Schlumberger

Company: **Lamont Doherty**
Well: **NGHP−01−16A**
Field:
RIG **Joides Resolution**
Ocean **Bengal Bay**

Dipole Shear Sonic Tool

Gamma Ray

RIG Joides Resolution
Field:
Location:
Well: NGHP−01−16A
Company: Lamont Doherty

LOCATION

Elev.: K.B. 11.3 m
G.L. −1264.5 m
D.F. 11.3 m

Permanent Datum: Mean Sea Level Elev.: 0 m
Log Measured From: Drill Floor 11.3 m above Perm. Datum
Drilling Measured From: Drill FLoor

API Serial No.	Latitude	Longitude
	16* 35.5986' N	82* 41.007' E

	Run 1		Run 2	
Logging Date	17−Jul−2006			
Run Number	One			
Depth Driller	1481.5 m			
Schlumberger Depth	1484 m			
Bottom Log Interval	1484 m			
Top Log Interval	1323 m			
Casing Driller Size @ Depth	0.000 in	@ 1333 m	@	
Casing Schlumberger	1323 m			
Bit Size	11.438 in			
Type Fluid In Hole	Sepiolite			
MUD Density / Viscosity	1.06645 g/cm3			
Fluid Loss / PH				
Source Of Sample				
RM @ Measured Temperature	@		@	
RMF @ Measured Temperature	@		@	
RMC @ Measured Temperature	@		@	
Source RMF / RMC				
RM @ MRT / RMF @ MRT	@	@	@	@
Maximum Recorded Temperatures				
Circulation Stopped / Time	16−Jul−2006	20:00		
Logger On Bottom / Time	17−Jul−2006	8:00		
Unit Number / Location	2082	Webster, TX		
Recorded By	Javier Espinosa			
Witnessed By	Gilles Guerin, Golam Sarker			

Run 1 Run 2 Run 3 Run 4

DISCLAIMER
THE USE OF AND RELIANCE UPON THIS RECORDED−DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED−DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED−DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED−DATA.

OTHER SERVICES1
OS1: FMS
OS2:
OS3:
OS4:
OS5:
REMARKS: RUN NUMBER 1
All parameters and presentations as per client request
Tool ran as per tool sketch below
A second pass was attepmted but TD not reached due to bad hole conditions
Drill Pipe was rised 13 meters to help deploying the tool in open hole
Caliper closed to avoid tool damage and tool dragging

OTHER SERVICES2
OS1:
OS2:
OS3:
OS4:
OS5:
REMARKS: RUN NUMBER 2

RUN 1
SERVICE ORDER #:
PROGRAM VERSION: 12C0−301
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2
SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

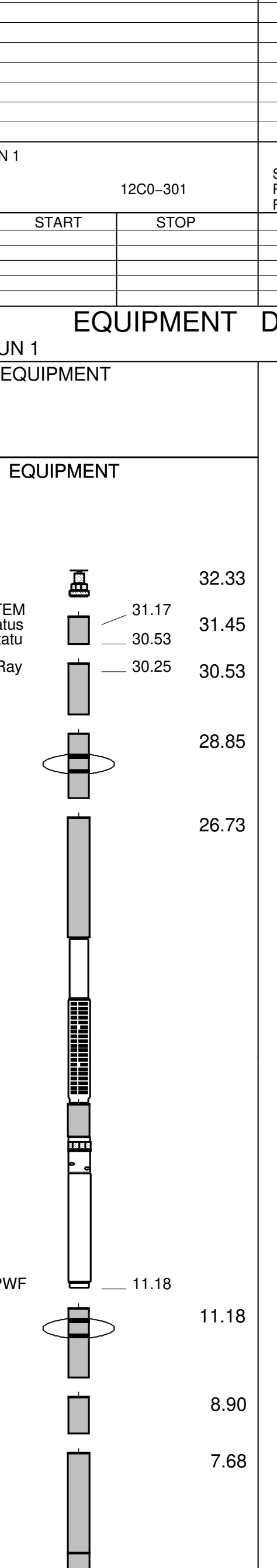
LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1 RUN 2

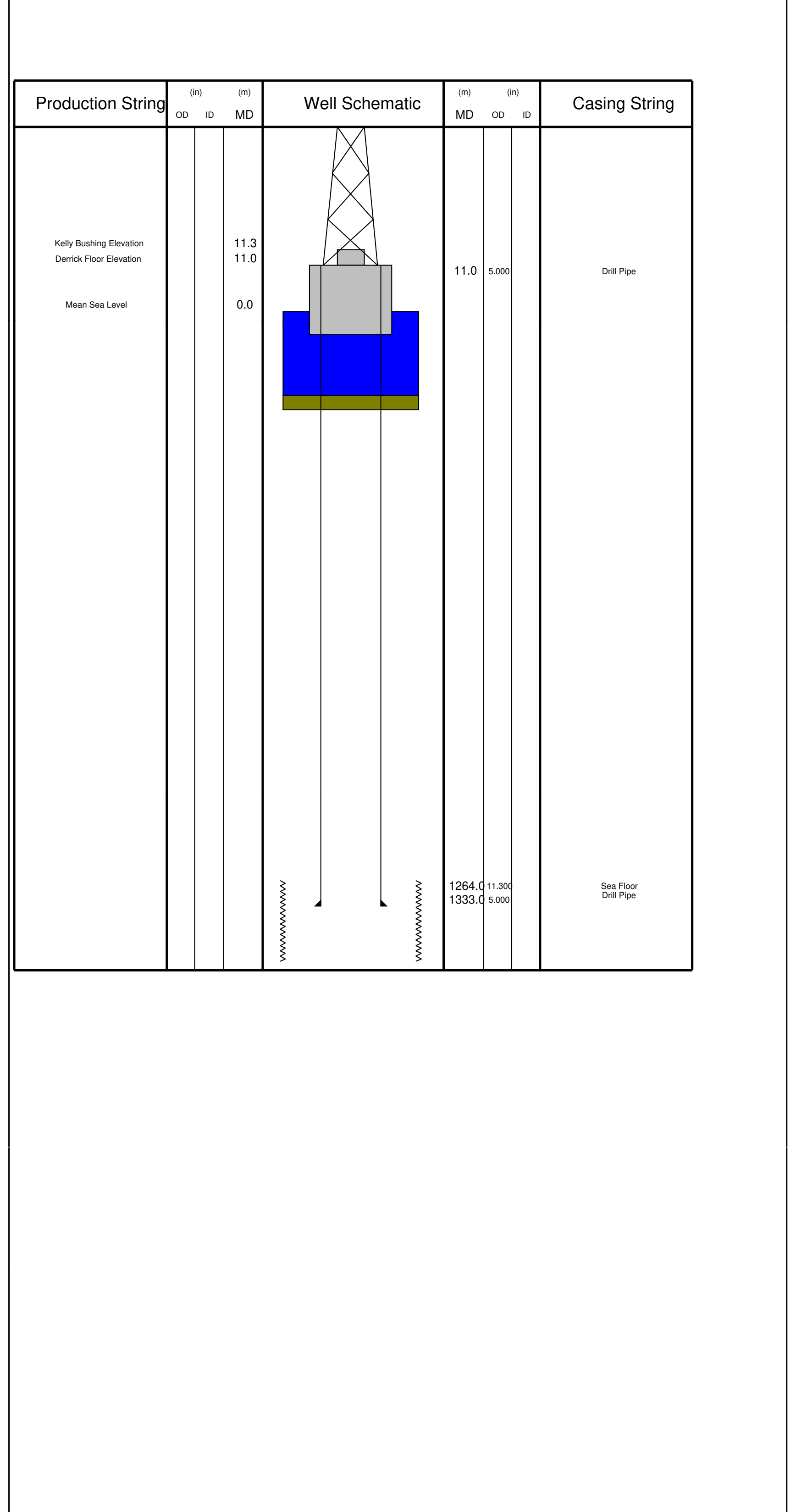
SURFACE EQUIPMENT
GSR−U/Y
WITM (DTS)−A

DOWNHOLE EQUIPMENT



LEH−QT LEH−QT	32.33
DTC−H ECH−KC	31.45
SGT−N SGH−K SGC−TB SGD−TAA	30.53
AH−MCD AH−MCD	28.85
DSST−B SPAC−B ECH−SD SMDR−BD SSLU−BA SMDX−AA	26.73
AH−MCD AH−MCD	11.18
DTA−A ECH−KE DTA−A	8.90
MEST−B MEAH−B 769 MEAC−A 875 MEPH−A GPIC−A 840 MEPC−AB MEDS−B 771	7.68

MAXIMUM STRING DIAMETER 4.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS



Schlumberger FIRST PASS

MAXIS Field Log

Output DLIS Files

DEFAULT	FMS_DSI_013LUP	FN:19	PRODUCER	17−Jul−2006 07:27	1485.0 M	1360.0 M
REDUCED	FMS_DSI_013LUP	FN:20	PRODUCER	17−Jul−2006 07:27	1485.0 M	1360.0 M

OP System Version: 12C0−301

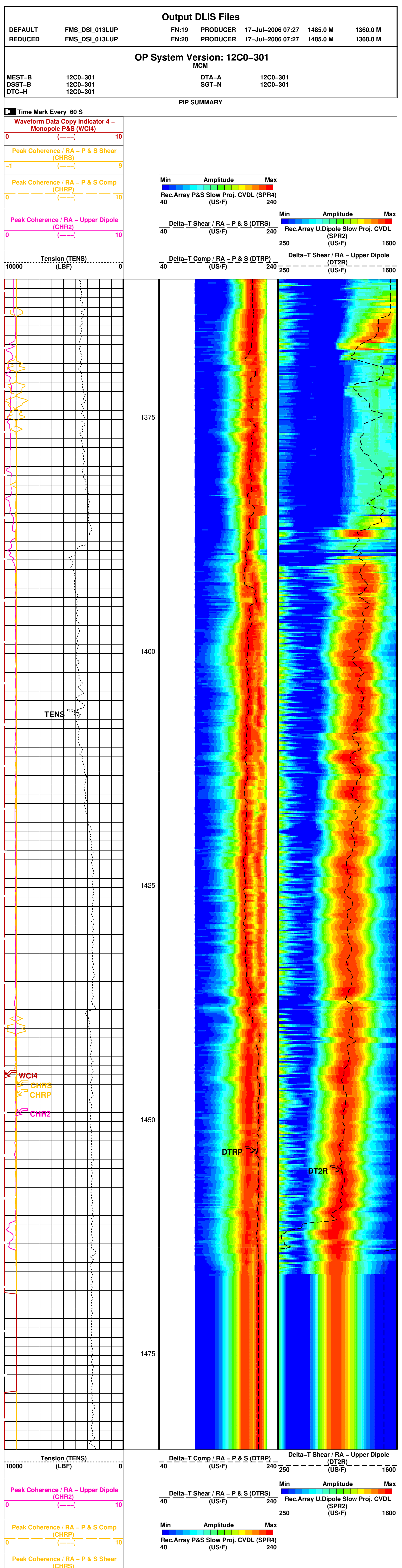
MCM

MEST−B	12C0−301	DTA−A	12C0−301
DSST−B	12C0−301	SGT−N	12C0−301
DTC−H	12C0−301		

PIP SUMMARY

Time Mark Every 60 S

Waveform Data Copy Indicator 4 − Monopole P&S (WCI4) 0 (−−−−) 10
Peak Coherence / RA − P & S Shear (CHRS) −1 (−−−−) 9
Peak Coherence / RA − P & S Comp (CHRP) 0 (−−−−) 10
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10
Tension (TENS) 10000 (LBF) 0
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240
Delta−T Shear / RA − P & S (DTRS) 40 (US/F) 240
Delta−T Comp / RA − P & S (DTRP) 40 (US/F) 240
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 250 (US/F) 1600
Delta−T Shear / RA − Upper Dipole (DT2R) 250 (US/F) 1600



Tension (TENS) 10000 (LBF) 0
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10
Peak Coherence / RA − P & S Comp (CHRP) 0 (−−−−) 10
Peak Coherence / RA − P & S Shear (CHRS) −1 (−−−−) 9
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4) 0 (−−−−) 10
Delta−T Comp / RA − P & S (DTRP) 40 (US/F) 240
Delta−T Shear / RA − P & S (DTRS) 40 (US/F) 240
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240
Delta−T Shear / RA − Upper Dipole (DT2R) 250 (US/F) 1600
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 250 (US/F) 1600

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DSST−B: Dipole Shear Imager − B			
BHS	Borehole Status	OPEN	
CASF	Label Casing Function − Monopole P&S	50	
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	100	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	220	US/F
DDE2	Digitizing Delay 2	0	US
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	250	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1600	US/F
DSI2	Digitizer Sample Interval 2	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	189	US/F
DWC2	Digitizer Word Count 2	512	
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI2	Number Waveform Items 2	8	
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	0	
RSMN	Label Shear/Compressional Minimum Ratio − Monopole P&S	1.4	
RSMX	Label Shear/Compressional Maximum Ratio − Monopole P&S	2.12	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	LFD_ODD	
SAM4	DSST Sonic Acquisition Mode 4 − High Frequency Monopole Mode for P&S	MFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B.3−1.5K	
SFM4	STC Filter − Monopole P&S	B3−12K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	120	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	220	US/F
SLL2	STC Slowness Lower Limit − Upper Dipole	250	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	100	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SSW4	STC Source Waveform − Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit − Monopole Stoneley	180	US/F
STUL	Label Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL2	STC Slowness Upper Limit − Upper Dipole	1600	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	220	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL2	STC Time Lower Limit − Upper Dipole	1750	US
TLL4	STC Time Lower Limit − Monopole P&S	400	US
TST2	STC Time Step − Upper Dipole	200	US
TST4	STC Time Step − Monopole P&S	50	US
TUL2	STC Time Upper Limit − Upper Dipole	20440	US
TUL4	STC Time Upper Limit − Monopole P&S	3480	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
SGT−N: Scintillation Gamma−Ray − N			
BHS	Borehole Status	OPEN	

Format: DSST_P_S_UPPER_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 17−Jul−2006 07:27

OP System Version: 12C0−301

MCM

MEST−B	12C0−301	DTA−A	12C0−301
DSST−B	12C0−301	SGT−N	12C0−301
DTC−H	12C0−301		

Output DLIS Files

DEFAULT	FMS_DSI_013LUP	FN:19	PRODUCER	17−Jul−2006 07:27
REDUCED	FMS_DSI_013LUP	FN:20	PRODUCER	17−Jul−2006 07:27

Schlumberger SECOND PASS

MAXIS Field Log

Input DLIS Files

DEFAULT	FMS_DSI_014LUP	FN:21	PRODUCER	17−Jul−2006 08:36	1391.7 M	1322.4 M

Output DLIS Files

DEFAULT	FMS_DSI_015PUP	FN:23	PRODUCER	17−Jul−2006 09:26	1391.7 M	1322.8 M
REDUCED	FMS_DSI_015PUP	FN:24	PRODUCER	17−Jul−2006 09:26	1391.7 M	1322.8 M

OP System Version: 12C0−301

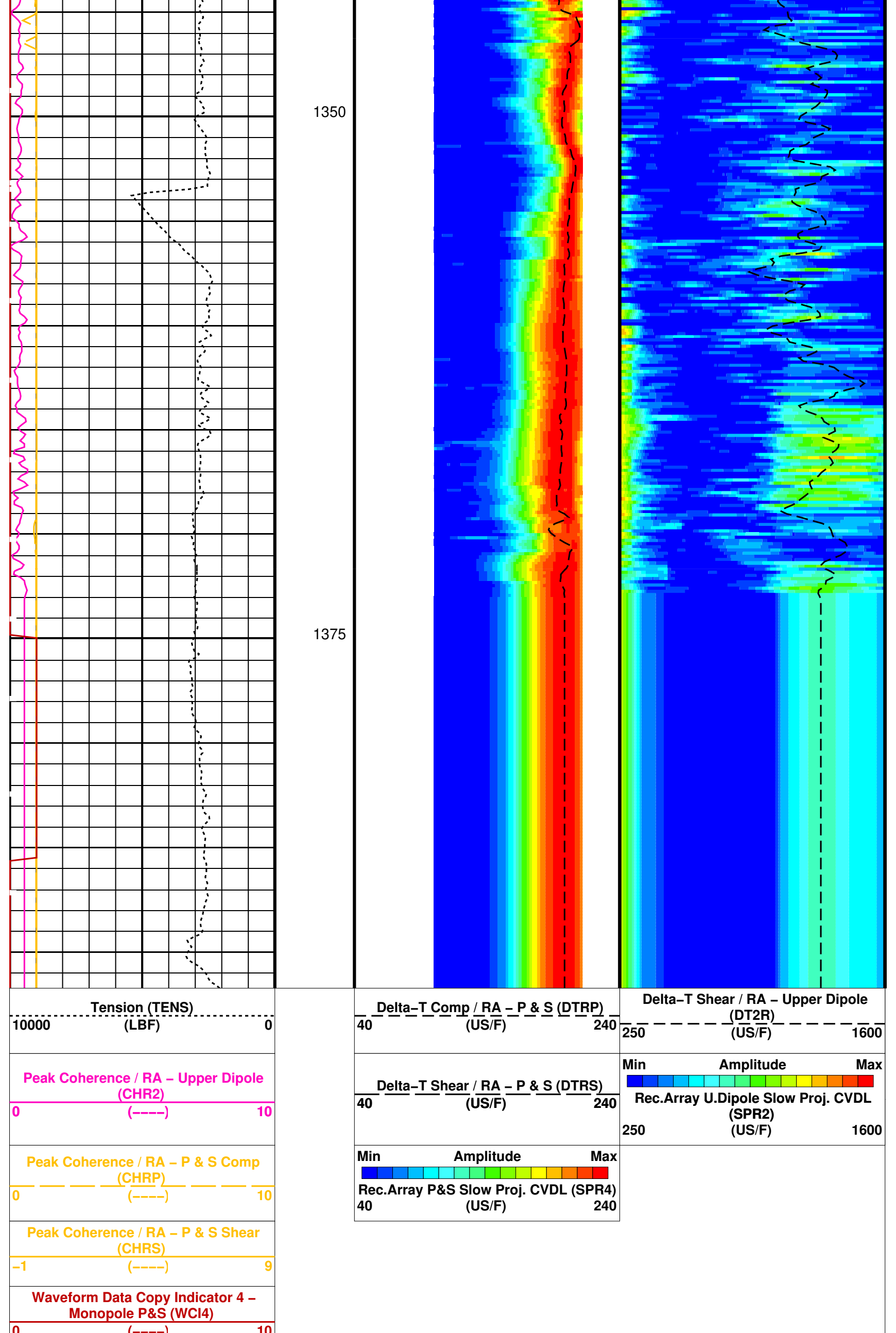
MCM

MEST−B	12C0−301	DTA−A	12C0−301
DSST−B	12C0−301	SGT−N	12C0−301
DTC−H	12C0−301		

PIP SUMMARY

Time Mark Every 60 S

Waveform Data Copy Indicator 4 − Monopole P&S (WCI4) 0 (−−−−) 10
Peak Coherence / RA − P & S Shear (CHRS) −1 (−−−−) 9
Peak Coherence / RA − P & S Comp (CHRP) 0 (−−−−) 10
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10
Tension (TENS) 10000 (LBF) 0
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240
Delta−T Shear / RA − P & S (DTRS) 40 (US/F) 240
Delta−T Comp / RA − P & S (DTRP) 40 (US/F) 240
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 250 (US/F) 1600
Delta−T Shear / RA − Upper Dipole (DT2R) 250 (US/F) 1600



Tension (TENS) 10000 (LBF) 0
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10
Peak Coherence / RA − P & S Comp (CHRP) 0 (−−−−) 10
Peak Coherence / RA − P & S Shear (CHRS) −1 (−−−−) 9
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4) 0 (−−−−) 10
Delta−T Comp / RA − P & S (DTRP) 40 (US/F) 240
Delta−T Shear / RA − P & S (DTRS) 40 (US/F) 240
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240
Delta−T Shear / RA − Upper Dipole (DT2R) 250 (US/F) 1600
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 250 (US/F) 1600

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DSST−B: Dipole Shear Imager − B			
BHS	Borehole Status	OPEN	
CASF	Label Casing Function − Monopole P&S	50	
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	100	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	210	US/F
DDE2	Digitizing Delay 2	0	US
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	250	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1600	US/F
DSI2	Digitizer Sample Interval 2	10	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	189	US/F
DWC2	Digitizer Word Count 2	512	
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI2	Number Waveform Items 2	0	
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	32	
RSMN	Label Shear/Compressional Minimum Ratio − Monopole P&S	1.4	
RSMX	Label Shear/Compressional Maximum Ratio − Monopole P&S	2.12	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	OFF	
SAM4	DSST Sonic Acquisition Mode 4 − High Frequency Monopole Mode for P&S	MFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	BCR	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B.5−1.5K	
SFM4	STC Filter − Monopole P&S	B3−12K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	120	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	200	US/F
SLL2	STC Slowness Lower Limit − Upper Dipole	250	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	100	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW2	STC Source Waveform − Upper Dipole	ODD_IN_SAMX	
SSW4	STC Source Waveform − Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit − Monopole Stoneley	180	US/F
STUL	Label Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL2	STC Slowness Upper Limit − Upper Dipole	1600	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	210	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL2	STC Time Lower Limit − Upper Dipole	1750	US
TLL4	STC Time Lower Limit − Monopole P&S	400	US
TST2	STC Time Step − Upper Dipole	200	US
TST4	STC Time Step − Monopole P&S	50	US
TUL2	STC Time Upper Limit − Upper Dipole	20440	US
TUL4	STC Time Upper Limit − Monopole P&S	3390	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
SGT−N: Scintillation Gamma−Ray − N			
BHS	Borehole Status	OPEN	
System and Miscellaneous			
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_P_S_UPPER_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 17−Jul−2006 09:26

OP System Version: 12C0−301

MCM

MEST−B	12C0−301	DTA−A	12C0−301
DSST−B	12C0−301	SGT−N	12C0−301
DTC−H	12C0−301		

Input DLIS Files

DEFAULT	FMS_DSI_014LUP	FN:21	PRODUCER	17−Jul−2006 08:36	1391.7 M	1322.4 M

Output DLIS Files

DEFAULT	FMS_DSI_015PUP	FN:23	PRODUCER	17−Jul−2006 09:26
REDUCED	FMS_DSI_015PUP	FN:24	PRODUCER	17−Jul−2006 09:26

Company: **Lamont Doherty**
Well: **NGHP−01−16A**
Field:
RIG **Joides Resolution**
Ocean **Bengal Bay**

Schlumberger

Dipole Shear Sonic Tool

Gamma Ray