Schlumberger

Company: **BP EXPLORATION (ALASKA), INC.**

Well: **MT. ELBERT–01**

Field: **MILNE POINT UNIT**

Borough: **NORTH SLOPE** State: **ALASKA**

FINAL

TCOM LOG
NEUTRON / LITHODENSITY / RESISITIVITY
14–FEB–2007

Borough: NORTH SLOPE
Field: MILNE POINT UNIT
Location: 1242' FNL & 4183' FEL
Well: MT. ELBERT–01
Company: BP EXPLORATION (ALASKA), INC.

LOCATION

1242' FNL & 4183' FEL
AT SURFACE

Elev.: K.B. 54.8 ft
G.L. 21.4 ft
D.F. 54.8 ft

Permanent Datum: MEAN SEA LEVEL Elev.: 0 ft
Log Measured From: KELLY BUSHING 54.8 ft above Perm. Datum
Drilling Measured From: KELLY BUSHING

API Serial No.	Section	Township	Range
50–029–23302–00	30	13N	11E

Logging Date			14–Feb–2007								Logging Date
Run Number			ONE								Run Number
Depth Driller			3000 ft								Depth Driller
Schlumberger Depth			2996 ft								Schlumberger Depth
Bottom Log Interval			2994 ft								Bottom Log Interval
Top Log Interval			1952 ft								Top Log Interval
Casing Driller Size @ Depth			9.625 in	@	1954 ft		@				Casing Driller Size @ Depth
Casing Schlumberger			1952 ft								Casing Schlumberger
Bit Size			8.750 in								Bit Size
Type Fluid In Hole			OIL BASED MUD								Type Fluid In Hole
MUD	Density	Viscosity	9.4 lbm/gal	79 s							MUD Density Viscosity
MUD	Fluid Loss	PH									MUD Fluid Loss PH
MUD	Source Of Sample		NA								MUD Source Of Sample
RM @ Measured Temperature			@				@				RM @ Measured Temperature
RMF @ Measured Temperature			@				@				RMF @ Measured Temperature
RMC @ Measured Temperature			@				@				RMC @ Measured Temperature
Source RMF	RMC		NA	NA							Source RMF RMC
RM @ MRT	RMF @ MRT		@ 38	@ 38			@	@			RM @ MRT RMF @ MRT
Maximum Recorded Temperatures			38 degF								Maximum Recorded Temperatures
Circulation Stopped	Time		13–Feb–2007	15:30							Circulation Stopped Time
Logger On Bottom	Time		14–Feb–2007	11:30							Logger On Bottom Time
Unit Number	Location		2266	PRUDHOE BAY							Unit Number Location
Recorded By			B.PHILPOTT								Recorded By
Witnessed By			TIM COLLET								Witnessed By

Run 1	Run 2	Run 3	Run 4

DEPTH SUMMARY LISTING

Date Created: 15–FEB–2007 17:17:07

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW–JA	Type:	CMTD–B/A	Type:	7–46P–XS
Serial Number:	2656	Serial Number:	2699	Serial Number:	3001
Calibration Date:	13–JAN–2007	Calibration Date:	12–JAN–2007	Length:	14200.00 FT
Calibrator Serial Number:	18	Calibrator Serial Number:	265	Conveyance Method:	Wireline
Calibration Cable Type:	7–46P–XS	Calibration Gain:	0.92	Rig Type:	LAND
Wheel Correction 1:	–6	Calibration Offset:	539.00		
Wheel Correction 2:	–2				

Depth Control Parameters

Log Sequence: First Log In the Well

Rig Up Length At Surface:
Rig Up Length At Bottom:
Rig Up Length Correction:
Stretch Correction:
Tool Zero Check At Surface:

Depth Control Remarks

1. PRIMARY DEPTH CONTROL USED
2.
3.
4.
5.
6.

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		OTHER SERVICES2
OS1:	EPT , DSI, PPC, OBMI	OS1:
OS2:	CMR, HNGS, ECS	OS2:
OS3:	MDT	OS3:
OS4:		OS4:
OS5:		OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
RT SANNER RAN IN COMPUTE OBM STANDOFF, WITH TWO 1.5" STANDOFFS.	
RT SCANNER LOGGED IN 3_BholeCorr_BasicLogs_RadialProcessing Mode.	
TRIPLE LITHODENSITY TOOL LOGGED IN VERY HIGH RESOLUTION.	
COMPENSATED NEUTRON TOOL, ELECTROMAGNETIC PROPAGTION TOOL, ELEMENTAL CAPTURE SPECTROSCOPY SONDE, AND COMBINABLE MAGNETIC RESONANCE TOOL RAN WITH 180 DEG BOWSPRINGS FOR ECCENTRALIZATION.	
DIPOLE SONIC TOOL LOGGED IN ANISOTROPY, P & S , UPPER DIPOLE AND LOWER DIPOLE MODES. RAN WITH 2 POWERED POSITIONING CALIPERS FOR CENTRALIZATION	
COMBINABLE MAGNETIC RESONANCE TOOL LOGGING MODE: OIL BASED MUD DEPTH LOG– B MODE ECHO SPACING: 200 US, NUMBER OF ECHOES: 600, T2 CUTOFF: 33 MSEC	
MODULAR DYNAMIC TESTER RAN WITH TWO PACKERS, SIX 450 CC'S SAMPLE CHAMBERS, ONE GL SAMPLE CHAMBER AND ONE 1 GL CHAMBER WITH TANNER GAS TO PREVENT FLOW LINE FREEZING.	
MDT SAMPLES WERE TAKEN AT 2012', 2025', 2036', 2047', 2151' AND 2061'. UNABLE TO RETRIEVE SAMPLES AT 2032', AND 2039' DUE TO LOST SEALS.	
MDT TOTAL PUMPED OUT TIME: 865 MINS.	
AFE# GS 2420H33	
RIG: DOYON 14	
CREW: J.CAPEN, D.COLE, D.WEATHERS, T.RAUBINGER	

RUN 1			RUN 2		
SERVICE ORDER #:		11638614	SERVICE ORDER #:		
PROGRAM VERSION:		14C0–302	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

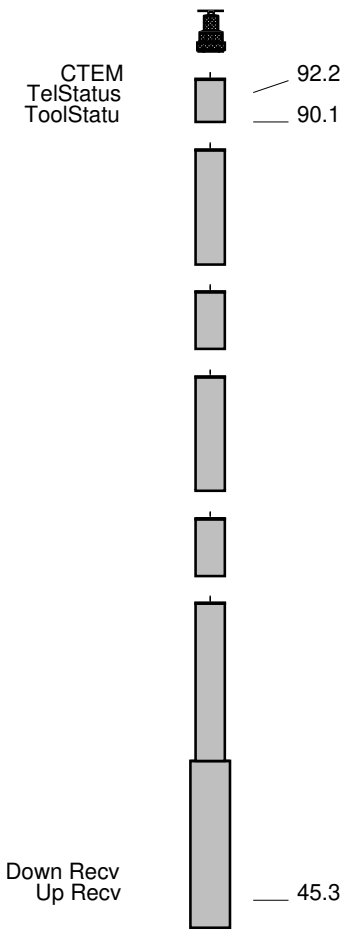
RUN 1 | RUN 2

SURFACE EQUIPMENT

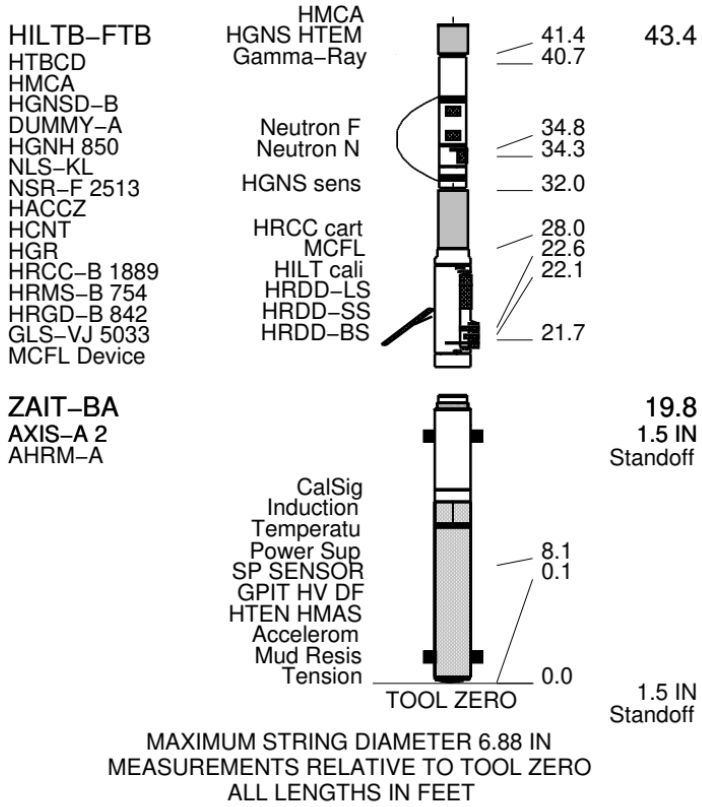
GSR–U/Y
NCT–B
CNB–AB
NCS–VB

WITM (DTS)–A

DOWNHOLE EQUIPMENT



LEH–QT LEH–QT	96.0
DTC–H ECH–KC	93.1
AH–SFT AH–SFT	90.1
GPIT–C GPIC–C 872 GPIH–B	82.1
AH–SFT AH–SFT	78.1
DTA–A ECH–KE DTA–A 8079	70.1
EPT–G EPC–DA 14 ECH–KU EPS–EA 13	66.1



	(in) OD	(in) ID	(ft) MD	MT ELBERT			(ft) MD	(in) OD	(in) ID	
							0.0	9.625		Casing String

1954.0	9.625	Casing Shoe
1954.0	8.750	Borehole Segment

Schlumberger

TCOM – MAIN PASS

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_022LUP	FN:27	PRODUCER	14–Feb–2007 10:04	2994.0 FT	1859.0 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_030PUP	FN:43	PRODUCER	14–Feb–2007 13:08	2994.0 FT	1872.5 FT
MTE	AIT_TLD_MCFL_CNL_030PUP	FN:44	PRODUCER	14–Feb–2007 13:08	2994.0 FT	1872.5 FT

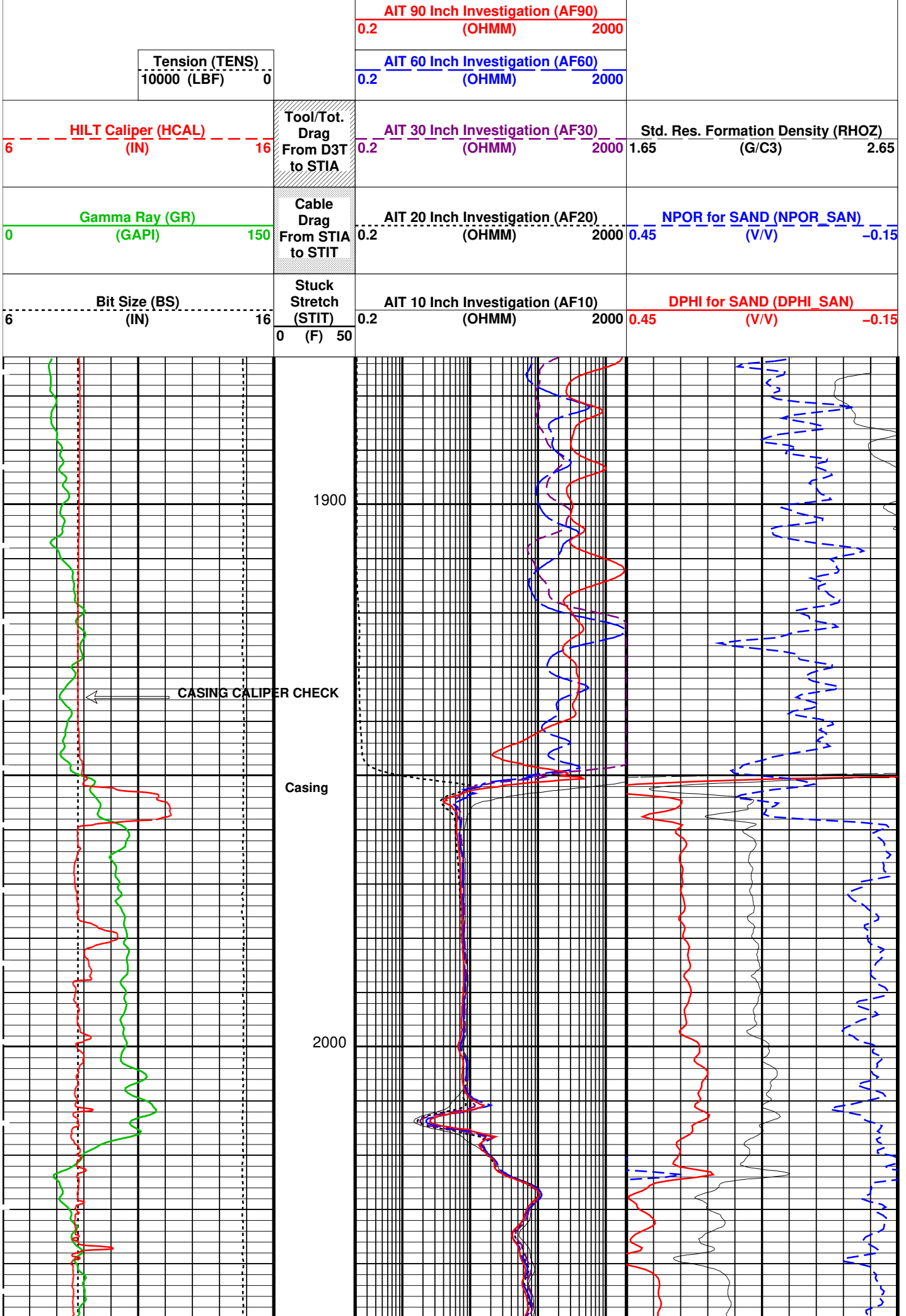
OP System Version: 14C0–302

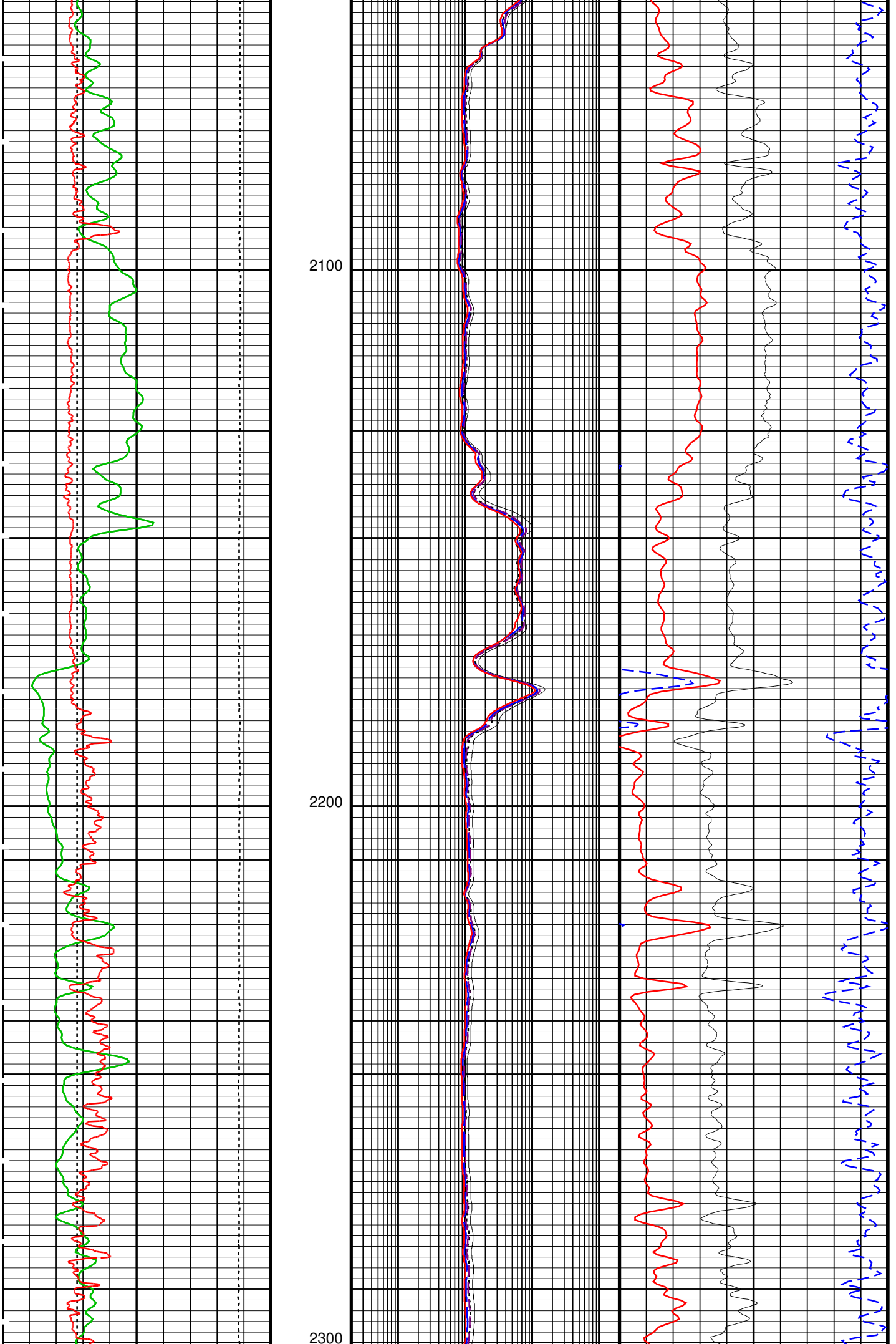
MCM

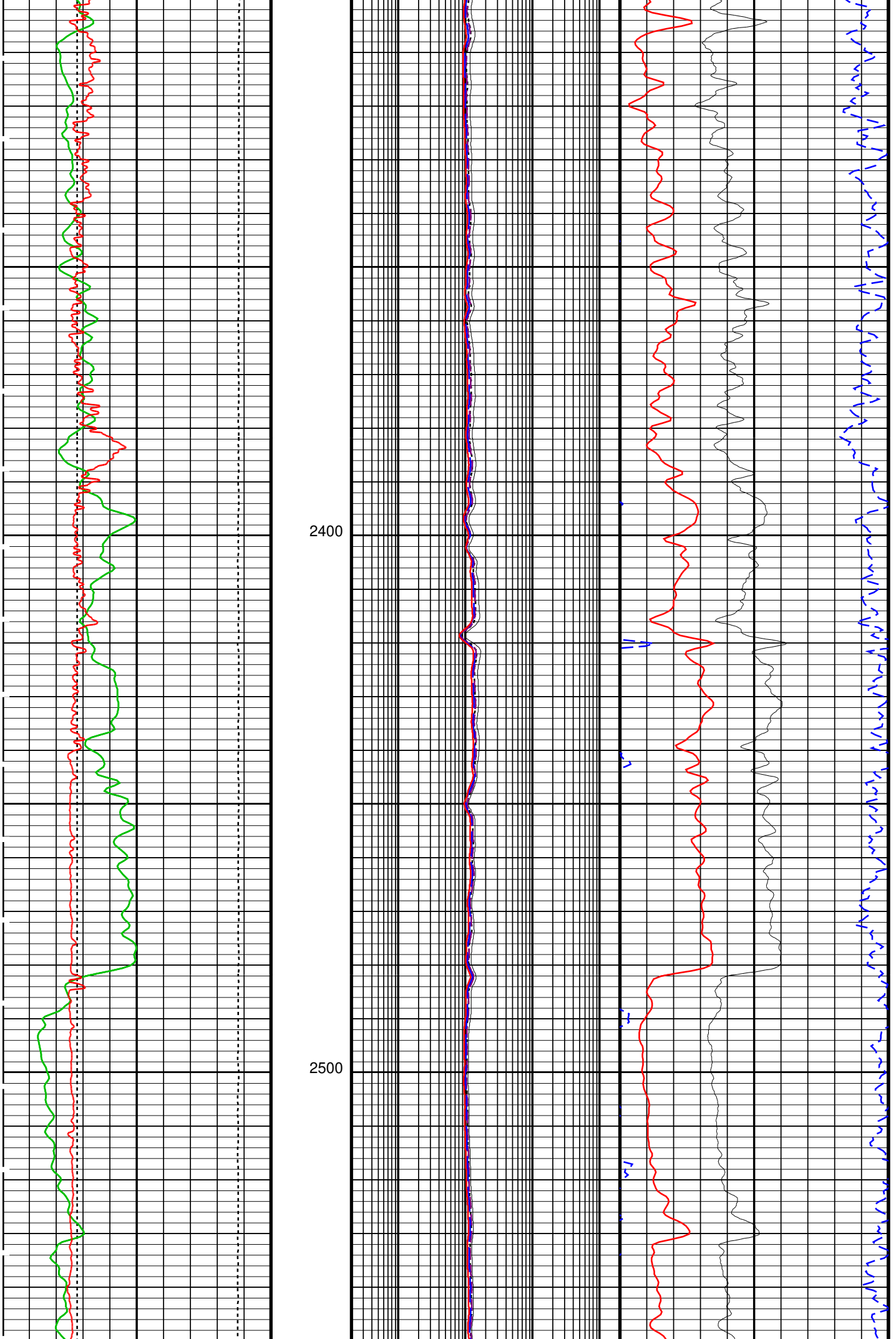
ZAIT–BA	SPC–3254–ZAIT–B	HILTB–FTB	SPC–3254–ZAIT–B
EPT–G	SRPC–3243–Q4_2006	DTA–A	SKK–3248–EDTCB
GPIT–C	SRPC–3243–Q4_2006	DTC–H	SRPC–3243–Q4_2006

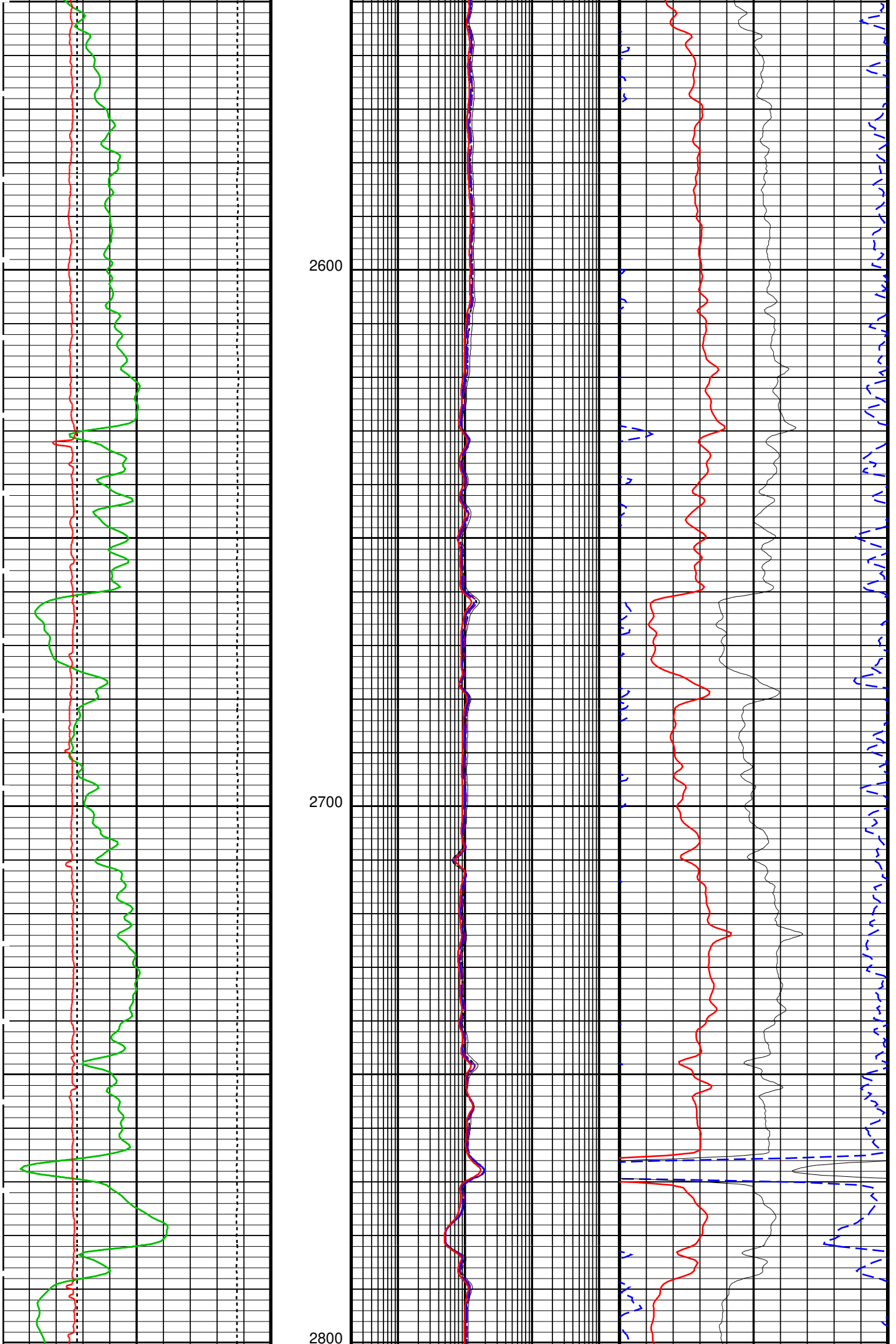
PIP SUMMARY

Time Mark Every 60 S


AIT 90 Inch Investigation (AF90)
0.2 (OHMM) 2000
Tension (TENS)
10000 (LBF) 0
AIT 60 Inch Investigation (AF60)
0.2 (OHMM) 2000
HILT Caliper (HCAL)
6 (IN) 16
Tool/Tot. Drag From D3T to STIA
AIT 30 Inch Investigation (AF30)
0.2 (OHMM) 2000
Std. Res. Formation Density (RHOZ)
1.65 (G/C3) 2.65
Gamma Ray (GR)
0 (GAPI) 150
Cable Drag From STIA to STIT
AIT 20 Inch Investigation (AF20)
0.2 (OHMM) 2000
NPOR for SAND (NPOR_SAN)
0.45 (V/V) -0.15
Bit Size (BS)
6 (IN) 16
Stuck Stretch (STIT)
0 (F) 50
AIT 10 Inch Investigation (AF10)
0.2 (OHMM) 2000
DPHI for SAND (DPHI_SAN)
0.45 (V/V) -0.15
1900
CASING CALIPER CHECK
Casing
2000


2100
2200
2300


2400
2500


2600
2700
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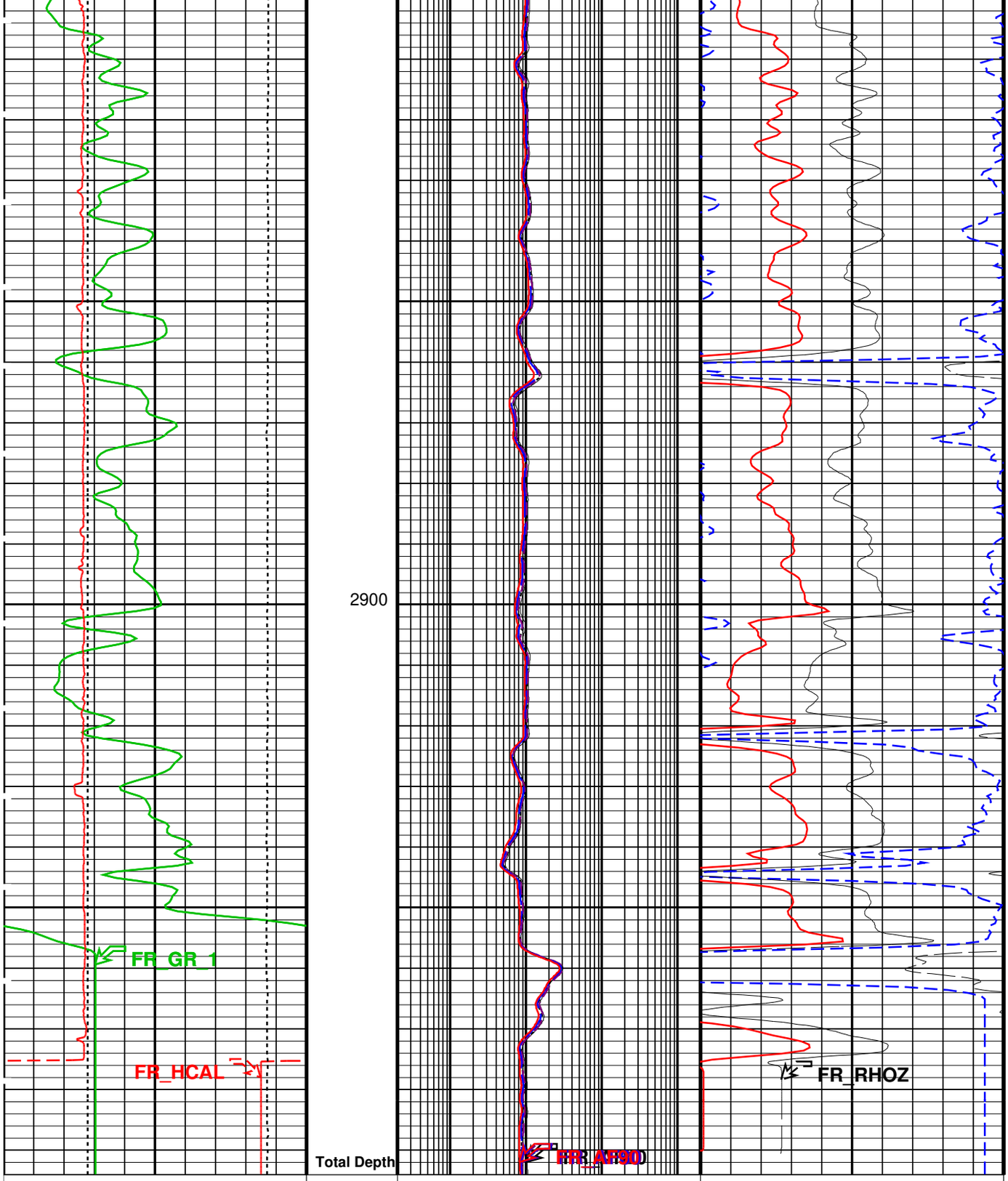


Bit Size (BS) 6 (IN) 16	Stuck Stretch (STIT) 0 (F) 50	AIT 10 Inch Investigation (AF10) 0.2 (OHMM) 2000	DPHI for SAND (DPHI_SAN) 0.45 (V/V) −0.15
Gamma Ray (GR) 0 (GAPI) 150	Cable Drag From STIA to STIT	AIT 20 Inch Investigation (AF20) 0.2 (OHMM) 2000	NPOR for SAND (NPOR_SAN) 0.45 (V/V) −0.15
HILT Caliper (HCAL) 6 (IN) 16	Tool/Tot. Drag From D3T to STIA	AIT 30 Inch Investigation (AF30) 0.2 (OHMM) 2000	Std. Res. Formation Density (RHOZ) 1.65 (G/C3) 2.65
Tension (TENS) 10000 (LBF) 0		AIT 60 Inch Investigation (AF60) 0.2 (OHMM) 2000	
		AIT 90 Inch Investigation (AF90) 0.2 (OHMM) 2000	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	ZAIT–BA: 3–D Array Induction Tool – ZAIT–B		
ABLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
ABLV	Array Induction Basic Logs Code Version Number	212	
ACDE	Array Induction Casing Detection Enable	No	
ACSED	Array Induction Casing Shoe Estimated Depth	–50000	FT
AFRSV	Array Induction Response Set Version for Four ft Resolution	40.70.24.20	
AORSV	Array Induction Response Set Version for One ft Resolution	40.70.24.20	
ARFV	Array Induction Radial Profiling Code Version Number	701	
ARPV	Array Induction Radial Parametrization Code Version Number	232	
ATRSV	Array Induction Response Set Version for Two ft Resolution	40.70.24.20	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	68	DEGF
TRIBHM	3D Induction Borehole Correction Mode	7_ComputeOBMStandoff	
TRIBHV	Array Induction Borehole Correction Code Version Number	167	
TRIRSV	3D Induction Response Set Version	00.10.24.00	
TRIRT	3D Rotation Selector	NorTH	
TRISTA	3D Tool Standoff	1.5	IN
	HILTB–FTB: High resolution Integrated Logging Tool–DTS		
BHFL	Borehole Fluid Type	OIL	
BHFL_TLD	HILT Nuclear Mud Base	OIL	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FSAL	Formation Salinity	–50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal–like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	VeryHiRes	
NSAR	HRDD Depth Sampling Rate	0.5	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
	EPT–G: Electromagnetic Propagation – G		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	68	DEGF
	STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	3000.00	FT
TDL	Total Depth – Logger	3000.00	FT
	DIR: Directional Survey Computation		
SPVD	TVD of Starting Point	0	FT
TIMD	Along–hole depth of Tie–in Point	0	FT
TIVD	TVD of Tie–in Point	0	FT
	System and Miscellaneous		
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	–50000.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	40.00	LB/F
DFD	Drilling Fluid Density	9.40	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
MST	Mud Sample Temperature	–50000.00	DEGF
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	–50000.0000	OHMM
TD	Total Depth	3000	FT

Format: TCOM_S5 Vertical Scale: 5" per 100' Graphics File Created: 14–Feb–2007 13:09

OP System Version: 14C0–302

MCM

ZAIT–BA	SPC–3254–ZAIT–B	HILTB–FTB	SPC–3254–ZAIT–B
EPT–G	SRPC–3243–Q4_2006	DTA–A	SKK–3248–EDTCB
GPIT–C	SRPC–3243–Q4_2006	DTC–H	SRPC–3243–Q4_2006

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_022LUP	FN:27	PRODUCER	14–Feb–2007 10:04	2994.0 FT	1859.0 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_030PUP	FN:43	PRODUCER	14–Feb–2007 13:08
MTE	AIT_TLD_MCFL_CNL_030PUP	FN:44	PRODUCER	14–Feb–2007 13:08

Schlumberger

TCOM – REPEAT SECTION

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_023LUP	FN:29	PRODUCER	14–Feb–2007 11:31	2664.0 FT	1864.0 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_029PUP	FN:41	PRODUCER	14–Feb–2007 13:06	2662.0 FT	1878.5 FT
MTE	AIT_TLD_MCFL_CNL_029PUP	FN:42	PRODUCER	14–Feb–2007 13:06	2662.0 FT	1878.5 FT

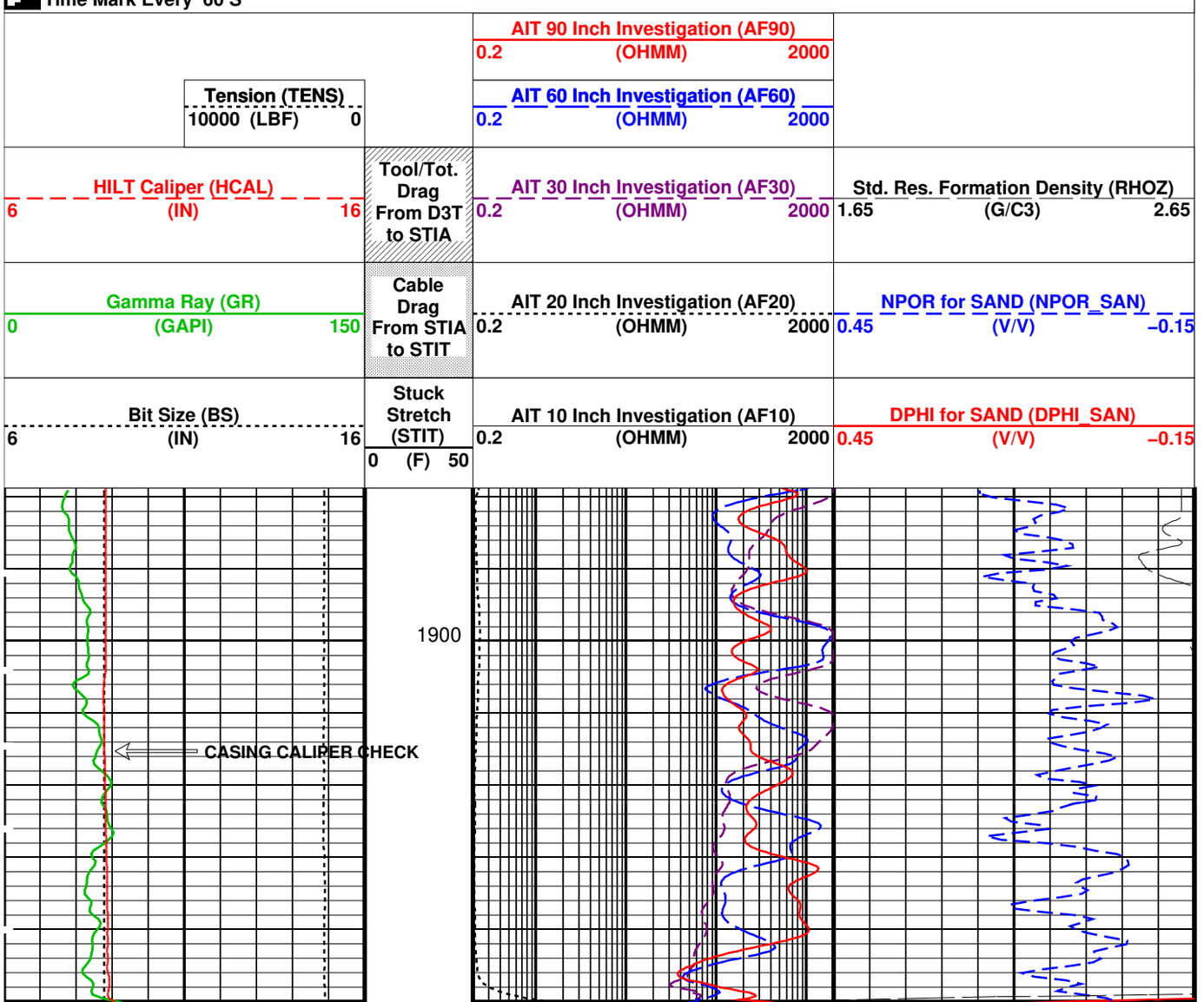
OP System Version: 14C0–302

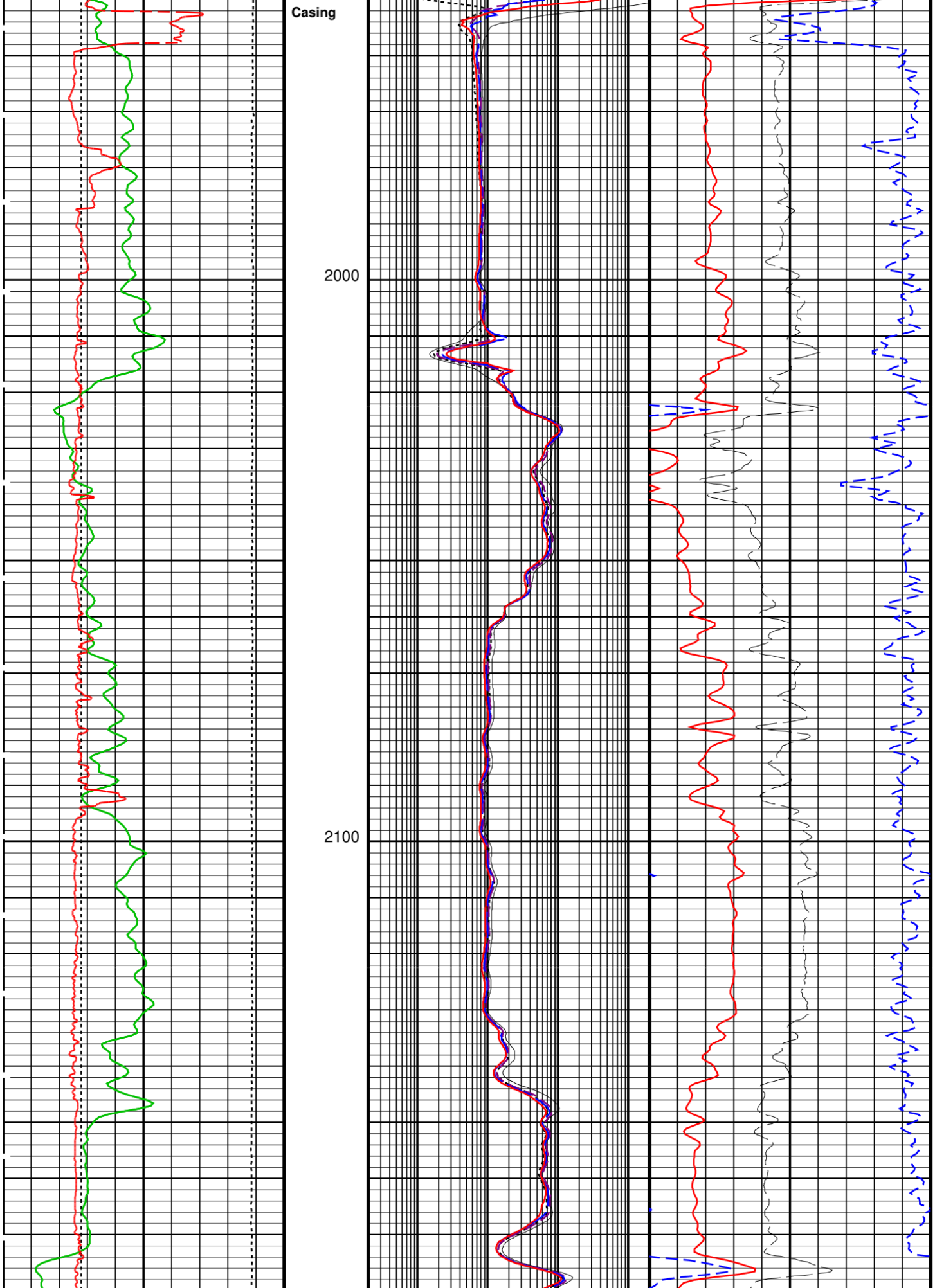
MCM

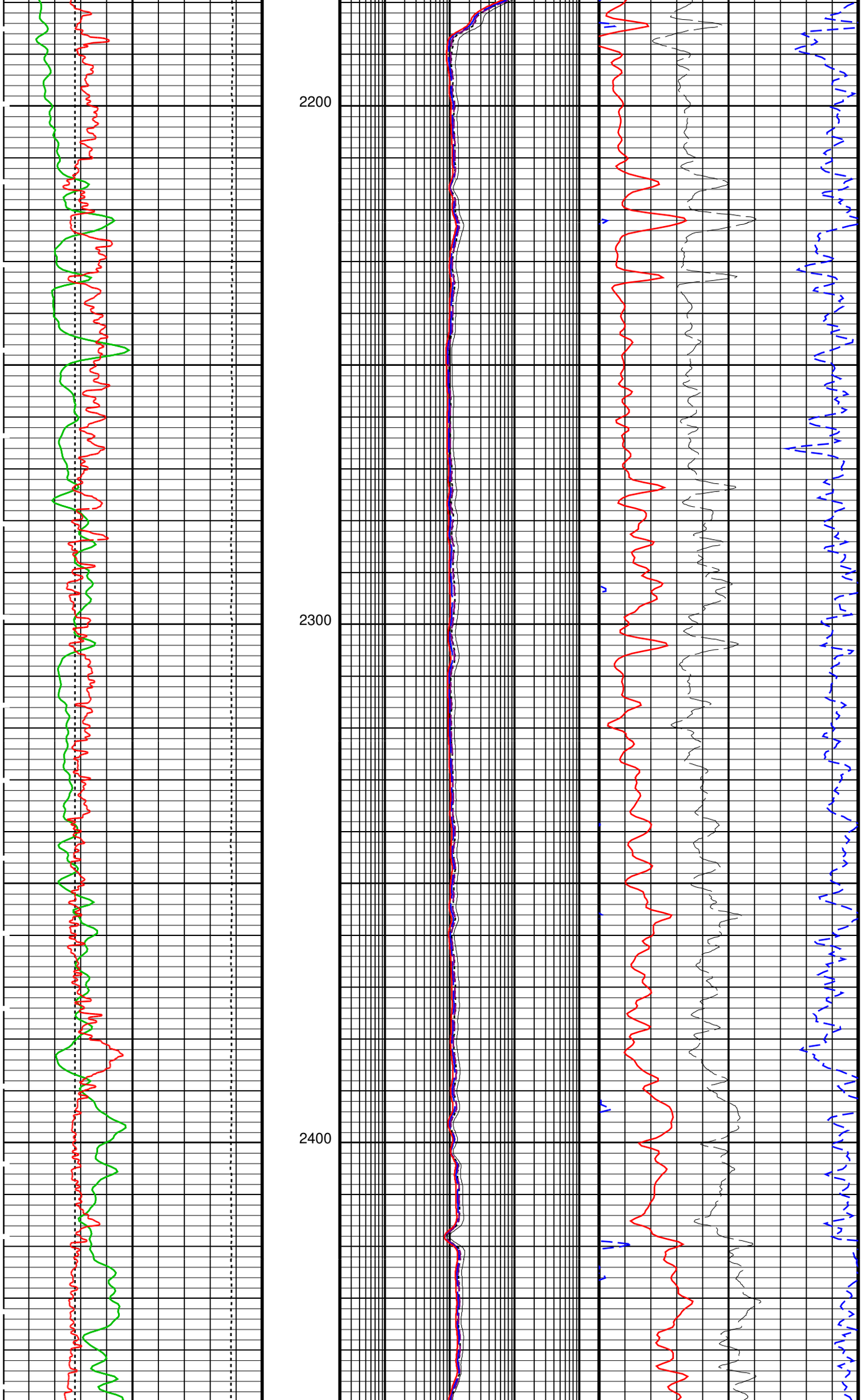
ZAIT–BA	SPC–3254–ZAIT–B	HILTB–FTB	SPC–3254–ZAIT–B
EPT–G	SRPC–3243–Q4_2006	DTA–A	SKK–3248–EDTCB
GPIT–C	SRPC–3243–Q4_2006	DTC–H	SRPC–3243–Q4_2006

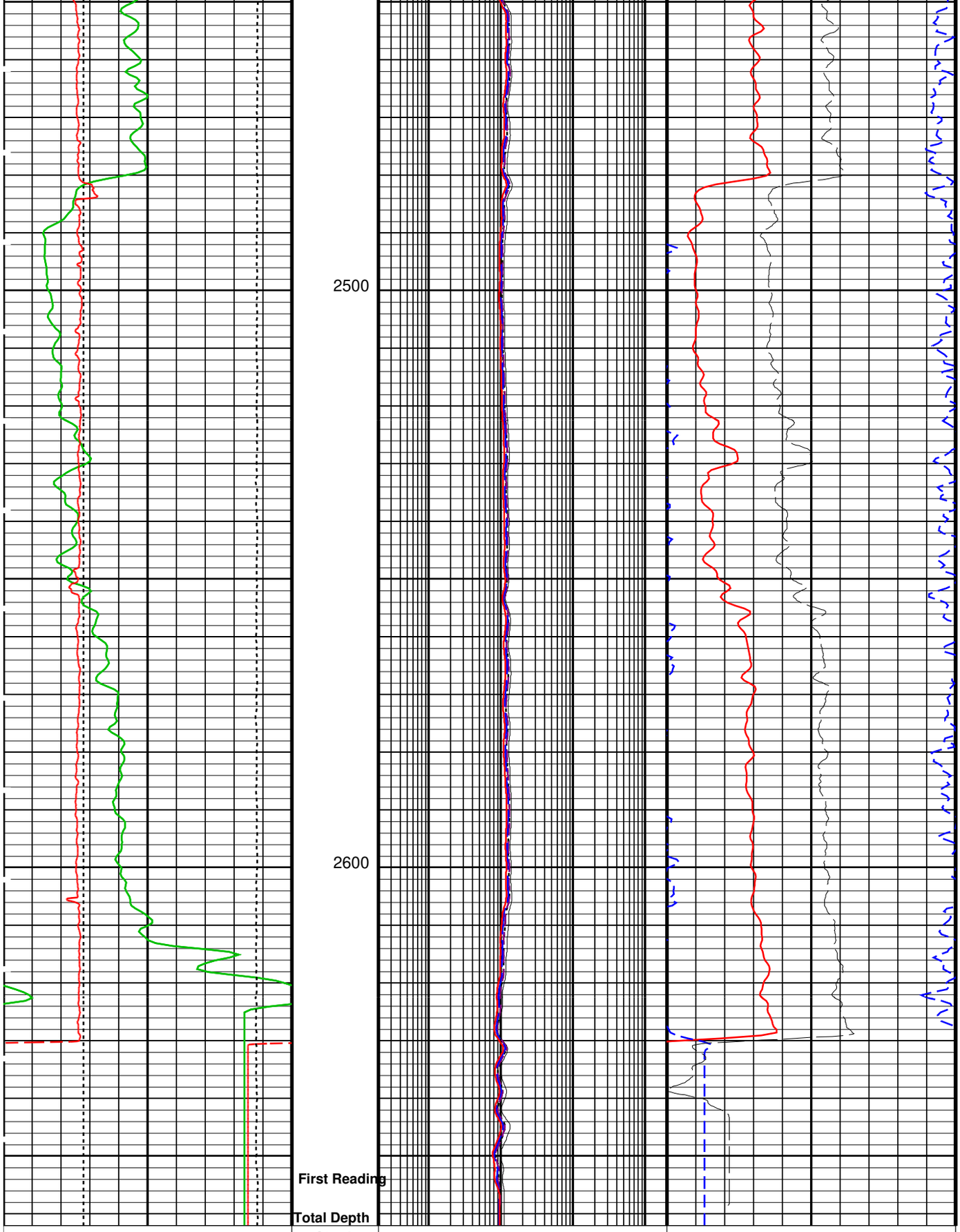
PIP SUMMARY

Time Mark Every 60 S




Casing
2000
2100


2200
2300
2400



Bit Size (BS) 6 (IN) 16	Stuck Stretch (STIT) 0 (F) 50	AIT 10 Inch Investigation (AF10) 0.2 (OHMM) 2000	DPHI for SAND (DPHI_SAN) 0.45 (V/V) −0.15
Gamma Ray (GR) 0 (GAPI) 150	Cable Drag From STIA to STIT	AIT 20 Inch Investigation (AF20) 0.2 (OHMM) 2000	NPOR for SAND (NPOR_SAN) 0.45 (V/V) −0.15
HILT Caliper (HCAL) 6 (IN) 16	Tool/Tot. Drag From D3T to STIA	AIT 30 Inch Investigation (AF30) 0.2 (OHMM) 2000	Std. Res. Formation Density (RHOZ) 1.65 (G/C3) 2.65
Tension (TENS) 10000 (LBF) 0		AIT 60 Inch Investigation (AF60) 0.2 (OHMM) 2000	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	ZAIT–BA: 3–D Array Induction Tool – ZAIT–B		
ABLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
ABLV	Array Induction Basic Logs Code Version Number	212	
ACDE	Array Induction Casing Detection Enable	No	
ACSED	Array Induction Casing Shoe Estimated Depth	–50000	FT
AFRSV	Array Induction Response Set Version for Four ft Resolution	40.70.24.20	
AORSV	Array Induction Response Set Version for One ft Resolution	40.70.24.20	
ARFV	Array Induction Radial Profiling Code Version Number	701	
ARPV	Array Induction Radial Parametrization Code Version Number	232	
ATRSV	Array Induction Response Set Version for Two ft Resolution	40.70.24.20	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	68	DEGF
TRIBHM	3D Induction Borehole Correction Mode	7_ComputeOBMStandoff	
TRIBHV	Array Induction Borehole Correction Code Version Number	167	
TRIRSV	3D Induction Response Set Version	00.10.24.00	
TRIRT	3D Rotation Selector	NorTH	
TRISTA	3D Tool Standoff	1.5	IN
	HILTB–FTB: High resolution Integrated Logging Tool–DTS		
BHFL	Borehole Fluid Type	OIL	
BHFL_TLD	HILT Nuclear Mud Base	OIL	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FSAL	Formation Salinity	–50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal–like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	VeryHiRes	
NSAR	HRDD Depth Sampling Rate	0.5	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
	EPT–G: Electromagnetic Propagation – G		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	68	DEGF
	STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	3000.00	FT
TDL	Total Depth – Logger	3000.00	FT
	DIR: Directional Survey Computation		
SPVD	TVD of Starting Point	0	FT
TIMD	Along–hole depth of Tie–in Point	0	FT
TIVD	TVD of Tie–in Point	0	FT
	System and Miscellaneous		
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	–50000.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	40.00	LB/F
DFD	Drilling Fluid Density	9.40	LB/G
DO	Depth Offset for Playback	–2.0	FT
MST	Mud Sample Temperature	–50000.00	DEGF
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	–50000.0000	OHMM
TD	Total Depth	3000	FT

Format: TCOM_S5 Vertical Scale: 5" per 100' Graphics File Created: 14–Feb–2007 13:06

OP System Version: 14C0–302

MCM

ZAIT–BA	SPC–3254–ZAIT–B	HILTB–FTB	SPC–3254–ZAIT–B
EPT–G	SRPC–3243–Q4_2006	DTA–A	SKK–3248–EDTCB
GPIT–C	SRPC–3243–Q4_2006	DTC–H	SRPC–3243–Q4_2006

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_023LUP	FN:29	PRODUCER	14–Feb–2007 11:31	2664.0 FT	1864.0 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_029PUP	FN:41	PRODUCER	14–Feb–2007 13:06
MTE	AIT_TLD_MCFL_CNL_029PUP	FN:42	PRODUCER	14–Feb–2007 13:06

Schlumberger

CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
3–D Array Induction Tool – ZAIT–B Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase							
Master: 29–Jan–2007 15:32 Before: 14–Feb–2007 7:52							
Thru Cal Magnitude – 0	0	1.345	1.353	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 1	0	1.336	1.360	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 2	0	1.387	1.441	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 3	0	3.071	3.094	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 4	0	3.051	3.109	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 5	0	3.167	3.295	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 6	0	2.477	2.496	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 7	0	2.461	2.508	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 8	0	2.559	2.663	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 9	0	1.623	1.651	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 10	0	1.634	1.684	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 11	0	1.796	1.880	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 12	0	3.239	3.260	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 13	0	3.221	3.279	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 14	0	3.346	3.477	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 15	0	2.606	2.652	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 16	0	2.624	2.704	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 17	0	2.884	3.019	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 18	0	0.8449	0.8511	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 19	0	0.8402	0.8561	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 20	0	0.8631	0.8988	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 21	0	3.452	3.513	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 22	0	3.476	3.582	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 23	0	3.821	4.000	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 24	0	1.224	1.234	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 25	0	1.217	1.241	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 26	0	1.250	1.303	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 27	0	3.452	3.513	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 28	0	3.476	3.582	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 29	0	3.821	3.999	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 30	0	1.223	1.233	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 31	0	1.216	1.241	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 32	0	1.250	1.302	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 33	0	0.9808	0.9991	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 34	0	0.9876	1.018	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 35	0	1.071	1.123	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 36	0	1.447	1.459	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 37	0	1.439	1.468	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 38	0	1.474	1.538	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 39	0	1.178	1.200	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 40	0	1.186	1.223	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 41	0	1.286	1.348	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 42	0	2.090	2.109	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 43	0	2.079	2.121	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 44	0	2.129	2.221	N/A	N/A	N/A	MM/M
Thru Cal Phase – 0	0	–174.6	–167.5	N/A	N/A	N/A	DEG

Thru Cal Phase – 1	0	–170.2	–162.6	N/A	N/A	N/A	DEG
Thru Cal Phase – 2	0	–177.4	–160.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 3	0	–176.6	–169.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 4	0	–172.3	–164.8	N/A	N/A	N/A	DEG
Thru Cal Phase – 5	0	–179.4	–163.0	N/A	N/A	N/A	DEG
Thru Cal Phase – 6	0	177.8	–175.0	N/A	N/A	N/A	DEG
Thru Cal Phase – 7	0	–177.9	–170.2	N/A	N/A	N/A	DEG
Thru Cal Phase – 8	0	175.0	–168.3	N/A	N/A	N/A	DEG
Thru Cal Phase – 9	0	–72.00	–67.24	N/A	N/A	N/A	DEG
Thru Cal Phase – 10	0	–60.73	–55.93	N/A	N/A	N/A	DEG
Thru Cal Phase – 11	0	–72.15	–60.62	N/A	N/A	N/A	DEG
Thru Cal Phase – 12	0	–174.8	–167.6	N/A	N/A	N/A	DEG
Thru Cal Phase – 13	0	–170.5	–162.9	N/A	N/A	N/A	DEG
Thru Cal Phase – 14	0	–177.6	–161.0	N/A	N/A	N/A	DEG
Thru Cal Phase – 15	0	–72.38	–67.60	N/A	N/A	N/A	DEG
Thru Cal Phase – 16	0	–61.11	–56.30	N/A	N/A	N/A	DEG
Thru Cal Phase – 17	0	–72.56	–61.03	N/A	N/A	N/A	DEG
Thru Cal Phase – 18	0	–174.3	–167.1	N/A	N/A	N/A	DEG
Thru Cal Phase – 19	0	–170.0	–162.4	N/A	N/A	N/A	DEG
Thru Cal Phase – 20	0	–177.4	–160.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 21	0	–72.91	–68.14	N/A	N/A	N/A	DEG
Thru Cal Phase – 22	0	–61.64	–56.85	N/A	N/A	N/A	DEG
Thru Cal Phase – 23	0	–73.08	–61.54	N/A	N/A	N/A	DEG
Thru Cal Phase – 24	0	–177.2	–170.2	N/A	N/A	N/A	DEG
Thru Cal Phase – 25	0	–172.9	–165.4	N/A	N/A	N/A	DEG
Thru Cal Phase – 26	0	179.7	–163.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 27	0	–72.91	–68.13	N/A	N/A	N/A	DEG
Thru Cal Phase – 28	0	–61.64	–56.84	N/A	N/A	N/A	DEG
Thru Cal Phase – 29	0	–73.11	–61.57	N/A	N/A	N/A	DEG
Thru Cal Phase – 30	0	–177.2	–170.2	N/A	N/A	N/A	DEG
Thru Cal Phase – 31	0	–172.9	–165.4	N/A	N/A	N/A	DEG
Thru Cal Phase – 32	0	179.7	–163.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 33	0	–76.79	–71.95	N/A	N/A	N/A	DEG
Thru Cal Phase – 34	0	–65.38	–60.53	N/A	N/A	N/A	DEG
Thru Cal Phase – 35	0	–77.45	–65.80	N/A	N/A	N/A	DEG
Thru Cal Phase – 36	0	176.7	–176.1	N/A	N/A	N/A	DEG
Thru Cal Phase – 37	0	–179.0	–171.3	N/A	N/A	N/A	DEG
Thru Cal Phase – 38	0	173.6	–169.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 39	0	–76.61	–71.77	N/A	N/A	N/A	DEG
Thru Cal Phase – 40	0	–65.22	–60.37	N/A	N/A	N/A	DEG
Thru Cal Phase – 41	0	–77.31	–65.65	N/A	N/A	N/A	DEG
Thru Cal Phase – 42	0	177.4	–175.4	N/A	N/A	N/A	DEG
Thru Cal Phase – 43	0	–178.3	–170.6	N/A	N/A	N/A	DEG
Thru Cal Phase – 44	0	174.2	–169.0	N/A	N/A	N/A	DEG

3–D Array Induction Tool – ZAIT–B Wellsite Calibration – Electronics Calibration Check – Auxilliary
Master: 29–Jan–2007 15:32 Before: 14–Feb–2007 7:52

Array Induction SPA Plus	0.8360	0.8436	0.8438	N/A	N/A	N/A	V
Array Induction SPA Zero	0	–0.0007702	–0.0008165	N/A	N/A	N/A	V
Array Induction Temperature Pl	0.9798	0.9906	0.9911	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	–0.001124	–0.001144	N/A	N/A	N/A	V
Array Induction CalSig Plus	5.000	5.015	5.016	N/A	N/A	N/A	V
Array Induction CalSig Zero	0	–0.01105	–0.01124	N/A	N/A	N/A	V
Array Induction Volt Plus	5.000	5.014	5.016	N/A	N/A	N/A	V
Array Induction Volt Zero	0	–0.01105	–0.01124	N/A	N/A	N/A	V

3–D Array Induction Tool – ZAIT–B Wellsite Calibration – Sonde Error Correction
Master: 29–Jan–2007 15:32

R Sonde Error Correction – 0	0	20.92	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	754.2	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	–1325	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	33.96	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	154.4	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	85.67	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	63.31	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	148.3	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 8	0	90.72	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 9	0	–492.9	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 10	0	18.30	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 11	0	–119.2	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 12	0	–6.887	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 13	0	–394.3	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 14	0	65.79	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 15	0	52.97	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 16	0	87.06	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 17	0	–85.69	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 18	0	–264.4	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 19	0	2.997	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 20	0	–67.21	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 21	0	–2.146	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 22	0	–171.0	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 23	0	2.315	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 24	0	43.68	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 25	0	57.55	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 26	0	–78.64	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 27	0	–324.3	N/A	N/A	N/A	N/A	MM/M

R Sonde Error Correction – 28	0	6.777	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 29	0	–20.82	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 30	0	11.65	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 31	0	–333.3	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 32	0	48.80	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 33	0	5.421	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 34	0	–1.054	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 35	0	124.1	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 36	0	–319.1	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 37	0	6.994	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 38	0	0.5654	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 39	0	1.085	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 40	0	–323.3	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 41	0	15.87	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 42	0	–0.8276	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 43	0	0.7432	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 44	0	47.85	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 45	0	–15.48	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 46	0	–9.021	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 47	0	–31.66	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 48	0	11.94	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 49	0	–17.19	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 50	0	18.09	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 51	0	5.572	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 52	0	8.875	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 53	0	59.44	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 54	0	–2.308	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 55	0	–1.336	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 56	0	–1.396	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 57	0	0.9340	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 58	0	1.078	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 59	0	6.561	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 60	0	4.802	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 61	0	5.034	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 62	0	26.23	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 63	0	–2.579	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 64	0	29.50	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 65	0	–15.76	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 66	0	–19.63	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 67	0	–0.2565	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 68	0	3.726	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 69	0	–6.196	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 70	0	–0.5899	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 71	0	22.25	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 72	0	0.3745	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 73	0	1.286	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 74	0	–1.035	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 75	0	–1.570	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 76	0	2.299	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 77	0	1.771	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 78	0	0.7233	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 79	0	0.7604	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 80	0	10.68	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 81	0	–15.45	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 82	0	–8.384	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 83	0	–11.00	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 84	0	13.94	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 85	0	–15.01	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 86	0	4.540	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 87	0	–0.8786	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 88	0	2.126	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 89	0	3.597	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 90	0	–12.18	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 91	0	–2.645	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 92	0	–1.279	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 93	0	2.192	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 94	0	–10.83	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 95	0	1.041	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 96	0	0.9281	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 97	0	0.2935	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 98	0	3.097	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 99	0	–41.39	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 100	0	15.87	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 101	0	–6.421	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 102	0	–11.33	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 103	0	–45.67	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 104	0	–0.1936	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 105	0	1.150	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 106	0	–1.690	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 107	0	–2.731	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 108	0	–40.59	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 109	0	3.576	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 110	0	–0.6722	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 111	0	–3.843	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 112	0	–42.31	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 113	0	–0.1958	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 114	0	1.999	N/A	N/A	N/A	N/A	MM/M

R Sonde Error Correction – 115	0	–0.4481	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 116	0	2.266	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	5052	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	8939	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	–103.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	2129	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	830.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	–295.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	700.2	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	567.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 8	0	–25.51	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 9	0	–220.7	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 10	0	–581.3	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 11	0	994.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 12	0	1033	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 13	0	–632.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 14	0	101.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 15	0	–554.7	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 16	0	–705.2	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 17	0	221.6	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 18	0	–380.3	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 19	0	–278.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 20	0	485.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 21	0	513.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 22	0	–557.7	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 23	0	48.64	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 24	0	–300.7	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 25	0	–369.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 26	0	74.67	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 27	0	722.8	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 28	0	–93.67	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 29	0	251.6	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 30	0	–837.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 31	0	829.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 32	0	442.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 33	0	–174.6	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 34	0	–100.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 35	0	–78.95	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 36	0	421.2	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 37	0	–48.20	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 38	0	122.2	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 39	0	–417.3	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 40	0	470.6	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 41	0	227.7	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 42	0	–78.56	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 43	0	–45.15	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 44	0	–9.689	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 45	0	2082	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 46	0	368.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 47	0	780.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 48	0	–416.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 49	0	1985	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 50	0	139.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 51	0	784.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 52	0	–98.90	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 53	0	–19.65	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 54	0	1017	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 55	0	188.6	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 56	0	388.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 57	0	–209.3	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 58	0	968.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 59	0	72.00	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 60	0	391.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 61	0	–48.64	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 62	0	2.136	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 63	0	635.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 64	0	–951.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 65	0	180.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 66	0	918.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 67	0	611.6	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 68	0	30.84	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 69	0	286.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 70	0	–46.72	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 71	0	18.34	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 72	0	262.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 73	0	–472.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 74	0	86.88	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 75	0	457.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 76	0	250.6	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 77	0	17.22	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 78	0	139.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 79	0	–23.30	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 80	0	16.27	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 81	0	315.8	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 82	0	586.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 83	0	112.2	N/A	N/A	N/A	N/A	MM/M

X Sonde Error Correction – 84	0	–578.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 85	0	295.3	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 86	0	–83.63	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 87	0	7.633	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 88	0	–185.6	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 89	0	20.93	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 90	0	84.33	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 91	0	298.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 92	0	55.94	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 93	0	–297.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 94	0	74.61	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 95	0	–40.80	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 96	0	3.809	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 97	0	–91.97	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 98	0	14.05	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 99	0	152.7	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 100	0	–416.8	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 101	0	–42.07	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 102	0	450.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 103	0	156.3	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 104	0	–17.73	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 105	0	–3.397	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 106	0	24.17	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 107	0	55.88	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 108	0	126.8	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 109	0	–220.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 110	0	–21.33	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 111	0	234.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 112	0	128.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 113	0	–4.797	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 114	0	–1.614	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 115	0	14.76	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 116	0	8.951	N/A	N/A	N/A	N/A	MM/M

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Stab Measurement Summary
Before: 10–Feb–2007 15:02

BS Window Ratio	0.7349	N/A	0.7374	N/A	N/A	N/A	
BS Window Sum	9792	N/A	9820	N/A	N/A	N/A	CPS
SS Window Ratio	0.4651	N/A	0.4690	N/A	N/A	N/A	
SS Window Sum	9029	N/A	9013	N/A	N/A	N/A	CPS
LS Window Ratio	0.2965	N/A	0.2934	N/A	N/A	N/A	
LS Window Sum	1124	N/A	1116	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo–multiplier High Voltages Calibrations
Before: 10–Feb–2007 15:02

BS PM High Voltage (Command)	1609	N/A	1640	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1801	N/A	1801	N/A	N/A	N/A	V
LS PM High Voltage (Command)	2044	N/A	2044	N/A	N/A	N/A	V

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration
Before: 10–Feb–2007 15:02

BS Crystal Resolution	11.86	N/A	11.90	N/A	N/A	N/A	%
SS Crystal Resolution	11.06	N/A	11.10	N/A	N/A	N/A	%
LS Crystal Resolution	10.33	N/A	10.44	N/A	N/A	N/A	%

High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration
Before: 10–Feb–2007 15:09

Raw B0 Resistivity	3875	N/A	3880	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3836	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3834	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration
Before: 10–Feb–2007 15:00

HILT Caliper Zero Measurement	8.000	N/A	7.114	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	11.30	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration
Before: 10–Feb–2007 15:03

Gamma Ray Background	30.00	N/A	21.37	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkg)	167.2	N/A	167.2	N/A	N/A	15.20	GAPI
Gamma Ray (Calibrated)	153.5	N/A	153.5	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement
Master: 22–Jan–2007 16:01 Before: 10–Feb–2007 15:01

CNTC Background	29.72	29.72	30.01	N/A	N/A	4.458	CPS
CFTC Background	28.66	28.66	30.65	N/A	N/A	4.299	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement
Master: 22–Jan–2007 16:01

Thermal Near Corr. (Tank)	5800	5739	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2396	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.396	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration
Before: 14–Feb–2007 7:52

Z–Axis Acceleration	32.19	N/A	32.25	N/A	N/A	N/A	F/S2

High resolution Integrated Logging Tool–DTS Master Calibration – Inversion results
Master: 22–Jan–2007 21:16

Rho Aluminum	2.596	2.596	––	––	––	––	G/C3
Rho Magnesium	1.686	1.689	––	––	––	––	G/C3
Pe Aluminum	2.570	2.568	––	––	––	––	
Pe Magnesium	2.650	2.611	––	––	––	––	

High resolution Integrated Logging Tool–DTS Master Calibration – Deviation Summary
Master: 22–Jan–2007 21:16

BS Average Deviation	0	0.3577	––	––	––	––	%
BS Max Deviation	0	0.8287	––	––	––	––	%
SS Average Deviation	0	0.4003	––	––	––	––	%
SS Max Deviation	0	0.7964	––	––	––	––	%
LS Average Deviation	0	0.7110	––	––	––	––	%
LS Max Deviation	0	1.165	––	––	––	––	%

Electromagnetic Propagation – G Wellsite Calibration – Electronics Calibration
Before: 14–Feb–2007 7:55

EATT Electronics	500.0	N/A	503.5	N/A	N/A	N/A	DB/M
TPL Electronics	11.35	N/A	11.33	N/A	N/A	N/A	NS/M

General Purpose Inclinometer Wellsite Calibration – CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY
Before: 14–Feb–2007 7:56

TEMPERATURE REFERENCE :	N/A	N/A	68	N/A	N/A	N/A	DEGF
YEAR OF CALIBRATION :	N/A	N/A	4	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	5	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	877	N/A	N/A	N/A	

General Purpose Inclinometer Wellsite Calibration – CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY
Before: 14–Feb–2007 7:56

TEMPERATURE REFERENCE :	N/A	N/A	66	N/A	N/A	N/A	DEGF
YEAR OF CALIBRATION :	N/A	N/A	2	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	487	N/A	N/A	N/A	

The GLS–VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT–B Water Temperature	73.0	DEGF.
Thermal Housing Size	3.375	IN.
NSR–F serial number	2513	

3–D Array Induction Tool – ZAIT–B / Equipment Identification

Primary Equipment:

Rm/SP Bottom Nose	AHRM – A	
3–D Array Induction Sonde	AXIS – A	2

Auxiliary Equipment:

3–D Array Induction Tool – ZAIT–B Wellsite Calibration
Electronics Calibration Check – Thru Cal Mag. & Phase

Idx	Phase	Value	Thru Cal Magnitude MM/M	Nominal	Value	Thru Cal Phase DEG	Nominal
0	Master	1.345		1.456	–174.6		0
	Before	1.353			–167.5		
1	Master	1.336		1.456	–170.2		0
	Before	1.360			–162.6		
2	Master	1.387		1.456	–177.4		0
	Before	1.441			–160.7		
3	Master	3.071		3.352	–176.6		0
	Before	3.094			–169.7		
4	Master	3.051		3.352	–172.3		0
	Before	3.109			–164.8		
5	Master	3.167		3.352	–179.4		0
	Before	3.295			–163.0		
6	Master	2.477		2.680	177.8		0
	Before	2.496			–175.0		
7	Master	2.461		2.680	–177.9		0
	Before	2.508			–170.2		
8	Master	2.559		2.680	175.0		0
	Before	2.663			–168.3		
9	Master	1.623		1.956	–72.00		0
	Before	1.651			–67.24		
10	Master	1.634		1.956	–60.73		0
	Before	1.684			–55.93		
11	Master	1.796		1.956	–72.15		0
	Before	1.880			–60.62		
12	Master	3.239		3.537	–174.8		0
	Before	3.260			–167.6		
13	Master	3.221		3.537	–170.5		0
	Before	3.279			–162.9		

14	Master	3.346	3.537	−177.6		0
	Before	3.477		−161.0		
15	Master	2.606	3.100	−72.38		0
	Before	2.652		−67.60		
16	Master	2.624	3.100	−61.11		0
	Before	2.704		−56.30		
17	Master	2.884	3.100	−72.56		0
	Before	3.019		−61.03		
18	Master	0.8449	0.9359	−174.3		0
	Before	0.8511		−167.1		
19	Master	0.8402	0.9359	−170.0		0
	Before	0.8561		−162.4		
20	Master	0.8631	0.9359	−177.4		0
	Before	0.8988		−160.7		
21	Master	3.452	4.081	−72.91		0
	Before	3.513		−68.14		
22	Master	3.476	4.081	−61.64		0
	Before	3.582		−56.85		
23	Master	3.821	4.081	−73.08		0
	Before	4.000		−61.54		
24	Master	1.224	1.362	−177.2		0
	Before	1.234		−170.2		
25	Master	1.217	1.362	−172.9		0
	Before	1.241		−165.4		
26	Master	1.250	1.362	179.7		0
	Before	1.303		−163.7		
27	Master	3.452	4.081	−72.91		0
	Before	3.513		−68.13		
28	Master	3.476	4.081	−61.64		0
	Before	3.582		−56.84		
29	Master	3.821	4.081	−73.11		0
	Before	3.999		−61.57		
30	Master	1.223	1.362	−177.2		0
	Before	1.233		−170.2		
31	Master	1.216	1.362	−172.9		0
	Before	1.241		−165.4		
32	Master	1.250	1.362	179.7		0
	Before	1.302		−163.7		
33	Master	0.9808	1.220	−76.79		0
	Before	0.9991		−71.95		
34	Master	0.9876	1.220	−65.38		0
	Before	1.018		−60.53		
35	Master	1.071	1.220	−77.45		0
	Before	1.123		−65.80		
36	Master	1.447	1.635	176.7		0
	Before	1.459		−176.1		

37	Master	1.439	1.635	−179.0		0
	Before	1.468		−171.3		
38	Master	1.474	1.635	173.6		0
	Before	1.538		−169.7		
39	Master	1.178	1.464	−76.61		0
	Before	1.200		−71.77		
40	Master	1.186	1.464	−65.22		0
	Before	1.223		−60.37		
41	Master	1.286	1.464	−77.31		0
	Before	1.348		−65.65		
42	Master	2.090	2.353	177.4		0
	Before	2.109		−175.4		
43	Master	2.079	2.353	−178.3		0
	Before	2.121		−170.6		
44	Master	2.129	2.353	174.2		0
	Before	2.221		−169.0		
		60.00 % (Minimum) (Nominal) 140.0 % (Maximum)		Nom −180.0 (Minimum) (Nominal) Nom + 180.0 (Maximum)		

Master: 29−Jan−2007 15:32 Before: 14−Feb−2007 7:52

3−D Array Induction Tool − ZAIT−B Wellsite Calibration

Electronics Calibration Check − Auxilliary

Phase	Array Induction SPA Plus V	Value	Phase	Array Induction SPA Zero V	Value
Master		0.8436	Master		−0.0007702
Before		0.8438	Before		−0.0008165
	0.7570 (Minimum) 0.8360 (Nominal) 0.9150 (Maximum)			−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	

Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value
Master		0.9906	Master		−0.001124
Before		0.9911	Before		−0.001144
	0.8800 (Minimum) 0.9798 (Nominal) 1.076 (Maximum)			−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	

Phase	Array Induction CalSig Plus V	Value	Phase	Array Induction CalSig Zero V	Value
Master		5.015	Master		−0.01105
Before		5.016	Before		−0.01124
	4.500 (Minimum) 5.000 (Nominal) 5.500 (Maximum)			−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	

Phase	Array Induction Volt Plus V	Value	Phase	Array Induction Volt Zero V	Value
Master		5.014	Master		−0.01105
Before		5.016	Before		−0.01124
	4.500 (Minimum) 5.000 (Nominal) 5.500 (Maximum)			−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	

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3−D Array Induction Tool − ZAIT−B Wellsite Calibration

Sonde Error Correction

Idx	Value	R Sonde Error Correction MM/M	Value	X Sonde Error Correction MM/M
0	20.92		5052	
		−2105 (Minimum) 351.3 (Nominal) 2808 (Maximum)		−33300 (Minimum) 0 (Nominal) 33300 (Maximum)
1	754.2		8939	
		−5042 (Minimum) 500.9 (Nominal) 6044 (Maximum)		−37570 (Minimum) 0 (Nominal) 37570 (Maximum)
2	−1325		−103.9	
		−2575 (Minimum) −1399 (Nominal) −222.3 (Maximum)		−2478 (Minimum) 0 (Nominal) 2478 (Maximum)
3	33.96		2129	
		−2398 (Minimum) −112.1 (Nominal) 2174 (Maximum)		−7332 (Minimum) 0 (Nominal) 7332 (Maximum)
4	154.4		830.1	
		−1421 (Minimum) 124.3 (Nominal) 1670 (Maximum)		−6457 (Minimum) 0 (Nominal) 6457 (Maximum)
5	85.67		−295.1	

	−563.7 (Minimum)	64.70 (Nominal)	693.1 (Maximum)		−619.1 (Minimum)	0 (Nominal)	619.1 (Maximum)		
6	63.31				700.2				
	−2295 (Minimum)	−206.4 (Nominal)	1882 (Maximum)		−5708 (Minimum)	0 (Nominal)	5708 (Maximum)		
7	148.3				567.0				
	−1367 (Minimum)	138.2 (Nominal)	1644 (Maximum)		−2991 (Minimum)	0 (Nominal)	2991 (Maximum)		
8	90.72				−25.51				
	−811.7 (Minimum)	141.5 (Nominal)	1095 (Maximum)		−372.1 (Minimum)	0 (Nominal)	372.1 (Maximum)		
9	−492.9				−220.7				
	−3068 (Minimum)	−97.15 (Nominal)	2874 (Maximum)		−4300 (Minimum)	0 (Nominal)	4300 (Maximum)		
10	18.30				−581.3				
	−798.0 (Minimum)	1.896 (Nominal)	801.8 (Maximum)		−12390 (Minimum)	0 (Nominal)	12390 (Maximum)		
11	−119.2				994.5				
	−770.9 (Minimum)	23.35 (Nominal)	817.6 (Maximum)		−4594 (Minimum)	0 (Nominal)	4594 (Maximum)		
12	−6.887				1033				
	−734.3 (Minimum)	14.37 (Nominal)	763.0 (Maximum)		−11510 (Minimum)	0 (Nominal)	11510 (Maximum)		
13	−394.3				−632.1				
	−2770 (Minimum)	−241.5 (Nominal)	2287 (Maximum)		−2410 (Minimum)	0 (Nominal)	2410 (Maximum)		
14	65.79				101.5				
	−570.4 (Minimum)	31.47 (Nominal)	633.4 (Maximum)		−4653 (Minimum)	0 (Nominal)	4653 (Maximum)		
15	52.97				−554.7				
	−2241 (Minimum)	−108.3 (Nominal)	2024 (Maximum)		−5251 (Minimum)	0 (Nominal)	5251 (Maximum)		
16	87.06				−705.2				
	−1029 (Minimum)	43.50 (Nominal)	1116 (Maximum)		−6660 (Minimum)	0 (Nominal)	6660 (Maximum)		
17	−85.69				221.6				
	−471.1 (Minimum)	−41.64 (Nominal)	387.8 (Maximum)		−287.3 (Minimum)	0 (Nominal)	287.3 (Maximum)		
18	−264.4				−380.3				
	−3236 (Minimum)	−34.30 (Nominal)	3167 (Maximum)		−1971 (Minimum)	0 (Nominal)	1971 (Maximum)		
19	2.997				−278.9				
	−508.2 (Minimum)	−31.06 (Nominal)	446.1 (Maximum)		−8843 (Minimum)	0 (Nominal)	8843 (Maximum)		
20	−67.21				485.0				
	−990.0 (Minimum)	78.40 (Nominal)	1147 (Maximum)		−2886 (Minimum)	0 (Nominal)	2886 (Maximum)		
21	−2.146				513.5				
	−332.1 (Minimum)	27.84 (Nominal)	387.8 (Maximum)		−7605 (Minimum)	0 (Nominal)	7605 (Maximum)		
22	−171.0				−557.7				
	−1710 (Minimum)	−171.8 (Nominal)	1367 (Maximum)		−1006 (Minimum)	0 (Nominal)	1006 (Maximum)		
23	2.315				48.64				
	−700.5 (Minimum)	−7.184 (Nominal)	686.2 (Maximum)		−2778 (Minimum)	0 (Nominal)	2778 (Maximum)		
24	43.68				−300.7				
	−2238 (Minimum)	−131.8 (Nominal)	1975 (Maximum)		−4019 (Minimum)	0 (Nominal)	4019 (Maximum)		
25	57.55				−369.9				
	−888.1 (Minimum)	60.98 (Nominal)	1010 (Maximum)		−3802 (Minimum)	0 (Nominal)	3802 (Maximum)		
26	−78.64				74.67				
	−568.8 (Minimum)	−98.79 (Nominal)	371.2 (Maximum)		−150.9 (Minimum)	0 (Nominal)	150.9 (Maximum)		
27	−324.3				722.8				
	−2660 (Minimum)	−247.8 (Nominal)	2164 (Maximum)		−1619 (Minimum)	0 (Nominal)	1619 (Maximum)		
28	6.777				−93.67				
	−311.9 (Minimum)	19.89 (Nominal)	351.7 (Maximum)		−4748 (Minimum)	0 (Nominal)	4748 (Maximum)		
29	−20.82				251.6				
	−238.9 (Minimum)	−0.7571 (Nominal)	237.4 (Maximum)		−1927 (Minimum)	0 (Nominal)	1927 (Maximum)		
30	11.65				−837.1				

	−263.8 (Minimum)	−8.173 (Nominal)	247.5 (Maximum)	−3768 (Minimum)	0 (Nominal)	3768 (Maximum)
31	−333.3			829.5		
	−1851 (Minimum)	−192.8 (Nominal)	1465 (Maximum)	−1400 (Minimum)	0 (Nominal)	1400 (Maximum)
32	48.80			442.1		
	−186.8 (Minimum)	22.62 (Nominal)	232.0 (Maximum)	−1526 (Minimum)	0 (Nominal)	1526 (Maximum)
33	5.421			−174.6		
	−1101 (Minimum)	55.12 (Nominal)	1211 (Maximum)	−3024 (Minimum)	0 (Nominal)	3024 (Maximum)
34	−1.054			−100.0		
	−186.5 (Minimum)	−4.793 (Nominal)	176.9 (Maximum)	−2838 (Minimum)	0 (Nominal)	2838 (Maximum)
35	124.1			−78.95		
	−462.5 (Minimum)	63.86 (Nominal)	590.2 (Maximum)	−107.3 (Minimum)	0 (Nominal)	107.3 (Maximum)
36	−319.1			421.2		
	−1876 (Minimum)	−385.5 (Nominal)	1105 (Maximum)	−902.5 (Minimum)	0 (Nominal)	902.5 (Maximum)
37	6.994			−48.20		
	−239.6 (Minimum)	19.09 (Nominal)	277.8 (Maximum)	−4148 (Minimum)	0 (Nominal)	4148 (Maximum)
38	0.5654			122.2		
	−95.40 (Minimum)	8.103 (Nominal)	111.7 (Maximum)	−1441 (Minimum)	0 (Nominal)	1441 (Maximum)
39	1.085			−417.3		
	−232.3 (Minimum)	−11.60 (Nominal)	209.1 (Maximum)	−3221 (Minimum)	0 (Nominal)	3221 (Maximum)
40	−323.3			470.6		
	−840.1 (Minimum)	−332.1 (Nominal)	175.8 (Maximum)	−790.7 (Minimum)	0 (Nominal)	790.7 (Maximum)
41	15.87			227.7		
	−30.50 (Minimum)	11.77 (Nominal)	54.00 (Maximum)	−881.0 (Minimum)	0 (Nominal)	881.0 (Maximum)
42	−0.8276			−78.56		
	−1086 (Minimum)	50.67 (Nominal)	1188 (Maximum)	−1840 (Minimum)	0 (Nominal)	1840 (Maximum)
43	0.7432			−45.15		
	−199.6 (Minimum)	−7.273 (Nominal)	185.1 (Maximum)	−1624 (Minimum)	0 (Nominal)	1624 (Maximum)
44	47.85			−9.689		
	−1.100 (Minimum)	46.99 (Nominal)	95.10 (Maximum)	−91.40 (Minimum)	0 (Nominal)	91.40 (Maximum)
45	−15.48			2082		
	−173.4 (Minimum)	2.034 (Nominal)	177.5 (Maximum)	−2138 (Minimum)	0 (Nominal)	2138 (Maximum)
46	−9.021			368.4		
	−374.2 (Minimum)	−10.87 (Nominal)	352.5 (Maximum)	−2357 (Minimum)	0 (Nominal)	2357 (Maximum)
47	−31.66			780.9		
	−183.8 (Minimum)	−15.64 (Nominal)	152.5 (Maximum)	−986.0 (Minimum)	0 (Nominal)	986.0 (Maximum)
48	11.94			−416.4		
	−261.9 (Minimum)	2.156 (Nominal)	266.2 (Maximum)	−2252 (Minimum)	0 (Nominal)	2252 (Maximum)
49	−17.19			1985		
	−178.2 (Minimum)	−0.6614 (Nominal)	176.9 (Maximum)	−2148 (Minimum)	0 (Nominal)	2148 (Maximum)
50	18.09			139.9		
	−65.70 (Minimum)	8.816 (Nominal)	83.30 (Maximum)	−626.5 (Minimum)	0 (Nominal)	626.5 (Maximum)
51	5.572			784.0		
	−166.5 (Minimum)	2.130 (Nominal)	170.8 (Maximum)	−1981 (Minimum)	0 (Nominal)	1981 (Maximum)
52	8.875			−98.90		
	−52.80 (Minimum)	3.754 (Nominal)	60.30 (Maximum)	−1243 (Minimum)	0 (Nominal)	1243 (Maximum)
53	59.44			−19.65		
	−235.6 (Minimum)	32.53 (Nominal)	300.6 (Maximum)	−41.10 (Minimum)	0 (Nominal)	41.10 (Maximum)
54	−2.308			1017		
	−95.30 (Minimum)	−9.750 (Nominal)	75.80 (Maximum)	−1088 (Minimum)	0 (Nominal)	1088 (Maximum)
55	−1.336			188.6		
	−134.6 (Minimum)	−5.565 (Nominal)	123.5 (Maximum)	−1366 (Minimum)	0 (Nominal)	1366 (Maximum)
56	−1.396			388.1		
	−27.40 (Minimum)	−6.454 (Nominal)	14.50 (Maximum)	−540.6 (Minimum)	0 (Nominal)	540.6 (Maximum)
57	0.9340			−209.3		

	−137.9 (Minimum)	−0.5576 (Nominal)	136.8 (Maximum)		−1274 (Minimum)	0 (Nominal)	1274 (Maximum)	
58	1.078				968.0			
	−78.10 (Minimum)	−9.827 (Nominal)	58.50 (Maximum)		−1071 (Minimum)	0 (Nominal)	1071 (Maximum)	
59	6.561				72.00			
	−18.10 (Minimum)	5.923 (Nominal)	29.90 (Maximum)		−340.7 (Minimum)	0 (Nominal)	340.7 (Maximum)	
60	4.802				391.0			
	−65.40 (Minimum)	0.3248 (Nominal)	66.00 (Maximum)		−1250 (Minimum)	0 (Nominal)	1250 (Maximum)	
61	5.034				−48.64			
	−32.10 (Minimum)	3.359 (Nominal)	38.80 (Maximum)		−691.8 (Minimum)	0 (Nominal)	691.8 (Maximum)	
62	26.23				2.136			
	−9.800 (Minimum)	27.57 (Nominal)	64.90 (Maximum)		−32.90 (Minimum)	0 (Nominal)	32.90 (Maximum)	
63	−2.579				635.4			
	−56.30 (Minimum)	0.6343 (Nominal)	57.60 (Maximum)		−770.3 (Minimum)	0 (Nominal)	770.3 (Maximum)	
64	29.50				−951.4			
	−86.20 (Minimum)	−0.04571 (Nominal)	86.10 (Maximum)		−1478 (Minimum)	0 (Nominal)	1478 (Maximum)	
65	−15.76				180.9			
	−51.90 (Minimum)	−4.624 (Nominal)	42.60 (Maximum)		−621.1 (Minimum)	0 (Nominal)	621.1 (Maximum)	
66	−19.63				918.5			
	−171.8 (Minimum)	−2.056 (Nominal)	167.7 (Maximum)		−1581 (Minimum)	0 (Nominal)	1581 (Maximum)	
67	−0.2565				611.6			
	−45.00 (Minimum)	0.1900 (Nominal)	45.40 (Maximum)		−751.4 (Minimum)	0 (Nominal)	751.4 (Maximum)	
68	3.726				30.84			
	−42.10 (Minimum)	3.956 (Nominal)	50.00 (Maximum)		−476.3 (Minimum)	0 (Nominal)	476.3 (Maximum)	
69	−6.196				286.1			
	−27.40 (Minimum)	0.6414 (Nominal)	28.70 (Maximum)		−517.0 (Minimum)	0 (Nominal)	517.0 (Maximum)	
70	−0.5899				−46.72			
	−42.00 (Minimum)	3.171 (Nominal)	48.30 (Maximum)		−935.7 (Minimum)	0 (Nominal)	935.7 (Maximum)	
71	22.25				18.34			
	−87.80 (Minimum)	11.76 (Nominal)	111.3 (Maximum)		−62.10 (Minimum)	0 (Nominal)	62.10 (Maximum)	
72	0.3745				262.4			
	−24.60 (Minimum)	−2.297 (Nominal)	20.00 (Maximum)		−375.5 (Minimum)	0 (Nominal)	375.5 (Maximum)	
73	1.286				−472.1			
	−57.60 (Minimum)	2.100 (Nominal)	61.80 (Maximum)		−1185 (Minimum)	0 (Nominal)	1185 (Maximum)	
74	−1.035				86.88			
	−12.70 (Minimum)	−1.704 (Nominal)	9.300 (Maximum)		−356.7 (Minimum)	0 (Nominal)	356.7 (Maximum)	
75	−1.570				457.0			
	−78.00 (Minimum)	−3.031 (Nominal)	71.90 (Maximum)		−1247 (Minimum)	0 (Nominal)	1247 (Maximum)	
76	2.299				250.6			
	−16.10 (Minimum)	−1.311 (Nominal)	13.50 (Maximum)		−374.3 (Minimum)	0 (Nominal)	374.3 (Maximum)	
77	1.771				17.22			
	−12.80 (Minimum)	2.693 (Nominal)	18.20 (Maximum)		−321.8 (Minimum)	0 (Nominal)	321.8 (Maximum)	
78	0.7233				139.4			
	−11.50 (Minimum)	1.215 (Nominal)	13.90 (Maximum)		−333.1 (Minimum)	0 (Nominal)	333.1 (Maximum)	
79	0.7604				−23.30			
	−13.40 (Minimum)	3.431 (Nominal)	20.30 (Maximum)		−581.6 (Minimum)	0 (Nominal)	581.6 (Maximum)	
80	10.68				16.27			
	−16.30 (Minimum)	11.00 (Nominal)	38.30 (Maximum)		−39.20 (Minimum)	0 (Nominal)	39.20 (Maximum)	
81	−15.45				315.8			
	−67.80 (Minimum)	−6.064 (Nominal)	55.70 (Maximum)		−330.3 (Minimum)	0 (Nominal)	330.3 (Maximum)	
82	−8.384				586.9			
	−75.70 (Minimum)	0.09571 (Nominal)	75.90 (Maximum)		−805.0 (Minimum)	0 (Nominal)	805.0 (Maximum)	
83	−11.00				112.2			
	−42.90 (Minimum)	−3.401 (Nominal)	36.10 (Maximum)		−191.7 (Minimum)	0 (Nominal)	191.7 (Maximum)	
84	13.94				−578.9			

	−56.30 (Minimum)	0.3271 (Nominal)	57.00 (Maximum)	−782.3 (Minimum)	0 (Nominal)	782.3 (Maximum)
85	−15.01			295.3		
	−56.50 (Minimum)	−5.537 (Nominal)	45.40 (Maximum)	−319.1 (Minimum)	0 (Nominal)	319.1 (Maximum)
86	4.540			−83.63		
	−16.30 (Minimum)	0.7314 (Nominal)	17.80 (Maximum)	−149.5 (Minimum)	0 (Nominal)	149.5 (Maximum)
87	−0.8786			7.633		
	−7.600 (Minimum)	−0.1829 (Nominal)	7.200 (Maximum)	−242.5 (Minimum)	0 (Nominal)	242.5 (Maximum)
88	2.126			−185.6		
	−10.50 (Minimum)	0.3700 (Nominal)	11.30 (Maximum)	−214.9 (Minimum)	0 (Nominal)	214.9 (Maximum)
89	3.597			20.93		
	−26.20 (Minimum)	2.383 (Nominal)	30.90 (Maximum)	−116.1 (Minimum)	0 (Nominal)	116.1 (Maximum)
90	−12.18			84.33		
	−30.60 (Minimum)	−9.587 (Nominal)	11.50 (Maximum)	−105.7 (Minimum)	0 (Nominal)	105.7 (Maximum)
91	−2.645			298.5		
	−38.50 (Minimum)	−1.329 (Nominal)	35.80 (Maximum)	−471.2 (Minimum)	0 (Nominal)	471.2 (Maximum)
92	−1.279			55.94		
	−17.00 (Minimum)	−2.254 (Nominal)	12.50 (Maximum)	−118.0 (Minimum)	0 (Nominal)	118.0 (Maximum)
93	2.192			−297.9		
	−27.10 (Minimum)	1.459 (Nominal)	30.00 (Maximum)	−441.4 (Minimum)	0 (Nominal)	441.4 (Maximum)
94	−10.83			74.61		
	−28.40 (Minimum)	−9.228 (Nominal)	10.00 (Maximum)	−100.3 (Minimum)	0 (Nominal)	100.3 (Maximum)
95	1.041			−40.80		
	−11.80 (Minimum)	1.184 (Nominal)	14.20 (Maximum)	−100.9 (Minimum)	0 (Nominal)	100.9 (Maximum)
96	0.9281			3.809		
	−4.600 (Minimum)	0.5421 (Nominal)	5.700 (Maximum)	−141.1 (Minimum)	0 (Nominal)	141.1 (Maximum)
97	0.2935			−91.97		
	−6.400 (Minimum)	0.8419 (Nominal)	8.100 (Maximum)	−179.1 (Minimum)	0 (Nominal)	179.1 (Maximum)
98	3.097			14.05		
	−29.10 (Minimum)	3.875 (Nominal)	36.80 (Maximum)	−42.70 (Minimum)	0 (Nominal)	42.70 (Maximum)
99	−41.39			152.7		
	−208.6 (Minimum)	−22.42 (Nominal)	163.7 (Maximum)	−228.8 (Minimum)	0 (Nominal)	228.8 (Maximum)
100	15.87			−416.8		
	−110.1 (Minimum)	6.030 (Nominal)	122.1 (Maximum)	−941.8 (Minimum)	0 (Nominal)	941.8 (Maximum)
101	−6.421			−42.07		
	−40.50 (Minimum)	−1.784 (Nominal)	36.90 (Maximum)	−177.8 (Minimum)	0 (Nominal)	177.8 (Maximum)
102	−11.33			450.4		
	−218.8 (Minimum)	−8.666 (Nominal)	201.5 (Maximum)	−932.5 (Minimum)	0 (Nominal)	932.5 (Maximum)
103	−45.67			156.3		
	−201.5 (Minimum)	−21.74 (Nominal)	158.0 (Maximum)	−189.7 (Minimum)	0 (Nominal)	189.7 (Maximum)
104	−0.1936			−17.73		
	−20.20 (Minimum)	0.1186 (Nominal)	20.50 (Maximum)	−173.1 (Minimum)	0 (Nominal)	173.1 (Maximum)
105	1.150			−3.397		
	−13.60 (Minimum)	1.554 (Nominal)	16.70 (Maximum)	−123.5 (Minimum)	0 (Nominal)	123.5 (Maximum)
106	−1.690			24.17		
	−6.300 (Minimum)	0.1929 (Nominal)	6.600 (Maximum)	−93.30 (Minimum)	0 (Nominal)	93.30 (Maximum)
107	−2.731			55.88		
	−19.70 (Minimum)	−1.369 (Nominal)	17.00 (Maximum)	−145.3 (Minimum)	0 (Nominal)	145.3 (Maximum)
108	−40.59			126.8		
	−61.80 (Minimum)	−39.44 (Nominal)	−17.10 (Maximum)	−174.6 (Minimum)	0 (Nominal)	174.6 (Maximum)
109	3.576			−220.5		
	−28.80 (Minimum)	2.697 (Nominal)	34.20 (Maximum)	−490.4 (Minimum)	0 (Nominal)	490.4 (Maximum)
110	−0.6722			−21.33		
	−11.70 (Minimum)	−1.231 (Nominal)	9.200 (Maximum)	−104.4 (Minimum)	0 (Nominal)	104.4 (Maximum)
111	−3.843			234.5		

	−57.50 (Minimum)	−3.492 (Nominal)	50.50 (Maximum)	−491.5 (Minimum)	0 (Nominal)	491.5 (Maximum)	
112	−42.31			128.4			
	−67.40 (Minimum)	−39.27 (Nominal)	−11.10 (Maximum)	−150.1 (Minimum)	0 (Nominal)	150.1 (Maximum)	
113	−0.1958			−4.797			
	−10.40 (Minimum)	0.8598 (Nominal)	12.10 (Maximum)	−103.3 (Minimum)	0 (Nominal)	103.3 (Maximum)	
114	1.999			−1.614			
	−3.100 (Minimum)	2.525 (Nominal)	8.100 (Maximum)	−66.30 (Minimum)	0 (Nominal)	66.30 (Maximum)	
115	−0.4481			14.76			
	−3.200 (Minimum)	0.4010 (Nominal)	4.000 (Maximum)	−66.00 (Minimum)	0 (Nominal)	66.00 (Maximum)	
116	2.266			8.951			
	−27.70 (Minimum)	1.505 (Nominal)	30.70 (Maximum)	−57.80 (Minimum)	0 (Nominal)	57.80 (Maximum)	

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3−D Array Induction Tool − ZAIT−B Master Calibration

Electronics Calibration Check − Thru Cal Mag. & Phase

Idx	Phase	Value	Thru Cal Magnitude MM/M	Nominal	Value	Thru Cal Phase DEG	Nominal
0	Master	1.345		1.456	−174.6		0
1	Master	1.336		1.456	−170.2		0
2	Master	1.387		1.456	−177.4		0
3	Master	3.071		3.352	−176.6		0
4	Master	3.051		3.352	−172.3		0
5	Master	3.167		3.352	−179.4		0
6	Master	2.477		2.680	177.8		0
7	Master	2.461		2.680	−177.9		0
8	Master	2.559		2.680	175.0		0
9	Master	1.623		1.956	−72.00		0
10	Master	1.634		1.956	−60.73		0
11	Master	1.796		1.956	−72.15		0
12	Master	3.239		3.537	−174.8		0
13	Master	3.221		3.537	−170.5		0
14	Master	3.346		3.537	−177.6		0
15	Master	2.606		3.100	−72.38		0
16	Master	2.624		3.100	−61.11		0
17	Master	2.884		3.100	−72.56		0
18	Master	0.8449		0.9359	−174.3		0
19	Master	0.8402		0.9359	−170.0		0
20	Master	0.8631		0.9359	−177.4		0
21	Master	3.452		4.081	−72.91		0
22	Master	3.476		4.081	−61.64		0
23	Master	3.821		4.081	−73.08		0
24	Master	1.224		1.362	−177.2		0
25	Master	1.217		1.362	−172.9		0
26	Master	1.250		1.362	179.7		0
27	Master	3.452		4.081	−72.91		0
28	Master	3.476		4.081	−61.64		0
29	Master	3.821		4.081	−73.11		0

30	Master	1.223	1.362	−177.2		0
31	Master	1.216	1.362	−172.9		0
32	Master	1.250	1.362	179.7		0
33	Master	0.9808	1.220	−76.79		0
34	Master	0.9876	1.220	−65.38		0
35	Master	1.071	1.220	−77.45		0
36	Master	1.447	1.635	176.7		0
37	Master	1.439	1.635	−179.0		0
38	Master	1.474	1.635	173.6		0
39	Master	1.178	1.464	−76.61		0
40	Master	1.186	1.464	−65.22		0
41	Master	1.286	1.464	−77.31		0
42	Master	2.090	2.353	177.4		0
43	Master	2.079	2.353	−178.3		0
44	Master	2.129	2.353	174.2		0
		60.00 % (Minimum) (Nominal)	140.0 % (Maximum)	Nom −180.0 (Minimum) (Nominal)	Nom + 180.0 (Maximum)	

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3−D Array Induction Tool − ZAIT−B Master Calibration

Electronics Calibration Check − Auxilliary

Phase	Array Induction SPA Plus V	Value	Phase	Array Induction SPA Zero V	Value
Master	0.7570 (Minimum) 0.8360 (Nominal) 0.9150 (Maximum)	0.8436	Master	−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	−0.0007702
Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value
Master	0.8800 (Minimum) 0.9798 (Nominal) 1.076 (Maximum)	0.9906	Master	−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	−0.001124
Phase	Array Induction CalSig Plus V	Value	Phase	Array Induction CalSig Zero V	Value
Master	4.500 (Minimum) 5.000 (Nominal) 5.500 (Maximum)	5.015	Master	−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	−0.01105
Phase	Array Induction Volt Plus V	Value	Phase	Array Induction Volt Zero V	Value
Master	4.500 (Minimum) 5.000 (Nominal) 5.500 (Maximum)	5.014	Master	−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	−0.01105

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3−D Array Induction Tool − ZAIT−B Master Calibration

Sonde Error Correction

Idx	Value	R Sonde Error Correction MM/M	Value	X Sonde Error Correction MM/M
0	20.92	−2105 (Minimum) 351.3 (Nominal) 2808 (Maximum)	5052	−33300 (Minimum) 0 (Nominal) 33300 (Maximum)
1	754.2	−5042 (Minimum) 500.9 (Nominal) 6044 (Maximum)	8939	−37570 (Minimum) 0 (Nominal) 37570 (Maximum)
2	−1325	−2575 (Minimum) −1399 (Nominal) −222.3 (Maximum)	−103.9	−2478 (Minimum) 0 (Nominal) 2478 (Maximum)
3	33.96	−2398 (Minimum) −112.1 (Nominal) 2174 (Maximum)	2129	−7332 (Minimum) 0 (Nominal) 7332 (Maximum)
4	154.4	−1421 (Minimum) 124.3 (Nominal) 1670 (Maximum)	830.1	−6457 (Minimum) 0 (Nominal) 6457 (Maximum)
5	85.67	−563.7 (Minimum) 64.70 (Nominal) 693.1 (Maximum)	−295.1	−619.1 (Minimum) 0 (Nominal) 619.1 (Maximum)
6	63.31	−2295 (Minimum) −206.4 (Nominal) 1882 (Maximum)	700.2	−5708 (Minimum) 0 (Nominal) 5708 (Maximum)
7	148.3	−1367 (Minimum) 138.2 (Nominal) 1644 (Maximum)	567.0	−2991 (Minimum) 0 (Nominal) 2991 (Maximum)
8	90.72	−811.7 (Minimum) 141.5 (Nominal) 1095 (Maximum)	−25.51	−372.1 (Minimum) 0 (Nominal) 372.1 (Maximum)
9	−492.9	−3068 (Minimum) −97.15 (Nominal) 2874 (Maximum)	−220.7	−4300 (Minimum) 0 (Nominal) 4300 (Maximum)
10	18.30		−581.3	

	−798.0 (Minimum)	1.896 (Nominal)	801.8 (Maximum)	−12390 (Minimum)	0 (Nominal)	12390 (Maximum)
11	−119.2			994.5		
	−770.9 (Minimum)	23.35 (Nominal)	817.6 (Maximum)	−4594 (Minimum)	0 (Nominal)	4594 (Maximum)
12	−6.887			1033		
	−734.3 (Minimum)	14.37 (Nominal)	763.0 (Maximum)	−11510 (Minimum)	0 (Nominal)	11510 (Maximum)
13	−394.3			−632.1		
	−2770 (Minimum)	−241.5 (Nominal)	2287 (Maximum)	−2410 (Minimum)	0 (Nominal)	2410 (Maximum)
14	65.79			101.5		
	−570.4 (Minimum)	31.47 (Nominal)	633.4 (Maximum)	−4653 (Minimum)	0 (Nominal)	4653 (Maximum)
15	52.97			−554.7		
	−2241 (Minimum)	−108.3 (Nominal)	2024 (Maximum)	−5251 (Minimum)	0 (Nominal)	5251 (Maximum)
16	87.06			−705.2		
	−1029 (Minimum)	43.50 (Nominal)	1116 (Maximum)	−6660 (Minimum)	0 (Nominal)	6660 (Maximum)
17	−85.69			221.6		
	−471.1 (Minimum)	−41.64 (Nominal)	387.8 (Maximum)	−287.3 (Minimum)	0 (Nominal)	287.3 (Maximum)
18	−264.4			−380.3		
	−3236 (Minimum)	−34.30 (Nominal)	3167 (Maximum)	−1971 (Minimum)	0 (Nominal)	1971 (Maximum)
19	2.997			−278.9		
	−508.2 (Minimum)	−31.06 (Nominal)	446.1 (Maximum)	−8843 (Minimum)	0 (Nominal)	8843 (Maximum)
20	−67.21			485.0		
	−990.0 (Minimum)	78.40 (Nominal)	1147 (Maximum)	−2886 (Minimum)	0 (Nominal)	2886 (Maximum)
21	−2.146			513.5		
	−332.1 (Minimum)	27.84 (Nominal)	387.8 (Maximum)	−7605 (Minimum)	0 (Nominal)	7605 (Maximum)
22	−171.0			−557.7		
	−1710 (Minimum)	−171.8 (Nominal)	1367 (Maximum)	−1006 (Minimum)	0 (Nominal)	1006 (Maximum)
23	2.315			48.64		
	−700.5 (Minimum)	−7.184 (Nominal)	686.2 (Maximum)	−2778 (Minimum)	0 (Nominal)	2778 (Maximum)
24	43.68			−300.7		
	−2238 (Minimum)	−131.8 (Nominal)	1975 (Maximum)	−4019 (Minimum)	0 (Nominal)	4019 (Maximum)
25	57.55			−369.9		
	−888.1 (Minimum)	60.98 (Nominal)	1010 (Maximum)	−3802 (Minimum)	0 (Nominal)	3802 (Maximum)
26	−78.64			74.67		
	−568.8 (Minimum)	−98.79 (Nominal)	371.2 (Maximum)	−150.9 (Minimum)	0 (Nominal)	150.9 (Maximum)
27	−324.3			722.8		
	−2660 (Minimum)	−247.8 (Nominal)	2164 (Maximum)	−1619 (Minimum)	0 (Nominal)	1619 (Maximum)
28	6.777			−93.67		
	−311.9 (Minimum)	19.89 (Nominal)	351.7 (Maximum)	−4748 (Minimum)	0 (Nominal)	4748 (Maximum)
29	−20.82			251.6		
	−238.9 (Minimum)	−0.7571 (Nominal)	237.4 (Maximum)	−1927 (Minimum)	0 (Nominal)	1927 (Maximum)
30	11.65			−837.1		
	−263.8 (Minimum)	−8.173 (Nominal)	247.5 (Maximum)	−3768 (Minimum)	0 (Nominal)	3768 (Maximum)
31	−333.3			829.5		
	−1851 (Minimum)	−192.8 (Nominal)	1465 (Maximum)	−1400 (Minimum)	0 (Nominal)	1400 (Maximum)
32	48.80			442.1		
	−186.8 (Minimum)	22.62 (Nominal)	232.0 (Maximum)	−1526 (Minimum)	0 (Nominal)	1526 (Maximum)
33	5.421			−174.6		
	−1101	55.12	1211	−3024	0	3024

	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
34	−1.054			−100.0		
	−186.5	−4.793	176.9	−2838	0	2838
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
35	124.1			−78.95		
	−462.5	63.86	590.2	−107.3	0	107.3
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
36	−319.1			421.2		
	−1876	−385.5	1105	−902.5	0	902.5
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
37	6.994			−48.20		
	−239.6	19.09	277.8	−4148	0	4148
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
38	0.5654			122.2		
	−95.40	8.103	111.7	−1441	0	1441
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
39	1.085			−417.3		
	−232.3	−11.60	209.1	−3221	0	3221
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
40	−323.3			470.6		
	−840.1	−332.1	175.8	−790.7	0	790.7
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
41	15.87			227.7		
	−30.50	11.77	54.00	−881.0	0	881.0
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
42	−0.8276			−78.56		
	−1086	50.67	1188	−1840	0	1840
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
43	0.7432			−45.15		
	−199.6	−7.273	185.1	−1624	0	1624
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
44	47.85			−9.689		
	−1.100	46.99	95.10	−91.40	0	91.40
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
45	−15.48			2082		
	−173.4	2.034	177.5	−2138	0	2138
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
46	−9.021			368.4		
	−374.2	−10.87	352.5	−2357	0	2357
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
47	−31.66			780.9		
	−183.8	−15.64	152.5	−986.0	0	986.0
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
48	11.94			−416.4		
	−261.9	2.156	266.2	−2252	0	2252
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
49	−17.19			1985		
	−178.2	−0.6614	176.9	−2148	0	2148
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
50	18.09			139.9		
	−65.70	8.816	83.30	−626.5	0	626.5
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
51	5.572			784.0		
	−166.5	2.130	170.8	−1981	0	1981
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
52	8.875			−98.90		
	−52.80	3.754	60.30	−1243	0	1243
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
53	59.44			−19.65		
	−235.6	32.53	300.6	−41.10	0	41.10
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
54	−2.308			1017		
	−95.30	−9.750	75.80	−1088	0	1088
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
55	−1.336			188.6		
	−134.6	−5.565	123.5	−1366	0	1366
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
56	−1.396			388.1		
	−27.40	−6.454	14.50	−540.6	0	540.6
	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
57	0.9340			−209.3		
	−137.9	−0.5576	136.8	−1274	0	1274

	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
58	1.078				968.0		
	−78.10	−9.827	58.50		−1071	0	1071
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
59	6.561				72.00		
	−18.10	5.923	29.90		−340.7	0	340.7
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
60	4.802				391.0		
	−65.40	0.3248	66.00		−1250	0	1250
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
61	5.034				−48.64		
	−32.10	3.359	38.80		−691.8	0	691.8
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
62	26.23				2.136		
	−9.800	27.57	64.90		−32.90	0	32.90
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
63	−2.579				635.4		
	−56.30	0.6343	57.60		−770.3	0	770.3
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
64	29.50				−951.4		
	−86.20	−0.04571	86.10		−1478	0	1478
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
65	−15.76				180.9		
	−51.90	−4.624	42.60		−621.1	0	621.1
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
66	−19.63				918.5		
	−171.8	−2.056	167.7		−1581	0	1581
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
67	−0.2565				611.6		
	−45.00	0.1900	45.40		−751.4	0	751.4
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
68	3.726				30.84		
	−42.10	3.956	50.00		−476.3	0	476.3
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
69	−6.196				286.1		
	−27.40	0.6414	28.70		−517.0	0	517.0
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
70	−0.5899				−46.72		
	−42.00	3.171	48.30		−935.7	0	935.7
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
71	22.25				18.34		
	−87.80	11.76	111.3		−62.10	0	62.10
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
72	0.3745				262.4		
	−24.60	−2.297	20.00		−375.5	0	375.5
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
73	1.286				−472.1		
	−57.60	2.100	61.80		−1185	0	1185
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
74	−1.035				86.88		
	−12.70	−1.704	9.300		−356.7	0	356.7
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
75	−1.570				457.0		
	−78.00	−3.031	71.90		−1247	0	1247
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
76	2.299				250.6		
	−16.10	−1.311	13.50		−374.3	0	374.3
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
77	1.771				17.22		
	−12.80	2.693	18.20		−321.8	0	321.8
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
78	0.7233				139.4		
	−11.50	1.215	13.90		−333.1	0	333.1
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
79	0.7604				−23.30		
	−13.40	3.431	20.30		−581.6	0	581.6
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
80	10.68				16.27		
	−16.30	11.00	38.30		−39.20	0	39.20
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
81	−15.45				315.8		
	−67.80	−6.064	55.70		−330.3	0	330.3
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
82	−8.384				586.9		
	−75.70	0.09571	75.90		−805.0	0	805.0
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
83	−11.00				112.2		
	−42.90	−3.401	36.10		−191.7	0	191.7

	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
84	13.94				−578.9				
	−56.30	0.3271	57.00		−782.3	0	782.3		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
85	−15.01				295.3				
	−56.50	−5.537	45.40		−319.1	0	319.1		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
86	4.540				−83.63				
	−16.30	0.7314	17.80		−149.5	0	149.5		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
87	−0.8786				7.633				
	−7.600	−0.1829	7.200		−242.5	0	242.5		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
88	2.126				−185.6				
	−10.50	0.3700	11.30		−214.9	0	214.9		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
89	3.597				20.93				
	−26.20	2.383	30.90		−116.1	0	116.1		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
90	−12.18				84.33				
	−30.60	−9.587	11.50		−105.7	0	105.7		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
91	−2.645				298.5				
	−38.50	−1.329	35.80		−471.2	0	471.2		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
92	−1.279				55.94				
	−17.00	−2.254	12.50		−118.0	0	118.0		
	(Minimum)	**(Nominal)**	**(Maximum)**		**(Minimum)**	**(Nominal)**	**(Maximum)**		
93	2.192				−297.9				
	−27.10	1.459	30.00		−441.4	0	441.4		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
94	−10.83				74.61				
	−28.40	−9.228	10.00		−100.3	0	100.3		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
95	1.041				−40.80				
	−11.80	1.184	14.20		−100.9	0	100.9		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
96	0.9281				3.809				
	−4.600	0.5421	5.700		−141.1	0	141.1		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
97	0.2935				−91.97				
	−6.400	0.8419	8.100		−179.1	0	179.1		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
98	3.097				14.05				
	−29.10	3.875	36.80		−42.70	0	42.70		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
99	−41.39				152.7				
	−208.6	−22.42	163.7		−228.8	0	228.8		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
100	15.87				−416.8				
	−110.1	6.030	122.1		−941.8	0	941.8		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
101	−6.421				−42.07				
	−40.50	−1.784	36.90		−177.8	0	177.8		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
102	−11.33				450.4				
	−218.8	−8.666	201.5		−932.5	0	932.5		
	(Minimum)	**(Nominal)**	**(Maximum)**		**(Minimum)**	**(Nominal)**	**(Maximum)**		
103	−45.67				156.3				
	−201.5	−21.74	158.0		−189.7	0	189.7		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
104	−0.1936				−17.73				
	−20.20	0.1186	20.50		−173.1	0	173.1		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
105	1.150				−3.397				
	−13.60	1.554	16.70		−123.5	0	123.5		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
106	−1.690				24.17				
	−6.300	0.1929	6.600		−93.30	0	93.30		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
107	−2.731				55.88				
	−19.70	−1.369	17.00		−145.3	0	145.3		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
108	−40.59				126.8				
	−61.80	−39.44	−17.10		−174.6	0	174.6		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
109	3.576				−220.5				
	−28.80	2.697	34.20		−490.4	0	490.4		
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		
110	−0.6722				−21.33				

		−11.70 (Minimum)	−1.231 (Nominal)	9.200 (Maximum)		−104.4 (Minimum)	0 (Nominal)	104.4 (Maximum)
111	−3.843				234.5			
		−57.50 (Minimum)	−3.492 (Nominal)	50.50 (Maximum)		−491.5 (Minimum)	0 (Nominal)	491.5 (Maximum)
112	−42.31				128.4			
		−67.40 (Minimum)	−39.27 (Nominal)	−11.10 (Maximum)		−150.1 (Minimum)	0 (Nominal)	150.1 (Maximum)
113	−0.1958				−4.797			
		−10.40 (Minimum)	0.8598 (Nominal)	12.10 (Maximum)		−103.3 (Minimum)	0 (Nominal)	103.3 (Maximum)
114	1.999				−1.614			
		−3.100 (Minimum)	2.525 (Nominal)	8.100 (Maximum)		−66.30 (Minimum)	0 (Nominal)	66.30 (Maximum)
115	−0.4481				14.76			
		−3.200 (Minimum)	0.4010 (Nominal)	4.000 (Maximum)		−66.00 (Minimum)	0 (Nominal)	66.00 (Maximum)
116	2.266				8.951			
		−27.70 (Minimum)	1.505 (Nominal)	30.70 (Maximum)		−57.80 (Minimum)	0 (Nominal)	57.80 (Maximum)

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High resolution Integrated Logging Tool−DTS / Equipment Identification

Primary Equipment:		
HILT high−Resolution Mechanical Sonde	HRMS − B	754
HILT Rxo Gamma−ray Device	HRGD − B	842
HILT Micro Cylindrically Focused Log Dev	MCFL −	
GR Logging Source	GLS − VJ	5033
HILT High Res. Control Cartridge	HRCC − B	1889
HILT Gamma−Ray Neutron Sonde−DTS	HGNS − B	
HGNS Gamma−Ray Device	HGR −	
HGNS Neutron Detector with Alpha Source	HCNT −	
Auxiliary Equipment:		
HGNS Housing	HGNH −	
Neutron Calibration Tank	NCT − B	
Gamma Source Radioactive	GSR − U/Y	

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio	Value	Phase	SS Window Ratio	Value	Phase	LS Window Ratio	Value
Before		0.7374	Before		0.4690	Before		0.2934
	0.6981 (Minimum) / 0.7349 (Nominal) / 0.7716 (Maximum)			0.4419 (Minimum) / 0.4651 (Nominal) / 0.4884 (Maximum)			0.2817 (Minimum) / 0.2965 (Nominal) / 0.3113 (Maximum)	
Phase	BS Window Sum CPS	Value	Phase	SS Window Sum CPS	Value	Phase	LS Window Sum CPS	Value
Before		9820	Before		9013	Before		1116
	9303 (Minimum) / 9792 (Nominal) / 10280 (Maximum)			8578 (Minimum) / 9029 (Nominal) / 9481 (Maximum)			1067 (Minimum) / 1124 (Nominal) / 1180 (Maximum)	

Before: 10−Feb−2007 15:02

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Photo−multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V	Value	Phase	SS PM High Voltage (Command) V	Value	Phase	LS PM High Voltage (Command) V	Value
Before		1640	Before		1801	Before		2044
	1509 (Minimum) / 1609 (Nominal) / 1709 (Maximum)			1701 (Minimum) / 1801 (Nominal) / 1901 (Maximum)			1944 (Minimum) / 2044 (Nominal) / 2144 (Maximum)	

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High resolution Integrated Logging Tool−DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %	Value	Phase	SS Crystal Resolution %	Value	Phase	LS Crystal Resolution %	Value
Before		11.90	Before		11.10	Before		10.44
	10.86 (Minimum) / 11.86 (Nominal) / 12.86 (Maximum)			10.06 (Minimum) / 11.06 (Nominal) / 12.06 (Maximum)			9.330 (Minimum) / 10.33 (Nominal) / 11.33 (Maximum)	

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High resolution Integrated Logging Tool−DTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM	Value	Phase	Raw B1 Resistivity OHMM	Value	Phase	Raw B2 Resistivity OHMM	Value
Before		3880	Before		3836	Before		3834
	3565 (Minimum) / 3875 (Nominal) / 4185 (Maximum)			3524 (Minimum) / 3830 (Nominal) / 4136 (Maximum)			3524 (Minimum) / 3830 (Nominal) / 4136 (Maximum)	

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High resolution Integrated Logging Tool−DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value
Before		7.114	Before		11.30
	6.000 (Minimum) / 8.000 (Nominal) / 10.00 (Maximum)			9.000 (Minimum) / 12.00 (Nominal) / 15.00 (Maximum)	

Before: 10−Feb−2007 15:00

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig – Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		21.37	Before		167.2	Before		153.5
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	152.0 (Minimum)	167.2 (Nominal)	182.4 (Maximum)	138.5 (Minimum)	153.5 (Nominal)	168.5 (Maximum)

Before: 10–Feb–2007 15:03

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		29.72	Master		28.66
Before		30.01	Before		30.65
5.000 (Minimum)	29.72 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	28.66 (Nominal)	40.00 (Maximum)

Master: 22–Jan–2007 16:01 Before: 10–Feb–2007 15:01

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5739	Master		2396	Master		2.396
4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 22–Jan–2007 16:01

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Accelerometer Calibration

Phase	Z–Axis Acceleration F/S2	Value
Before		32.25
31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)

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High resolution Integrated Logging Tool–DTS Master Calibration

Inversion results

Phase	Rho Aluminum G/C3	Value	Phase	Rho Magnesium G/C3	Value
Master		2.596	Master		1.689
2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)	1.676 (Minimum)	1.686 (Nominal)	1.696 (Maximum)

Phase	Pe Aluminum	Value	Phase	Pe Magnesium	Value
Master		2.568	Master		2.611
2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)

Master: 22–Jan–2007 21:16

High resolution Integrated Logging Tool–DTS Master Calibration

Deviation Summary

Phase	BS Average Deviation %	Value	Phase	SS Average Deviation %	Value	Phase	LS Average Deviation %	Value
Master		0.3577	Master		0.4003	Master		0.7110
–0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)	–1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)	–1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)

Phase	BS Max Deviation %	Value	Phase	SS Max Deviation %	Value	Phase	LS Max Deviation %	Value
Master		0.8287	Master		0.7964	Master		1.165
–1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)	–2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)	–3.500 (Minimum)	0 (Nominal)	3.500 (Maximum)

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High resolution Integrated Logging Tool–DTS Master Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		29.72	Master		28.66
5.000 (Minimum)	29.72 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	28.66 (Nominal)	40.00 (Maximum)

Master: 22–Jan–2007 16:01

High resolution Integrated Logging Tool–DTS Master Calibration

Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5739	Master		2396	Master		2.396
4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 22–Jan–2007 16:01

Electromagnetic Propagation – G / Equipment Identification

Primary Equipment:		
EPT–G ENDFIRE Sonde	EPS – EA	13
EPT Cartridge – DA	EPC – DA	14
Auxiliary Equipment:		
Electronics Cartridge Housing	ECH – KU	

Electromagnetic Propagation – G Wellsite Calibration

Electronics Calibration

Phase	EATT Electronics	DB/M	Value	Phase	TPL Electronics	NS/M	Value
Before			503.5	Before			11.33
400.0 (Minimum)	500.0 (Nominal)	600.0 (Maximum)		10.85 (Minimum)	11.35 (Nominal)	11.85 (Maximum)	

Before: 14–Feb–2007 7:55

General Purpose Inclinometer / Equipment Identification

Primary Equipment:		
GPIT Cartridge – C	GPIC – C	872
Auxiliary Equipment:		
GPIT Housing	GPIH – B	

DTS Telemetry Tool / Equipment Identification

Primary Equipment:	
DTC–H Auxiliary Cartridge	DTCH – A
DTC–H Telemetry Cartridge	DTCH – A
Auxiliary Equipment:	
DTCH Telemetry Cartridge Housing	ECH – KC

Company: **BP EXPLORATION (ALASKA), INC.**

Schlumberger

Well: **MT. ELBERT–01**
Field: **MILNE POINT UNIT**
Borough: **NORTH SLOPE**
State: **ALASKA**

FINAL

TCOM LOG
NEUTRON / LITHODENSITY / RESISITIVITY
14–FEB–2007