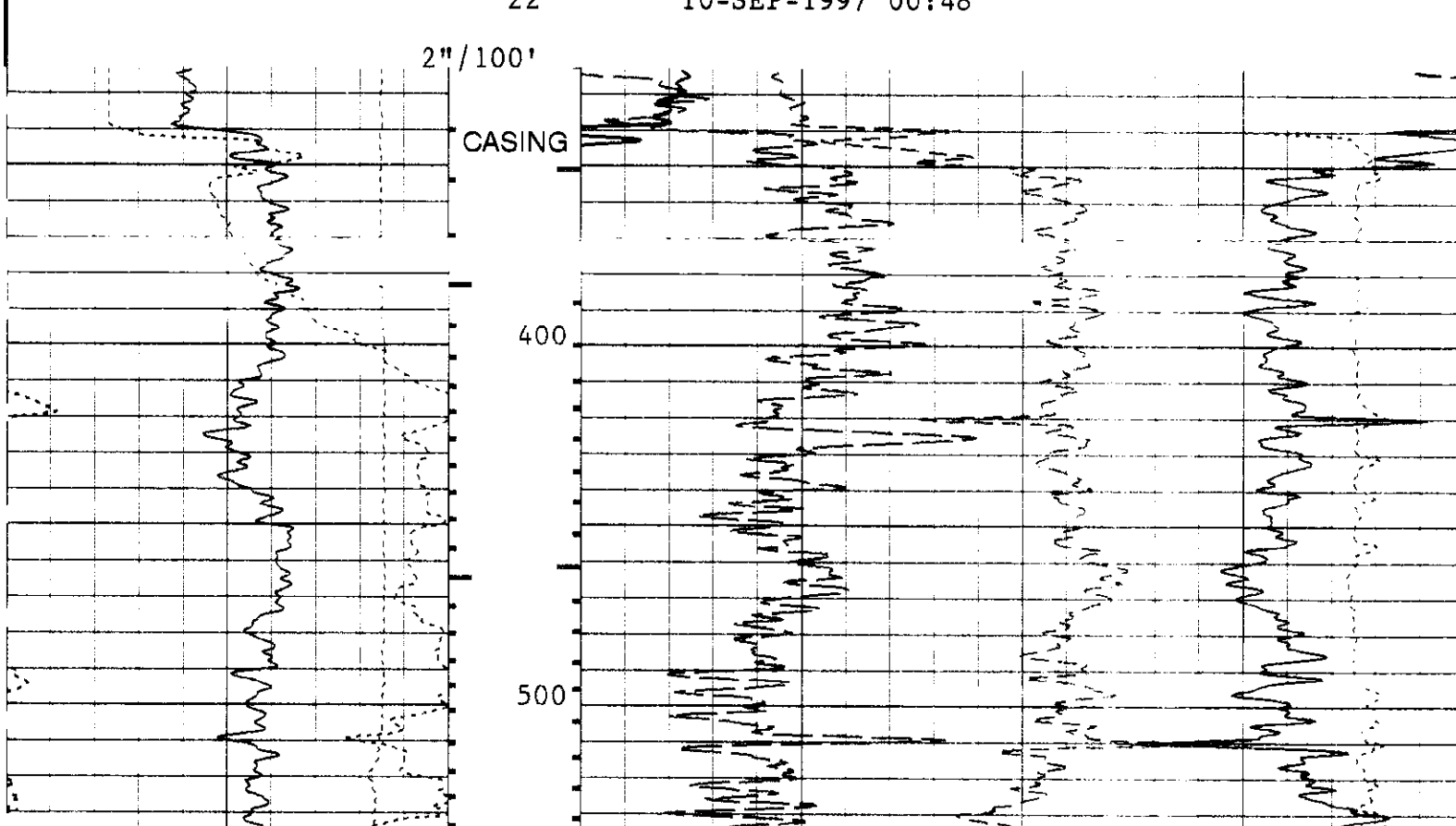
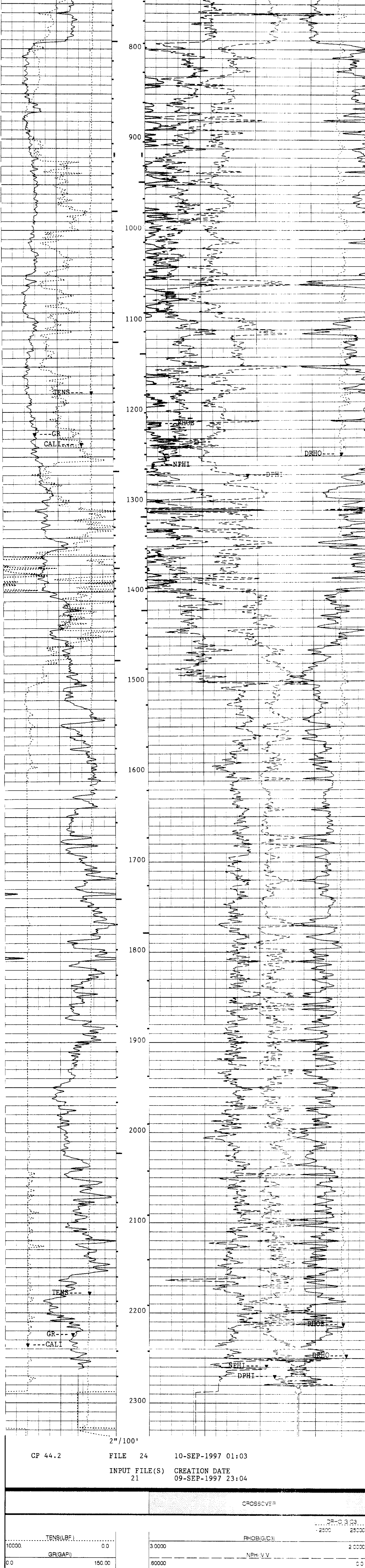


COMPANY NORTHWEST NATURAL GAS
WELL OM 12-22-65
FIELD MIST GAS FIELD
COUNTY COLUMBIA STATE OREGON
CITY SEASIDE
Log Measurement Dates 08/26/97 - 09/02/97
Log Measurement From KELLY BURNING 90°F
Log Measurement To KELLY BURNING 90°F
Log Measurement By DAN LEE
Log Measurement Date 09/21/97
Run No. TWC
Service Order No. 1024934
Drilling Fluid Level CCF
Salinity
Rmc @ BHT 938 OHMM @ 110 DEGF
Rmc @ 8HT 1.431 OHMM @ 110 DEGF
Logging Speed 18000 F/MH
EQUIPMENT DATA
Tool Number 1 DMS
Tool Number 2 FMS 4788
Tool Number 3 NSCE 2979
Tool Number 4 GNSHA 1345
Tool Number 5 BGCSA 463
Tool Number 6 TCCB 1289
Tool Number 7 TCM 353
Tool Number 8
Tool Number 9
Tool Number 10
Tool Number 11
Tool Number 12
REMARKS:
MDEN=2.85 GR/CC
MATRIX=SAND
CREW: DAN LEE
THANKS FOR CHOOSING SCHLUMBERGER

MAIN PASS
FILES SPLICED 21 TO 22 SPLICE DEPTH 919.0 F
ACCUMULATED INTEGRATION VALUES SUMMARY:
Integrated Hole Volume: 1236.82 F3 FROM 2336.00 F TO 323.000 F
Integrated Cement Volume: 910.015 F3 FROM 2336.00 F TO 323.000 F
(ASSUMING 5.50000 IN O.D. CASING)
EVENT MARK SUMMARY:
OUTPUT INTERVAL BETWEEN PIPS DEPTH TRACK
Integrated Hole Volume 10.0000 F3 LEFT EDGE
Integrated Cement Volume 10.0000 F3 RIGHT EDGE



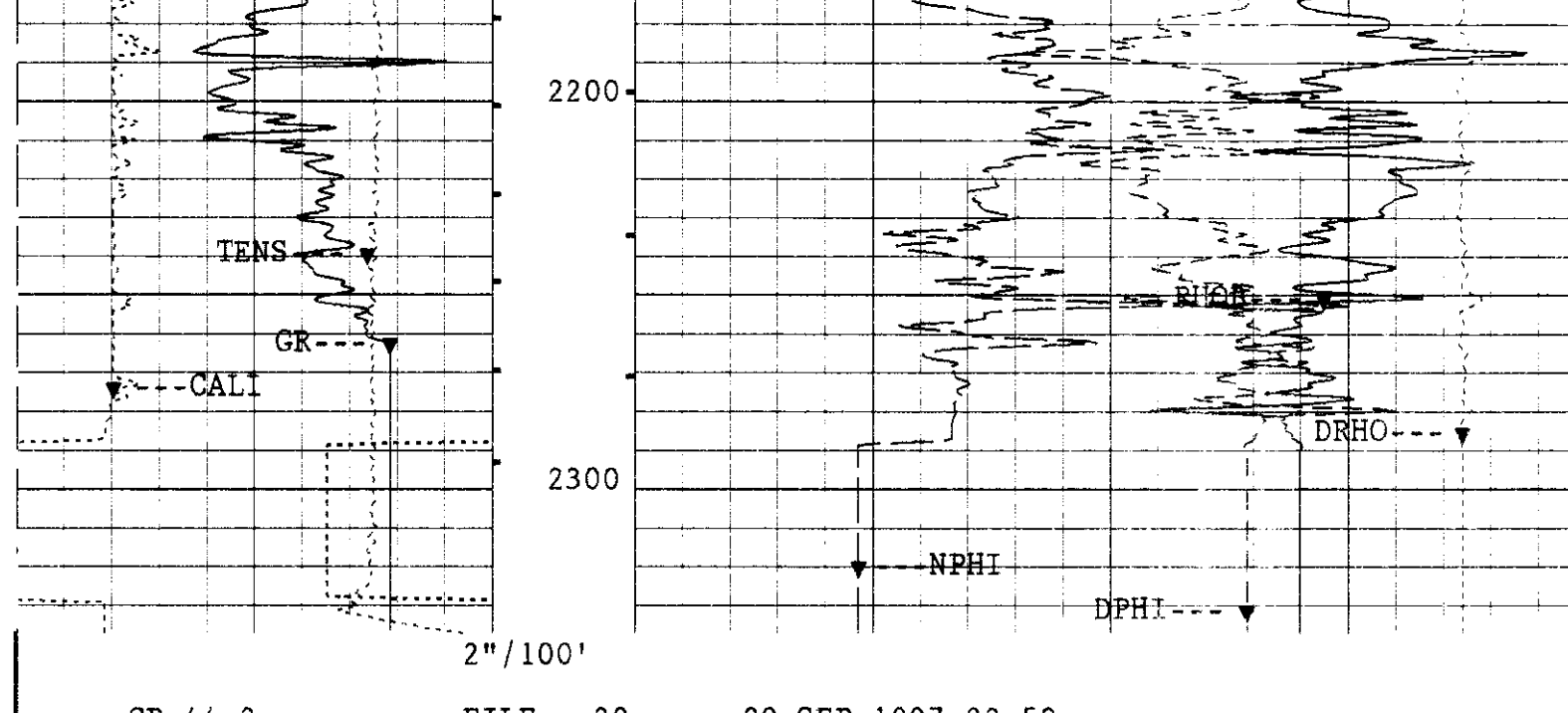
CP 44.2 FILE 24 10-SEP-1997 01:21
INPUT FILE(S) 22 CREATION DATE 10-SEP-1997 00:48
2"/100'



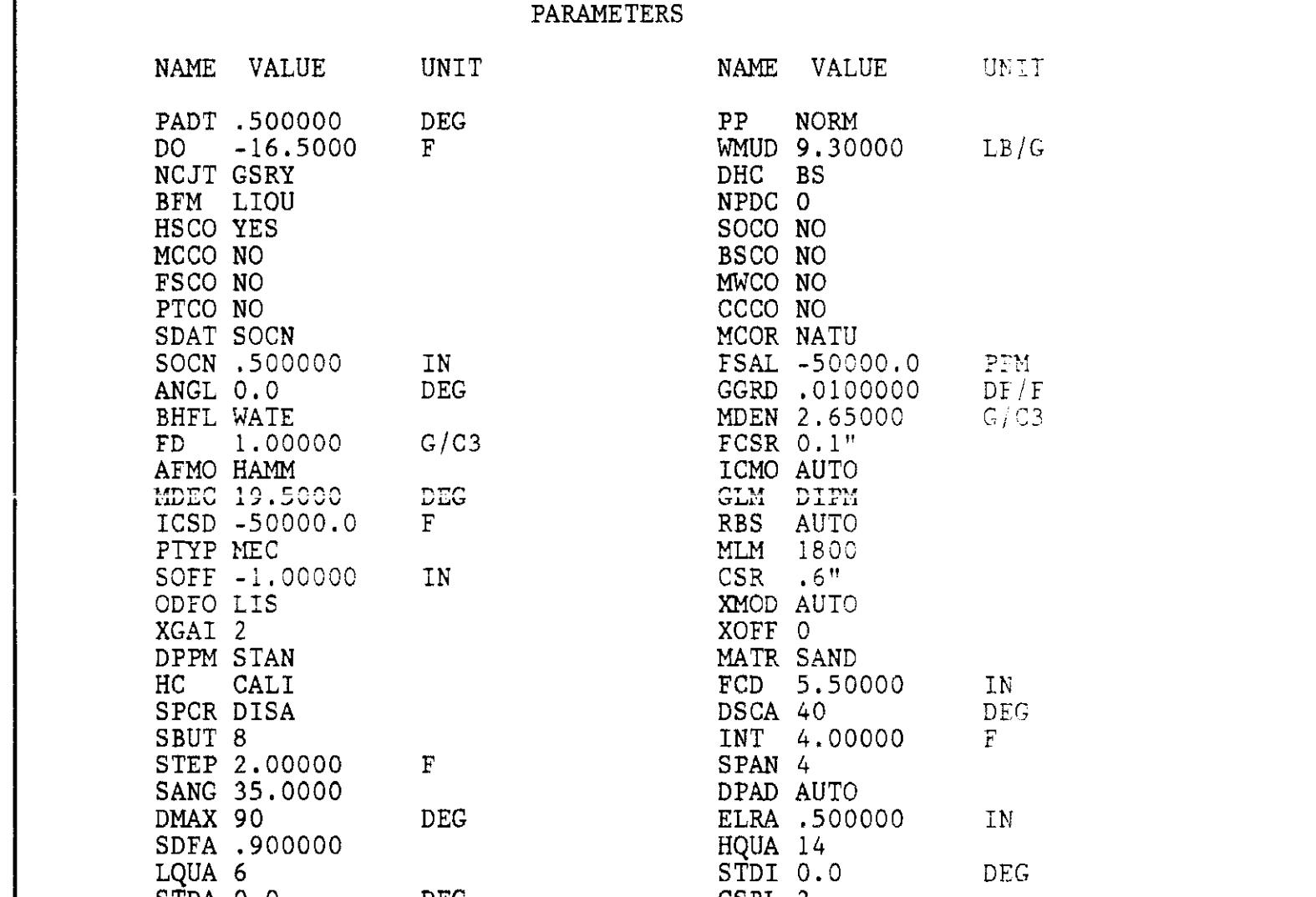
CP 44.2 FILE 24 10-SEP-1997 01:03
INPUT FILE(S) 21 CREATION DATE 09-SEP-1997 23:04
CROSSOVER

SENSOR MEASURE POINT TO TOOL ZERO
LDTD 2.7 FEET SGTL 29.2 FEET
CNTH 20.7 FEET DTT -2.9 FEET
PARAMETERS
NAME VALUE UNIT NAME VALUE UNIT
PP NORM DO 0.0 F
WMUD 9.30000 LB/G NCJT GSRV F
DHC BS RFM LIQU FSCA YES
NPDC 0 HSCO NO MCOO NO
SDCO NO SDAT SOCN
MCCO NO ANGL 0.0 IN
CCCO NO BHL WATE
MCCO NO FD 1.00000 G/C3
MCOR NATU FCD 5.50000 DEG
FSAL -50000.0 PPM ANG 0.0 IN
GGRD -0100000 DF/T MMT 110.000 DEGF
MDEN 2.65000 G/C3 RMTS 1.22000 OHMM
DPPM STAN MATR SAND MSTR 83.0000 DEGF
HC CALI FCD 5.50000 IN
TDL 2324.00 F MTR 110.000 DEGF
DFD 9.30000 LB/G RMTS 1.22000 OHMM
RMS 1.48000 OHMM MST 83.0000 DEGF
MEST 83.0000 DEGF BS 7.87500 IN
BHS OPEN

REPEAT SECTION
SPEED CORRECTION NOT APPLIED
ACCUMULATED INTEGRATION VALUES SUMMARY:
Integrated Hole Volume: 95.4148 F3 FROM 2328.50 F TO 2100.50 F
Integrated Cement Volume: 57.7975 F3 FROM 2328.50 F TO 2100.50 F
(ASSUMING 5.50000 IN O.D. CASING)
EVENT MARK SUMMARY:
OUTPUT INTERVAL BETWEEN PIPS DEPTH TRACK
Integrated Hole Volume 10.0000 F3 LEFT EDGE
Integrated Cement Volume 10.0000 F3 RIGHT EDGE



CP 44.2 FILE 20 09-SEP-1997 23:04
INPUT FILE(S) 13 CREATION DATE 09-SEP-1997 20:30
2"/100'



CP 44.2 FILE 20 09-SEP-1997 22:50
INPUT FILE(S) 13 CREATION DATE 09-SEP-1997 20:30
CROSSOVER

SENSOR MEASURE POINT TO TOOL ZERO
LDTD 29.2 FEET SGTL 55.7 FEET
MESTIC 2.2 FEET DTT -2.9 FEET
CNTH 47.2 FEET GPIT 1.1 FEET
PARAMETERS
NAME VALUE UNIT NAME VALUE UNIT
PAPT -500000 DEG PP NORM DO 0.0 F
DO -16.5000 F WMUD 9.30000 LB/G
NCJT GSRV RFM LIQU FSCA YES
BPM LIQU HSCO NO MCOO NO
HSCO YES SDCO NO SDAT SOCN
MCCO NO ANGL 0.0 IN
FSCO NO BHL WATE
MCCO NO FD 1.00000 G/C3
MCOR NATU FCD 5.50000 DEG
FSAL -50000.0 PPM ANG 0.0 IN
GGRD -0100000 DF/T MMT 110.000 DEGF
MDEN 2.65000 G/C3 RMTS 1.22000 OHMM
DPPM STAN MATR SAND MSTR 83.0000 DEGF
HC CALI FCD 5.50000 IN
TDL 2324.00 F MTR 110.000 DEGF
DFD 9.30000 LB/G RMTS 1.22000 OHMM
RMS 1.48000 OHMM MST 83.0000 DEGF
MEST 83.0000 DEGF BS 7.87500 IN
BHS OPEN

COMPANY NORTHWEST NATURAL GAS SCHL FR 23000 F
WELL OM 12-22-65 SCHL TD 23240 F
FIELD MIST GAS FIELD DRLR TD 23370 F
COUNTY COLUMBIA STATE OREGON Elev: KB 565 F
FORMATION DENSITY SCHL DL 566 F
COMPENSATED NEUTRON GAMMA RAY 2"