

PERMANENT DATUM: GL  
 ELEV. OF PERM. DATUM: 722.5  
 LID MEAS. TO PERM. DATUM: 212.5  
 DRLG. MEASURED FROM: 138

RECEIVED: PHD  
 JUL 11 1985  
 (OFFICE OF THE SUPERVISOR)

OTHER SERVICES:  
 FIC/CL/GR  
 CST

COMPANY: ARCO EXPLORATION COMPANY  
 "COLUMBIA COUNTY" 423-19

FIELD: MTS  
 STATE: OREGON  
 U.S.A.  
 LOCATION: 2556 N AND 2595 E  
 16 UN SW CORNER 1 6N  
 SEC: 16  
 RGE: 5N

PROGRAM: TAPED  
 TAPED NO: 1  
 SERVICE: 431981

TYPE FLUID IN HOLE: LIGNITE/DESCO  
 DENSITY: 20.3 LB/G  
 VISCOSITY: 45.0 CS  
 PH: 8.8  
 FLUID LOSS: 4.2 CC  
 SOURCE OF SAMPLE: FLDALINE  
 RW: 1.770 DHMM AT 75.0 DEGF  
 RMF: 2.450 DHMM AT 65.0 DEGF  
 RMC: 2.330 DHMM AT 65.0 DEGF  
 SOURCE RMF/RMC: MEASURED/MEASURED  
 RW AT BHT: 1.170 DHMM AT 117. DEGF  
 RMF AT BHT: 1.462 DHMM AT 117. DEGF  
 RMC AT BHT: 1.352 DHMM AT 117. DEGF

TIME CIRC. STOPPED: 7:10 1130  
 TIME LOGGER ON BHT: 2200  
 MAX. REC. TEMP: 117.0 DEGF  
 LOGGING UNIT NO: 8057  
 LOGGING UNIT LOC: SACRAMENTO  
 RECORDED BY: ANDERSEN  
 WITNESSED BY: BUIKEMA

REMARKS:  
 950 PPM CHLORIDES  
 78 DEGREE MECHANICAL UNIT.

EQUIPMENT NUMBERS-

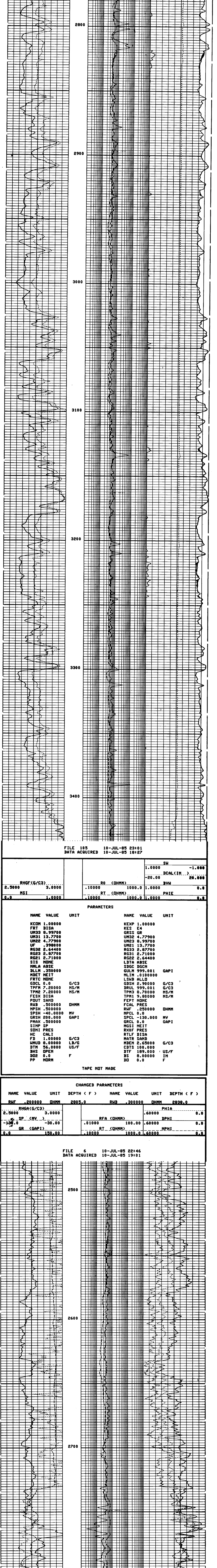
|            |            |           |           |
|------------|------------|-----------|-----------|
| MDS-D 1954 | NHM-NB 725 | HDE-F 787 | DAH-A 823 |
|------------|------------|-----------|-----------|

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 OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

FILE 9

|            |        |        |          |        |        |
|------------|--------|--------|----------|--------|--------|
| RHGF(G/C3) | 2.5000 | 3.0000 | SH       | 1.0000 | -1.000 |
| NSI        | 0.0    | 1.0000 | DCAL(IN) | -20.00 | 20.000 |
|            |        |        | BVM      | 1000.0 | 0.0    |
|            |        |        | PHIE     | 1.0000 | 0.0    |
|            |        |        |          | 1000.0 | 1.0000 |

FILE 6 10-JUL-85 23:04  
 DATA ACQUIRED 10-JUL-85 19:01



FILE 105 10-JUL-85 23:01  
 DATA ACQUIRED 10-JUL-85 18:27

|            |        |        |          |        |        |
|------------|--------|--------|----------|--------|--------|
| RHGF(G/C3) | 2.5000 | 3.0000 | SH       | 1.0000 | -1.000 |
| NSI        | 0.0    | 1.0000 | DCAL(IN) | -20.00 | 20.000 |
|            |        |        | BVM      | 1000.0 | 0.0    |
|            |        |        | PHIE     | 1.0000 | 0.0    |
|            |        |        |          | 1000.0 | 1.0000 |

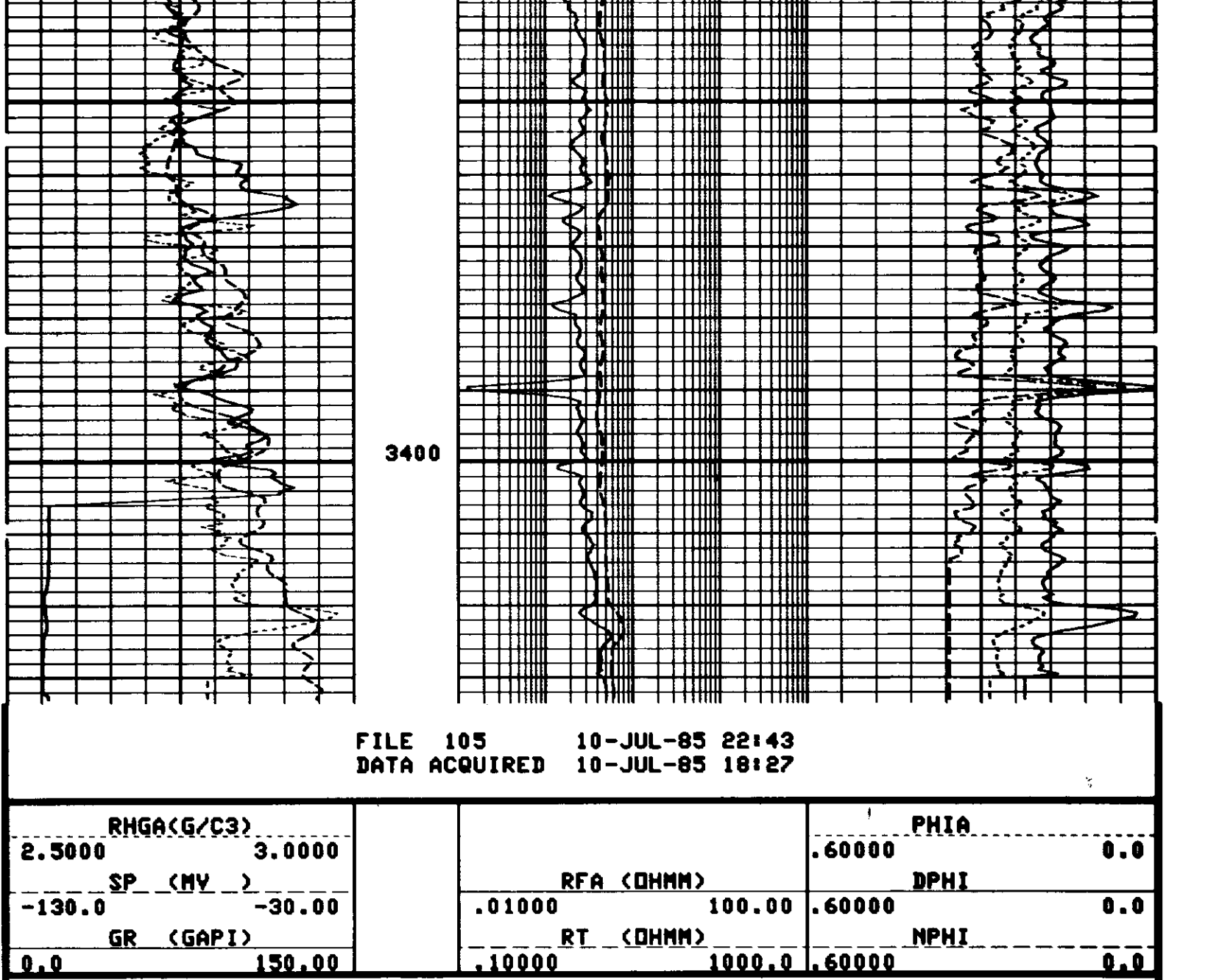
PARAMETERS

| NAME     | VALUE    | UNIT | NAME | VALUE    | UNIT |
|----------|----------|------|------|----------|------|
| KCDN     | 1.00000  |      | KEXP | 1.00000  |      |
| FRT DISA |          |      | KES  | E4       |      |
| UM33     | 8.99700  | NS/M | GRSS | GR       |      |
| UM23     | 13.7700  | NS/M | UM32 | 8.77900  |      |
| UM22     | 4.77900  | NS/M | UM23 | 8.99700  |      |
| UF       | .398000  |      | UM21 | 13.7700  |      |
| RG32     | 2.64400  |      | RG33 | 2.97700  |      |
| RG23     | 2.67700  |      | RG31 | 2.71000  |      |
| RG21     | 2.71000  |      | RG22 | 2.64400  |      |
| SIS      | NONE     |      | LDTA | ABSE     |      |
| MHLA     | ABSE     |      | SDGC | DGCH     |      |
| MHL      | .350000  |      | GULM | 999.001  | GAPI |
| MDT      | NEIT     |      | NLIM | .0100000 |      |
| FRTC     | NONE     |      | LSMB | ALLD     |      |
| GDCL     | 0.0      | G/C3 | GDSH | 2.90000  | G/C3 |
| TPFM     | 7.20000  | NS/M | DRUL | 999.001  | G/C3 |
| TPM2     | 7.20000  | NS/M | TPM3 | 8.70000  | NS/M |
| FESX     | DISA     |      | TPM1 | 9.80000  | NS/M |
| PDUU     | SAND     |      | FPT  | NONE     |      |
| RWB      | .500000  | DHMM | FCAL | PRE3     | DHMM |
| NPSH     | -40.0000 | MV   | NPLC | 0.0      | DHMM |
| SPSH     | -40.0000 |      | SPCL | -130.000 | MV   |
| PWAX     | 200.000  | GAPI | GRCL | 0.0      | GAPI |
| SINP     | .500000  |      | WESI | NEIT     |      |
| SDMT     | PRES     |      | RKOF | PRES     |      |
| HC       | CALI     |      | RTLF | DISA     |      |
| FB       | 1.00000  | G/C3 | MATR | SAND     |      |
| MHUB     | 0.00000  | LB/G | NLIM | .0100000 | G/C3 |
| DTM      | 56.0000  | US/F | CDTS | 100.000  | NS/M |
| BHS      | DPEN     |      | DTF  | 189.000  | US/F |
| DD2      | 0.0      | F    | BS   | 8.00000  | IN   |
| PP       | NDRH     |      | DD   | 0.0      | F    |

CHANGED PARAMETERS

| NAME       | VALUE  | UNIT   | DEPTH (F) | NAME | VALUE  | UNIT | DEPTH (F) |
|------------|--------|--------|-----------|------|--------|------|-----------|
| RHGF(G/C3) | 2.5000 | 3.0000 |           | PHIE | .60000 |      | 0.0       |
| SP (MV)    | -130.0 | -30.00 |           | DPHI | 100.00 |      | 0.0       |
| GR (GAPI)  | 0.0    | 150.00 |           | NPHI | 1000.0 |      | 0.0       |
|            |        |        |           |      | 1000.0 |      | 0.0000    |

FILE 6 10-JUL-85 22:46  
 DATA ACQUIRED 10-JUL-85 19:01



FILE 105 10-JUL-85 22:43  
 DATA ACQUIRED 10-JUL-85 18:27

|            |        |        |            |        |       |
|------------|--------|--------|------------|--------|-------|
| RHGF(G/C3) | 2.5000 | 3.0000 | PHIE       | .60000 | 0.0   |
| SP (MV)    | -130.0 | -30.00 | RFA (DHMM) | 100.00 | 60000 |
| GR (GAPI)  | 0.0    | 150.00 | RT (DHMM)  | 1000.0 | 60000 |
|            |        |        |            | 1000.0 | 60000 |

PARAMETERS

| NAME     | VALUE    | UNIT | NAME | VALUE    | UNIT |
|----------|----------|------|------|----------|------|
| KCDN     | 1.00000  |      | KEXP | 1.00000  |      |
| FRT DISA |          |      | KES  | E4       |      |
| UM33     | 8.99700  | NS/M | GRSS | GR       |      |
| UM23     | 13.7700  | NS/M | UM32 | 8.77900  |      |
| UM22     | 4.77900  | NS/M | UM23 | 8.99700  |      |
| UF       | .398000  |      | UM21 | 13.7700  |      |
| RG32     | 2.64400  |      | RG33 | 2.97700  |      |
| RG23     | 2.67700  |      | RG31 | 2.71000  |      |
| RG21     | 2.71000  |      | RG22 | 2.64400  |      |
| SIS      | NONE     |      | LDTA | ABSE     |      |
| MHLA     | ABSE     |      | SDGC | DGCH     |      |
| MHL      | .350000  |      | GULM | 999.001  | GAPI |
| MDT      | NEIT     |      | NLIM | .0100000 |      |
| FRTC     | NONE     |      | LSMB | ALLD     |      |
| GDCL     | 0.0      | G/C3 | GDSH | 2.90000  | G/C3 |
| TPFM     | 7.20000  | NS/M | DRUL | 999.001  | G/C3 |
| TPM2     | 7.20000  | NS/M | TPM3 | 8.70000  | NS/M |
| FESX     | DISA     |      | TPM1 | 9.80000  | NS/M |
| PDUU     | SAND     |      | FPT  | NONE     |      |
| RWB      | .500000  | DHMM | FCAL | PRE3     | DHMM |
| NPSH     | -40.0000 | MV   | NPLC | 0.0      | DHMM |
| SPSH     | -40.0000 |      | SPCL | -110.000 | MV   |
| PWAX     | 200.000  | GAPI | GRCL | 0.0      | GAPI |
| SINP     | .500000  |      | WESI | NEIT     |      |
| SDMT     | PRES     |      | RKOF | PRES     |      |
| HC       | CALI     |      | RTLF | DISA     |      |
| FB       | 1.00000  | G/C3 | MATR | SAND     |      |
| MHUB     | 0.00000  | LB/G | NLIM | .0100000 | G/C3 |
| DTM      | 56.0000  | US/F | CDTS | 100.000  | NS/M |
| BHS      | DPEN     |      | DTF  | 189.000  | US/F |
| DD2      | 0.0      | F    | BS   | 8.00000  | IN   |
| PP       | NDRH     |      | DD   | 0.0      | F    |

TAPE NOT MADE