

Company: Lamont Doherty

Well: IODP EXP 306 Site 642 E

Field: Voring Plateau

Country: Norway **Ocean:** Atlantic Ocean

Phasor Induction/Gr

LOCATION		Rig- Joides Resolution	Elev.: K.B. 11.3 m G.L. -1289 m D.F. 11 m
Permanent Datum:	GROUND LEVEL	Elev.: 0 m	
Log Measured From:	DES	11.3 m above Perm. Datum	
Drilling Measured From:	DES		
API Serial No.	Max. Hole Devi.	Longitude E 2 56.2398	Latitude N 67 12.7458

Logging Date	4/20/05		
Run Number	1		
Depth Driller	2518.4 m		
Schlumberger Depth	1870 m		
Bottom Log Interval	1868 m		
Top Log Interval	1641 m		
Casing Driller Size @ Depth	0.000 in @ 1660 m		
Casing Schlumberger	1660.5 m		
Bit Size	9.875 in		
Type Fluid In Hole	mud		
Density	1.066 g/cm3		
Fluid Loss	0 cm3		
Source Of Sample			
RM @ Measured Temperature	0.322 ohm.m @		23 degC
RMF @ Measured Temperature	@		@
RMC @ Measured Temperature	@		@
Source RMF	RMC		
RM @ MRT	0.362 @ 18		@ 18
Maximum Recorded Temperatures	18 degC		
Circulation Stopped	Time n/a		n/a
Logger On Bottom	Time 4/20/05		See Log
Unit Number	99		Houston
Recorded By	Steve Kittredge		
Witnessed By	Sean Higgins		

Logging Date				Run 1	Run 2	Run
Run Number						
Depth Driller						
Schlumberger Depth						
Bottom Log Interval						
Top Log Interval						
Casing Driller Size @ Depth						
Casing Schlumberger						
Bit Size						
Type Fluid In Hole						
Density						
Fluid Loss						
Source Of Sample						
RM @ Measured Temperature			@			
RMF @ Measured Temperature			@			
RMC @ Measured Temperature			@			
Source RMF						
RM @ MRT			@			
Maximum Recorded Temperatures						
Circulation Stopped						
Logger On Bottom						
Unit Number						
Recorded By						
Witnessed By						

DISCLAIMER

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OTHER SERVICES1 OS1: MESTB/DSI OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
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REMARKS: RUN NUMBER 1 Hole Cored with RCB in 1985. All depths in Meters Below Rig Floor (MBRF). Hole flushed with Sepiolite Sea Floor Driller- 1289 MBRF. Total Depth Driller- 2518.4 MBRF. Total Depth Logger- 1870 MBRF. Casing Bottom Driller- 1660.5 MBRF. Casing Bottom Logger- 1660.5 MBRF. HLDS Caliper failed and was not presented. Could not get to total depth.	REMARKS: RUN NUMBER 2
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RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION: 12C0-301			PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

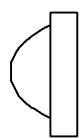
EQUIPMENT DESCRIPTION

RUN 1		RUN 2	
SURFACE EQUIPMENT			
SFT-281 6250 SFT-178 6250 GSR-U 135 WITM (DTS)-A			

DOWNHOLE EQUIPMENT			
LEH-QT		29.91	
LEH-QT			
DTC-H	CTEM	28.74	
ECH-KC 984	TelStatus	29.02	
	ToolStatu	28.11	
HNGS-BA	Upper_1	27.41	28.11
HNGS-BA 77	Lower_2	27.19	

HNSH-BA 79

ILE-D
ILE-D 25



25.61

APS-C
APH-AC 104
APS-C 202
MNTR-F 5124

Status
Minitron
Near TD
Near Arr
Near
Far Arr
Far
Far TD



20.73
20.65
20.52
20.42

23.17

NPLC-B
NPLC-B 79
NPH-B 82

Status



18.00

19.23

HLDS
GSR-Z 2326
HLDV-D 35
HLDS-D 35
HEH-H
HLDP-C 35

Caliper
SS LS Status



12.73

16.78

DTA-A
ECH-KE 8455
DTA-A



11.96

GPIT-A/B
GPIC-A 719
GPIH-A



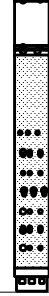
10.74

DIT-E
DIC-EB 438
MIH-ZA 417
DIS-HB 442



9.52

SP
Deep Ind
Aux Meas SFL
Med Ind
HV DF
Status GPIT
Tension



3.15
2.90
1.98
1.83
0.00

TOOL ZERO

MAXIMUM STRING DIAMETER 3.88 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Input DLIS Files

DEFAULT PI_LDL_APS_NGS_017LUP FN:16 PRODUCER 20-Apr-2005 19:54 1869.9 M 1636.1 M

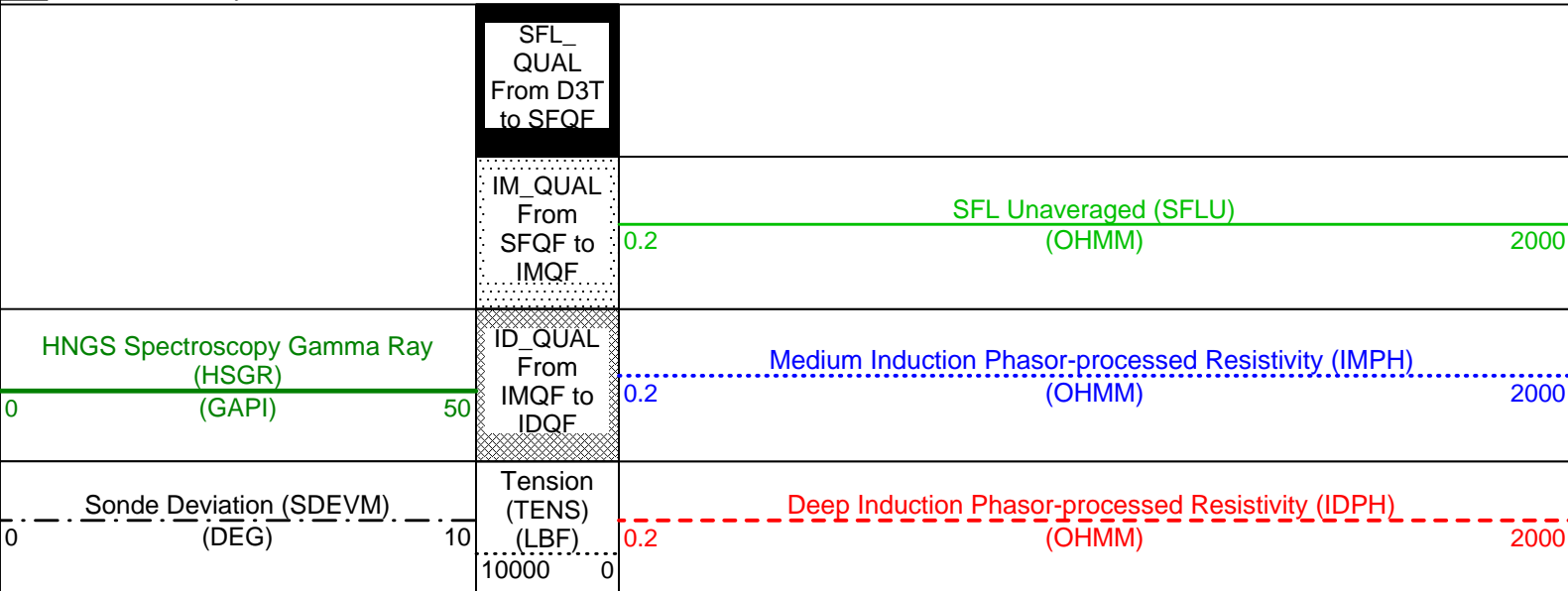
OP System Version: 12C0-301
MCM

MAIN UP LOG

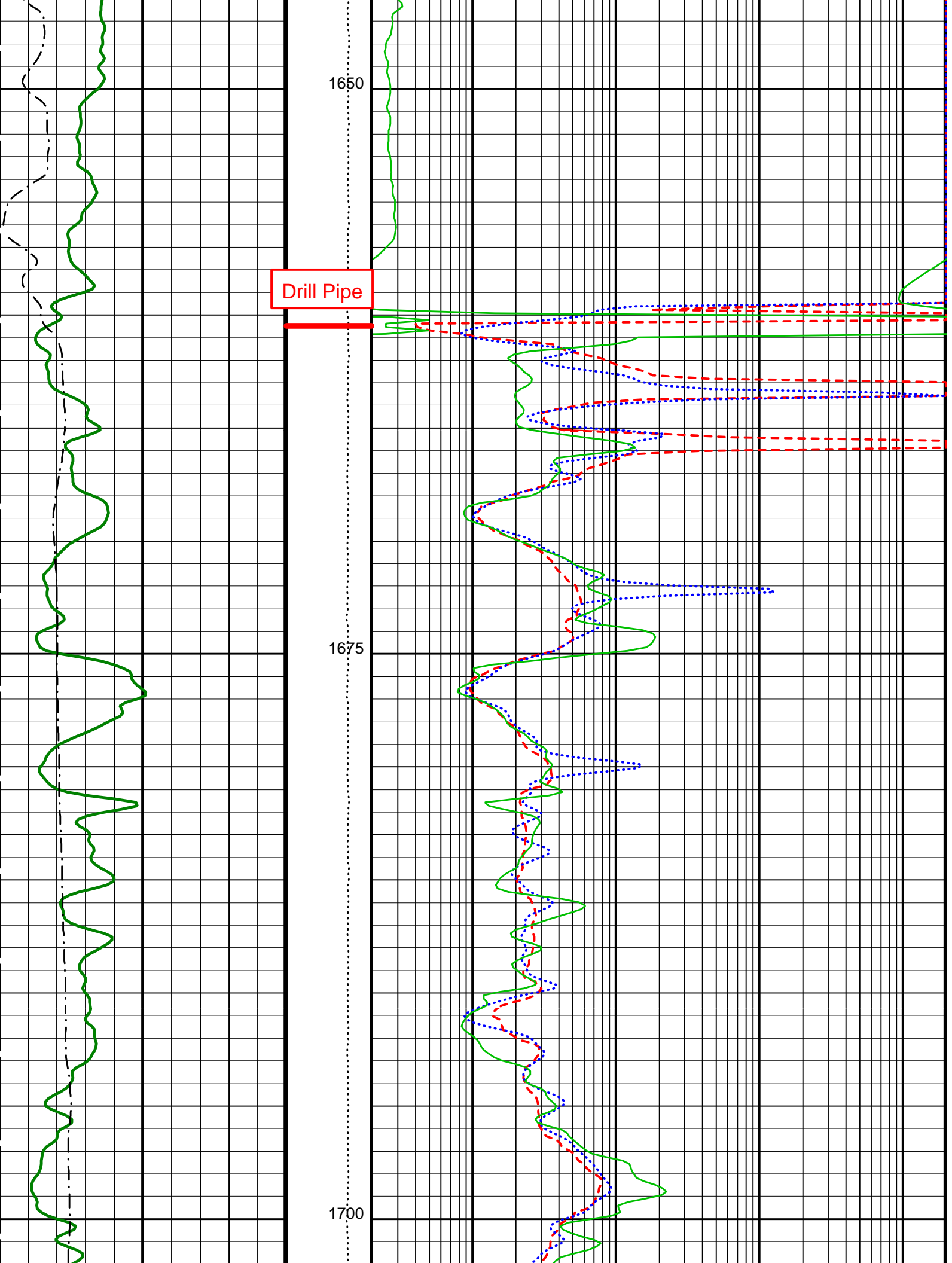
DIT-E	12C0-301	GPIT-A/B	12C0-301
DTA-A	12C0-301	HLDS	12C0-301
NPLC-B	12C0-301	APS-C	12C0-301
HNGS-BA	12C0-301	DTC-H	12C0-301

PIP SUMMARY

Time Mark Every 60 S



Last Reading

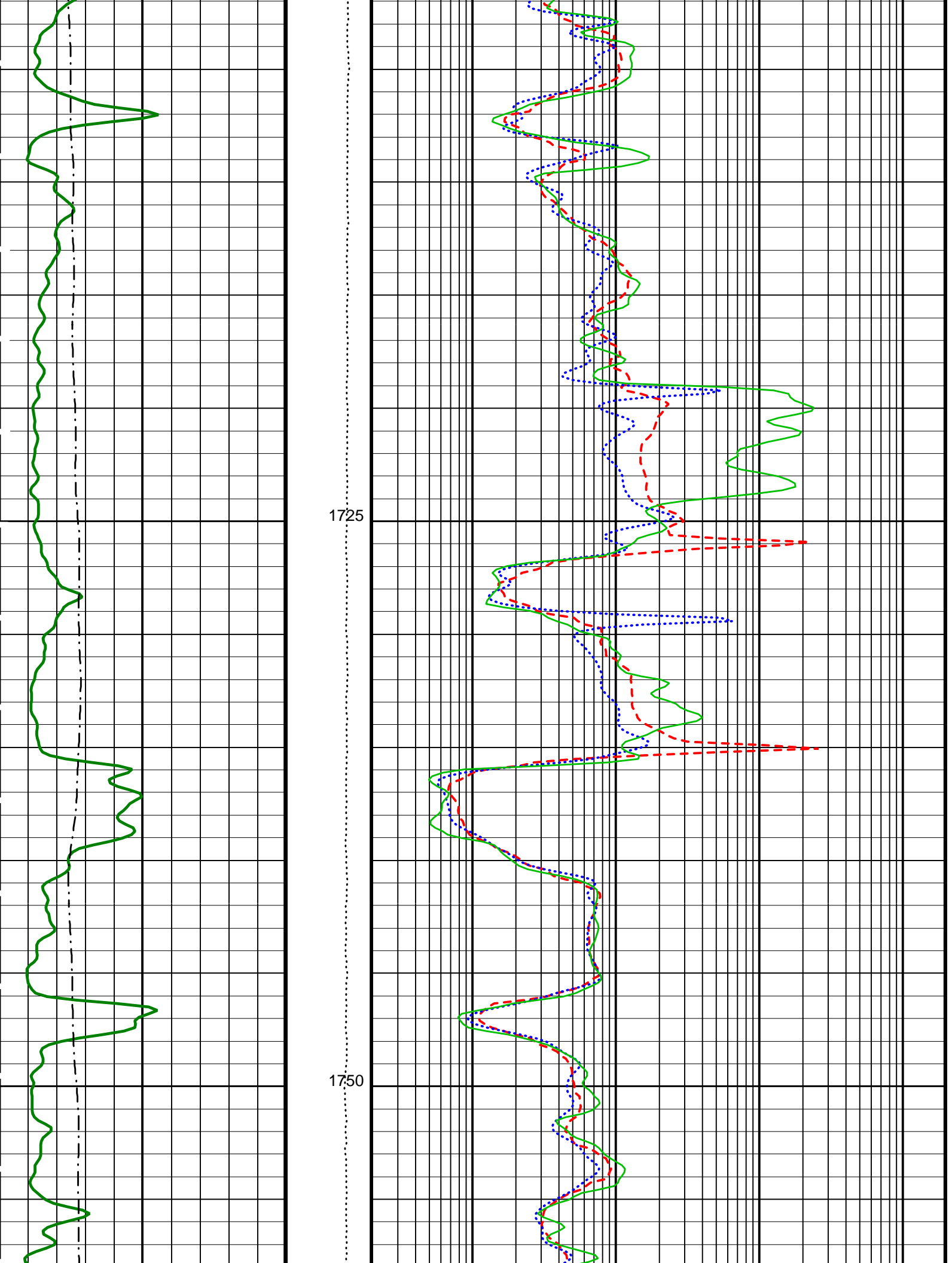


Drill Pipe

1650

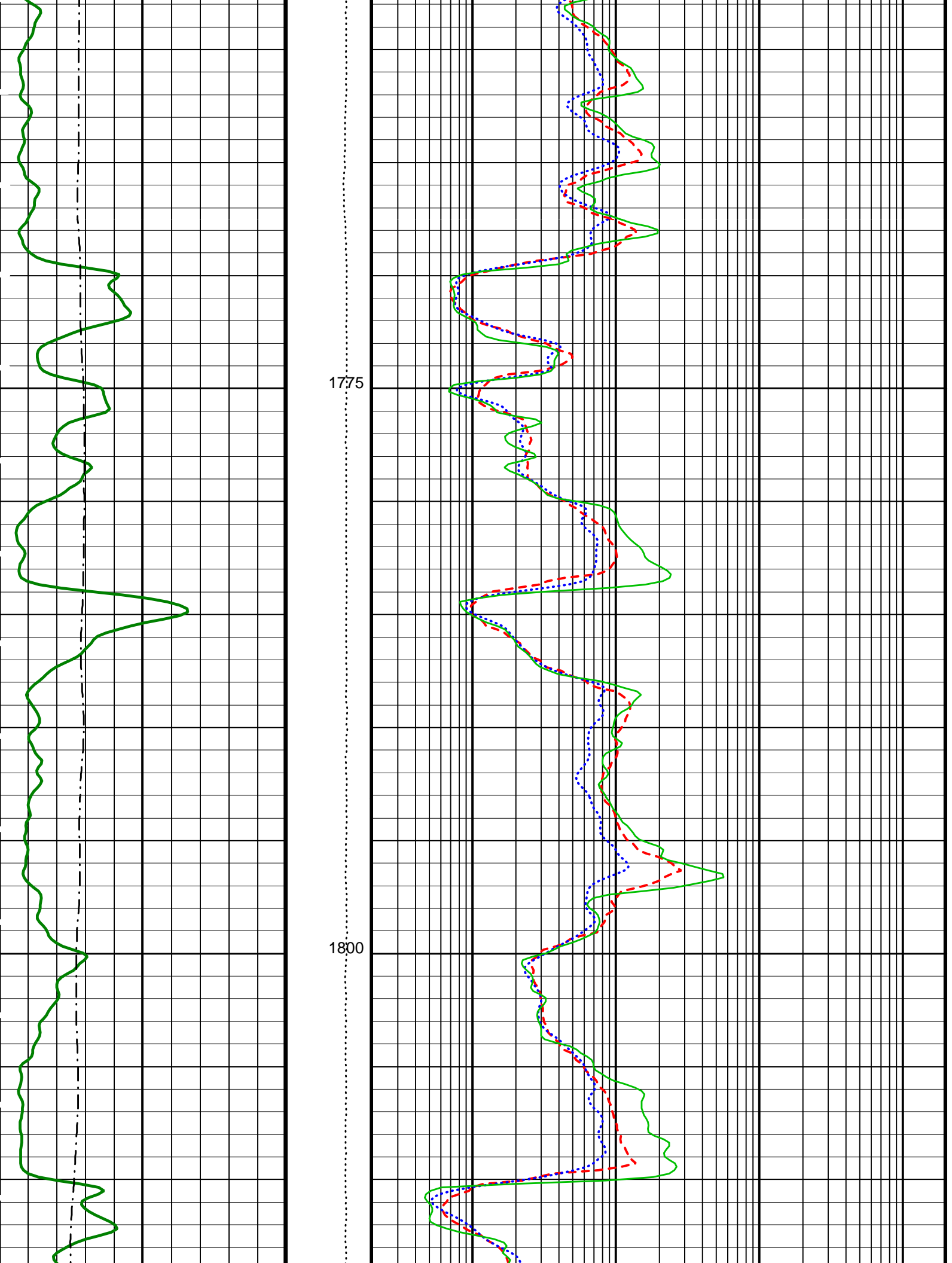
1675

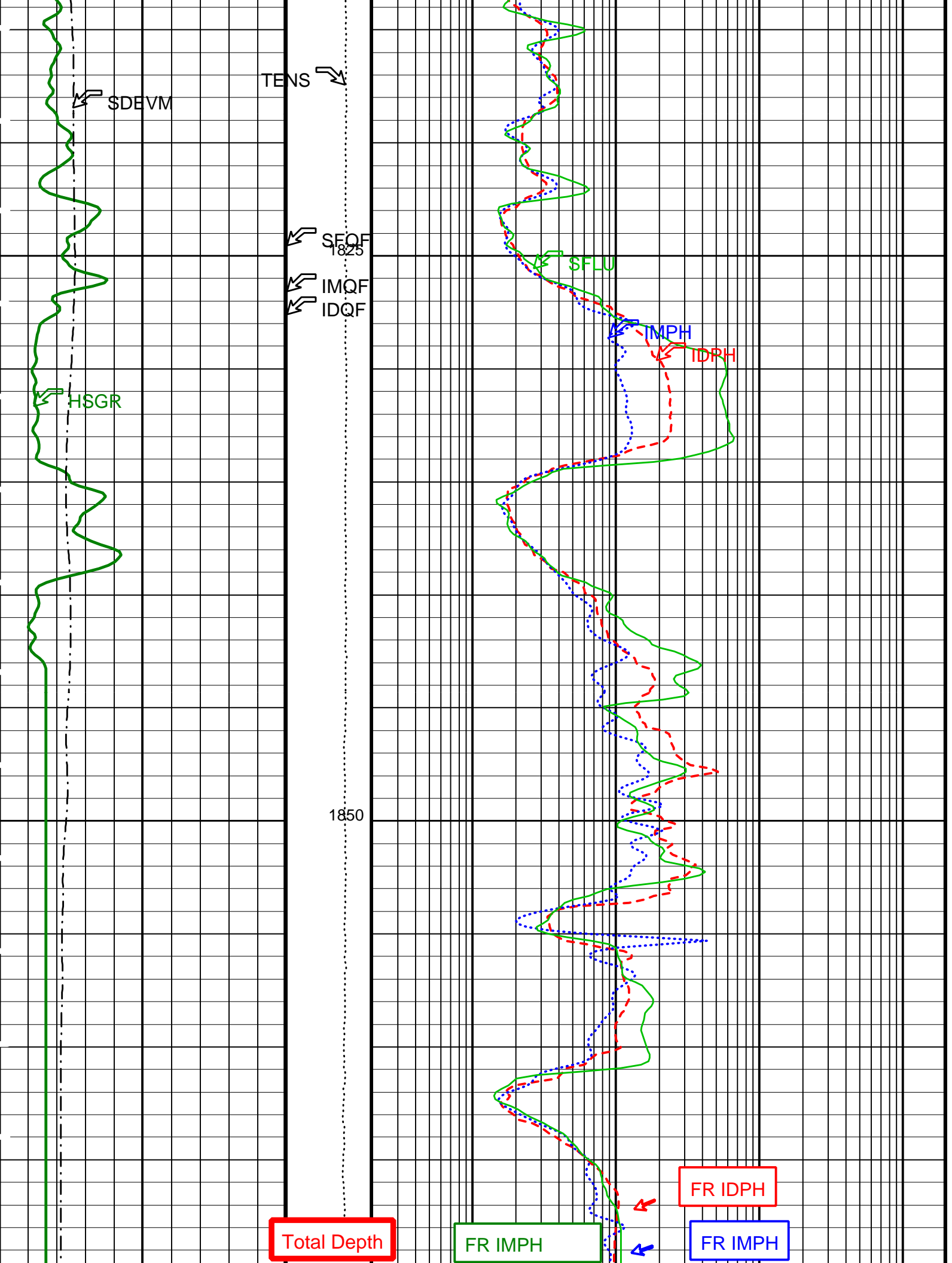
1700

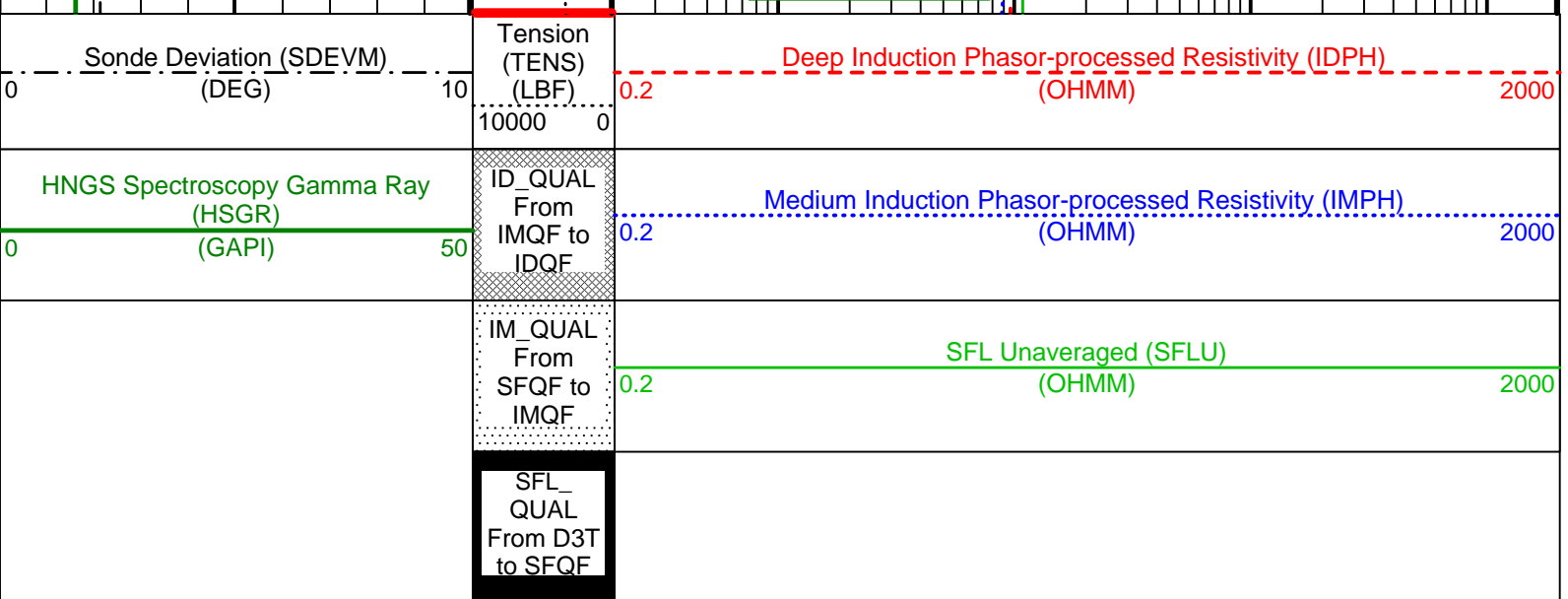


1725

1750







PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DIT-E: Dual Induction - E			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	12	DEGC
DGF2	Deep 20 kHz Gain Factor	1.02064	
DPH2	Deep 20 kHz Phase Shift	-0.243728	DEG
DRE2	Deep Real 20 kHz Sonde Error Correction	16.6208	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	64.8082	MM/M
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
IFRS	DIT-E Induction Frequency Selector	20	
IPHA	DIT-E Phasor Processing Mode	ALL	
IPRO	DIT-E Induction Processing Selector	PHASOR	
ITEN	DIT-E Temperature Enable	ENABLE	
MGF2	Medium 20 kHz Gain Factor	1	
MPH2	Medium 20 kHz Phase Shift	0	DEG
MRE2	Medium Real 20 kHz Sonde Error Correction	-2.31932	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	-31.8992	MM/M
SFCR	SFL Channel Ratio	1000	
SHT	Surface Hole Temperature	20	DEGC
GPIT-A/B: General Purpose Inclinometer			
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MDEC	Magnetic Field Declination	-4.01369	DEG
APS-C: Accelerator-Porosity Tool			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	12	DEGC
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	12	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	

H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.0017651	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.01394	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.960107	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	12	DEGC
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.07	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	2500	M

Format: DITE_LogPhasor Vertical Scale: 1:200 Graphics File Created: 22-Apr-2005 22:37

OP System Version: 12C0-301

MCM

DIT-E	12C0-301	GPIT-A/B	12C0-301
DTA-A	12C0-301	HLDS	12C0-301
NPLC-B	12C0-301	APS-C	12C0-301
HNGS-BA	12C0-301	DTC-H	12C0-301

Input DLIS Files

DEFAULT	PI_LDL_APS_NGS_017LUP	FN:16	PRODUCER	20-Apr-2005 19:54	1869.9 M	1636.1 M
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Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
General Purpose Inclinometer Wellsite Calibration - CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 20-Apr-2005 16:47							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	92	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	10	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	448	N/A	N/A	N/A	
General Purpose Inclinometer Wellsite Calibration - CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY							
Before: 20-Apr-2005 16:47							
TEMPERATURE REFERENCE :	N/A	N/A	19	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	99	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	12	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	428	N/A	N/A	N/A	
Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement							
Master: Calibration out of date 18-Jan-2005 10:17 Before: 20-Apr-2005 16:58 After: 20-Apr-2005 22:32							
SS Cs Resolution Bkg	9.000	8.392	8.345	8.368	0.02252	1.800	%
LS Cs Resolution Bkg	9.000	8.031	7.976	7.951	-0.02507	1.800	%
LSW1 Background	100.0	82.46	80.11	79.56	-0.5447	3.000	CPS
LSW2 Background	100.0	74.65	74.44	74.31	-0.1315	3.000	CPS
LSW3 Background	200.0	168.0	165.8	166.0	0.1359	6.000	CPS
LSW4 Background	250.0	211.4	206.6	207.4	0.7981	7.500	CPS
LSW5 Background	600.0	472.3	466.6	466.0	-0.5797	18.00	CPS
SSW1 Background	100.0	79.79	79.12	80.43	1.310	3.000	CPS
SSW2 Background	200.0	142.9	140.4	140.4	-0.003479	6.000	CPS
SSW3 Background	500.0	377.8	373.9	376.7	2.828	15.00	CPS
SSW4 Background	270.0	202.0	201.5	200.7	-0.7898	8.100	CPS
SSW5 Background	200.0	147.1	146.0	146.1	0.04008	6.000	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement

Master: Calibration out of date 18-Jan-2005 11:11								
LSW1 Aluminum	600.0	548.6	N/A	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	836.5	N/A	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	1031	N/A	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	521.0	N/A	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	484.2	N/A	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2443	N/A	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	7110	N/A	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	10290	N/A	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	4376	N/A	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	601.1	N/A	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement
 Master: Calibration out of date 18-Jan-2005 10:52

LSW1 Iron	400.0	384.7	N/A	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	686.2	N/A	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	913.5	N/A	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	468.3	N/A	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	445.5	N/A	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1801	N/A	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5868	N/A	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	9265	N/A	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3942	N/A	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	520.1	N/A	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration
 Before: 12-Mar-2005 14:30

HLDS Caliper Small Ring	8.000	N/A	10.52	N/A	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	12.00	N/A	14.31	N/A	N/A	N/A	N/A	IN

Accelerator-Porosity Tool Wellsite Calibration - Detector Background

Master: 22-Mar-2005 19:56 Before: 20-Apr-2005 16:54 After: 20-Apr-2005 22:33								
Near Det Bkg Cntrate	30.00	25.38	25.85	25.16	-0.6888	N/A	N/A	CPS
Far Det Bkg Cntrate	30.00	25.40	27.35	26.37	-0.9777	N/A	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	28.70	27.96	26.72	-1.246	N/A	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	25.69	27.16	26.25	-0.9101	N/A	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	25.67	24.60	24.07	-0.5276	N/A	N/A	CPS

Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios

Master: 22-Mar-2005 19:56								
Near/Far Calibration Ratio	0.9250	0.9625	N/A	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	0.9914	N/A	N/A	N/A	N/A	N/A	
Near/Array Cal Ratio Up/Down	1.000	0.9985	N/A	N/A	N/A	N/A	N/A	

Accelerator-Porosity Tool Wellsite Calibration - Tank Check

Master: 22-Mar-2005 19:56								
Array-1 Standoff Porosity	11.75	11.97	N/A	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.75	11.85	N/A	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	5.825	N/A	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	0.9952	N/A	N/A	N/A	N/A	N/A	
Array-2 SDT Ratio Up/Down	1.000	1.006	N/A	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	27.53	N/A	N/A	N/A	N/A	N/A	CU

Accelerator-Porosity Tool Wellsite Calibration - CCR7 signal boxes

Master: 22-Mar-2005 19:02								
Near Detector Plateau Setting	1650	1741	N/A	N/A	N/A	N/A	N/A	V
Far Detector Plateau Setting	2000	2082	N/A	N/A	N/A	N/A	N/A	V
Array Detector Plateau Setting	2000	1973	N/A	N/A	N/A	N/A	N/A	V

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: 12-Mar-2005 11:23 Before: 20-Apr-2005 16:56 After: 20-Apr-2005 22:33								
Na 511 Peak Loc	40.00	40.59	40.65	40.66	0.01052	1.000		
Na 511 Peak Res	15.50	16.84	16.93	17.22	0.2894	2.000	%	
High Voltage	1150	1250	1258	1259	0.3114	N/A	V	
Na 1785 Peak Loc	142.6	146.2	145.8	145.6	-0.2180	7.000		
Na 1785 Peak Res	8.500	9.698	9.940	9.499	-0.4414	2.000	%	
Temperature	15.50	21.01	12.89	15.16	2.273	N/A	DEGC	
Na Count Rate	45.00	43.77	42.66	43.01	0.3482	8.000	CPS	

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check

Master: 12-Mar-2005 11:23 Before: 20-Apr-2005 16:56 After: 20-Apr-2005 22:33								
Na 511 Peak Loc	40.00	40.61	40.43	40.64	0.2084	1.000		
Na 511 Peak Res	15.50	16.72	17.56	16.80	-0.7575	2.000	%	
High Voltage	1150	1269	1276	1277	1.395	N/A	V	
Na 1785 Peak Loc	142.6	144.6	144.2	144.0	-0.1535	7.000		
Na 1785 Peak Res	8.500	9.947	9.046	10.08	1.035	2.000	%	
Temperature	15.50	20.07	12.12	15.06	2.934	N/A	DEGC	
Na Count Rate	45.00	44.07	42.83	43.17	0.3382	8.000	CPS	

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Ratio Of Detector 1 To Detector 2

Master: 12-Mar-2005 11:23 Before: 20-Apr-2005 16:56 After: 20-Apr-2005 22:33								
Coincidence Count Rate Ratio	1.000	0.9930	0.9967	0.9969	0.002156	0.05000		

Dual Induction - E / Equipment Identification		
Primary Equipment:		
Dual Induction Sonde	DIS - HB	442
Dual Induction Cartridge	DIC - EB	438
Auxiliary Equipment:		
Mass Isolated Housing	MIH - ZA	417

Dual Induction - E Wellsite Calibration											
Induction Electronics (10 kHz)											
Phase	ID Elect Real Offset 10 kHz	MM/M	Value	Phase	ID Elect Real Gain 10 kHz	Value	Phase	ID Elect Phase 10 kHz DEG	Value		
Before			39.35	Before		1.019	Before		8.384		
	-300.0 (Minimum)	0 (Nominal)	300.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		-10.00 (Minimum)	0 (Nominal)	10.00 (Maximum)
Phase	ID Elect Quad Offset 10 kHz	MM/M	Value	Phase	ID Elect Quad Gain 10 kHz	Value	Phase	IM Elect Phase 10 kHz DEG	Value		
Before			23.48	Before		1.007	Before		12.99		
	-300.0 (Minimum)	0 (Nominal)	300.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		-10.00 (Minimum)	0 (Nominal)	10.00 (Maximum)
Phase	IM Elect Real Offset 10 kHz	MM/M	Value	Phase	IM Elect Real Gain 10 kHz	Value					
Before			96.69	Before		0.9577					
	-550.0 (Minimum)	0 (Nominal)	550.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)					1.200 (Maximum)
Phase	IM Elect Quad Offset 10 kHz	MM/M	Value	Phase	IM Elect Quad Gain 10 kHz	Value					
Before			94.63	Before		0.9545					
	-550.0 (Minimum)	0 (Nominal)	550.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)				

Before: 31-Mar-2005 7:25

Dual Induction - E Wellsite Calibration											
Induction Electronics (20 kHz)											
Phase	ID Elect Real Offset 20 kHz	MM/M	Value	Phase	ID Elect Real Gain 20 kHz	Value	Phase	ID Elect Phase 20 kHz DEG	Value		
Before			15.23	Before		1.026	Before		6.599		
	-125.0 (Minimum)	0 (Nominal)	125.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		-15.00 (Minimum)	0 (Nominal)	15.00 (Maximum)
Phase	ID Elect Quad Offset 20 kHz	MM/M	Value	Phase	ID Elect Quad Gain 20 kHz	Value	Phase	IM Elect Phase 20 kHz DEG	Value		
Before			9.252	Before		1.014	Before		11.38		
	-125.0 (Minimum)	0 (Nominal)	125.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		-15.00 (Minimum)	0 (Nominal)	15.00 (Maximum)
Phase	IM Elect Real Offset 20 kHz	MM/M	Value	Phase	IM Elect Real Gain 20 kHz	Value					
Before			40.29	Before		1.017					
	-225.0 (Minimum)	0 (Nominal)	225.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)					1.200 (Maximum)
Phase	IM Elect Quad Offset 20 kHz	MM/M	Value	Phase	IM Elect Quad Gain 20 kHz	Value					
Before			39.51	Before		1.014					
	-225.0 (Minimum)	0 (Nominal)	225.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)				

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Dual Induction - E Wellsite Calibration											
Induction Electronics (40 kHz)											
Phase	ID Elect Real Offset 40 kHz	MM/M	Value	Phase	ID Elect Real Gain 40 kHz	Value	Phase	ID Elect Phase 40 kHz DEG	Value		
Before			9.830	Before		0.9970	Before		24.98		
	-85.00 (Minimum)	0 (Nominal)	85.00 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		-20.00 (Minimum)	0 (Nominal)	20.00 (Maximum)

Phase	ID Elect Quad Offset 40 kHz	MM/M	Value	Phase	ID Elect Quad Gain 40 kHz	Value	Phase	IM Elect Quad Phase 40 kHz	DEG	Value		
Before			5.978	Before		0.9838	Before		EXCEEDS LIMIT	29.56		
	-85.00 (Minimum)	0 (Nominal)	85.00 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)		1.200 (Maximum)		-20.00 (Minimum)	0 (Nominal)	20.00 (Maximum)
Phase	IM Elect Real Offset 40 kHz	MM/M	Value	Phase	IM Elect Real Gain 40 kHz	Value						
Before			26.26	Before		1.031						
	-130.0 (Minimum)	0 (Nominal)	130.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)		1.200 (Maximum)				
Phase	IM Elect Quad Offset 40 kHz	MM/M	Value	Phase	IM Elect Quad Gain 40 kHz	Value						
Before			25.81	Before		1.027						
	-130.0 (Minimum)	0 (Nominal)	130.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)		1.200 (Maximum)				

Before: 31-Mar-2005 7:27

Dual Induction - E Wellsite Calibration							
SFL Electronics							
Phase	SFL Voltage Offset	MV	Value	Phase	SFL Voltage Gain	Value	
Before			1.180	Before		1.013	
	-15.00 (Minimum)	0 (Nominal)	15.00 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
Phase	SFL Current Offset	MA	Value	Phase	SFL Current Gain	Value	
Before			0.008456	Before		0.9922	
	-0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

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Dual Induction - E Wellsite Calibration										
Electronics Calibration Changes Files/Depth Intervals:										
Phase	ID (R > 27 OHM-M)	MM/M	Value	Phase	ID (R < 27 OHM-M) %	Value	Phase	SFL (R < 1 OHM-M)	OHMM	Value
After			0	After		0.0001568	After			0.0006379
	0 (Minimum)	0 (Nominal)	0.7500 (Maximum)		0 (Minimum)	2.000 (Maximum)		0 (Minimum)	0 (Nominal)	0.02000 (Maximum)
Phase	IM (R > 27 OHM-M)	MM/M	Value	Phase	IM (R < 27 OHM-M) %	Value				
After			0	After		0.0001169				
	0 (Minimum)	0 (Nominal)	0.7500 (Maximum)		0 (Minimum)	2.000 (Maximum)				
Phase	SFL (R > 27 OHM-M)	MM/M	Value	Phase	SFL (R < 27 OHM-M) %	Value				
After			0	After		0.0004257				
	0 (Minimum)	0 (Nominal)	0.7500 (Maximum)		0 (Minimum)	2.000 (Maximum)				

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General Purpose Inclinometer / Equipment Identification		
Primary Equipment:	GPIT Cartridge - A	GPIC - A 719
Auxiliary Equipment:	GPIT Housing	GPIH - A

Hostile Litho-Density Sonde / Equipment Identification		
Primary Equipment:	Hostile Litho Density Sonde	HLDS - D 35
	Hostile Litho Density High Voltage	HLDV - D 35
	Gamma Source Radioactive	GSR - Z 2326
Auxiliary Equipment:	Hostile Litho Density Pad	HLDP - C 35
	Hostile Litho Density High Voltage Housi	HEH - H

Hostile Litho-Density Sonde Wellsite Calibration								
Background Measurement								
Phase	SS Cs Resolution Bkg %	Value	Phase	LS Cs Resolution Bkg %	Value	Phase	LSW1 Background CPS	Value

Master		8.392	Master		8.031	Master		82.46						
Before		8.345	Before		7.976	Before		80.11						
After		8.368	After		7.951	After		79.56						
7.000 (Minimum)		9.000 (Nominal)	11.00 (Maximum)		7.000 (Minimum)		9.000 (Nominal)	11.00 (Maximum)		55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)	
Phase	LSW2 Background CPS		Value	Phase	LSW3 Background CPS		Value	Phase	LSW4 Background CPS		Value			
Master		74.65	Master		168.0	Master		211.4						
Before		74.44	Before		165.8	Before		206.6						
After		74.31	After		166.0	After		207.4						
50.00 (Minimum)		100.0 (Nominal)	140.0 (Maximum)		110.0 (Minimum)		200.0 (Nominal)	290.0 (Maximum)		140.0 (Minimum)		250.0 (Nominal)	360.0 (Maximum)	
Phase	LSW5 Background CPS		Value	Phase	SSW1 Background CPS		Value	Phase	SSW2 Background CPS		Value			
Master		472.3	Master		79.79	Master		142.9						
Before		466.6	Before		79.12	Before		140.4						
After		466.0	After		80.43	After		140.4						
330.0 (Minimum)		600.0 (Nominal)	830.0 (Maximum)		55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)		100.0 (Minimum)		200.0 (Nominal)	260.0 (Maximum)	
Phase	SSW3 Background CPS		Value	Phase	SSW4 Background CPS		Value	Phase	SSW5 Background CPS		Value			
Master		377.8	Master		202.0	Master		147.1						
Before		373.9	Before		201.5	Before		146.0						
After		376.7	After		200.7	After		146.1						
280.0 (Minimum)		500.0 (Nominal)	700.0 (Maximum)		150.0 (Minimum)		270.0 (Nominal)	380.0 (Maximum)		110.0 (Minimum)		200.0 (Nominal)	270.0 (Maximum)	
Master: Calibration out of date 18-Jan-2005 10:17				Before: 20-Apr-2005 16:58				After: 20-Apr-2005 22:32						

Nuclear Porosity Lithology Cartridge - B / Equipment Identification

Primary Equipment:
NPLC Cartridge

NPLC - B 79

Auxiliary Equipment:
NPLC Housing

NPH - B 82

Accelerator-Porosity Tool / Equipment Identification

Primary Equipment:
Accelerator-Porosity Sonde
APS Minitron

APS - C 202
MNTR - F 5124

Auxiliary Equipment:
Accelerator-Porosity Housing
APS Calibration Water Tank
APS Aluminum Calibrator Sleeve

APH - AC 104
SFT - 178 6250
SFT - 281 6250

Accelerator-Porosity Tool Wellsite Calibration

Detector Background

Phase	Near Det Bkg Cntrate CPS	Value	Phase	Far Det Bkg Cntrate CPS	Value	Phase	Array-1 Det Bkg Cntrate CPS	Value	
Master		25.38	Master		25.40	Master		28.70	
Before		25.85	Before		27.35	Before		27.96	
After		25.16	After		26.37	After		26.72	
1.000 (Minimum)		30.00 (Nominal)	50.00 (Maximum)		1.000 (Minimum)		30.00 (Nominal)	50.00 (Maximum)	
Phase	Array-2 Det Bkg Cntrate CPS	Value	Phase	Array Therm Det Bkg Cntrate CPS	Value				
Master		25.69	Master		25.67				
Before		27.16	Before		24.60				
After		26.25	After		24.07				
1.000 (Minimum)		30.00 (Nominal)	50.00 (Maximum)		1.000 (Minimum)		30.00 (Nominal)	50.00 (Maximum)	

Accelerator-Porosity Tool Wellsite Calibration											
Calibration Ratios											
Phase	Near/Far Calibration Ratio		Value	Phase	Near/Array Calibration Ratio		Value	Phase	Near/Array Cal Ratio Up/Down		Value
Master			0.9625	Master			0.9914	Master			0.9985
	0.8000 (Minimum)	0.9250 (Nominal)	1.050 (Maximum)		0.9000 (Minimum)	1.030 (Nominal)	1.170 (Maximum)		0.9700 (Minimum)	1.000 (Nominal)	1.030 (Maximum)

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Accelerator-Porosity Tool Wellsite Calibration											
Tank Check											
Phase	Array-1 Standoff Porosity PU		Value	Phase	Array-2 Standoff Porosity PU		Value	Phase	Average Slowing Down Time US		Value
Master			11.97	Master			11.85	Master			5.825
	9.900 (Minimum)	11.75 (Nominal)	13.60 (Maximum)		9.900 (Minimum)	11.75 (Nominal)	13.60 (Maximum)		5.500 (Minimum)	6.000 (Nominal)	6.250 (Maximum)
Phase	Array-1 SDT Ratio Up/Down		Value	Phase	Array-2 SDT Ratio Up/Down		Value	Phase	Sigma Formation CU		Value
Master			0.9952	Master			1.006	Master			27.53
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		20.00 (Minimum)	27.50 (Nominal)	35.00 (Maximum)

Master: 22-Mar-2005 19:56

Hostile Natural Gamma Ray Sonde / Equipment Identification			
Primary Equipment:	HNGS Sonde	HNGS - BA	77
Auxiliary Equipment:	HNGS Sonde Housing	HNSH - BA	79
	Gamma Source Radioactive	GSR - U	135

Hostile Natural Gamma Ray Sonde Wellsite Calibration											
Detector 1 Check											
Phase	Na 511 Peak Loc		Value	Phase	Na 511 Peak Res %		Value	Phase	High Voltage V		Value
Master			40.59	Master			16.84	Master			1250
Before			40.65	Before			16.93	Before			1258
After			40.66	After			17.22	After			1259
	37.50 (Minimum)	40.00 (Nominal)	42.50 (Maximum)		12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)		900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)
Phase	Na 1785 Peak Loc		Value	Phase	Na 1785 Peak Res %		Value	Phase	Temperature DEGC		Value
Master			146.2	Master			9.698	Master			21.01
Before			145.8	Before			9.940	Before			12.89
After			145.6	After			9.499	After			15.16
	135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)		7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)		-28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)
Phase	Na Count Rate CPS		Value								
Master			43.77								
Before			42.66								
After			43.01								
	10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)								

Master: 12-Mar-2005 11:23

Before: 20-Apr-2005 16:56

After: 20-Apr-2005 22:33

Hostile Natural Gamma Ray Sonde Wellsite Calibration											
Detector 2 Check											
Phase	Na 511 Peak Loc		Value	Phase	Na 511 Peak Res %		Value	Phase	High Voltage V		Value
Master			40.61	Master			16.72	Master			1269
Before			40.43	Before			17.56	Before			1276
After			40.64	After			16.80	After			1277
	37.50 (Minimum)	40.00 (Nominal)	42.50 (Maximum)		12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)		900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)

(Minimum)	(Nominal)	(Maximum)	Phase	Na 1785 Peak Loc	Value	(Minimum)	(Nominal)	(Maximum)	Phase	Na 1785 Peak Res %	Value	(Minimum)	(Nominal)	(Maximum)	Phase	Temperature DEGC	Value
			Master		144.6				Master		9.947				Master		20.07
			Before		144.2				Before		9.046				Before		12.12
			After		144.0				After		10.08				After		15.06
135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)				7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)				-28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)			
Phase	Na Count Rate CPS		Value														
Master			44.07														
Before			42.83														
After			43.17														
10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)															
Master: 12-Mar-2005 11:23			Before: 20-Apr-2005 16:56			After: 20-Apr-2005 22:33											

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9930
Before		0.9967
After		0.9969
0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)
Master: 12-Mar-2005 11:23		
Before: 20-Apr-2005 16:56		
After: 20-Apr-2005 22:33		

Company: Lamont Doherty

Schlumberger

Well: IODP EXP 306 Site 642 E

Field: Voring Plateau

Country: Norway

Ocean: Atlantic Ocean

Phasor Induction/Gr