PRECISION
Wireline Technologies

SPECTRAL PE DENSITY
COMPENSATED NEUTRON
GAMMA RAY LOG

N.E.B. COPY

PROVINCE NORTHWEST TERRITORIES
FIELD NETLA
WELL ANADARKO EMILE LAKE A-77
COMPANY ANADARKO CANADA CORPORATION

COMPANY ANADARKO CANADA CORPORATION
WELL ANADARKO EMILE LAKE A-77
FIELD NETLA
PROVINCE NORTHWEST TERRITORIES

LSD A Sec. 77 Twp. Rge.
Perm. Datum GROUND LEVEL Elev. 624.70 m
Log measured from KB , 6.10 m above
Permanent Datum.

UWI 300A776046122430
Licence 1964

Other Services:
STI/UGR
HBC/UGR/CAL

ELEV. K.B. 630.80 m
G.L. 624.70 m
CBF

Date	11-MAR-2004
Run No.	ONE
Bot. Driller	1969.0 m
Bot. Logger	1969.4 m
First Reading	1953.7 m
Last Reading	647.6 m
Meters Meas.	1306.1 m
Csg. Driller	648.0 m @ 244.5mm & 59.5Kg/m
Csg. Logger	647.6 m
Bit Size	215.9 mm
Fluid Type	INVERT
Dens. / Visc.	950 / 54
pH / Fluid Loss	N/A / N/A
Sample Source	FLOWLINE
Rm	N/A @ °C
Rmf	N/A @ °C
Rmc	N/A @ °C
Rm @ BHT	N/A @ °C
Max Rec. Temp	80 °C
Spacing	N/A
Operating Time	5.0 HRS
Unit #	387
Location	GRANDE PRAIRIE AB
Recorded By	S. MAXWELL
Witnessed By	H. CUWAN

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 # 30017937

Drilling Stopped 12:45/11 Circulation Stopped 16:30/11 Tool on Bottom 01:30/12 BHT 74 °C
-STI/HBC/SPD/CNT/UGR/CAL LOGGED IN COMBINATION.

Prints: 2

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	SPED	209209	2068-GW
	CNT	203	6036-NE
	UGR	211	RA-20S-335
	CAL	169	Y-AXIS

REMARKS

MAIN PASS
1:600 SCALE
BULK DENSITY PRESENTATION
OPEN HOLE VOLUME ON THE LEFT
ANNULAR VOLUME ON THE RIGHT FOR 177.8mm CASING

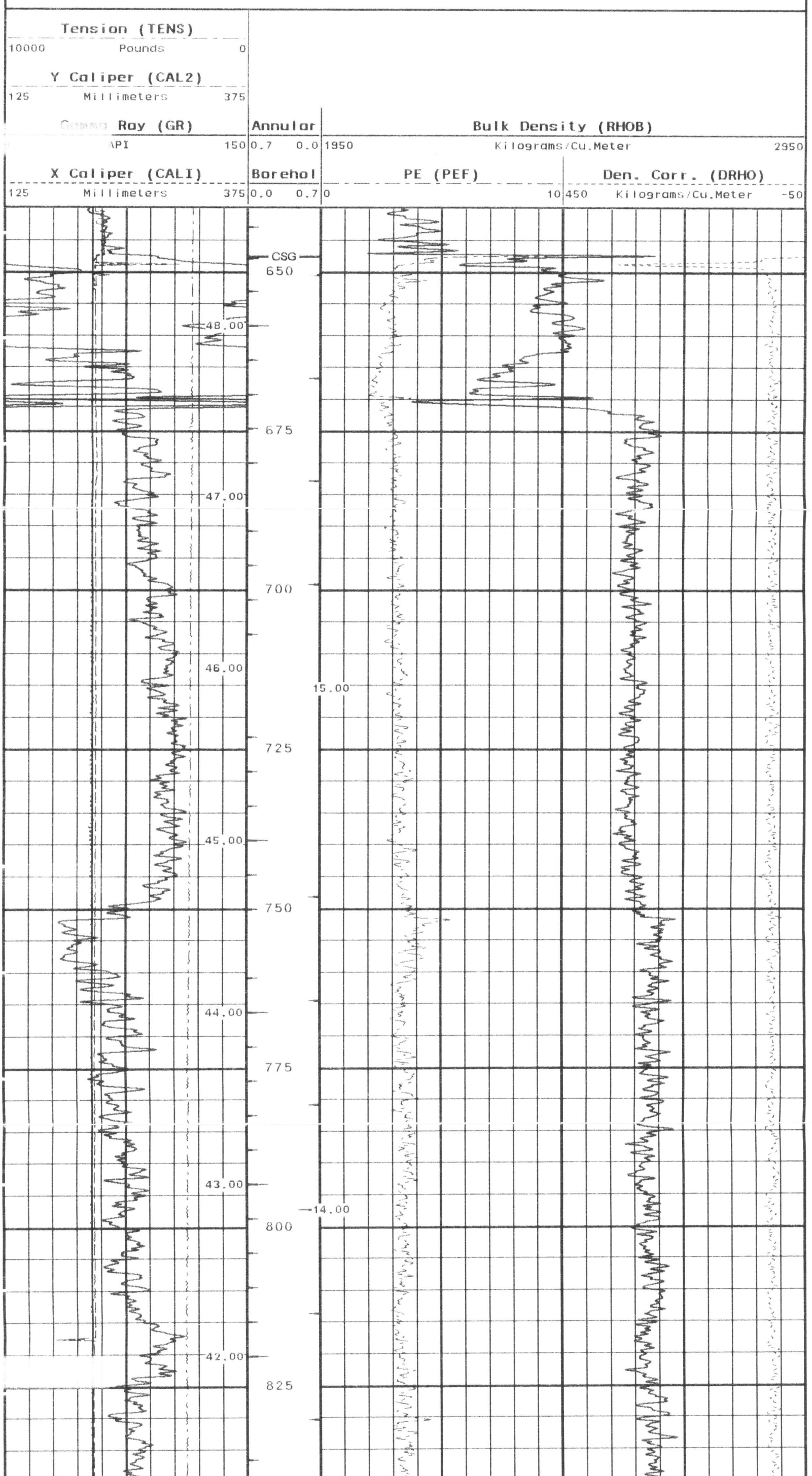
DEPTH SCALE: **1:600** VERSION: **2004.02.11.263**

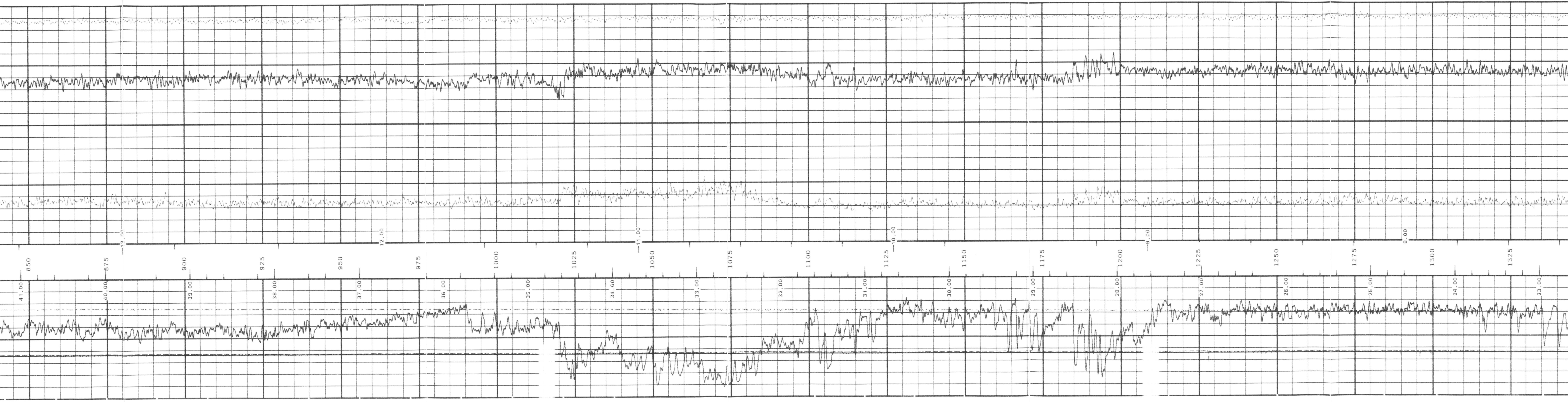
MAIN PASS

30017937 STIMP1

BHV CASING SIZE: **177.80** Millimeters CALIPERS: CALI,CAL2,None

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

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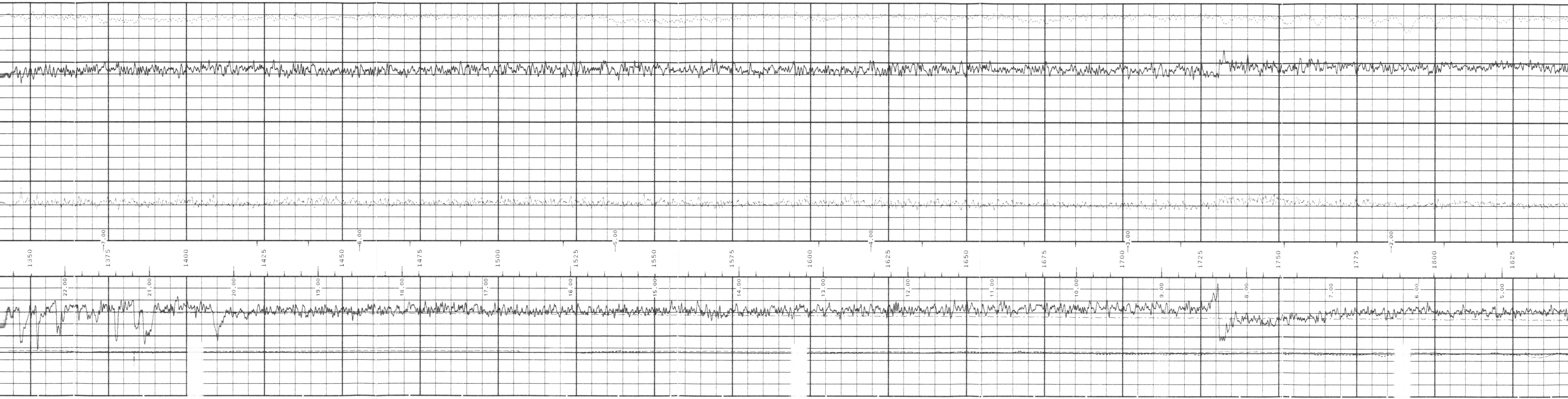
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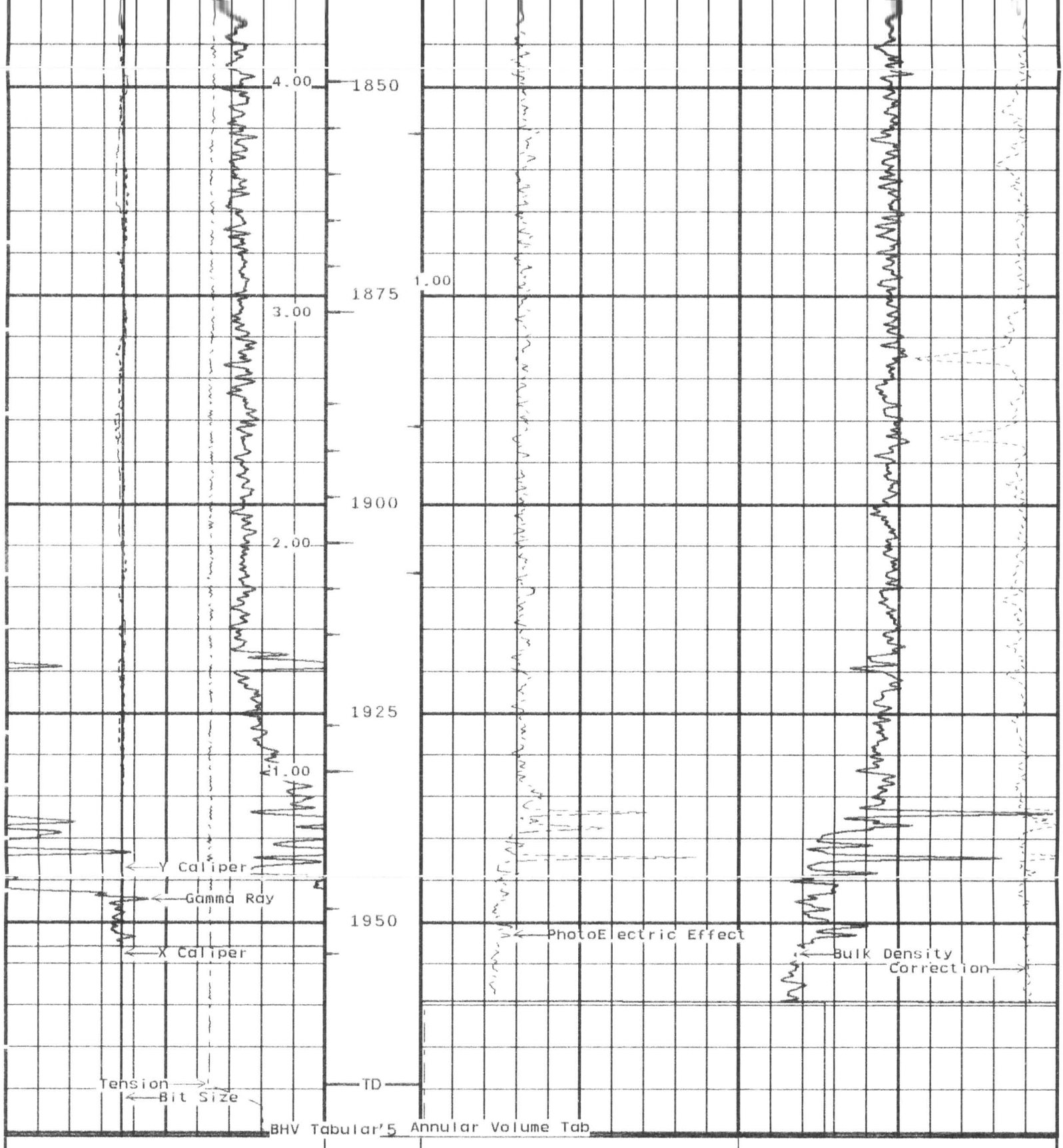


X Caliper (CALI)	Borehol	PE (PEF)	Den. Corr. (DRHO)
Millimeters 375	0.0 0.7	0 10	450 Kilograms/Cu.Meter -50

Gamma Ray (GR)	Annular	Bulk Density (RHOB)
0 API 150	0.7 0.0	1950 Kilograms/Cu.Meter 2950

Y Caliper (CAL2)
125 Millimeters 375

Tension (TENS)
10000 Pounds 0

START DEPTH: **1975.6** DIRECTION: **UP** DATE: **03/12/2004** TIME: **03:29** MODE: **TRACE PLAYBACK**

BHV CASING SIZE: **177.80** Millimeters CALIPERS: CALI,CAL2,None

30017937 STIMP1

MAIN PASS

DEPTH SCALE: **1:600** VERSION: **2004.02.11.263**

SYSTEM CONSTANTS

NAME	DESCRIPTION	VALUE	UNITS
TDL	TD-Logger	1969.40	Meters
CSIZ	Casing Size	244.5	Millimeters
CWEI	Casing Weight	59.52	Kilograms/Meter
BS	Bit Size	215.9	Millimeters
BHT	Bottom Hole Temp	80.0	DegreesCentigrade
SFT	Mean Annual Surf Temp	5.0	DegreesCentigrade
SPDD	SP Drift Corr. mV	0	Millivolts
SPBR	SP Bridle Depth Offset	0.00	Meters
SPTL	Log With SP From	STI	
STIB	STI SFL Chassis Return	ON	
STI4	STI 4 Level Average	OFF	
STIS	STI SFL Log Mode On	ON	
SACC	Accumulation Time	100	Seconds
BARI	Barite Correction	OFF	
MW	Mud Weight	950.0	Kilograms/Cu.Meter
MDEN	Matrix Density	2710	Kilograms/Cu.Meter
FD	Fluid Density	1000	Kilograms/Cu.Meter
SPVS	SPeD Valve Status	IN	
NGAI	K Factor-NEU	1.000	
BHS	Open/Cased Hole	Open	
BSAL	Borehole Salinity	0	Parts/Million
FSAL	Formation Salinity	0	Parts/Million
NBCS	Bitsize/Calp Sel-CNT	Caliper	
NTLS	Tool Type-CNT	CNT-S	
TGRD	Temperature Gradient	0.555	DegC/100Meters
NTMS	Temp Source-CNT	Gradient	
NCOT	Constant Temp-CNT	21.0	DegreesCentigrade
NCOR	Cnt Ch Corr Offset	OFF	
OCOR	Cnt Environ.correction	OFF	
SWAN	Sheave Wheel Angle	0.00	Degrees
NCAL	LIS Caliper Name-CNT	X Caliper	
SCAL	Density BH Diam Source	X Caliper	
BHC1	BHV Caliper Source 1	CALI	
BHC2	BHV Caliper Source 2	CAL2	
BHC3	BHV Caliper Source 3	None	
BDC1	BHV Diff Cal Source	CALI	
BHC6	BHV Method	Standard BHV	

REMARKS

MAIN PASS
1:240 SCALE

LIMESTONE MATRIX (2710 Kg/m3)

DEPTH SCALE: **1:240** VERSION: **2004.02.11.263**

MAIN PASS

30017937 STIMP1

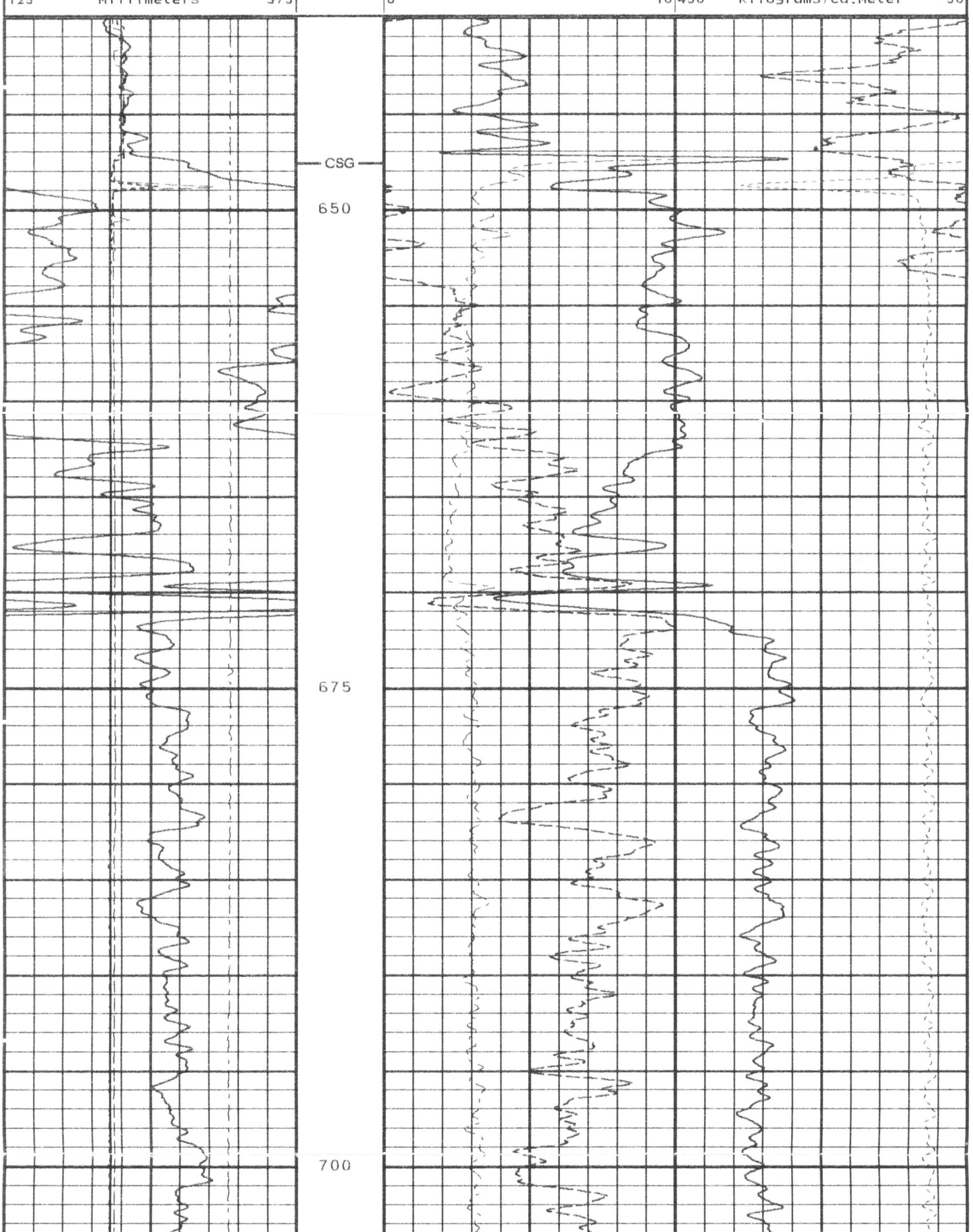
FINISH DEPTH: **0.0** Meters DIRECTION: **UP** DATE: TIME: MODE: **TRACE PLAYBACK**

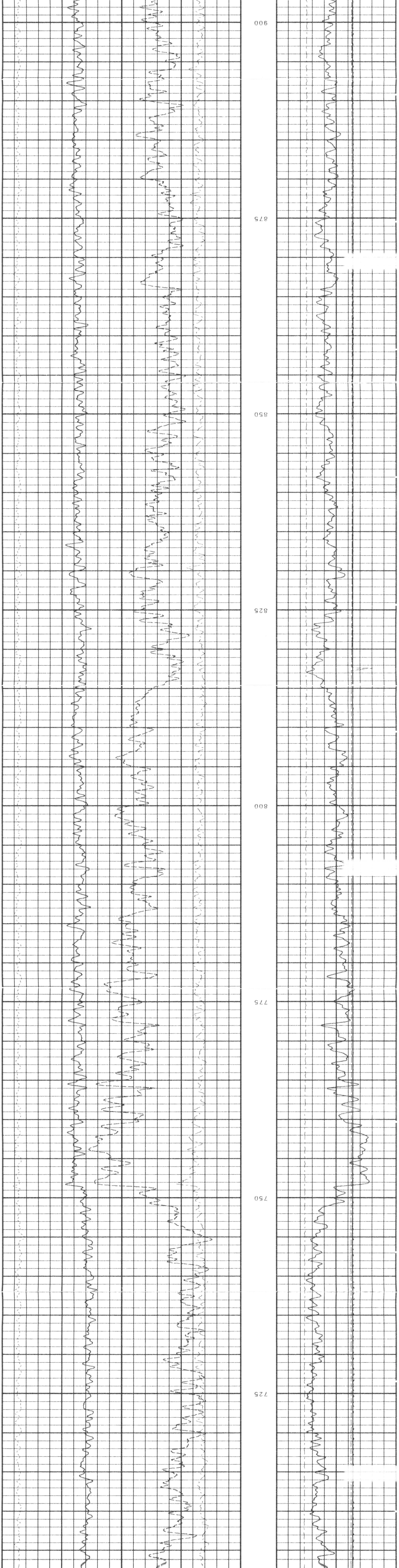
Tension (TENS)	Neut. Por. (NPHI)
10000 Pounds 0	45.0 Percent -15.0

Y Caliper (CAL2)	Bulk Density (RHOB)
125 Millimeters 375	1950 Kilograms/Cu.Meter 2950

Gamma Ray (GR)	PE (PEF)	Den. Corr. (DRHO)
0 API 150	0 10	450 Kilograms/Cu.Meter -50

X Caliper (CALI)
125 Millimeters 375

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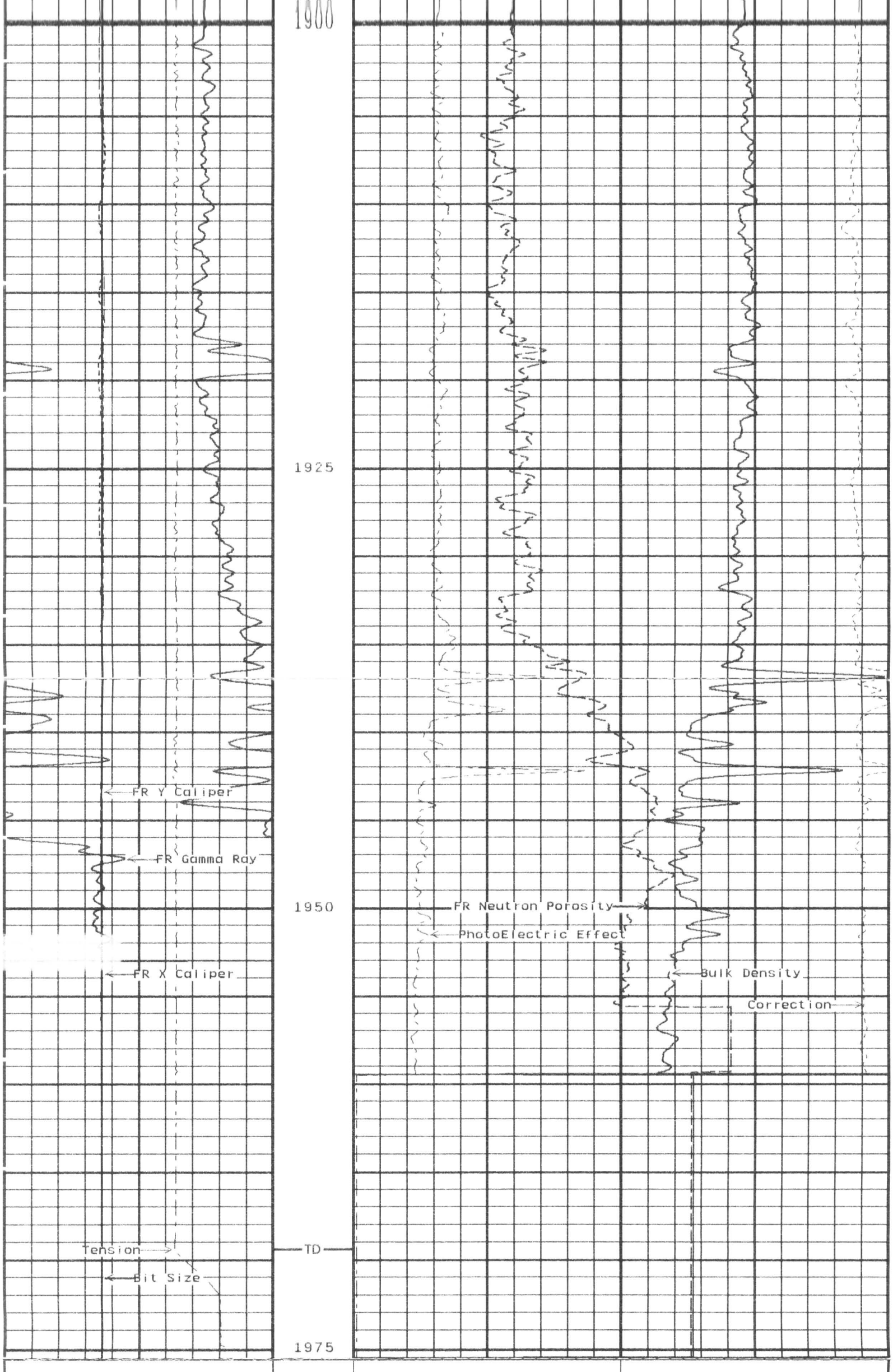


X Caliper (CALI)		
125	Millimeters	375
Gamma Ray (GR)		
0	API	150
Y Caliper (CAL2)		
125	Millimeters	375
Tension (TENS)		
10000	Pounds	0

PE (PEF)		Den. Corr. (DRHO)		
0	10	450	Kilograms/Cu.Meter	-50
Bulk Density (RHOB)				
1950	Kilograms/Cu.Meter			2950
Neut. Por. (NPHI)				
45.0	Percent			-15.0

START DEPTH: **1975.6** DIRECTION: **UP** DATE: **03/12/2004** TIME: **03:29** MODE: **TRACE PLAYBACK**

30017937 STIMP1

MAIN PASS

DEPTH SCALE: **1:240** VERSION: **2004.02.11.263**

SYSTEM CONSTANTS

NAME	DESCRIPTION	VALUE	UNITS
TDL	TD-Logger	1969.40	Meters
CSIZ	Casing Size	244.5	Millimeters
CWEI	Casing Weight	59.52	Kilograms/Meter
BS	Bit Size	215.9	Millimeters
BHT	Bottom Hole Temp	80.0	DegreesCentigrade
SFT	Mean Annual Surf Temp	5.0	DegreesCentigrade
SPDD	SP Drift Corr. mV	0	Millivolts
SPBR	SP Bridle Depth Offset	0.00	Meters
SPTL	Log With SP From	STI	
STIB	STI SFL Chassis Return	ON	
STI4	STI 4 Level Average	OFF	
STIS	STI SFL Log Mode On	ON	
SACC	Accumulation Time	100	Seconds
BARI	Barite Correction	OFF	
MW	Mud Weight	950.0	Kilograms/Cu.Meter
MDEN	Matrix Density	2710	Kilograms/Cu.Meter
FD	Fluid Density	1000	Kilograms/Cu.Meter
SPVS	SPeD Valve Status	IN	
NGAI	K Factor-NEU	1.000	
BHS	Open/Cased Hole	Open	
BSAL	Borehole Salinity	0	Parts/Million
FSAL	Formation Salinity	0	Parts/Million
NBCS	Bitsize/Calp Sel-CNT	Caliper	
NTLS	Tool Type-CNT	CNT-S	
TGRD	Temperature Gradient	0.555	DegC/100Meters
NTMS	Temp Source-CNT	Gradient	
NCOT	Constant Temp-CNT	21.0	DegreesCentigrade
NCOR	Cnt Ch Corr Offset	OFF	
OCOR	Cnt Environ.correction	OFF	
SWAN	Sheave Wheel Angle	0.00	Degrees
NCAL	LIS Caliper Name-CNT	X Caliper	
SCAL	Density BH Diam Source	X Caliper	

REMARKS

REPEAT PASS/MAIN PASS OVERLAY
1:240 SCALE
LIMESTONE MATRIX (2710 Kg/m3)
MAIN PASS = LIGHT LINES
REPEAT PASS = MEDIUM LINES

DEPTH SCALE: **1:240** VERSION: **2004.02.11.263**

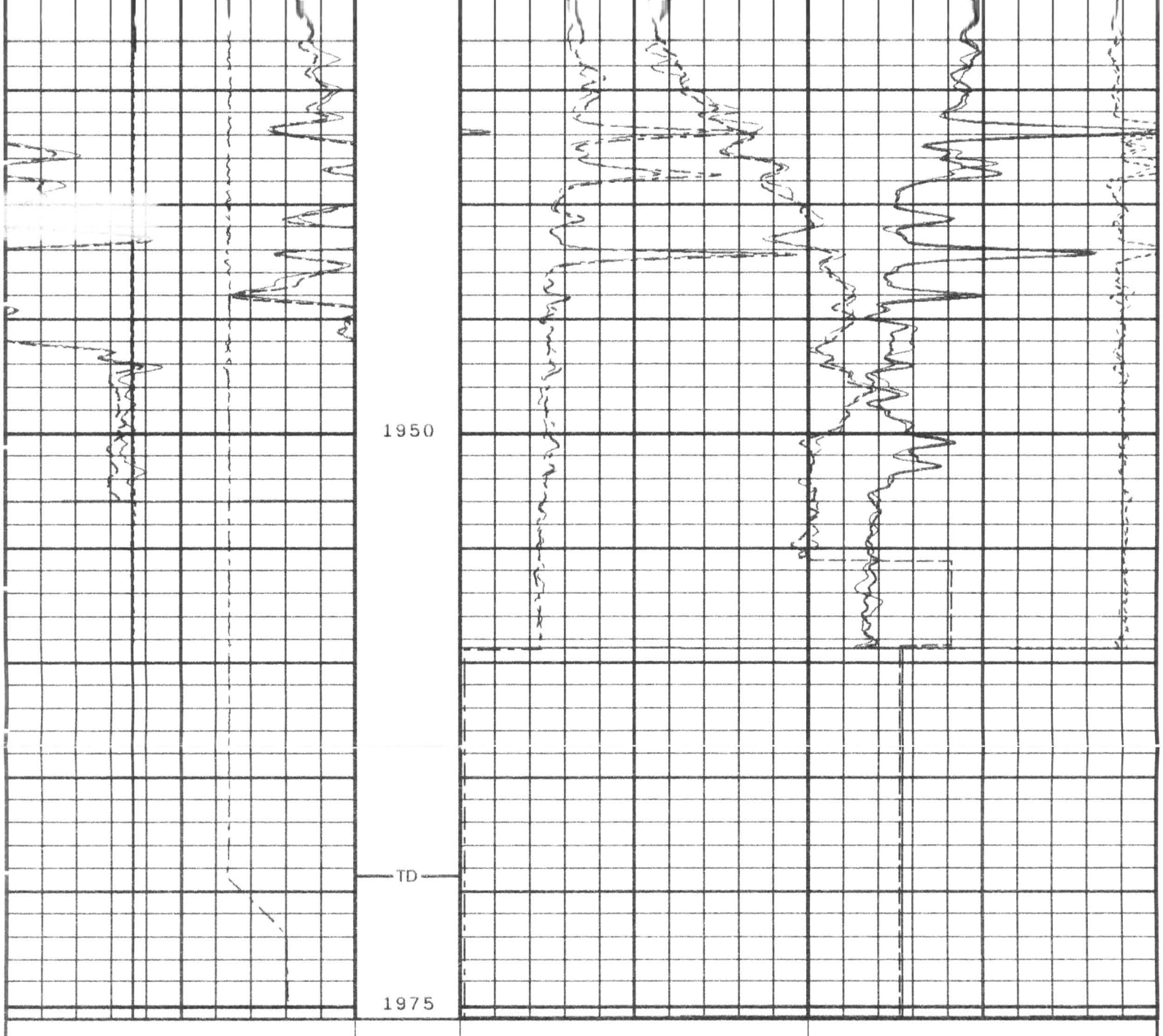
30017937

FINISH DEPTH: **1889.4** Meters DIRECTION: **UP** DATE: **03/12/2004** TIME: **02:09** MODE: **TRACE PLAYBACK**

Tension (TENS)		
10000	Pounds	0
Y Caliper (CAL2)		
125	Millimeters	375
Gamma Ray (GR)		
0	API	150
X Caliper (CALI)		
125	Millimeters	375

Neut. Por. (NPHI)		
45.0	Percent	-15.0
Bulk Density (RHOB)		
1950	Kilograms/Cu.Meter	2950

PE (PEF)		Den. Corr. (DRHO)		
0	10	450	Kilograms/Cu.Meter	-50



X Caliper (CALI)			PE (PEF)		Den. Corr. (DRHO)		
125	Millimeters	375	0	10	450	Kilograms/Cu.Meter	-50
Gamma Ray (GR)			**Bulk Density (RHOB)**				
0	API	150	1950	Kilograms/Cu.Meter			2950
Y Caliper (CAL2)			**Neut. Por. (NPHI)**				
125	Millimeters	375	45.0	Percent			-15.0
Tension (TENS)							
10000	Pounds	0					

START DEPTH: **1975.6** DIRECTION: **UP** DATE: **03/12/2004** TIME: **02:09** MODE: **TRACE PLAYBACK**

DEPTH SCALE: **1:240** VERSION: **2004.02.11.263**

SYSTEM CONSTANTS

NAME	DESCRIPTION	VALUE	UNITS
TDL	TD-Logger	1969.40	Meters
CSIZ	Casing Size	244.5	Millimeters
CWEI	Casing Weight	59.52	Kilograms/Meter
BS	Bit Size	215.9	Millimeters
BHT	Bottom Hole Temp	74.0	DegreesCentigrade
SFT	Mean Annual Surf Temp	5.0	DegreesCentigrade
SPDD	SP Drift Corr. mV	0	Millivolts
SPBR	SP Bridle Depth Offset	0.00	Meters
SPTL	Log With SP From	STI	
STIB	STI SFL Chassis Return	ON	
STI4	STI 4 Level Average	OFF	
STIS	STI SFL Log Mode On	ON	
SACC	Accumulation Time	100	Seconds
BARI	Barite Correction	OFF	
MW	Mud Weight	950.0	Kilograms/Cu.Meter
MDEN	Matrix Density	2710	Kilograms/Cu.Meter
FD	Fluid Density	1000	Kilograms/Cu.Meter
SPVS	SPeD Valve Status	OUT	
NGAI	K Factor-NEU	1.000	
BHS	Open/Cased Hole	Open	
BSAL	Borehole Salinity	0	Parts/Million
FSAL	Formation Salinity	0	Parts/Million
NBCS	Bitsize/Calp Sel-CNT	Caliper	
NTLS	Tool Type-CNT	CNT-S	
TGRD	Temperature Gradient	0.555	DegC/100Meters
NTMS	Temp Source-CNT	Gradient	
NCOT	Constant Temp-CNT	21.0	DegreesCentigrade
NCOR	Cnt Ch Corr Offset	OFF	
OCOR	Cnt Environ.correction	OFF	
SWAN	Sheave Wheel Angle	0.00	Degrees
NCAL	LIS Caliper Name-CNT	X Caliper	
SCAL	Density BH Diam Source	X Caliper	

REMARKS

MAIN PASS
1:240 SCALE
SANDSTONE MATRIX (2650 Kg/m3)

DEPTH SCALE: **1:240** VERSION: **2004.02.11.263**

MAIN PASS

30017937 STIMP1

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

Tension (TENS)			Neut. Por. (NPSS)				
10000	Pounds	0	45.0	Percent			-15.0
Y Caliper (CAL2)			**Den. Por. (DPSS)**				
125	Millimeters	375	45.0	Percent			-15.0
Gamma Ray (GR)			**PE (PEF)**		**Den. Corr. (DRHO)**		
0	API	150	0	10	450	Kilograms/Cu.Meter	-50
X Caliper (CALI)							
125	Millimeters	375					

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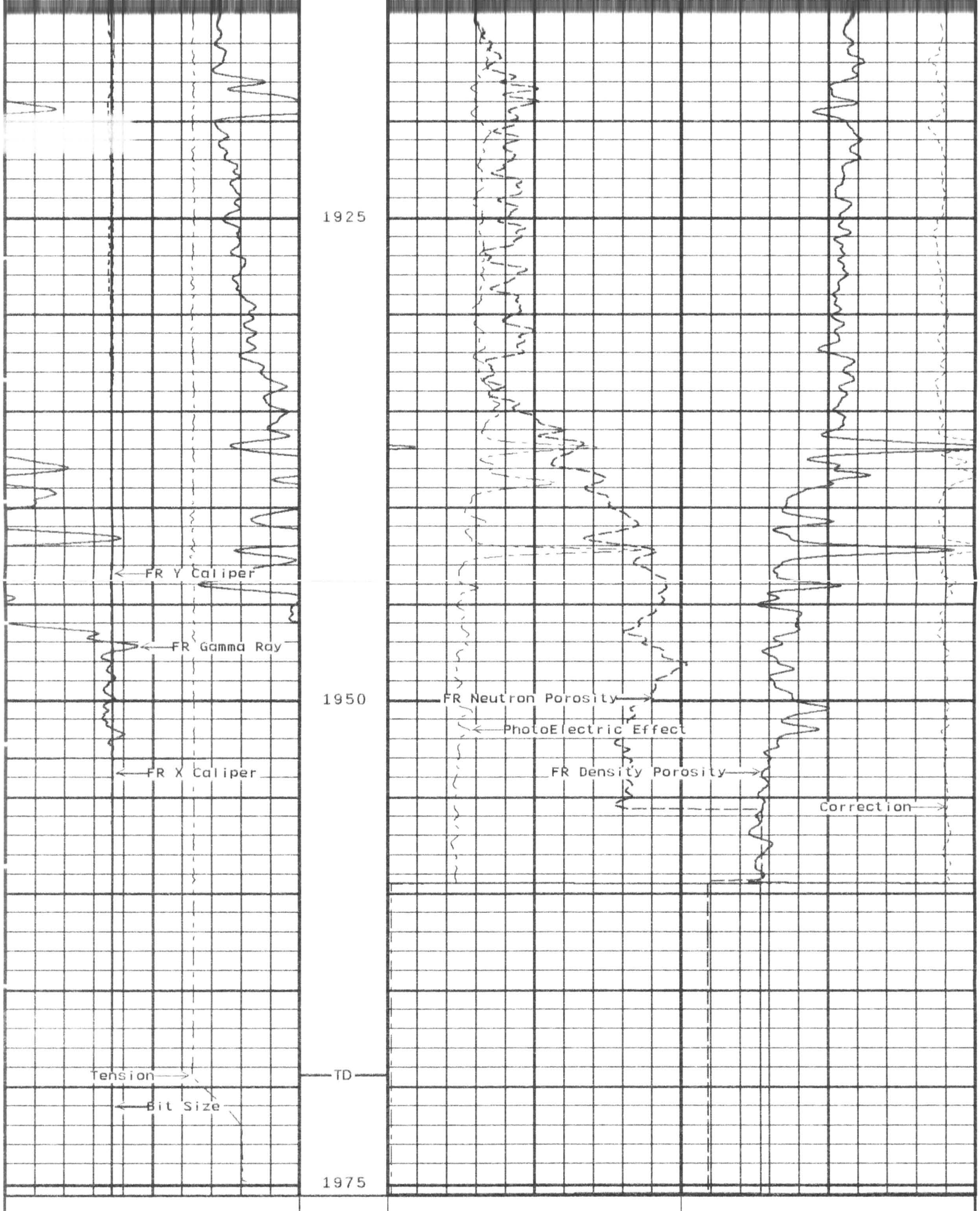


X Caliper (CALI)			PE (PEF)		Den. Corr. (DRHO)		
125	Millimeters	375	0	10	450	Kilograms/Cu.Meter	-50
Gamma Ray (GR)			**Den. Por. (DPSS)**				
0	API	150	45.0			Percent	-15.0
Y Caliper (CAL2)			**Neut. Por. (NPSS)**				
125	Millimeters	375	45.0			Percent	-15.0
Tension (TENS)							
10000	Pounds	0					

START DEPTH: **1975.6** DIRECTION: **UP** DATE: **03/12/2004** TIME: **03:29** MODE: **TRACE PLAYBACK**

30017937 STIMP1

MAIN PASS

DEPTH SCALE: **1:240** VERSION: **2004.02.11.263**

SYSTEM CONSTANTS

NAME	DESCRIPTION	VALUE	UNITS
TDL	TD-Logger	1969.40	Meters
CSIZ	Casing Size	244.5	Millimeters
CWEI	Casing Weight	59.52	Kilograms/Meter
BS	Bit Size	215.9	Millimeters
BHT	Bottom Hole Temp	80.0	DegreesCentigrade
SFT	Mean Annual Surf Temp	5.0	DegreesCentigrade
SPDD	SP Drift Corr. mV	0	Millivolts
SPBR	SP Bridle Depth Offset	0.00	Meters
SPTL	Log With SP From	STI	
STIB	STI SFL Chassis Return	ON	
STI4	STI 4 Level Average	OFF	
STIS	STI SFL Log Mode On	ON	
SACC	Accumulation Time	100	Seconds
BARI	Barite Correction	OFF	
MW	Mud Weight	950.0	Kilograms/Cu.Meter
MDEN	Matrix Density	2710	Kilograms/Cu.Meter
FD	Fluid Density	1000	Kilograms/Cu.Meter
SPVS	SPeD Valve Status	IN	
NGAI	K Factor-NEU	1.000	
BHS	Open/Cased Hole	Open	
BSAL	Borehole Salinity	0	Parts/Million
FSAL	Formation Salinity	0	Parts/Million
NBCS	Bitsize/Calp Sel-CNT	Caliper	
NTLS	Tool Type-CNT	CNT-S	
TGRD	Temperature Gradient	0.555	DegC/100Meters
NTMS	Temp Source-CNT	Gradient	
NCOT	Constant Temp-CNT	21.0	DegreesCentigrade
NCOR	Cnt Ch Corr Offset	OFF	
OCOR	Cnt Environ.correction	OFF	
SHAN	Sheave Wheel Angle	0.00	Degrees
NCAL	LIS Caliper Name-CNT	X Caliper	
SCAL	Density BH Diam Source	X Caliper	

REMARKS

CASING CHECK
1:240 SCALE

LIMESTONE MATRIX (2710 Kg/m3)

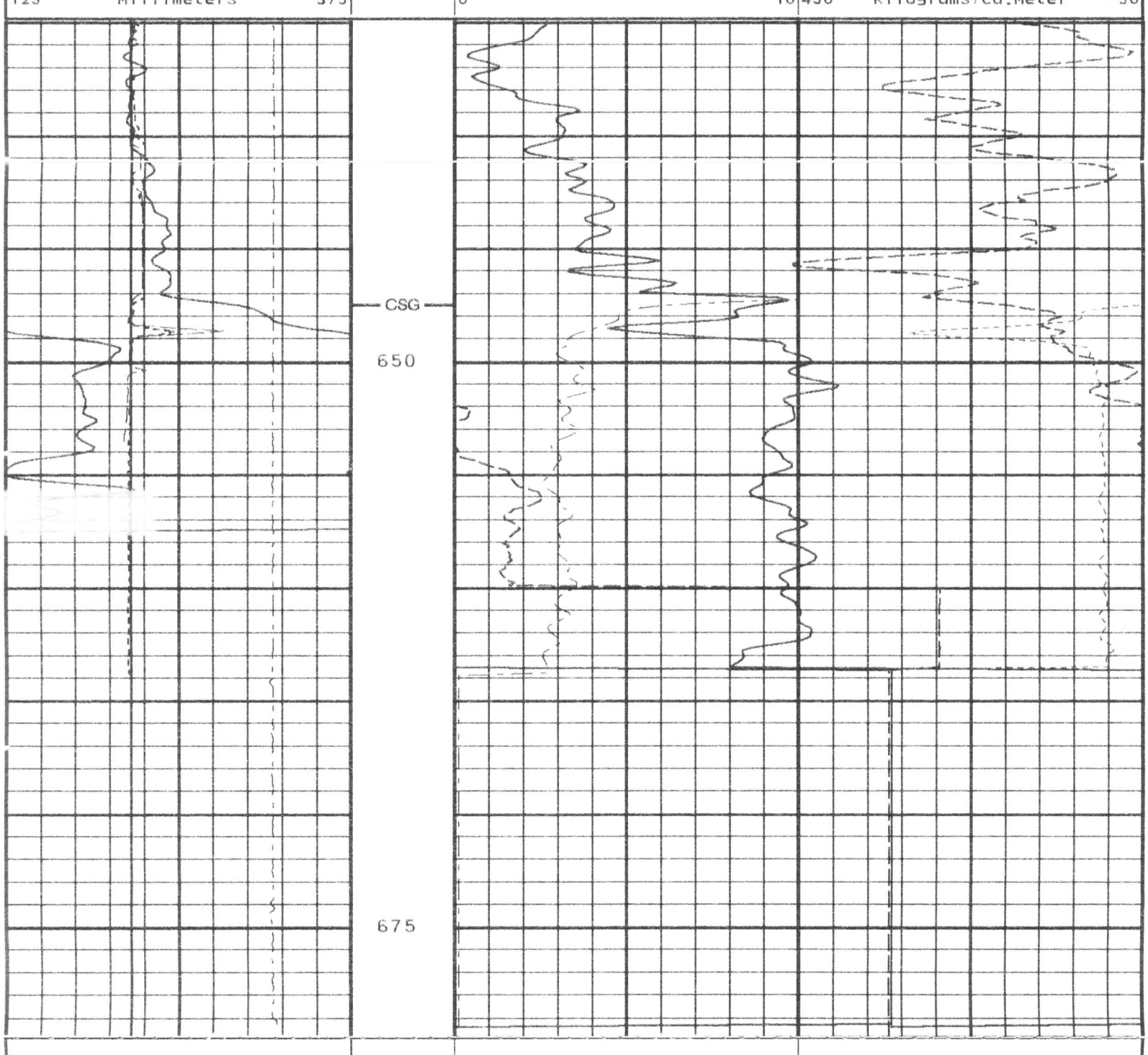
DEPTH SCALE: **1:240** VERSION: **2004.02.11.263**

MAIN PASS

30017937 CSGCHK

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

Tension (TENS)							
10000	Pounds	0					
Y Caliper (CAL2)			**Neut. Por. (NPHI)**				
125	Millimeters	375	45.0			Percent	-15.0
Gamma Ray (GR)			**Bulk Density (RHOB)**				
0	API	150	1950			Kilograms/Cu.Meter	2950
X Caliper (CALI)			**PE (PEF)**		**Den. Corr. (DRHO)**		
125	Millimeters	375	0	10	450	Kilograms/Cu.Meter	-50



X Caliper (CALI)			PE (PEF)		Den. Corr. (DRHO)		
125	Millimeters	375	0	10	450	Kilograms/Cu.Meter	-50
Gamma Ray (GR)			**Bulk Density (RHOB)**				
0	API	150	1950			Kilograms/Cu.Meter	2950
Y Caliper (CAL2)			**Neut. Por. (NPHI)**				
125	Millimeters	375	45.0			Percent	-15.0
Tension (TENS)							
10000	Pounds	0					

START DEPTH: **679.1** DIRECTION: **UP** DATE: **03/12/2004** TIME: **01:40** MODE: **TRACE PLAYBACK**

30017937 CSGCHK

MAIN PASS

DEPTH SCALE: 1:240 VERSION: 2004.02.11.263

SYSTEM CONSTANTS

NAME	DESCRIPTION	VALUE	UNITS
TDL	TD-Logger	1969.40	Meters
CSIZ	Casing Size	244.5	Millimeters
CWEI	Casing Weight	59.52	Kilograms/Meter
BS	Bit Size	215.9	Millimeters
BHT	Bottom Hole Temp	74.0	DegreesCentigrade
SFT	Mean Annual Surf Temp	5.0	DegreesCentigrade
SPDD	SP Drift Corr. mV	0	Millivolts
SPBR	SP Bridle Depth Offset	0.00	Meters
SPTL	Log With SP From	STI	
STIB	STI SFL Chassis Return	ON	
STI4	STI 4 Level Average	OFF	
STIS	STI SFL Log Mode On	ON	
SACC	Accumulation Time	100	Seconds
BARI	Barite Correction	OFF	
MW	Mud Weight	950.0	Kilograms/Cu.Meter
MDEN	Matrix Density	2710	Kilograms/Cu.Meter
FD	Fluid Density	1000	Kilograms/Cu.Meter
SPVS	SPeD Valve Status	IN	
NGAI	K Factor-NEU	1.000	
BHS	Open/Cased Hole	Open	
BSAL	Borehole Salinity	0	Parts/Million
FSAL	Formation Salinity	0	Parts/Million
NBCS	Bitsize/Calp Sel-CNT	Caliper	
NTLS	Tool Type-CNT	CNT-S	
TGRD	Temperature Gradient	0.555	DegC/100Meters
NTMS	Temp Source-CNT	Gradient	
NCOT	Constant Temp-CNT	21.0	DegreesCentigrade
NCOR	Cnt Ch Corr Offset	OFF	
OCOR	Cnt Environ.correction	OFF	
SWAN	Sheave Wheel Angle	0.00	Degrees
NCAL	LIS Caliper Name-CNT	X Caliper	
SCAL	Density BH Diam Source	X Caliper	

03/11/04 21:31 0.0 M Ver 40211263 Job 30017937

Caliper Before Survey Calibration

Tool Type: CAL-FA Serial No:CALF169

	Measured Small	Measured Large	Units	Calibrated Small	Calibrated Large	Units
WCLO	773.9	1419.6	mv	177.8	355.6	mm

03/11/04 21:42 0.0 M Ver 40211263 Job 30017937

Gamma Ray Before Survey Calibration

Tool Type: UGR-JA Serial No: UGRJ211
Calibrator No: RA-20S-335

Background	Calibrator	Standard	Units
118.6	734.7	140.0	API

Delta Counts Per Sec: 616.1 CPS/API = 4.401

02/15/04 15:02 0.0 M Ver 30725245 Job shop

Compensated Neutron Shop Calibration

Tool Type: CNT-S Serial No: CNTS203
Verifier No: WSV-089 Source No: 6036-NE
Tank Type: NCT-AA

	Low Porosity	Med Porosity	High Porosity	Units
Tank Ratio:	0.713	1.457	2.294	SS/LS
Tank Porosity:	-0.76	10.25	25.73	LM-PU
LS Detector:	1391.5	333.4	140.1	CPS
SS Detector:	978.2	491.0	324.4	CPS
Tool Ratio:	0.703	1.473	2.315	SS/LS
Tool Porosity:	-0.95	10.25	25.66	LM-PU

Tool Constant: 1.000
Surface Temperature: 21 DegC

SS Detector	LS Detector	Ratio	Porosity
299.3 CPS	183.2 CPS	1.634	13.04

03/11/04 21:46 0.0 M Ver 40211263 Job 30017937

Compensated Neutron Before Survey Calibration

Tool Type: CNT-S Serial No: CNTS203
Verifier No: WSV-089 Source No: 6036-NE

	Verifier Check	Units
LS Detector:	183.9	CPS
SS Detector:	297.6	CPS
Tool Ratio:	1.618	SS/LS
Tool Porosity:	13.07	LM-PU

Tool Constant: 1.000

03/12/04 04:47 0.0 M Ver 40211263 Job 30017937

Compensated Neutron After Survey Calibration

Tool Type: CNT-S Serial No: CNTS203
Verifier No: WSV-089 Source No: 6036-NE

	Verifier Check Before	Verifier Check After	Units
LS Detector:	183.9	182.9	CPS
SS Detector:	297.6	297.1	CPS
Tool Ratio:	1.618	1.624	SS/LS
Tool Porosity:	13.07	13.18	LM-PU

Tool Constant: 1.000

02/26/04 21:55 0.0 M Ver 40211263 Job SHOP

Spectral Pe Density Shop Calibration

Tool Type: SPS-AB Sonde No: SPSB209
Electronics No: SPCB209
Firmware Ver: . 0 Source No: 2068-GW
Aluminum Blk No: ALBA110 Magnesium Blk No: MGBA110

	Bkg	Al	Al+Fe	Mg	Units
Cs Pk	110.45	110.38	110.45	110.47	Ch
Gain	0.167	0.166	0.167	0.167	Ch/Kev
Tng Pk	11.73				
Off	0.241				
Res	9.02	9.02	9.25	9.18	%
LLPE	226	1292	840	8607	cps
LUPE	122	953	727	5876	cps
LSUC	716	975	874	5578	cps
LCMP	1438	3722	3250	21770	cps
Cs Pk	110.43	110.30	110.36	110.34	Ch
Gain	0.167	0.167	0.167	0.167	Ch/Kev
Tng Pk	11.57				
Off	0.062				
Res	8.66	8.71	8.88	8.79	%
SLPE	229	2680	1804	4057	cps
SUPE	123	1926	1452	2801	cps
SSUC	665	4571	4106	6426	cps
SCMP	1392	10896	9561	16082	cps
Acc	250	250	250	250	Secs

Density Calibration

	Fresh	Barite
Spine Angle =	77.57	78.95
Spine Length =	199.52	196.03

Pe Calibration

	Fresh	Barite
LS Slope =	1.7444	0.3982
LS Intercept =	-0.2419	-0.1641

03/11/04 21:35 0.0 M Ver 40211263 Job 30017937

Spectral Pe Density Before Survey Tool Check

Tool Type: SPS-AB Sonde No: SPSB209
Electronics No: SPCB209
Firmware Ver: . 0 Source No: 2068-GW
Aluminum Blk No: ALBA110 Magnesium Blk No: MGBA110

	Shop	Before	Units
Cs Pk	110.49	110.19	Ch
Gain	0.167	0.167	Ch/Kev
Tng Pk	11.73	11.69	Ch
Off	0.241	0.184	Ch
Res	9.02	9.08	%
LLPE	226	227	
LUPE	122	125	
LSUC	716	720	
LCMP	1438	1441	
Cs Pk	110.43	110.21	Ch
Gain	0.167	0.167	Ch/Kev
Tng Pk	11.57	11.56	Ch
Off	0.062	0.071	Ch
Res	8.66	8.65	%
SLPE	229	230	
SUPE	123	124	
SSUC	665	668	
SCMP	1392	1395	
Acc	250	100	Secs

03/12/04 04:42 0.0 M Ver 40211263 Job 30017937

Spectral Pe Density After Survey Tool Check

Tool Type: SPS-AB Sonde No: SPSB209
Electronics No: SPCB209
Firmware Ver: . 0 Source No: 2068-GW
Aluminum Blk No: ALBA110 Magnesium Blk No: MGBA110

	Shop	Before	After	Units
Cs Pk	110.49	110.19	109.94	Ch
Gain	0.167	0.167	0.166	Ch/Kev
Tng Pk	11.73	11.69	11.67	Ch
Off	0.241	0.184	0.148	Ch
Res	3.02	3.08	3.06	%
LLPE	226	227	225	cps
LUPE	122	125	121	cps
LSUC	716	720	714	cps
LCMP	1438	1441	1435	cps
Cs Pk	110.43	110.21	110.64	Ch
Gain	0.167	0.167	0.167	Ch/Kev
Tng Pk	11.57	11.56	11.56	Ch
Off	0.062	0.071	0.051	Ch
Res	8.66	8.65	8.68	%
SLPE	229	230	230	cps
SUPE	123	124	125	cps
SSUC	665	668	667	cps
SCMP	1392	1395	1394	cps
Acc	250	100	100	Secs

03/11/04 21:31 0.0 M Ver 40211263 Job 30017937

Caliper Before Survey Calibration

Tool Type: SPD-CL Serial No:SPSB209

	Measured			Calibrated		
	Small	Large	Units	Small	Large	Units
WCL2	1464.6	2845.4	mv	177.8	355.6	mm

O.H. Adaptor Head

Weight 18.0 kg
Length 0.74 m
Max. Diameter 8.9 cm

Total Stack Weight 793.9 kg in air
Total Stack Length 32.34 m

Crossover

Weight 6.8 kg
Length 0.27 m

Downhole Tension/Compression

Weight 34.9 kg
Length 1.47 m
Max. Diameter 8.6 cm

Wireline Communications Cartridge

Weight 53.6 kg
Length 2.31 m
Max. Diameter 8.6 cm

2-Arm Caliper

Weight 79.4 kg
Length 2.40 m
Max. Diameter 10.2 cm

SPeD 400 Electronics

Weight 56.7 kg
Length 2.92 m
Max. Diameter 8.6 cm

Universal GR

Weight 37.3 kg
Length 1.40 m
Max. Diameter 8.6 cm

Mandrel Neutron

Weight 45.4 kg
Length 2.07 m
Max. Diameter 8.6 cm

Offset Joint

Weight 3.0 kg
Length 0.36 m
Max. Diameter 8.6 cm

SPeD 400 Pad Section

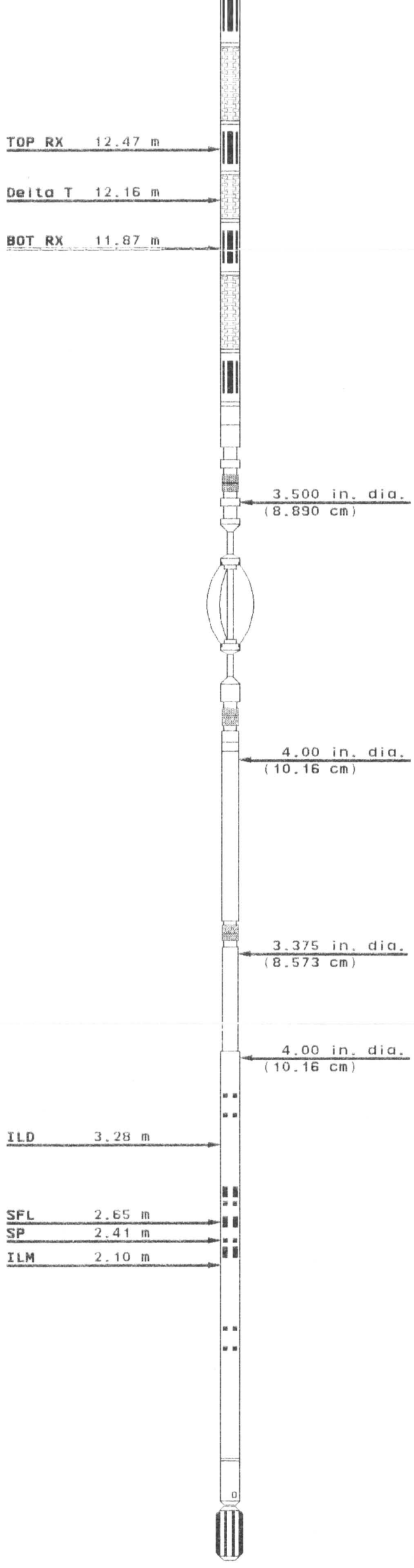
Weight 141.5 kg
Length 3.38 m
Max. Diameter 11.4 cm

Borehole Compensated Sonic

Weight 104.0 kg
Length 4.57 m

Length 4.07 m

Max. Diameter 8.6 cm



Centralizer

Weight 30.9 kg
Length 1.39 m
Max. Diameter 8.9 cm

Simultaneous Triple Induction

Weight 176.9 kg
Length 8.75 m
Max. Diameter 10.2 cm

Stand - Off

Weight 5.5 kg
Length 0.20 m

COMPANY ANADARKO CANADA CORPORATION

WELL ANADARKO EMILE LAKE A-77

FIELD NETLA PROVINCE N.W.T.

PRECISION
Wireline Technologies