Schlumberger

DUAL INDUCTION
GAMMA RAY / SP

COUNTY	COLUMBIA
FIELD	MIST GAS FIELD
LOCATION	S 03-05-16 W 2267.45 & S 86-54-44 E
WELL	OM 12 22 65
COMPANY	NORTHWEST NATURAL GAS

COMPANY NORTHWEST NATURAL GAS

WELL OM 12-22-65

FIELD MIST GAS FIELD

COUNTY COLUMBIA **STATE** OREGON

LOCATION
S 03-05-16 W 2267.48' & S 86-54-44 E
1224.03' FROM THE NW COR OF SEC 22

API SERIAL NO.	SECT.	TWP.	RANGE
36-009-00326	22	6N	5W

Other Services:
SONIC
FMS
LDT
CNL
GR
CALIPER

Permanent Datum	GROUND LEVEL	**Elev.**	556.0 F	**Elev.: K.B.**565.0 F
Log Measured From	KELLY BUSHING	9.0 F	**above Perm. Datum**	**D.F.**
Drilling Measured From	KELLY BUSHING			**G.L.**556.0 F

Date	09-SEPT-1997		
Run No.	ONE		
Depth Driller	2337.0 F		
Depth Logger (Schl.)	2324.0 F		
Btm. Log Interval	2316.0 F		
Top Log Interval	334.0 F		
Casing-Driller	8 5/8" @ 343.0 F	@	@
Casing-Logger	341.0 F		
Bit Size	@	@	@
Type Fluid in Hole	DRILLING MUD/LSND		
Dens. | **Visc.**	9.30 LB/G | 40.0 S		
pH | **Fld. Loss**	9.5		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp.	1.480 OHMM @ 83.0 DEGF	@	
Rmf @ Meas. Temp.	1.220 OHMM @ 83.0 DEGF	@	
Rmc @ Meas. Temp.	1.860 OHMM @ 83.0 DEGF	@	
Source: Rmf | **Rmc**	FLOWLINE | MUD TESTER		
Rm @ BHT	1.138 OHMM @ 110. DEGF	@	
TIME **Circulation Ended**	9 9 97 12:30		
TIME **Logger on Bottom**	SEE LOG		
Max. Rec. Temp.	110. DEGF		
Equip. | **Location**	8303 | BAKERSFIELD		
Recorded By	GREG PERRY		
Witnessed By	MR MEYER/MR. THOMAS		

The well name, location and borehole reference data were furnished by the customer

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 wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations 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.

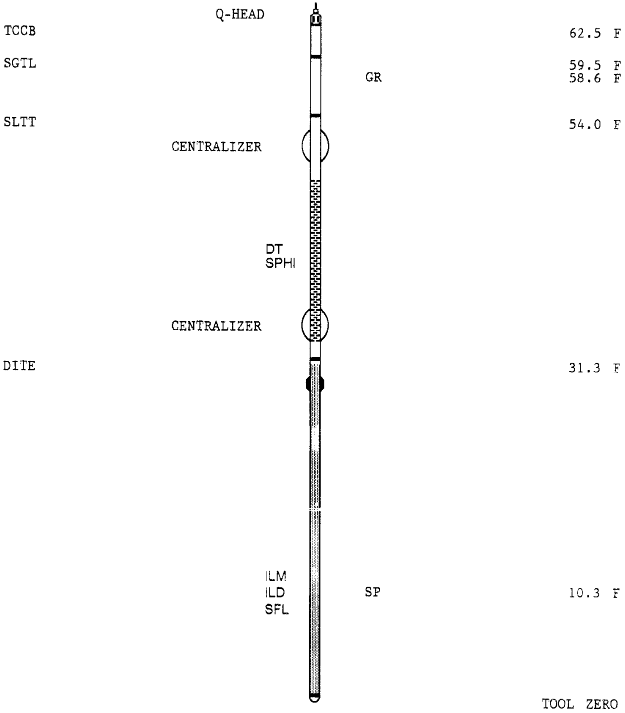
Run No.	ONE	
Service Order No.	'024934	
Drilling Fluid Level	0.0 F	
Salinity		
Rmf @ BHT	.938 OHMM @ 110. DEGF	@
Rmc @ BHT	1.431 OHMM @ 110. DEGF	@
Logging Speed	1800.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	DISHB 151	
Tool Number 2	DICEB 153	
Tool Number 3	SLSWA	
Tool Number 4	SLCUA	
Tool Number 5	SGCSA 483	
Tool Number 6	TCCB 1289	
Tool Number 7	TCM 353	
Tool Number 8	SLM	
Tool Number 9	WDM	
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

SONIC RAN IN COMBO WITH DIL.
WHIPSTOCK LOCATED AT 1484.

CREW: DAN LEE.
THANKS FOR CHOOSING SCHLUMBERGER!!!!!
CREW DAN LEE

LOGGING TOOL STRING SKETCH



TOTAL TOOL STRING LENGTH IS 64.7 F.
TOTAL TOOL STRING WEIGHT IS 1032. LB IN AIR.

MAIN PASS

TENS(LBF)	10000.	0.0
GR(GAPI)	0.0	150.00
SP(MV)	-45.00	5.0000
ILM(OHMM)	.20000	2000.0
ILD(OHMM)	.20000	2000.0
SFLU(OHMM)	.20000	2000.0

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CP 44.2            FILE    1       10-SEP-1997 02:51

                   INPUT FILE(S)   CREATION DATE
                         9         09-SEP-1997 17:18
                        10         09-SEP-1997 18:05

                   5"/100'
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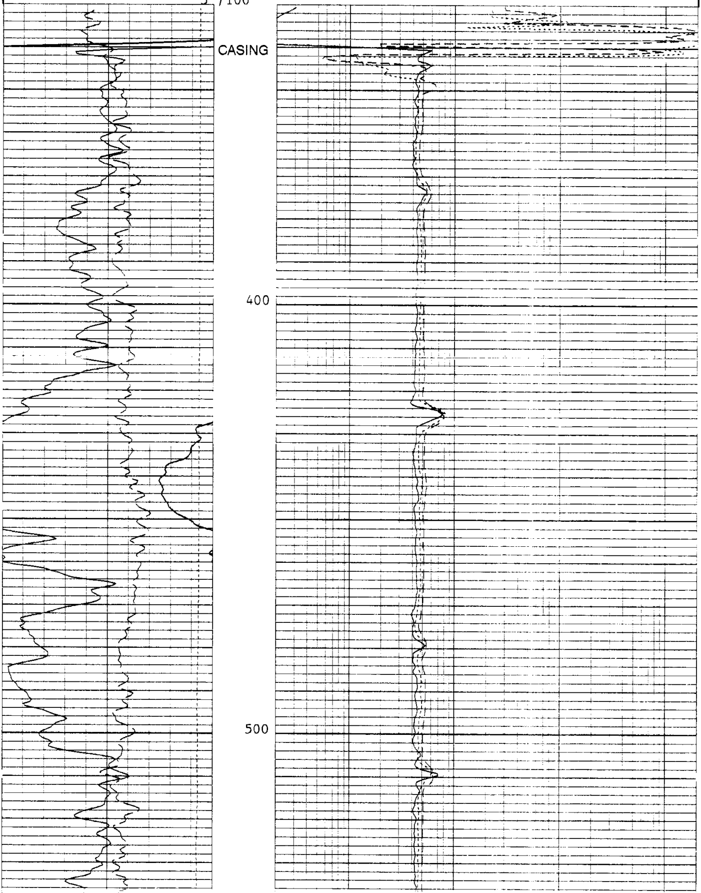
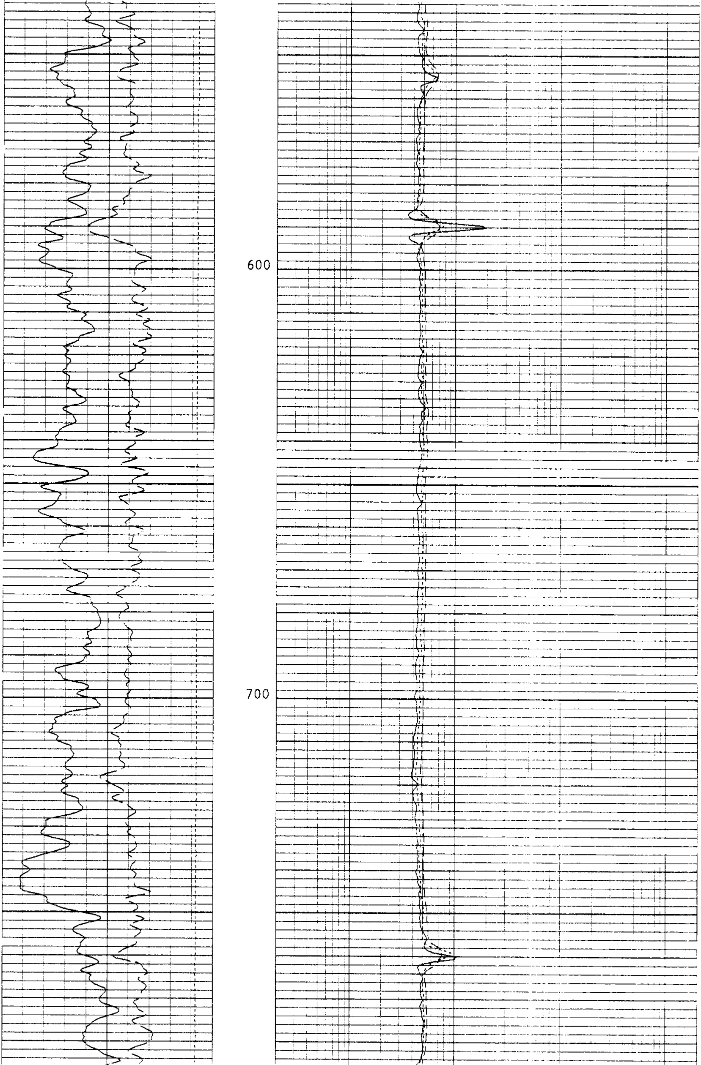
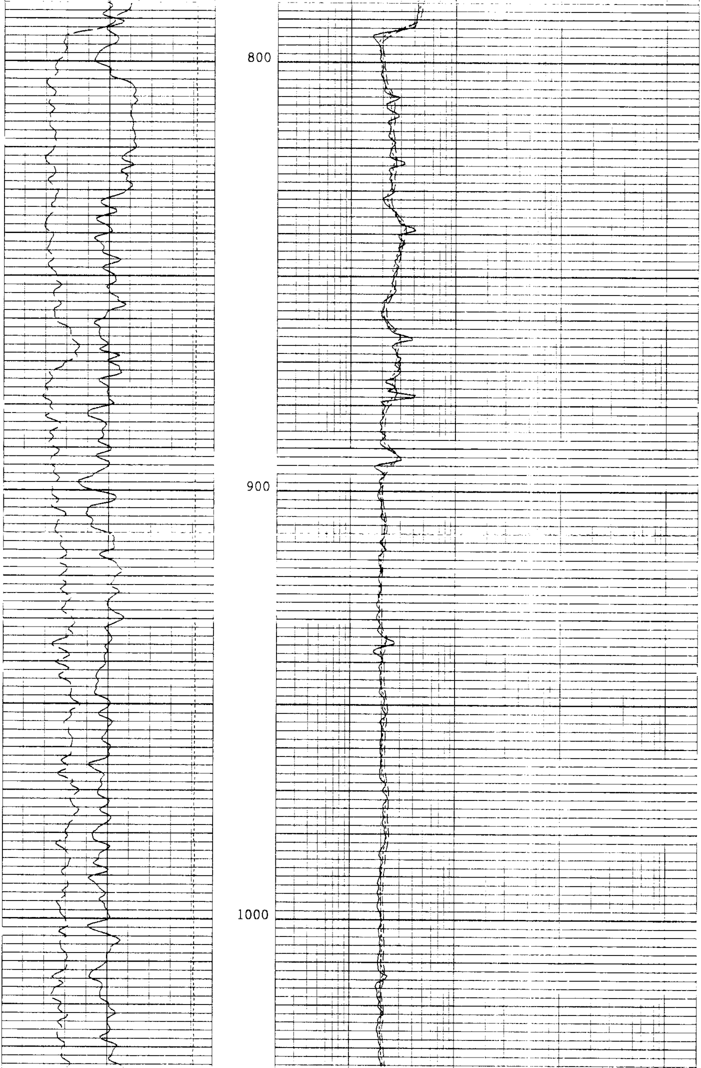
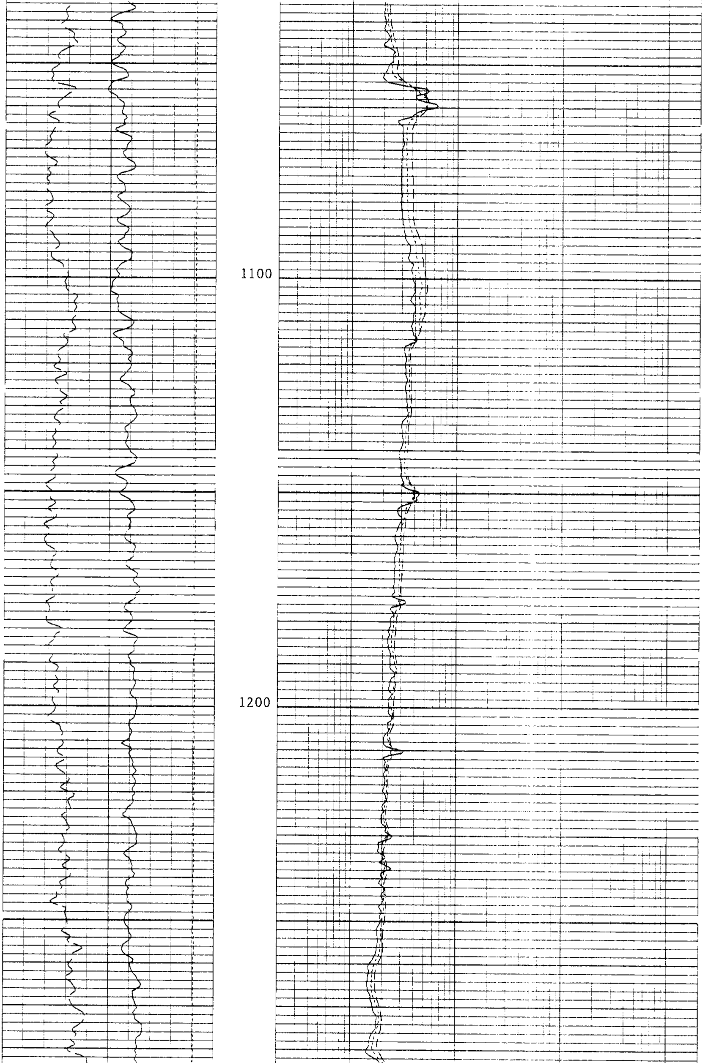
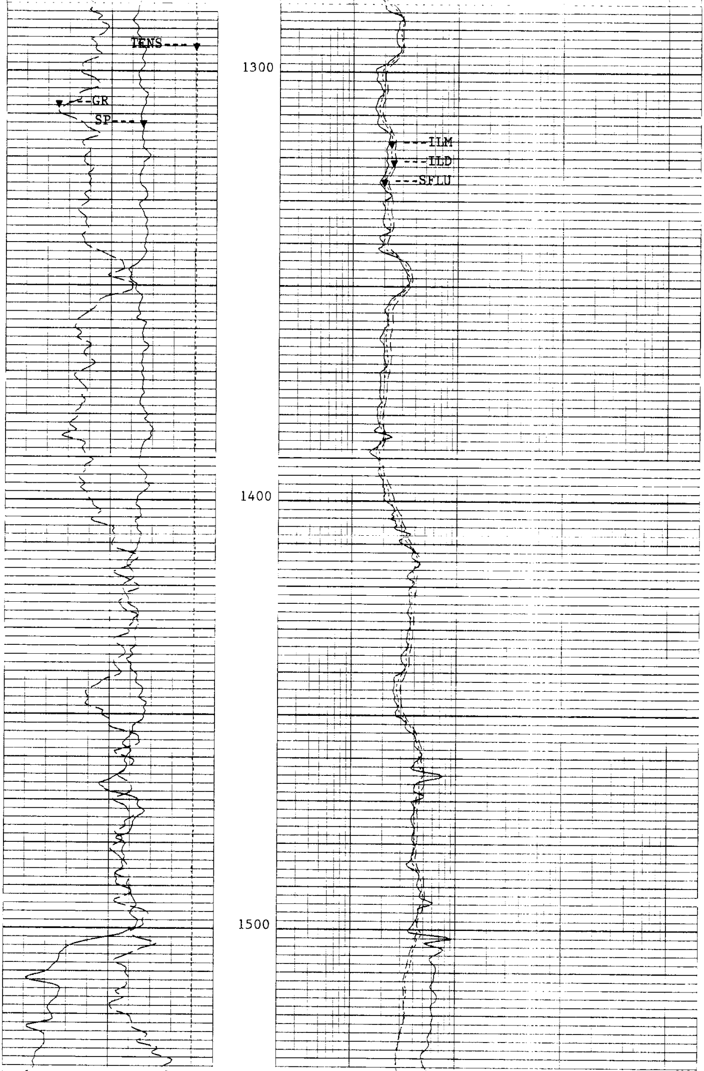
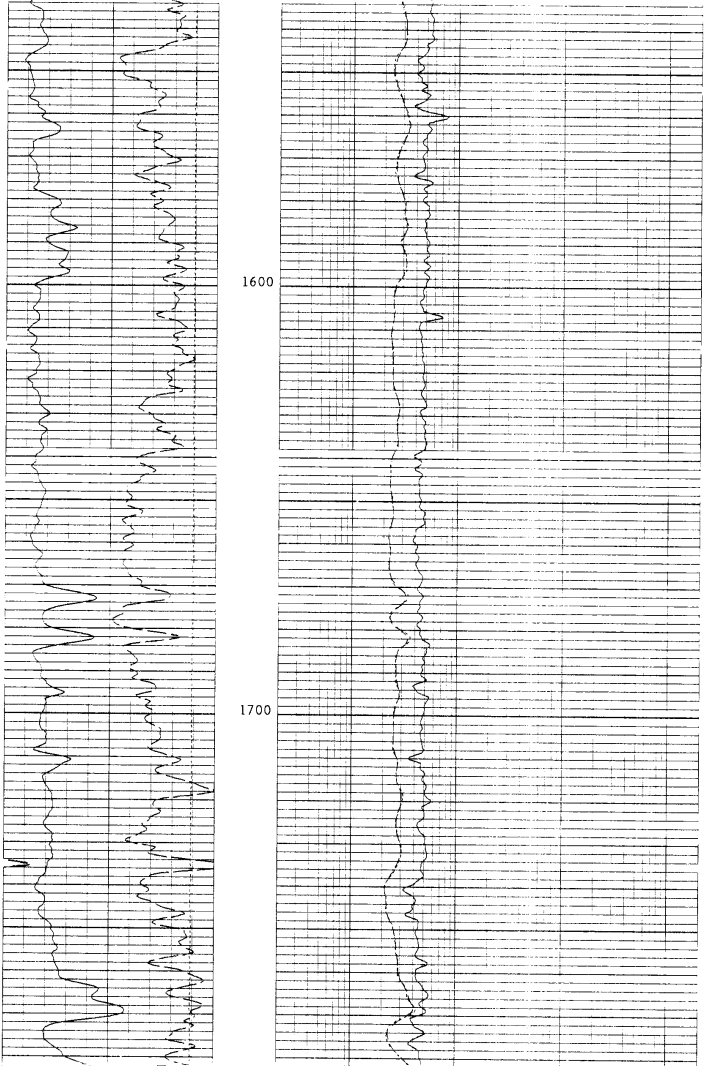


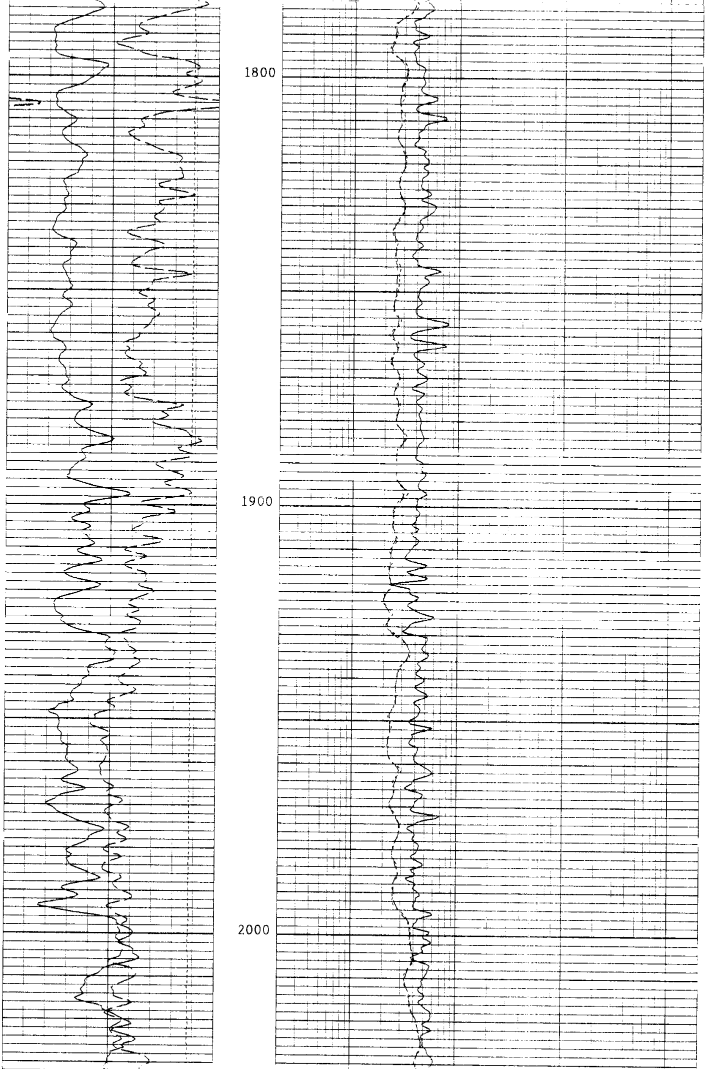


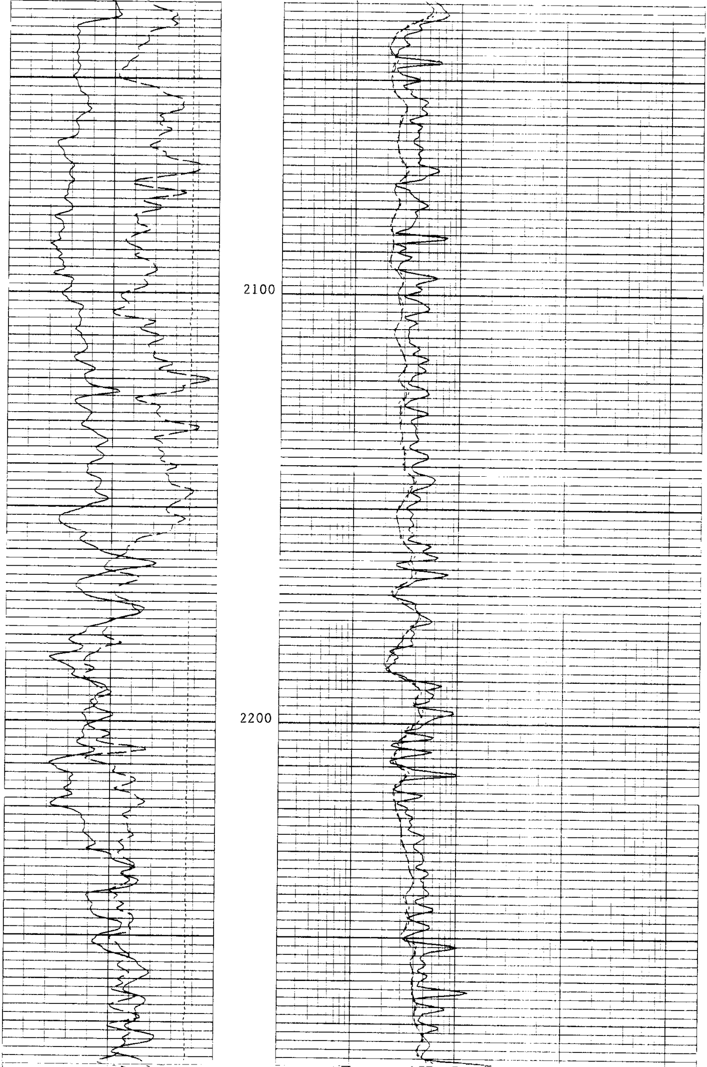


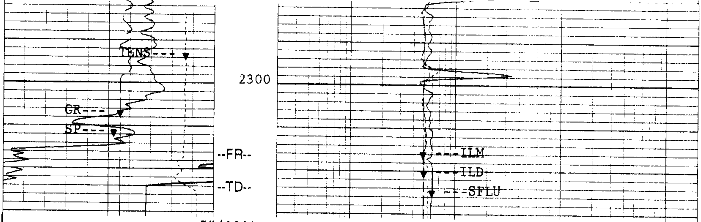












5"/100'

CP 44.2

FILE 1 10-SEP-1997 01:41

INPUT FILE(S)	CREATION DATE
9	09-SEP-1997 17:18
10	09-SEP-1997 18:05

TENS(LBF)	10000.	0.0
GR(GAPI)	0.0	150.00
SP(MV)	-45.00	5.0000
ILM(OHMM)	.20000	2000.0
ILD(OHMM)	.20000	2000.0
SFLU(OHMM)	.20000	2000.0

PARAMETERS

NAME	VALUE	UNIT
SMB	DISA	
TOCA	DISA	
DG	AUTO	
NMSG	180	US
AMPL	2	
WFM	1	
TOD	DISA	
DTF	189.000	US/F
CDTS	100.000	
PP	NORM	
DO2	0.0	F
TD	32768.0	F
SBR	1.00000	OHMM
DXE2	121.315	MM/M
DRE2	13.9156	MM/M
DPH2	.0599204	DEG
DGF2	.993476	
SFLE	ALLO	
ITEN	ALLO	
DSES	H412	
IPHA	NORM	
DSIN	5	US
NCJT	GSRY	
SHT	75.0000	DEGF
SPAE	DISA	
BHS	OPEN	

NAME	VALUE	UNIT
VDLR	2IN	
RATE	15	HZ
DETE	E2	
CBLG	35	US
CBL	2	
SS	FAST	
SLC	UA	
DTM	56.0000	US/F
SPFS	R-H	
DO	0.0	F
WMUD	9.30000	LB/G
IFRS	20	KHZ
MXE2	30.2658	MM/M
MRE2	17.4291	MM/M
MPH2	-.893001	DEG
MGF2	1.02163	
DESP	DISA	
DCAS	0.0	F
DEVI	25.0000	DEG
IPRO	STAN	
DWCO	512	
DDEL	200	US
GTSE	TEMP	
BHT	110.000	DEGF
BS	7.87500	IN

REPEAT SECTION

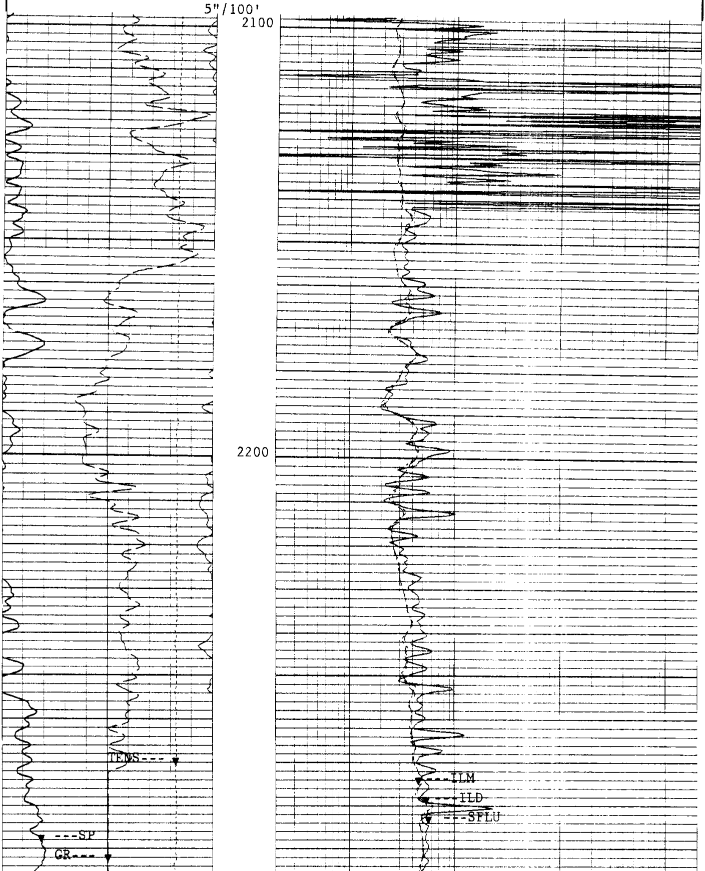
ACCUMULATED INTEGRATION VALUES SUMMARY:

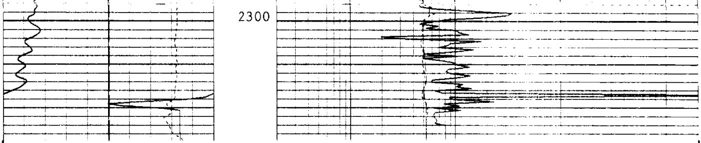
Integrated Transit Time: .0262475 S FROM 2327.50 F TO 2097.00 F

TENS(LBF)
10000. 0.0
SP(MV)
-100.0 0.0
GR(GAPI)
0.0 150.00

ILM(OHMM)
.20000 2000.0
ILD(OHMM)
.20000 2000.0
SFLU(OHMM)
.20000 2000.0

CP 44.2 FILE 5 09-SEP-1997 15:26 (UP)





5"/100'

CP 44.2 FILE 5 09-SEP-1997 15:19 (UP)

TENS(LBF)	10000.	0.0
SP(MV)	-100.0	0.0
GR(GAPI)	0.0	150.00
ILM(OHMM)	.20000	2000.0
ILD(OHMM)	.20000	2000.0
SFLU(OHMM)	.20000	2000.0

SENSOR MEASURE POINT TO TOOL ZERO

DITE 10.3 FEET
SLTT 39.6 FEET
SGTL 58.6 FEET
DTT 3.0 FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
SMB	ALLO		VDLR	2IN	
TOCA	DISA		RATE	15	HZ
DG	AUTO		DETE	E2	
NMSG	180	US	CBLG	35	US
AMPL	2		CBL	2	
WFM	1		SS	FAST	
TOD	DISA		SLC	UA	
DTF	189.000	US/F	DTM	56.0000	US/F
CDTS	100.000		SPFS	R-H	
WMUD	9.20000	LB/G	TD	32768.0	F
RMF	.0200000		IFRS	20	KHZ
SBR	1.00000	OHMM	MXE2	67.5818	MM/M
DXE2	57.7080	MM/M	MRE2	17.5526	MM/M
DRE2	9.56270	MM/M	MPH2	-.848451	DEG
DPH2	.0200606	DEG	MGF2	1.02314	
DGF2	1.00817		DESP	DISA	
SFLE	ALLO		DCAS	0.0	F
ITEN	ALLO		DEVI	24.0000	DEG
DSES	H412		IPRO	STAN	
IPHA	NORM		DWCO	512	
DSIN	5	US	DDEL	200	US
NCJT	GSRY		GTSE	TEMP	
SHT	75.0000	DEGF	BHT	110.000	DEGF
SPAE	DISA		BS	7.87500	IN
BHS	OPEN				

COMPANY	NORTHWEST NATURAL GAS			SCHL. FR	2316.0 F
				SCHL. TD	2324.0 F
WELL	OM 12-22-65			DRLR. TD	2337.0 F
				Elev: KB	565.0 F
FIELD	MIST GAS FIELD			DF	
COUNTY	COLUMBIA	**STATE**	OREGON	GL	556.0 F

Schlumberger

DUAL INDUCTION
GAMMA RAY / SP