

BIT SIZE	DLOD	MSFL		
6 INCHES	16 +<KG	.2 OHMM	2000	5 cm
CALIPER	TENS	DFL		
6 INCHES	16 +<KG	.2 OHMM	2000	
SP	AHV	HRI MEDIUM		
-110I+	<M3>	.2 OHMM	2000	
GAMMA	BHV	HRI DEEP		
0 GAPI	150 >M3>	.2 OHMM	2000	140 US/F

UPLOG # 1 Depth: 2230.70 Service:none. Unit:10598
 Replay Log Date: Time: Vers:2.24

 GAMMA RAY TOOL SHOP CALIBRATION SUMMARY
 PERFORMED: 22:22:30 11/3/92 LAST SHOP CALIBRATION: 17:37:39 08/8/92
 SERIAL NUMBER: 114401 MODEL: NGRT-A
 TRUCK UNIT NUMBER: 10598 PROGRAM VERSION: 2.24
 PERFORMED BY: L. JONES

	MEASURED	CALIBRATED	UNITS
BACKGROUND	5	5	GAPI
BACKGROUND+CALIBRATOR	229	226	GAPI
CALIBRATOR	223	221	GAPI

GAMMA RAY TOOL BEFORE SURVEY FIELD CHECK SUMMARY
 PERFORMED: 14:22:31 11/17/92 LAST SHOP CALIBRATION: 22:22:30 11/3/92

	SHOP	FIELD	UNITS
BACKGROUND	5	5	GAPI
BACKGROUND+CALIBRATOR	226	222	GAPI
CALIBRATOR	221	217	GAPI

GAMMA RAY TOOL AFTER SURVEY FIELD CHECK SUMMARY
 PERFORMED: 14:16:02 11/19/92 LAST SHOP CALIBRATION: 22:22:30 11/3/92

	BEFORE	AFTER	UNITS
BACKGROUND	5	7	GAPI
BACKGROUND+CALIBRATOR	222	231	GAPI
CALIBRATOR	217	223	GAPI

 DITS MICRO SPHERICALLY FOCUSED SHOP CALIBRATION SUMMARY
 PERFORMED: 21:59:29 11/3/92 LAST SHOP CALIBRATION: 21:57:05 11/3/92
 SERIAL NUMBER: A006 MODEL: DMSFL
 TRUCK UNIT NUMBER: 10598 PROGRAM VERSION: 2.24
 PERFORMED BY: L. JONES

	MEASURED	CALIBRATED	UNITS
EXT. CAL. POINT #1	0.20	0.20	OHM-M
EXT. CAL. POINT #2	20.00	20.00	OHM-M
EXT. CAL. POINT #3	1999.05	2000.00	OHM-M
INTERNAL REFERENCE	21.85	21.85	OHM-M

DITS MICRO SPHERICALLY FOCUSED BEFORE SURVEY FIELD CHECK SUMMARY
 PERFORMED: 13:51:30 11/17/92 LAST SHOP CALIBRATION: 21:59:29 11/3/92

	SHOP	FIELD	UNITS
INT REF	21.85	21.83	OHM-M

DITS MICRO SPHERICALLY FOCUSED AFTER SURVEY FIELD CHECK SUMMARY
 PERFORMED: 13:52:50 11/18/92 LAST SHOP CALIBRATION: 21:59:29 11/3/92

	BEFORE	AFTER	UNITS
INT REF.	21.83	21.83	OHM-M

 MSFL CALIPER SHOP CALIBRATION SUMMARY
 PERFORMED: 22:16:01 11/3/92 LAST SHOP CALIBRATION: 22:14:14 11/3/92
 SERIAL NUMBER: A006 MODEL:
 TRUCK UNIT NUMBER: 10598 PROGRAM VERSION: 2.24
 PERFORMED BY: L. JONES

	MEASURED	CALIBRATED	UNITS
VALUE 1	7.866	8.000	INCH
VALUE 2	14.998	15.000	INCH

MSFL CALIPER BEFORE SURVEY FIELD CHECK SUMMARY
 PERFORMED: 14:02:33 11/17/92 LAST SHOP CALIBRATION: 22:16:01 11/3/92

	SHOP	FIELD	UNITS
VALUE 1	8.000	8.001	INCH

MSFL CALIPER AFTER SURVEY FIELD CHECK SUMMARY
 PERFORMED: 13:47:35 11/18/92 LAST SHOP CALIBRATION: 22:16:01 11/3/92

	BEFORE	AFTER	UNITS
VALUE 1	8.001	7.668	INCH

 HRI SONDE SHOP CALIBRATION SUMMARY
 PERFORMED: 16:25:19 11/11/92 LAST SHOP CALIBRATION: 16:13:30 11/11/92
 SERIAL NUMBER: A015 MODEL: HRI
 TRUCK UNIT NUMBER: 10598 PROGRAM VERSION: 2.24
 PERFORMED BY: L. JONES

HRI MASTER CALIBRATION SUMMARY

TEST LOOP RESPONSE:

1 - TEST LOOP CLOSED

	MEASURED SIGNAL		NOMINAL		
	R	X	R	X	
HRD	1976	1972	1976	1972	MMHOS
HRM	2038	2032	2038	2032	MMHOS

2 - TEST LOOP OFF (SONDE ERROR)

	MEASURED SIGNAL		NOMINAL		
	R	X	R	X	
HRD	-6	13	+/-15	+/-100	MMHOS
HRM	-8	-23	+/-15	+/-100	MMHOS

ELECTRONICS RELATIVE GAIN:

	SET	PHASE	NOMINAL	PHASE
	MAGNITUDE		MAGNITUDE	
HRD	1.00	-1.31	1. +/-0.1	0. +/-5
HRM	1.00	-1.13	1. +/-0.1	0. +/-5

Temperature at time of calibration was 69.1 DEG F

PLS-II CALIBRATION SUMMARY TABLE

SERVICE or SIGNAL	SHOP	BEFORE	AFTER	CHANGE	TOLERANCE
GAMMA	221	217	223	-5	+/- 9.0
CALIPER VALUE 1	8.000	8.001	7.668	0.333	+/-0.5

PLS-II FILTER & DELAY SUMMARY

FILTER & DELAY SUMMARY

DATE: 21-NOV-1992 18:55:37

FILTER LENGTH AND DELAY ARE IN METERS

MNEM	TOOL	DESCRIPTION	FILTER LENGTH	DELAY	FILTER TYPE
TENS	DI1SHD	CABLE TENSION	0.000	0.000	BLOCK
MAGMRK	DI1SHD	DEPTH PANEL MAGNETIC MARK	0.000	0.000	NONE
DLOD	CH_TEN	CABLE HEAD TENSION	0.000	0.000	BLOCK
BTEMP	CH_TEN	CH BORE HOLE TEMPERATURE	0.000	0.000	BLOCK
PLOC	CH_TEN	CABLE HEAD PAD LOCATOR	0.000	0.000	BLOCK
W2_V	DSTU	AUXILIARY POWER VOLTAGE	0.000	0.000	NONE
W5_V	DSTU	INSTRUMENT POWER VOLTAGE	1.200	32.069	BLOCK
DSTEMP	DSTU	DSTU TEMPERATURE (F)	0.500	28.209	BLOCK
RGR	GAMMA	NATURAL GAMMA RAY	0.000	19.436	NONE
NNOISE	FWST2S	NEAR RECEIVER NOISE	0.000	19.436	NONE
FNOISE	FWST2S	FAR RECEIVER NOISE	0.000	21.109	NONE
TT_N	FWST2S	NEAR TRAVEL TIME	0.000	21.036	NONE
TT_F	FWST2S	FAR TRAVEL TIME	0.000	19.055	NONE
GAIN_M	FWST2S	NEAR RECEIVER GAIN	0.000	19.055	NONE
GAIN_F	FWST2S	FAR RECEIVER GAIN	0.000	19.055	TRIANGLE
DT	FWST2S	DELTA T COMPRESSIVE	0.400	19.055	NONE
DT_UNF	FWST2S	DELTA T UNFILTERED	0.000	19.055	TRIANGLE
DT_2FT	FWST2S	DELTA T SIM 2 FT SPACING	0.400	19.512	NONE
DT_RCVR	FWST2S	DELTA T AT RECEIVER	0.000	19.512	NONE
DT_XMT	FWST2S	DELTA T AT TRANSMITTER	0.000	19.436	NONE
DT_Q	FWST2S	DELTA T QUALITY	0.000	19.436	NONE
PKCODE	FWST2S	PICK CODE	0.000	19.436	NONE
ALPHA	FWST2S	ALPHA	0.000	19.436	NONE
ERROR	FWST2S	ERROR	0.400	19.055	TRIANGLE
DSG	FWST2S	DELTA T SHEAR	0.000	17.568	NONE
MSG_DS	FWST2S	MSG SHEAR GAIN	0.000	19.055	NONE
MSGGAI	FWST2S	MSG GAIN	0.000	19.055	NONE
MSGRCV	FWST2S	MSG RECEIVER	0.000	19.055	NONE
AMPL	FWST2S	AMPLITUDE	0.000	19.320	NONE
WF1A	FWST2S	FWST RECEIVER 1 WAVEFORM	0.000	19.320	NONE
WF2A	FWST2S	FWST RECEIVER 2 WAVEFORM	0.000	10.900	BLOCK
MSVE	DMSFL	MSFL VE	0.200	10.900	BLOCK
MSVEUF	DMSFL	MSFL VE UNFILTERED	0.000	10.900	NONE
MSIA	DMSFL	MSFL IA	0.200	10.900	BLOCK
MSIAUF	DMSFL	MSFL IA UNFILTERED	0.000	10.900	NONE
CALIP	MSFCAL	MSFL CALIPER	0.000	-14.104	BLOCK
DEEPR	HRI	HRI DEEP CONDUCTIVITY R	0.000	-14.104	BLOCK
DEEPR	HRI	HRI DEEP CONDUCTIVITY X	0.000	2.660	BLOCK
DOZER	HRI	HRI DEEP QUALITY ZERO	0.000	2.660	BLOCK
DOCAL	HRI	HRI DEEP QUALITY CAL	0.000	-14.104	BLOCK
MEDR	HRI	HRI MEDIUM CONDUCTIVITY R	0.000	-14.104	BLOCK
MEDX	HRI	HRI MEDIUM CONDUCTIVITY X	0.000	2.660	BLOCK
MOZER	HRI	HRI MEDIUM QUALITY ZERO	0.000	2.660	BLOCK
MOCAL	HRI	HRI MEDIUM QUALITY CAL	0.000	1.136	NONE
ZB	HRI	DFL BUCK Z	0.000	1.136	NONE
DZB	HRI	DFL BUCK DELTA Z	0.000	1.136	NONE
ZM	HRI	DFL MEASURE Z	0.000	1.136	NONE
DZM	HRI	DFL MEASURE DELTA Z	0.000	2.660	BLOCK
STEM	HRI	HRI TEMPERATURE	0.000	2.660	BLOCK
GND	HRI	HRI GROUND REFERENCE	0.000	2.660	BLOCK
PSV	HRI	HRI +5V MONITOR	0.000	2.660	BLOCK
M15V	HRI	HRI -15V MONITOR	0.000	2.660	BLOCK
P15V	HRI	HRI +15V MONITOR	0.000	2.660	BLOCK
M60V	HRI	HRI -60V MONITOR	0.000	2.660	BLOCK
P60V	HRI	HRI +60V MONITOR	0.301	2.660	BLOCK
SPE	HRI	SF ELECTRODE	0.686	2.660	BLOCK
FISH	HRI	SF FISH	0.686	2.660	BLOCK
RSP	HRI	RAW SP	0.000	1.136	BLOCK
DELDR	HRI	HRI DEEP CONDUCTIVITY R DELAY	0.000	1.136	BLOCK
DELX	HRI	HRI DEEP CONDUCTIVITY X DELAY	0.000	1.136	BLOCK
DELHR	HRI	HRI MEDIUM CONDUCTIVITY R DEL	0.000	1.136	BLOCK
DELHX	HRI	HRI MEDIUM CONDUCTIVITY X DEL	0.000	1.136	BLOCK

HLS

PLS-II TOOL STRING DIAGRAM

21-NOV-1992 18:54:11

