

Company: Lamont Doherty

Well: Expedition 309 Site U1256D

Field: Superfast Spreading Crust

Rig: Joides Resolution Ocean: Pacific Ocean

Hostile Litho-Density Tool Accelerator Porosity Tool Gamma Ray

Rig: Joides Resolution		Field: Superfast Spreading Crust		Location: Expedition 309 Site U1256D		Company: Lamont Doherty	
LOCATION				Permanent Datum: _____		Elev.: K.B. 11.3 m	
				Log Measured From: _____		G.L. -3645 m	
				Drilling Measured From: _____		D.F. 11 m	
				Mean Sea Level _____		Elev.: 0 m _____	
				Rig Floor _____		11.0 m above Perm. Datum	
				Rig Floor _____			
API Serial No.		Max. Hole Devi.		Longitude		Latitude	
17-Jul-2005				91° 56.0612 W		6° 44.1631 N	

Logging Date	17-Jul-2005
Run Number	One
Depth Driller	4397 m
Schlumberger Depth	4372 m
Bottom Log Interval	4372 m
Top Log Interval	3910 m
Casing Driller Size @ Depth	0.000 in @ 3914 m
Casing Schlumberger	3914 m
Bit Size	9.875 in

Type Fluid In Hole		Sea water	
Density	1.07 g/cm3		
Fluid Loss	PH		
MUD			
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	17-Jul-2005	9:00
Logger On Bottom	Time	17-Jul-2005	15:30
Unit Number	Location	2082	Webster, TX
Recorded By	Javier Espinosa		
Witnessed By	Florence Einaudi, Akram Belghouli		

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	Viscosity		
Fluid Loss	PH		
MUD			
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		
Logger On Bottom	Time		
Unit Number	Location		
Recorded By			
Witnessed By			

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: DLT, HNGS
 OS2: MEST, DSI
 OS3: TAP
 OS4:
 OS5:

OTHER SERVICES2
 OS1:
 OS2:
 OS3:
 OS4:
 OS5:

REMARKS: RUN NUMBER 1
 All parameters and presentations as per IODP standards
 Tool ran as per tool sketch below.
 Casing and sea floor depth information provided by IODP
 Hole logged previously on Leg 206
 TD not reached due to hole conditions
 GR data affected by borehole neutron activation below 4263 m.

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
SURFACE EQUIPMENT
 WITM (DTS)-A
 LCM-AA
 SFT-281 6250
 SFT-178 6250
 GSR-U 135

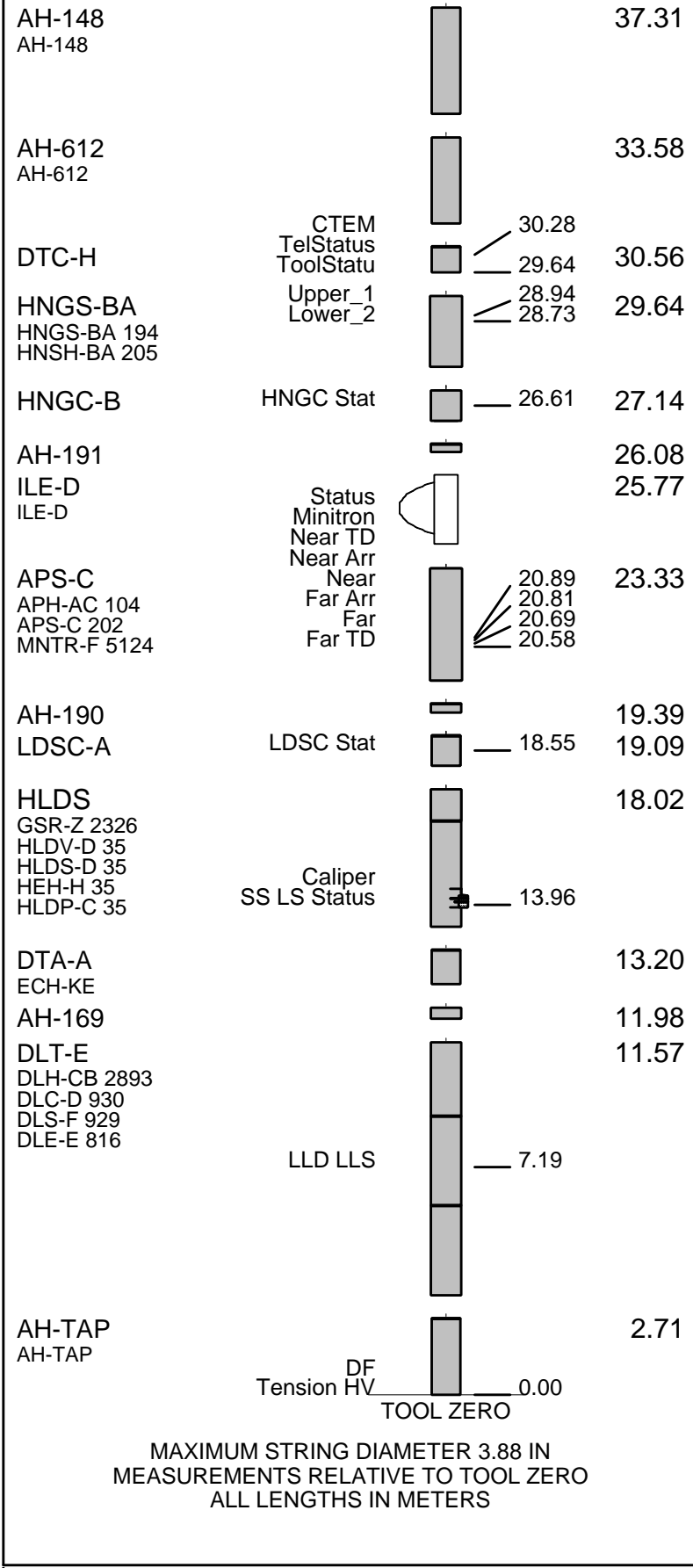
RUN 2

DOWNHOLE EQUIPMENT

BSP
 BRT-S  62.59

SP SPARC  41.53

LEH-QT  38.20



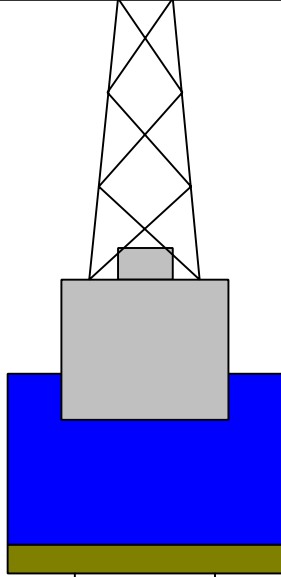
Production String	(in)	(ft)	Well Schematic	(ft)	(in)	Casing String
	OD	ID		MD	MD	

Kelly Bushing Elevation
Derrick Floor Elevation

11.3
11.0

Mean Sea Level

0.0



0.0 5.000

Casing String

3645.0 9.875

Borehole Segment

3915.0 5.000

Casing Shoe

Schlumberger

MAIN PASS

MAXIS Field Log

Input DLIS Files

DEFAULT	DLL_LDL_APS_NGS_028LUP	FN:31	PRODUCER	17-Jul-2005 17:00	4370.8 M	3888.8 M
---------	------------------------	-------	----------	-------------------	----------	----------

Output DLIS Files

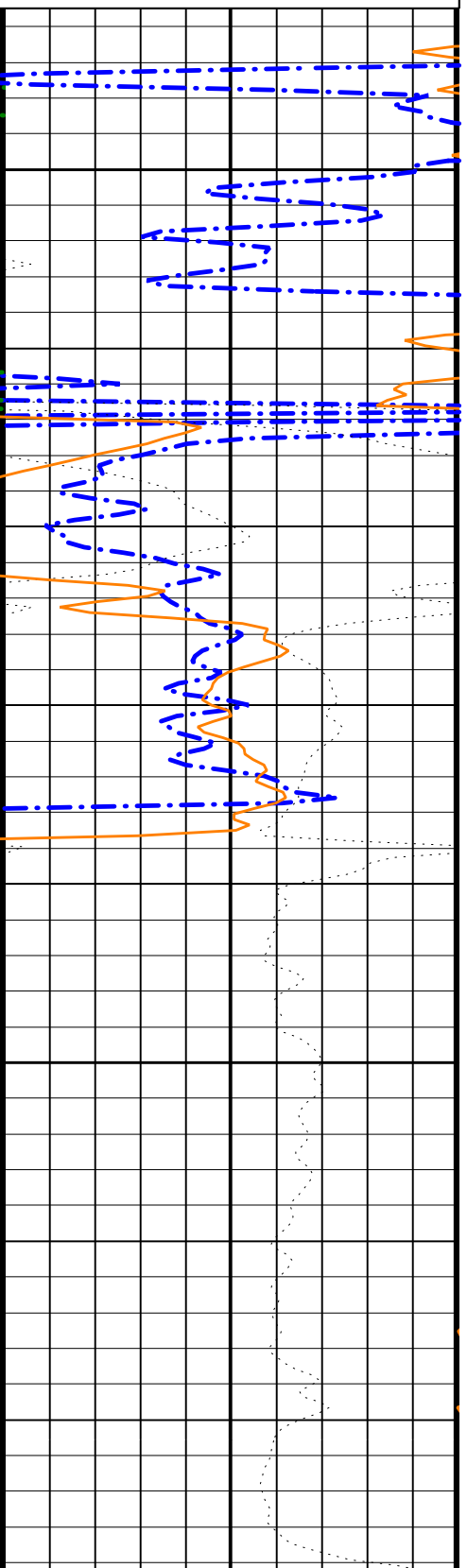
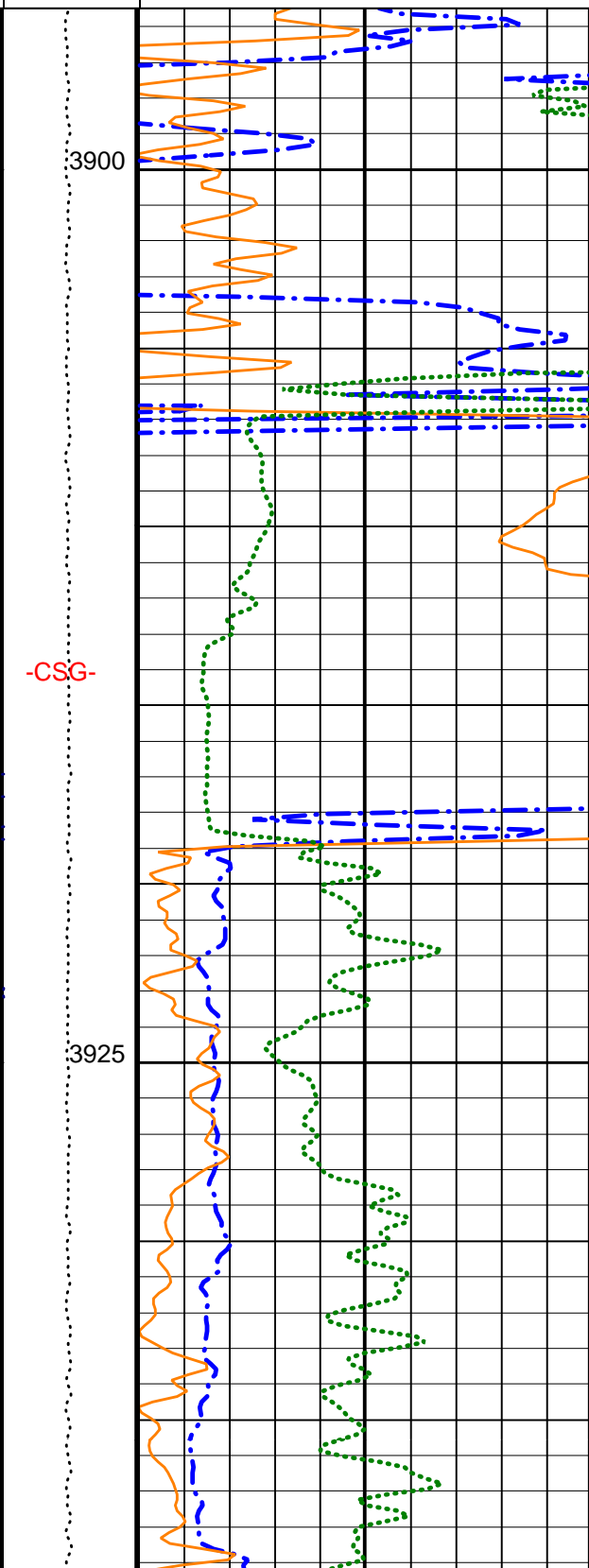
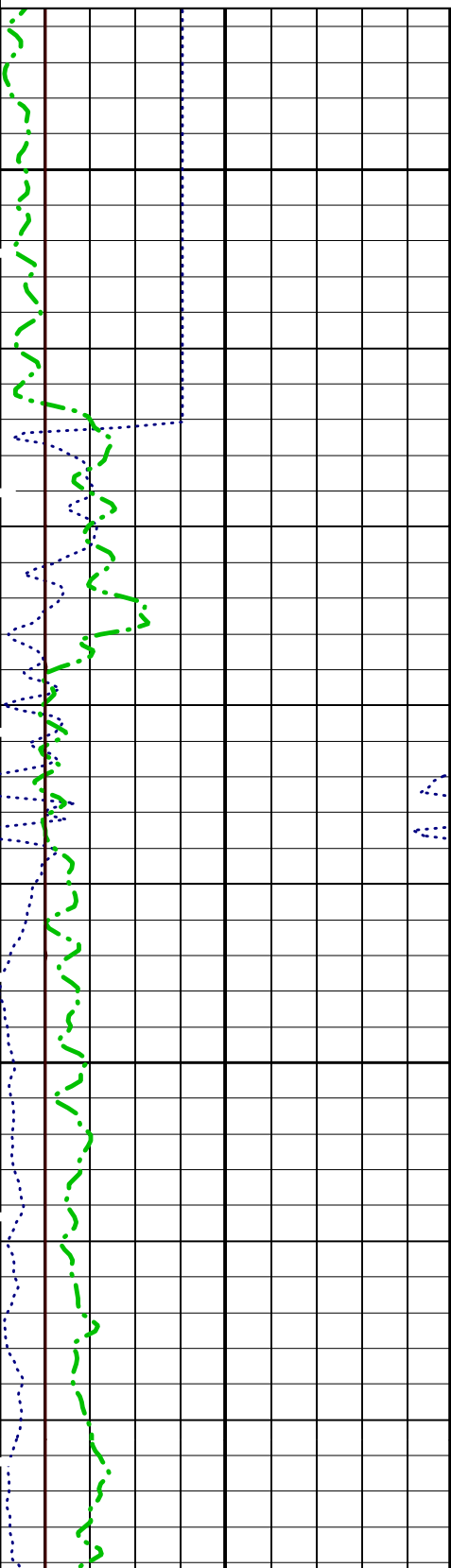
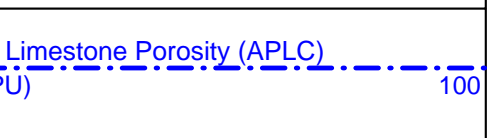
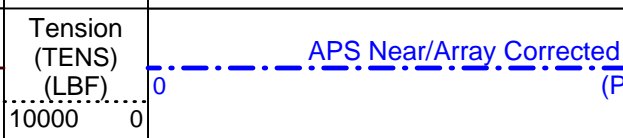
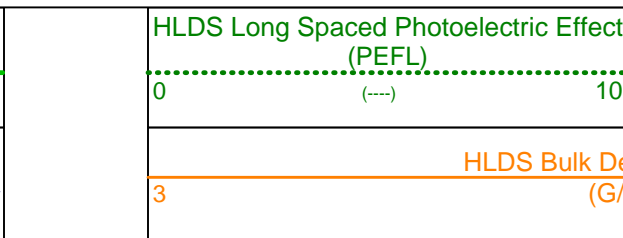
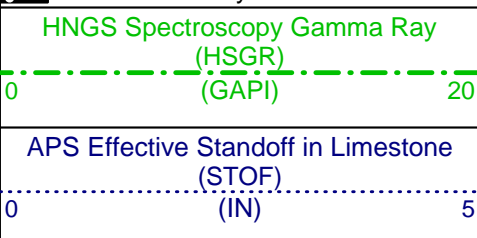
DEFAULT	DLL_LDL_APS_NGS_038PUP	FN:44	PRODUCER	18-Jul-2005 04:44	4370.8 M	3895.5 M
REDUCED	DLL_LDL_APS_NGS_038PUP	FN:45	PRODUCER	18-Jul-2005 04:44	4370.8 M	3895.5 M

OP System Version: 12C0-301
MCM

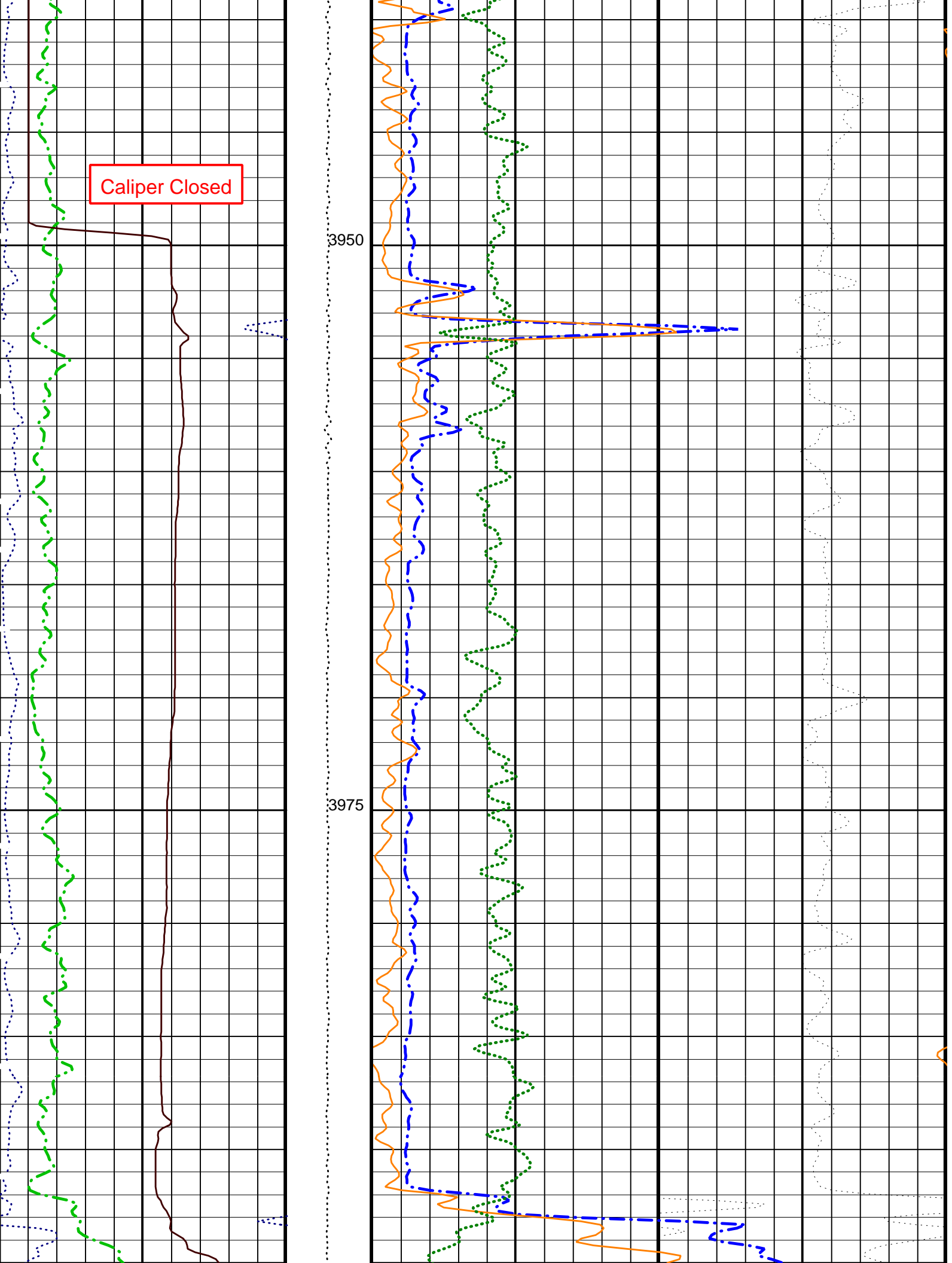
DLT-E	12C0-301	DTA-A	12C0-301
HLDS	SPC-2602-NUCL_b	LDSC-A	SPC-2602-NUCL_b
APS-C	SPC-2602-NUCL_b	HNGC-B	SPC-2602-NUCL_b
HNGS-BA	SPC-2602-NUCL_b	DTC-H	12C0-301
BSP	12C0-301		

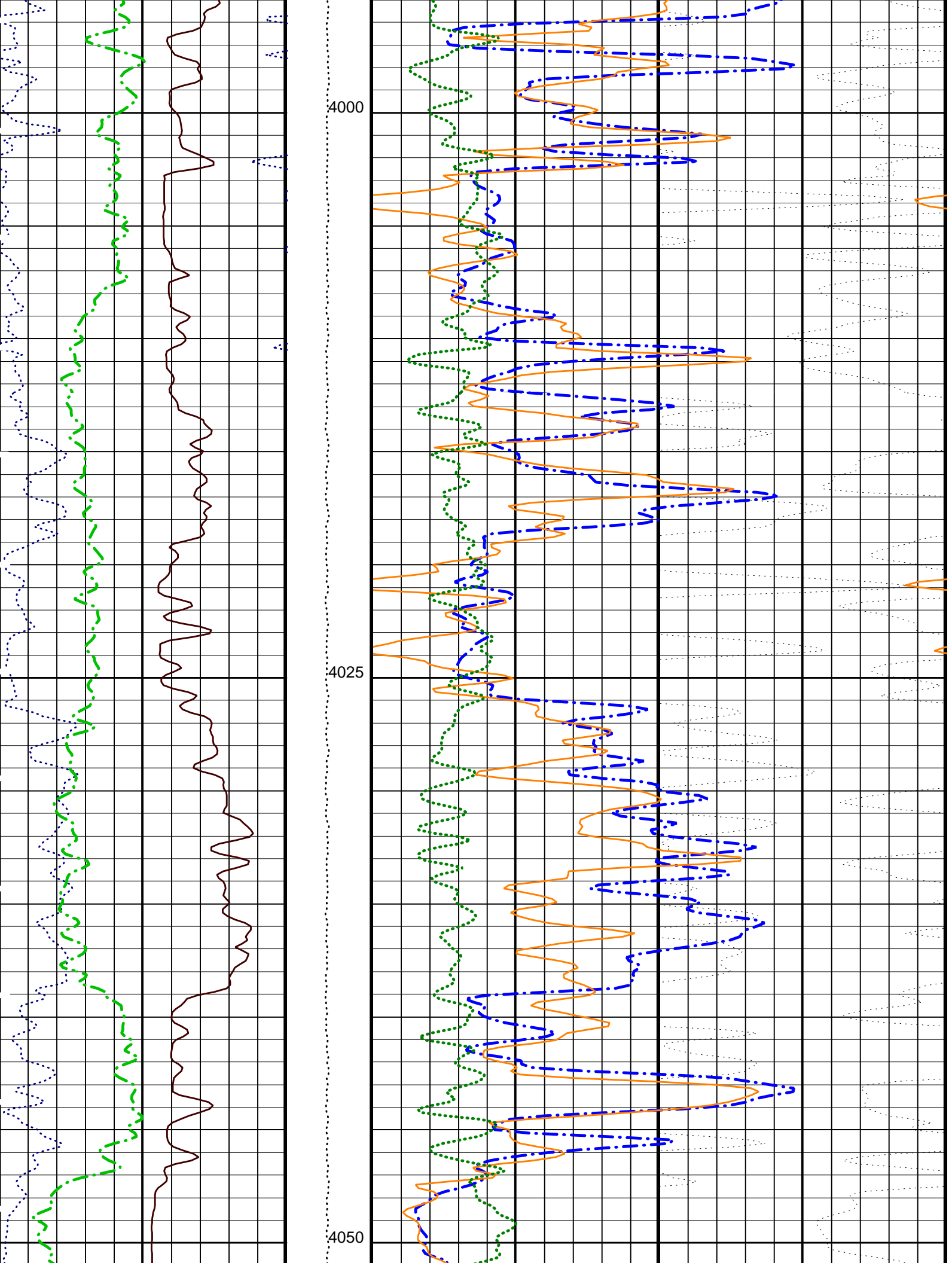
PIP SUMMARY

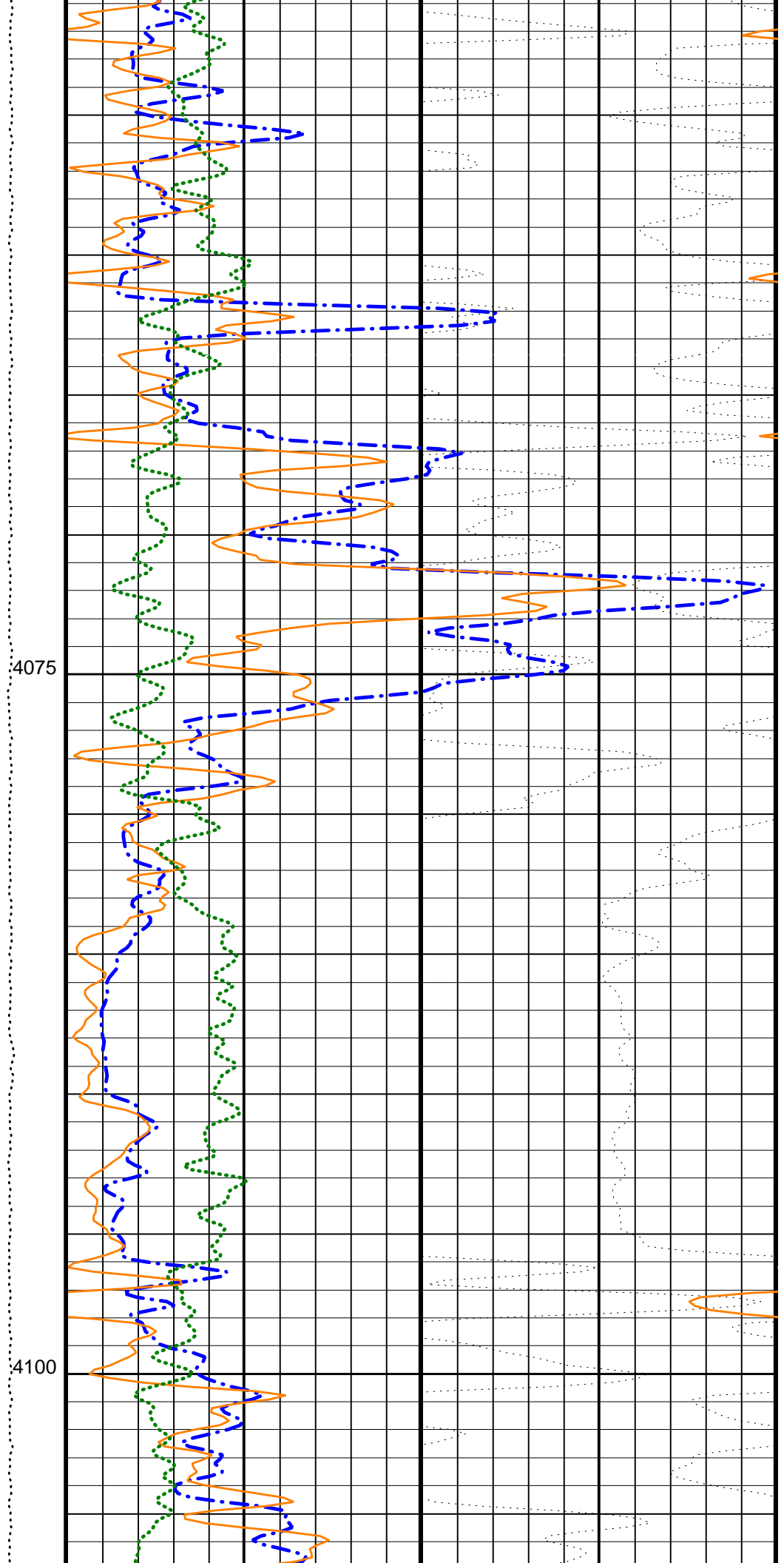
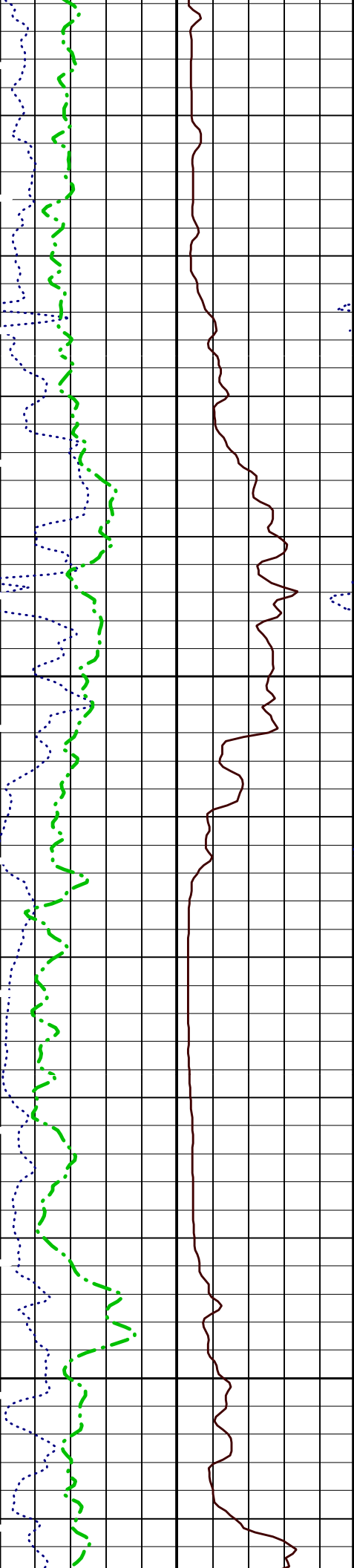
Time Mark Every 60 S



-CSG-

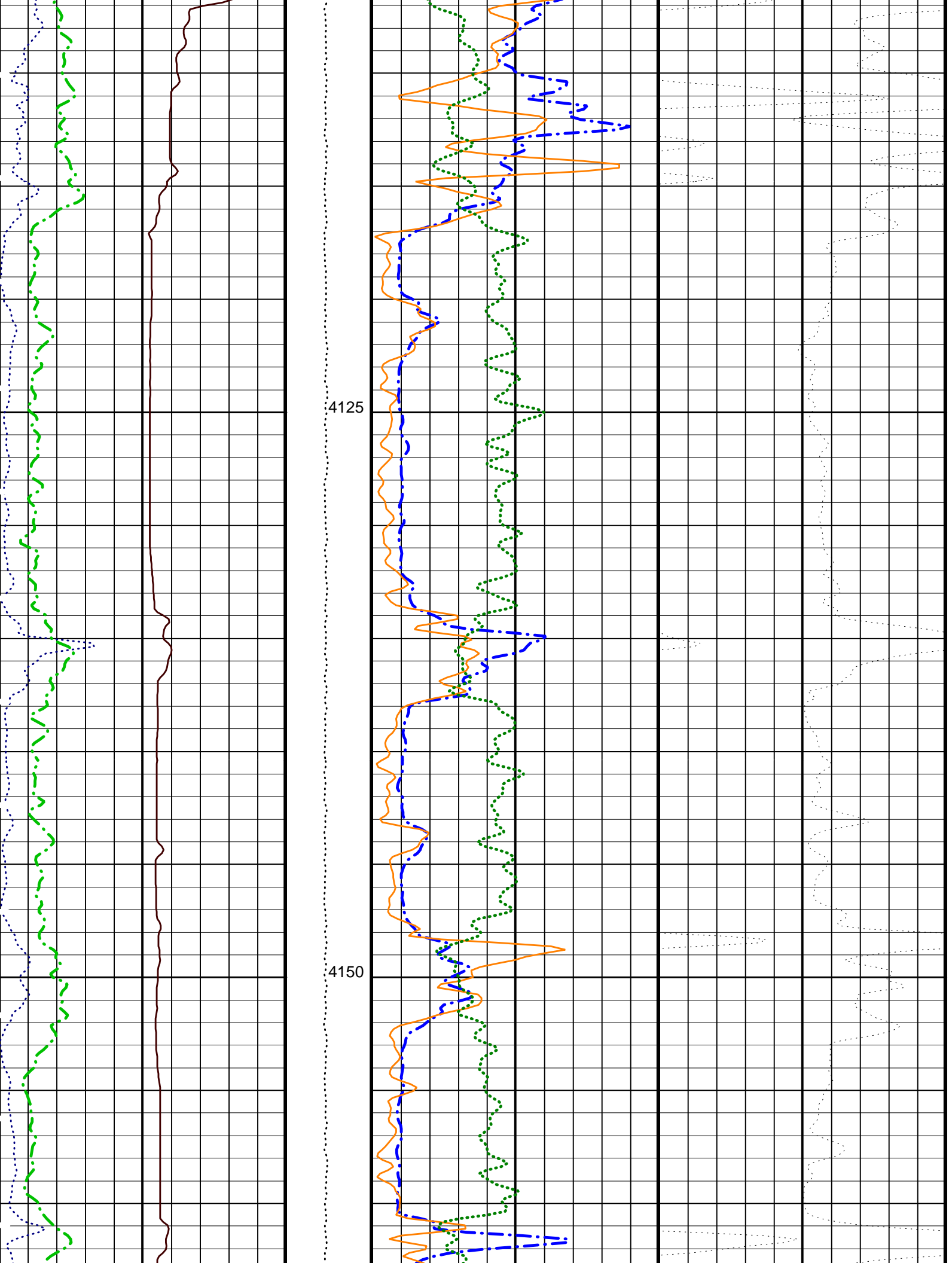


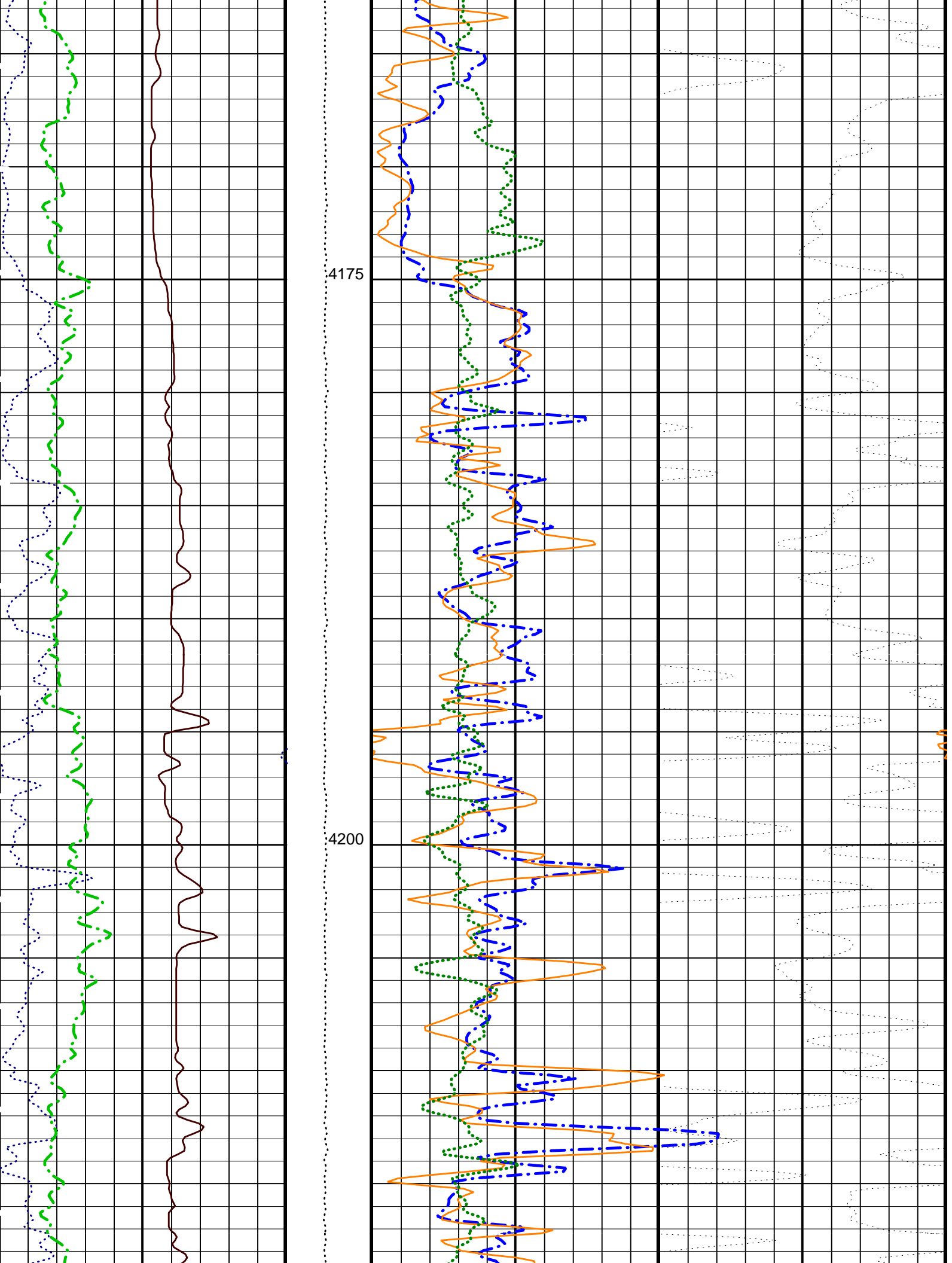


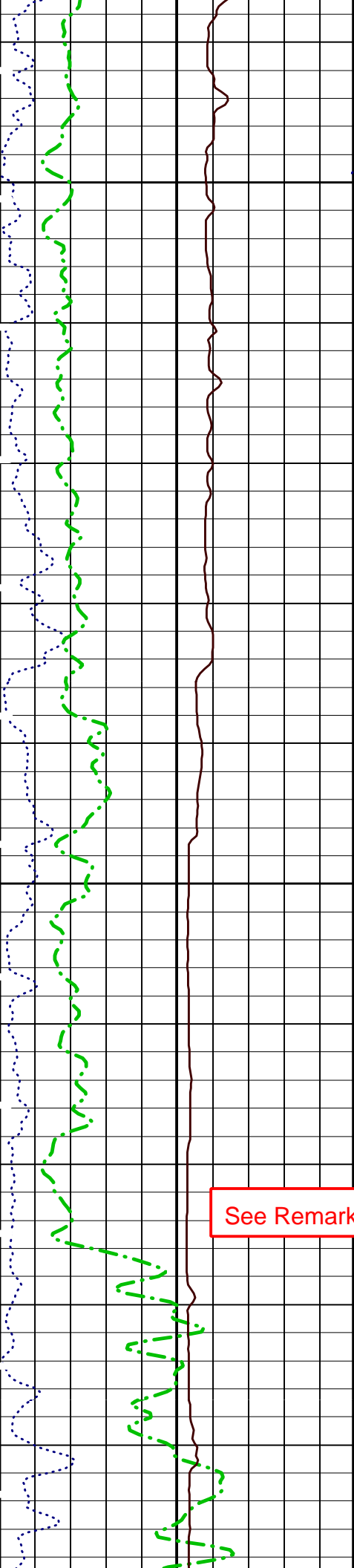


4075

4100



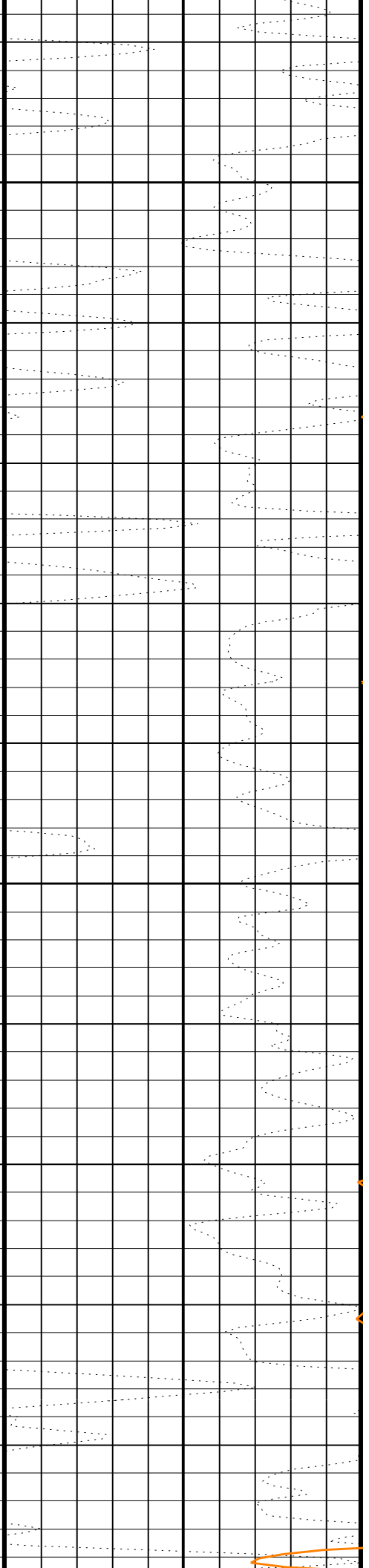
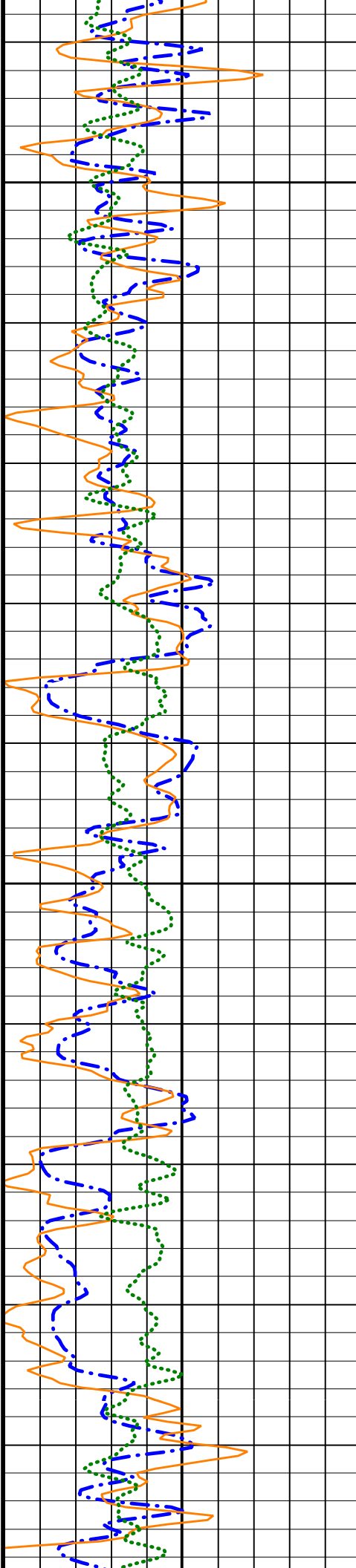


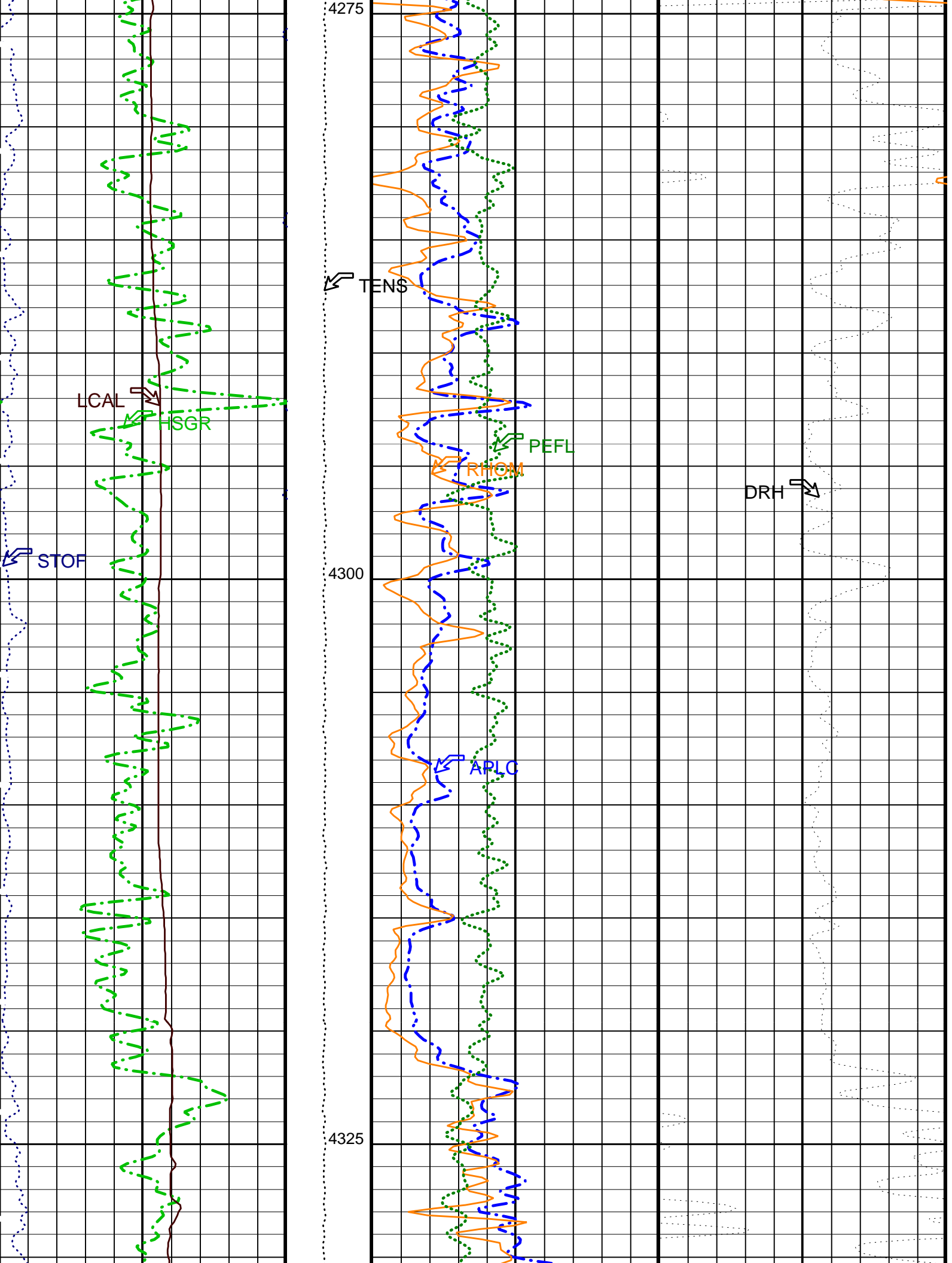


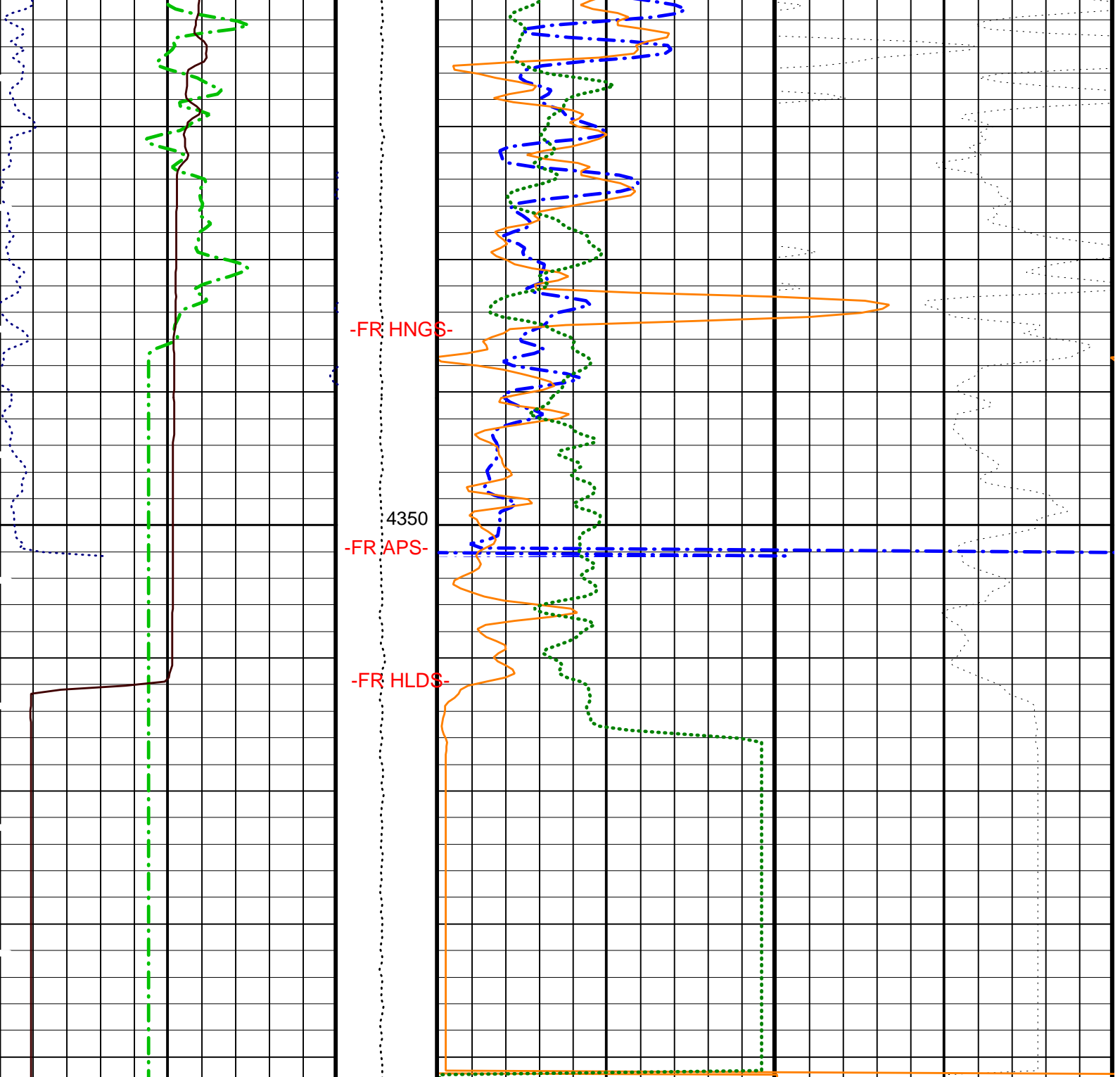
See Remarks

4225

4250







HLDS Caliper (LCAL) (IN)	0 20	Tension (TENS) (LBF)	10000 0	APS Near/Array Corrected Limestone Porosity (APLC) (PU)	0 100
APS Effective Standoff in Limestone (STOF) (IN)	0 5	HLDS Bulk Density (RHOM) (G/C3)	3 1	HLDS Long Spaced Photoelectric Effect (PEFL) (---)	0 10
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	0 20	HLDS Bulk Density Correction (DRH) (G/C3)	-0.25 0.25		

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
-----------	-------------	-------

	DLT-E: DUAL LATEROLOG - E		
DPRF	DEEP REFERENCE POWER	550	NW
KFAC	K FACTOR	SOND	
LLOO	LATEROLOG LOOP	OFF	
PLRM	POWER LOOP REFERENCE MODE	DEEP	
SPRF	SHALLOW REFERENCE POWER	550	NW
	HLDS: Hostile Litho-Density Sonde		
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.71	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
	APS-C: Accelerator-Porosity Tool		
	APS Software Version	0	
AASD	APS Thermal and Array Detectors High Voltage Setting	1972.6	V
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2081.84	V
AHCS	APS Holesize Correction Source	BS	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1741.14	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
NARC	APS Near/Array Calibration Ratio	0.987923	
NFRC	APS Near/Far Calibration Ratio	0.9547	
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)	100	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
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00186933	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	1.07217	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.08486	
	BSP: Bridle SP		
SPNV	SP Next Value	0	MV
	System and Miscellaneous		

ALTDPCAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	0.000	IN
CWEI	Casing Weight	0.00	LB/F
DFD	Drilling Fluid Density	1.07	G/C3
DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	-50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4397	M
TDD	Total Depth - Driller	4397.00	M
TDL	Total Depth - Logger	4372.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: APS_HLDS_PORO Vertical Scale: 1:200 Graphics File Created: 18-Jul-2005 04:44

OP System Version: 12C0-301
MCM

DLT-E	12C0-301	DTA-A	12C0-301
HLDS	SPC-2602-NUCL_b	LDSC-A	SPC-2602-NUCL_b
APS-C	SPC-2602-NUCL_b	HNGC-B	SPC-2602-NUCL_b
HNGS-BA	SPC-2602-NUCL_b	DTC-H	12C0-301
BSP	12C0-301		

Input DLIS Files

DEFAULT	DLL_LDL_APS_NGS_028LUP	FN:31	PRODUCER	17-Jul-2005 17:00	4370.8 M	3888.8 M
---------	------------------------	-------	----------	-------------------	----------	----------

Output DLIS Files

DEFAULT	DLL_LDL_APS_NGS_038PUP	FN:44	PRODUCER	18-Jul-2005 04:44		
REDUCED	DLL_LDL_APS_NGS_038PUP	FN:45	PRODUCER	18-Jul-2005 04:44		



CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
DUAL LATEROLOG - E Wellsite Calibration - DLT ELECTRONICS CALIBRATION Laterolog Measurement							
Before: 17-Jul-2005 15:54							
MEASURED LLD	31.62	N/A	31.96	N/A	N/A	0.9000	OHMM
MEASURED LLS	31.62	N/A	31.22	N/A	N/A	0.9000	OHMM
Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement							
Master: 14-Jul-2005 16:30 Before: 15-Jul-2005 15:26							
SS Cs Resolution Bkg	9.000	8.545	8.525	N/A	N/A	1.800	%
LS Cs Resolution Bkg	9.000	8.108	8.088	N/A	N/A	1.800	%
LSW1 Background	100.0	81.91	81.53	N/A	N/A	3.000	CPS
LSW2 Background	100.0	74.35	75.28	N/A	N/A	3.000	CPS
LSW3 Background	200.0	168.0	166.5	N/A	N/A	6.000	CPS
LSW4 Background	250.0	209.1	207.2	N/A	N/A	7.500	CPS
LSW5 Background	600.0	468.5	465.8	N/A	N/A	18.00	CPS
SSW1 Background	100.0	80.24	79.56	N/A	N/A	3.000	CPS
SSW2 Background	200.0	140.6	140.8	N/A	N/A	6.000	CPS
SSW3 Background	500.0	376.5	375.3	N/A	N/A	15.00	CPS
SSW4 Background	270.0	199.0	200.1	N/A	N/A	8.100	CPS
SSW5 Background	200.0	143.1	143.5	N/A	N/A	6.000	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement								
Master: 14-Jul-2005 17:24								
LSW1 Aluminum	600.0	529.9	N/A	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	821.8	N/A	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	1021	N/A	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	521.6	N/A	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	474.8	N/A	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2414	N/A	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	7009	N/A	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	10170	N/A	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	4256	N/A	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	572.5	N/A	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement								
Master: 14-Jul-2005 17:09								
LSW1 Iron	400.0	367.6	N/A	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	673.6	N/A	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	907.3	N/A	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	469.0	N/A	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	437.7	N/A	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1793	N/A	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5811	N/A	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	9228	N/A	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3862	N/A	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	500.6	N/A	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration								
Before: 15-Jul-2005 15:49								
HLDS Caliper Small Ring	8.000	N/A	10.83	N/A	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	12.00	N/A	14.98	N/A	N/A	N/A	N/A	IN
Accelerator-Porosity Tool Wellsite Calibration - Detector Background								
Master: 8-Jun-2005 23:32 Before: 15-Jul-2005 15:26								
Near Det Bkg Cntrate	30.00	24.44	24.38	N/A	N/A	N/A	N/A	CPS
Far Det Bkg Cntrate	30.00	26.92	24.79	N/A	N/A	N/A	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	28.26	27.84	N/A	N/A	N/A	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	26.08	25.12	N/A	N/A	N/A	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	25.92	24.91	N/A	N/A	N/A	N/A	CPS
Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios								
Master: 8-Jun-2005 23:32								
Near/Far Calibration Ratio	0.9250	0.9547	N/A	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	0.9879	N/A	N/A	N/A	N/A	N/A	
Near/Array Cal Ratio Up/Down	1.000	1.005	N/A	N/A	N/A	N/A	N/A	
Accelerator-Porosity Tool Wellsite Calibration - Tank Check								
Master: 8-Jun-2005 23:32								
Array-1 Standoff Porosity	11.75	11.62	N/A	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.75	11.51	N/A	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	5.843	N/A	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	0.9816	N/A	N/A	N/A	N/A	N/A	
Array-2 SDT Ratio Up/Down	1.000	0.9849	N/A	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	27.30	N/A	N/A	N/A	N/A	N/A	CU
Accelerator-Porosity Tool Wellsite Calibration - CCR7 signal boxes								
Master: 8-Jun-2005 23:32								
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: 15-Jul-2005 15:20 Before: 15-Jul-2005 15:27								
Na 511 Peak Loc	40.00	39.61	39.61	N/A	N/A	1.000		
Na 511 Peak Res	15.50	16.17	16.30	N/A	N/A	2.000		%
High Voltage	1150	1120	1120	N/A	N/A	N/A		V
Na 1785 Peak Loc	142.6	142.0	142.4	N/A	N/A	7.000		
Na 1785 Peak Res	8.500	8.765	8.614	N/A	N/A	2.000		%
Temperature	15.50	31.77	31.75	N/A	N/A	N/A		DEGC
Na Count Rate	45.00	48.44	48.65	N/A	N/A	8.000		CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check								
Master: 15-Jul-2005 15:20 Before: 15-Jul-2005 15:27								
Na 511 Peak Loc	40.00	39.61	39.66	N/A	N/A	1.000		
Na 511 Peak Res	15.50	16.11	15.33	N/A	N/A	2.000		%
High Voltage	1150	1197	1197	N/A	N/A	N/A		V
Na 1785 Peak Loc	142.6	142.0	142.0	N/A	N/A	7.000		
Na 1785 Peak Res	8.500	8.084	8.058	N/A	N/A	2.000		%
Temperature	15.50	31.31	31.35	N/A	N/A	N/A		DEGC
Na Count Rate	45.00	48.30	47.98	N/A	N/A	8.000		CPS

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

Master: 15-Jul-2005 15:20 Before: 15-Jul-2005 15:27

Coincidence Count Rate Ratio	1.000	1.004	1.015	N/A	N/A	0.05000
------------------------------	-------	-------	-------	-----	-----	---------

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 1 Calibration

Master: 15-Jul-2005 15:15

Na 511 Peak Set Point	40.00	41.00	--	--	--	--
Th Peak Loc	209.6	208.7	--	--	--	--
Th Peak Res	7.000	7.197	--	--	--	%
Background Count Rate	142.5	23.44	--	--	--	CPS
Gain Ratio	1.000	1.002	--	--	--	--

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 2 Calibration

Master: 15-Jul-2005 15:15

Na 511 Peak Set Point	40.00	41.00	--	--	--	--
Th Peak Loc	209.6	209.9	--	--	--	--
Th Peak Res	7.000	7.171	--	--	--	%
Background Count Rate	142.5	23.11	--	--	--	CPS
Gain Ratio	1.000	1.008	--	--	--	--

Accelerator-Porosity Tool - Detector Plateau Settings :

Near Detector Plateau Setting	1741 V
Far Detector Plateau Setting	2082 V
Array Detector Plateau Setting	1973 V

DUAL LATEROLOG - E / Equipment Identification

Primary Equipment:

Auxiliary Equipment:

Dual Laterolog Electrode	DLE - E	816
Dual Laterolog Sonde	DLS - F	929
Dual Laterolog Housing	DLH - CB	2893
Dual Laterolog Cartridge	DLC - D	930
Laterolog Control Module	LCM - AA	

DUAL LATEROLOG - E Wellsite Calibration

DLT ELECTRONICS CALIBRATION Laterolog Measurement

Phase	MEASURED LLD OHMM	Value	Phase	MEASURED LLS OHMM	Value
Before		31.96	Before		31.22
	29.00 (Minimum) 31.62 (Nominal) 40.00 (Maximum)			29.00 (Minimum) 31.62 (Nominal) 40.00 (Maximum)	

Before: 17-Jul-2005 15:54

DUAL LATEROLOG - E Wellsite Calibration

DLT Electronics Calibration Plus Measurement

Phase	Deep Current Plus UA	Value	Phase	Deep Voltage Plus MV	Value	Phase	Groningen Voltage Plus MV	Value
Before		341.3	Before		10.91	Before		11.39
	317.5 (Minimum) 342.5 (Nominal) 367.5 (Maximum)			9.830 (Minimum) 10.83 (Nominal) 11.83 (Maximum)			9.830 (Minimum) 10.83 (Nominal) 11.83 (Maximum)	
Phase	Shallow Current Plus UA	Value	Phase	Shallow Voltage Plus MV	Value			
Before		344.1	Before		10.74			
	317.5 (Minimum) 342.5 (Nominal) 367.5 (Maximum)			9.830 (Minimum) 10.83 (Nominal) 11.83 (Maximum)				

Before: 17-Jul-2005 15:54

DUAL LATEROLOG - E Wellsite Calibration

DLT Electronics Calibration Zero Measurement

Phase	Deep Current Zero UA	Value	Phase	Deep Voltage Zero MV	Value	Phase	Groningen Voltage Zero MV	Value
Before		-0.07221	Before		-0.007748	Before		-0.003415
	-1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)			-0.1000 (Minimum) 0 (Nominal) 0.1000 (Maximum)			-0.1000 (Minimum) 0 (Nominal) 0.1000 (Maximum)	
Phase	Shallow Current Zero UA	Value	Phase	Shallow Voltage Zero MV	Value			
Before		-0.08614	Before		-0.003925			
	-1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)			-0.1000 (Minimum) 0 (Nominal) 0.1000 (Maximum)				

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	35

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		8.545	Master		8.108	Master		81.91		
Before		8.525	Before		8.088	Before		81.53		
	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		74.35	Master		168.0	Master		209.1		
Before		75.28	Before		166.5	Before		207.2		
	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		468.5	Master		80.24	Master		140.6		
Before		465.8	Before		79.56	Before		140.8		
	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		376.5	Master		199.0	Master		143.1		
Before		375.3	Before		200.1	Before		143.5		
	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: 14-Jul-2005 16:30

Before: 15-Jul-2005 15:26

Hostile Litho-Density Sonde Master Calibration										
Detector Background Measurement										
Phase	LSW1 Background CPS	Value	Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value		
Master		81.91	Master		74.35	Master		168.0		
	55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)			50.00 (Minimum) 100.0 (Nominal) 140.0 (Maximum)			110.0 (Minimum) 200.0 (Nominal) 290.0 (Maximum)			
Phase	LSW4 Background CPS	Value	Phase	LSW5 Background CPS	Value	Phase	LS Cs Resolution Bkg %	Value		
Master		209.1	Master		468.5	Master		8.108		
	140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum)			330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)			
Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value	Phase	SSW3 Background CPS	Value		
Master		80.24	Master		140.6	Master		376.5		
	55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)			100.0 (Minimum) 200.0 (Nominal) 260.0 (Maximum)			280.0 (Minimum) 500.0 (Nominal) 700.0 (Maximum)			
Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value	Phase	SS Cs Resolution Bkg %	Value		
Master		199.0	Master		143.1	Master		8.545		
	150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum)			110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)			

Master: 14-Jul-2005 16:30

Hostile Litho-Density Sonde Master Calibration										
Detector Aluminum Measurement (bkgd-subtracted)										
Phase	LSW1 Aluminum CPS	Value	Phase	LSW2 Aluminum CPS	Value	Phase	LSW3 Aluminum CPS	Value		
Master		529.9	Master		821.8	Master		1021		
	420.0 (Minimum) 600.0 (Nominal) 700.0 (Maximum)			650.0 (Minimum) 900.0 (Nominal) 1050 (Maximum)			800.0 (Minimum) 1100 (Nominal) 1300 (Maximum)			

Phase	LSW4 Aluminum CPS	Value	Phase	LSW5 Aluminum CPS	Value	Phase	SSW1 Aluminum CPS	Value
Master		521.6	Master		474.8	Master		2414
	410.0 (Minimum) 580.0 (Nominal) 670.0 (Maximum)			410.0 (Minimum) 570.0 (Nominal) 660.0 (Maximum)			2000 (Minimum) 2800 (Nominal) 3200 (Maximum)	
Phase	SSW2 Aluminum CPS	Value	Phase	SSW3 Aluminum CPS	Value	Phase	SSW4 Aluminum CPS	Value
Master		7009	Master		10170	Master		4256
	5800 (Minimum) 8000 (Nominal) 9300 (Maximum)			8300 (Minimum) 11600 (Nominal) 13500 (Maximum)			3500 (Minimum) 5000 (Nominal) 5800 (Maximum)	
Phase	SSW5 Aluminum CPS	Value						
Master		572.5						
	470.0 (Minimum) 660.0 (Nominal) 770.0 (Maximum)							

Master: 14-Jul-2005 17:24

Hostile Litho-Density Sonde Master Calibration								
Detector Litholog Measurement (bkgd-subtracted)								
Phase	LSW1 Iron CPS	Value	Phase	LSW2 Iron CPS	Value	Phase	LSW3 Iron CPS	Value
Master		367.6	Master		673.6	Master		907.3
	290.0 (Minimum) 400.0 (Nominal) 470.0 (Maximum)			520.0 (Minimum) 730.0 (Nominal) 850.0 (Maximum)			720.0 (Minimum) 1000 (Nominal) 1160 (Maximum)	
Phase	LSW4 Iron CPS	Value	Phase	LSW5 Iron CPS	Value	Phase	SSW1 Iron CPS	Value
Master		469.0	Master		437.7	Master		1793
	370.0 (Minimum) 520.0 (Nominal) 600.0 (Maximum)			340.0 (Minimum) 470.0 (Nominal) 550.0 (Maximum)			1500 (Minimum) 2100 (Nominal) 2400 (Maximum)	
Phase	SSW2 Iron CPS	Value	Phase	SSW3 Iron CPS	Value	Phase	SSW4 Iron CPS	Value
Master		5811	Master		9228	Master		3862
	4900 (Minimum) 6800 (Nominal) 7900 (Maximum)			7800 (Minimum) 10800 (Nominal) 12600 (Maximum)			3300 (Minimum) 4600 (Nominal) 5400 (Maximum)	
Phase	SSW5 Iron CPS	Value						
Master		500.6						
	420.0 (Minimum) 580.0 (Nominal) 680.0 (Maximum)							

Master: 14-Jul-2005 17:09

Hostile Litho-Density Sonde Master Calibration								
Quality Ratios								
Phase	AL CALIBRATION RATIO 1	Value	Phase	AL CALIBRATION RATIO 2	Value	Phase	AL CALIBRATION RATIO 3	Value
Master		1.024	Master		2.107	Master		0.5319
	0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			1.900 (Minimum) 2.100 (Nominal) 2.300 (Maximum)			0.4500 (Minimum) 0.5500 (Nominal) 0.6500 (Maximum)	
Phase	AL CALIBRATION RATIO 4	Value	Phase	Pad-Wear SS Ratio	Value	Phase	Pad-Wear LS Ratio	Value
Master		0.4999	Master		0.9900	Master		0.9898
	0.4000 (Minimum) 0.5500 (Nominal) 0.6500 (Maximum)			0.9800 (Minimum) 0.9880 (Nominal) 0.9960 (Maximum)			0.9800 (Minimum) 0.9880 (Nominal) 0.9960 (Maximum)	
Phase	Pad-Position SS Ratio	Value	Phase	Pad-Position LS Ratio	Value			
Master		1.001	Master		1.000			
	0.9900 (Minimum) 0.9940 (Nominal) 1.015 (Maximum)			0.9850 (Minimum) 0.9940 (Nominal) 1.010 (Maximum)				

Master: 14-Jul-2005 17:03

Litho-Density Spectroscopy Cartridge - A / Equipment Identification

Primary Equipment:
 LDSC Cartridge LDSC - A 16

Auxiliary Equipment:
 LDSC Housing LDSH - A 52

Accelerator-Porosity Tool / Equipment Identification

Primary Equipment:
 Accelerator-Porosity Sonde APS - C 202
 APS Minitron 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		24.44	Master		26.92	Master		28.26	
Before		24.38	Before		24.79	Before		27.84	
	1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			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		26.08	Master		25.92				
Before		25.12	Before		24.91				
	1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)					
Master: 8-Jun-2005 23:32					Before: 15-Jul-2005 15:26				

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		0.9547	Master		0.9879	Master		1.005	
	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)		
Master: 8-Jun-2005 23:32									

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		11.62	Master		11.51	Master		5.843	
	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		0.9816	Master		0.9849	Master		27.30	
	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: 8-Jun-2005 23:32									

Accelerator-Porosity Tool Master Calibration									
Detector Calibration									
Phase	Near/Far Calibration Ratio	Value	Phase	Near/Array Calibration Ratio	Value	Phase	Near/Array Cal Ratio Up/Down	Value	
Master		0.9547	Master		0.9879	Master		1.005	
	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)		
Master: 8-Jun-2005 23:32									

Accelerator-Porosity Tool Master 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		11.62	Master		11.51	Master		5.843	
	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		0.9816	Master		0.9849	Master		27.30	
	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: 8-Jun-2005 23:32									

Hostile Natural Gamma Ray Cartridge - B / Equipment Identification

Primary Equipment:

HNGC Cartridge HNGC - B 300

Auxiliary Equipment:
HNGC Housing

HNGH - A

115

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:
HNGS Sonde

HNGS - BA

194

Auxiliary Equipment:
HNGS Sonde Housing
Gamma Source Radioactive

HNSH - BA

205

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		39.61	Master		16.17	Master		1120
Before		39.61	Before		16.30	Before		1120
	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		142.0	Master		8.765	Master		31.77
Before		142.4	Before		8.614	Before		31.75
	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		48.44						
Before		48.65						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 15-Jul-2005 15:20			Before: 15-Jul-2005 15:27					

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		39.61	Master		16.11	Master		1197
Before		39.66	Before		15.33	Before		1197
	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		142.0	Master		8.084	Master		31.31
Before		142.0	Before		8.058	Before		31.35
	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		48.30						
Before		47.98						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 15-Jul-2005 15:20			Before: 15-Jul-2005 15:27					

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		1.004
Before		1.015
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	
Master: 15-Jul-2005 15:20		
Before: 15-Jul-2005 15:27		

Hostile Natural Gamma Ray Sonde Master Calibration

Detector 1 Calibration

Phase	Na 511 Peak Set Point	Value	Phase	Th Peak Loc	Value	Phase	Th Peak Res %	Value
Master		41.00	Master		208.7	Master		7.197
	38.00 (Minimum) 40.00 (Nominal) 42.00 (Maximum)			201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)			5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)	
Phase	Background Count Rate CPS	Value	Phase	Gain Ratio	Value			
Master		23.44	Master		1.002			
	20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)				

Master: 15-Jul-2005 15:15

Hostile Natural Gamma Ray Sonde Master Calibration

Detector 2 Calibration

Phase	Na 511 Peak Set Point	Value	Phase	Th Peak Loc	Value	Phase	Th Peak Res %	Value
Master		41.00	Master		209.9	Master		7.171
	38.00 (Minimum) 40.00 (Nominal) 42.00 (Maximum)			201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)			5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)	
Phase	Background Count Rate CPS	Value	Phase	Gain Ratio	Value			
Master		23.11	Master		1.008			
	20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)				

Master: 15-Jul-2005 15:15

Company: Lamont Doherty

Schlumberger

Well: Expedition 309 Site U1256D

Field: Superfast Spreading Crust

Rig: Joides Resolution

Ocean: Pacific Ocean

Hostile Litho-Density Tool

Accelerator Porosity Tool

Gamma Ray