COMPANY: Enerfin Resources Northwest

WELL: C.C. 32-28-75 (Hadrasaur)

FIELD: Mist Gas

COUNTY: Columbia **STATE:** Oregon

COUNTY	Columbia
Field	Mist Gas
Location	1519.7' S & 2231.71' W from
Well	C.C. 32-28-75 (Hadrasaur)
Company	Enerfin Resources Northwest

Schlumberger

CEMENT BOND WITH VDL NEUTRON LOG

1519.7' S & 2231.71' W from the NE corner of Section 28

Elev.	K.B.	1937.74 ft
	G.L.	1927.74 ft
	D.F.	

Permanent Datum:	GROUND LEVEL	Elev.:	1927.74 ft
Log Measured From:	Kelly Bushing	10.0 ft	above Perm. Datum
Drilling Measured From:	Kelly Bushing		

API Serial No	SECTION	TOWNSHIP	RANGE
36-009-00337	28	7N	W

Logging Date	7-AUG-1999
Run Number	1
Depth Driller	2860 ft
Schlumberger Depth	2850 ft
Bottom Log Interval	2807 ft
Top Log Interval	550 ft
Casing Fluid Type	WATER
Salinity	
Density	8.3 lbm/gal
Fluid Level	Surface
BIT/CASING/TUBING STRING	
Bit Size	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
Maximum Recorded Temperatures	
Logger On Bottom Time	7-AUG-1999 [illegible]
Unit Number Location	3382 BAKERSFIELD
Recorded By	Jeffrey R. Sandoval
Witnessed By	Rob [illegible]

	Run 1	Run 2	Run 3
Mud Type			
Water Salinity			
[illegible]			
[illegible]			
[illegible]			
[illegible]			
[illegible] Temperature			
[illegible] Temperature			
[illegible]			
Maximum Deviation			
CEMENTING DATA			
Primary/Squeeze	Primary		
Casing String No			
Lead Cement Type			
Volume			
Density			
Water Loss			
Additive			
Tail Cement Type			
Volume			
Density			
Water Loss			
Additives			
Expected Cement Top	680 ft		

Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Fluid Type			
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size			
[illegible]			
[illegible]			
[illegible]			
[illegible]			
[illegible]			
[illegible]			
Maximum Recorded Temperatures			
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: PERFORATE	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
THANK YOU FOR PICKING SCHLUMBERGER!	
CORRELATED TO [illegible] PLATFORM EXPRESS	
DATED [illegible]	
CREW: [illegible] & ROGER THORNBURY	

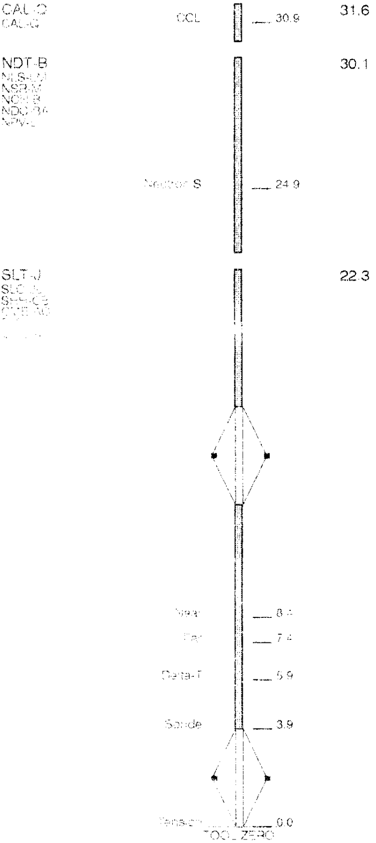
RUN 1		RUN 2	
SERVICE ORDER #		SERVICE ORDER #	
PROGRAM VERSION	9C0-419	PROGRAM VERSION	
FLUID LEVEL	[illegible]	FLUID LEVEL	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT	
WDW-HB SWM-AA NCS-VB	
DOWNHOLE EQUIPMENT	
MH-22 MH-22	

33.2



MAXIMUM STRING DIAMETER 2.62 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Input DLIS Files

DEFAULT SLTJ .006 FN:5 PRODUCER 07-Aug-1999 09:37 2818.5 FT 543.2 FT

Output DLIS Files

DEFAULT SLTJ .009 FN:8 PRODUCER 07-Aug-1999 10:57 2818.5 FT 516.5 FT

OP System Version: 9C0-413

MCM

SLT-J	9C0-413	NDT-B	9C0-413
CAL-Q	SRPC-VX-1201		

CasCollar
From CCL to T1

MAIN PASS

Casing Collar Locator (CCL)

Transit Time 2 (TT2)
390 (US) 190

CBL Amplitude (SA2)
0 (MV) 100

NO PRESSURE

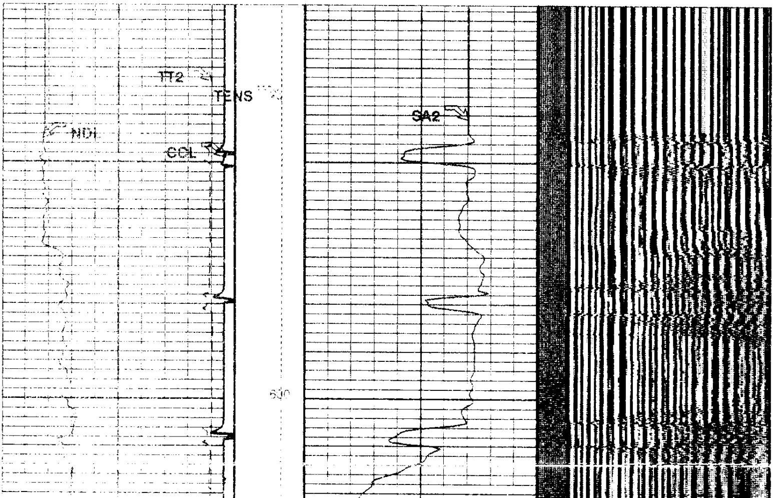
Neutron Depth Log (NDL)
0 (CPS) 2500

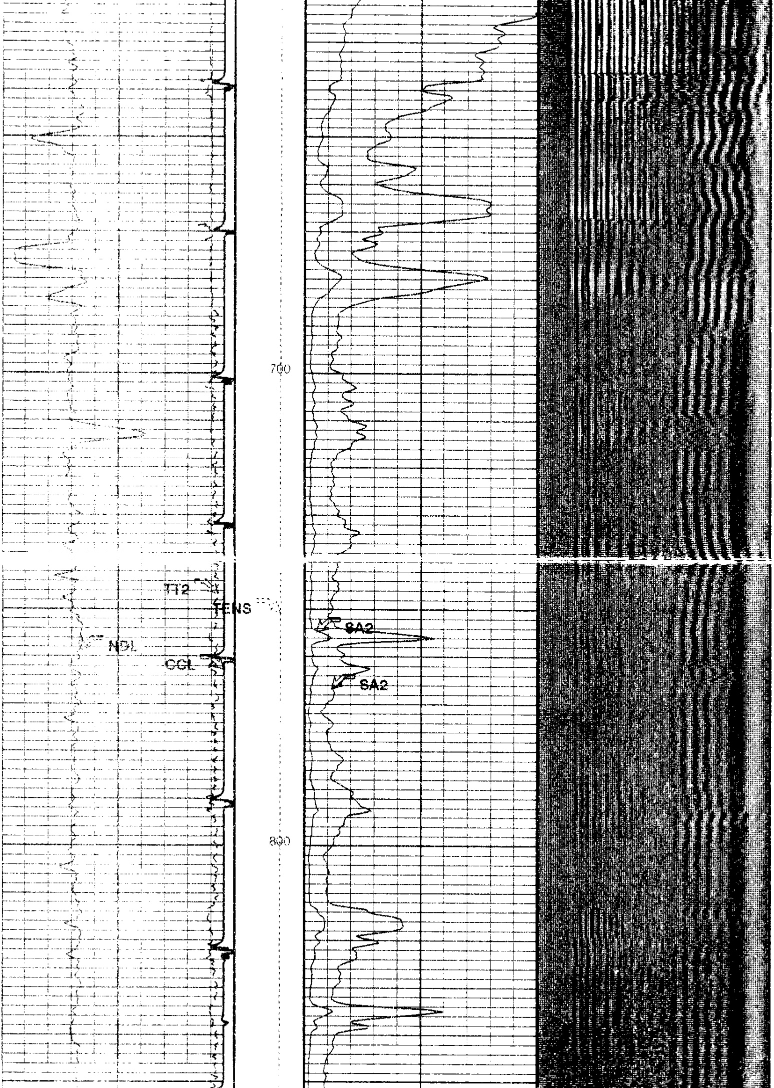
Tension (TENS) (LBF)
1500 0

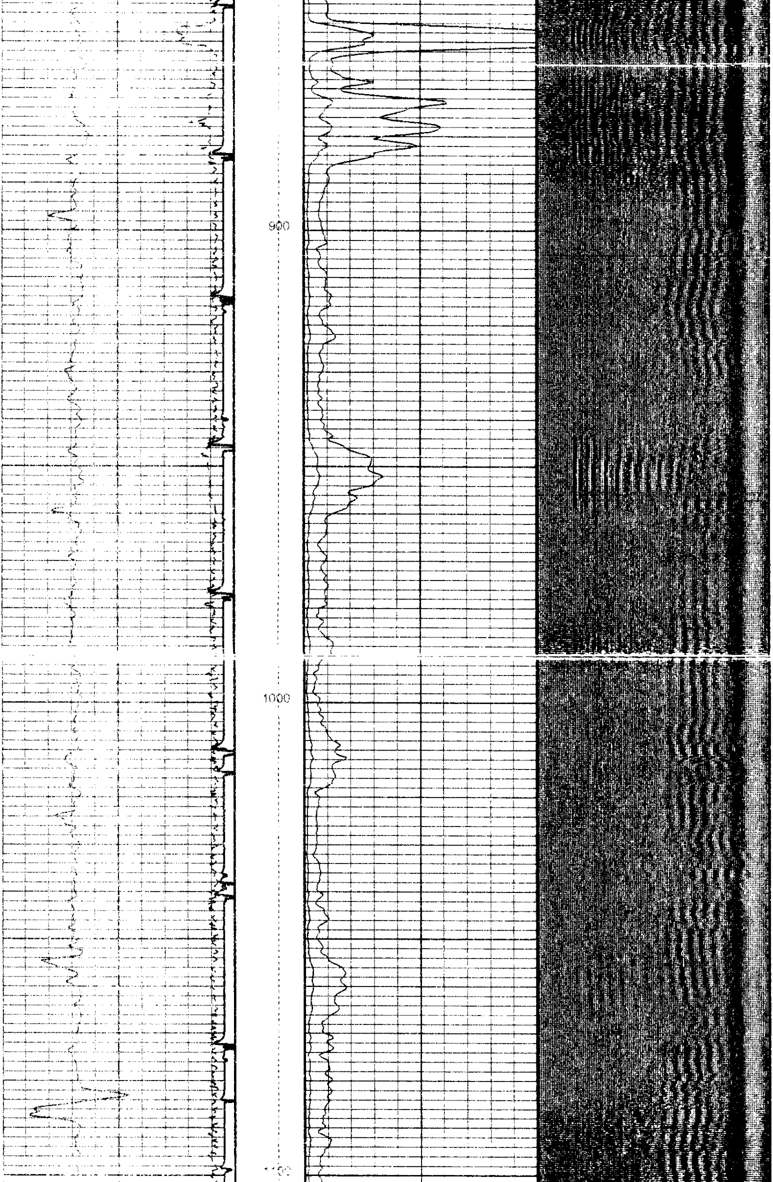
CBL Amplitude (SA2)
0 (MV) 20

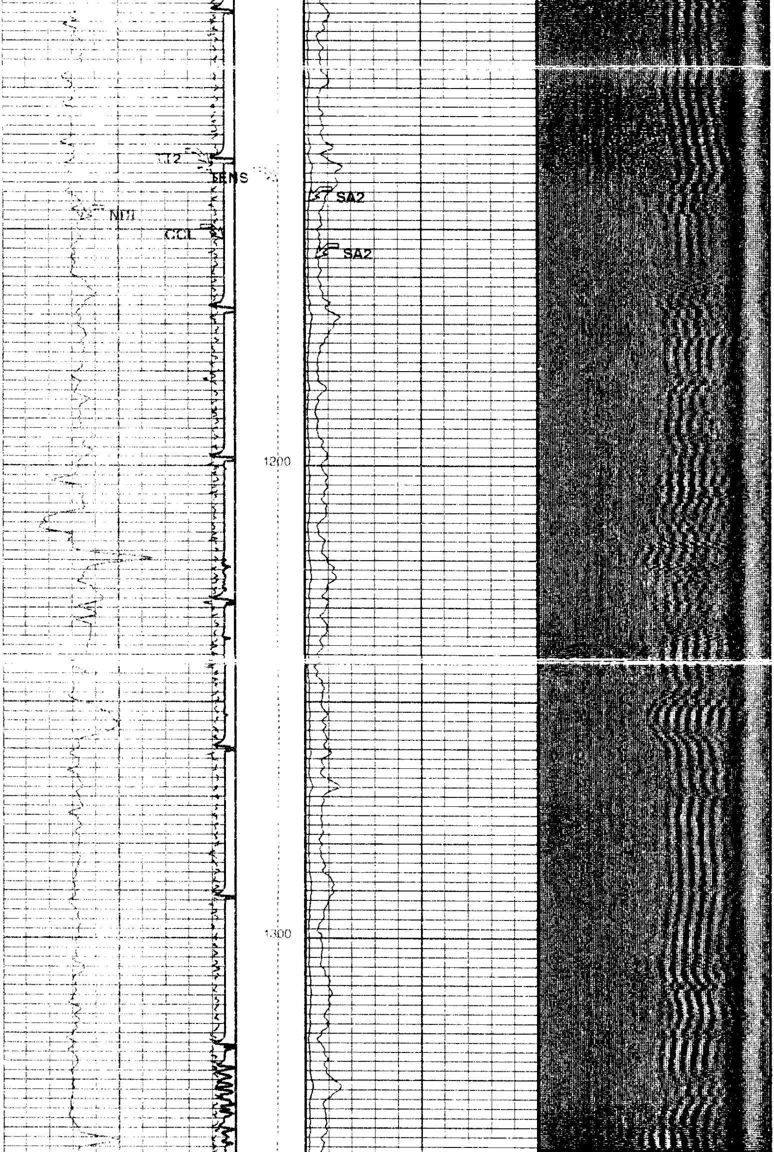
Min Amplitude Max

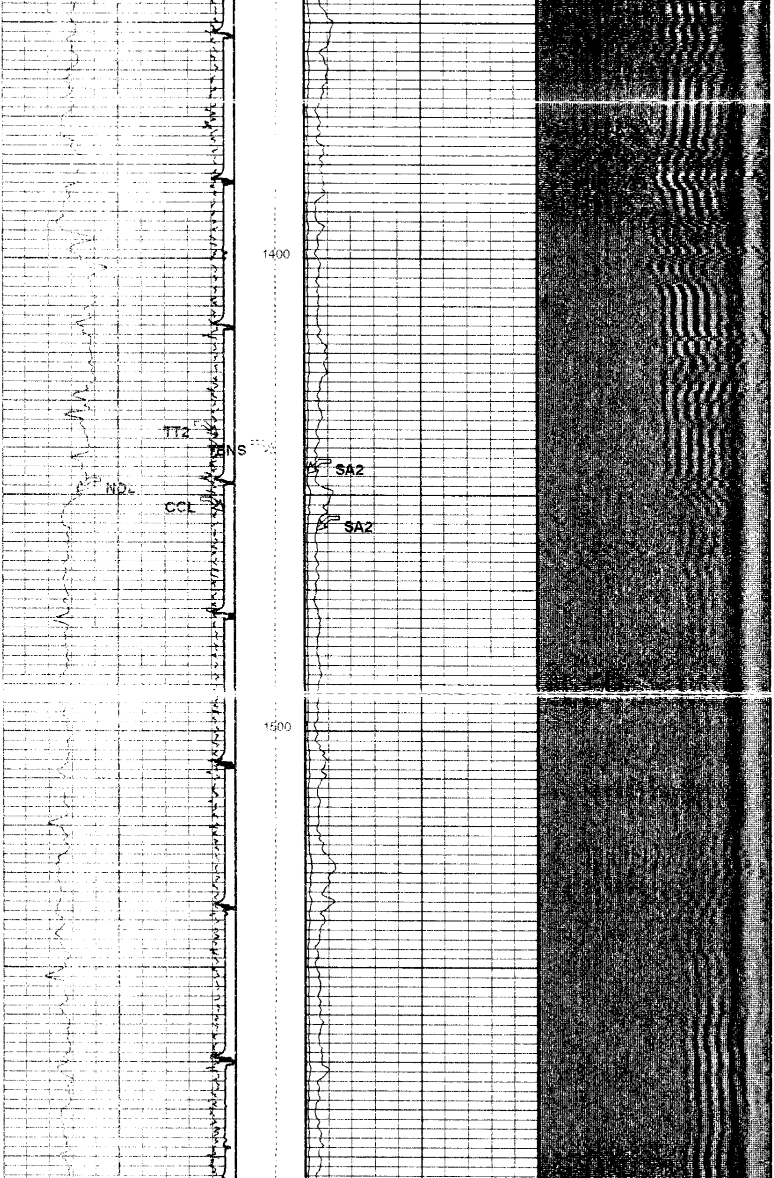
VDL VariableDensity (VDL)
200 (US) 1200

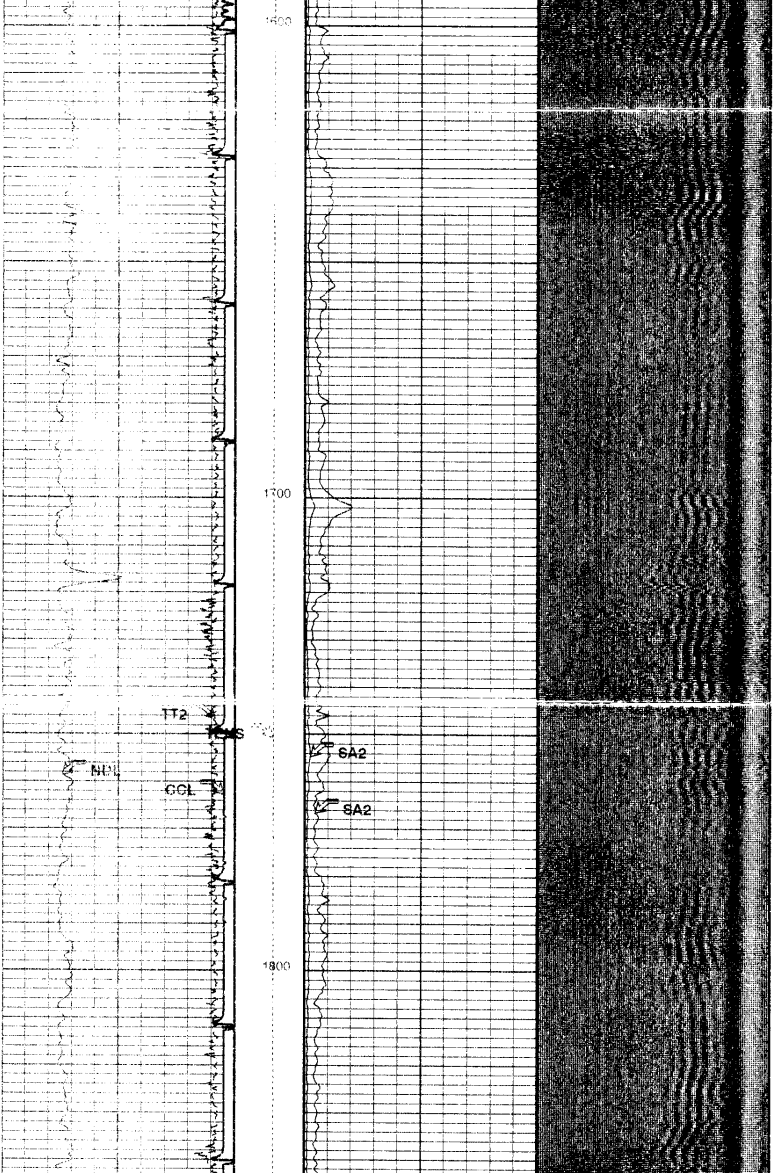


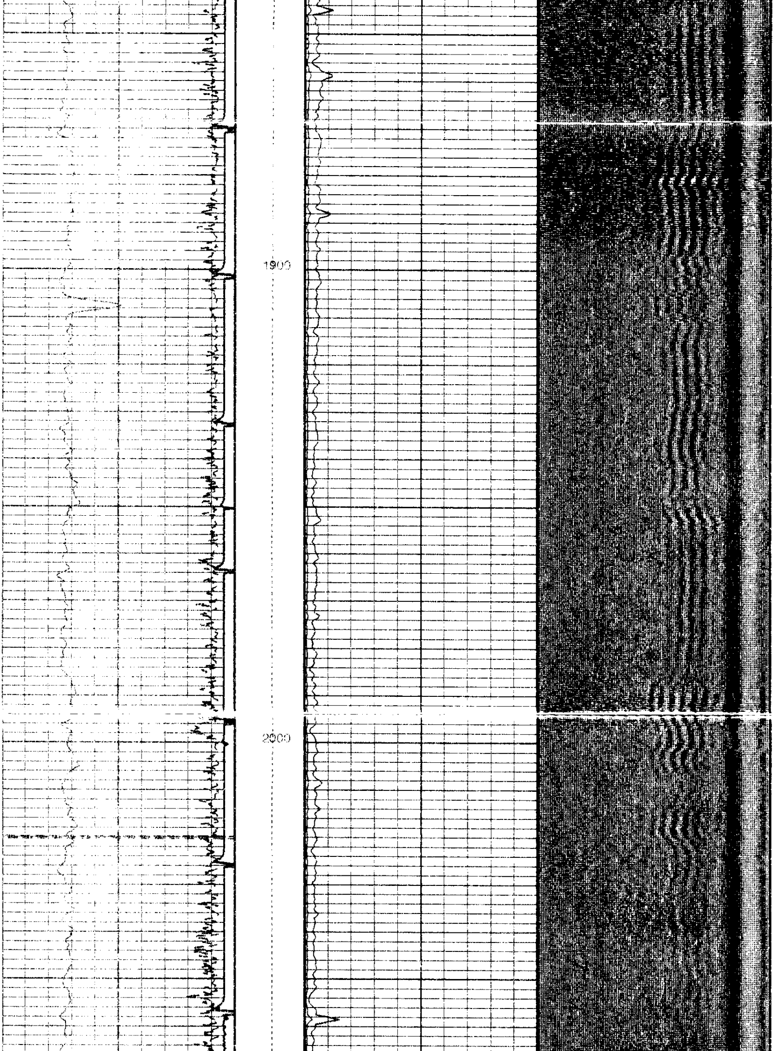


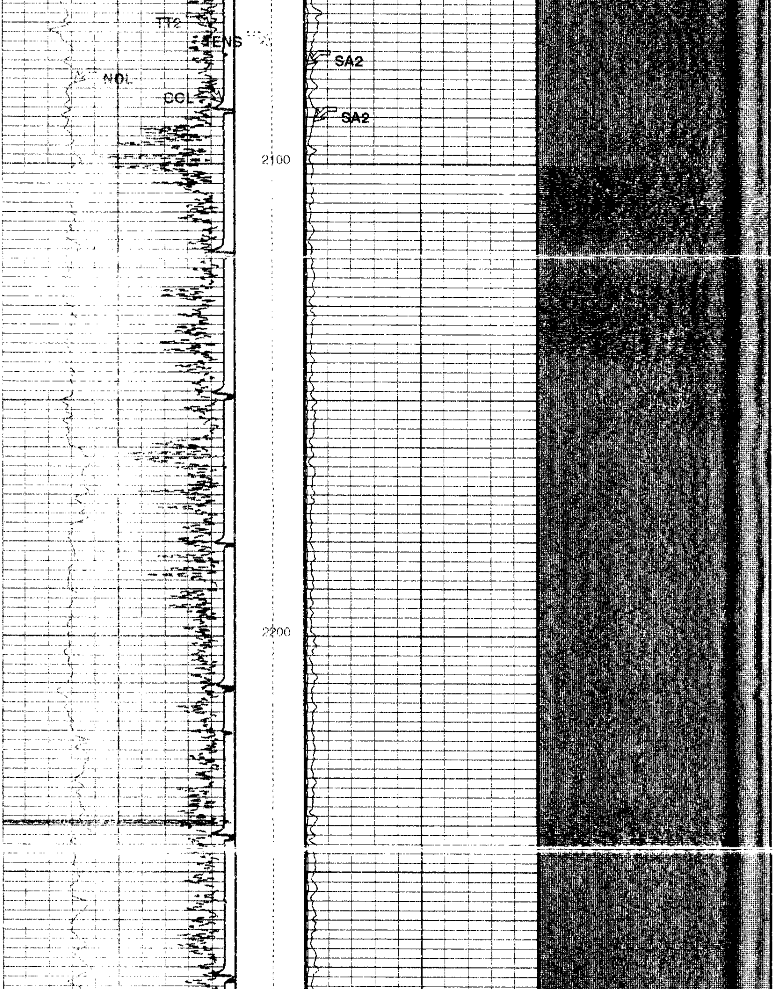


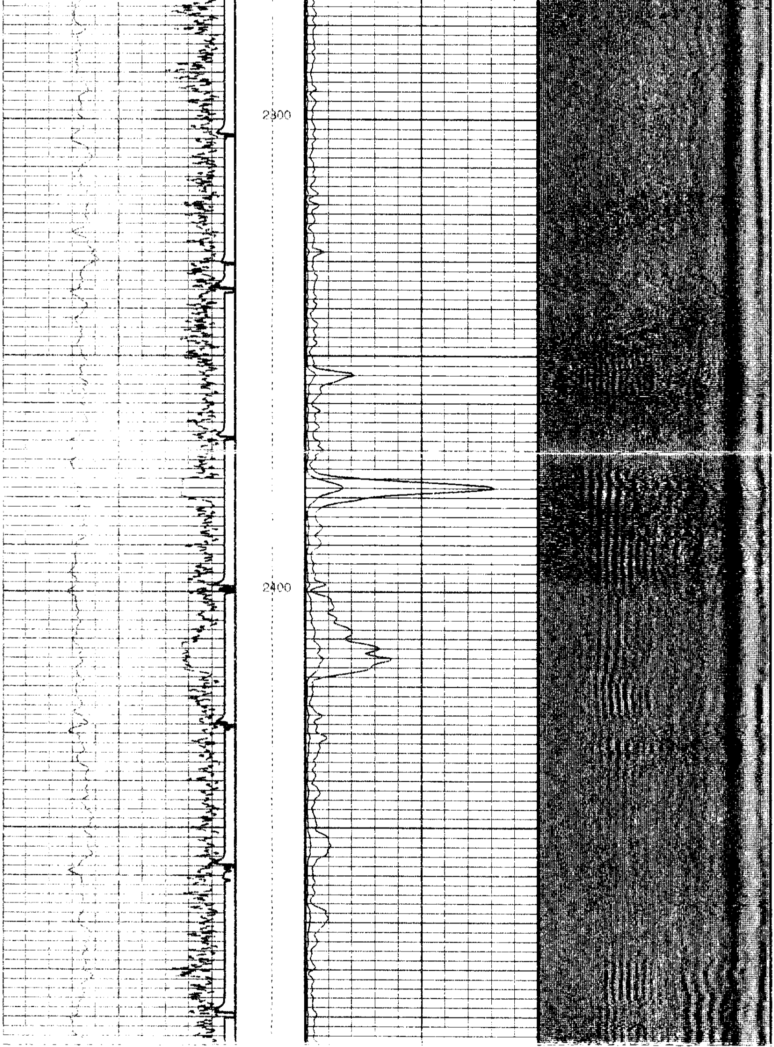


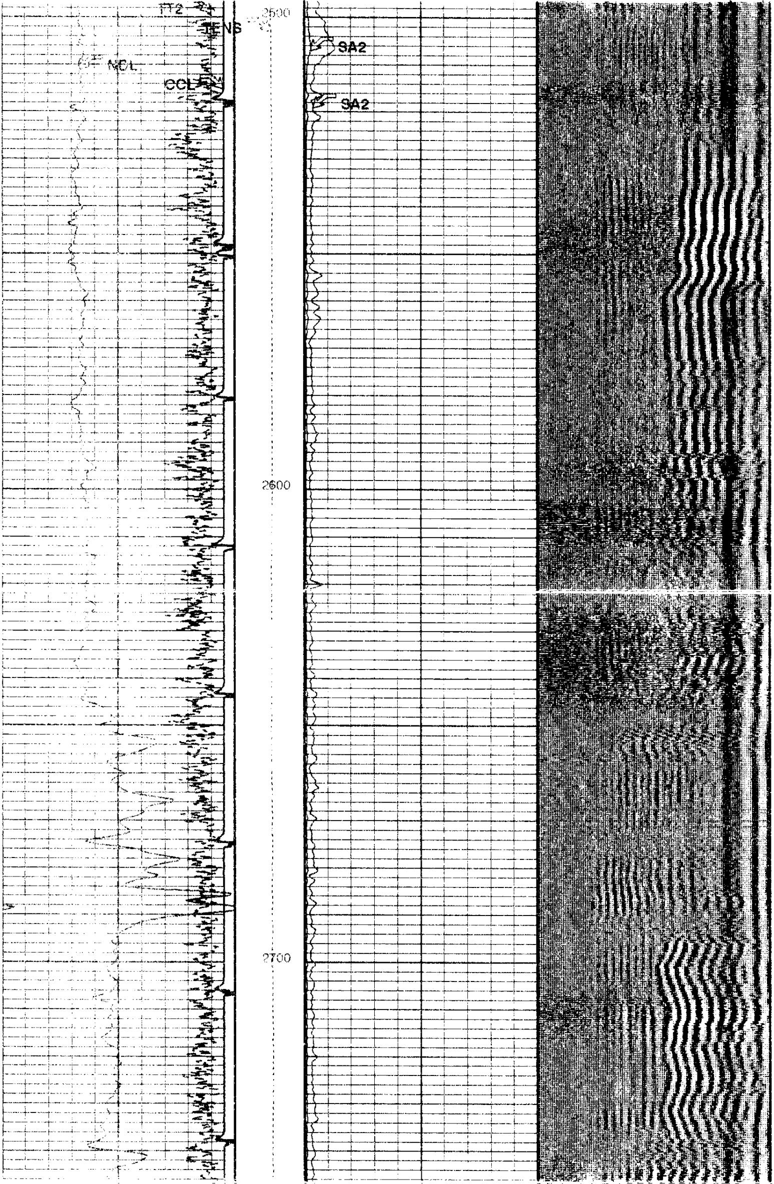


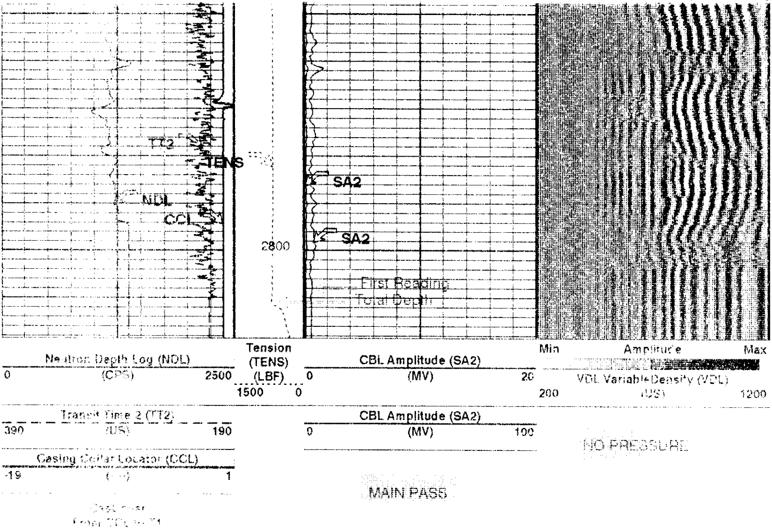












Parameters

DLIS Name	Description	Value	
AGC	Automatic Gain Control	ENABLE	
ALTDPCHAN	Alternate depth channel name	TVDE	
BHS	Bore Hole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BILI	Bond Index Level for Zone Isolation	0.8	
BS	Bit Size	6.250	IN
BSAL	Borehole Salinity	-50000.00	PPM
CABL	Cable Type	MONO	
CBLG	CBL Gate Width	35	US
CCLD	CCL reset delay	12	IN
CCLT	CCL detection level	0.3	V
CDTS	C-Delta-T Shale	100	US/F
CLEN	Cable Length	LONG	
CSIZ	Current Casing Size	2.875	IN
CSRL	Cycle Skip Recovery Logic Algorithm	DISABLE	
CSTR	Compressive Strength of Cement	2000	PSIA
CWEI	Casing Weight	6.50	LB/F
DDEL	Digitizing Delay	0	US
DETE	Detection	E1	
DFD	Drilling Fluid Density	8.30	LB/G
DG	Downhole Gain	1/20	
DO	Depth Offset	0.0	FT
DSIN	Digitizer Sample Interval	5	US
DTF	Delta-T Fluid	189	US/F
DTM	Delta-T Matrix	56	US/F
DWCO	Digitizer Word Count	512	
FCF	CBL Fluid Compensation Factor	1	
FMSG	Far Minimum Sliding Gate	318	US
FRR	Far Receiver Reduction	1	
FRRC	Far Receiver Reduction Control	DISABLE	
GAI	Manual Gain	2	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GOBO	Good Bond	2	MV
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ITTS	Integrated Transit Time Source	DT	
KNOB	Knob Control	DISABLE	
MATR	Rock Matrix Type	SANDSTONE	
MCI	Minimum Cemented Interval	1.25	FT
MGAI	Maximum Gain	16	
MODE	Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	0.516343	MV
MST	Mud Sample Temperature	-50000.00	DEGF
NMSG	Near Minimum Sliding Gate	204	US
[illegible]	Alternate depth channel playback enabled	[illegible]	

PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
SA1G	Sonic Amplitude 1 Gain Corrrection	1	
SA2G	Sonic Amplitude 2 Gain Corrrection	1	
SGAP	Sliding Gate Status	DISABLE	
SGW	Sliding Gate Width	45	US
SHT	Surface Hole Temperature	68	DEGF
SLEV	Signal Level	4	V
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
TD	Total Depth	-50000	FT
TDD	Total Depth - Driller	2863.00	FT
TDL	Total Depth - Logger	-50000.00	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: CBL_VDL Vertical Scale: 5" per 100' Graphics File Created: 07-Aug-1999 10:57

OP System Version: 9C0-413

MCM

SLT-J	9C0-413	NDT-B	9C0-413
CAL-Q	SRPCWX-1201		

Input DLIS Files

DEFAULT SLTJ .006 FN:5 PRODUCER 07-Aug-1999 09:37 2818.5 FT 543.2 FT

Output DLIS Files

DEFAULT SLTJ .009 FN:8 PRODUCER 07-Aug-1999 10:57

Input DLIS Files

DEFAULT SLTJ .007 FN:6 PRODUCER 07-Aug-1999 10:35 760.5 FT 535.0 FT

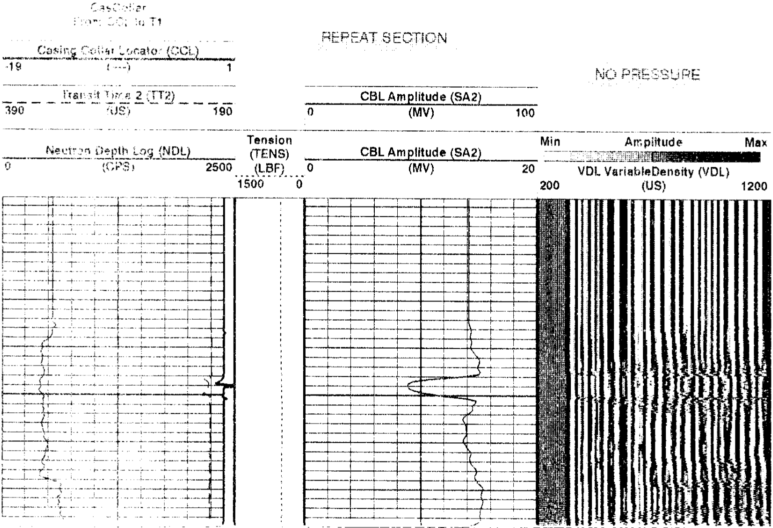
Output DLIS Files

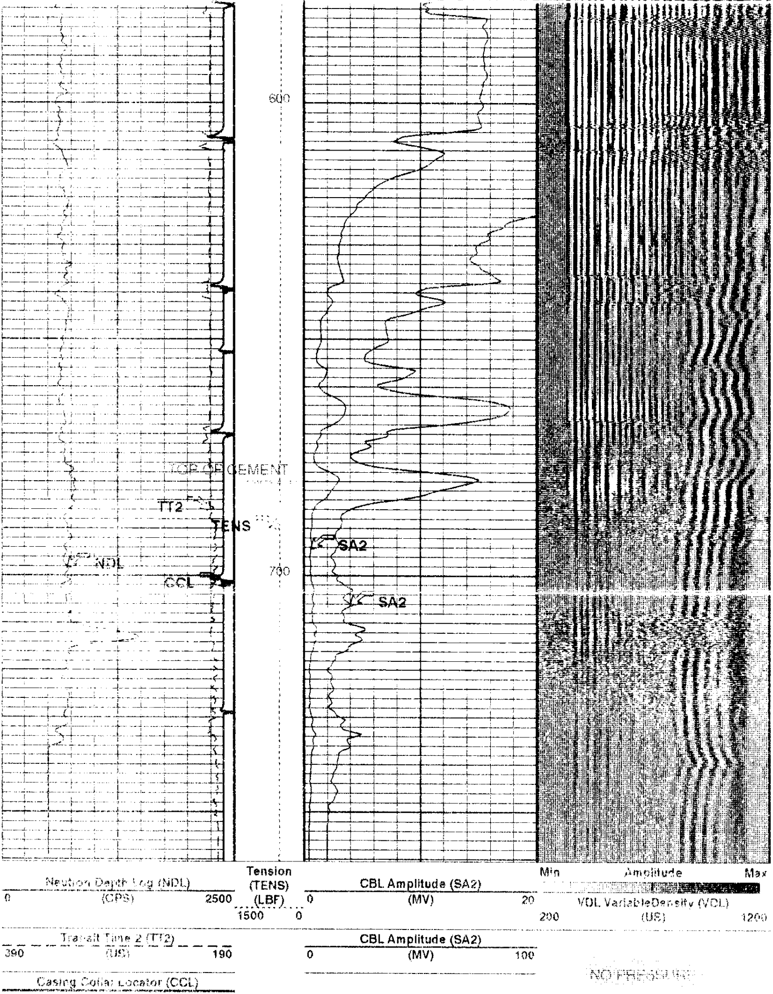
DEFAULT SLTJ .008 FN:7 PRODUCER 07-Aug-1999 10:56 760.5 FT 508.0 FT

OP System Version: 9C0-413

MCM

SLT-J	9C0-413	NDT-B	9C0-413
CAL-Q	SRPCWX-1201		





NO PRESSURE

REPEAT SECTION

CasCollar
From CCL to T1

Parameters

DLIS Name	Description	Value	
AGC	Automatic Gain Control	ENABLE	
ALTDPCHAN	Alternate depth channel name	TVDE	
BHS	Bore Hole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	[illegible]	[illegible]
BIL	Bond Index Level for Zone Isolation	0.8	
BS	Bit Size	6.250	IN
BSAL	Borehole Salinity	-50000.00	PPM
CABL	Cable Type	MONO	
CBLG	CBL Gate Width	35	US
CCLD	CCL reset delay	12	%
CCLT	CCL detection level	0.3	V
CDTS	C-Delta-T Shale	100	US/F
CLEN	Cable Length	LONG	
CSIZ	Current Casing Size	2.875	IN
CSRL	Cycle Skip Recovery Logic Algorithm	DISABLE	
CSTR	Compressive Strength of Cement	2000	PSIA
CWEI	Casing Weight	6.50	LB/F
DDEL	Digitizing Delay	0	US
DETE	Detection	E1	
DFD	Drilling Fluid Density	9.20	LB/G
DG	Downhole Gain	1.20	
DO	Depth Offset	0.0	FT
DSIN	Digitizer Sample Interval	5	US
DTF	Delta-T Fluid	189	US/F
DTM	Delta-T Matrix	56	US/F
DWCO	Digitizer Word Count	512	
FCF	CBL Fluid Compensation Factor	1	
FMSG	Far Minimum Sliding Gate	318	US
FRR	Far Receiver Reduction	1	
FRRC	Far Receiver Reduction Control	DISABLE	
GAI	Manual Gain	2	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GOBO	Good Bond	2	MV
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ITTS	Integrated Transit Time Source	DT	
KNOB	Knob Control	DISABLE	
MATR	Rock Matrix Type	SANDSTONE	
MCI	Minimum Cemented Interval	[illegible]	FT
MGAI	Maximum Gain	[illegible]	
MODE	Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	0.510943	MV
MST	Mud Sample Temperature	-50000.00	DEGF
NMSG	Near Minimum Sliding Gate	201	US
[illegible]	Alternate depth channel playback enabled	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
SA1G	Sonic Amplitude 1 Gain Correction	1	
SA2G	Sonic Amplitude 2 Gain Correction	1	
[illegible]	Sliding Gate Status	[illegible]	
SGW	Sliding Gate Width	0	US
[illegible]	Surface Hole Temperature	[illegible]	[illegible]
[illegible]	Signal Level	[illegible]	
SPFF	Sonic Porosity Formula	[illegible]	
SPSO	Sonic Porosity Source	DT	
TD	Total Depth	[illegible]	F
TDD	Total Depth - Driller	[illegible]	FT
TDL	Total Depth - Logger	[illegible]	FT
TWS	Temperature of Connate Water Sample	[illegible]	DEGF

Format: CBL_VDL   Vertical Scale: 5" per 100'   Graphics File Created: [illegible]-Aug-1999 [illegible]

OP System Version: 9C0-413

MCM

SLT-J	9C0-413	NDT-B	9C0-413
CAL-Q	[illegible] 1201		

Input DLIS Files

DEFAULT   SLTJ .007   FN:6   PRODUCER   07-Aug-1999 10:35   790.5 FT   [illegible] FT

Output DLIS Files

DEFAULT   SLTJ .008   FN:7   PRODUCER   07-Aug-1999 10:56

COMPANY: Enerfin Resources Northwest
WELL: C.C. 32-28-75 (Hadrasaur)
FIELD: Mist Gas
COUNTY: Columbia
STATE: Oregon

Schlumberger

CEMENT BOND WITH VDL
NEUTRON LOG