Schlumberger

COMPENSATED DENSITY NEUTRON GR

CSU

COMPANY: OREGON NATURAL GAS DEVELOPMENT CORP

WELL: PATTON 32-9 RD#1

RECEIVED-PTI
MAR 10 1983
DEPT OF GEOLOGY

FIELD: OLNEY
COUNTY: CLATSOP
STATE: OREGON

LOCATION: 2068.78' S & 1380.1' W
FROM THE NE CORNER OF
SEC: 9 TWP: 7N RGE: 8W

PERMANENT DATUM: GL
ELEV. OF PERM. DATUM: 731.0 '
LOG MEASURED FROM: KB
21.0 ' ABOVE PERM. DATUM
DRLG. MEASURED FROM: KB

ELEVATIONS-
KB: 752.0 '
DF:
GL: 731.0 '

DATE: 17 FEB 1983
RUN NO: 1

OTHER SERVICES-
DLL
BHC

PROGRAM
TAPE NO:
22.4
SERVICE
ORDER NO:
382921

DEPTH-DRILLER: 3917.0 '
DEPTH-LOGGER: 3900.0 '
BTM. LOG INTERVAL: 3897.0 '
TOP LOG INTERVAL: 2030.0 '

CASING-DRILLER: 2030 '
CASING-LOGGER: 2030 '
CASING: 9.625

BIT SIZE: 8.75
DEPTH: 3917 '

TYPE FLUID IN HOLE: KCL POLYMER
DENSITY: 9.9 LB/G
VISCOSITY: 40.0 S
PH: 7.5
FLUID LOSS: 7.6 C3
SOURCE OF SAMPLE: CIRC
RM: 0.120 OHMM AT 57.0 DEGF
RMF: 0.097 OHMM AT 57.0 DEGF
RMC: 0.230 OHMM AT 58.0 DEGF
SOURCE RMF/RMC: MEAS. /MEAS.
RM AT BHT: 0.066 OHMM AT 108. DEGF
RMF AT BHT: 0.053 OHMM AT 108. DEGF
RMC AT BHT: 0.130 OHMM AT 108. DEGF

TIME CIRC. STOPPED: 1200
TIME LOGGER ON BTM.: 2010

2-23-83

MAX. REC. TEMP: 108.0 DEGF

LOGGING UNIT NO: 8128
LOGGING UNIT LOC: SACRAMENTO
RECORDED BY: ANDERSEN
WITNESSED BY: PORTWOOD

REMARKS:

EQUIPMENT NUMBERS-

CNC 409 PGS 426 PDH 079 SGC 466
NLM 158

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

105

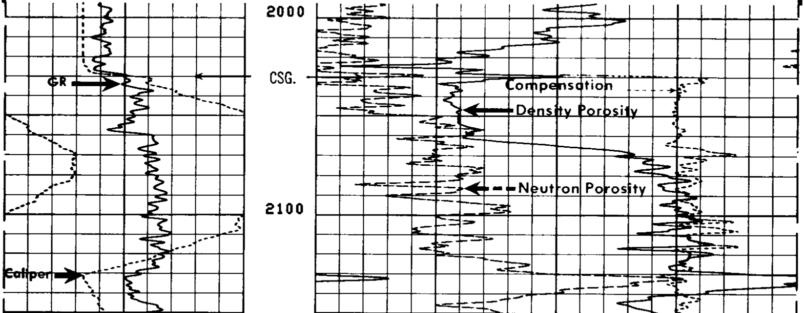
DRHO(G/C3)
-0.250 0.2500

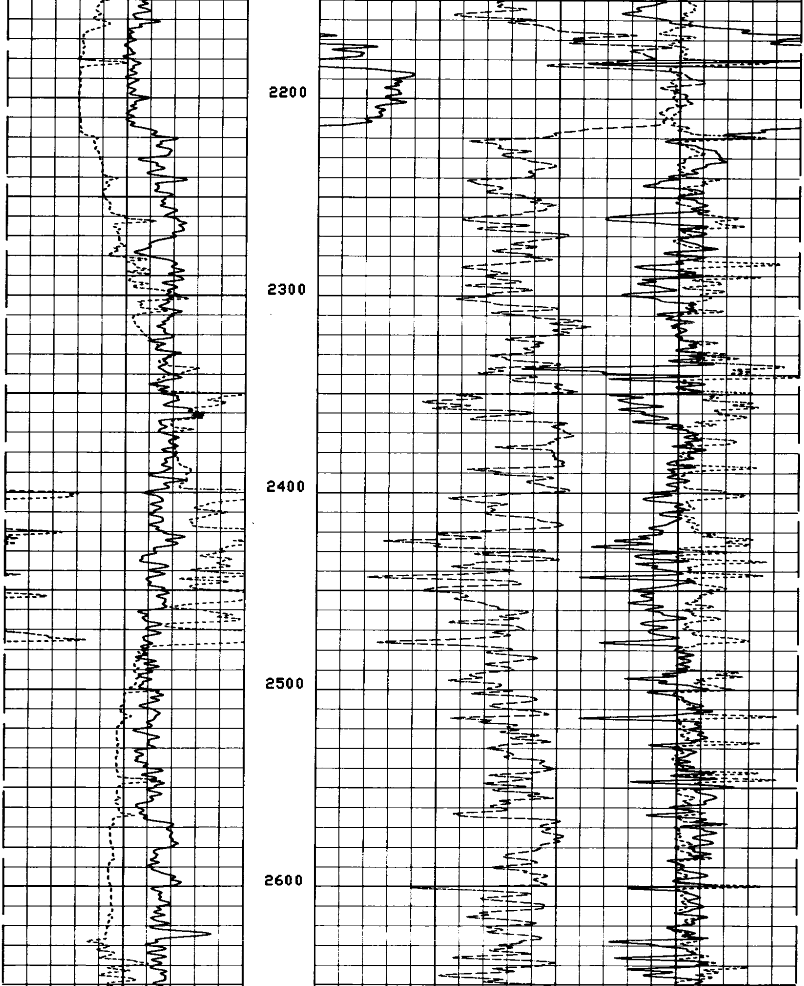
CALI(IN)
6.0000 16.000
GR (GAPI)
0.0 150.00

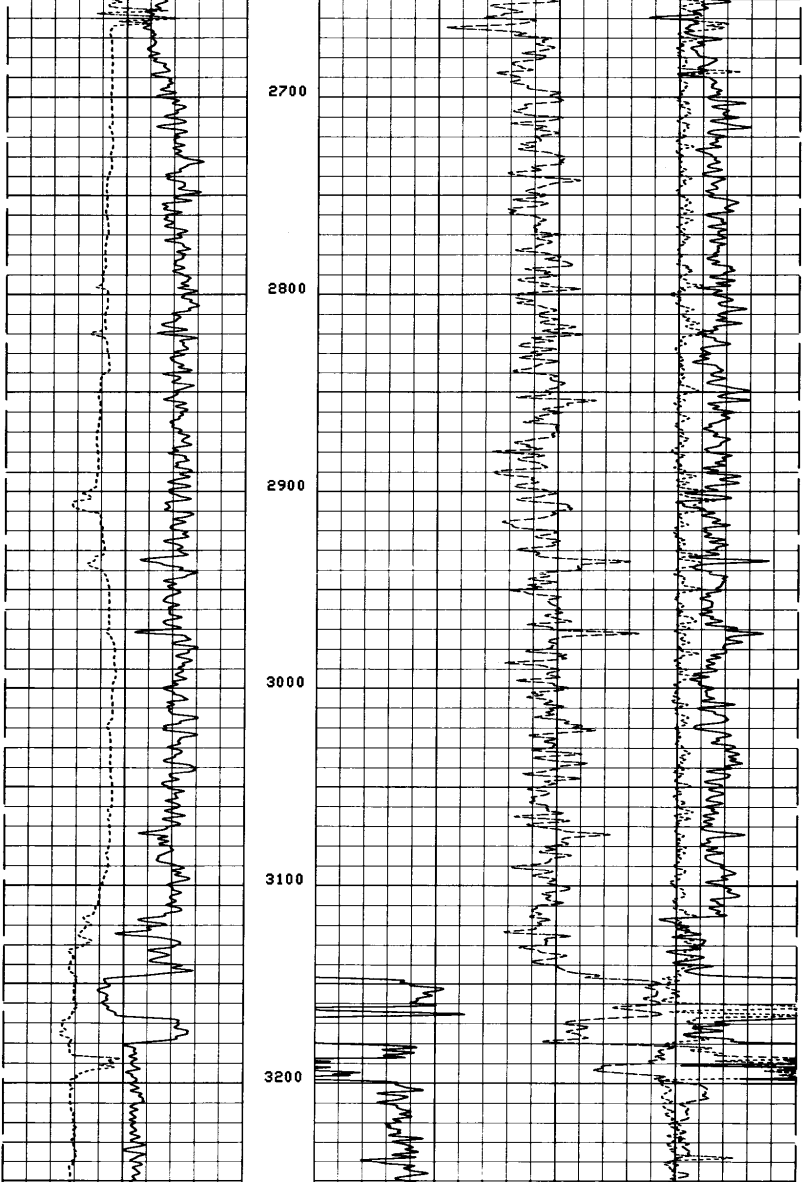
DPHI( )
0.6000 0.0
NPHI( )
0.6000 0.0

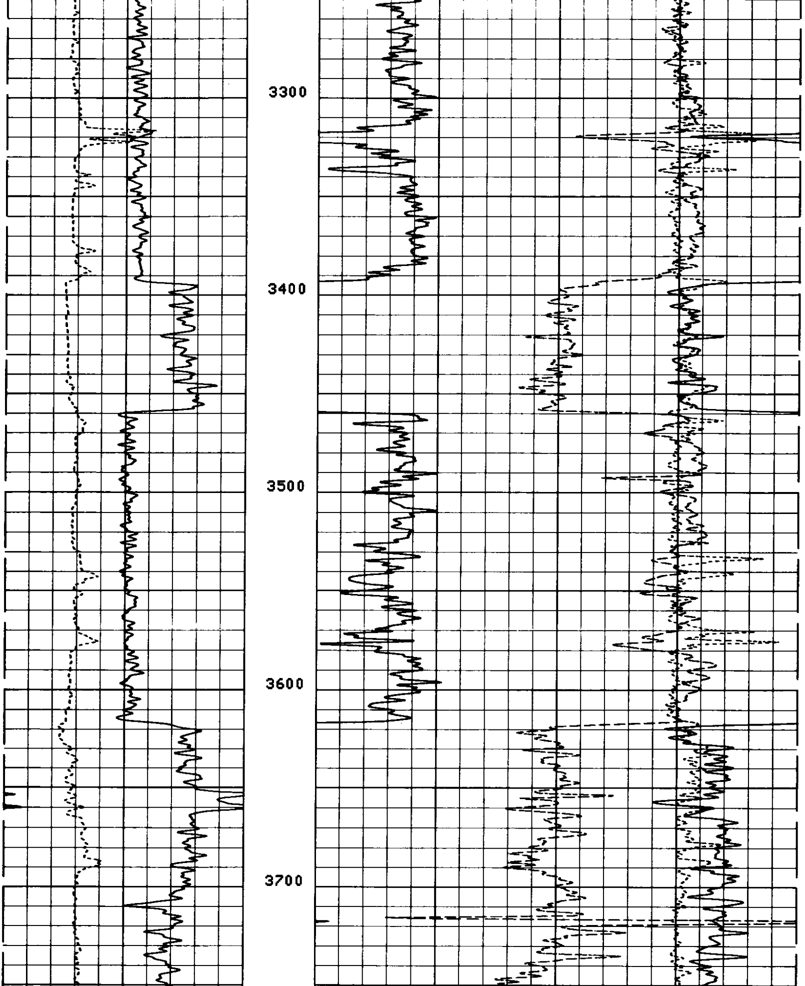
FILE

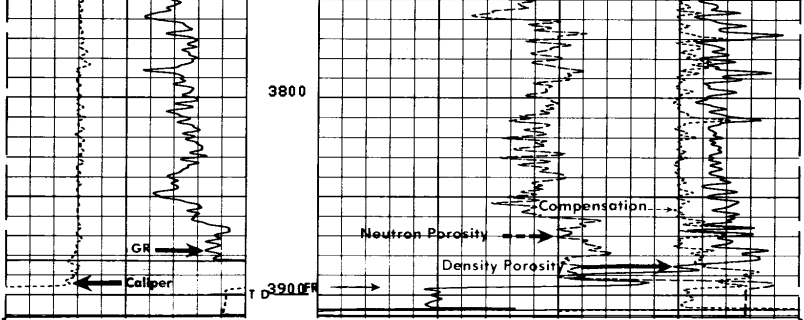
104











FILE

104

DRHO(G/C3)
-0.250 0.2500

CALI(IN)
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DPHI( )
0.6000 0.0

NPHI( )
0.6000 0.0

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

NCNL	17.8	FEET	GR	26.3	FEET
FFDC	3.0	FEET	FCNL	17.8	FEET
CALI	3.0	FEET	NFDC	3.0	FEET
NRAT	17.8	FEET	TENS	.0	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
PSNR	2.23300		BS	8.75000	IN
MATR	SAND		HC	CALI	
MDEN	2.65000	G/C3	FD	1.00000	G/C3
BHF	WATE		FDCC	ALLO	
DO	0.0	F	BHS	OPEN	

DRHO(G/C3)
-0.250 0.2500

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0.0 150.00

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NPHI( )
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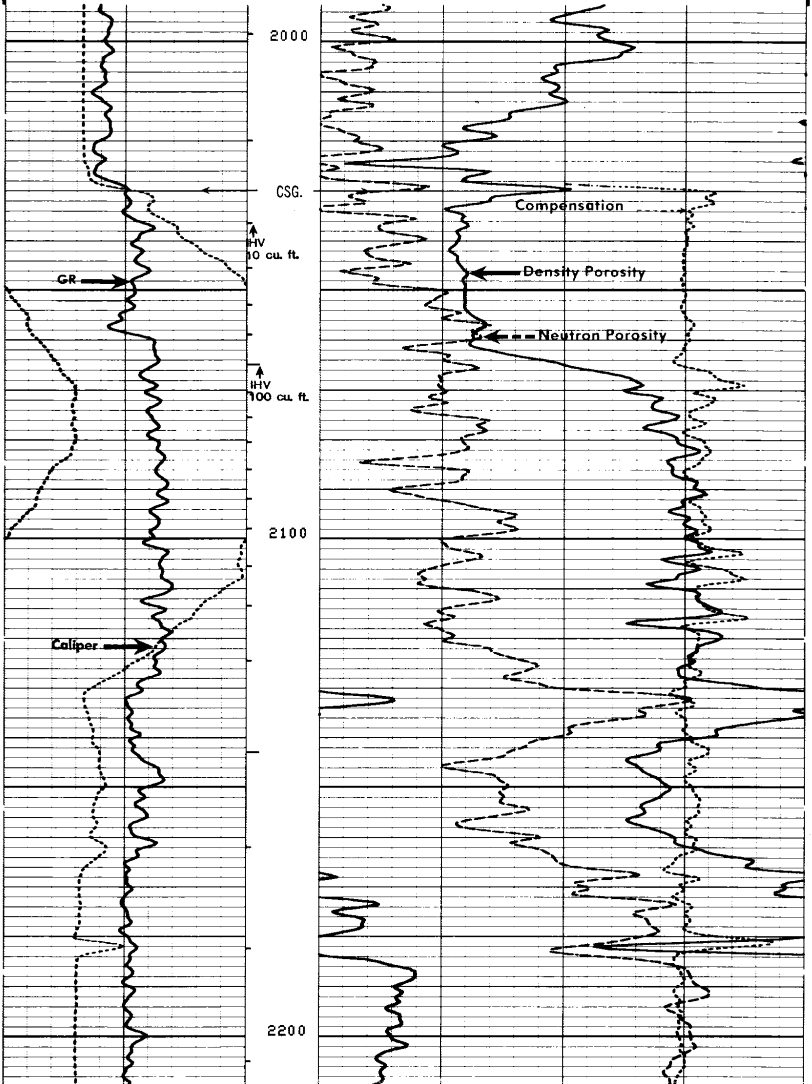
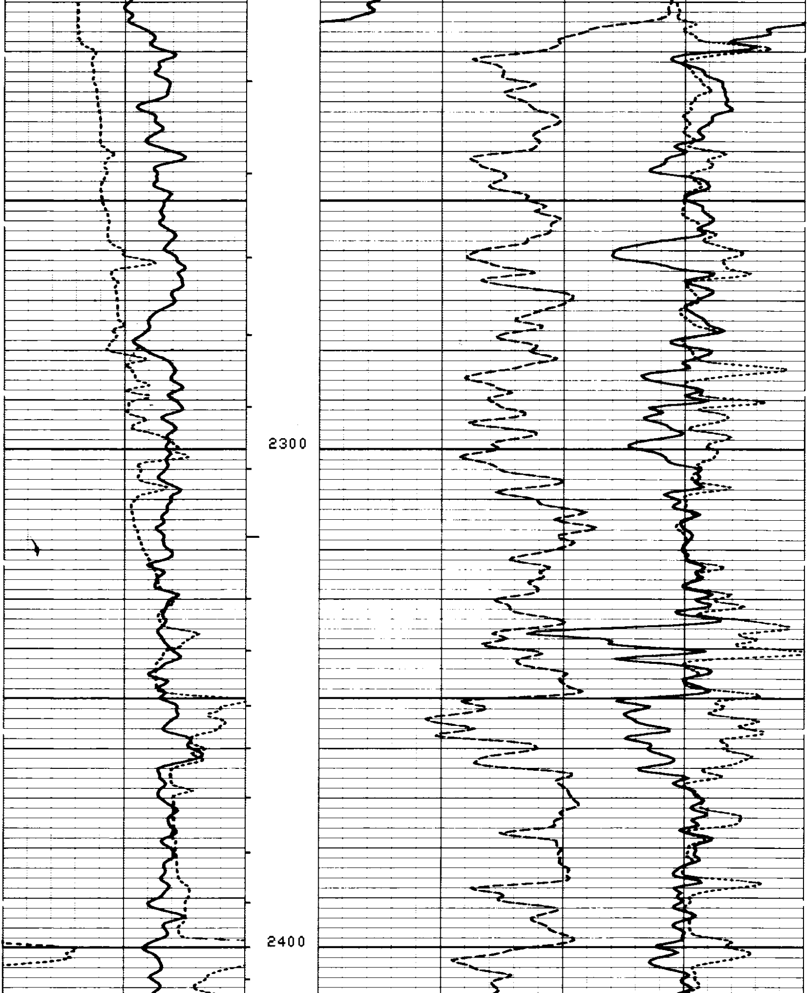
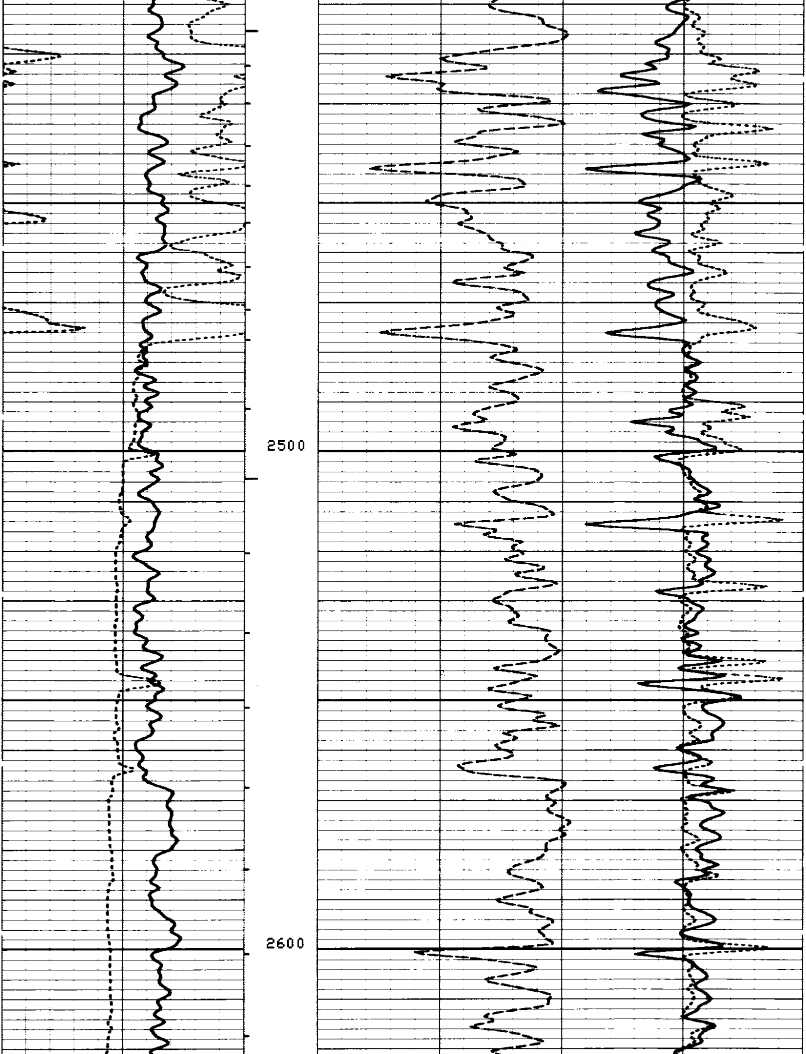
FILE

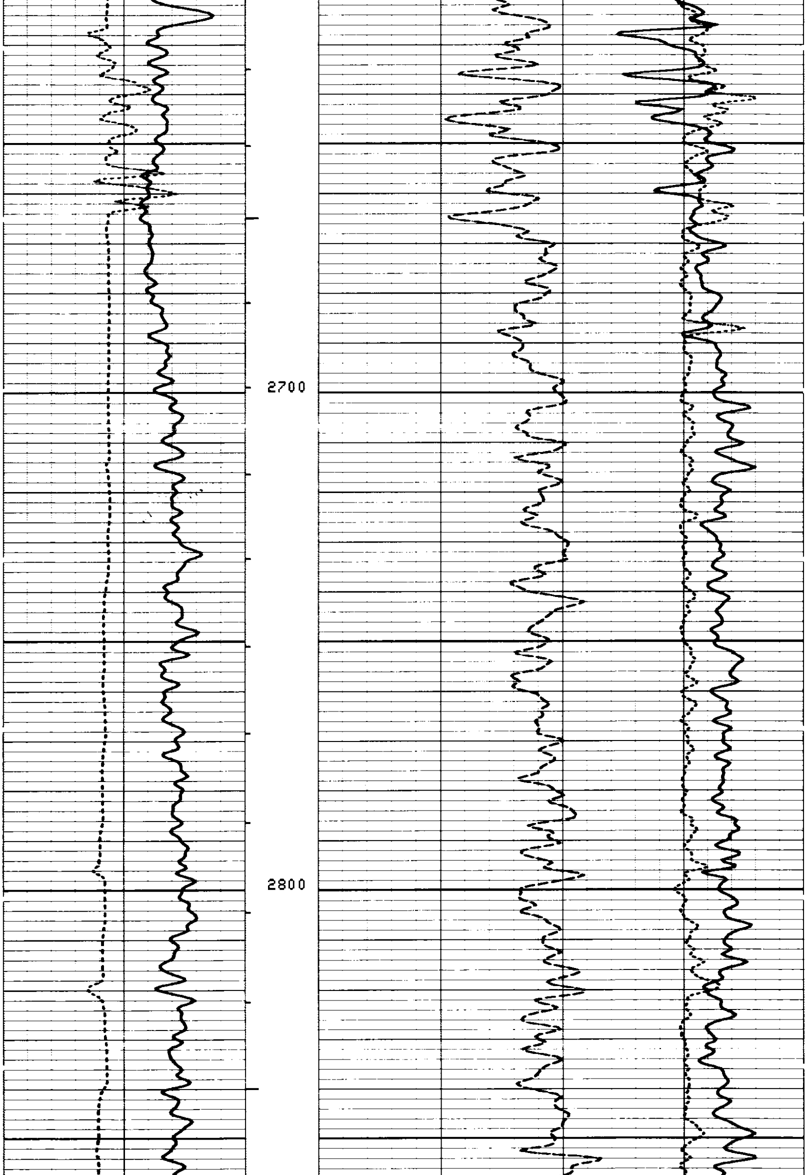
14

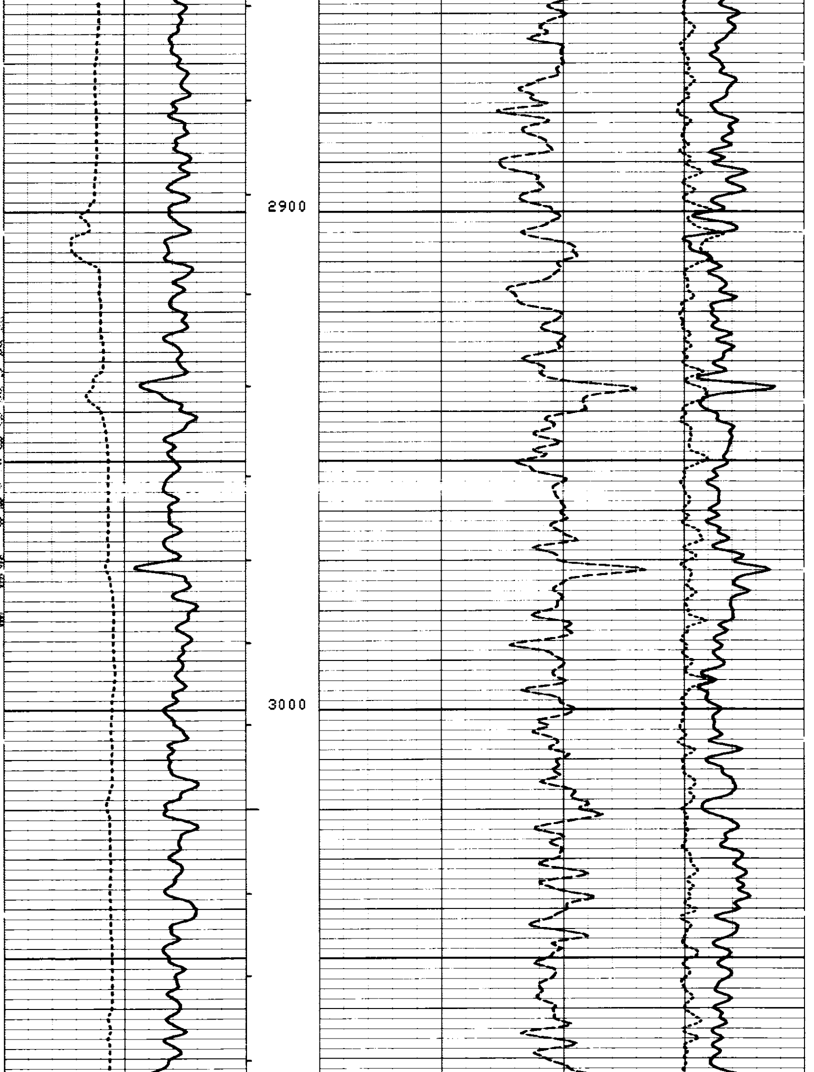
DETAIL LOG
5" = 100'

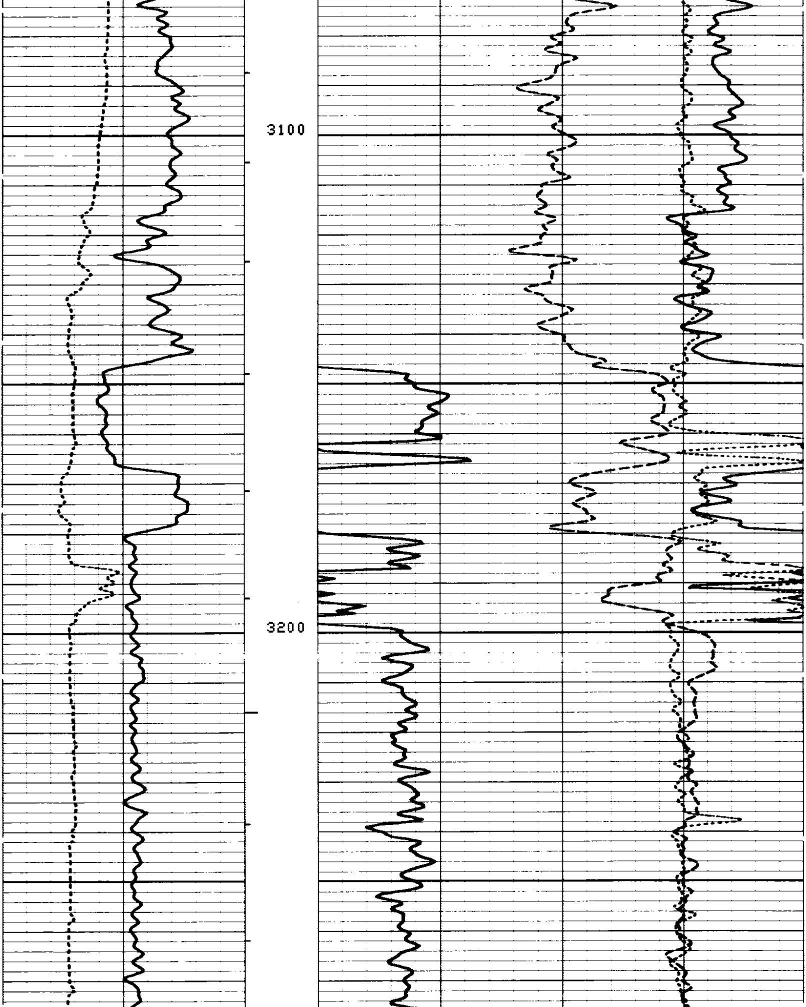


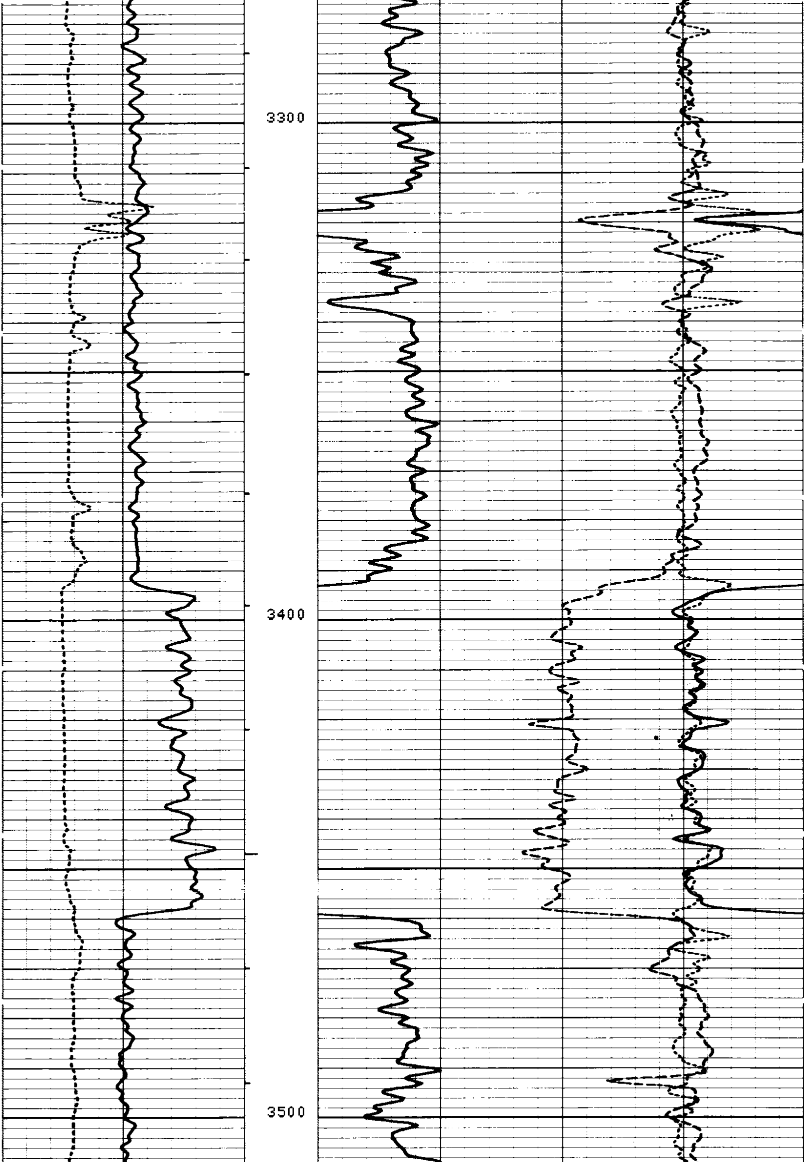


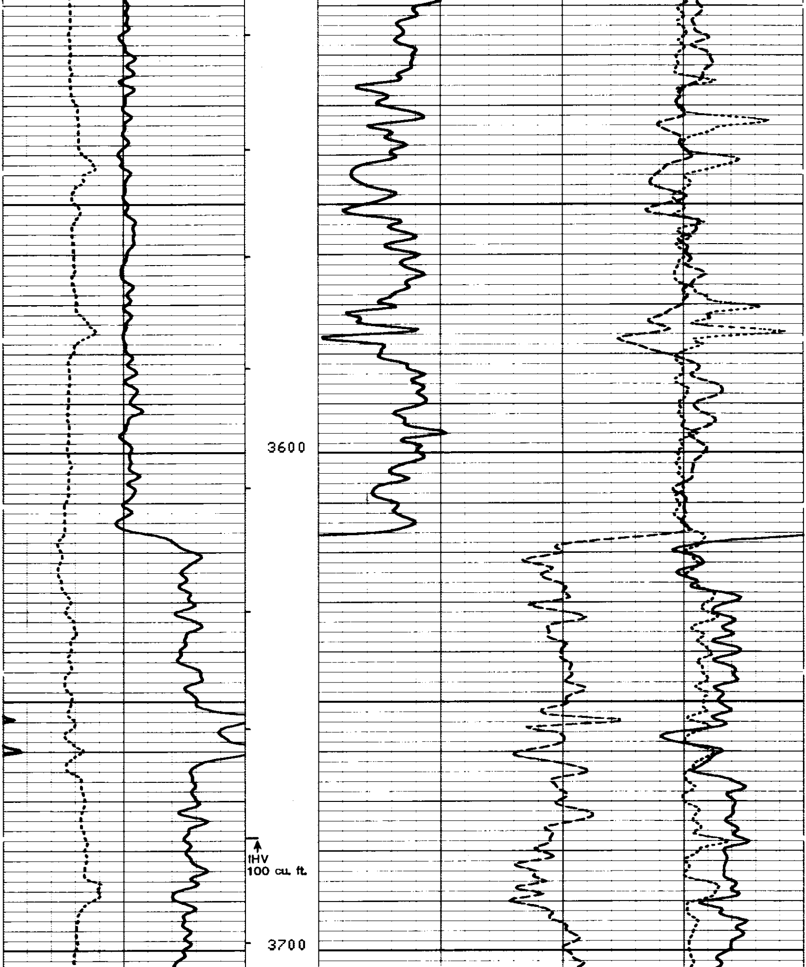


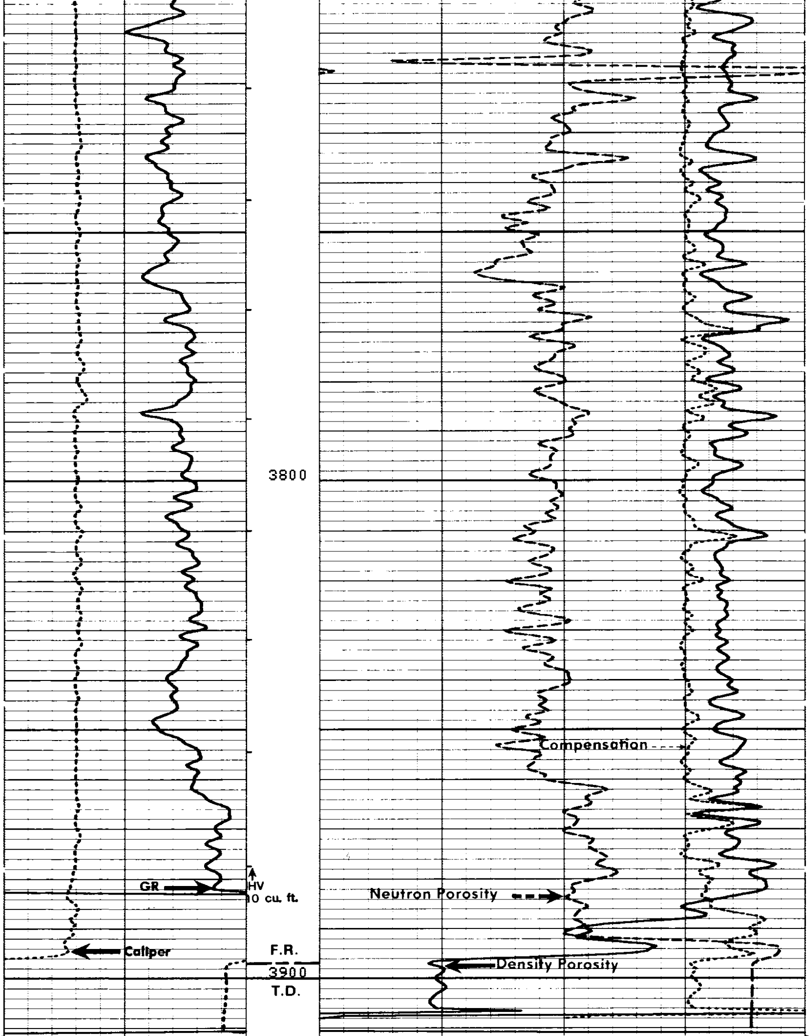












FILE

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5" = 100'

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NRAT	17.8	FEET	TENS	.0	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
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MATR	SAND		HC	CALI	
MDEN	2.65000	G/C3	FD	1.00000	G/C3
BHF	WATE		FDCC	ALLO	
DO	0.0	F	BHS	OPEN	

DRHO(G/C3)
-0.250 0.2500

CALI(IN)
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0.0 150.00

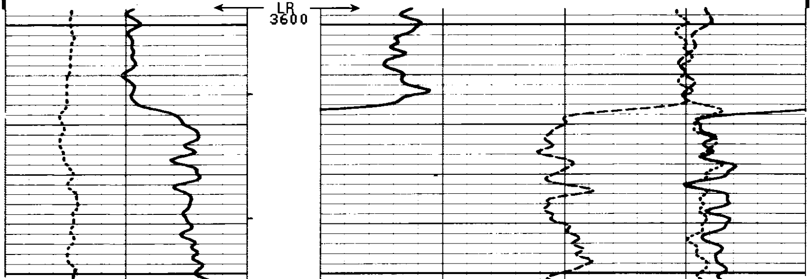
DPHI( )
0.6000 0.0

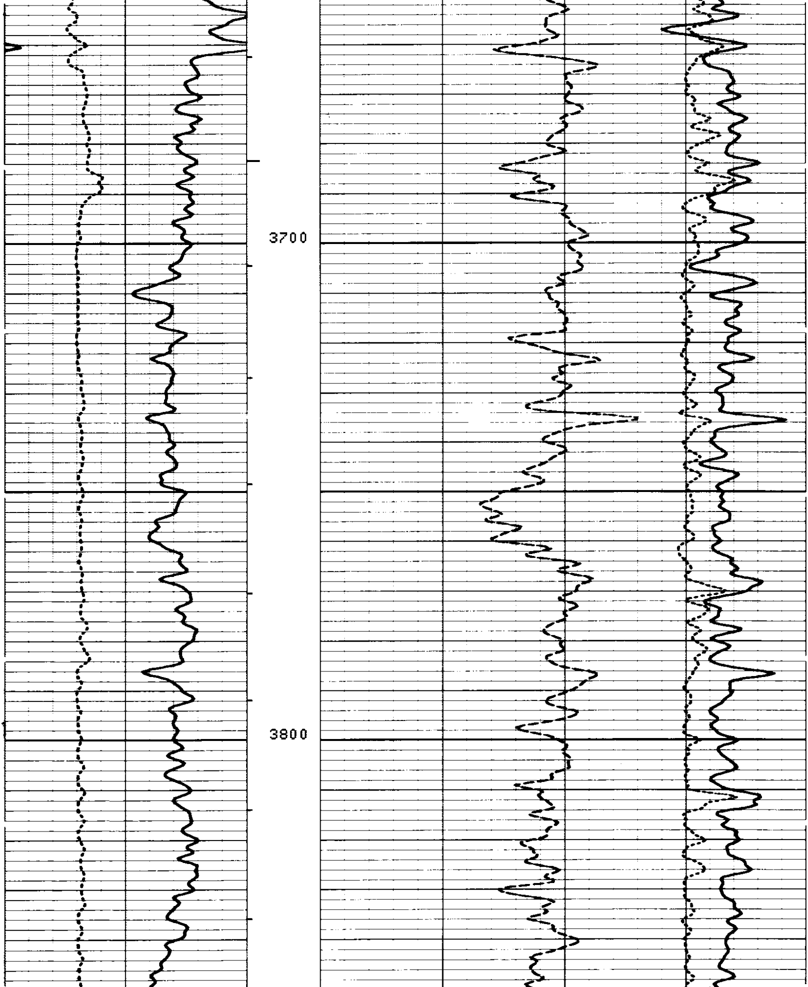
NPHI( )
0.6000 0.0

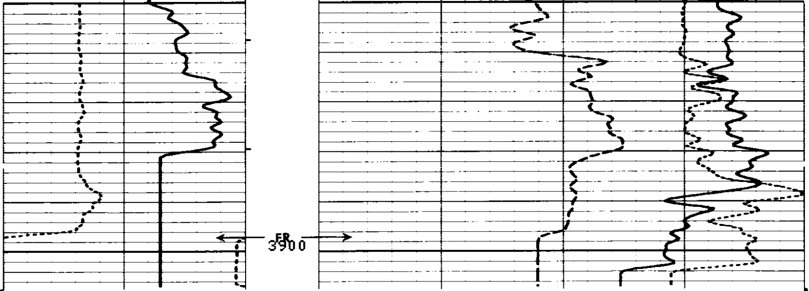
REPEAT SECTION

FILE

13







FILE

13

REPEAT SECTION

DRHO(G/C3)
-0.250 0.2500

CALI(IN)
6.0000 16.000

DPHI( )
0.6000 0.0

GR (GAPI)
0.0 150.00

NPHI( )
0.6000 0.0

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

```
NCNL 17.8  FEET                     GR    26.3  FEET
FFDC  3.0  FEET                     FCNL  17.8  FEET
CALI  3.0  FEET                     NFDC   3.0  FEET
NRAT 17.8  FEET                     TENS    .0  FEET
```

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
PSNR	2.23300		BS	8.75000	IN
MATR	SAND		HC	CALI	
MDEN	2.65000	G/C3	FD	1.00000	G/C3
BHF	WATE		FDCC	ALLO	
DO	0.0	F	BHS	OPEN	

AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: 83/02/17
PROGRAM FILE: ISN (VERSION 22.4 82/09/01)

CNTA TOOL CHECK

	JIG BEFORE	AFTER
NRAT	2.189	2.168

POROSITY CHANGE (LIME): -0.002

PGTE TOOL CHECK

	JIG BEFORE	AFTER	UNITS
FFDC	319	318	CPS
NFDC	526	522	CPS

```
    RHOB  CHANGE (WATER): -0.003 G/C3
                          FILE

                           16
                BEFORE SURVEY CALIBRATION SUMMARY


    PERFORMED:      83/02/17
    PROGRAM FILE: ISN    (VERSION    22.4    82/09/01)


  SGTE                DETECTOR CALIBRATION SUMMARY

                MEASURED
              BKGD    JIG          CALIBRATED          UNITS
       GR      38     197            165               GAPI


  CNTA                DETECTOR CALIBRATION SUMMARY

                  TANK                           JIG
              INPUT   CALIBRATED          MEASURED   CALIBRATED
    NRAT      2.23300  2.158                2.265       2.189


  PGTE                DETECTOR CALIBRATION SUMMARY

                  BLOCK                          JIG
              INPUT   CALIBRATED          MEASURED   CALIBRATED     UNITS
    FFDC       349      337                 330         319          CPS
    NFDC       644      528                 642         526          CPS


  PGTE                CALIPER CALIBRATION SUMMARY

                MEASURED                       CALIBRATED
               SMALL   LARGE               SMALL      LARGE         UNITS
    CALI        6.7     9.2                 8.0        12.0          IN
                          FILE

                            2
                 SHOP SUMMARY


    PERFORMED:     82/11/05
    PROGRAM FILE: SHOP   (VERSION    22.4    82/09/01)


  PGTE                DETECTOR CALIBRATION SUMMARY

               BLOCK                          JIG
         MEASURED   CALIBRATED     MEASURED   CALIBRATED     UNITS

    FFDC   349         337           346         334          CPS
    NFDC   644         528           645         529          CPS

              (PGS:426 , PDH:079 , GSR:5242, SFT :1171)


                 SHOP SUMMARY


    PERFORMED:     82/11/05
    PROGRAM FILE: SHOP   (VERSION    22.4    82/09/01)


  CNTA                DETECTOR CALIBRATION SUMMARY

               TANK                           JIG
         MEASURED  CALIBRATED      MEASURED   CALIBRATED

    NRAT    2.233       2.158         2.246        2.170

                        (CNC:409 , CNB:594 )
```

CALIBRATION RECORD

COMPANY	OREGON NATURAL GAS DEVELOPMENT CORP.	SCHL. FR	3897.0'
WELL	PATTON 32-9 RD#1	SCHL. TD	3900.0'
		DRLR. TD	3917.0'
FIELD	OLNEY	Elev: KB	752.0'
		DF	N/A
COUNTY	CLATSOP	STATE	OREGON
		GL	731.0'