COMPANY: Enerfin Resources Northwest

WELL: "Bascom Pacific LLC" 14-26-64 RD #1

FIELD: Mist Gas

COUNTY: Columbia **STATE:** Oregon

COUNTY: Columbia
Field: Mist Gas
Location: 1329' N & 251' E from the SW co
Well: "Bascom Pacific LLC" 14-26-64
Company: Enerfin Resources Northwest

2" = 100'
Schlumberger

Platform Express
Array Induction/SP/GR/ML
Neutron/Density/BHC Sonic

LOCATION
1329' N & 251' E from the SW corner
of section 26

Elev.: K.B. 1047.7 ft
G.L. 1037.7 ft
D.F.

Permanent Datum: Ground Level Elev.: 1037.7 ft
Log Measured From: Kelly Bushing 10.0 ft above Perm. Datum
Drilling Measured From: Kelly Bushing

API Serial No.	SECTION	TOWNSHIP	RANGE
36-009-00287-01	26	6N	4W

Logging Date		29-JAN-2000				
Run Number		1				
Depth Driller		3050 ft				
Schlumberger Depth		3047 ft				
Bottom Log Interval		3039 ft				
Top Log Interval		517 ft				
Casing Driller Size @ Depth		9.625 in	@ 517 ft		@	
Casing Schlumberger		517 ft				
Bit Size		6.250 in				
Type Fluid In Hole		Accu-gauge				
MUD Density	Viscosity	8.8 lbm/gal	42 s			
MUD Fluid Loss	PH	8.8 cm3	9.5			
MUD Source Of Sample		Pitt				
RM @ Measured Temperature		2.890 ohm.m	@ 62 degF		@	
RMF @ Measured Temperature		2.970 ohm.m	@ 56 degF		@	
RMC @ Measured Temperature		3.110 ohm.m	@ 54 degF		@	
Source RMF	RMC	Press	Press			
RM @ MRT	RMF @ MRT	2.401 @ 76	2.252 @ 76	@		@
Maximum Recorded Temperatures		76 degF				
Circulation Stopped	Time	29-JAN-2000				
Logger On Bottom	Time	29-JAN-2000				
Unit Number	Location	3152	Sacramento			
Recorded By		Clayton Campbell				
Witnessed By		Rob Lucas				

	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				
MUD Fluid Loss / PH				
MUD 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:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1

0.5 inch standoffs used on array induction

Two 0.5 inch standoffs used on BHC sonic sonde

log calulated on a sandstone matrix (2.65 g/cc 56 us/ft)

cement volume calculated assuming 2.975 OD production casing

First logging attempt made logged from 1702
Centralizers and standoffs reduced to minimum possible for 2nd wireline attempt
log spliced at 1600 feet to merge first pass with second logging run

Rig: John Taylor #7

REMARKS: RUN NUMBER 2

RUN 1		RUN 2	
SERVICE ORDER #:	6137975	SERVICE ORDER #:	
PROGRAM VERSION:	9C0-413	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

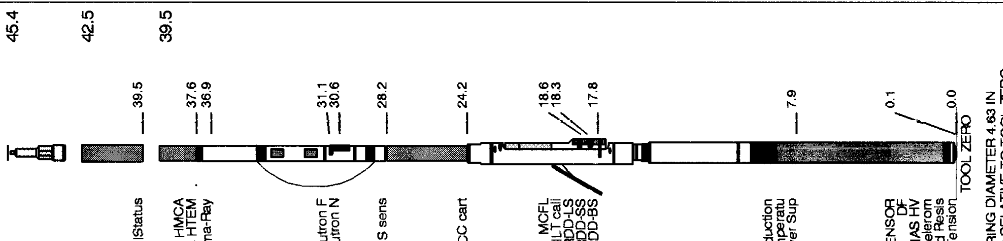
TCM-AB

DOWNHOLE EQUIPMENT

LEH-QT
LEH-QT

TCC-BF
ECH-KC
TCC-BF

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



MAXIMUM STRING DIAMETER 4.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

Main Pass 2" = 100'

MAXIS 500 Field Log

Input DLIS Files

DEFAULT	HILTB .016	FN:12	PRODUCER	29-Jan-2000 20:28	3051.0 FT	422.0 FT

Output DLIS Files

DEFAULT	HILTB .026	FN:20	PRODUCER	02-Feb-2000 10:49	3051.0 FT	422.0 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 465.06 F3

Cement Volume = 384.51 F3 (assuming 2.88 IN casing O.D.)

Computed from 3050.0 FT to 1263.5 FT using data channel(s) HCAL

OP System Version: 9C0-413

MCM

HILTB-DTB	OP9-KP2	DSLT-TCC	OP9-KP2
TCC-BF	OP9-KP2		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
SPNV	-30 MV	-60 MV	1600.0 10:51:45

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

Env.Corr.Thermal Neutron Porosity (TNPH) 1.2 (V/V) 0.6

Env.Corr.Thermal Neutron Porosity (TNPH) 0.6 (V/V) 0

▨ Crossover

Micro Normal Resistivity (HMNO) (OHMM) 0 30

Tension (TENS) 10000 (LBF) 0

RWA (RWA) 0 (OHMM) 3

Micro Inverse Resistivity (HMIN) (OHMM) 0 30

Sonic Porosity (SPHI) 0.6 (V/V) 0

Caliper (HCAL) 4 (IN) 14

Resistivity standoff (RSOZ) 2 (IN) 0

AIT-H 90 Inch Investigation (AHT90) 0 (OHMM) 20

Formation Pe (PEFZ) -1 (----) 9

Bit Size (BS) 4 (IN) 14

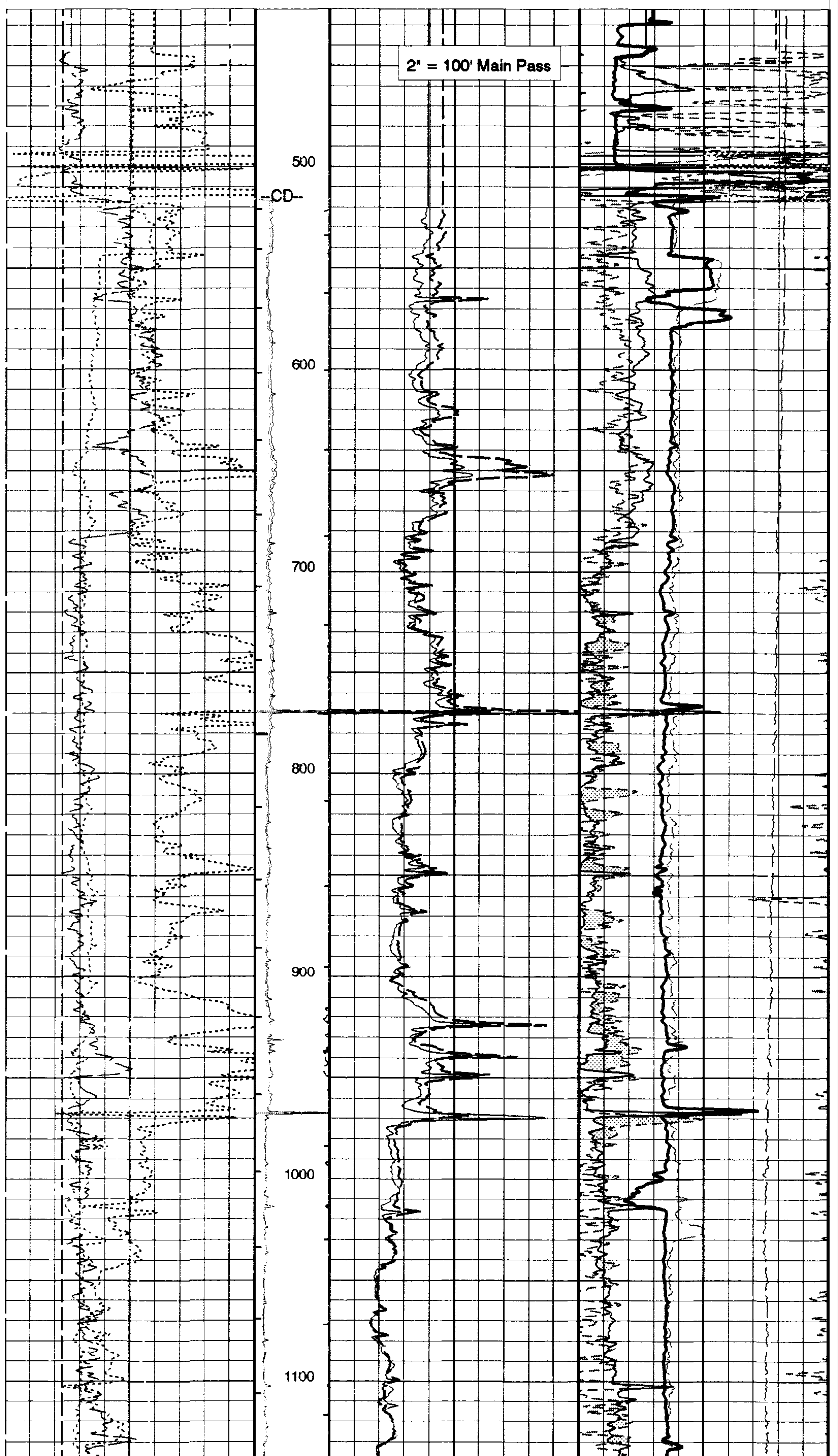
Std Res Density Porosity (DPHZ) 1.2 (V/V) 0.6

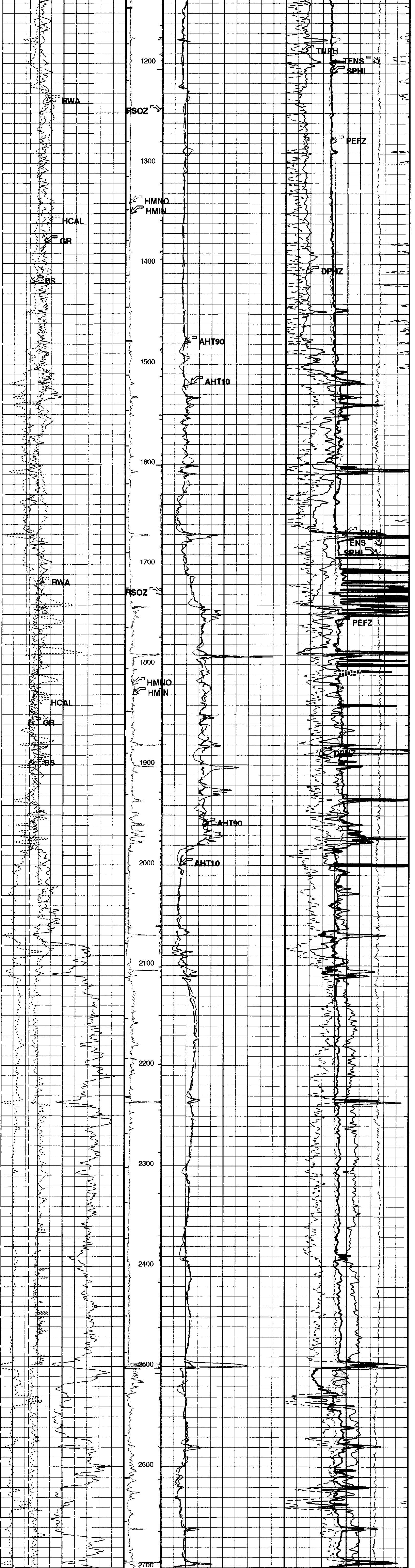
Gamma Ray (GR) 0 (GAPI) 150

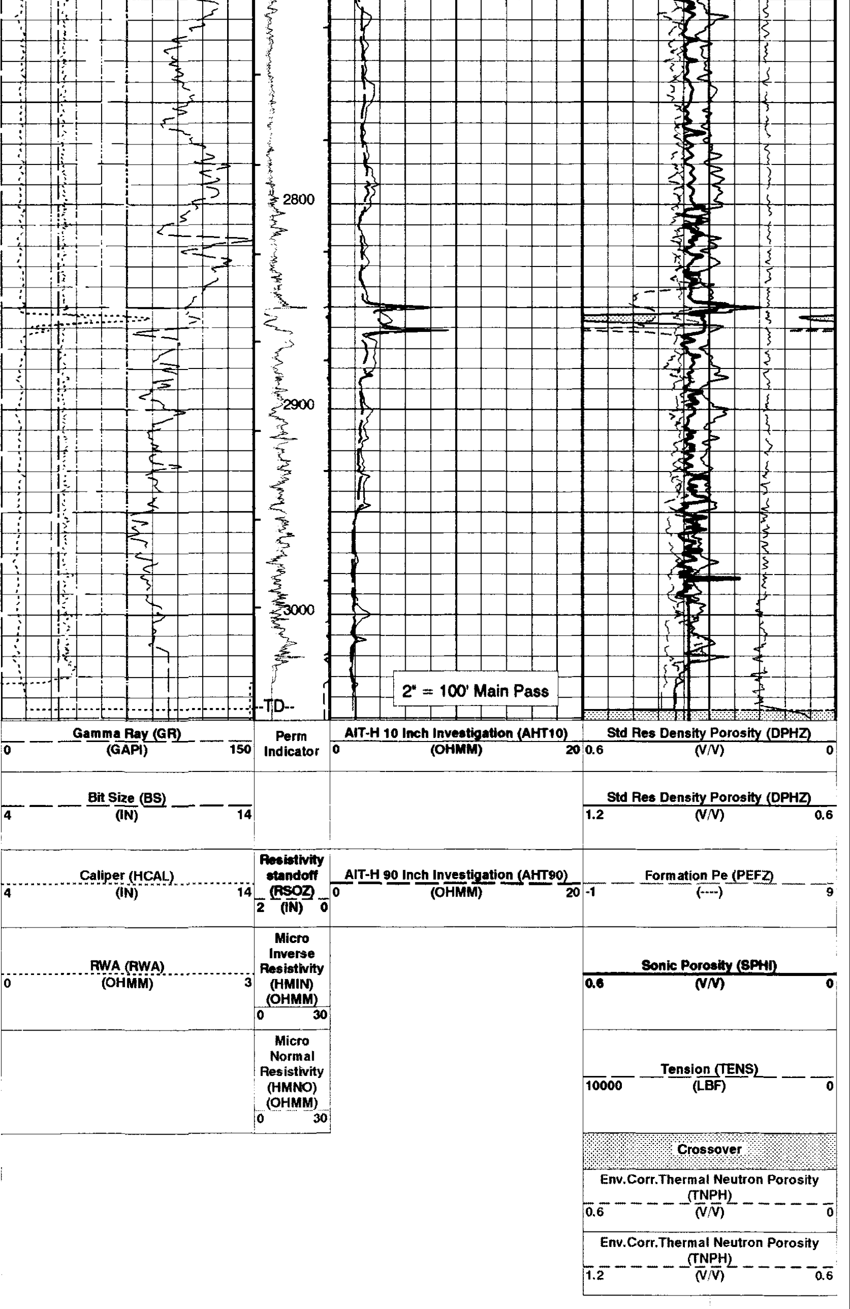
Perm Indicator

AIT-H 10 Inch Investigation (AHT10) 0 (OHMM) 20

Std Res Density Porosity (DPHZ) 0.6 (V/V) 0







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 # 112 (AHTNO)

...Acquired data from HILT/HAIT

***** Borehole 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 6.25 IN.

***** Input Selections to AIT-H 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)	76.000 DEGF
Total Depth (TD)	3050.000 FT		
Form Factor Exponent (FEXP)	2.000	Form Factor Numerator (FNUM)	1.000
Mud Filtrate Sample Resistivity (RMFS)	2.970 OHMM	Mud Filtrate Sample Temperature (MFST)	56.000 DEGF
Resitivity Connate Water (RW)	1.000 OHMM		

***** AIT-H Answer Product Processing Control Parameters *****

Playback Mode: OFF

Parameters

DLIS Name	Description	Value	
AHBHM	AIT-H Borehole Correction Mode	2_ComputeStandoff	
AHBHV	AIT-H Borehole Correction Code Version Number	870	
AHBLM	AIT-H Basic Logs Mode	6_One_Two_and_Four	
AHBLV	AIT-H Basic Logs Code Version Number	973	
AHBPO	AIT-H Basic Logs Processing Option	Standard_Processing	
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
AHFRSV	AIT-H Response Set Version for Four ft Resolution	30.66.23.11	
AHMRF	AIT-H Mud Resistivity Factor	1	
AHORSV	AIT-H Response Set Version for One ft Resolution	30.66.23.11	
AHRFV	AIT-H Radial Profiling Code Version Number	700	
AHRPV	AIT-H Radial Parametrization Code Version Number	710	
AHSTA	AIT-H Tool Standoff	0.5	IN
AHTRSV	AIT-H Response Set Version for Two ft Resolution	30.66.23.11	
ARTS	AIT Rt Selection (for ALLRES computation)	13_AHT90	
BHFL	Borehole Fluid Type	WATER	
BHS	Bore Hole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	76	DEGF
BS	Bit Size	6.250	IN
BSAL	Borehole Salinity	1500.00	PPM
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
CDTS	C-Delta-T Shale	100	US/F
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	24.00	LB/F
DFD	Drilling Fluid Density	8.80	LB/G
DHC	Density Hole Correction	BS	
DO	Depth Offset	0.0	FT
DTF	Delta-T Fluid	189	US/F
DTM	Delta-T Matrix	56	US/F
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction 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	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCM	HILT Speed Correction Mode	TSCD_SPEED_CORRECTION	
HSCO	Hole Size Correction Option	YES	
HSTI	STI Uses HILT Acceleration	YES	
MATR	Rock Matrix Type	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.65	G/C3
MPOF	MCFL Processing Operation Mode	ON	
MST	Mud Sample Temperature	62.00	DEGF
MWCO	Mud Weight Correction Option	NO	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PP	Playback Processing	OFF	
PTCO	Pressure/Temperature Correction Option	NO	
RMFS	Resistivity of Mud Filtrate Sample	2.9700	OHMM
RTCO	RTCO - Rt Invasion Correction	YES	
RW	Resistivity of Connate Water	1.0000	OHMM
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPNV	SP Next Value	-60	MV
SPSO	Sonic Porosity Source	DT	
SPVD	TVD of Starting Point	0	FT
TD	Total Depth	3050	FT
TDL	Total Depth - Logger	3047.00	FT
TIMD	Along-hole depth of Tie-in Point	500	FT
TIVD	TVD of Tie-in Point	500	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: S2 Vertical Scale: 2" per 100' Graphics File Created: 02-Feb-2000 10:49

OP System Version: 9C0-413

MCM

HILTB-DTB	OP9-KP2	DSLT-TCC	OP9-KP2
TCC-BF	OP9-KP2		

Speed Corrected - Depth Matched LOG

Input DLIS Files

DEFAULT	HILTB .016	FN:12	PRODUCER	29-Jan-2000 20:28	3051.0 FT	422.0 FT

Output DLIS Files

DEFAULT	HILTB .026	FN:20	PRODUCER	02-Feb-2000 10:49

COMPANY:	Enerfin Resources Northwest	BOTTOM LOG INTERVAL	3039 ft
		SCHLUMBERGER DEPTH	3047 ft
WELL:	"Bascom Pacific LLC" 14-26-64 RD #1	DEPTH DRILLER	3050 ft
FIELD:	Mist Gas	KELLY BUSHING	1047.7 ft
COUNTY:	Columbia	DRILL FLOOR	
STATE:	Oregon	GROUND LEVEL	1037.7 ft

Schlumberger

– end –

Platform Express
Array Induction/SP/GR/ML
Neutron/Density/BHC Sonic