COMPANY: **ENERFIN RESOURCES NORTHWEST**

WELL: **JOHN HANCOCK 22-27-64**

FIELD: **MIST GAS**

COUNTY: **COLUMBIA** **STATE:** **OREGON**

COUNTY: COLUMBIA
Field: MIST GAS
Location: 1979'S & 2432'E FROM THE NW
Well: JOHN HANCOCK 22-27-64
Company: ENERFIN RESOURCES NORTH

Schlumberger

PLATFORM EXPRESS
ARRAY INDUCTION/SP
BHC SONIC/GR/CALIPER

LOCATION

1979'S & 2432'E FROM THE NW CORNER
OF SECTION 27

Elev.: K.B. 1001.8 F
G.L. 991.8 F
D.F.

Permanent Datum: GROUND LEVEL Elev.: 991.8 F
Log Measured From: KELLY BUSHING 10.0 F above Perm. Datum
Drilling Measured From: KELLY BUSHING

API Serial No.	SECTION	TOWNSHIP	RANGE
36-009-00333	26	6N	4W

Logging Date	28-OCT-1998			
Run Number	1			
Depth Driller	2211 F			
Schlumberger Depth	2209 F			
Bottom Log Interval	1103 F			
Top Log Interval	497 F			
Casing Driller Size @ Depth	7.000 IN @	496 F		@
Casing Schlumberger	496 F			
Bit Size	6.250 IN			
Type Fluid In Hole	CYPAN			
MUD Density / Viscosity	9.44 LB/G	38 S		
Fluid Loss / PH	4.6 C3	8		
Source Of Sample	FLOWLINE			
RM @ Measured Temperature	3.600 OHMM @	72 DEGF		@
RMF @ Measured Temperature	4.070 OHMM @	70 DEGF		@
RMC @ Measured Temperature	4.370 OHMM @	70 DEGF		@
Source RMF / RMC	PRESS	PRESS		
RM @ MRT / RMF @ MRT	3.459 @ 75	3.812 @ 75	@	@
Maximum Recorded Temperatures	75 DEGF			
Circulation Stopped / Time	28-OCT-1998	6:45		
Logger On Bottom / Time	28-OCT-1998			
Unit Number / Location	3146	BAKERSFIELD		
Recorded By	CLAYTON CAMPBELL			
Witnessed By				

	Run 1	Run 2	Run 3
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			

Run 4

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: COMPENSATED NEUTRON	OS1:
OS2: LITHO DENSITY	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
2 CENTRALIZERS USED ON SONIC	
0.5 INCH STANDOFFS USED ON ARRAY INDUCTION	

RUN 1		RUN 2	
SERVICE ORDER #:	6004653	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

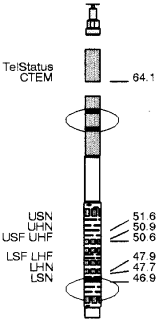
GSR-U/Y	WITM (CTS)-A
NCT-B	
CNB-AB	
NCS-VB	

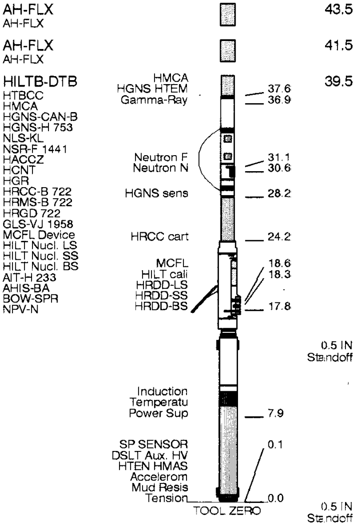
DOWNHOLE EQUIPMENT

LEH-QT 70.0
LEH-QT

TCC-B 67.1
ECH-KC
TCC-B

DSLT-TCC 64.1
DSLC-B
ECH-KH
SLS-W





MAXIMUM STRING DIAMETER 4.88 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Input DLIS Files

DEFAULT	HILTB .016	FN:13	FIELD	28-Oct-1998 12:31	2214.0 FT	66.5 FT

Output DLIS Files

DEFAULT	HILTB .019	FN:16	FIELD	28-Oct-1998 12:49	2214.0 FT	66.5 FT

OP System Version: 8C1-205

MCM

HILTB-DTB	8C1-205	DSLT-TCC	8C1-205
TCC-B	8C1-205		

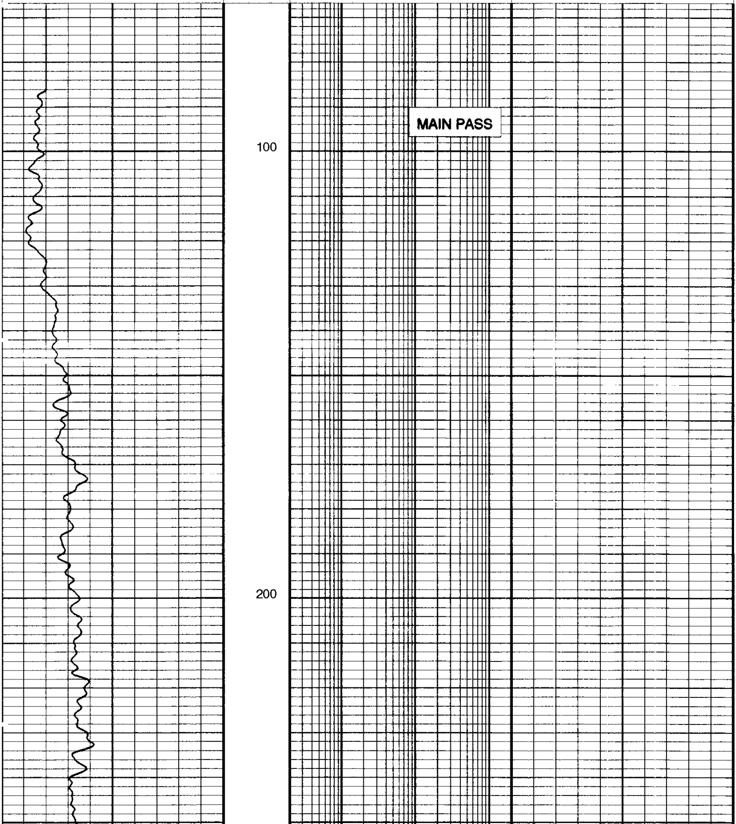
Changed Parameter Summary

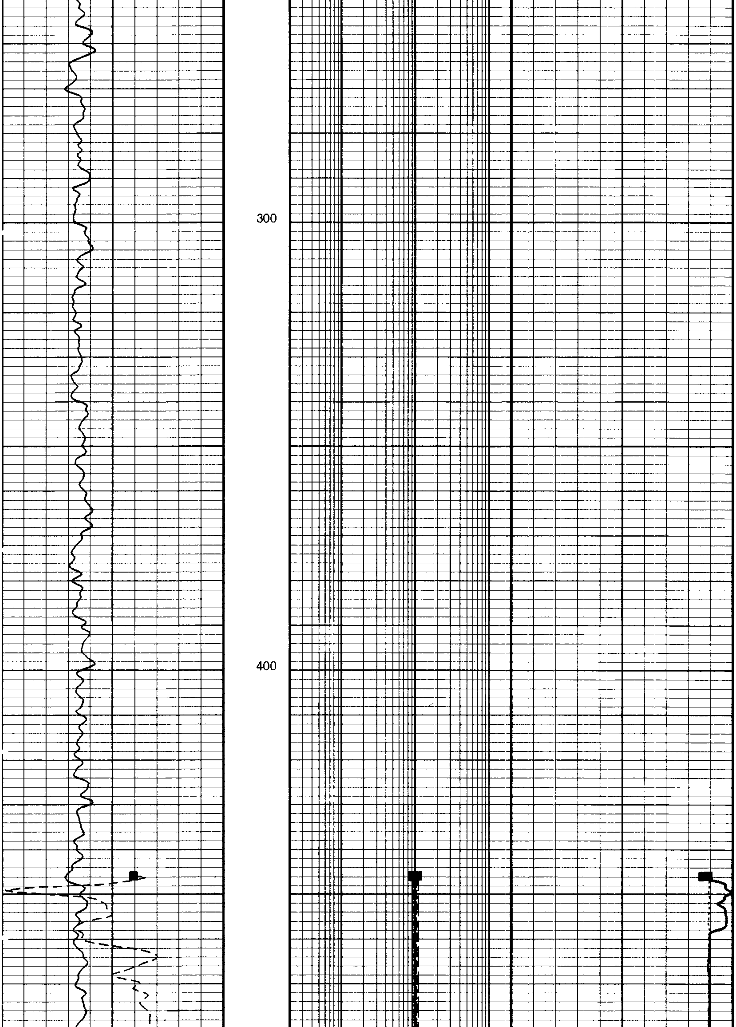
DLIS Name	New Value	Previous Value	Depth & Time
SPNV	-21 MV	-95 MV	1190.0 12:52:42

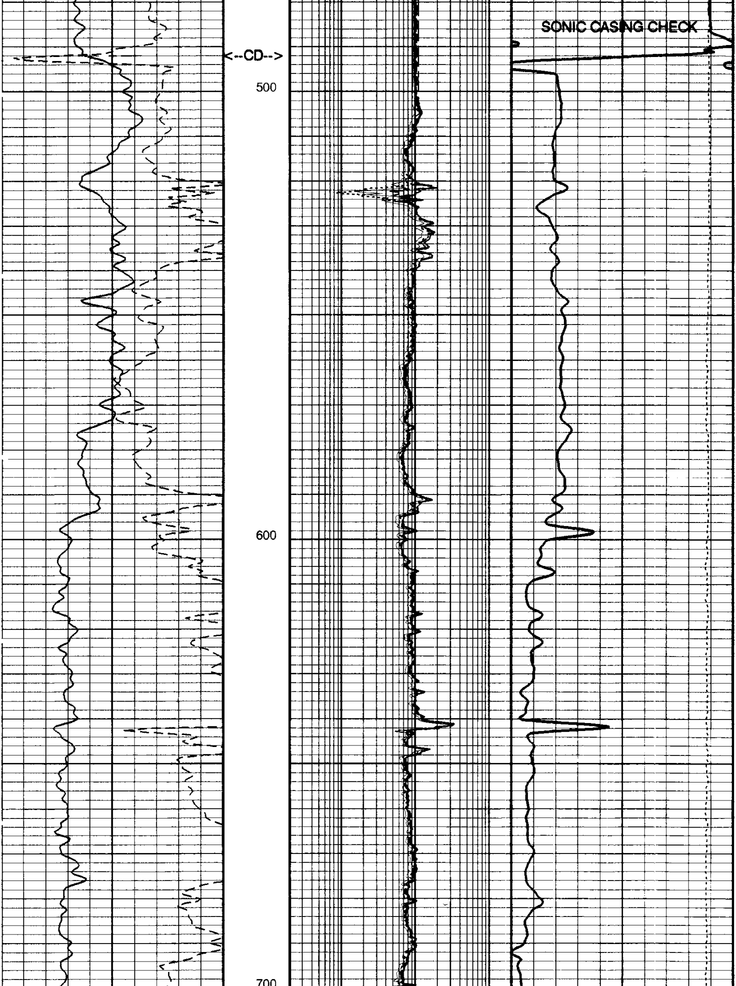
PIP SUMMARY

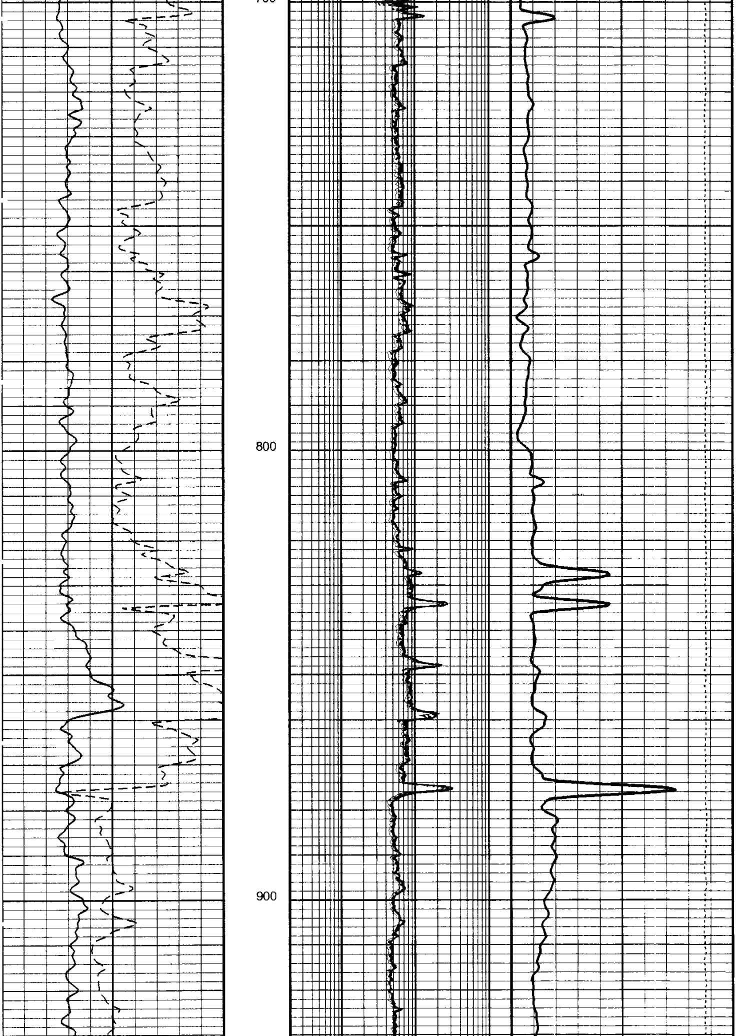
Time Mark Every 60 S

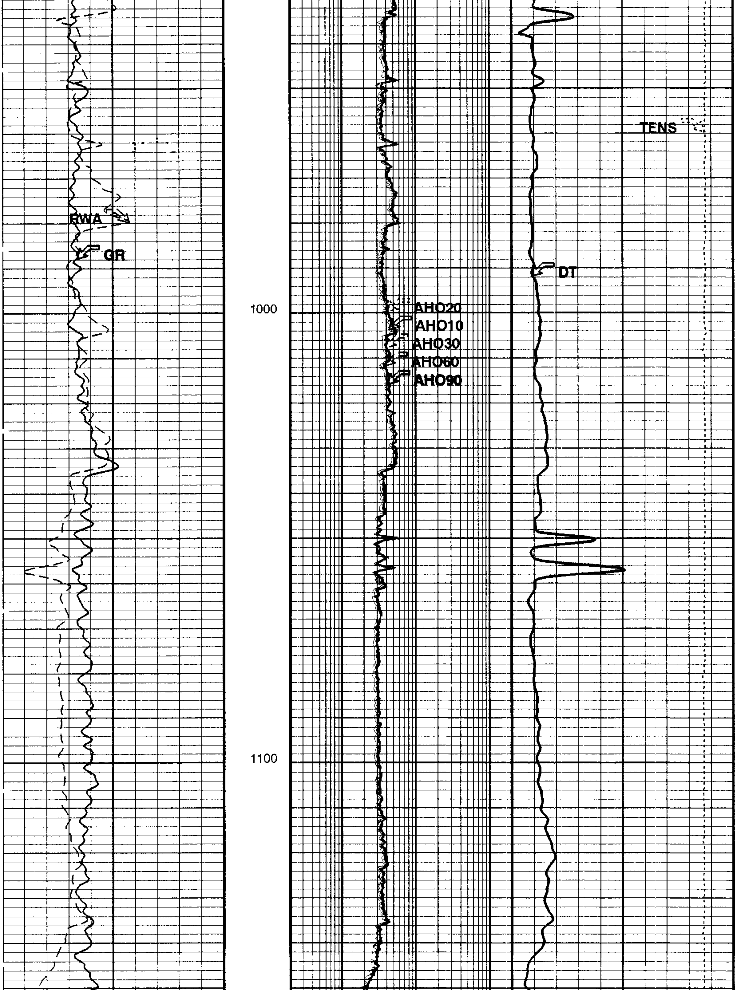
	AIT-H 20 Inch Investigation (AHO20) 0.2 (OHMM) 200	
	AIT-H 10 Inch Investigation (AHO10) 0.2 (OHMM) 200	
RWA (RWA) 0 (OHMM) 3	AIT-H 30 Inch Investigation (AHO30) 0.2 (OHMM) 200	
Gamma Ray (GR) 0 (GAPI) 150	AIT-H 60 Inch Investigation (AHO60) 0.2 (OHMM) 200	Tension (TENS) 10000 (LBF) 0
	AIT-H 90 Inch Investigation (AHO90) 0.2 (OHMM) 200	Delta-T (DT) 160 (US/F) 60

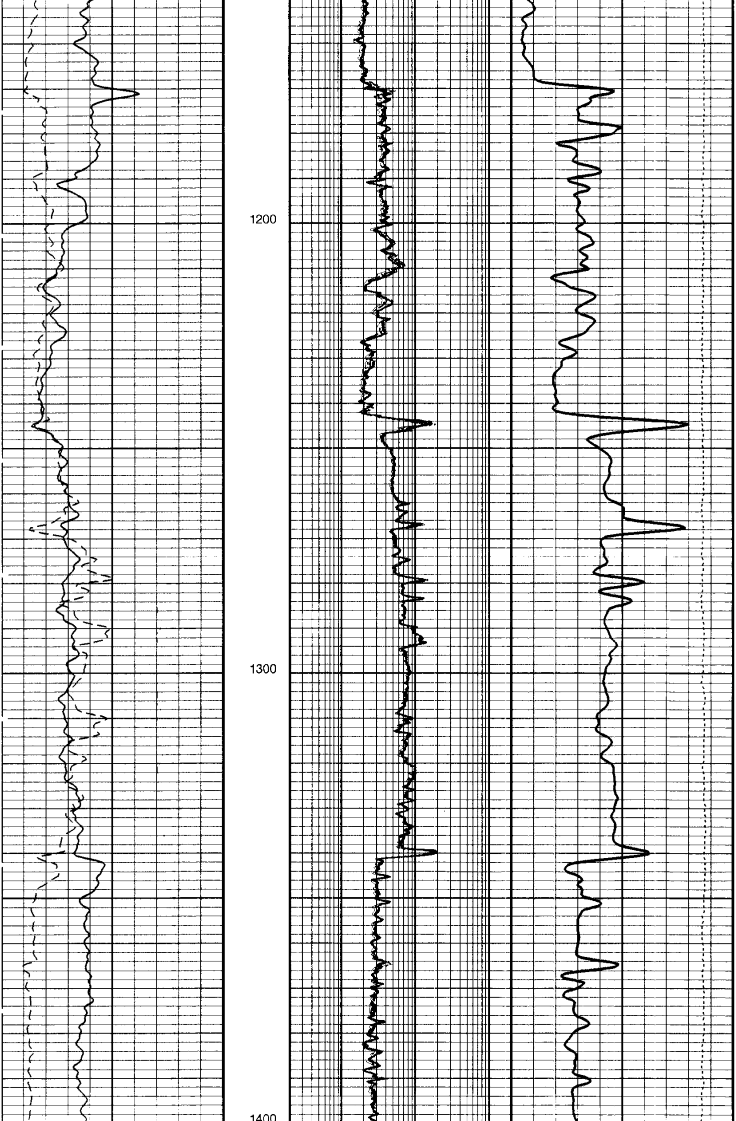


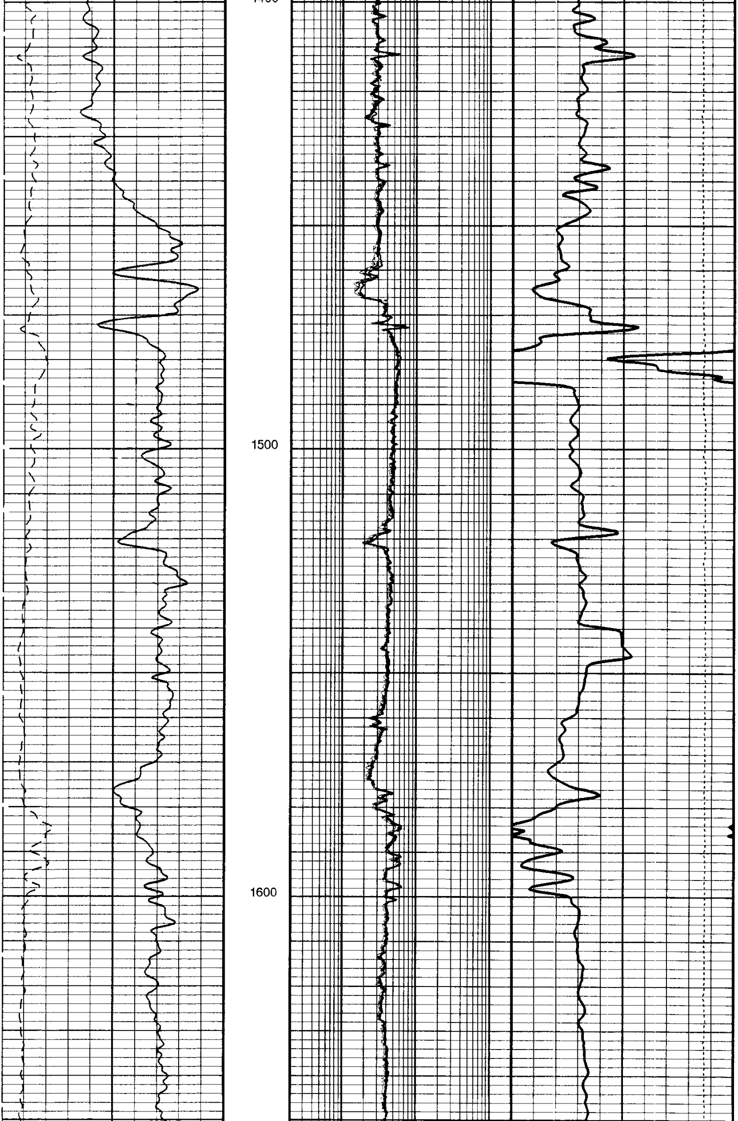


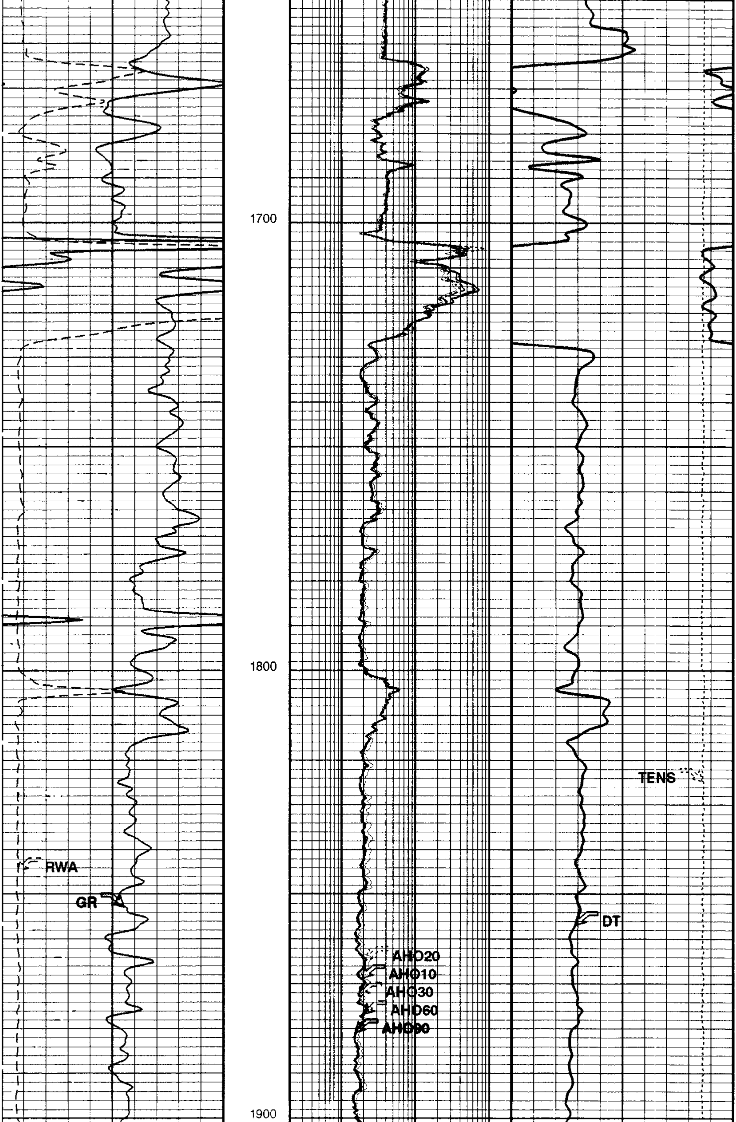


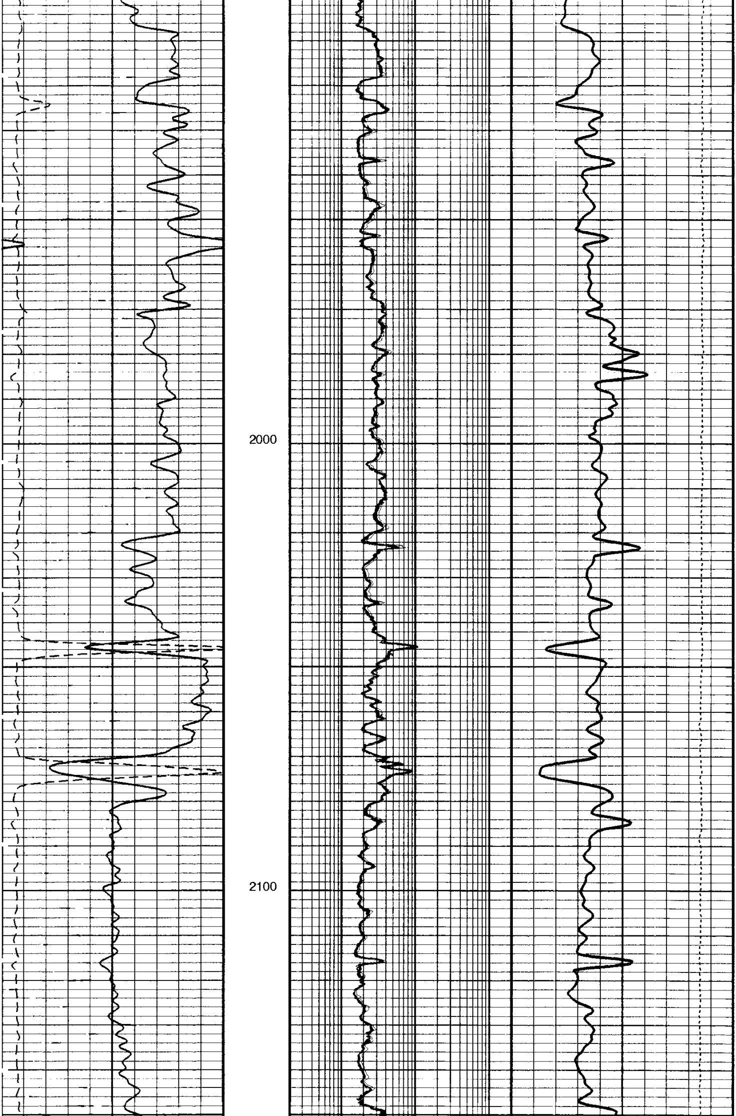


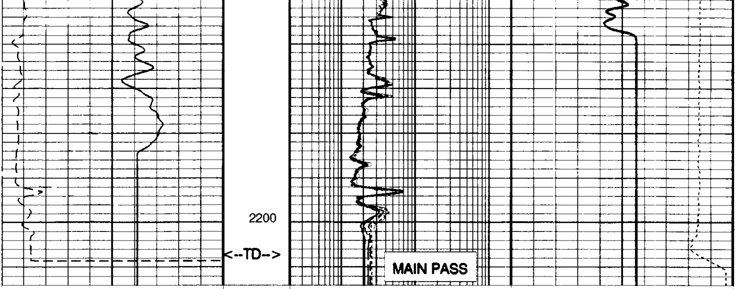












Gamma Ray (GR)		
0	(GAPI)	150
RWA (RWA)		
0	(OHMM)	3

AIT-H 90 Inch Investigation (AHO90)		
0.2	(OHMM)	200
AIT-H 60 Inch Investigation (AHO60)		
0.2	(OHMM)	200
AIT-H 30 Inch Investigation (AHO30)		
0.2	(OHMM)	200
AIT-H 10 Inch Investigation (AHO10)		
0.2	(OHMM)	200
AIT-H 20 Inch Investigation (AHO20)		
0.2	(OHMM)	200

Delta-T (DT)		
160	(US/F)	60
Tension (TENS)		
10000	(LBF)	0

PIP SUMMARY

▮ Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
AHBHM	AIT-H Bhole Correction Mode	2_ComputeStandoff	
AHBLM	AIT-H Basic Logs Mode	6_One_Two_and_Four	
AHCDE	AIT-H Casing Detection Enable	Yes	
AHCEN	AIT-H Tool Centering Flag (in Borehole)	Eccentered	
AHCSED	AIT-H Casing Shoe Estimated Depth	-50000	FT
AHMRF	AIT-H Mud Resistivity Factor	1	
AHSTA	AIT-H Tool Standoff	0.5	IN
ARTS	AIT Rt Selection (for ALLRES computation)	13_AHT90	
BHT	Bottom Hole Temperature (used in calculations)	75.2	DEGF
BS	Bit Size	6.250	IN
DFD	Drilling Fluid Density	9.44	LB/G
DO	Depth Offset	0.0	FT
DTCM	Delta-T Computation Mode	FULL	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
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	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCM	HILT Speed Correction Mode	TSCD_SPEED_CORRECTION	
HSTI	STI Uses HILT Acceleration	YES	
MODE	Sonic Firing Mode	BHC	
MST	Mud Sample Temperature	72.00	DEGF
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	4.0700	OHMM
RTCO	RTCO - Rt Invasion Correction	YES	
RW	Resistivity of Connate Water	1.0000	OHMM
SHT	Surface Hole Temperature	68	DEGF
SPNV	SP Next Value	-95	MV
TD	Total Depth	2211	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: AIT-SON Vertical Scale: 5" per 100' Graphics File Created: 28-Oct-1998 12:49

OP System Version: 8C1-205

MCM

HILTB-DTB	8C1-205	DSLT-TCC	8C1-205
TCC-B	8C1-205		

Input DLIS Files

DEFAULT	HILTB .016	FN:13	FIELD	28-Oct-1998 12:31	2214.0 FT	66.5 FT

Output DLIS Files

DEFAULT HILTB .019 FN:16 FIELD 28-Oct-1998 12:49

Calibration and Check Summary

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Electronics Calibration Check - Thru Cal Mag. & Phase
Master: Jul 31 04:55 1998 Before: Oct 28 09:14 1998

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Thru Cal Magnitude - 0	0	0.6206	0.6315	N/A	N/A	N/A	V
Thru Cal Magnitude - 1	0	1.276	1.297	N/A	N/A	N/A	V
Thru Cal Magnitude - 2	0	0.6346	0.6449	N/A	N/A	N/A	V
Thru Cal Magnitude - 3	0	0.7155	0.7277	N/A	N/A	N/A	V
Thru Cal Magnitude - 4	0	1.339	1.361	N/A	N/A	N/A	V
Thru Cal Magnitude - 5	0	1.952	1.987	N/A	N/A	N/A	V
Thru Cal Magnitude - 6	0	1.951	1.985	N/A	N/A	N/A	V
Thru Cal Magnitude - 7	0	1.397	1.426	N/A	N/A	N/A	V
Phase - 0	0	51.82	52.00	N/A	N/A	N/A	DEG
Phase - 1	0	50.70	50.89	N/A	N/A	N/A	DEG
Phase - 2	0	46.96	47.20	N/A	N/A	N/A	DEG
Phase - 3	0	46.20	46.44	N/A	N/A	N/A	DEG
Phase - 4	0	39.93	40.25	N/A	N/A	N/A	DEG
Phase - 5	0	37.98	38.34	N/A	N/A	N/A	DEG
Phase - 6	0	37.96	38.33	N/A	N/A	N/A	DEG
Phase - 7	0	34.06	34.85	N/A	N/A	N/A	DEG

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Electronics Calibration Check - Auxiliary
Master: Jul 31 04:55 1998 Before: Oct 28 09:14 1998

Measurement	Nominal	Master	Before	After	Change	Limit	Units
AIT-H SPA Plus	990.5	991.7	992.8	N/A	N/A	N/A	MV
AIT-H SPA Zero	0	-0.04295	-0.002420	N/A	N/A	N/A	MV
AIT-H Temperature Plus	0.9150	0.9186	0.9195	N/A	N/A	N/A	V
AIT-H Temperature Zero	0	-0.00004780	-0.00001089	N/A	N/A	N/A	V

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Test Loop Gain Correction
Master: Jul 31 04:55 1998

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Test Loop Gain Magnitude - 0	0	1.013	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 1	0	1.012	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 2	0	1.014	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 3	0	1.013	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 4	0	0.9952	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 5	0	0.9877	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 6	0	0.9985	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude - 7	0	1.015	N/A	N/A	N/A	N/A	V
Phase - 0	0	0.4037	N/A	N/A	N/A	N/A	DEG
Phase - 1	0	0.4531	N/A	N/A	N/A	N/A	DEG
Phase - 2	0	-0.06033	N/A	N/A	N/A	N/A	DEG
Phase - 3	0	0.01893	N/A	N/A	N/A	N/A	DEG
Phase - 4	0	-0.06649	N/A	N/A	N/A	N/A	DEG
Phase - 5	0	-0.1271	N/A	N/A	N/A	N/A	DEG
Phase - 6	0	0.3008	N/A	N/A	N/A	N/A	DEG
Phase - 7	0	-0.1077	N/A	N/A	N/A	N/A	DEG

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Sonde Error Correction
Master: Jul 31 04:55 1998

Measurement	Nominal	Master	Before	After	Change	Limit	Units
R Sonde Error Correction - 0	0	-94.83	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 1	0	151.5	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 2	0	116.3	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 3	0	63.77	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 4	0	27.65	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 5	0	13.62	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 6	0	9.667	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 7	0	-0.4836	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 0	0	-290.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 1	0	-276.7	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 2	0	-107.8	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 3	0	-41.21	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 4	0	-8.109	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 5	0	1.027	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 6	0	-2.569	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 7	0	9.134	N/A	N/A	N/A	N/A	MM/M

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Mud Gain Correction
Master: Jul 31 04:55 1998

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Coarse - Mag, Real, Imag - 0	0	1.057	N/A	N/A	N/A	N/A	
Coarse - Mag, Real, Imag - 1	0	1.057	N/A	N/A	N/A	N/A	
Coarse - Mag, Real, Imag - 2	0	1.057	N/A	N/A	N/A	N/A	
Fine - Mag, Real, Imag - 0	0	1.057	N/A	N/A	N/A	N/A	
Fine - Mag, Real, Imag - 1	0	1.057	N/A	N/A	N/A	N/A	
Fine - Mag, Real, Imag - 2	0	1.057	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Stab Measurement Summary
Before: Oct 23 10:48 1998

Measurement	Nominal	Master	Before	After	Change	Limit	Units
BS Window Ratio	0.9993	N/A	1.004	N/A	N/A	N/A	
BS Window Sum	15860	N/A	15890	N/A	N/A	N/A	CPS
SS Window Ratio	0.4911	N/A	0.4939	N/A	N/A	N/A	
SS Window Sum	11730	N/A	11710	N/A	N/A	N/A	CPS
LS Window Ratio	0.2864	N/A	0.2912	N/A	N/A	N/A	
LS Window Sum	1116	N/A	1111	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Photo-multiplier High Voltages Calibrations
Before: Oct 23 10:48 1998

BS PM High Voltage (Command)	1723	N/A	1717	N/A	N/A	N/A	V
SS PM High Voltage (Command)	2066	N/A	2091	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1419	N/A	1416	N/A	N/A	N/A	V

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Crystal Quality Resolutions Calibration
Before: Oct 23 10:48 1998

BS Crystal Resolution	13.19	N/A	13.06	N/A	N/A	N/A	%
SS Crystal Resolution	10.11	N/A	10.52	N/A	N/A	N/A	%
LS Crystal Resolution	9.440	N/A	9.558	N/A	N/A	N/A	%

High resolution Integrated Logging Tool-CTS Wellsite Calibration - MCFL Calibration
Before: Oct 23 10:48 1998

Raw B0 Resistivity	3875	N/A	3881	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3834	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3836	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool-CTS Wellsite Calibration - HILT Caliper Calibration
Before: Oct 23 10:45 1998

HILT Caliper Zero Measurement	8.000	N/A	8.476	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.65	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Detector Calibration
Before: Oct 23 10:45 1998

Gamma Ray Background	30.00	N/A	63.83	N/A	N/A	N/A	GAPI
Gamma Ray (Jig - Bkg)	165.8	N/A	165.8	N/A	N/A	15.07	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: Aug 07 16:37 1998 Before: Oct 23 10:45 1998

CNTC Background	28.38	28.38	29.24	N/A	N/A	4.257	CPS
CFTC Background	28.78	28.78	28.72	N/A	N/A	4.317	CPS

High resolution Integrated Logging Tool-CTS Wellsite Calibration - Accelerometer Calibration
Before: Oct 28 09:13 1998

Z-Axis Acceleration	32.19	N/A	32.16	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	102.0	DEGF.
Thermal Housing Size	3.360	IN.

High resolution Integrated Logging Tool-CTS / Equipment Identification

Primary Equipment:

Array Induction Tool - H	AIT - H	233
Array Induction Sonde	AHIS - BA	
HILT high-Resolution Mechanical Sonde	HRMS - B	722
HILT Rxo Gamma-ray Device	HRGD -	722
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	0.6206		0.6050	51.82		71.00
	Before	0.6315			52.00		
1	Master	1.276		1.270	50.70		70.00
	Before	1.297			50.89		
2	Master	0.6346		0.6230	46.96		66.00
	Before	0.6449			47.20		
3	Master	0.7155		0.7040	46.20		65.00
	Before	0.7277			46.44		
4	Master	1.339		1.337	39.93		59.00
	Before	1.361			40.25		

5	Master	1.952		1.955	37.98		57.00
	Before	1.987			38.34		
6	Master	1.951		1.955	37.96		57.00
	Before	1.985			38.33		
7	Master	1.397		1.415	34.06		53.00
	Before	1.426			34.85		
			60.00 % (Minimum) (Nominal) 140.0 % (Maximum)			Nom -60.00 (Minimum) (Nominal) Nom – 60.00 (Maximum)	

Master: Jul 31 04:55 1998 Before: Oct 28 09:14 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		991.7	Master		-0.04295
Before		992.8	Before		-0.002420
	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		0.9186	Master		-4.780E-00
Before		0.9195	Before		-1.089E-00
	0.8700 (Minimum) 0.9150 (Nominal) 0.9600 (Maximum)			-0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	

Master: Jul 31 04:55 1998 Before: Oct 28 09:14 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Test Loop Gain Correction

Idx	Value	Test Loop Gain Magnitude V	Value	Phase DEG
0	1.013		0.4037	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
1	1.012		0.4531	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
2	1.014		-0.06033	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
3	1.013		0.01893	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
4	0.9952		-0.06649	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
5	0.9877		-0.1271	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
6	0.9985		0.3008	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
7	1.015		-0.1077	
		0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)

Master: Jul 31 04:55 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	-94.83		-290.1	
		-231.0 (Minimum) -56.00 (Nominal) 119.0 (Maximum)		-2250 (Minimum) 0 (Nominal) 2250 (Maximum)
1	151.5		-276.7	
		114.0 (Minimum) 159.0 (Nominal) 204.0 (Maximum)		-625.0 (Minimum) 0 (Nominal) 625.0 (Maximum)
2	116.3		-107.8	
		66.00 (Minimum) 111.0 (Nominal) 156.0 (Maximum)		-350.0 (Minimum) 0 (Nominal) 350.0 (Maximum)
3	63.77		-41.21	
		39.00 (Minimum) 64.00 (Nominal) 89.00 (Maximum)		-250.0 (Minimum) 0 (Nominal) 250.0 (Maximum)
4	27.65		-8.109	
		15.00 (Minimum) 25.00 (Nominal) 35.00 (Maximum)		-63.00 (Minimum) 0 (Nominal) 63.00 (Maximum)
5	13.62		[illegible] 027	
		4.000 14.00 24.00		-50.00 0 50.00

		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
6	9.667				-2.569			
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-0.4836				9.134			
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: Jul 31 04:55 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Mud Gain Correction

Idx	Value	Coarse - Mag, Real, Imag			Value	Fine - Mag, Real, Imag		
0	1.057				1.057			
		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)
1	1.057				1.057			
		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)
2	1.057				1.057			
		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)		0.6000 (Minimum)	1.000 (Nominal)	1.400 (Maximum)

Master: Jul 31 04:55 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio	Value	Phase	SS Window Ratio	Value	Phase	LS Window Ratio	Value
Before		1.004	Before		0.4939	Before		0.2912
0.9493 (Minimum)	0.9993 (Nominal)	1.049 (Maximum)	0.4665 (Minimum)	0.4911 (Nominal)	0.5156 (Maximum)	0.2721 (Minimum)	0.2864 (Nominal)	0.3007 (Maximum)
Phase	BS Window Sum CPS	Value	Phase	SS Window Sum CPS	Value	Phase	LS Window Sum CPS	Value
Before		15890	Before		11710	Before		1111
15070 (Minimum)	15860 (Nominal)	16650 (Maximum)	11150 (Minimum)	11730 (Nominal)	12320 (Maximum)	1060 (Minimum)	1116 (Nominal)	1172 (Maximum)

Before: Oct 23 10:48 1998

High resolution Integrated Logging Tool-CTS 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		1717	Before		2091	Before		1416
1623 (Minimum)	1723 (Nominal)	1823 (Maximum)	1966 (Minimum)	2066 (Nominal)	2166 (Maximum)	1319 (Minimum)	1419 (Nominal)	1519 (Maximum)

Before: Oct 23 10:48 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %	Value	Phase	SS Crystal Resolution %	Value	Phase	LS Crystal Resolution %	Value
Before		13.06	Before		10.52	Before		9.558
12.19 (Minimum)	13.19 (Nominal)	14.19 (Maximum)	9.111 (Minimum)	10.11 (Nominal)	11.11 (Maximum)	8.440 (Minimum)	9.440 (Nominal)	10.44 (Maximum)

Before: Oct 23 10:48 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM	Value	Phase	Raw B1 Resistivity OHMM	Value	Phase	Raw B2 Resistivity OHMM	Value
Before		3881	Before		3834	Before		3836
3565 (Minimum)	3875 (Nominal)	4185 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)

Before: Oct 23 10:48 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value
Before		8.476	Before		12.65
6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)	9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)

Before: Oct 23 10:45 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		63.83	Before		165.8	Before		165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	150.7 (Minimum)	165.8 (Nominal)	180.9 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: Oct 23 10:45 1998

High resolution Integrated Logging Tool-CTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master	▨	28.38	Master	▨	28.78
Before	▨	29.24	Before	▯	28.72
	5.000 (Minimum) 28.38 (Nominal) 40.00 (Maximum)			5.000 (Minimum) 28.78 (Nominal) 40.00 (Maximum)	

Master: Aug 07 16:37 1998 Before. Oct 23 10:45 1998

High resolution Integrated Logging Tool-CTS
Wellsite Calibration

Accelerometer Calibration

Phase	Z-Axis Acceleration F/S2	Value
Before	▨	32.16
	31.53 (Minimum) 32.19 (Nominal) 32.84 (Maximum)	

Before: Oct 28 09:13 1998

COMPANY: **ENERFIN RESOURCES NORTHWEST**

WELL: **JOHN HANCOCK 22-27-64**
FIELD: **MIST GAS**
COUNTY: **COLUMBIA**
STATE: **OREGON**

BOTTOM LOG INTERVAL	1103 F
SCHLUMBERGER DEPTH	2209 F
DEPTH DRILLER	2211 F
KELLY BUSHING	1001.8 F
DRILL FLOOR	
GROUND LEVEL	991.8 F

Schlumberger

PLATFORM EXPRESS
ARRAY INDUCTION/SP
BHC SONIC/GR/CALIPER