



ATLAS WELLBORE SERVICES
BHC ROUSTILLOG®

DUAL INDUCTION FOCUSED LOG

FILE NO. _____
 COMPANY **NORTHWEST NATURAL GAS**
OREGON NATURAL GAS DEVELOPMENT CORP.
 WELL **W3393-3**
 FIELD **MISI**
 COUNTY **CLATSOP** STATE **OR.**
 LOCATION: **1493-94' N 4 1/2" E 49' W**
FROM THE SURVEY OF:
SEC3 T1P4M R3E34N
 PERMIT BRUM **03** ELEVATIONS **1075.1**
 DRILLING MEASURED FROM **MB** FT. ABOVE P.O. **MB** 1088.6'
 DRILLING MEASURED FROM **MB** FT. **1075.1'**

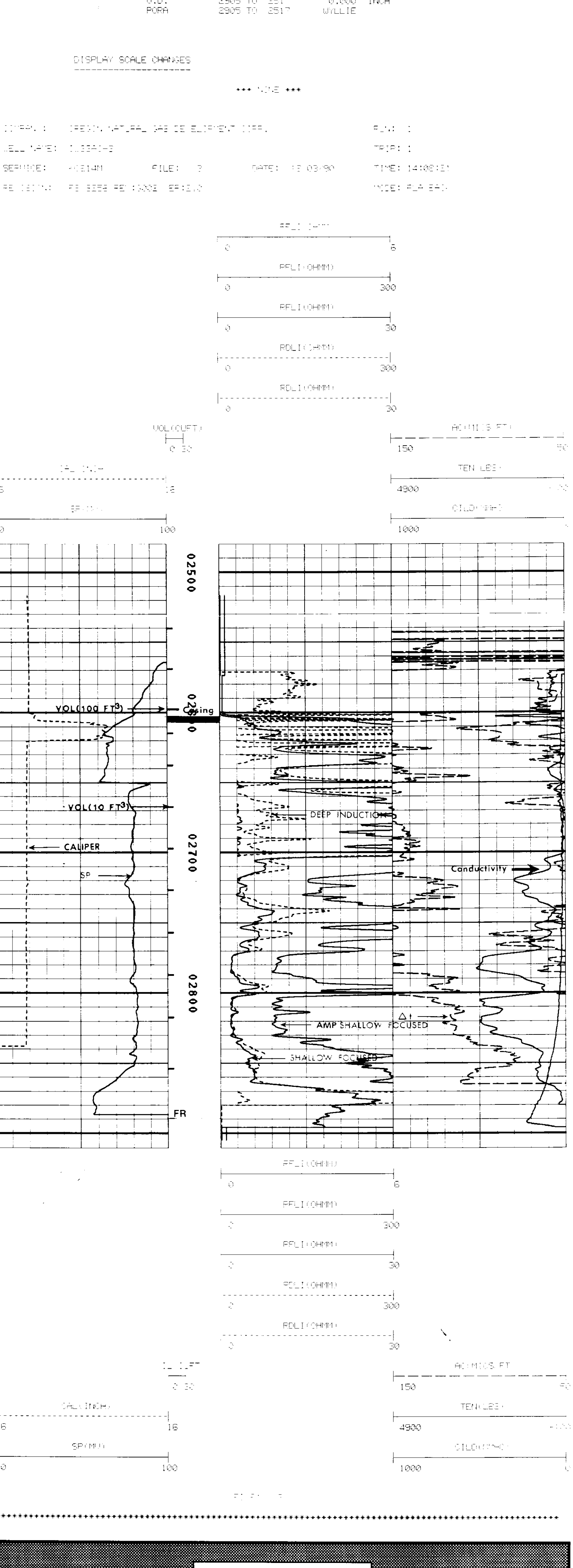
DRILL	12-07-98
RAIN	6.25
SERVICE ORDER	28917
DEPTH-DRILLER	28917
DEPTH-LOCKER	28917
BOTTOM LOCKED INTERVAL	28917
TOP LOCKED INTERVAL	28917
CLOSING - DRILLER	8.547' 28917
CLOSING - LOCKER	28917
BIT SIZE	7.75"
TYPE FLUID IN HOLE	POLYMER
DENSITY / VISCOSITY	8.9
PH / FLUID LOSS	9.0
SOURCE OF SAMPLE	FLUID LINE
RM AT HEADS TEMP.	50
RM AT HEADS TEMP.	40
RM AT HEADS TEMP.	10
SOURCE OF RM / RMIC	H
RM AT BIT	24
TIME SINCE CIRCULATION	2.5 HRS
MAX. REC. TEMP. DEG. F	165 DEG. F
EQUIP. NO. / LOC.	5991
RECORDED BY	H. HINDS
WITNESSED BY	HR. ROY/HINDS

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT, BUT SINCE ALL INTERPRETATIONS ARE OF VARIOUS DEGREES OF ACCURACY, WE CANNOT HOLD US RESPONSIBLE FOR ANY INTERPRETATION, WE WILL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES OR EXPENSES INCURRED BY CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

REMARKS RUN (2)
VOL COMPUTED FOR OPENHOLE.

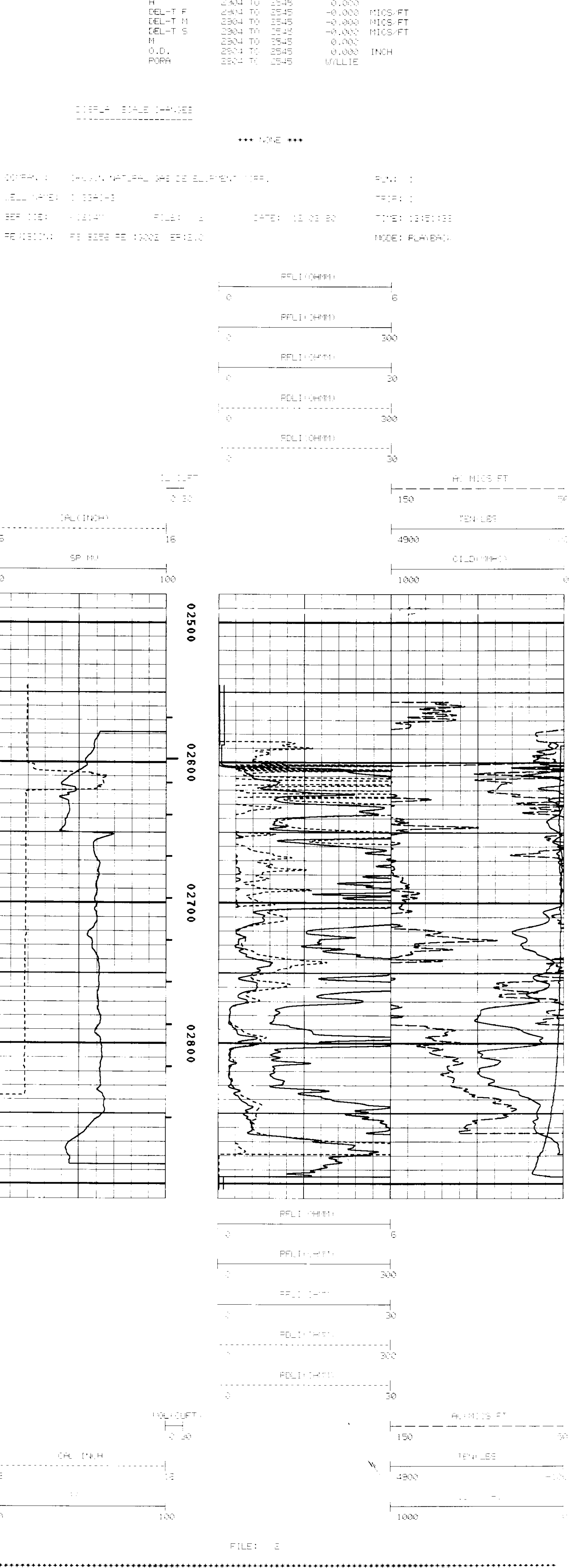
RUN	TRIP	TOOL	SERIAL NO.	SERIES NO.	POSITION
2	2	DIFL	77837	1503XA	1.550
		AC	79736/VENT1	1503XA	DEPT
		CR	73384	1309XA	DEPT
		CAL	3806B	4209XA	4/FRM

FILE: 1



REPEAT SECTION

FILE: 2



FILE: 3