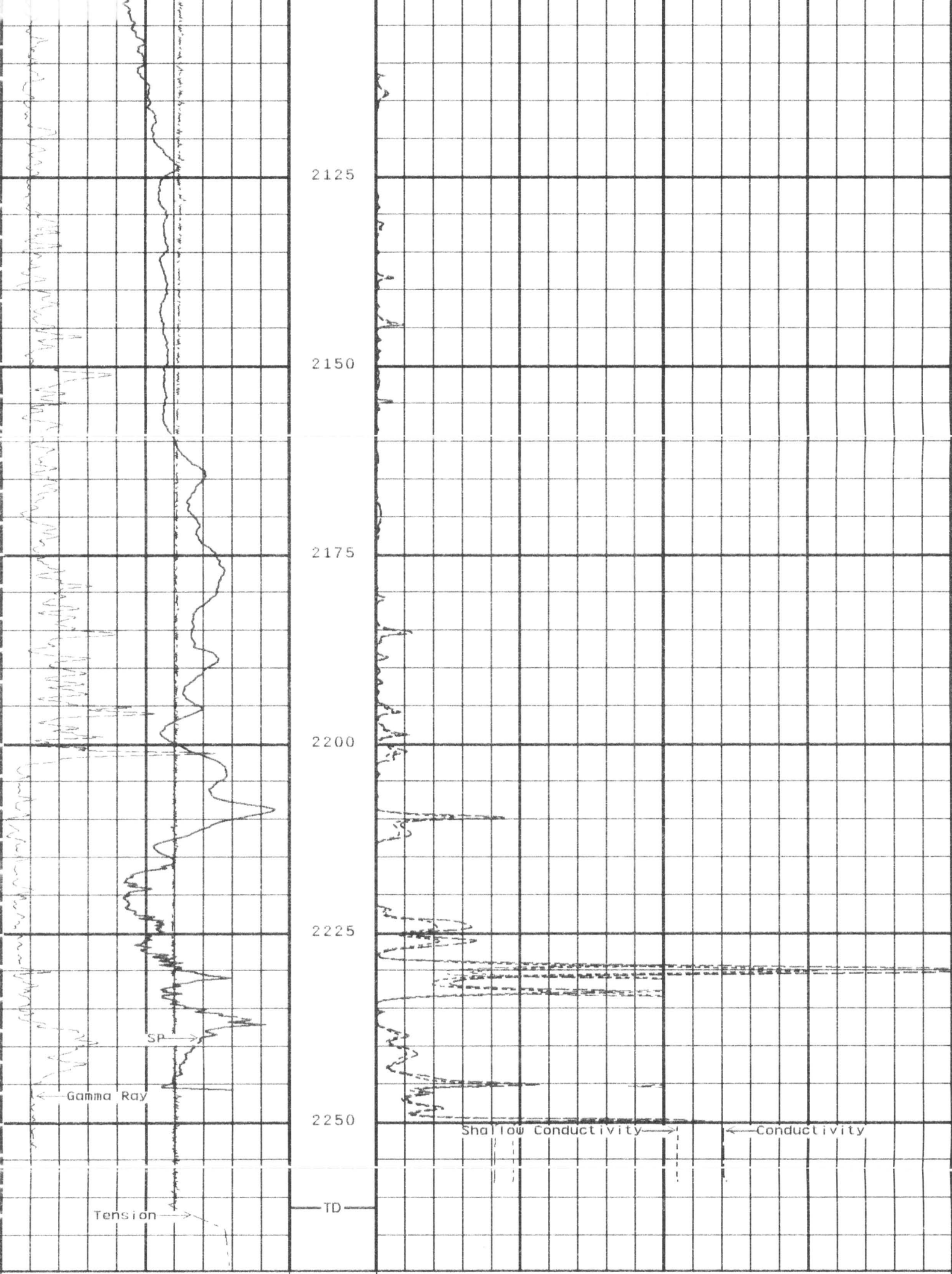
VERSION: 2004.02.11.263

MAIN PASS

30028933 SPD1MP

FINISH DEPTH: 0.0 Meters DIRECTION: UP DATE: TIME: MODE: TRACE PLAYBACK





START DEPTH: 2269.9 DIRECTION: UP DATE: 03/17/2004 TIME: 11:38 MODE: TRACE PLAYBACK
30028933 SPD1MP

MAIN PASS

DEPTH SCALE: 1:600 VERSION: 2004.02.11.263

REMARKS

MAIN PASS 1:240 SCALE

DEPTH SCALE: 1:240 VERSION: 2004.02.11.263

MAIN PASS

30028933 SPD1MP

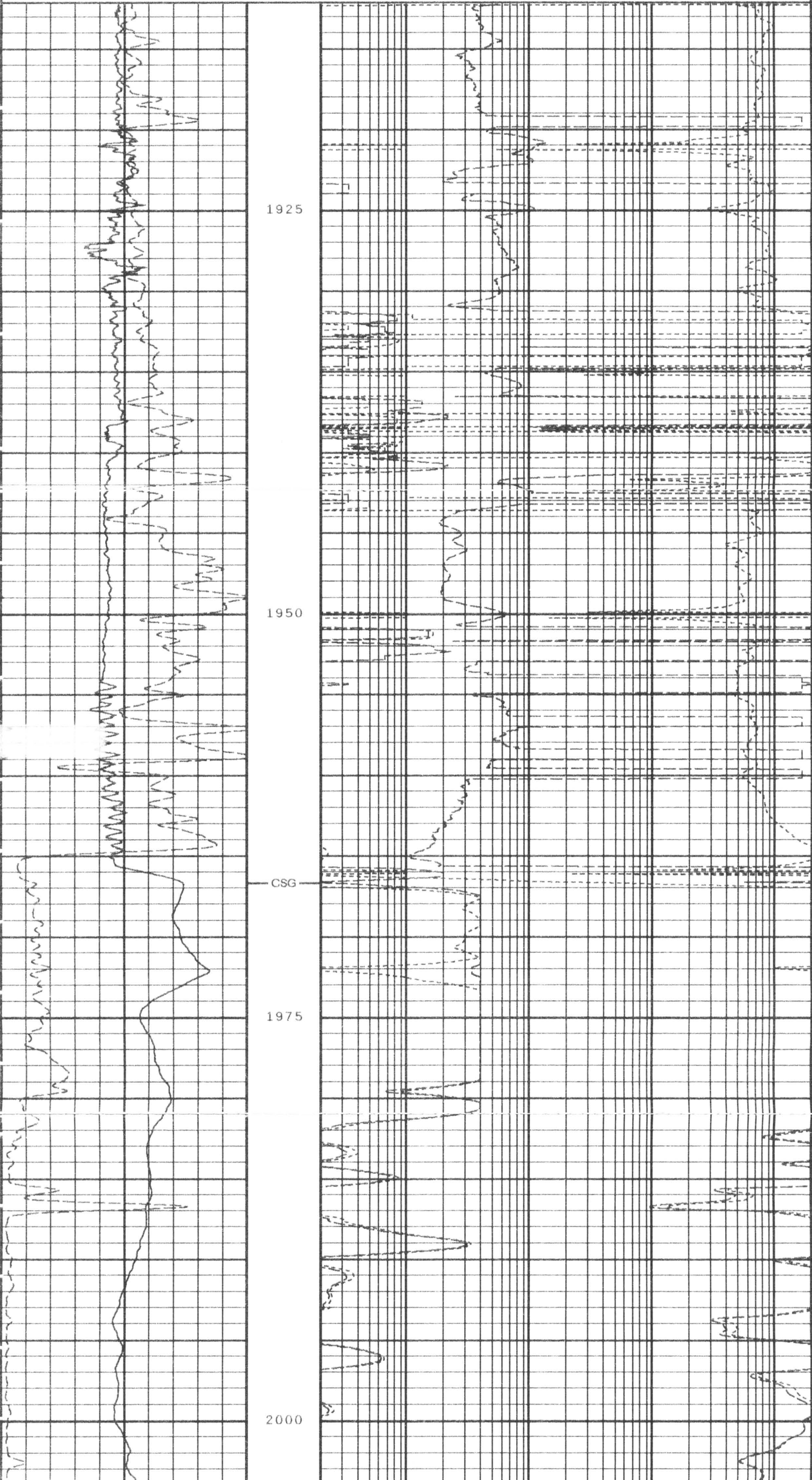
FINISH DEPTH: 0.0 Meters DIRECTION: UP DATE: TIME: MODE: TRACE PLAYBACK

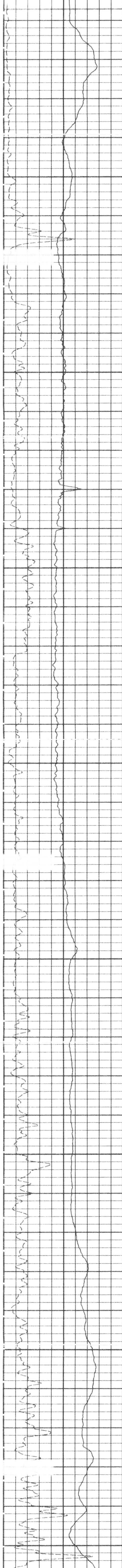
SP (SP) Shallow Res (RLLS)

-50 Millivolts 50 0.2 2000.0

Gamma Ray (GR) Deep Res (RLLD)

0 API 150 0.2 2000.0





2025

2050

2075

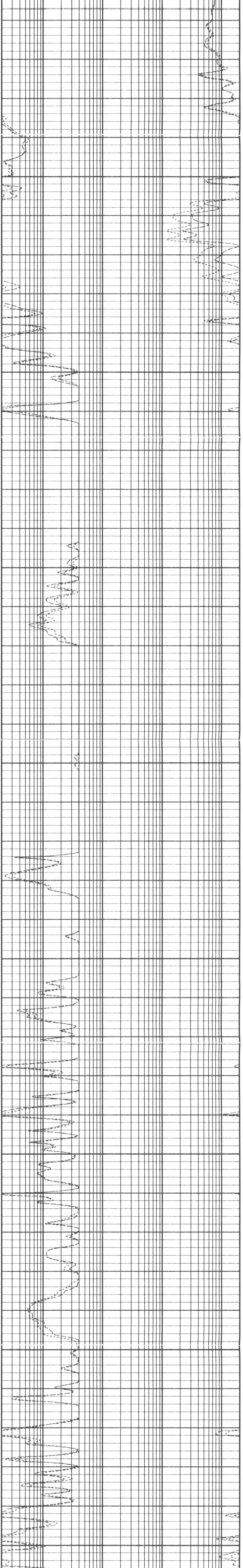
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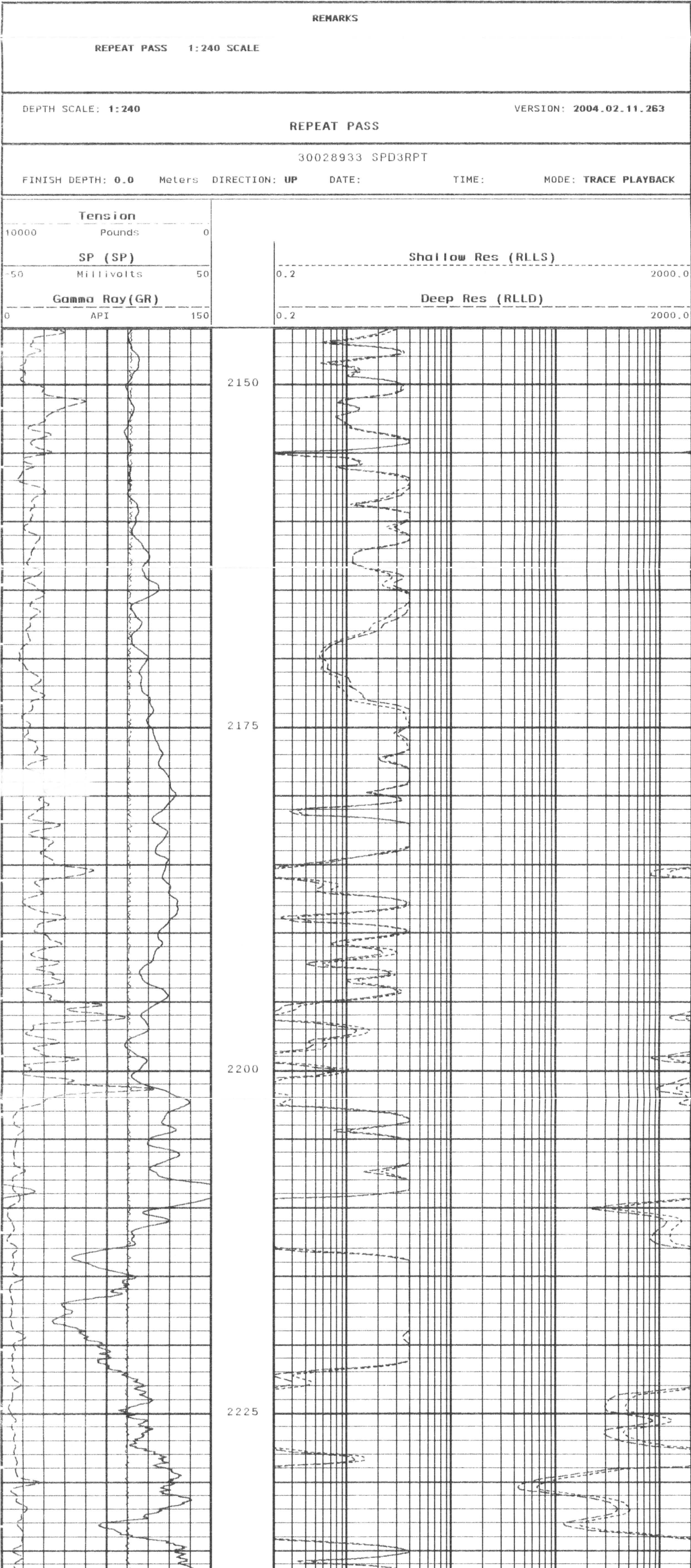
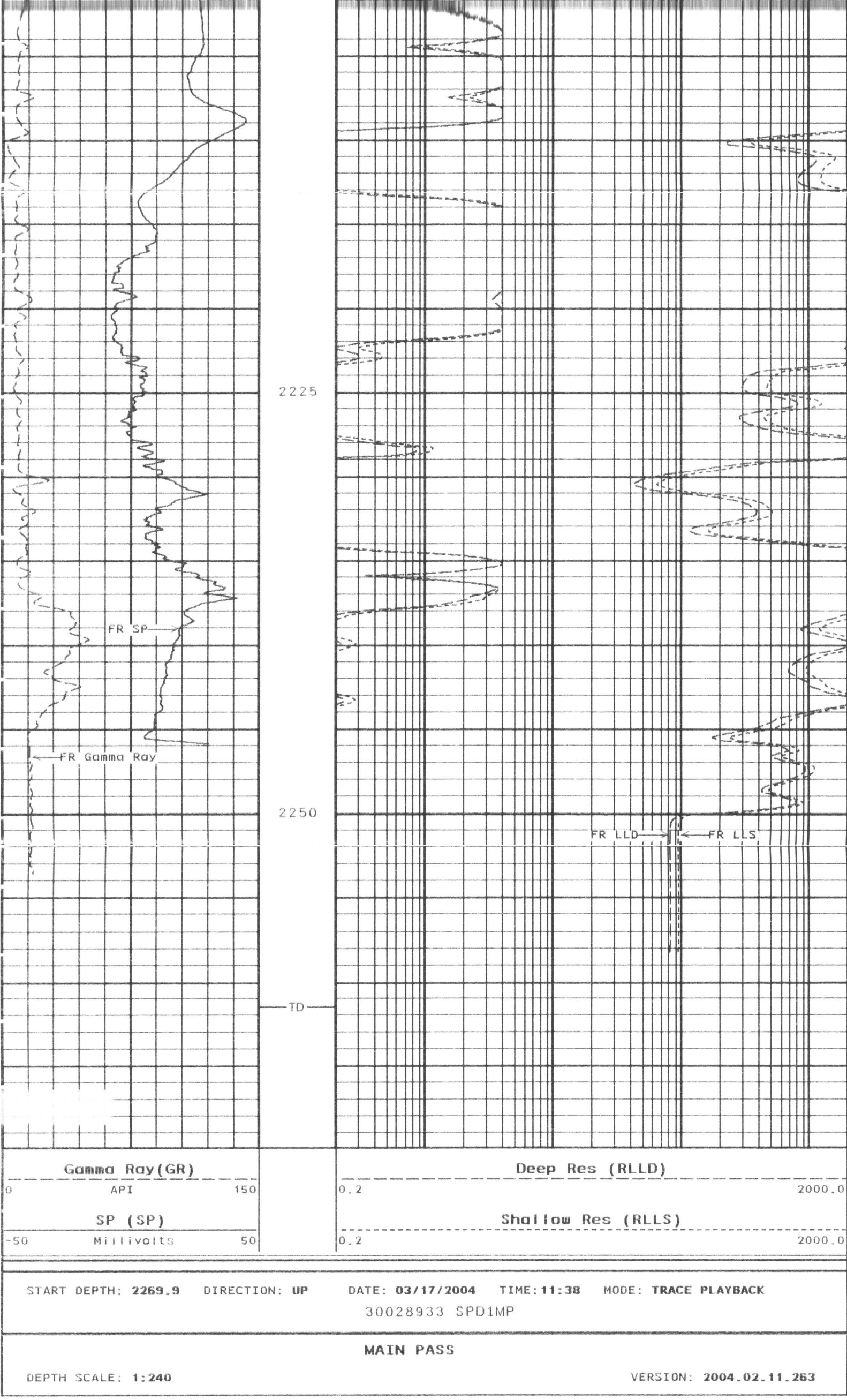
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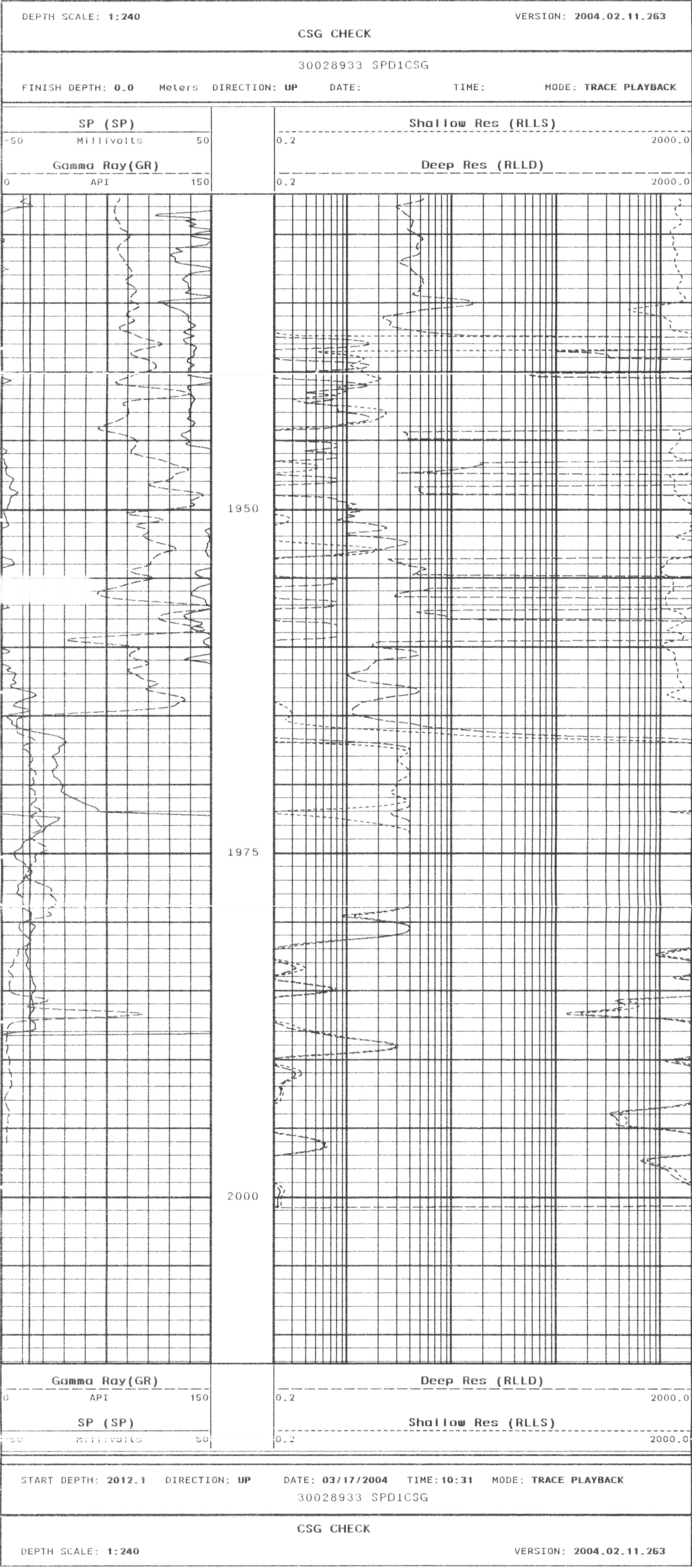
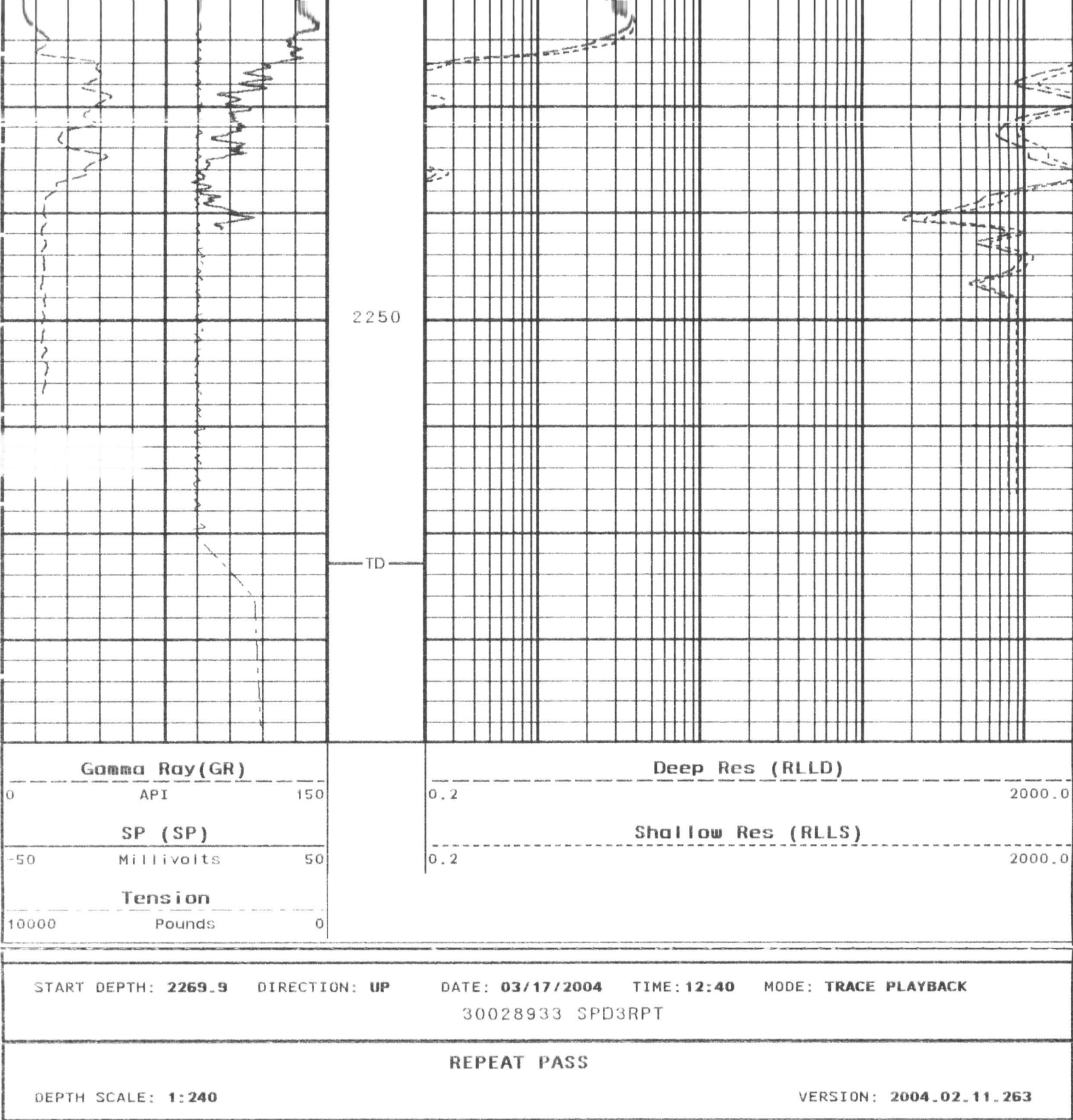
2150

2175

2200







03/16/04	07:06	0.0 M	Ver 40211263	Job 30028933
Gamma Ray Before Survey Calibration				
Tool Type: UGR-JA		Serial No: ugrj202		
Calibrator No: RA20S-677				
Background	Calibrator	Standard	Units	
107.8	615.9	140.0	API	
Delta Counts Per Sec: 508.1		CPS/API = 3.629		

03/17/04	10:13	2268.0 M	Ver 40211263	Job 30028933
Dual Laterolog Before Survey Calibration				
Tool Type: DLT-HA		Sonde Serial #	DLSH113	
		Electronics Serial #	DLCH113	
100 OHM Cal				
	Measured	Calibrated	Units	
LLD	99.4	100.0	ohm	

LLS	99.2	100.0	ohm
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REFERENCE DATA			
Calibration Ratio	LLD	LLS	Units
Voltage	1.006	1.008	
Current	107.4	101.2	mV
Phase Error	1.080	1.020	ma
Frequency Error	0.0	-2.1	DEG
	1.000	N/A	

DAC mV Readings			
Channel	Offsets	V(0)	Units
Channel	Offsets	V(90)	
Channel	Offsets	I(0)	
Channel	Offsets	I(90)	
0 Phase	V(0)	1547.6	1457.6
0 Phase	V(90)	13.7	-54.4
0 Phase	I(0)	1264.0	1193.0
0 Phase	I(90)	32.0	-39.0
90 Phase	V(0)	-106.1	N/A
90 Phase	V(90)	1540.6	N/A
90 Phase	I(0)	-108.4	N/A
90 Phase	I(90)	1260.3	N/A

Electrode Readings			
Channel	Offsets	V(0)	Units
Channel	Offsets	V(90)	
Channel	Offsets	I(0)	
Channel	Offsets	I(90)	
0 Phase	V(0)	107.433	101.185
0 Phase	V(90)	0.953	-3.776
0 Phase	I(0)	1080.082	1019.449
0 Phase	I(90)	27.359	-33.328
90 Phase	V(0)	-7.368	N/A
90 Phase	V(90)	106.947	N/A
90 Phase	I(0)	-92.655	N/A
90 Phase	I(90)	1076.969	N/A

03/17/04	12:25	2088.0 M	Ver 40211263	Job 30028933
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Dual Laterolog After Survey Calibration			
Tool Type: DLT-HA	Sonde Serial #	DLSH113	
	Electronics Serial #	DLCH113	

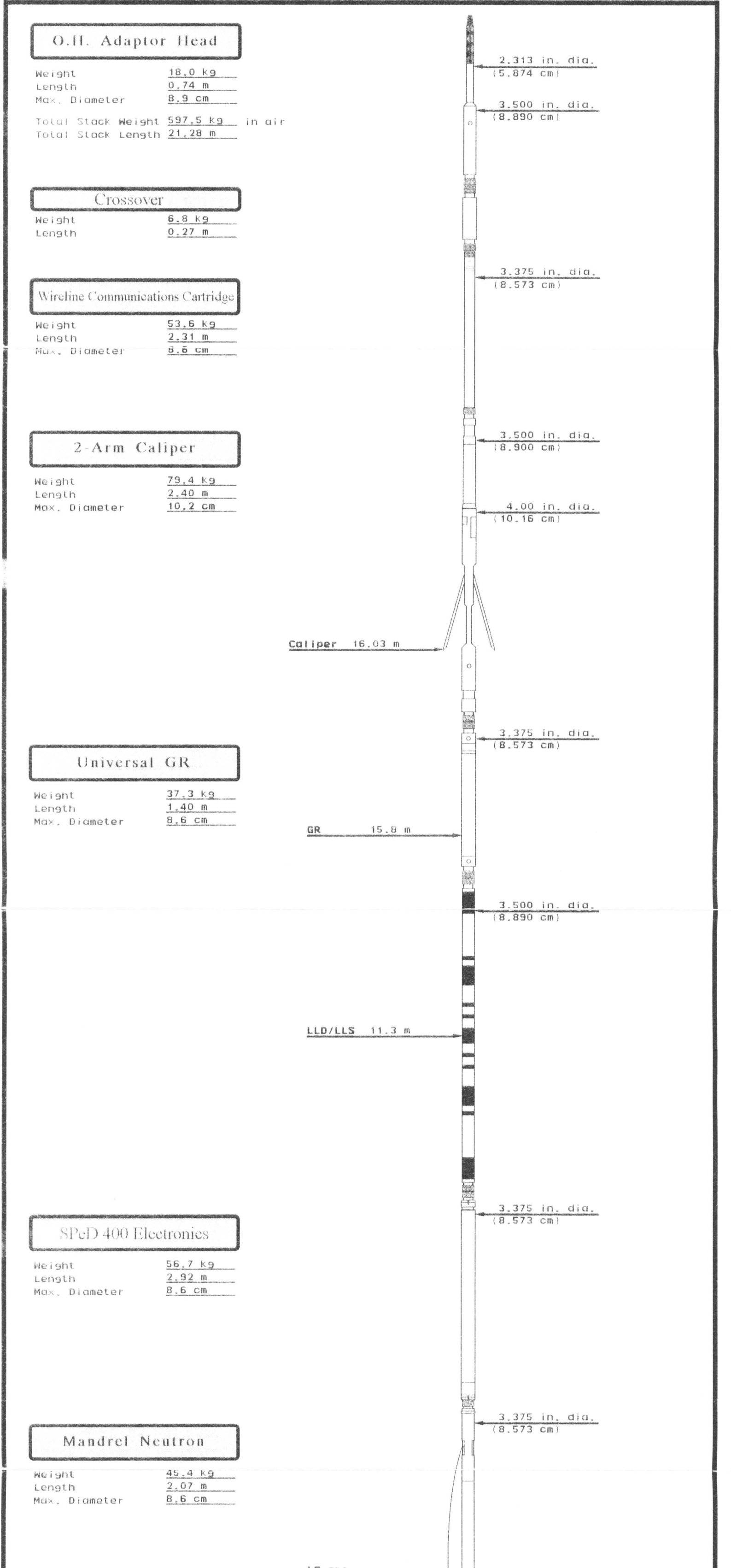
100 OHM Cal			
	Before	After	Units
LLD	99.4	99.3	ohm
LLS	99.2	99.1	ohm

REFERENCE DATA			
Calibration Ratio	LLD	LLS	Units
Voltage	1.007	1.009	
Current	1.0	1.0	mV
Phase Error	0.974	1.005	ma
Frequency Error	0.0	-2.7	DEG
	1.000	N/A	

Difference Data			
Channel	Offsets	V(0)	Units
Channel	Offsets	V(90)	
Channel	Offsets	I(0)	
Channel	Offsets	I(90)	
0 Phase	V(0)	39.7	8.7
0 Phase	V(90)	18.1	14.6
0 Phase	I(0)	33.7	6.2
0 Phase	I(90)	13.1	11.9
90 Phase	V(0)	118.5	N/A
90 Phase	V(90)	44.7	N/A
90 Phase	I(0)	95.1	N/A
90 Phase	I(90)	39.8	N/A

After Data			
Channel	Offsets	V(0)	Units
Channel	Offsets	V(90)	
Channel	Offsets	I(0)	
Channel	Offsets	I(90)	
0 Phase	V(0)	1587.3	1448.9
0 Phase	V(90)	-4.4	-69.0
0 Phase	I(0)	1297.6	1186.8
0 Phase	I(90)	18.9	-50.9
90 Phase	V(0)	12.3	N/A
90 Phase	V(90)	1585.3	N/A
90 Phase	I(0)	-13.4	N/A
90 Phase	I(90)	1300.1	N/A

Before Data			
Channel	Offsets	V(0)	Units
Channel	Offsets	V(90)	
Channel	Offsets	I(0)	
Channel	Offsets	I(90)	
0 Phase	V(0)	1547.6	1457.6
0 Phase	V(90)	13.7	-54.4
0 Phase	I(0)	1264.0	1193.0
0 Phase	I(90)	32.0	-39.0
90 Phase	V(0)	-106.1	N/A
90 Phase	V(90)	1540.6	N/A
90 Phase	I(0)	-108.4	N/A
90 Phase	I(90)	1260.3	N/A



LS cps

PHIN 4.13 m

SS cps

3.67 in. dia.
(9.32 cm)

SPeD 400 Pad Section

Weight 141.5 kg
Length 3.38 m
Max. Diameter 11.4 cm

4.19 in. dia.
(10.64 cm)

LS cps/PE

Caliper 0.66 m

PHID 0.68 m

SS cps/PE

Tool Zero

COMPANY ANADARKO CANADA CORPORATION

WELL ANADARKO EMILE LAKE A-77

FIELD NETLA PROVINCE N.W.T.

PRECISION

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