

Company: Lamont Doherty

Well: Expedition 307 Site U1317D

Field: Porcupine Basin Carbonate Mounds

Rig: Joides Resolution Country: Ireland

**Hostile Litho-Density,
Accelerator Porosity,
Gamma Ray**

Rig: Joides Resolution		Field: Porcupine Basin Carbonate Mounds	
Location:		Well: Expedition 307 Site U1307D	
Company: Lamont Doherty			
LOCATION		Elev.: K.B. 11.3 m	G.L. -805 m
		D.F. 11 m	
Permanent Datum:	<u>Mean Sea Level</u>	Elev.: 0 m	
Log Measured From:	<u>Drill Floor</u>	11.0 m	above Perm. Datum
Drilling Measured From:	<u>Drill Floor</u>		
Ocean Atlantic	Max. Well Deviation	Longitude 11° 43.09W	Latitude 51° 22.83N
Logging Date	6-May-2005		

Run Number	One
Depth Driller	1075 m
Schlumberger Depth	1075 m
Bottom Log Interval	1050 m
Top Log Interval	805 m
Casing Driller Size @ Depth	0.000 in @ 892 m
Casing Schlumberger	893 m
Bit Size	9.875 in
Type Fluid In Hole	Sepiolite
Density	1.07 g/cm3
Fluid Loss	
Source Of Sample	
RM @ Measured Temperature	0.322 ohm.m @ 22 degC
RMF @ Measured Temperature	@ @
RMC @ Measured Temperature	@ @
Source RMF	RMC
RM @ MRT	RMF @ MRT @ @
Maximum Recorded Temperatures	
Circulation Stopped	Time
Logger On Bottom	6-May-2005 15:07
Unit Number	2082
Location	Webster, TX
Recorded By	Javier Espinosa
Witnessed By	Phillippe Gaillot

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				
Location				
Recorded By				
Witnessed By				

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				
Location				
Recorded By				
Witnessed By				

DISCLAIMER

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

OTHER SERVICES1 OS1: HNGS OS2: DITE OS3: DSI OS4: FMS OS5: EST	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
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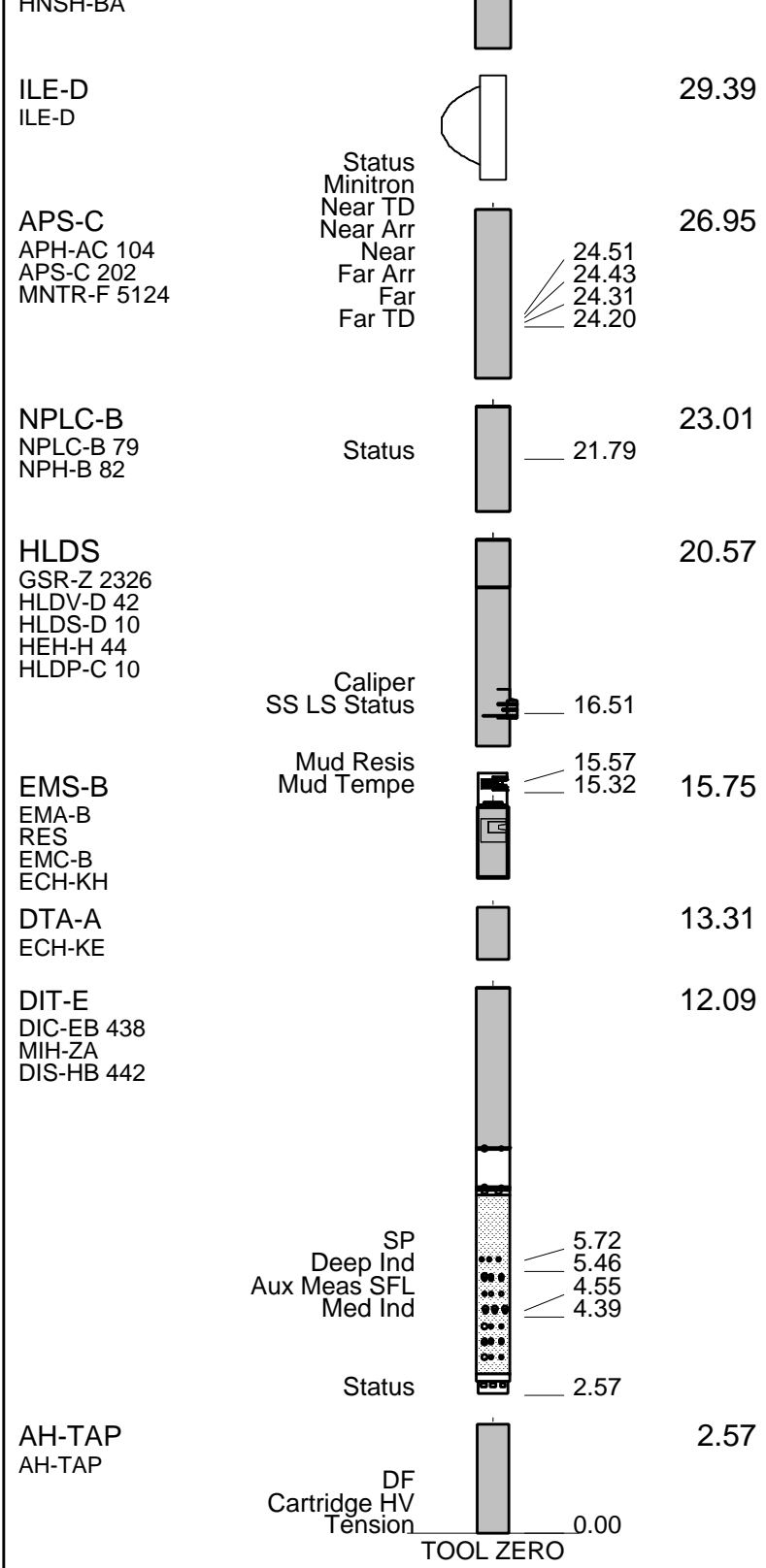
REMARKS: RUN NUMBER 1 Parameters and presentatiosn as per IODP standards Tool ran as per tool sketch below Hole flushed with sepiolite TD not reached due to hole conditions.	REMARKS: RUN NUMBER 2
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RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: 12C0-301 FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: 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			33.70
LEH-QT	CTEM		32.53
DTC-H	TelStatus		32.81
ECH-KC	ToolStatu		31.89
HNGS-BA	Upper_1		31.19
HNGS-BA 77	Lower_2		30.98



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

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

Kelly Bushing Elevation
Derrick Floor Elevation

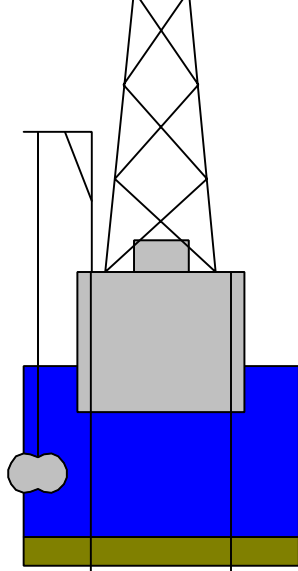
Mean Sea Level

Seismic Gun depth below MSL

11.3
11.0

0.0

2.0



0.0 5.000

Casing String



805.0 9.875
892.0 5.000

Borehole Segment

Casing Shoe

Schlumberger

MAIN PASS

MAXIS Field Log

Output DLIS Files

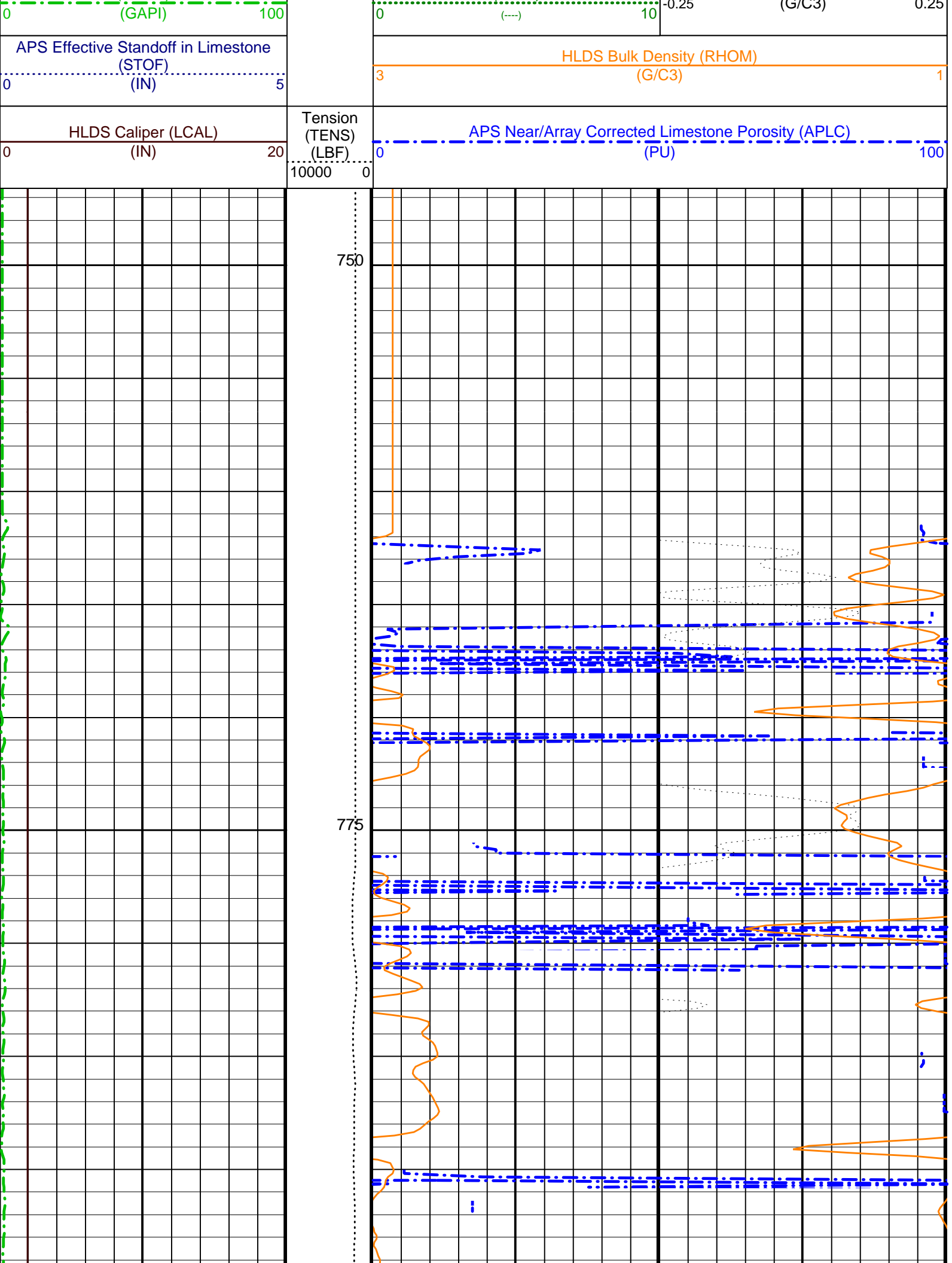
DEFAULT	PI_EMS_LDL_APS_NGS_019LUP	FN:18	PRODUCER	06-May-2005 15:05	1051.6 M	746.6 M
REDUCED	PI_EMS_LDL_APS_NGS_019LUP	FN:19	PRODUCER	06-May-2005 15:05	1051.6 M	746.6 M

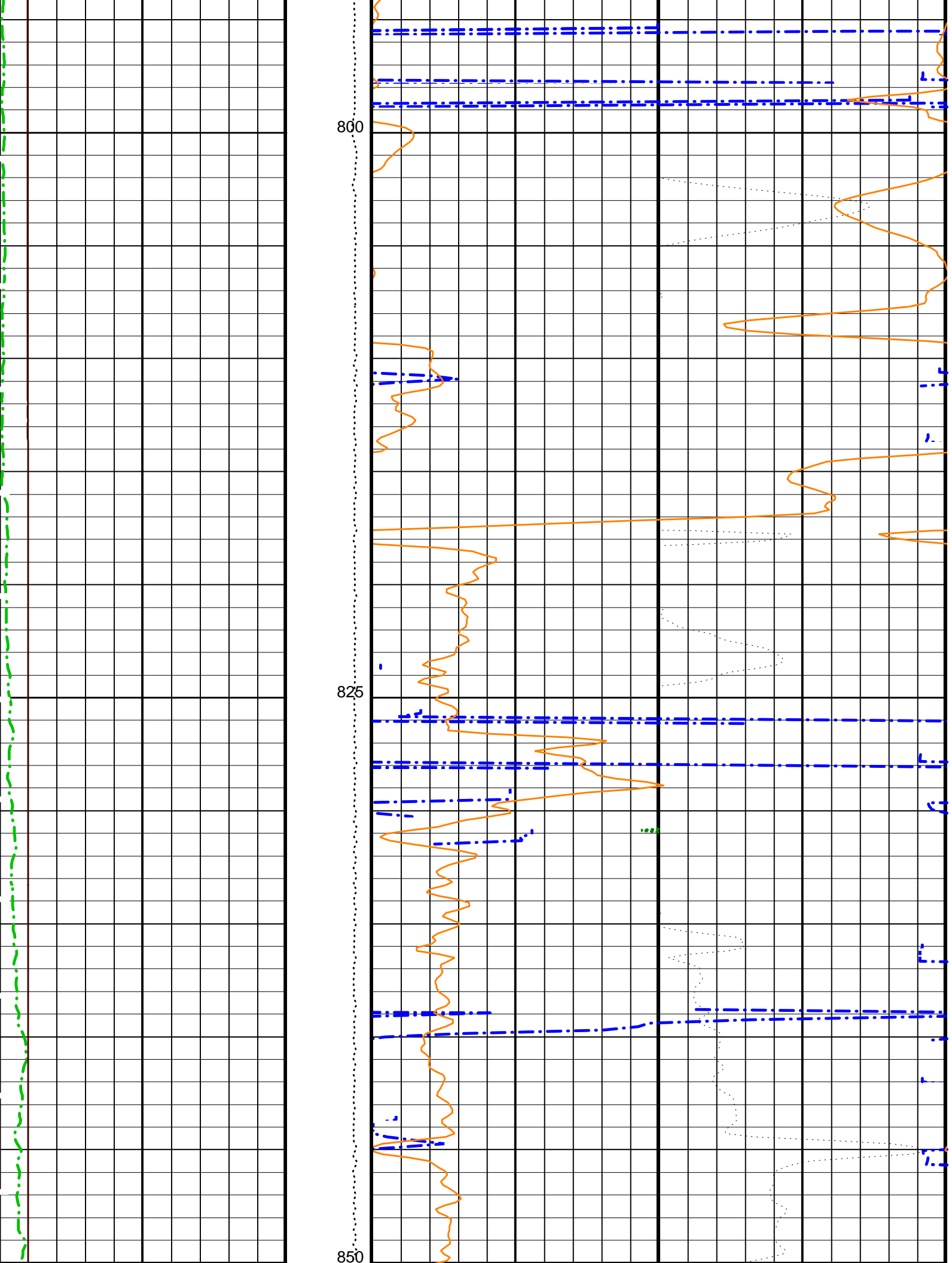
OP System Version: 12C0-301
MCM

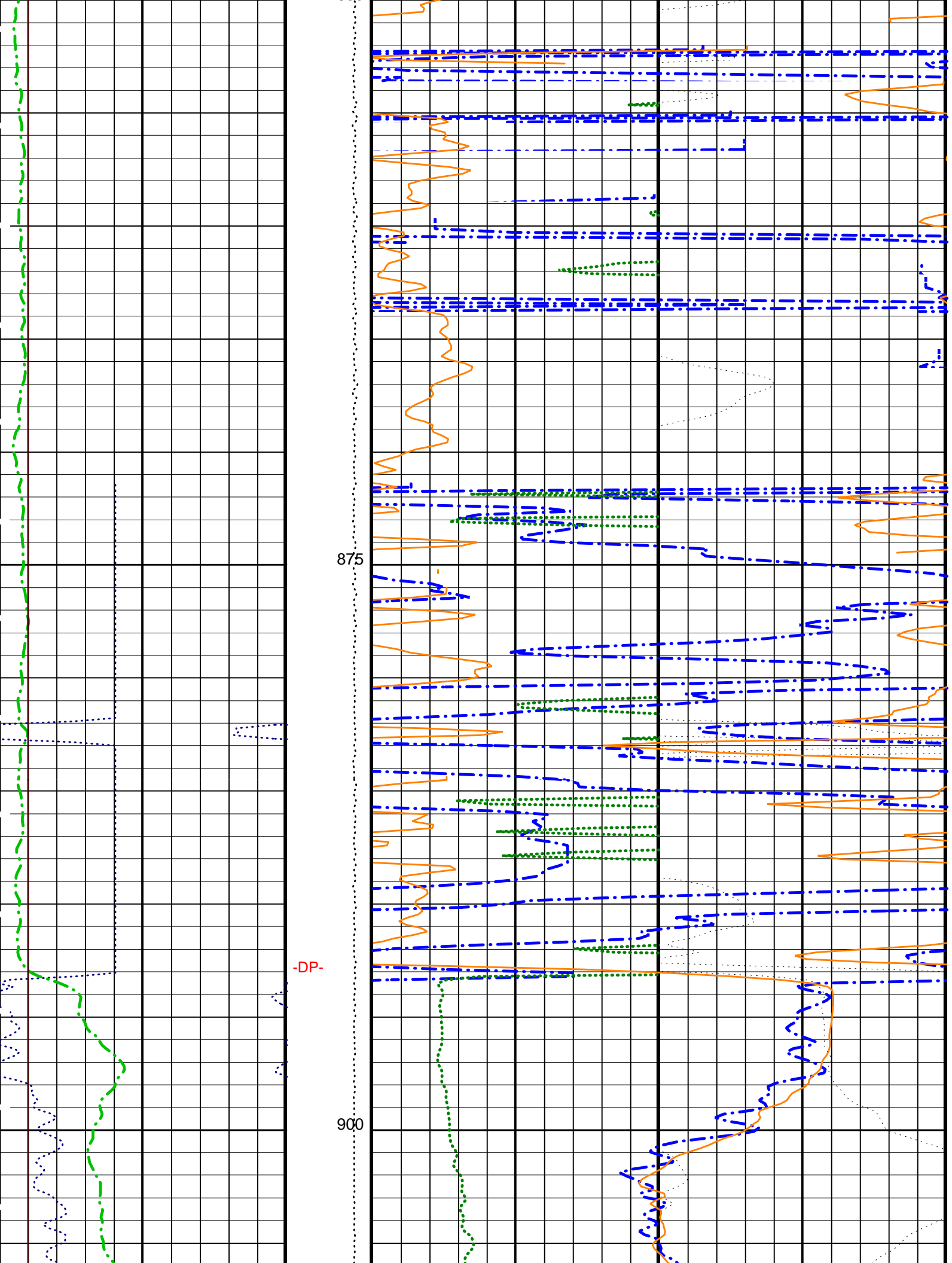
DIT-E	12C0-301	DTA-A	12C0-301
EMS-B	12C0-301	HLDS	12C0-301
NPLC-B	12C0-301	APS-C	12C0-301
HNGS-BA	12C0-301	DTC-H	12C0-301

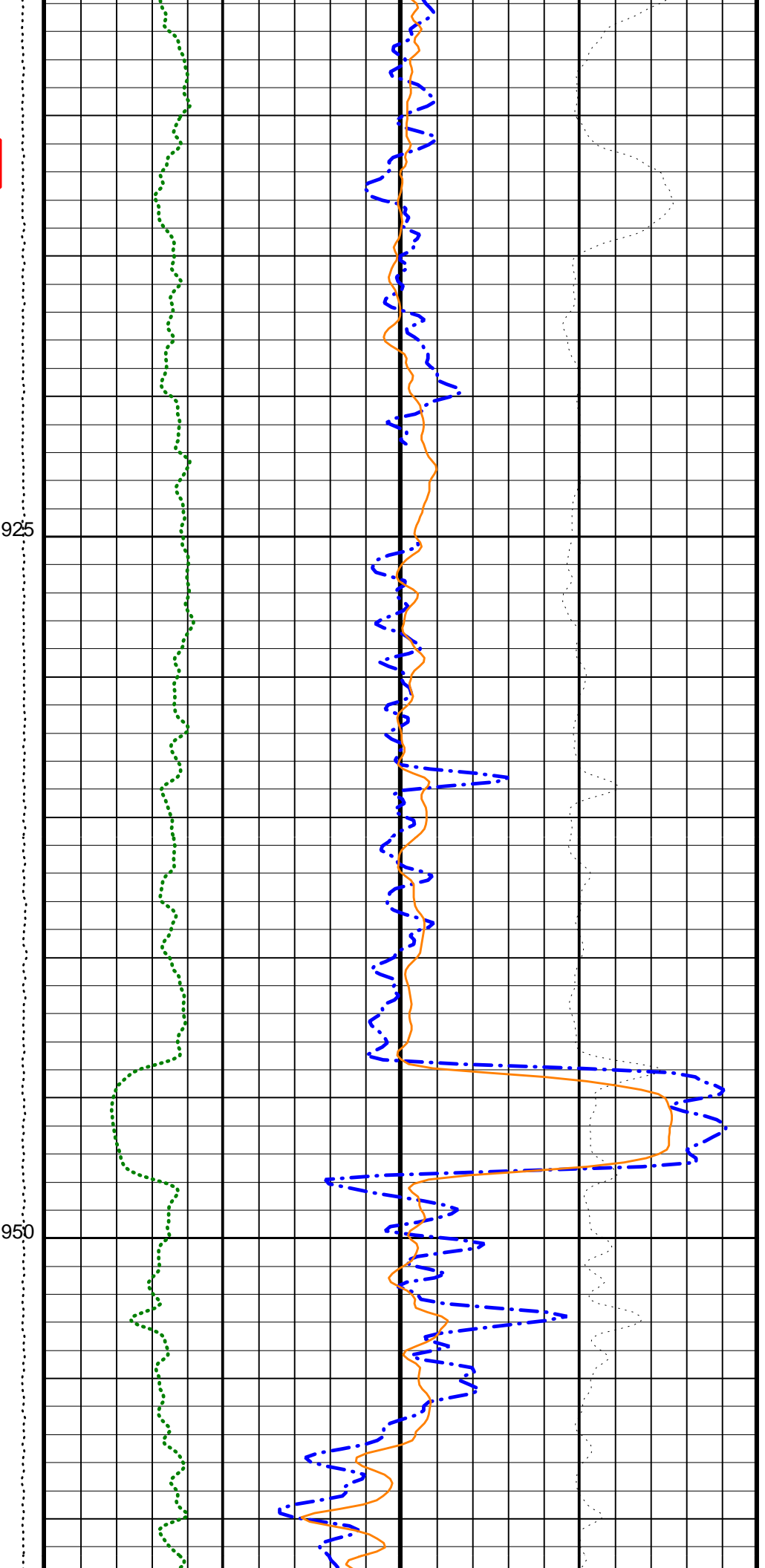
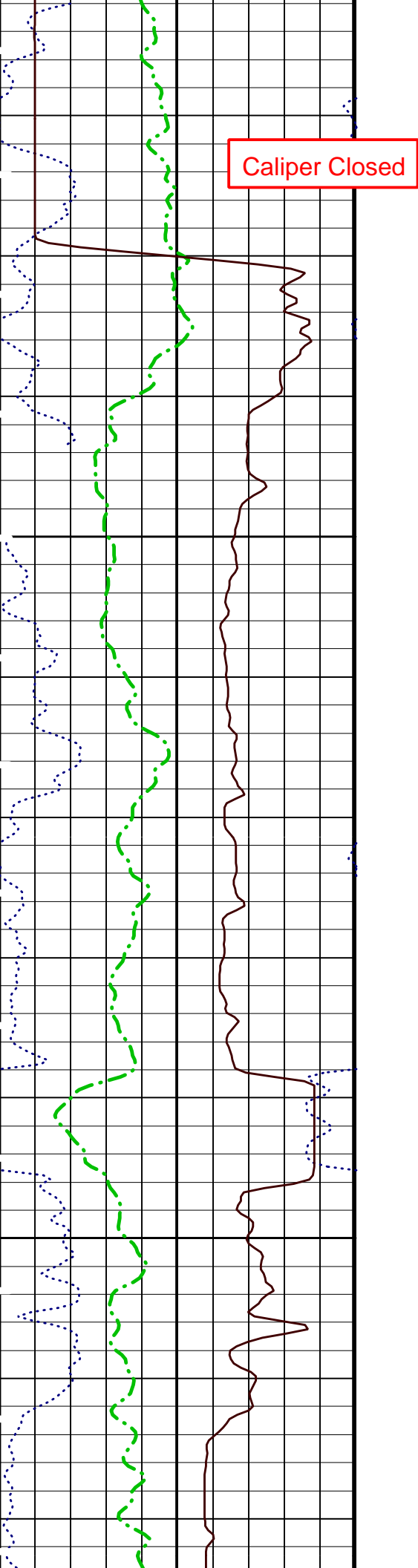
PIP SUMMARY

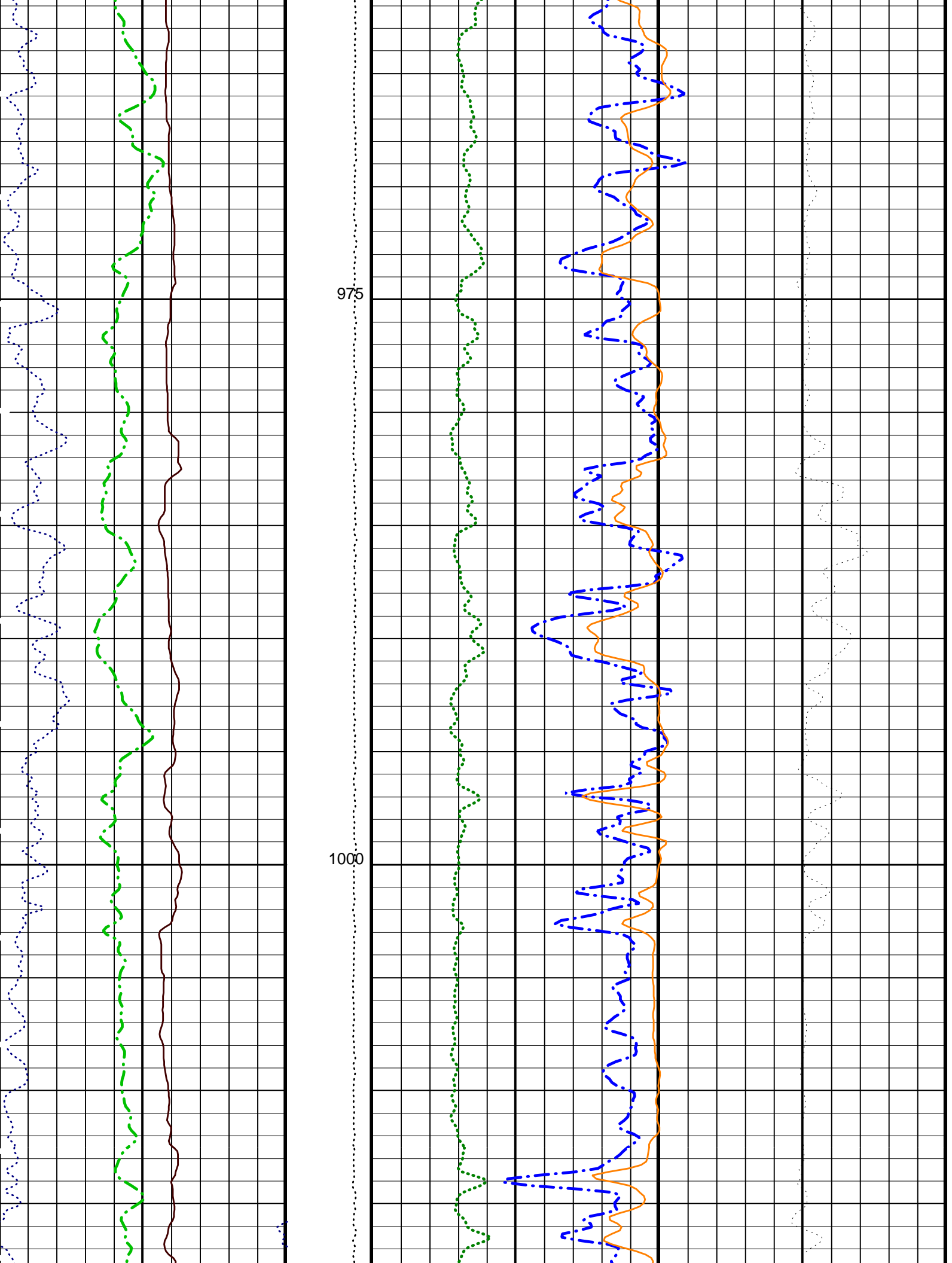
 Time Mark Every 60 S	HNGS Spectroscopy Gamma Ray (HSGR)	HLDS Long Spaced Photoelectric Effect (PEFL)	HLDS Bulk Density Correction (DRH)
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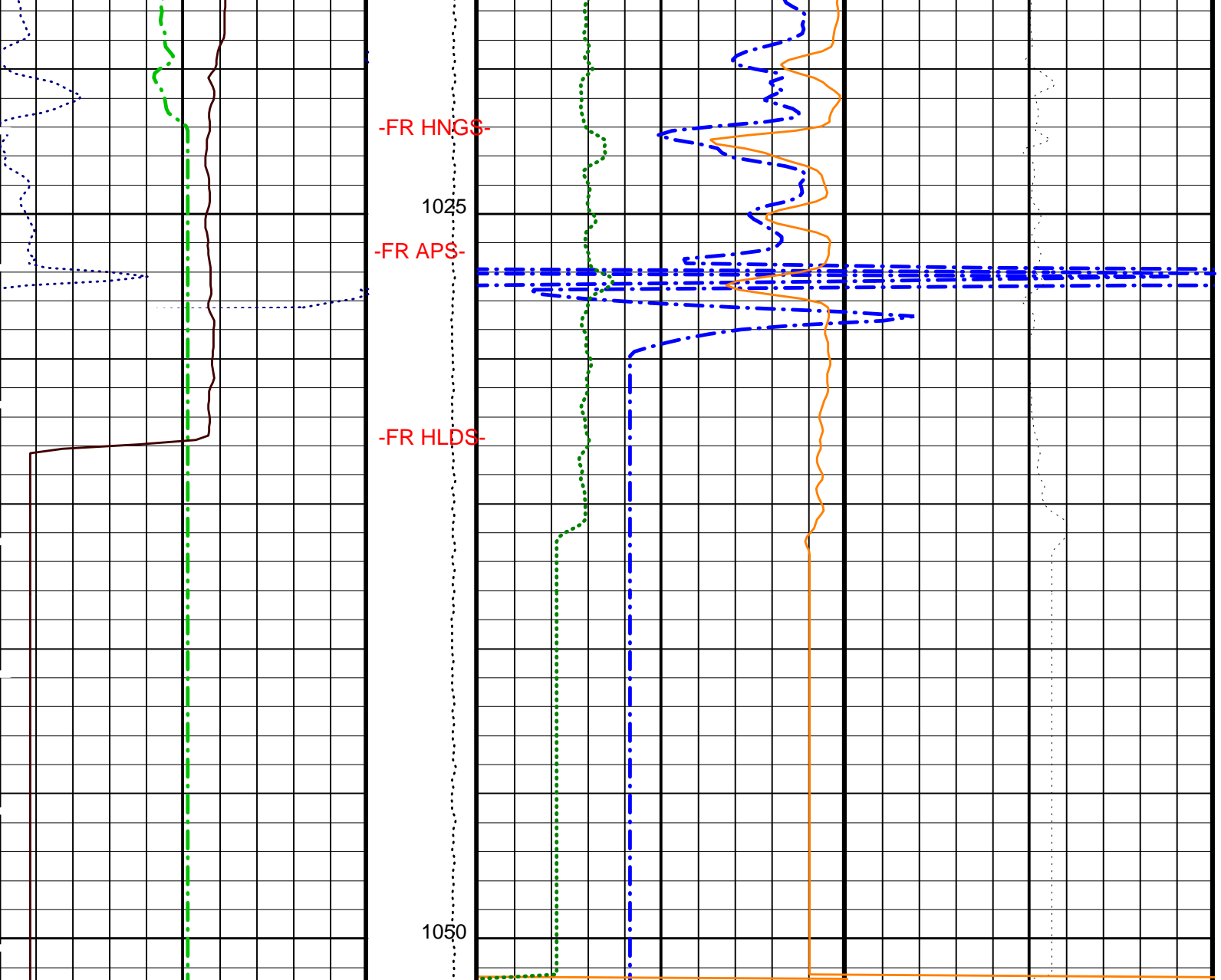












HLDS Caliper (LCAL) (IN)	0	20	Tension (TENS) (LBF)	10000	0	APS Near/Array Corrected Limestone Porosity (APLC) (PU)	0	100	
APS Effective Standoff in Limestone (STOF) (IN)	0	5	HLDS Bulk Density (RHOM) (G/C3)	3		1			
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	0	100	HLDS Long Spaced Photoelectric Effect (PEFL)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

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)	100 DEG
DGF1	Deep 10 kHz Gain Factor	1.00923
DGF2	Deep 20 kHz Gain Factor	1.02064
DGF4	Deep 40 kHz Gain Factor	1.03784
DPH1	Deep 10 kHz Phase Shift	0.0126663 DEG
DPH2	Deep 20 kHz Phase Shift	-0.243728 DEG
DPH4	Deep 40 kHz Phase Shift	-1.52668 DEG
DRF1	Deep Recal 10 kHz Sende Error Correction	48.2524 MM/M

DRE1	Deep Real 10 kHz Sonde Error Correction	48.2321	MM/M
DRE2	Deep Real 20 kHz Sonde Error Correction	16.6208	MM/M
DRE4	Deep Real 40 kHz Sonde Error Correction	4.70037	MM/M
DRIM	DIT-E Radial Invasion Mode	Rxo>Rt	
DSR1	Deep Sigma Reference (10 kHz)	7637	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DSR4	Deep Sigma Reference (40 kHz)	405	MM/M
DSTA	DIT-E Transversal Standoff	0	IN
DXE1	Deep Quad 10 kHz Sonde Error Correction	104.988	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	64.8082	MM/M
DXE4	Deep Quad 40 kHz Sonde Error Correction	46.3308	MM/M
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	
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	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MGF1	Medium 10 kHz Gain Factor	1	
MGF2	Medium 20 kHz Gain Factor	1	
MGF4	Medium 40 kHz Gain Factor	1	
MPH1	Medium 10 kHz Phase Shift	0	DEG
MPH2	Medium 20 kHz Phase Shift	0	DEG
MPH4	Medium 40 kHz Phase Shift	0	DEG
MRE1	Medium Real 10 kHz Sonde Error Correction	17.0736	MM/M
MRE2	Medium Real 20 kHz Sonde Error Correction	-2.31932	MM/M
MRE4	Medium Real 40 kHz Sonde Error Correction	-9.4448	MM/M
MSR1	Medium Sigma Reference (10 kHz)	13520	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MSR4	Medium Sigma Reference (40 kHz)	685	MM/M
MXE1	Medium Quad 10 kHz Sonde Error Correction	-95.4629	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	-31.8992	MM/M
MXE4	Medium Quad 40 kHz Sonde Error Correction	11.6212	MM/M
SBR	Shoulder Bed Resistivity Factor	1	OHMM
SFCR	SFL Channel Ratio	1000	
SFLE	SFL Enable	ENABLE	
SHT	Surface Hole Temperature	20	DEGC
SPAE	DIT-E SPARC Processing Enable	ENABLE	
SPNV	SP Next Value	0	MV
EMS-B: Environment Measurement Sonde			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
EAAB	EMS Accelerometer Coefficient:Ab	0	
EAAS	EMS Accelerometer Coefficient:As	0	
EABB	EMS Accelerometer Coefficient:Bb	0	
EABS	EMS Accelerometer Coefficient:Bs	0	
EACB	EMS Accelerometer Coefficient:Cb	0	
EACS	EMS Accelerometer Coefficient:Cs	0	
EMUD	EMS Mudcake Correction	OFF	
FCD	Future Casing (Outer) Diameter	0	IN
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	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	20	DEGC
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	16000	
PSDS	HLDS SS Pulse Shape Compensation DAC	16000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
NPLC-B: Nuclear Porosity Lithology Cartridge - B			
NOTS	NPLC Old Temperature Sensor	NO	
APS-C: Accelerator-Porosity Tool			
	APS Software Version	5	

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	0.991434	
NFRC	APS Near/Far Calibration Ratio	0.962525	
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	
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	0	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0	
System and Miscellaneous			
ALTDPCCHAN	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
MST	Mud Sample Temperature	22.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1075	M
TDD	Total Depth - Driller	1075.00	M
TDL	Total Depth - Logger	1075.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: APS_HLDS_PORO Vertical Scale: 1:200 Graphics File Created: 06-May-2005 15:05

OP System Version: 12C0-301 MCM

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

Output DLIS Files

DEFAULT PI_EMS_LDL_APS_NGS_019LUP FN:18 PRODUCER 06-May-2005 15:05



CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement							
Master: 13-Apr-2005 14:57 Before: 4-May-2005 10:16							
SS Cs Resolution Bkg	9.000	8.327	8.278	N/A	N/A	1.800	%
LS Cs Resolution Bkg	9.000	8.844	8.838	N/A	N/A	1.800	%
LSW1 Background	100.0	85.93	84.50	N/A	N/A	3.000	CPS
LSW2 Background	100.0	79.37	78.34	N/A	N/A	3.000	CPS
LSW3 Background	200.0	173.9	172.4	N/A	N/A	6.000	CPS
LSW4 Background	250.0	212.7	211.2	N/A	N/A	7.500	CPS
LSW5 Background	600.0	496.4	493.5	N/A	N/A	18.00	CPS
SSW1 Background	100.0	84.01	84.96	N/A	N/A	3.000	CPS
SSW2 Background	200.0	151.0	153.7	N/A	N/A	6.000	CPS
SSW3 Background	500.0	416.8	414.9	N/A	N/A	15.00	CPS
SSW4 Background	270.0	219.0	219.7	N/A	N/A	8.100	CPS
SSW5 Background	200.0	159.0	158.9	N/A	N/A	6.000	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement							
Master: 13-Apr-2005 15:41							
LSW1 Aluminum	600.0	631.9	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	923.0	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	1128	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	571.2	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	531.9	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	3024	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	8390	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	11660	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	4884	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	644.8	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement							
Master: 13-Apr-2005 15:35							
LSW1 Iron	400.0	430.0	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	733.6	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	986.9	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	515.9	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	489.1	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	2212	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	6952	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	10570	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	4424	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	563.2	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration							
Before: 4-May-2005 10:20							
HLDS Caliper Small Ring	8.000	N/A	10.61	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	12.00	N/A	14.67	N/A	N/A	N/A	IN
Accelerator-Porosity Tool Wellsite Calibration - Detector Background							
Master: 22-Mar-2005 20:56 Before: 4-May-2005 10:17							
Near Det Bkg Cntrate	30.00	25.38	25.71	N/A	N/A	N/A	CPS
Far Det Bkg Cntrate	30.00	25.40	26.37	N/A	N/A	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	28.70	26.09	N/A	N/A	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	25.69	27.22	N/A	N/A	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	25.67	24.20	N/A	N/A	N/A	CPS
Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios							
Master: 22-Mar-2005 20:56							

Master: 22-Mar-2005 20:56	Near/Far Calibration Ratio	0.9250	0.9625	N/A	N/A	N/A	N/A	
	Near/Array Calibration Ratio	1.030	0.9914	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	
Accelerator-Porosity Tool Wellsite Calibration - Tank Check								
Master: 22-Mar-2005 20:56								
	Array-1 Standoff Porosity	11.75	11.97	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	PU
	Average Slowing Down Time	6.000	5.825	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	
	Array-2 SDT Ratio Up/Down	1.000	1.006	N/A	N/A	N/A	N/A	
	Sigma Formation	27.50	27.53	N/A	N/A	N/A	N/A	CU
Accelerator-Porosity Tool Wellsite Calibration - CCR7 signal boxes								
Master: 22-Mar-2005 20:56								
	Near Detector Plateau Setting	1650	1741	N/A	N/A	N/A	N/A	V
	Far Detector Plateau Setting	2000	2082	N/A	N/A	N/A	N/A	V
	Array Detector Plateau Setting	2000	1973	N/A	N/A	N/A	N/A	V
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check								
Master: 4-May-2005 10:11 Before: 4-May-2005 10:17								
	Na 511 Peak Loc	40.00	40.62	40.84	N/A	N/A	1.000	
	Na 511 Peak Res	15.50	16.96	15.95	N/A	N/A	2.000	%
	High Voltage	1150	1255	1255	N/A	N/A	N/A	V
	Na 1785 Peak Loc	142.6	144.8	144.7	N/A	N/A	7.000	
	Na 1785 Peak Res	8.500	9.982	9.411	N/A	N/A	2.000	%
	Temperature	15.50	18.00	18.01	N/A	N/A	N/A	DEGC
	Na Count Rate	45.00	42.26	42.82	N/A	N/A	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check								
Master: 4-May-2005 10:11 Before: 4-May-2005 10:17								
	Na 511 Peak Loc	40.00	40.54	40.56	N/A	N/A	1.000	
	Na 511 Peak Res	15.50	16.66	16.93	N/A	N/A	2.000	%
	High Voltage	1150	1274	1275	N/A	N/A	N/A	V
	Na 1785 Peak Loc	142.6	144.2	144.8	N/A	N/A	7.000	
	Na 1785 Peak Res	8.500	9.777	9.984	N/A	N/A	2.000	%
	Temperature	15.50	17.18	17.20	N/A	N/A	N/A	DEGC
	Na Count Rate	45.00	42.45	43.34	N/A	N/A	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Ratio Of Detector 1 To Detector 2								
Master: 4-May-2005 10:11 Before: 4-May-2005 10:17								
	Coincidence Count Rate Ratio	1.000	0.9936	0.9895	N/A	N/A	0.05000	
Hostile Natural Gamma Ray Sonde Master Calibration - Detector 1 Calibration								
Master: 4-May-2005 10:06								
	Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
	Th Peak Loc	209.6	208.9	--	--	--	--	
	Th Peak Res	7.000	8.099	--	--	--	--	%
	Background Count Rate	142.5	21.35	--	--	--	--	CPS
	Gain Ratio	1.000	0.9786	--	--	--	--	
Hostile Natural Gamma Ray Sonde Master Calibration - Detector 2 Calibration								
Master: 4-May-2005 10:06								
	Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
	Th Peak Loc	209.6	207.3	--	--	--	--	
	Th Peak Res	7.000	8.237	--	--	--	--	%
	Background Count Rate	142.5	22.15	--	--	--	--	CPS
	Gain Ratio	1.000	0.9731	--	--	--	--	

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 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

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			39.56	Before		1.015	Before		8.777	
	-260.8 (Minimum)	39.24 (Nominal)	339.2 (Maximum)		0.8596 (Minimum)	1.010 (Nominal)	1.214 (Maximum)	-0.7861 (Minimum)	9.214 (Nominal)	19.21 (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			24.27	Before		1.003	Before		13.38	
	-276.2 (Minimum)	23.78 (Nominal)	323.8 (Maximum)		0.8494 (Minimum)	0.9994 (Nominal)	1.199 (Maximum)	3.832 (Minimum)	13.83 (Nominal)	23.83 (Maximum)
Phase	IM Elect Real Offset 10 kHz	MM/M	Value	Phase	IM Elect Real Gain 10 kHz	Value				
Before			98.11	Before		0.9546				
	-453.1 (Minimum)	96.90 (Nominal)	646.9 (Maximum)		0.8089 (Minimum)	0.9589 (Nominal)				1.142 (Maximum)
Phase	IM Elect Quad Offset 10 kHz	MM/M	Value	Phase	IM Elect Quad Gain 10 kHz	Value				
Before			96.48	Before		0.9518				
	-454.8 (Minimum)	95.22 (Nominal)	645.2 (Maximum)		0.8065 (Minimum)	0.9565 (Nominal)				1.139 (Maximum)

Before: 4-May-2005 10:14

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			15.30	Before		1.020	Before		7.291	
	-109.9 (Minimum)	15.07 (Nominal)	140.1 (Maximum)		0.8601 (Minimum)	1.010 (Nominal)	1.214 (Maximum)	-7.449 (Minimum)	7.551 (Nominal)	22.55 (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			9.570	Before		1.008	Before		12.09	
	-115.6 (Minimum)	9.373 (Nominal)	134.4 (Maximum)		0.8497 (Minimum)	0.9997 (Nominal)	1.200 (Maximum)	-2.658 (Minimum)	12.34 (Nominal)	27.34 (Maximum)
Phase	IM Elect Real Offset 20 kHz	MM/M	Value	Phase	IM Elect Real Gain 20 kHz	Value				
Before			40.87	Before		1.012				
	-184.8 (Minimum)	40.18 (Nominal)	265.2 (Maximum)		0.8536 (Minimum)	1.004 (Nominal)				1.205 (Maximum)
Phase	IM Elect Quad Offset 20 kHz	MM/M	Value	Phase	IM Elect Quad Gain 20 kHz	Value				
Before			40.29	Before		1.009				
	-185.4 (Minimum)	39.62 (Nominal)	264.6 (Maximum)		0.8510 (Minimum)	1.001 (Nominal)				1.201 (Maximum)

Before: 4-May-2005 10:15

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			9.904	Before		0.9918	Before		27.05	
	-75.27 (Minimum)	9.729 (Nominal)	94.73 (Maximum)		0.8369 (Minimum)	0.9869 (Nominal)	1.182 (Maximum)	7.238 (Minimum)	27.24 (Nominal)	47.24 (Maximum)
Phase	ID Elect Quad Offset 40 kHz	MM/M	Value	Phase	ID Elect Quad Gain 40 kHz	Value	Phase	IM Elect Phase 40 kHz DEG	Value	
Before			6.161	Before		0.9789	Before		31.69	
	-78.94 (Minimum)	6.062 (Nominal)	91.06 (Maximum)		0.8259 (Minimum)	0.9759 (Nominal)	1.166 (Maximum)	11.87 (Minimum)	31.87 (Nominal)	51.87 (Maximum)
Phase	IM Elect Real Offset 40 kHz	MM/M	Value	Phase	IM Elect Real Gain 40 kHz	Value				
Before			26.63	Before		1.026				
	-103.8 (Minimum)	26.23 (Nominal)	156.2 (Maximum)		0.8659 (Minimum)	1.016 (Nominal)				1.222 (Maximum)
Phase	IM Elect Quad Offset 40 kHz	MM/M	Value	Phase	IM Elect Quad Gain 40 kHz	Value				
Before			26.34	Before		1.023				
	-104.1 (Minimum)	25.93 (Nominal)	155.9 (Maximum)		0.8629 (Minimum)	1.013 (Nominal)				1.218 (Maximum)

Before: 4-May-2005 10:16

Dual Induction - E Wellsite Calibration

SFL Electronics

Phase	SFL Voltage Offset MV	Value	Phase	SFL Voltage Gain	Value
Before		1.275	Before		1.018

-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			0.007354	Before			0.9952
-0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		

Before: 4-May-2005 10:16

Dual Induction - E Master Calibration											
Test Loop Calibration: Calibration of Internal Reference to Test Loop Standard											
Phase	Deep 10 kHz Gain Factor		Value	Phase	Deep 20 kHz Gain Factor		Value	Phase	Deep 40 kHz Gain Factor		Value
Master			1.009	Master			1.021	Master			1.038
0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)		0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)		0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)	
Phase	Medium 10 kHz Gain Factor		Value	Phase	Medium 20 kHz Gain Factor		Value	Phase	Medium 40 kHz Gain Factor		Value
Master			1.000	Master			1.000	Master			1.000
0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)		0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)		0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)	
Phase	Deep 10 kHz Phase Shift		Value	Phase	Deep 20 kHz Phase Shift		Value	Phase	Deep 40 kHz Phase Shift		Value
Master			0.01267	Master			-0.2437	Master			-1.527
-1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)		-2.000 (Minimum)	0 (Nominal)	2.000 (Maximum)		-4.000 (Minimum)	-1.000 (Nominal)	2.000 (Maximum)	
Phase	Medium 10 kHz Phase Shift		Value	Phase	Medium 20 kHz Phase Shift		Value	Phase	Medium 40 kHz Phase Shift		Value
Master			0	Master			0	Master			0
-1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)		-3.000 (Minimum)	-1.000 (Nominal)	1.000 (Maximum)		-5.000 (Minimum)	-2.000 (Nominal)	1.000 (Maximum)	

Master: Calibration out of date 8-Apr-2004 10:16

Dual Induction - E Master Calibration											
Sonde Error Corrections: Correction for sonde response in zero conductivity environment. (Normalized to 25C).											
Phase	Real Deep 10 kHz S.E. Corr.		Value	Phase	Real Deep 20 kHz S.E. Corr.		Value	Phase	Real Deep 40 kHz S.E. Corr.		Value
Master			48.25	Master			16.62	Master			4.700
-50.00 (Minimum)	0 (Nominal)	125.0 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)		-15.00 (Minimum)	0 (Nominal)	15.00 (Maximum)	
Phase	Quad Deep 10 kHz S.E. Corr.		Value	Phase	Quad Deep 20 kHz S.E. Corr.		Value	Phase	Quad Deep 40 kHz S.E. Corr.		Value
Master			105.0	Master			64.81	Master			46.33
-250.0 (Minimum)	0 (Nominal)	350.0 (Maximum)		-125.0 (Minimum)	0 (Nominal)	200.0 (Maximum)		-75.00 (Minimum)	0 (Nominal)	125.0 (Maximum)	
Phase	Real Medium 10 kHz S.E. Corr.		Value	Phase	Real Medium 20 kHz S.E. Corr.		Value	Phase	Real Medium 40 kHz S.E. Corr.		Value
Master			17.07	Master			-2.319	Master			-9.445
-50.00 (Minimum)	0 (Nominal)	140.0 (Maximum)		-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)	
Phase	Quad Medium 10 kHz S.E. Corr.		Value	Phase	Quad Medium 20 kHz S.E. Corr.		Value	Phase	Quad Medium 40 kHz S.E. Corr.		Value
Master			-95.46	Master			-31.90	Master			11.62
-1300 (Minimum)	0 (Nominal)	1300 (Maximum)		-650.0 (Minimum)	0 (Nominal)	650.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)	

Master: Calibration out of date 8-Apr-2004 10:25

Hostile Litho-Density Sonde / Equipment Identification			
Primary Equipment:			
Hostile Litho Density Sonde	HLDS - D	10	
Hostile Litho Density High Voltage	HLDV - D	42	
Gamma Source Radioactive	GSR - Z	2326	
Auxiliary Equipment:			
Hostile Litho Density Pad	HLDP - C	10	
Hostile Litho Density High Voltage Housi	HEH - H	44	

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			8.327	Master			8.844	Master			85.93
Before			8.278	Before			8.838	Before			84.50

7.000 (Minimum) 9.000 (Nominal) 11.000 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.000 (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		79.37	Master		173.9	Master		212.7
Before		78.34	Before		172.4	Before		211.2
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		496.4	Master		84.01	Master		151.0
Before		493.5	Before		84.96	Before		153.7
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		416.8	Master		219.0	Master		159.0
Before		414.9	Before		219.7	Before		158.9
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: 13-Apr-2005 14:57				Before: 4-May-2005 10:16				

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		85.93	Master		79.37	Master		173.9
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		212.7	Master		496.4	Master		8.844
140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum)			330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.000 (Maximum)		
Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value	Phase	SSW3 Background CPS	Value
Master		84.01	Master		151.0	Master		416.8
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		219.0	Master		159.0	Master		8.327
150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum)			110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.000 (Maximum)		
Master: 13-Apr-2005 14:57								

Hostile Litho-Density Sonde Master Calibration								
Detector Aluminum Measurement (bkqd-subtracted)								
Phase	LSW1 Aluminum CPS	Value	Phase	LSW2 Aluminum CPS	Value	Phase	LSW3 Aluminum CPS	Value
Master		631.9	Master		923.0	Master		1128
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		571.2	Master		531.9	Master		3024
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		8390	Master		11660	Master		4884
5800 (Minimum) 8000 (Nominal) 9300 (Maximum)			8300 (Minimum) 11600 (Nominal) 13500 (Maximum)			3500 (Minimum) 5000 (Nominal) 5800 (Maximum)		
Phase	SSW5 Aluminum CPS	Value						
Master		644.8						
470.0 (Minimum) 660.0 (Nominal) 770.0 (Maximum)								
Master: 13-Apr-2005 15:41								

Hostile Litho-Density Sonde Master Calibration								
Detector Litholog Measurement (bkqd-subtracted)								
Phase	LSW1 Iron CPS	Value	Phase	LSW2 Iron CPS	Value	Phase	LSW3 Iron CPS	Value
Master		430.0	Master		733.6	Master		986.9
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		515.9	Master		489.1	Master		2212
	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		6952	Master		10570	Master		4424
	4900 (Minimum) 6800 (Nominal) 7900 (Maximum)			7800 (Minimum) 10800 (Nominal) 12600 (Maximum)			3300 (Minimum) 4600 (Nominal) 5400 (Maximum)	
Phase	SSW5 Iron CPS	Value						
Master		563.2						
	420.0 (Minimum) 580.0 (Nominal) 680.0 (Maximum)							

Master: 13-Apr-2005 15:35

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		1.023	Master		2.109	Master		0.5728
	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		0.5470	Master		0.9845	Master		0.9807
	0.4500 (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		1.006	Master		0.9882			
	0.9900 (Minimum) 0.9940 (Nominal) 1.015 (Maximum)			0.9850 (Minimum) 0.9940 (Nominal) 1.010 (Maximum)				

Master: 13-Apr-2005 15:22

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 - C 202
	APS Minitron	MNTR - F 5124
Auxiliary Equipment:	Accelerator-Porosity Housing	APH - AC 104
	APS Calibration Water Tank	SFT - 178 6250
	APS Aluminum Calibrator Sleeve	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		25.71	Before		26.37	Before		26.09
	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		25.69	Master		25.67			
Before		27.22	Before		24.20			
	1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)				

Master: 22-Mar-2005 20:56

Before: 4-May-2005 10:17

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)

Master: 22-Mar-2005 20:56

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 20:56

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			0.9625	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)

Master: 22-Mar-2005 20:56

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			11.97	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 20:56

Hostile Natural Gamma Ray Sonde / Equipment Identification			
Primary Equipment:	HNGS Sonde	HNGS - BA	77
Auxiliary Equipment:	HNGS Sonde Housing	HNSH - BA	
	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			40.62	Master			16.96	Master			1255
Before			40.84	Before			15.95	Before			1255
	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			144.8	Master			9.982	Master			18.00
Before			144.7	Before			9.411	Before			18.01
	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		42.26
Before		42.82
10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)		

Master: 4-May-2005 10:11 Before: 4-May-2005 10:17

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		40.54	Master		16.66	Master		1274
Before		40.56	Before		16.93	Before		1275
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		144.2	Master		9.777	Master		17.18
Before		144.8	Before		9.984	Before		17.20
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		42.45
Before		43.34
10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)		

Master: 4-May-2005 10:11 Before: 4-May-2005 10:17

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		0.9936
Before		0.9895
0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		

Master: 4-May-2005 10:11
Before: 4-May-2005 10:17

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		208.9	Master		8.099
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		21.35	Master		0.9786			
20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)					

Master: 4-May-2005 10:06

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		207.3	Master		8.237
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		22.15	Master		0.9731			
20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)					

Master: 4-May-2005 10:06

Company: Lamont Doherty

Schlumberger

Well: Expedition 307 Site U1317D

Field: Porcupine Basin Carbonate Mounds

Rig: Joides Resolution

Country: Ireland

Hostile Litho-Density,
Accelerator Porosity,
Gamma Ray