Schlumberger

5" NEUTRON-DENSITY

CSU Field Log

COMPANY:	REICHHOLD ENERGY CORPORATION		
WELL:	"PAUL" #34-32 REDRILL #2		
FIELD:	MIST		
COUNTY:	COLUMBIA		
STATE:	OREGON		
NATION:	USA		
LOCATION:	741'N & 255'E FROM SOUTH 1/4 CORNER OF		
SEC:	32	TWP: 7N	RGE: 25W

OTHER SERVICES-
DIL-BHC

PERMANENT DATUM:	GL	ELEVATIONS-	
ELEV. OF PERM. DATUM:	614.0 F	KB:	627.0 F
LOG MEASURED FROM:	KB	DF:	
13.0 F ABOVE PERM. DATUM		GL:	614.0 F
DRLG. MEASURED FROM:	KB		
DATE:	24 SEP 84		
RUN NO:	1		

PROGRAM
TAPE NO:
26.2
SERVICE
ORDER NO:
432549

DEPTH-DRILLER:	2719.0 F
DEPTH-LOGGER:	2716.0 F
BTM. LOG INTERVAL:	2713.0 F
TOP LOG INTERVAL:	1700.0 F
CASING-DRILLER:	497 F
CASING-LOGGER:	497 F
CASING:	8 5/8
BIT SIZE:	7 7/8

TYPE FLUID IN HOLE:	GEL/LIGNO
DENSITY:	10.0 LB/G
VISCOSITY:	51.0 S
PH:	9.0
FLUID LOSS:	6.4 C3
SOURCE OF SAMPLE:	FLOWLINE
RM:	1.560 OHMM AT 74.0 DEGF
RMF:	1.230 OHMM AT 69.0 DEGF
RMC:	2.070 OHMM AT 69.0 DEGF
SOURCE RMF/RMC:	MEASURED/MEASURED
RM AT BHT:	1.203 OHMM AT 98.0 DEGF
RMF AT BHT:	.890 OHMM AT 98.0 DEGF
RMC AT BHT:	1.498 OHMM AT 98.0 DEGF

TIME CIRC. STOPPED:	17:00
TIME LOGGER ON BTM.:	22:40 9-24
MAX. REC. TEMP:	98.0 DEGF
LOGGING UNIT NO:	8128
LOGGING UNIT LOC:	SACRAMENTO
RECORDED BY:	PILCH/ZWALLER
WITNESSED BY:	THOMAS/ALGER

REMARKS:

850PPM CL

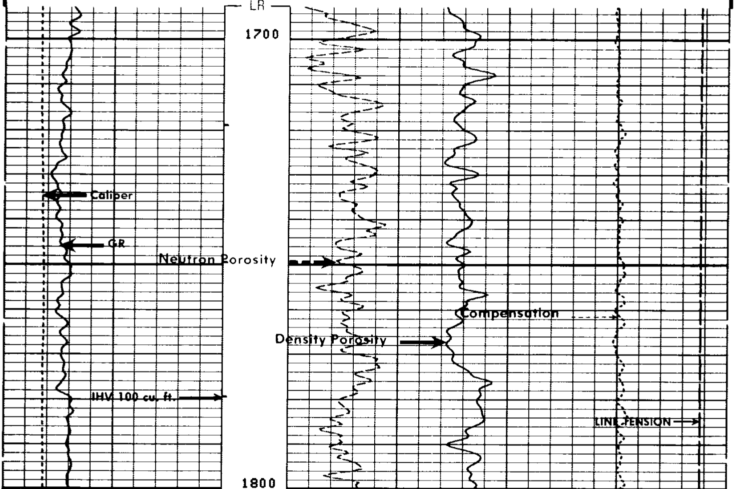
EQUIPMENT NUMBERS-

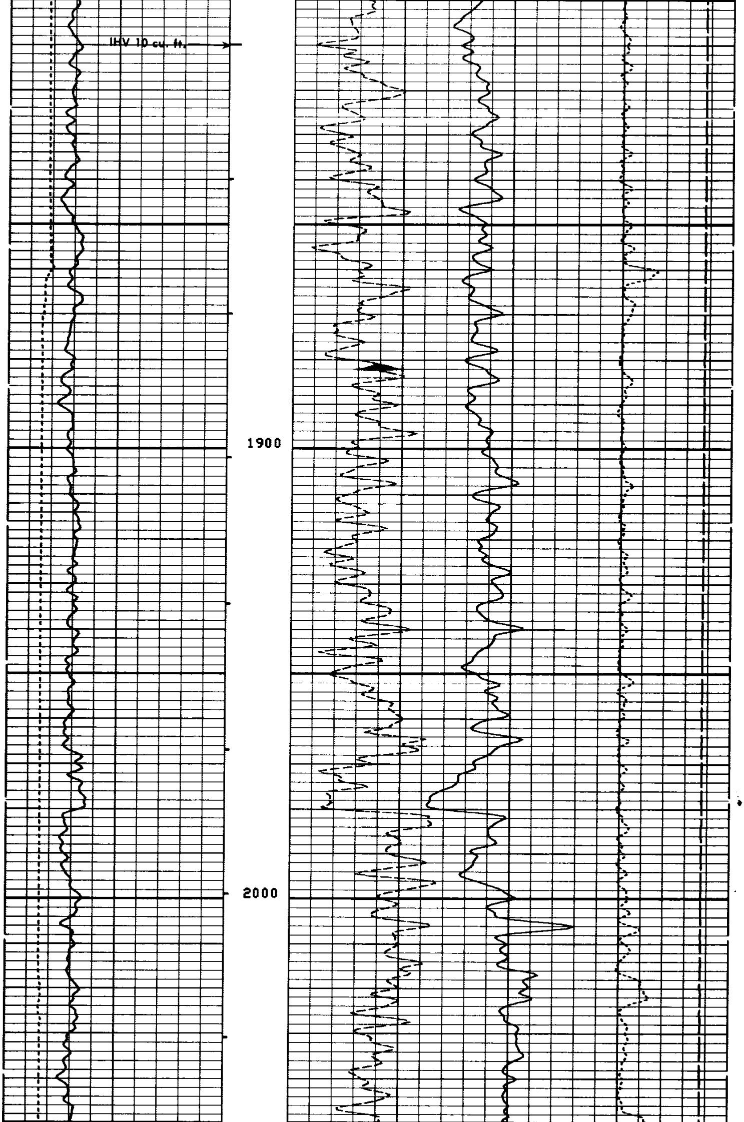
PGS-HB 542	PGC-JA 569	PDH-M 264	CNC-A 1132
SGC-JC 3485	NLM-BC 456		

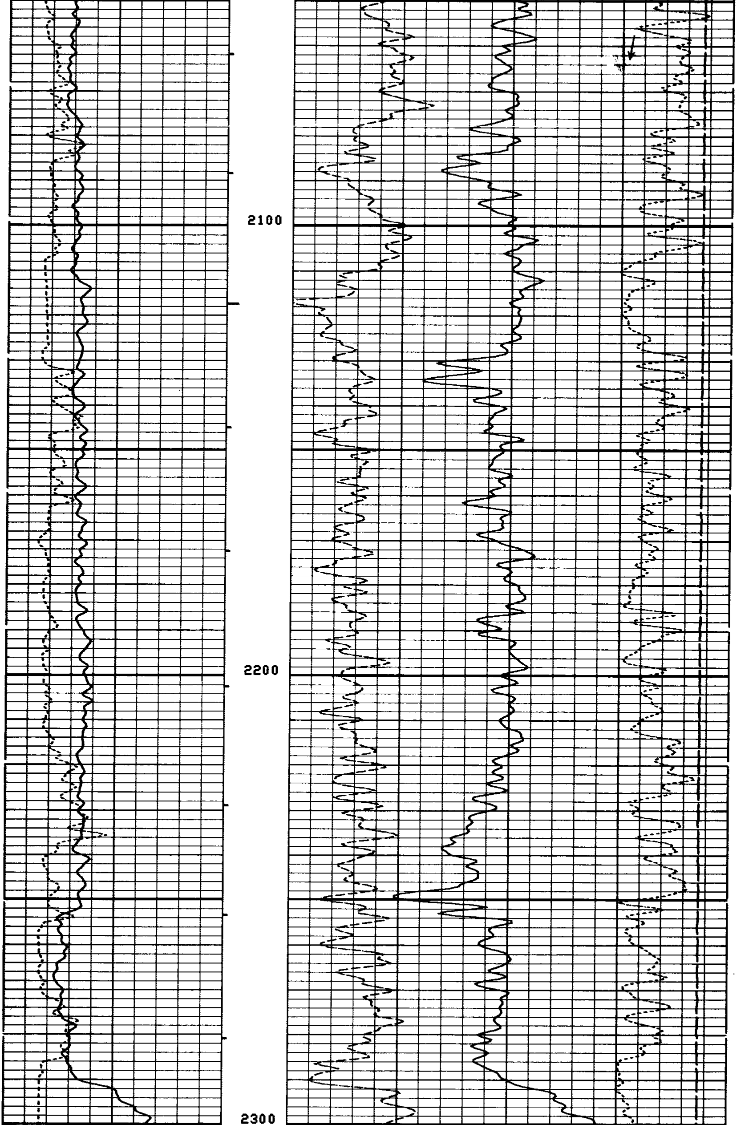
ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT, AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, 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.

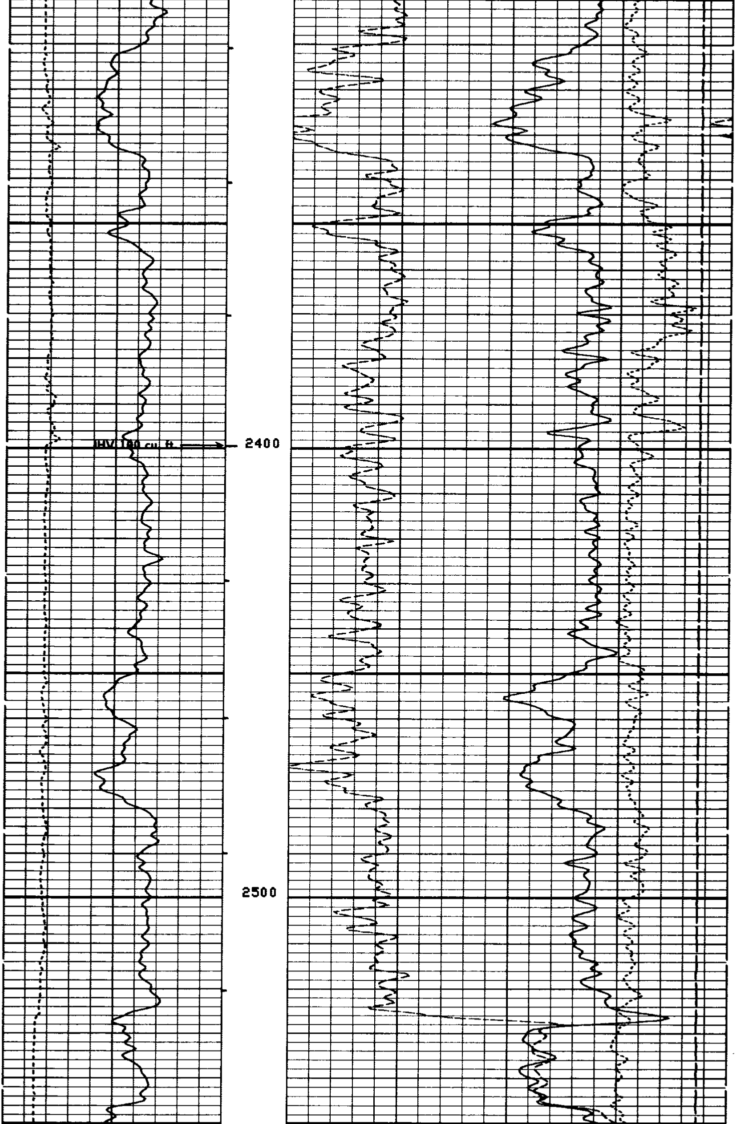
Curve	Left	Right
TENS(LB)	10000.	0.0
DRHO(G/C3)	-.2500	.25000
CALI(IN)	6.0000	16.000
DPHI	.60000	0.0
GR (GAPI)	0.0	150.00
NPHI	.60000	0.0

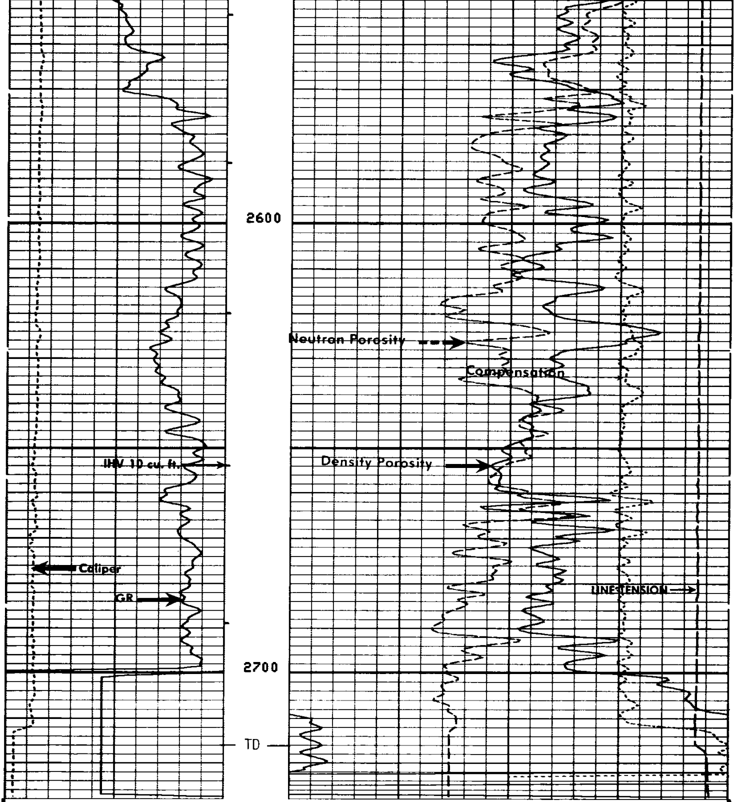
FILE 5 24-SEP-84 23:14











FILE 5 24-SEP-84 22:39

TENS(LB)
10000. 0.0
DRHO(G/C3)
-.2500 .25000

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

DPHI
.60000 0.0
NPHI
.60000 0.0

SENSOR MEASURE POINT TO TOOL ZERO

NCNL	18.0	FEET	GR	26.5	FEET
FFDC	2.7	FEET	FCNL	18.0	FEET
CALI	2.7	FEET	NFDC	2.7	FEET
NRAT	18.0	FEET	TENS	-.2	FEET

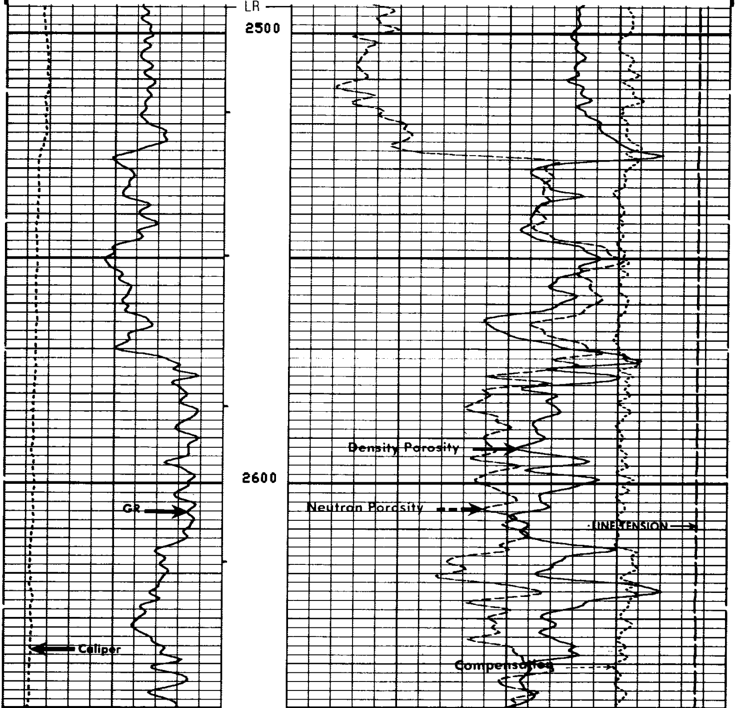
PARAMETERS

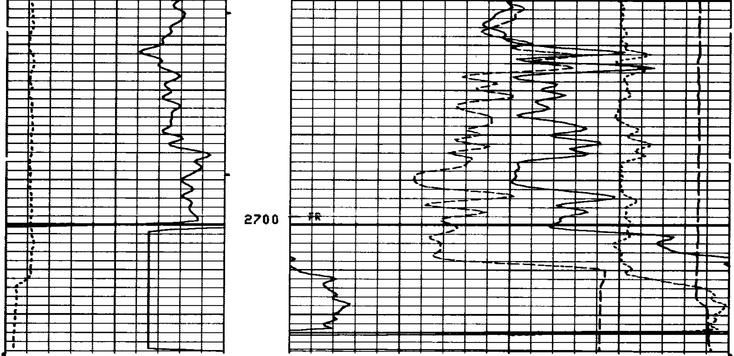
NAME	VALUE	UNIT	NAME	VALUE	UNIT
HC	CALI		PSNR	2.34400	
FD	1.00000	G/C3	MATR	SAND	
FDCC	ALLD		MDEN	2.65000	G/C3
FPHI	PHIX		BHF	WATE	
BS	7.87500	IN	BHS	OPEN	

TENS(LB)	10000.	0.0		
DRHO(G/C3)	-.2500	.25000		
CALI(IN)	6.0000	16.000		
DPHI	.60000	0.0		
GR (GAPI)	0.0	150.00		
NPHI	.60000	0.0		

REPEAT SECTION

FILE 3 24-SEP-84 22:32





FILE 3 24-SEP-84 22:23 **REPEAT SECTION**

TENS(LB)	
10000.	0.0
DRHO(G/C3)	
-.2500	.25000

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

DPHI	
.60000	0.0
NPHI	
.60000	0.0

SENSOR MEASURE POINT TO TOOL ZERO

NCNL	18.0	FEET	GR	26.5	FEET
FFDC	2.7	FEET	FCNL	18.0	FEET
CALI	2.7	FEET	NFDC	2.7	FEET
NRAT	18.0	FEET	TENS	-.2	FEET

PARAMETERS

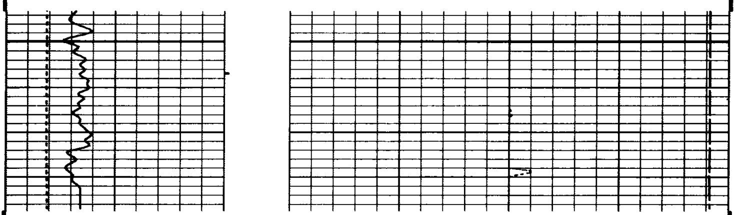
NAME	VALUE	UNIT	NAME	VALUE	UNIT
HC	CALI		PSNR	2.34400	
FD	1.00000	G/C3	MATR	SAND	
FDCC	ALLO		MDEN	2.65000	G/C3
FPHI	PHIX		BHF	WATE	
BS	7.87500	IN	BHS	OPEN	

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

TENS(LB)	
10000.	0.0
DRHO(G/C3)	
-.2500	.25000

Check in Casing-

FILE 2 24-SEP-84 22:12



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                         FILE     2      24-SEP-84 22:11

      CALI(IN  )                                              TENS(LB  )
6.0000            16.000                            10000.                  0.0
      GR  (GAPI)                                              DRHO(G/C3)
0.0               150.00                            -.2500               .25000
```

```
                    SENSOR MEASURE POINT TO TOOL ZERO

          NCNL 18.0  FEET                       GR   26.5  FEET
          FFDC  2.7  FEET                       FCNL 18.0  FEET
          CALI  2.7  FEET                       NFDC  2.7  FEET
          NRAT 18.0  FEET                       TENS  -.2  FEET
```

```
                                PARAMETERS

          NAME  VALUE    UNIT                    NAME  VALUE    UNIT

          HC    CALI                             PSNR 2.34400
          FD    1.00000  G/C3                    MATR SAND
          FDCC  ALLO                             MDEN 2.65000  G/C3
          FPHI  PHIX                             BHF  WATE
          BS    7.87500  IN                      BHS  OPEN
```

```
                  BEFORE SURVEY CALIBRATION SUMMARY


    PERFORMED:     84/09/24
    PROGRAM FILE: ISN    (VERSION    26.2    83/11/17)


  SGTE              DETECTOR CALIBRATION SUMMARY

                MEASURED
              BKGD    JIG        CALIBRATED         UNITS
      GR       51     210           165             GAPI


  CNTA              DETECTOR CALIBRATION SUMMARY

                 TANK                       JIG
             INPUT  CALIBRATED         MEASURED   CALIBRATED
    NRAT     2.34400  2.158              2.351       2.165


  PGTK              DETECTOR CALIBRATION SUMMARY

                 BLOCK                      JIG
             INPUT  CALIBRATED         MEASURED   CALIBRATED    UNITS
    FFDC      509      337                469         310        CPS
    NFDC      668      528                676         534        CPS
```

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PGTK              CALIPER CALIBRATION SUMMARY

             MEASURED                    CALIBRATED
           SMALL   LARGE                SMALL     LARGE       UNITS
  CALI      9.3    15.2                  6.0      12.0         IN

                     FILE    1       24-SEP-84 21:59


               AFTER SURVEY TOOL CHECK SUMMARY


  PERFORMED:     84/09/25
  PROGRAM FILE: ISN    (VERSION    26.2    83/11/17)


CNTA                    TOOL  CHECK

                      JIG
               BEFORE      AFTER
  NRAT         2.165       2.129

  POROSITY CHANGE  (LIME):  -.004


PGTK                    TOOL  CHECK

                      JIG
               BEFORE      AFTER     UNITS
  FFDC          310         305       CPS
  NFDC          534         536       CPS

  RHOB  CHANGE (WATER):   .012 G/C3

                SHOP SUMMARY


  PERFORMED:     84/09/04
  PROGRAM FILE: SHOP   (VERSION    26.2    83/11/17)

CNTA              DETECTOR CALIBRATION SUMMARY

              TANK                      JIG
       MEASURED  CALIBRATED     MEASURED   CALIBRATED

  NRAT    2.344      2.158         2.357       2.170
                     (CNC:1132, CNB:1192)


                SHOP SUMMARY


  PERFORMED:     84/09/07
  PROGRAM FILE: SHOP   (VERSION    26.2    83/11/17)

PGTK              DETECTOR CALIBRATION SUMMARY

              BLOCK                     JIG
       MEASURED   CALIBRATED    MEASURED   CALIBRATED     UNITS

  FFDC   509         337          453         300          CPS
  NFDC   668         528          678         536          CPS

           (PGS:542 , PDH:264 , GSR:5   , SFT :500 )
```