COMPANY: Enerfin Resources Northwest

WELL: CC 41-06-65 (Fishwhack) RD #1

FIELD: Mist

COUNTY: Columbia **STATE:** Oregon

COUNTY: Columbia
Field: Mist
Location: 501.46' S 47 deg 3 min 9 sec E
Well: CC 41-06-65 (Fishwhack) RD #
Company: Enerfin Resources Northwest

5" = 100'

Schlumberger

ARRAY INDUCTION
BHC SONIC
SP

LOCATION

501.46' S 47 deg 3 min 9 sec E
from the SW corner of Section 32 T7N R5W

Elev.: K.B. 919 F
G.L. 909 F
D.F.

Permanent Datum:	Ground Level	Elev.:	909 F
Log Measured From:	Kelly Bushing	10.0 F	above Perm. Datum
Drilling Measured From:	Kelly Bushing		

API Serial No.	SECTION	TOWNSHIP	RANGE
36-009-00340	6	6N	5W

Logging Date	24 ~~17~~-DEC-1998		
Run Number	1		
Depth Driller	2970 F		
Schlumberger Depth	2950 F		
Bottom Log Interval	2953 F		
Top Log Interval	531 F		
Casing Driller Size @ Depth	7.000 IN @ 531 F	@	
Casing Schlumberger	530.5 F		
Bit Size	6.750 IN		
Type Fluid In Hole	Cypan		
MUD Density / Viscosity	9.3 LB/G / 38 S		
Fluid Loss / PH	4.9 C3 / 9		
Source Of Sample	Flowline		
RM @ Measured Temperature	3.620 OHMM @ 45 DEGF	@	
RMF @ Measured Temperature	3.810 OHMM @ 39 DEGF	@	
RMC @ Measured Temperature	3.510 OHMM @ 39 DEGF	@	
Source RMF / RMC	Press / Press		
RM @ MRT / RMF @ MRT	2.264 @ 76 / 2.107 @ 76	@	@
Maximum Recorded Temperatures	76 DEGF		
Circulation Stopped / Time	24-DEC-1998 / 11:00		
Logger On Bottom / Time	17-DEC-1998		
Unit Number / Location	3152 / Sacramento		
Recorded By	Clayton Campbell		
Witnessed By	Rob Lucas		

	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: InterACT	OS1:
OS2: NEUTRON	OS2:
OS3: DENSITY	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1

Rig: Taylor 7

0.5 inch standoffs used on Array Induction

2 centralizers used on sonic

REMARKS: RUN NUMBER 2

RUN 1

SERVICE ORDER #: 6004669
PROGRAM VERSION: 8C1-205
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

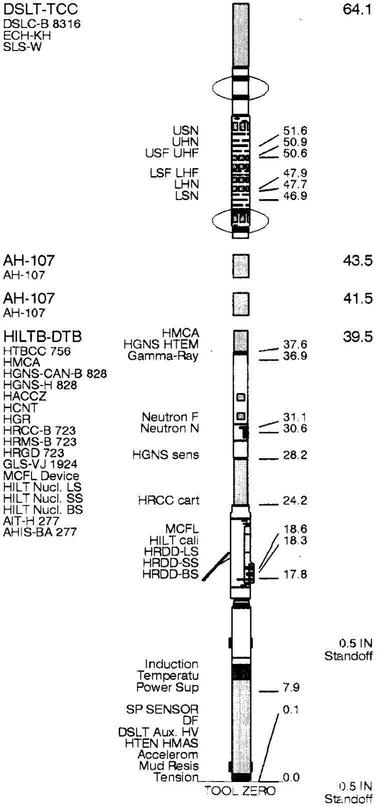
GSR-U/Y
CNB-AB
WITM (CTS)-A

DOWNHOLE EQUIPMENT

LEH-QT 70.0
LEH-QT

TCC-BF 67.1
ECH-KC
TCC-BF 189 TelStatus 64.1

RUN 2



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

Input DLIS Files

DEFAULT	HILTB .031	FN:1	FIELD	24-Dec-1998 17:45	2952.0 FT	332.0 FT

Output DLIS Files

DEFAULT	HILTB .033	FN:25	FIELD	24-Dec-1998 18:04	2952.0 FT	500.0 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 611.67 F3

Cement Volume = 502.51 F3 (assuming 2.88 IN casing O.D.)

Computed from 2952.0 FT to 531.0 FT using data channel(s) HCAL

OP System Version: 8C1-205

MCM

HILTB-DTB	APCW-98Q2	DSLT-TCC	APCW-98Q2
TCC-BF	APCW-98Q2		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
SPNV	-20 MV	-70 MV	2739.0 18:07:41
	-15 MV	-20 MV	2543.0 18:08:11
	-10 MV	-15 MV	2021.0 18:09:03
	-15 MV	-10 MV	1915.0 18:09:28
	-15 MV	-15 MV	601.0 18:11:42

PIP SUMMARY

⊢ Integrated Hole Volume Minor Pip Every 10 F3

⊢ Integrated Hole Volume Major Pip Every 100 F3

⊣ Integrated Cement Volume Minor Pip Every 10 F3

⊣ Integrated Cement Volume Major Pip Every 100 F3

■ Time Mark Every 60 S

AIT-H 90 Inch Investigation (AHO90)

0.2 (OHMM) 20

RWA (RWA)
0 (OHMM) 3

Caliper (HCAL)
4 (IN) 14

Gamma Ray (GR)
0 (GAPI) 150

AIT-H 60 Inch Investigation (AHO60)
0.2 (OHMM) 20

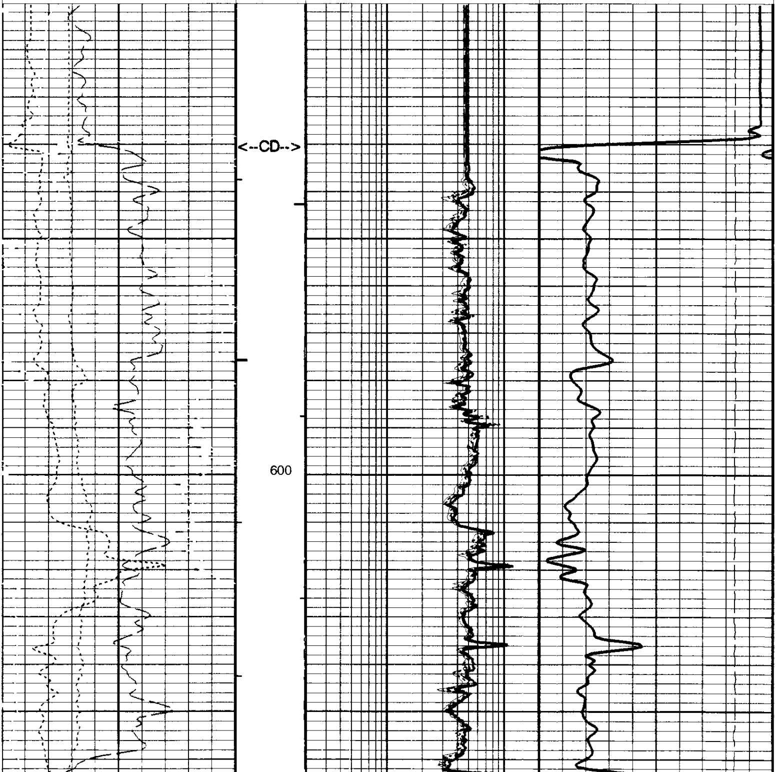
AIT-H 30 Inch Investigation (AHO30)
0.2 (OHMM) 20

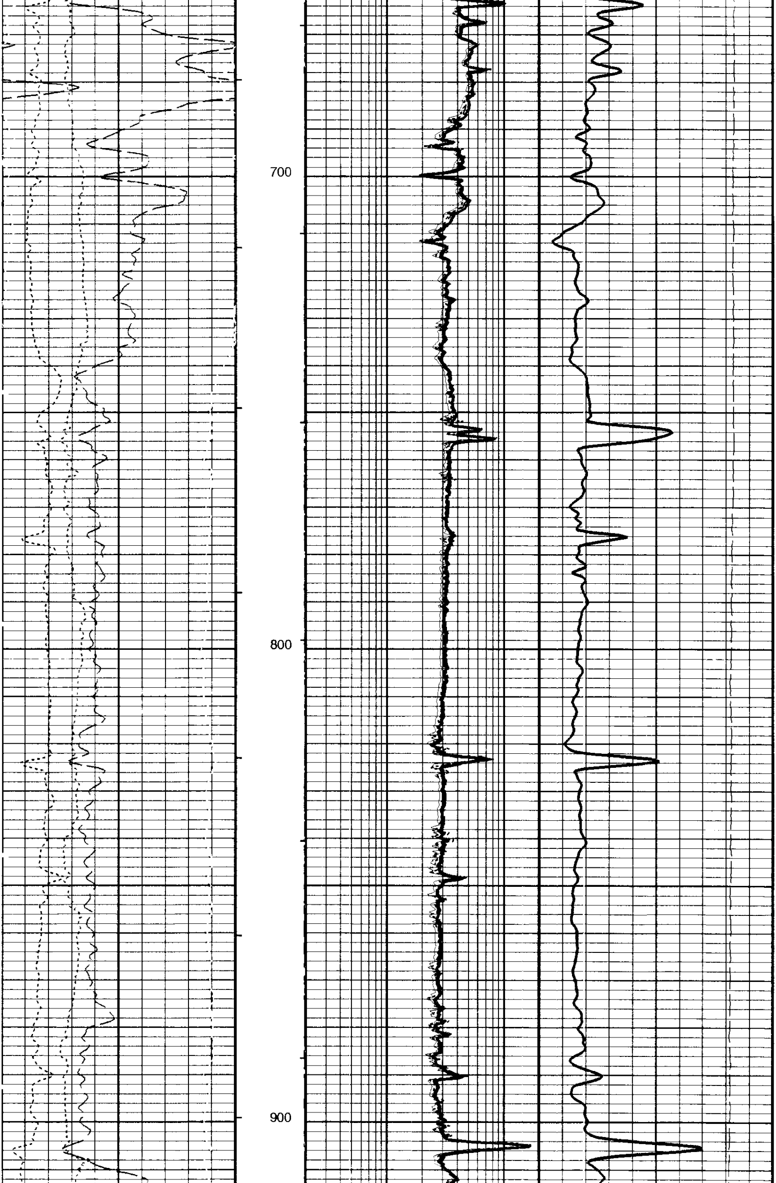
AIT-H 20 Inch Investigation (AHO20)
0.2 (OHMM) 20

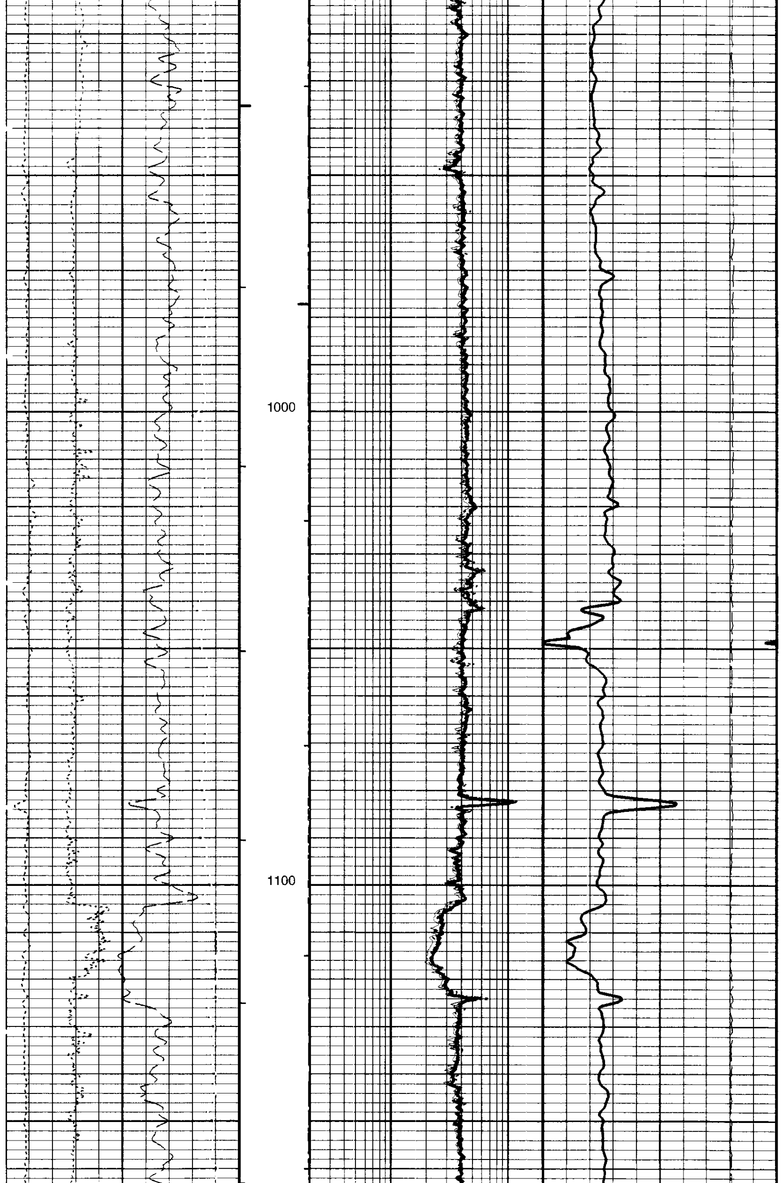
AIT-H 10 Inch Investigation (AHO10)
0.2 (OHMM) 20

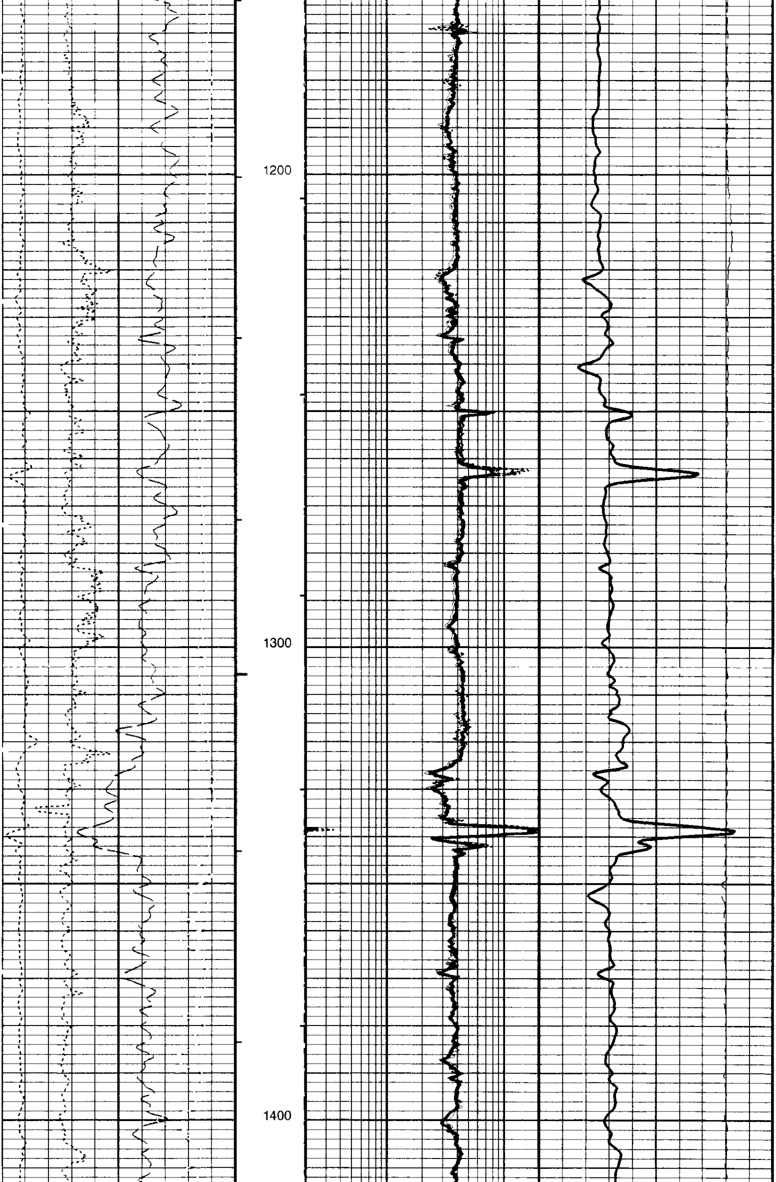
Tension (TENS)
10000 (LBF) 0

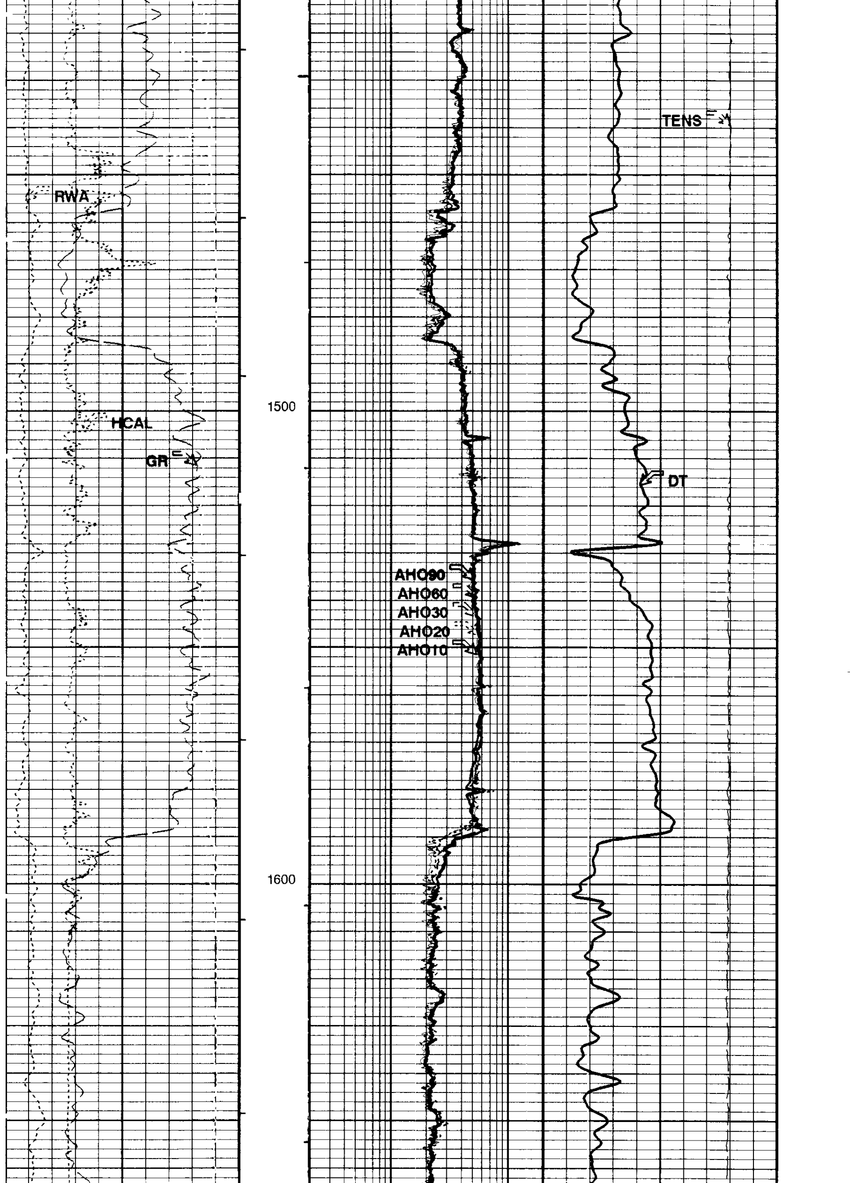
Delta-T (DT)
150 (US/F) 50

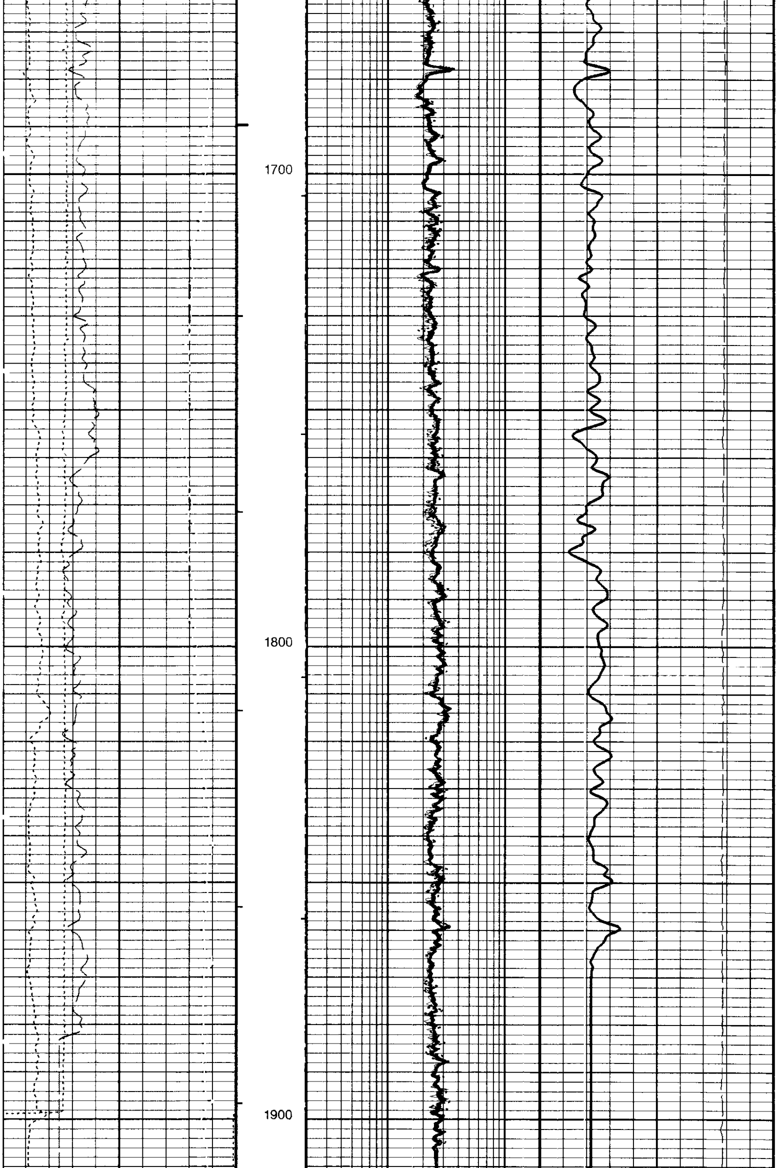


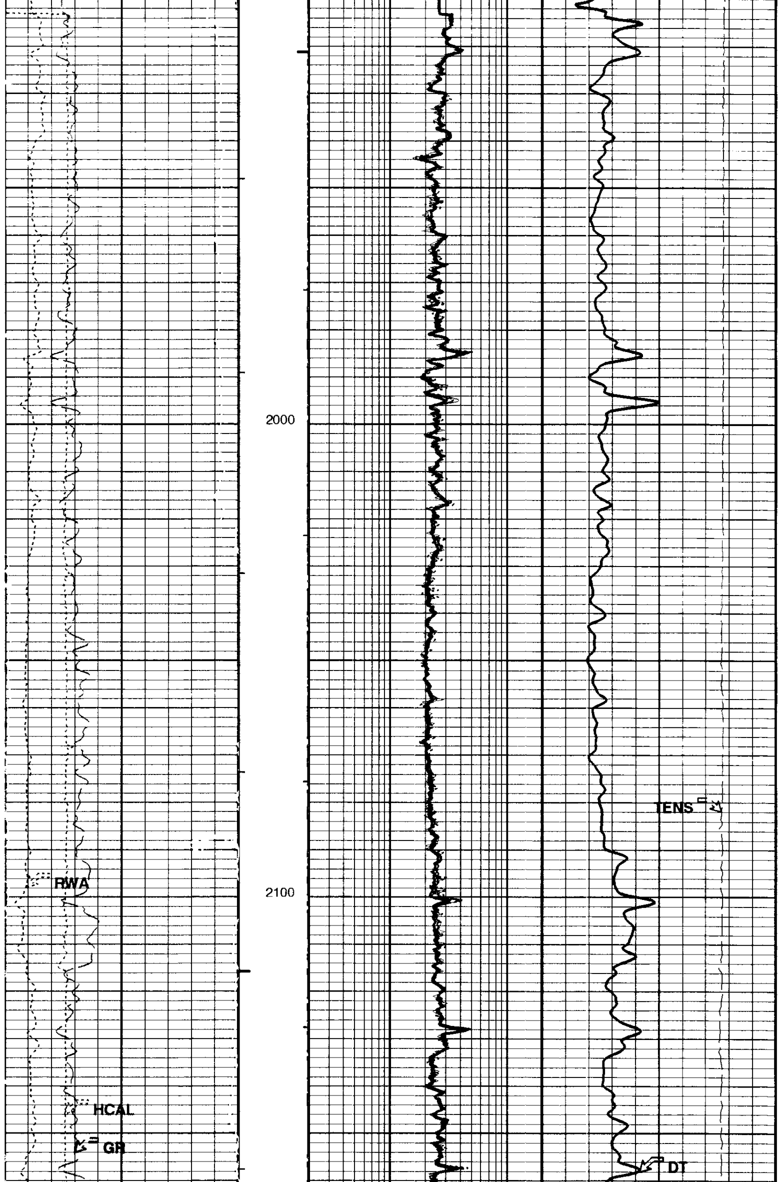


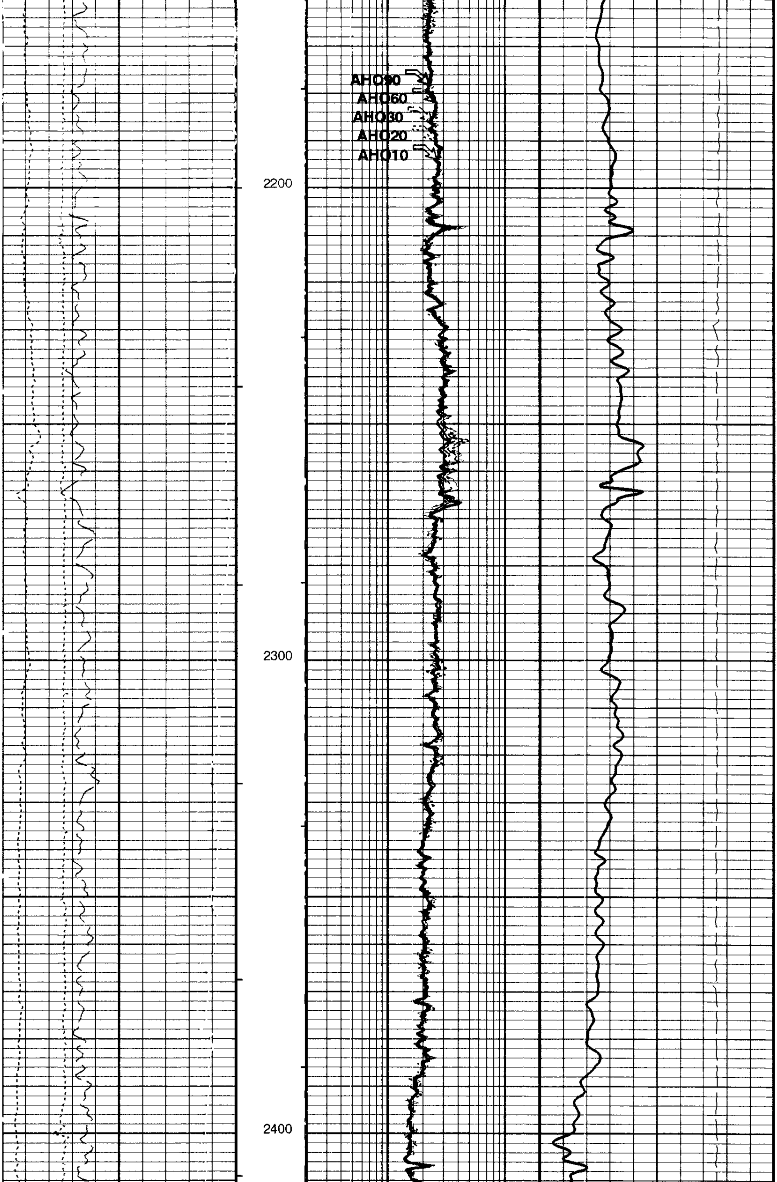


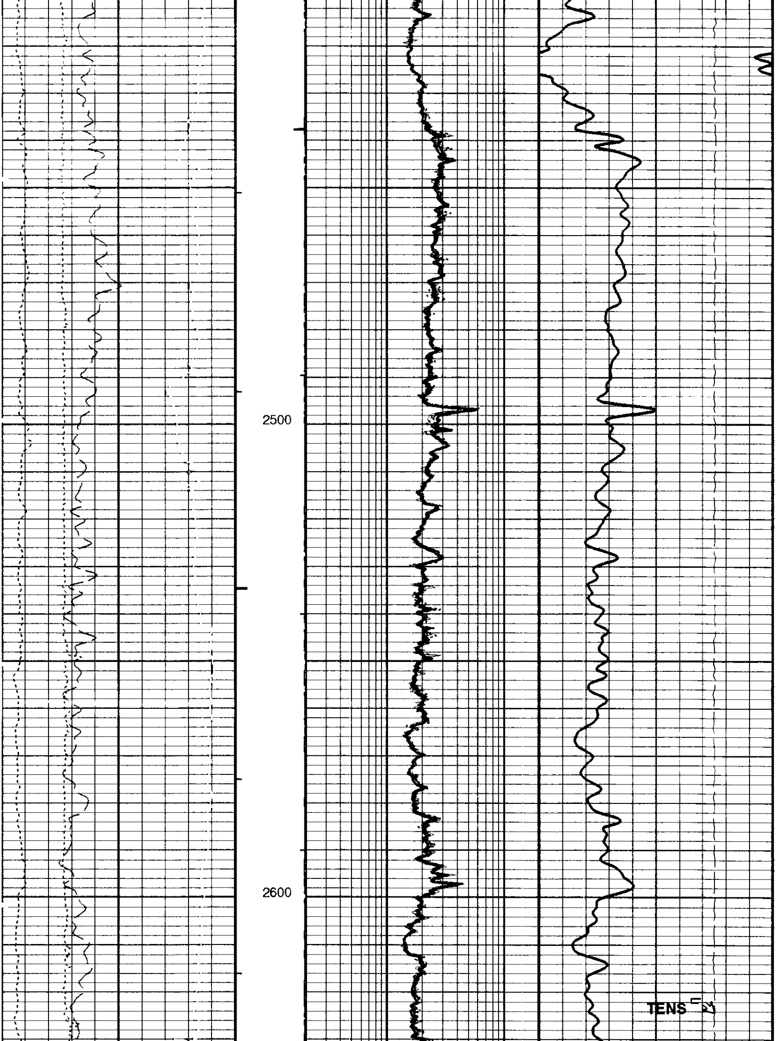


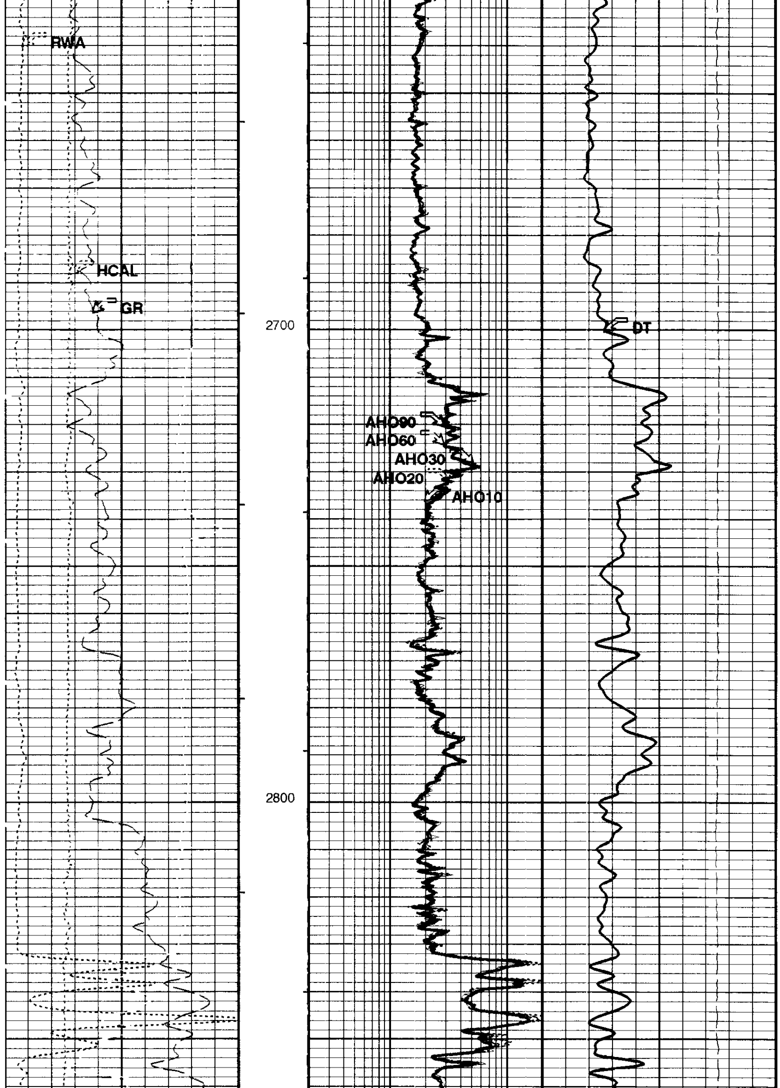


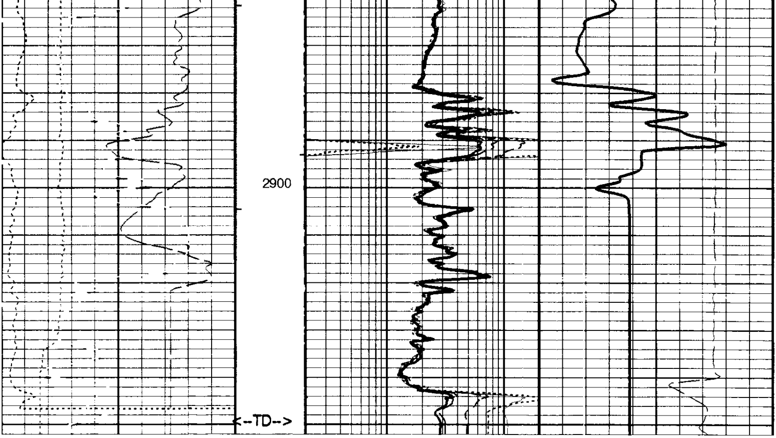












Gamma Ray (GR)			AIT-H 10 Inch Investigation (AHO10)			Delta-T (DT)		
0	(GAPI)	150	0.2	(OHMM)	20	150	(US/F)	50
Caliper (HCAL)			**AIT-H 20 Inch Investigation (AHO20)**			**Tension (TENS)**		
4	(IN)	14	0.2	(OHMM)	20	10000	(LBF)	0
RWA (RWA)			**AIT-H 30 Inch Investigation (AHO30)**					
0	(OHMM)	3	0.2	(OHMM)	20			
			AIT-H 60 Inch Investigation (AHO60)					
			0.2	(OHMM)	20			
			AIT-H 90 Inch Investigation (AHO90)					
			0.2	(OHMM)	20			

PIP SUMMARY

├ Integrated Hole Volume Minor Pip Every 10 F3
┣ Integrated Hole Volume Major Pip Every 100 F3
┤ Integrated Cement Volume Minor Pip Every 10 F3
┫ Integrated Cement Volume Major Pip Every 100 F3

■ Time Mark Every 60 S

AIT-H Answer Product Processing Summary. Data taken with tool # 277 (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 0.50 IN. Bit Size is 6.75 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/SAIT Answer Product processing *****

Surface Hole Temperature (SHT)	48.000 DEGF	Bottom Temperature (BHT)	78.000 DEGF
Total Depth (TD)	2970.000 FT		
Form Factor Exponent (FEXP)	2.000	Form Factor Numerator (FNUM)	1.000
Mud Filtrate Sample Resistivity (RMFS)	3.810 OHMM	Mud Filtrate Sample Temperature (MFST)	39.000 DEGF
Resitivity Connate Water (RW)	1.000 OHMM		

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

Playback Mode: NORMAL

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)	78	DEGF
BS	Bit Size	6.750	IN
DFD	Drilling Fluid Density	9.30	LB/G
DHC	Density Hole Correction	BS	
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	45.00	DEGF
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	3.8100	OHMM
RTCO	RTCO - Rt Invasion Correction	YES	
RW	Resistivity of Connate Water	1.0000	OHMM
SHT	Surface Hole Temperature	48	DEGF
SPNV	SP Next Value	-70	MV
TD	Total Depth	2970	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: AITSON Vertical Scale: 5" per 100' Graphics File Created: 24-Dec-1998 18:04

OP System Version: 8C1-205

MCM

HILTB-DTB	APCW-98Q2	DSLT-TCC	APCW-98Q2
TCC-BF	APCW-98Q2		

Speed Corrected - Depth Matched LOG

Input DLIS Files

DEFAULT	HILTB .031	FN:1	FIELD	24-Dec-1998 17:45	2952.0 FT	332.0 FT

Output DLIS Files

DEFAULT	HILTB .033	FN:25	FIELD	24-Dec-1998 18:04

COMPANY: **Enerfin Resources Northwest**

WELL: **CC 41-06-65 (Fishwhack) RD #1**

FIELD: **Mist**

COUNTY: **Columbia**

STATE: **Oregon**

BOTTOM LOG INTERVAL	2953 F
SCHLUMBERGER DEPTH	2950 F
DEPTH DRILLER	2970 F
KELLY BUSHING	919 F
DRILL FLOOR	
GROUND LEVEL	909 F

Schlumberger

ARRAY INDUCTION
BHC SONIC
SP