



# Caliper Log



FILE NO. \_\_\_\_\_  
 API NO. \_\_\_\_\_  
 5" x 100"  
 COMPANY: OREGON NATURAL GAS CORPORATION  
 WELL: IM 32-10 (Kasaan Gas Field)  
 FIELD: IM 32-10  
 COUNTY: COLUMBIA STATE: OREGON  
 LOCATION: 21117' S. 2 1/4 E. 33' R. OF THE N.E. CORNER Q1 OF  
 SEC. 10 TWP. 6N RGE. 5W  
 Other Services \_\_\_\_\_  
 Permanent Datum: G.L. Elev. 303.34 KB 310.34  
 Log Measured from: K.B. 13.5 Ft Above Permanent Datum DF 302.84  
 Drilling Measured from: K.B. G.L. 302.84

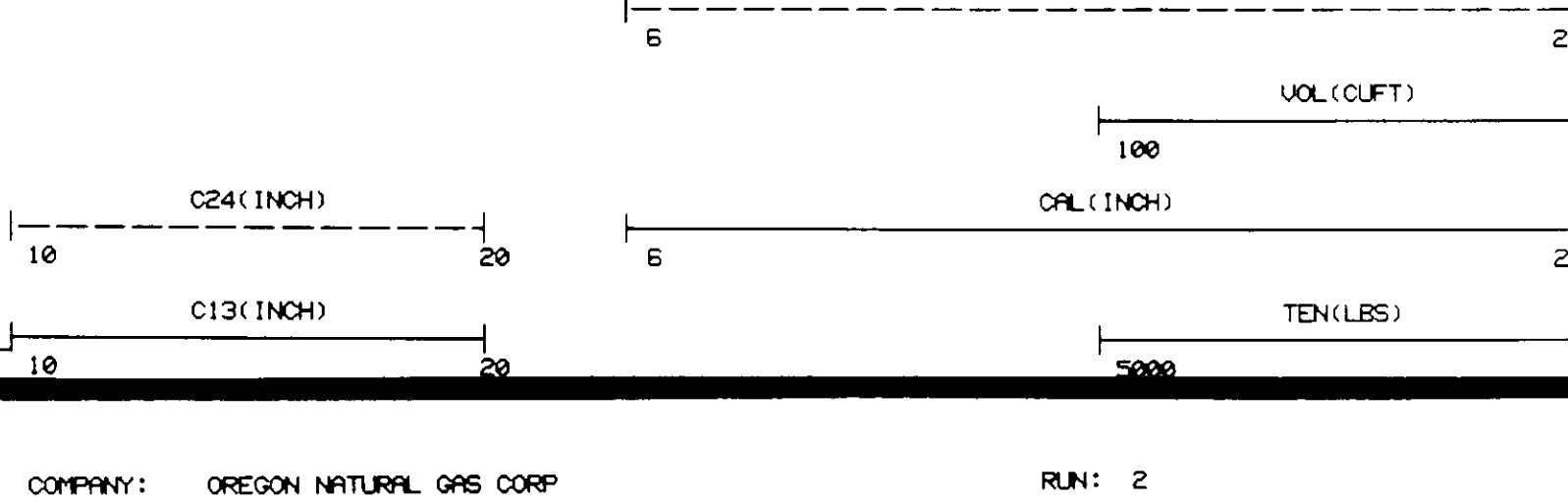
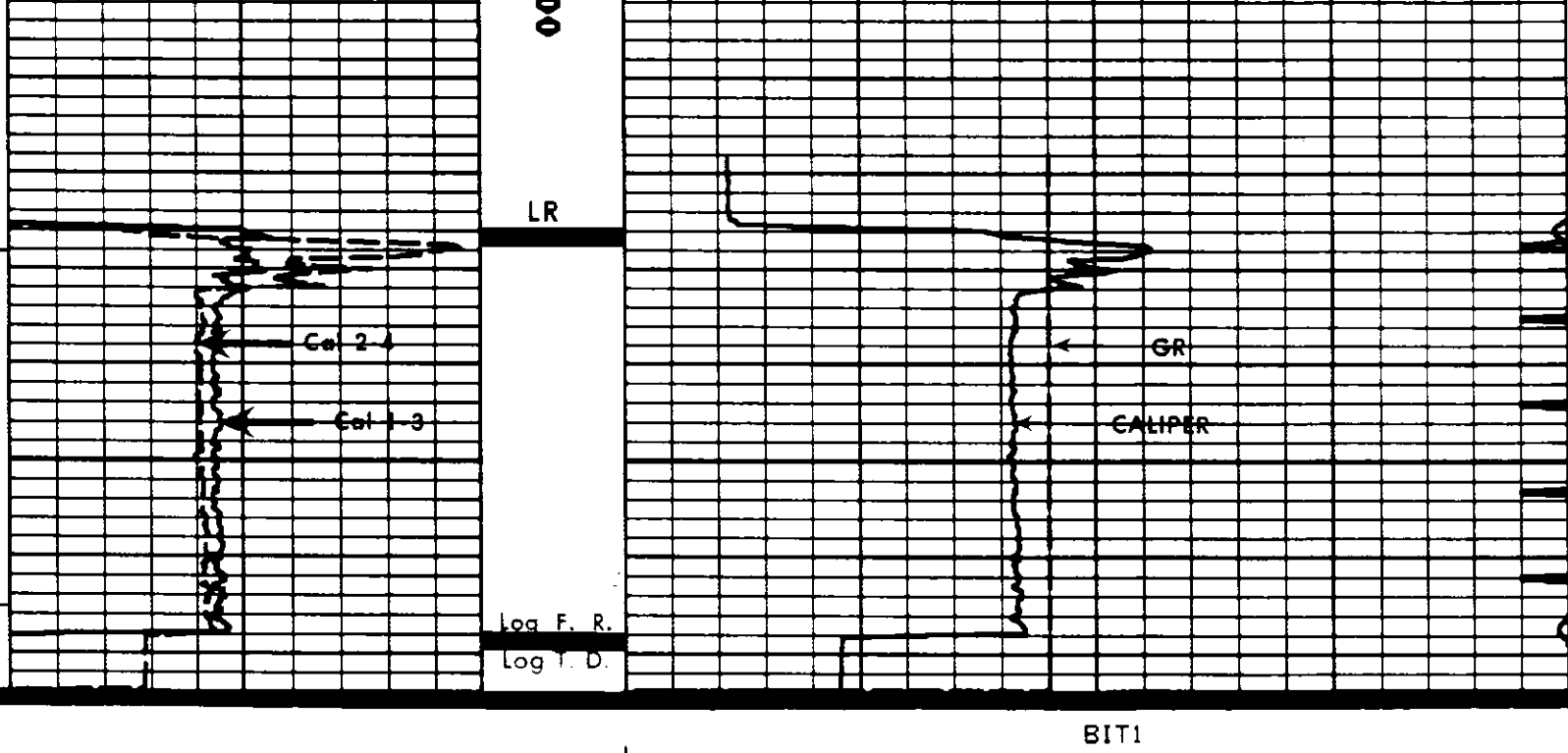
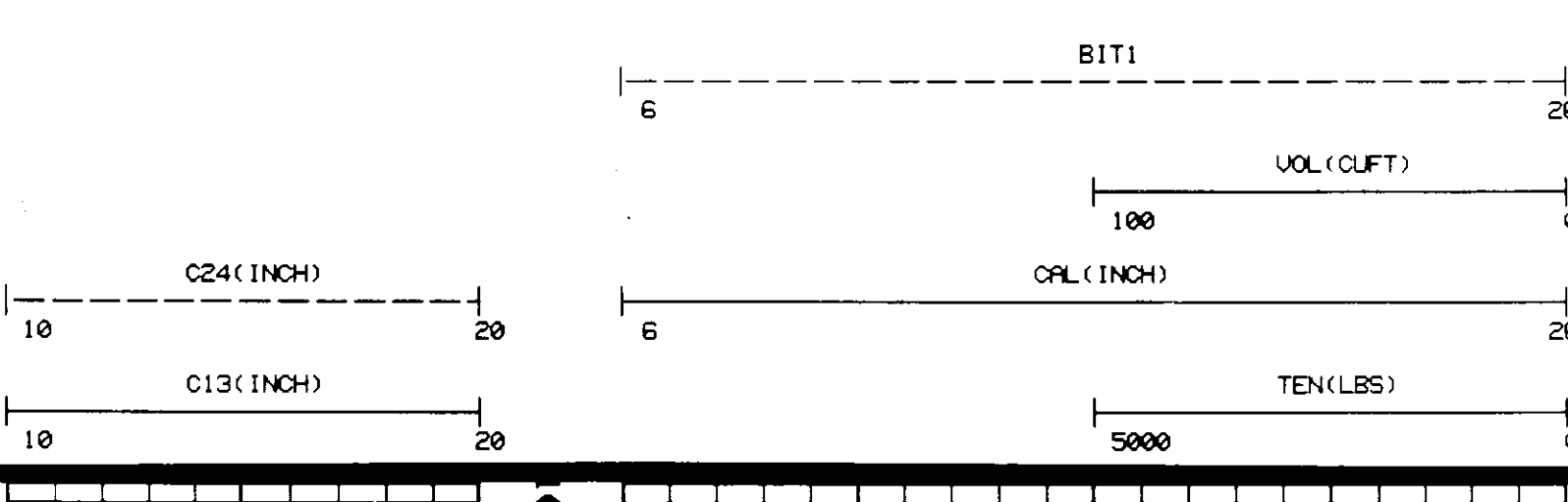
|                         |                |
|-------------------------|----------------|
| Date                    | 1-29-87        |
| Run No.                 | 100            |
| Service Order           | 2-879          |
| Depth - Driller         | 2169'          |
| Depth - Logger          | 2165'          |
| Bottom Logged Interval  | 2120'          |
| Top Logged Interval     | 2120'          |
| Casing - Driller        | 8 5/8" x 12.6' |
| Casing - Logger         | 2126'          |
| Bit Size                | 15"            |
| Type Fluid in Hole      | GEL            |
| Density and Viscosity   |                |
| pH and Fluid Loss       |                |
| Source of Sample        |                |
| Rim @ Meas. Temp.       |                |
| Rim @ Meas. Temp.       |                |
| Rimc @ Meas. Temp.      |                |
| Source of Rim and Rimc  |                |
| Rim @ BHT               |                |
| Time Since Circ.        |                |
| Max. Rec. Temp. Deg. F. |                |
| Equip. No. and Location | 6306 SAC       |
| Recorded By:            | S. WELCH       |
| Witnessed By:           | MRS. MEYER     |

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGMENT, BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCE FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

REMARKS RUN ( 2 )

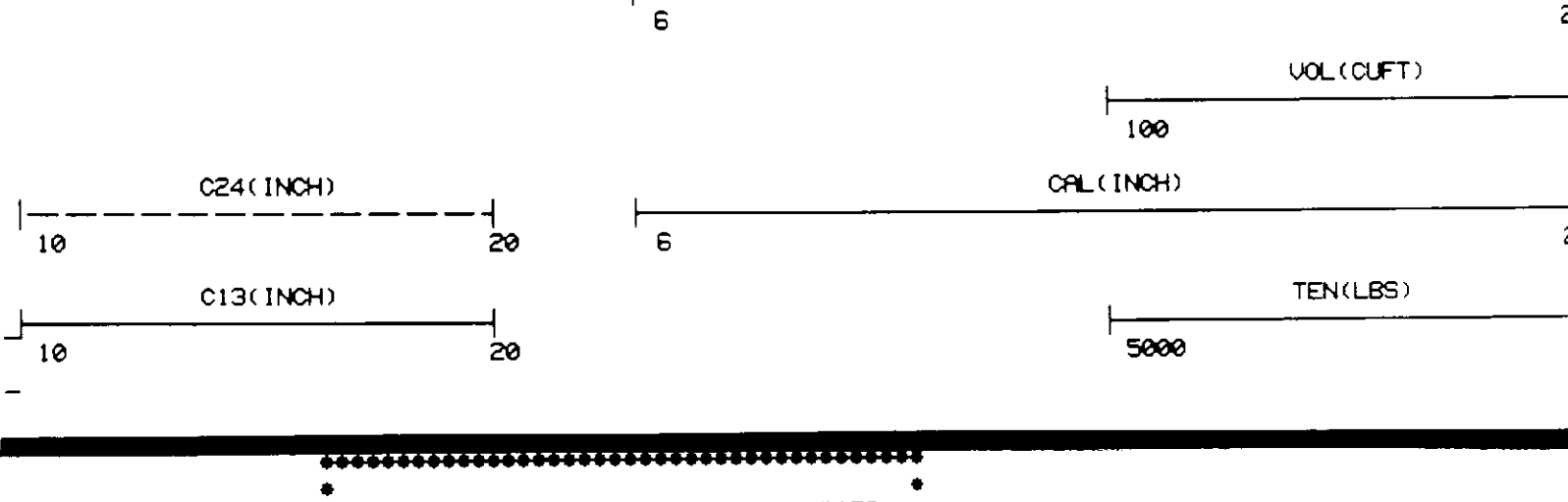
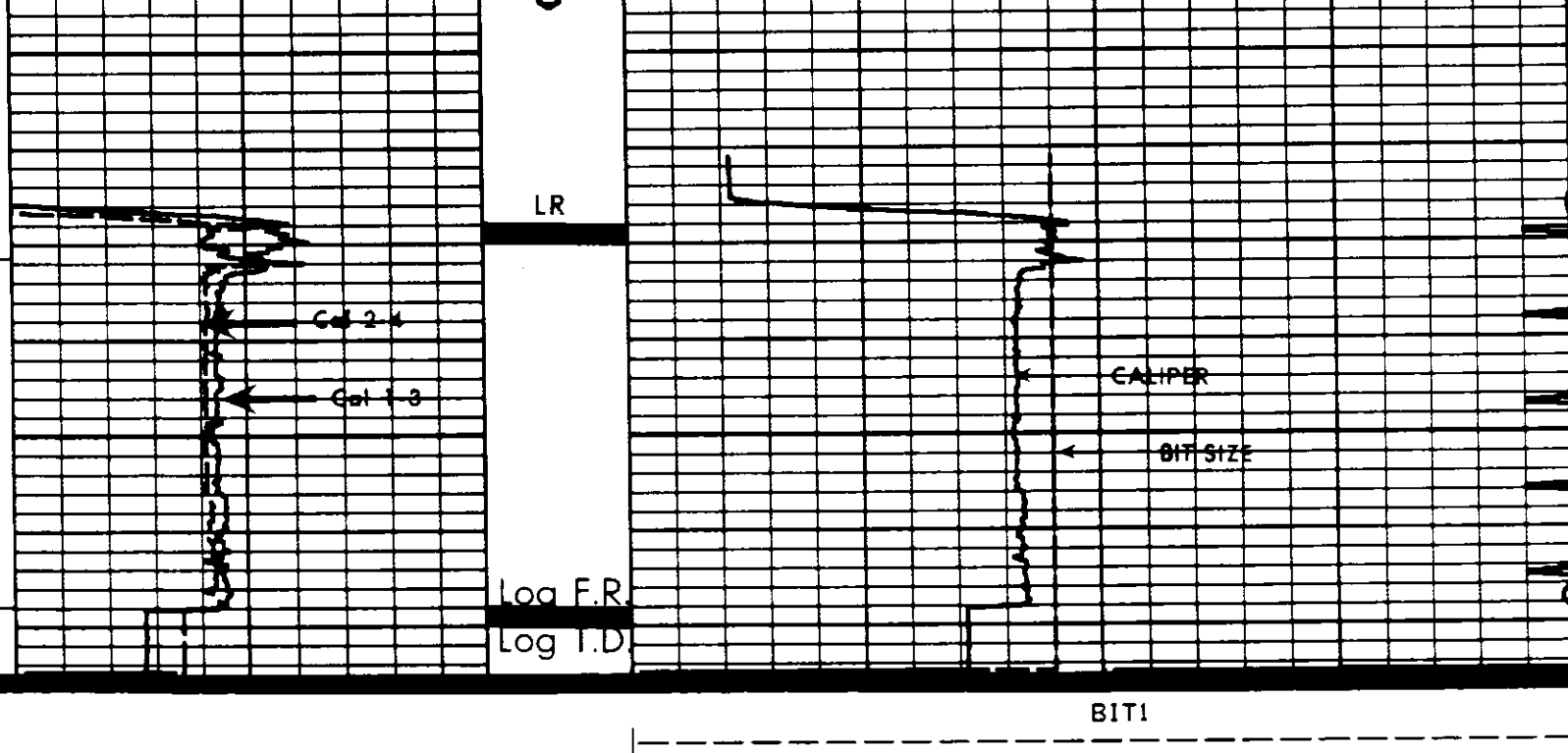
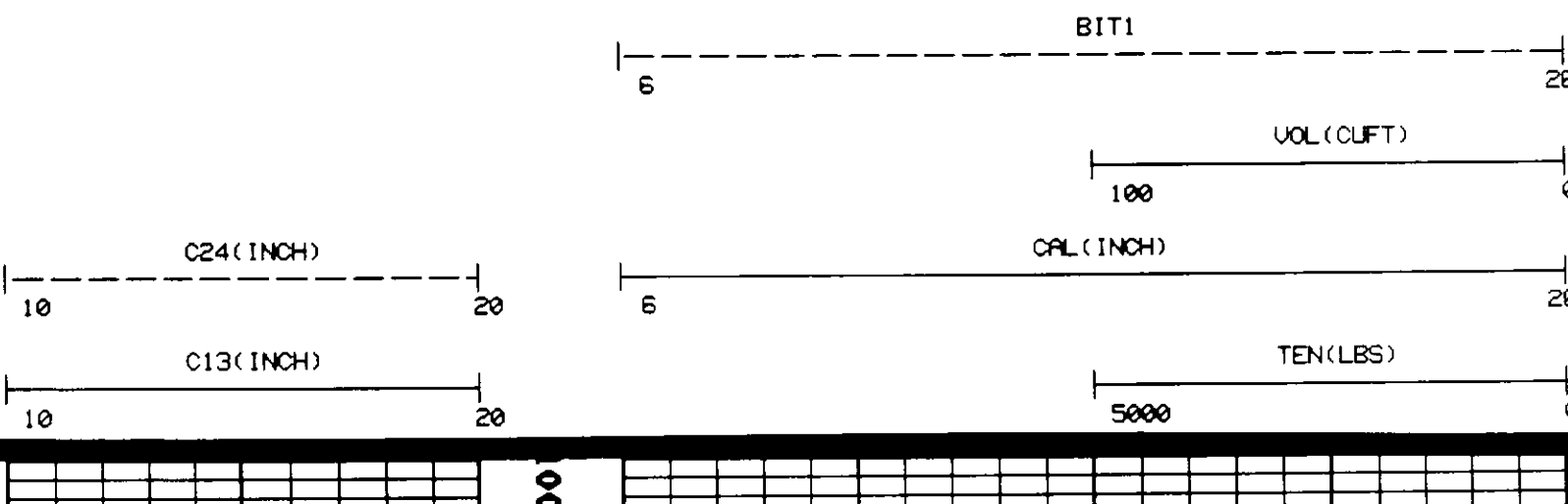
| EQUIPMENT DATA |      |      |            |            |          |
|----------------|------|------|------------|------------|----------|
| RUN            | TRIP | TOOL | SERIAL NO. | SERIES NO. | POSITION |
| 2              | 1    | 4CAL | 32149      | 1905       | VARIABLE |
| 2              | 1    | CR   |            |            |          |

COMPANY: OREGON NATURAL GAS CORP RUN: 2  
 WELL NAME: IM 32-10 TRIP: 1  
 SERVICE: KC202A FILE: 2 DATE: 01/14/87 TIME: 18:23:12  
 REVISION: FSYSAI REV D007 VER 7 MODE: RECORD



COMPANY: OREGON NATURAL GAS CORP RUN: 2  
 WELL NAME: IM 32-10 TRIP: 1  
 SERVICE: KC202A FILE: 1 DATE: 01/14/87 TIME: 18:17:20  
 REVISION: FSYSAI REV D007 VER 7 MODE: RECORD

### REPEAT SECTION



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 • CALIBRATION/VERIFICATION SUMMARIES •  
 • DATE 01/14/87 TIME 18:30:03 •  
 • RUN 2 TRIP 1 •  
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LOG NAME 4CAL ASSET NO. 32149 UNIT NO. HL6406  
 CALIBRATION ENTERED ON 01/14/87 AT 17:41:38

| CURVE   | MILLIVOLTS |        | SCALING FACTORS |        | ENGINEERING VALUES |        | UNITS |
|---|------------|--------|-----------------|--------|--------------------|--------|-------|
|   | LOW        | HIGH   | ADD.            | MULT.  | LOW                | HIGH   |       |
| DATE 01/14/87 CALIBRATION TIME 09:16:16             |            |        |                 |        |                    |        |       |
| C13   | 650.0      | 1830.2 | 1.043           | 0.0186 | 6.000              | 15.000 | INCH  |
| C24   | 1029.7     | 2257.2 | -1.549          | 0.0179 | 6.000              | 15.000 | INCH  |
| PRIMARY VERIFICATION NOT DONE                       |            |        |                 |        |                    |        |       |
| DATE 01/14/87 BEFORE LOG VERIFICATION TIME 18:11:43 |            |        |                 |        |                    |        |       |
| C13   | E          | 913.5  | 1.143           | 0.0186 | E                  | 8.110  | INCH  |
| C24   | E          | 1306.4 | -1.549          | 0.0179 | E                  | 8.029  | INCH  |
| DATE 01/14/87 AFTER LOG VERIFICATION TIME 18:26:20  |            |        |                 |        |                    |        |       |
| C13   | E          | 930.5  | 1.143           | 0.0186 | E                  | 8.239  | INCH  |
| C24   | E          | 1312.2 | -1.549          | 0.0179 | E                  | 8.072  | INCH  |

