AG CLAYTON 1

COMPANY: SOFREGAZ US INC.

WELL: Jefferson Gas LLC "Clayton" well #1

FIELD: Wildcat

COUNTY: Linn STATE: Oregon

COUNTY: Linn
Field: Wildcat
Location: 2235' FEL & 2466' FNL of Sectio
Well: Jefferson Gas LLC "Clayton" we
Company: SOFREGAZ US INC.

Schlumberger

Platform Express
Array Induction/SP
4-arm Caliper

LOCATION	2235' FEL & 2466' FNL of Section 58	Elev.:	K.B. 219 F G.L. 207 F D.F.
Permanent Datum:	Ground Level	Elev.:	207 F
Log Measured From:	Kelly Bushing	12.0 F	above Perm. Datum
Drilling Measured From:	Kelly Bushing		

API Serial No.	SECTION	TOWNSHIP	RANGE
036-043-00019	58	10S	3W

Logging Date		30-SEP-1998			
Run Number		1			
Depth Driller		1356 F			
Schlumberger Depth		1356 F			
Bottom Log Interval		1348 F			
Top Log Interval		500 F			
Casing Driller Size @ Depth		9.625 IN	@ 500 F	@	
Casing Schlumberger		500 F			
Bit Size		8.500 IN			
Type Fluid In Hole		Gel			
MUD Density	Viscosity	9 LB/G	42 S		
Fluid Loss	PH	6 C3	9.5		
Source Of Sample		Tank			
RM @ Measured Temperature		2.790 OHMM	@ 82 DEGF	@	
RMF @ Measured Temperature		2.420 OHMM	@ 71 DEGF	@	
RMC @ Measured Temperature		2.370 OHMM	@ 71 DEGF	@	
Source RMF	RMC	Press	Press		
RM @ MRT	RMF @ MRT	3.201 @ 71	2.433 @ 71	@	@
Maximum Recorded Temperatures		71 DEGF			
Circulation Stopped	Time	30-SEP 1998	12:30		
Logger On Bottom	Time	30-SEP 1998			
Unit Number	Location	3152	Sacramento		
Recorded By		Clayton Campbell			
Witnessed By		Jerome Jacquemont/Bob Pinotti			

	Run 1	Run 2	Run 3	Run 4

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

ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT, AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, DAMAGES OR EXPENSES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS OR EMPLOYEES. THESE INTERPRETATIONS ARE ALSO SUBJECT TO CLAUSE 4 OF OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

OTHER SERVICES1	OTHER SERVICES2
OS1: BHC Sonic	OS1:
OS2: Density	OS2:
OS3: Compensated Neutron	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
1.0 inch standoffs used on array induction	
Rig: John Taylor 7190	
Dispatch ID 7190	

RUN 1		RUN 2	
SERVICE ORDER #:	6009856	SERVICE ORDER #:	
PROGRAM VERSION:	8C1-205	PROGRAM VERSION:	
FLUID LEVEL:		FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

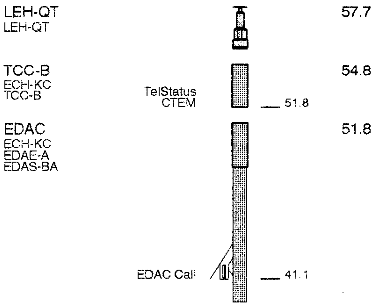
EQUIPMENT DESCRIPTION

RUN 1	RUN 2

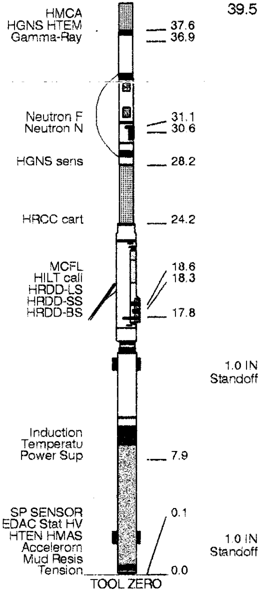
SURFACE EQUIPMENT

GSR-U/Y
NCT-B
CNB-AB
NCS-VB
WITM (CTS)-A

DOWNHOLE EQUIPMENT



HILTB-DTB
HTBCC
HMCA
HGNS-CAN-B
HGNS-H
NLS-KL
NSR-F
HACCZ
HCNT
HGR
HRCC-B 723
HRMS-B 923
HRGD 723
GLS-VJ 1924
MCFL Device
HILT Nucl. LS
HILT Nucl. SS
HILT Nucl. BS
AIT-H
AHIS-BA
BOW-SPR
NPV-N



MAXIMUM STRING DIAMETER 5.88 IN

MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Input DLIS Files

DEFAULT	**HILTB .007**	**FN:4**	**FIELD**	**30-Sep-1998 16:27**	**1368.0 FT**	**362.0 FT**

Output DLIS Files

DEFAULT	**HILTB .047**	**FN:40**	**FIELD**	**30-Sep-1998 22:36**	**1368.0 FT**	**450.5 FT**

OP System Version: 8C1-205

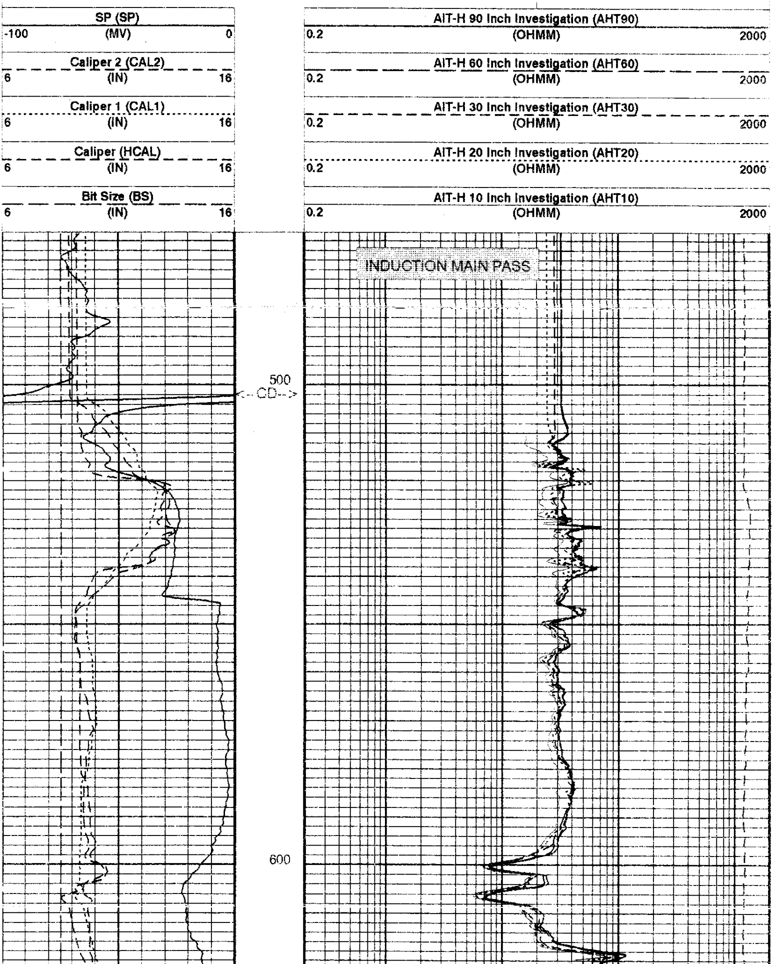
MCM

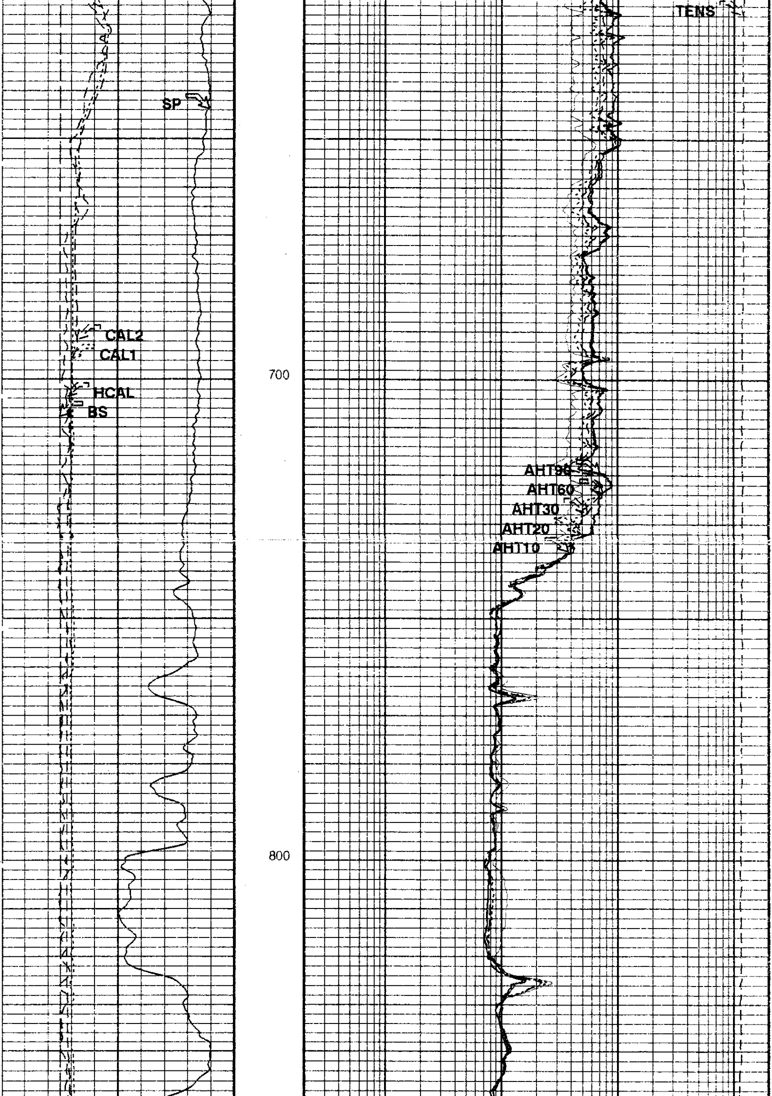
HILTB-DTB	**APCW-98Q1**	**EDAC**	**8C1-205**
TCC-B	**APCW-98Q1**		

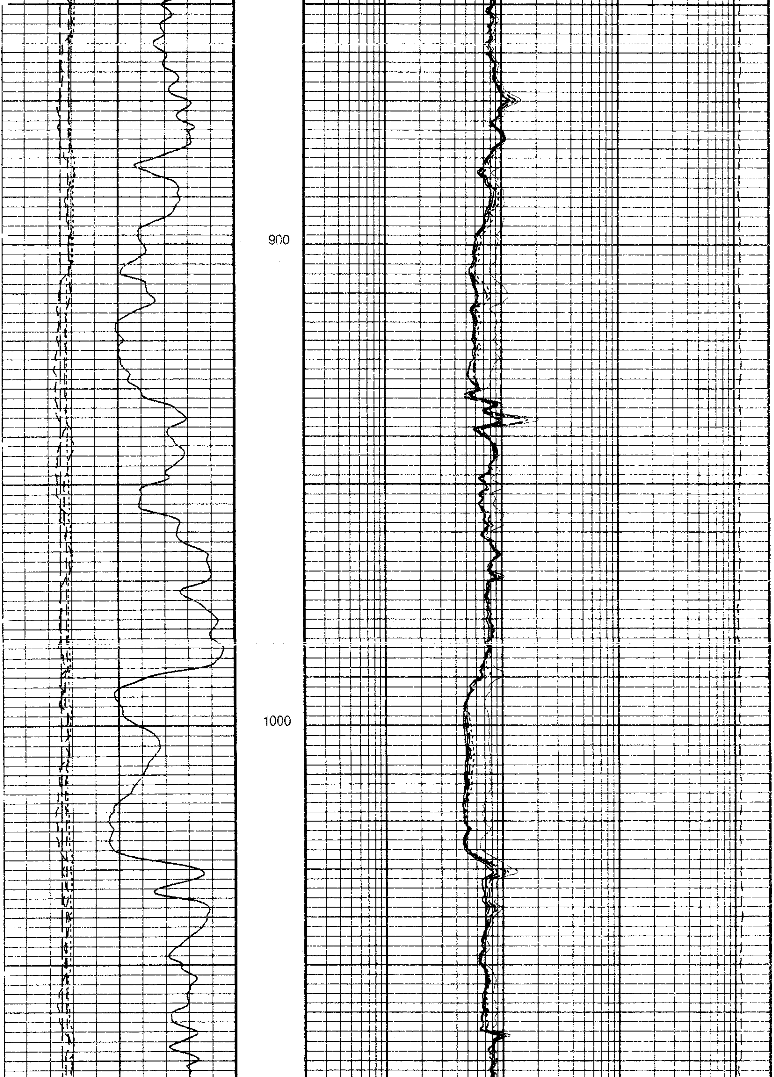
PIP SUMMARY

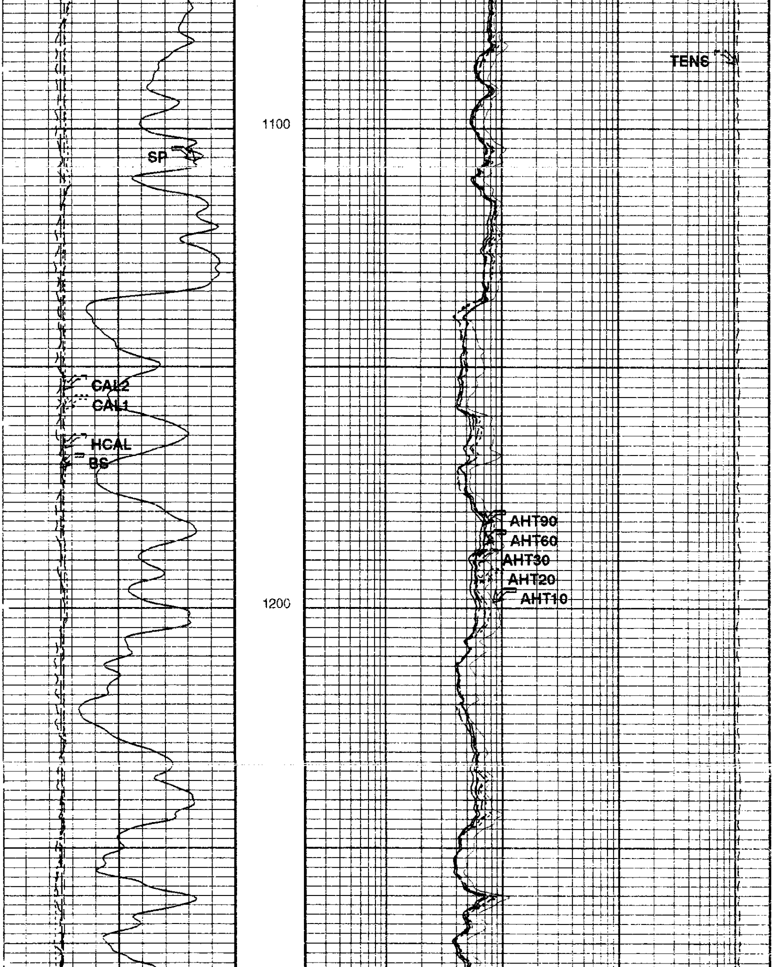
Time Mark Every 60 S

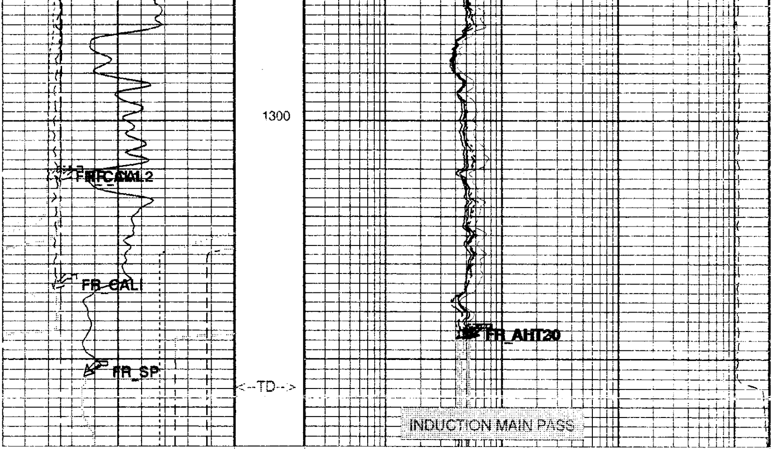
Tension (TENS)
10000 (LBF) 0











Curve	Left	Unit	Right
Bit Size (BS)	6	(IN)	16
Caliper (HCAL)	6	(IN)	16
Caliper 1 (CAL1)	6	(IN)	16
Caliper 2 (CAL2)	6	(IN)	16
SP (SP)	-100	(MV)	0

Curve	Left	Unit	Right
AIT-H 10 Inch Investigation (AHT10)	0.2	(OHMM)	2000
AIT-H 20 Inch Investigation (AHT20)	0.2	(OHMM)	2000
AIT-H 30 Inch Investigation (AHT30)	0.2	(OHMM)	2000
AIT-H 60 Inch Investigation (AHT60)	0.2	(OHMM)	2000
AIT-H 90 Inch Investigation (AHT90)	0.2	(OHMM)	2000
Tension (TENS)	10000	(LBF)	0

PIP SUMMARY

Time Mark Every 60 S

AIT-H Answer Product Processing Summary. Data taken with tool # 112 (AHTNO)

...Acquired data from HILT/HAIT

***** Bhole Correction *****

Effective Tool Standoff computed. Borehole diameter and mud res. taken as input (see GCSE and GRSE parameters)

Tool is run in ECCENTERED mode with a tool stand-off of 1.00 IN. Bit Size is 8.50 IN.

***** Input Selections to AIT Answer Product processing *****

Caliper (GCSE): HCAL Mud Resistivity (GRSE): AHMF Temperature (GTSE): LINEAR_ESTIMATE Porosity (FPHI): DPHZ

***** Other parameters used by AIT-H Answer Product processing *****

Surface Hole Temperature (SHT)	68.000 DEGF	Bottom Temperature (BHT)	70.600 DEGF
Total Depth (TD)	1356.000 FT		
Form Factor Exponent (FEXP)	2.000	Form Factor Numerator (FNUM)	1.000
Mud Filtrate Sample Resistivity (RMFS)	2.420 OHMM	Mud Filtrate Sample Temperature (MFST)	71.000 DEGF
Resistivity Connate Water (RW)	1.000 OHMM		

***** AIT-H Answer Product processing control parameters *****

Playback Mode: NORMAL

Format: AITS5 Vertical Scale: 5" per 100' Graphics File Created: 30-Sep-1998 22:36

OP System Version: 8C1-205

MCM

HILTB-DTB	APCW-98Q1	EDAC	8C1-205
TCC-B	APCW-98Q1		

Input DLIS Files

DEFAULT	HILTB .007	FN:4	FIELD	30-Sep-1998 16:27	1368.0 FT	362.0 FT

Output DLIS Files

DEFAULT	HILTB .047	FN:40	FIELD	30-Sep-1998 22:36

Input DLIS Files

DEFAULT	HILTB .007	FN:4	FIELD	30-Sep-1998 16:27	1368.0 FT	362.0 FT
DEFAULT	HILTB .005	FN:3	FIELD	30-Sep-1998 15:24	1344.0 FT	723.6 FT

Output DLIS Files

DEFAULT	HILTB .047	FN:40	FIELD	30-Sep-1998 22:36

OP System Version: 8C1-205

MCM

HILTB-DTB	APCW-98Q1	EDAC	8C1-205
TCC-B	APCW-98Q1		

PIP SUMMARY

Time Mark Every 60 S

TENS_REP Curve (TENS_REP)
10000 (LBF) 0

AHT90_REP Curve (AHT90_REP)
0.2 (OHMM) 2000

RWA_REP Curve (RWA_REP)
0 (OHMM) 3

AHT60_REP Curve (AHT60_REP)
0.2 (OHMM) 2000

CAL2_REP Curve (CAL2_REP)
6 (IN) 16

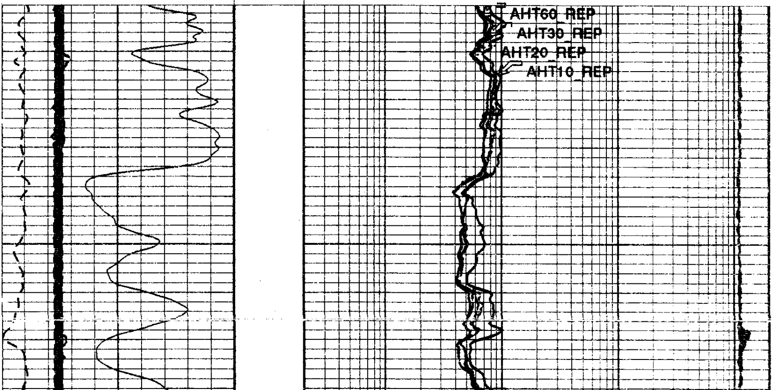
AHT30_REP Curve (AHT30_REP)
0.2 (OHMM) 2000

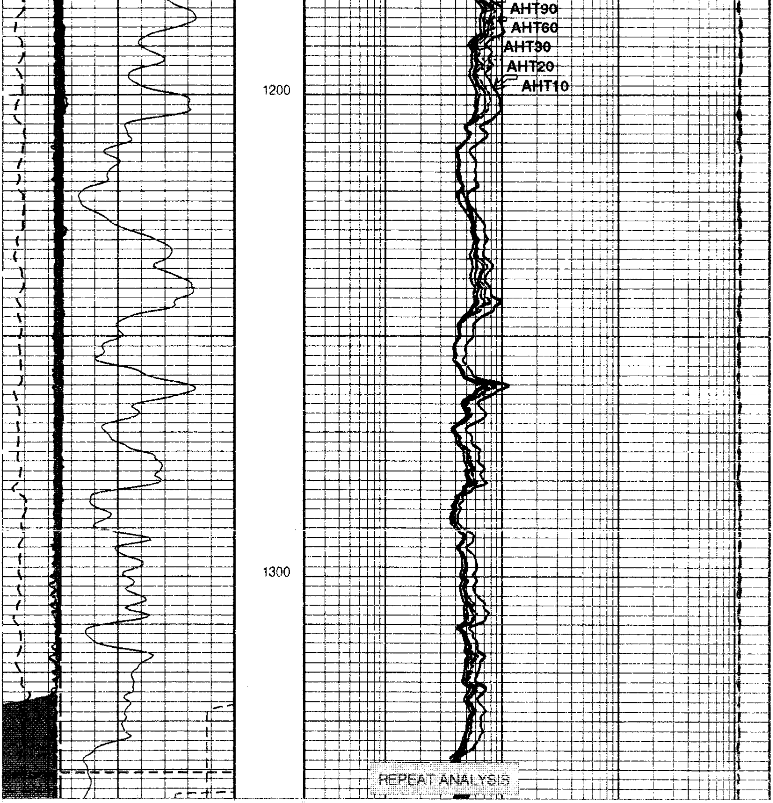
CALI_REP Curve (HCAL_REP)
6 (IN) 16

AHT20_REP Curve (AHT20_REP)
0.2 (OHMM) 2000

BS_REP Curve (BS_REP)
6 (IN) 16

AHT10_REP Curve (AHT10_REP)
0.2 (OHMM) 2000





BS_REP Curve (BS_REP)
6 (IN) 16

CALI_REP Curve (HCAL_REP)
6 (IN) 16

CAL2_REP Curve (CAL2_REP)
6 (IN) 16

RWA_REP Curve (RWA_REP)
0 (OHMM) 3

AHT10_REP Curve (AHT10_REP)
0.2 (OHMM) 2000

AHT20_REP Curve (AHT20_REP)
0.2 (OHMM) 2000

AHT30_REP Curve (AHT30_REP)
0.2 (OHMM) 2000

AHT60_REP Curve (AHT60_REP)
0.2 (OHMM) 2000

AHT90_REP Curve (AHT90_REP)
0.2 (OHMM) 2000

TENS_REP Curve (TENS_REP)
10000 (LBF) 0

PIP SUMMARY

Time Mark Every 60 S

AIT-H Answer Product Processing Summary. Data taken with tool # 112 (AHTNO)

...Acquired data from HILT/HAIT

***** Bhole Correction *****

Effective Tool Standoff computed. Borehole diameter and mud res. taken as input (see GCSE and GRSE parameters)

Tool is run in ECCENTERED mode with a tool stand-off of 1.00 IN. Bit Size is 8.50 IN.

***** Input Selections to AIT Answer Product processing *****

Caliper (GCSE): HCAL Mud Resistivity (GRSE): AHMF Temperature (GTSE): LINEAR_ESTIMATE Porosity (FPHI): DPHZ

***** Other parameters used by AIT-H Answer Product processing *****

Surface Hole Temperature (SHT)	68.000 DEGF	Bottom Temperature (BHT)	70.600 DEGF
Total Depth (TD)	1356.000 FT		
Form Factor Exponent (FEXP)	2.000	Form Factor Numerator (FNUM)	1.000
Mud Filtrate Sample Resistivity (RMFS)	2.420 OHMM	Mud Filtrate Sample Temperature (MFST)	71.000 DEGF
Resitivity Connate Water (RW)	1.000 OHMM		

***** AIT-H Answer Product processing control parameters *****

Playback Mode: NORMAL

Format: AITS5_REP Vertical Scale: 5" per 100' Graphics File Created: 30-Sep-1998 22:36

OP System Version: 8C1-205

MCM

HILTB-DTB	APCW-98Q1	EDAC	8C1-205
TCC-B	APCW-98Q1		

Input DLIS Files

DEFAULT	HILTB .007	FN:4	FIELD	30-Sep-1998 16:27	1368.0 FT	362.0 FT
DEFAULT	HILTB .005	FN:3	FIELD	30-Sep-1998 15:24	1344.0 FT	723.6 FT

Output DLIS Files

DEFAULT	HILTB .047	FN:40	FIELD	30-Sep-1998 22:36

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Electronics Calibration Check - Thru Cal Mag. & Phase Master: Aug 06 11:26 1998 Before: Sep 30 15:14 1998							
Thru Cal Magnitude - 0	0	0.6200	0.6280	N/A	N/A	N/A	V
Thru Cal Magnitude - 1	0	1.271	1.287	N/A	N/A	N/A	V
Thru Cal Magnitude - 2	0	0.6317	0.6397	N/A	N/A	N/A	V
Thru Cal Magnitude - 3	0	0.7134	0.7231	N/A	N/A	N/A	V
Thru Cal Magnitude - 4	0	1.332	1.349	N/A	N/A	N/A	V
Thru Cal Magnitude - 5	0	1.939	1.964	N/A	N/A	N/A	V
Thru Cal Magnitude - 6	0	1.942	1.968	N/A	N/A	N/A	V
Thru Cal Magnitude - 7	0	1.365	1.390	N/A	N/A	N/A	V
Phase - 0	0	64.83	65.59	N/A	N/A	N/A	DEG
Phase - 1	0	63.70	64.48	N/A	N/A	N/A	DEG
Phase - 2	0	59.91	60.73	N/A	N/A	N/A	DEG
Phase - 3	0	59.12	59.95	N/A	N/A	N/A	DEG
Phase - 4	0	52.74	53.65	N/A	N/A	N/A	DEG
Phase - 5	0	50.77	51.73	N/A	N/A	N/A	DEG
Phase - 6	0	50.72	51.68	N/A	N/A	N/A	DEG
Phase - 7	0	46.66	48.08	N/A	N/A	N/A	DEG
High resolution Integrated Logging Tool-CTS Wellsite Calibration - Electronics Calibration Check - Auxilliary Master: Aug 06 11:26 1998 Before: Sep 30 15:14 1998							
AIT-H SPA Plus	990.5	989.1	990.8	N/A	N/A	N/A	MV
AIT-H SPA Zero	0	0.1113	0.1029	N/A	N/A	N/A	MV
AIT-H Temperature Plus	0.9150	0.9163	0.9179	N/A	N/A	N/A	V
AIT-H Temperature Zero	0	0.0001137	0.00009922	N/A	N/A	N/A	V

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Test Loop Gain Correction
Master: Aug 06 11:26 1998

Test Loop Gain Magnitude - 0	0	1.010	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 1	0	1.011	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 2	0	1.013	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 3	0	1.010	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 4	0	0.9918	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 5	0	1.004	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 6	0	1.013	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 7	0	1.012	N/A	N/A	N/A	N/A	V
Phase - 0	0	0.4095	N/A	N/A	N/A	N/A	DEG
Phase - 1	0	0.4601	N/A	N/A	N/A	N/A	DEG
Phase - 2	0	-0.2755	N/A	N/A	N/A	N/A	DEG
Phase - 3	0	-0.1317	N/A	N/A	N/A	N/A	DEG
Phase - 4	0	-0.2547	N/A	N/A	N/A	N/A	DEG
Phase - 5	0	-0.5340	N/A	N/A	N/A	N/A	DEG
Phase - 6	0	-0.1695	N/A	N/A	N/A	N/A	DEG
Phase - 7	0	-0.7410	N/A	N/A	N/A	N/A	DEG

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Sonde Error Correction
Master: Aug 06 11:26 1998

R Sonde Error Correction - 0	0	-17.40	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 1	0	152.5	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 2	0	102.4	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 3	0	61.35	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 4	0	23.67	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 5	0	12.52	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 6	0	8.430	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 7	0	-1.807	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 0	0	269.7	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 1	0	87.25	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 2	0	-50.74	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 3	0	22.51	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 4	0	-22.75	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 5	0	-13.87	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 6	0	4.084	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 7	0	-1.223	N/A	N/A	N/A	N/A	MM/M

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Mud Gain Correction
Master: Aug 06 11:26 1998

Coarse - Mag, Real, Imag - 0	0	0.8499	N/A	N/A	N/A	N/A	
Coarse - Mag, Real, Imag - 1	0	0.8500	N/A	N/A	N/A	N/A	
Coarse - Mag, Real, Imag - 2	0	0.8500	N/A	N/A	N/A	N/A	
Fine - Mag, Real, Imag - 0	0	0.8510	N/A	N/A	N/A	N/A	
Fine - Mag, Real, Imag - 1	0	0.8510	N/A	N/A	N/A	N/A	
Fine - Mag, Real, Imag - 2	0	0.8510	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Stab Measurement Summary
Before: Sep 29 12:07 1998

BS Window Ratio	1.031	N/A	1.016	N/A	N/A	N/A	
BS Window Sum	14670	N/A	14760	N/A	N/A	N/A	CPS
SS Window Ratio	0.5027	N/A	0.5073	N/A	N/A	N/A	
SS Window Sum	11910	N/A	11870	N/A	N/A	N/A	CPS
LS Window Ratio	0.2844	N/A	0.2826	N/A	N/A	N/A	
LS Window Sum	1206	N/A	1199	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Photo-multiplier High Voltages Calibrations
Before: Sep 29 12:07 1998

BS PM High Voltage (Command)	1620	N/A	1625	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1937	N/A	1954	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1985	N/A	1977	N/A	N/A	N/A	V

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Crystal Quality Resolutions Calibration
Before: Sep 29 12:07 1998

BS Crystal Resolution	12.17	N/A	12.36	N/A	N/A	N/A	%
SS Crystal Resolution	11.68	N/A	11.90	N/A	N/A	N/A	%
LS Crystal Resolution	10.73	N/A	10.98	N/A	N/A	N/A	%

High resolution Integrated Logging Tool-CTS Wellsite Calibration - MCFL Calibration
Before: Sep 29 12:08 1998

Raw B0 Resistivity	3875	N/A	3845	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3807	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3818	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool-CTS Wellsite Calibration - HILT Caliper Calibration
Before: Sep 29 12:04 1998

HILT Caliper Zero Measurement	8.000	N/A	7.872	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.12	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Detector Calibration
Before: Sep 29 12:04 1998

Gamma Ray Background	30.00	N/A	31.52	N/A	N/A	N/A	GAPI
Gamma Ray (Jig - Bkg)	154.1	N/A	154.1	N/A	N/A	14.01	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Zero Measurement
Master: Sep 09 22:02 1998   Before: Sep 29 12:05 1998

CNTC Background	26.01	26.01	26.74	N/A	N/A	3.902	CPS
CFTC Background	28.05	28.05	27.12	N/A	N/A	4.207	CPS

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Accelerometer Calibration
Before: Sep 30 15:15 1998

Z-Axis Acceleration	32.19	N/A	32.19	N/A	N/A	N/A	F/S2

The GLS-VJ source activity is acceptable.

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

NCT-B Water Temperature	90.0	DEGF.
Thermal Housing Size	3.361	IN.

High resolution Integrated Logging Tool-CTS / Equipment Identification

Primary Equipment:

Array Induction Tool - H	AIT - H	
Array Induction Sonde	AHIS - BA	
HILT high-Resolution Mechanical Sonde	HRMS - B	923
HILT Rxo Gamma-ray Device	HRGD -	723
HILT Nuclear Back-Scatter Detector	HILT -	
HILT Nuclear Short-Spacing Detector	HILT -	
HILT Nuclear Long-Spacing Detector	HILT -	
Micro Cylindrically Focused Log Device	MCFL -	

Auxiliary Equipment:

High resolution Integrated Logging Tool-CTS Wellsite Calibration
Electronics Calibration Check - Thru Cal Mag. & Phase

Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6200		0.6050	64.83		71.00
	Before	0.6280			65.59		
1	Master	1.271		1.270	63.70		70.00
	Before	1.287			64.48		
2	Master	0.6317		0.6230	59.91		66.00
	Before	0.6397			60.73		
3	Master	0.7134		0.7040	59.12		65.00
	Before	0.7231			59.95		
4	Master	1.332		1.337	52.74		59.00
	Before	1.349			53.65		
5	Master	1.939		1.955	50.77		57.00
	Before	1.964			51.73		
6	Master	1.942		1.955	50.72		57.00
	Before	1.968			51.68		
7	Master	1.365		1.415	46.56		53.00
	Before	1.390			48.08		
			60.00 % (Minimum) (Nominal) 140.0 % (Maximum)			Nom -60.00 (Minimum) (Nominal) Nom + 60.00 (Maximum)	

Master: Aug 06 11:26 1998   Before: Sep 30 15:14 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Electronics Calibration Check - Auxilliary

Phase	AIT-H SPA Plus MV	Value	Phase	AIT-H SPA Zero MV	Value
Master		989.1	Master		0.1113
Before		990.8	Before		0.1029
	941.0 (Minimum) 990.5 (Nominal) 1040 (Maximum)			-50.00 (Minimum) 0 (Nominal) 50.00 (Maximum)	
Phase	**AIT-H Temperature Plus V**	**Value**	**Phase**	**AIT-H Temperature Zero V**	**Value**
Master		0.9163	Master		0.0001137
Before		0.9179	Before		9.922E-00
	0.8700 (Minimum) 0.9150 (Nominal) 0.9600 (Maximum)			-0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	

Master: Aug 06 11:26 1998 Before: Sep 30 15:14 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Test Loop Gain Correction

Idx	Value	Test Loop Gain Magnitude V	Value	Phase DEG
0	1.010		0.4095	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
1	1.011		0.4601	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
2	1.013		-0.2755	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
3	1.010		-0.1317	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
4	0.9918		-0.2547	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
5	1.004		-0.5340	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
6	1.013		-0.1695	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
7	1.012		-0.7410	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)

Master: Aug 06 11:26 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Sonde Error Correction

Idx	Value	R Sonde Error Correction MM/M	Value	X Sonde Error Correction MM/M
0	-17.40		269.7	
		-231.0 (Minimum) -56.00 (Nominal) 119.0 (Maximum)		-2250 (Minimum) 0 (Nominal) 2250 (Maximum)
1	152.5		87.25	
		114.0 (Minimum) 159.0 (Nominal) 204.0 (Maximum)		-625.0 (Minimum) 0 (Nominal) 625.0 (Maximum)
2	102.4		-50.74	
		66.00 (Minimum) 111.0 (Nominal) 156.0 (Maximum)		-350.0 (Minimum) 0 (Nominal) 350.0 (Maximum)
3	61.35		22.51	
		39.00 (Minimum) 64.00 (Nominal) 89.00 (Maximum)		-250.0 (Minimum) 0 (Nominal) 250.0 (Maximum)
4	23.67		-22.75	
		15.00 (Minimum) 25.00 (Nominal) 35.00 (Maximum)		-63.00 (Minimum) 0 (Nominal) 63.00 (Maximum)
5	12.52		-13.97	
		4.000 (Minimum) 14.00 (Nominal) 24.00 (Maximum)		-50.00 (Minimum) 0 (Nominal) 50.00 (Maximum)
6	8.430		4.084	
		5.000 (Minimum) 10.00 (Nominal) 15.00 (Maximum)		-30.00 (Minimum) 0 (Nominal) 30.00 (Maximum)
7	-1.807		-1.223	
		-5.000 (Minimum) 0 (Nominal) 5.000 (Maximum)		-30.00 (Minimum) 0 (Nominal) 30.00 (Maximum)

Master: Aug 06 11:26 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Mud Gain Correction

Idx	Value	Coarse - Mag, Real, Imag			Value	Fine - Mag, Real, Imag		
0	0.8499				0.8510			
		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)
1	0.8500				0.8510			
		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)
2	0.8500				0.8510			
		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)

Master: Aug 06 11:26 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio			Value
Before				1.016
	0.9798 (Minimum)	1.031 (Nominal)	1.083 (Maximum)	

Phase	SS Window Ratio			Value
Before				0.5073
	0.4775 (Minimum)	0.5027 (Nominal)	0.5278 (Maximum)	

Phase	LS Window Ratio			Value
Before				0.2825
	0.2702 (Minimum)	0.2844 (Nominal)	0.2986 (Maximum)	

Phase	BS Window Sum CPS			Value
Before				14760
	13940 (Minimum)	14670 (Nominal)	15410 (Maximum)	

Phase	SS Window Sum CPS			Value
Before				11870
	11310 (Minimum)	11910 (Nominal)	12500 (Maximum)	

Phase	LS Window Sum CPS			Value
Before				1199
	1146 (Minimum)	1206 (Nominal)	1267 (Maximum)	

Before. Sep 29 12:07 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Photo-multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V			Value
Before				1625
	1520 (Minimum)	1620 (Nominal)	1720 (Maximum)	

Phase	SS PM High Voltage (Command) V			Value
Before				1954
	1837 (Minimum)	1937 (Nominal)	2037 (Maximum)	

Phase	LS PM High Voltage (Command) V			Value
Before				1977
	1885 (Minimum)	1985 (Nominal)	2085 (Maximum)	

Before. Sep 29 12:07 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %			Value
Before				12.36
	11.17 (Minimum)	12.17 (Nominal)	13.17 (Maximum)	

Phase	SS Crystal Resolution %			Value
Before				11.90
	10.68 (Minimum)	11.68 (Nominal)	12.68 (Maximum)	

Phase	LS Crystal Resolution %			Value
Before				10.98
	9.729 (Minimum)	10.73 (Nominal)	11.73 (Maximum)	

Before. Sep 29 12:07 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM			Value
Before				3845
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)	

Phase	Raw B1 Resistivity OHMM			Value
Before				3807
	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	

Phase	Raw B2 Resistivity OHMM			Value
Before				3619
	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	

Before: Sep 29 12:08 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN			Value
Before				7.872
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)	

Phase	HILT Caliper Plus Measurement IN			Value
Before				12.12
	9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)	

Before: Sep 29 12:04 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI			Value
Before				31.52
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	

Phase	Gamma Ray (Jig - Bkg) GAPI			Value
Before				154.1
	140.1 (Minimum)	154.1 (Nominal)	168.1 (Maximum)	

Phase	Gamma Ray (Calibrated) GAPI			Value
Before				165.0
	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)	

Before: Sep 29 12:04 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		26.01	Master		28.05
Before		26.74	Before		27.12
	5.000 (Minimum) 26.01 (Nominal) 40.00 (Maximum)			5.000 (Minimum) 28.05 (Nominal) 40.00 (Maximum)	

Master: Sep 09 22:02 1998 Before: Sep 29 12:05 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Accelerometer Calibration

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

Before: Sep 30 15:15 1998

COMPANY: **SOFREGAZ US INC.**

WELL: **Jefferson Gas LLC "Clayton" well #1**

FIELD: **Wildcat**

COUNTY: **Linn**

STATE: **Oregon**

BOTTOM LOG INTERVAL	1348 F
SCHLUMBERGER DEPTH	1356 F
DEPTH DRILLER	1356 F
KELLY BUSHING	219 F
DRILL FLOOR	
GROUND LEVEL	207 F

Schlumberger

Platform Express
Array Induction/SP
4-arm Caliper