Rau 18-14-64

COUNTY COLUMBIA
FIELD MIST
LOCATION 14-6N-4W
WELL RAU NO. 18-14
COMPANY AMERICAN QUASAR

Schlumberger

SIMULTANEOUS
COMPENSATED NEUTRON-FORMATION DENSITY

COMPANY AMERICAN QUASAR PETROLEUM COMPANY

RECEIVED
NOV 17 1980
DEPT OF GEOLOGY
& MINER

WELL RAU NO. 18-14
FIELD MIST
COUNTY COLUMBIA STATE OREGON

LOCATION 900'NORTH & 1099.41'EAST OF THE SOUTHWEST CORNER OF:

API SERIAL NO.	SEC	TWP	RANGE
	14	6N	4W

Other Services:
DIL
BHC
HDT
DIRECTIONAL

Permanent Datum: GL ; Elev.: 583
Log Measured From KB 10.5 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 593.5
D.F. --
G.L. 583.0

Date	9-6-80			
Run No.	ONE			
Depth—Driller	2434			
Depth—Logger	2431			
Btm. Log Interval	2431			
Top Log Interval	515			
Casing—Driller	7" @515	@	@	@
Casing—Logger	515			
Bit Size	6¼"			
Type Fluid in Hole	LIGNOSULFONATE			
Dens. | Visc.	9.9 | 46			
pH | Fluid Loss	11.3 | 5.8 ml	ml	ml	ml
Source of Sample	CIRCULATION			
Rm @ Meas. Temp.	1.96 @ 87 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	2.07 @ 77 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	2.10 @ 78 °F	@ °F	@ °F	@ °F
Source: Rmf | Rmc	M | M			
Rm @ BHT	1.96 @ 86 °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	1100			
TIME Logger on Bottom	1430			
Max. Rec. Temp.	86 °F	°F	°F	°F
Equip. | Location	8126 | SAC			
Recorded By	ANDERSEN			
Witnessed By	SMITH			

FOLD HERE The well name, location and borehole reference data were furnished by the customer.

RUN NO.	ONE			
Service Order No.	123138			
Fluid Level	FULL			
Salinity, PPM CL.	-			
Speed - F.P.M.	30			

Type Log	Depth		

EQUIPMENT DATA

Dens. Panel	418			
Dens. Cart.	226			
Dens. Skid.	321			
Dens. Sonde	392			
Dens. Source	5153			
Dens. Calibrator	1177			
Neut. Panel	418			
Neut. Cart.	409			
Neut. Source	2138			
Neut. Calibrator	594			
GR Cart.	366			
Memorizer Panel	CSU			
Tape Recorder (TTR)	-			
Depth Encoder (DRE)	-			
Pressure Wheel (CPW)	-			
Centralizers: Enter Spring, Standoffs, In-line, or None — Type	FIN			
Centralizers — No.	1			
Centralizers — S. O. — Inches	1			

REMARKS:

CALIBRATION DATA

GR	BKG. CPS	75				
	Source CPS	212				
	Sens. - Cal	165				
	T. C. - Cal	CSU				
CNL	Short Spacing - Before Log	2914				
	Long Spacing - Before Log	1289				
	Short Spacing - After Log	2922				
	Long Spacing - After Log	1292				
FDC	P_1 — Before Log	416				
	P_2 — Before Log	719				
	P_1 — After Log	436				
	P_2 — After Log	729				

LOGGING DATA

DEPTH		CNP			FDC				GR			
Top	Bottom	Porosity Scale	Matrix	Auto Corr. or Hole Size Setting	Porosity Scale	Grain Density	Liquid Density	Hole Fluid	Sens. Logged	T. C.	Zero Div. Left	Scale Per 100 Div.
518	2432	60-0	SS-OH	AUTO	60-0	2.65	1.0	WATER	150	AUTO	0	150

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.

PARAMETERS

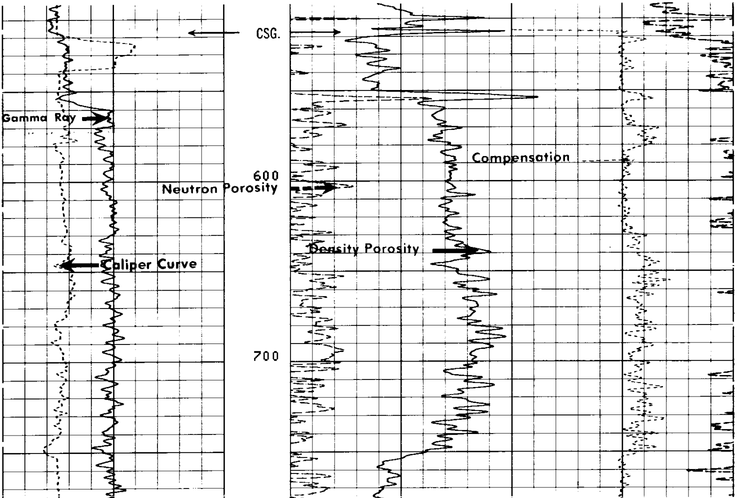
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.260	BS	INCH	6.250
MDEN	G/C3	2.650	FD	G/C3	1.000	MATR		SAND
BHF		WATE						
DO		0.0	BHS		OPEN	FPHI		PHIX

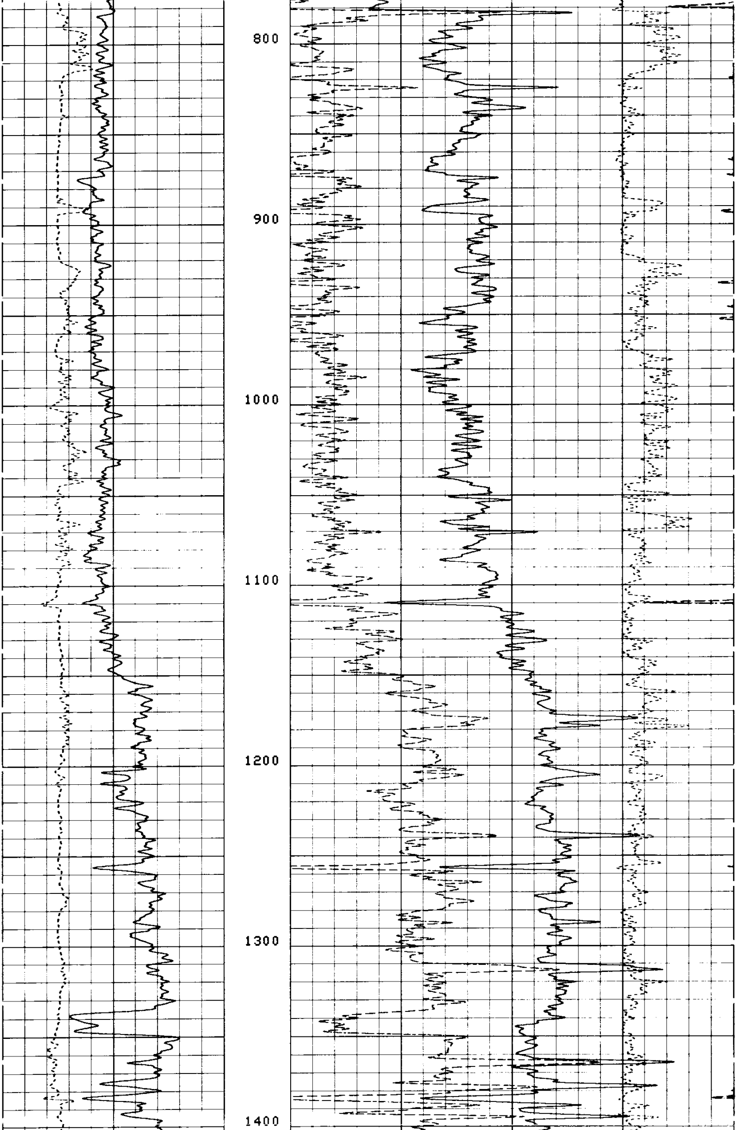
DRHO(G/C3)
-0.250 0.2500
DPHI( )
0.6000 0.0
NPHI( )
0.6000 0.0

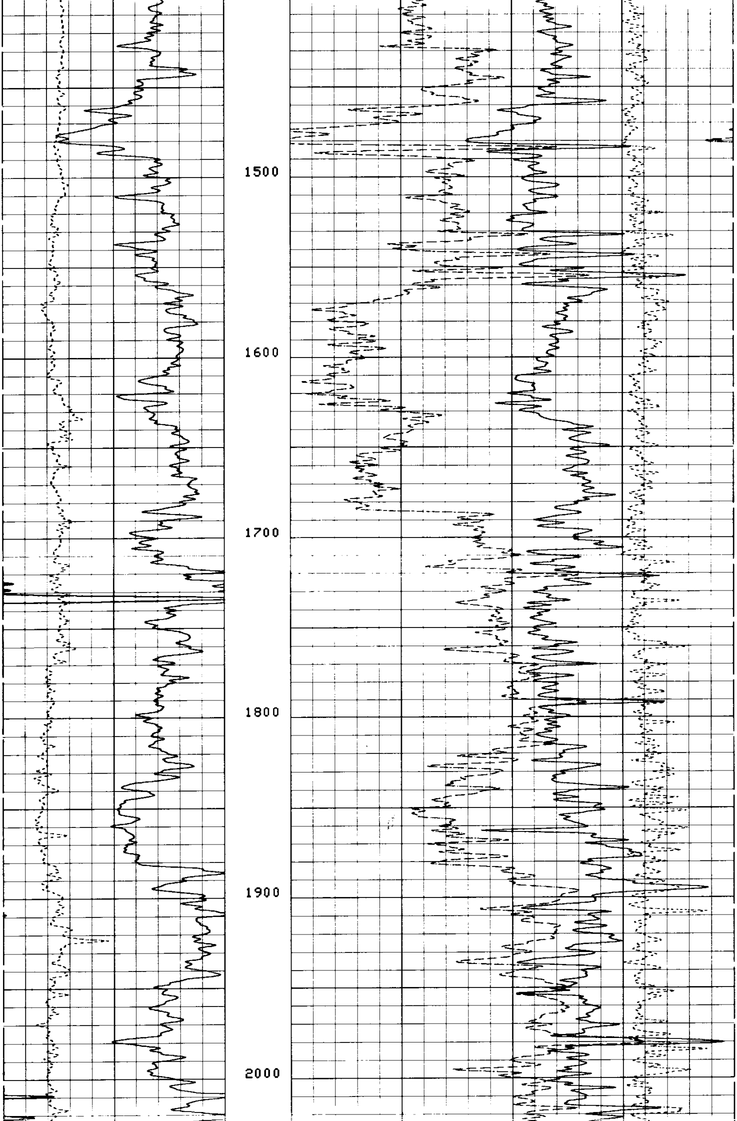
CALI(IN)
4.000 14.00
GR (GAPI)
0.0 150.0

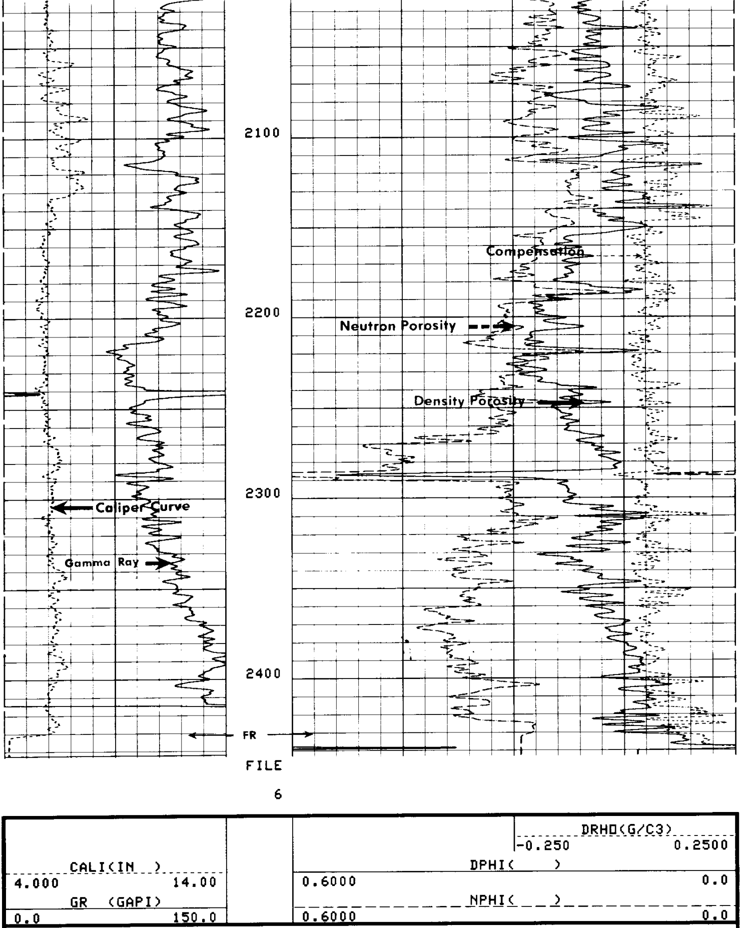
FILE

6







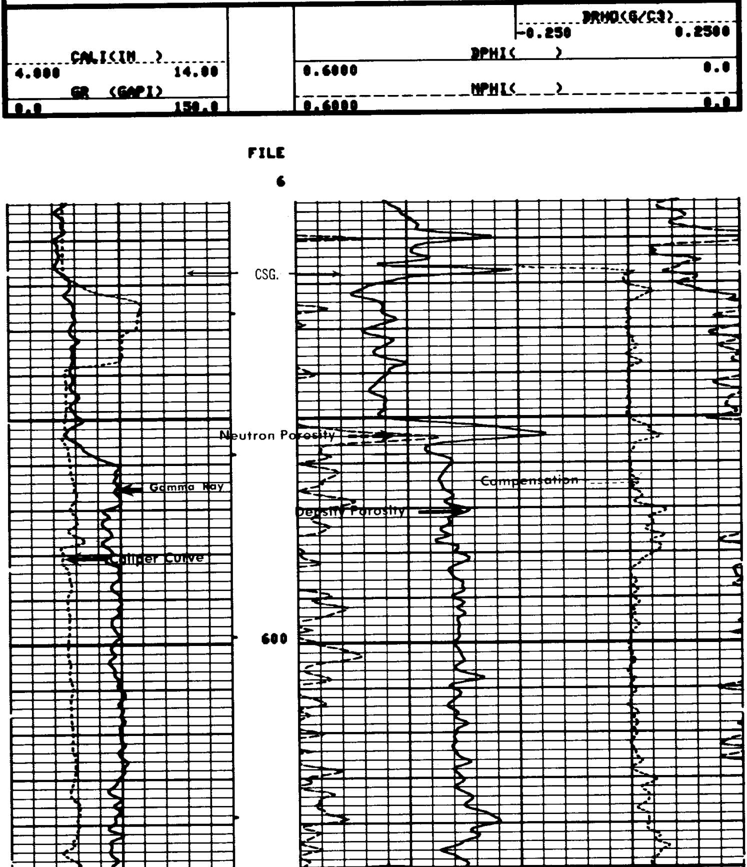


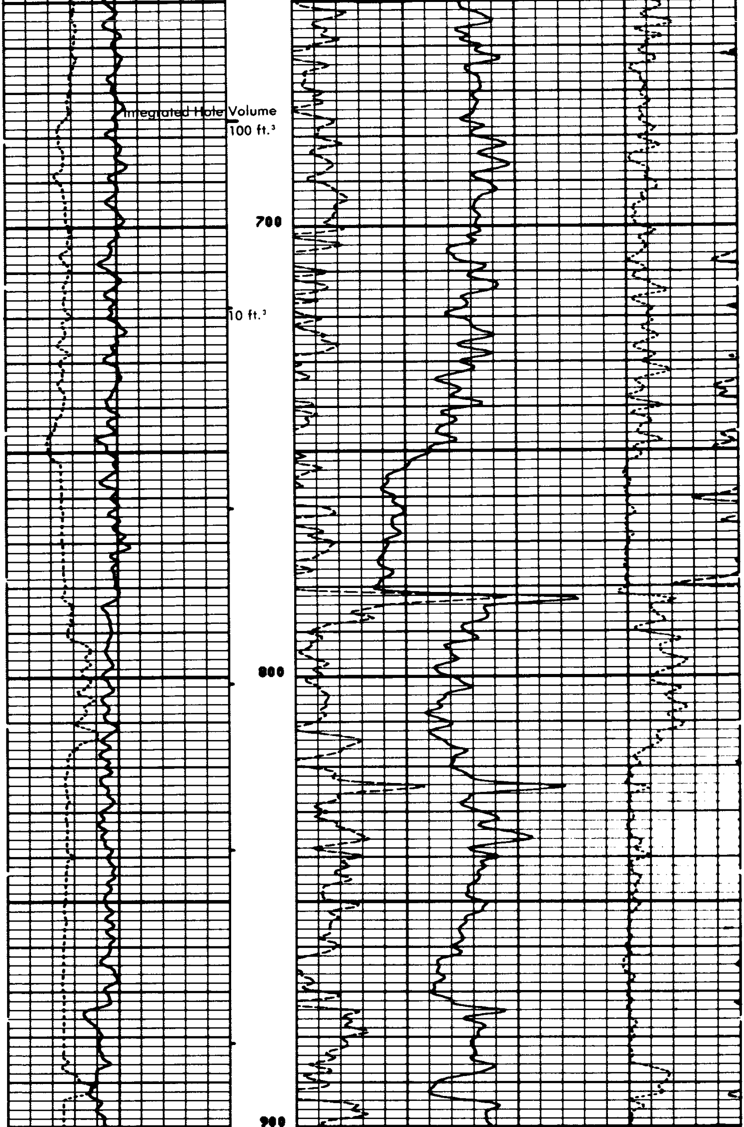
PARAMETERS

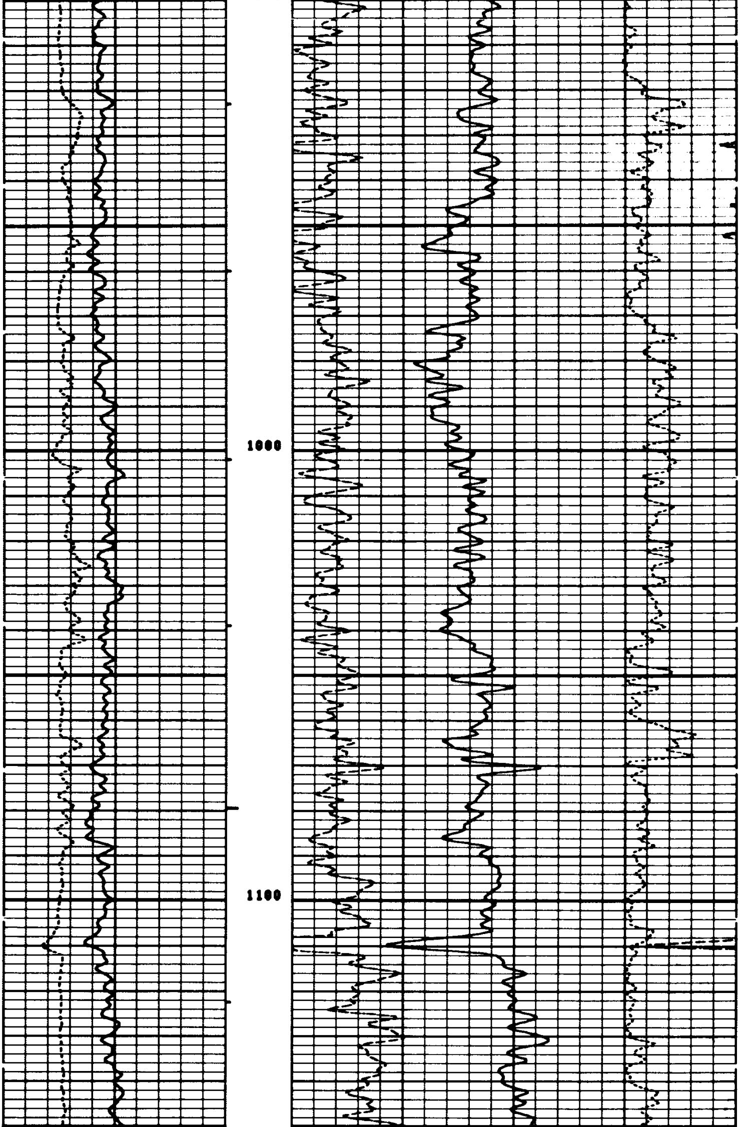
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.260	BS	INCH	6.250
MDEN	G/C3	2.650	FD	G/C3	1.000	MATR		SAND
BHF		WATE						
DO		0.0	BHS		OPEN	FPHI		PHIX

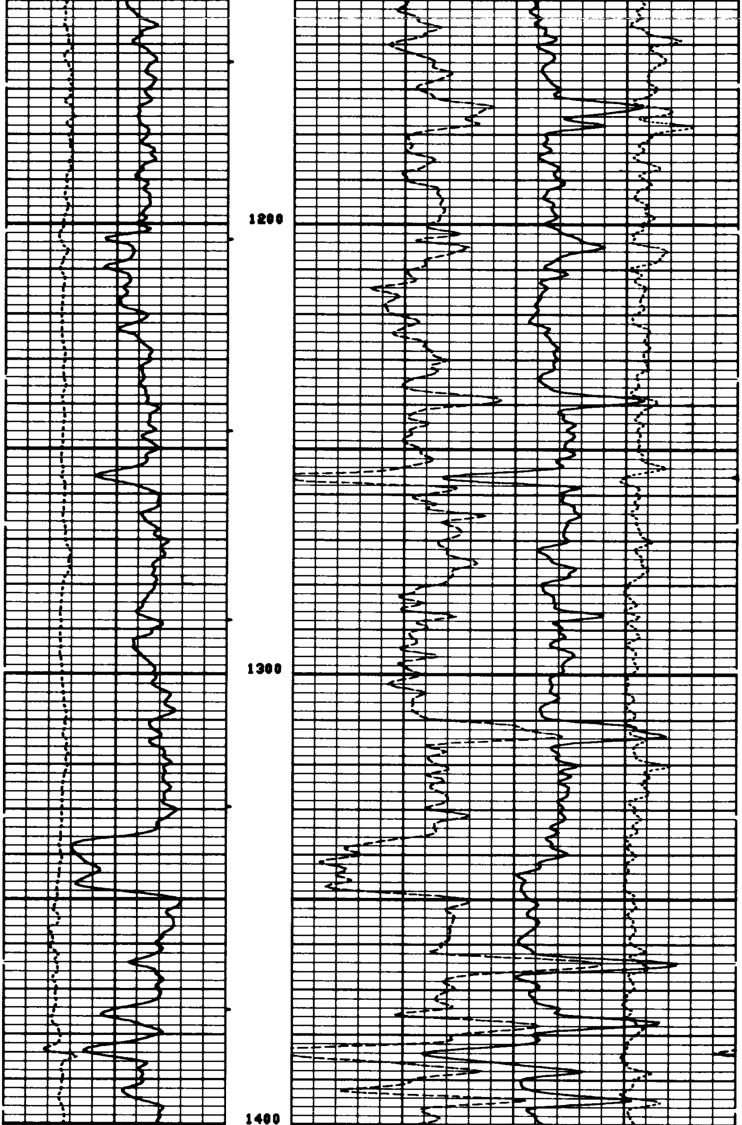
PARAMETERS

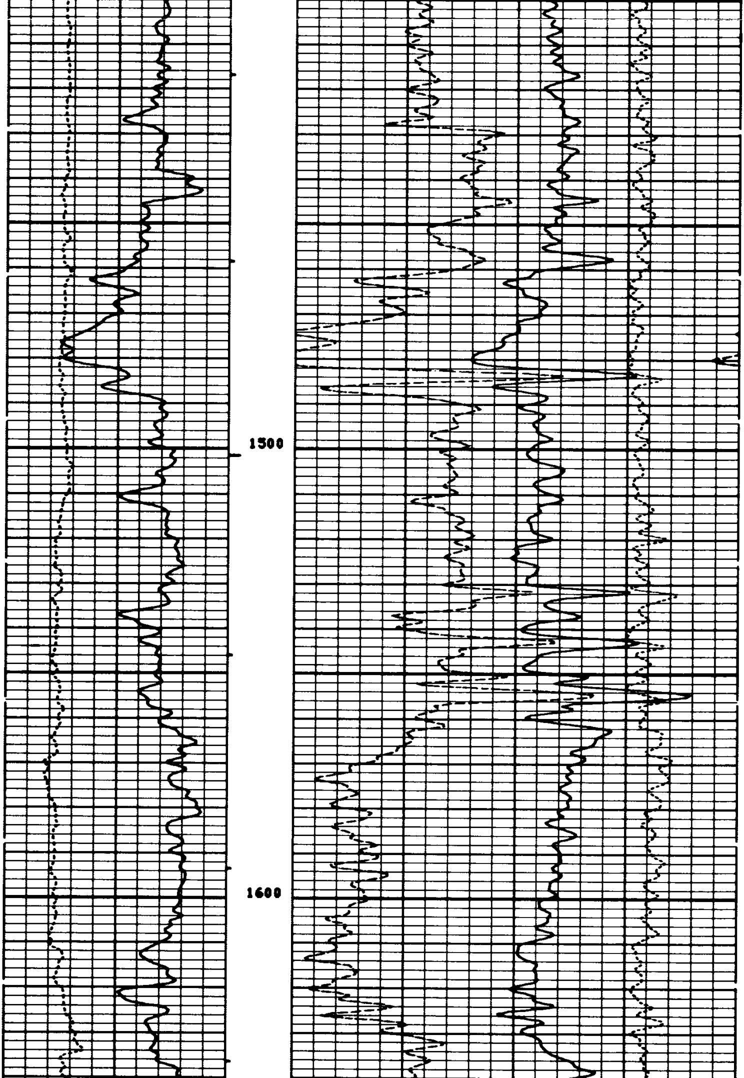
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.260	BS	INCH	6.250
MDEN	G/C3	2.650	FD	G/C3	1.000	MATR		SAND
DNF		WATE						
DO		0.0	BHS		OPEN	FPHI		PHIX

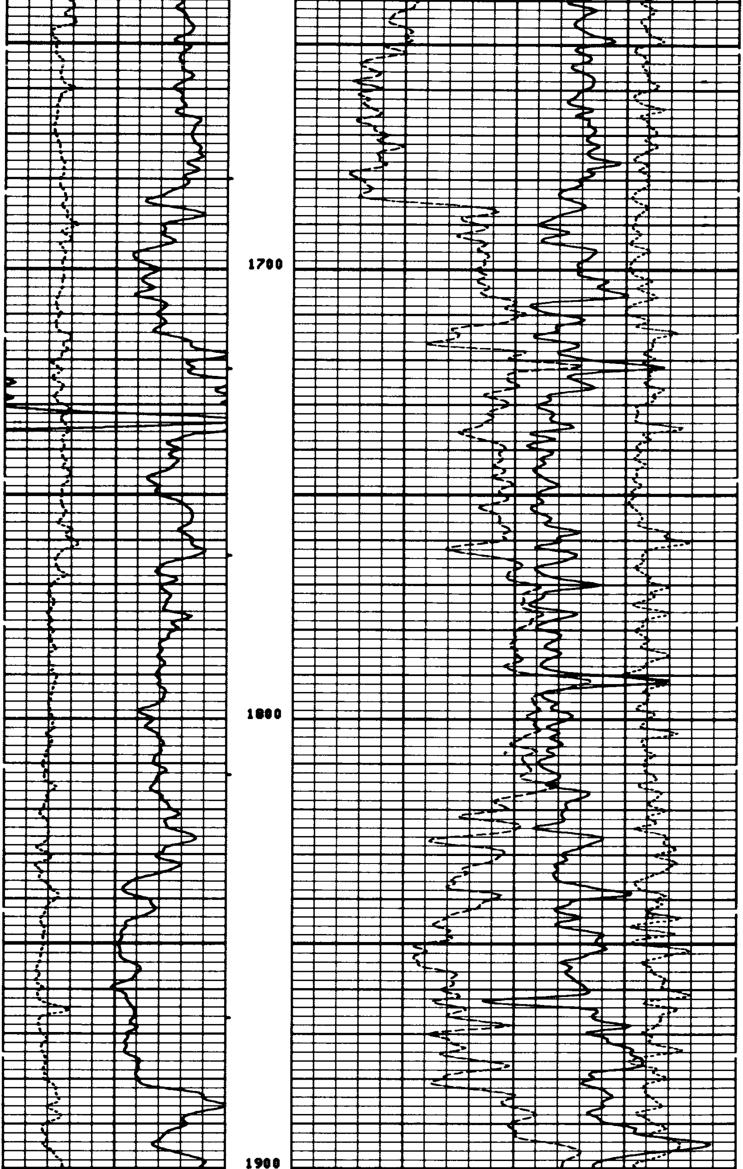


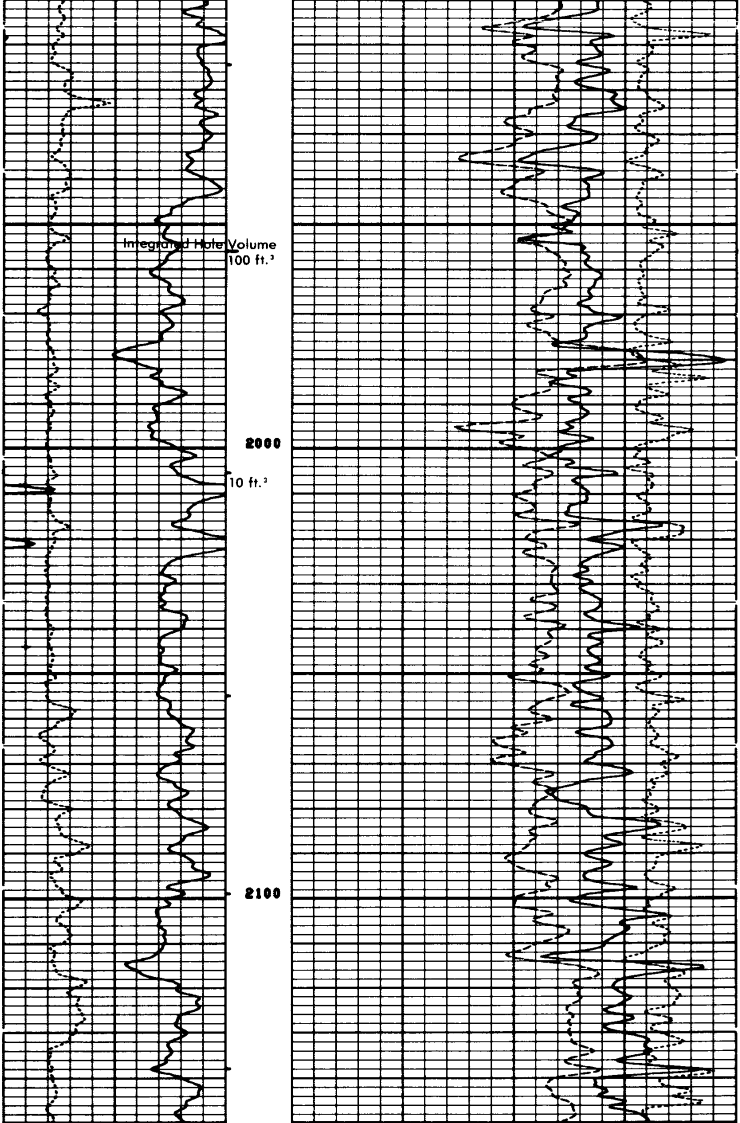


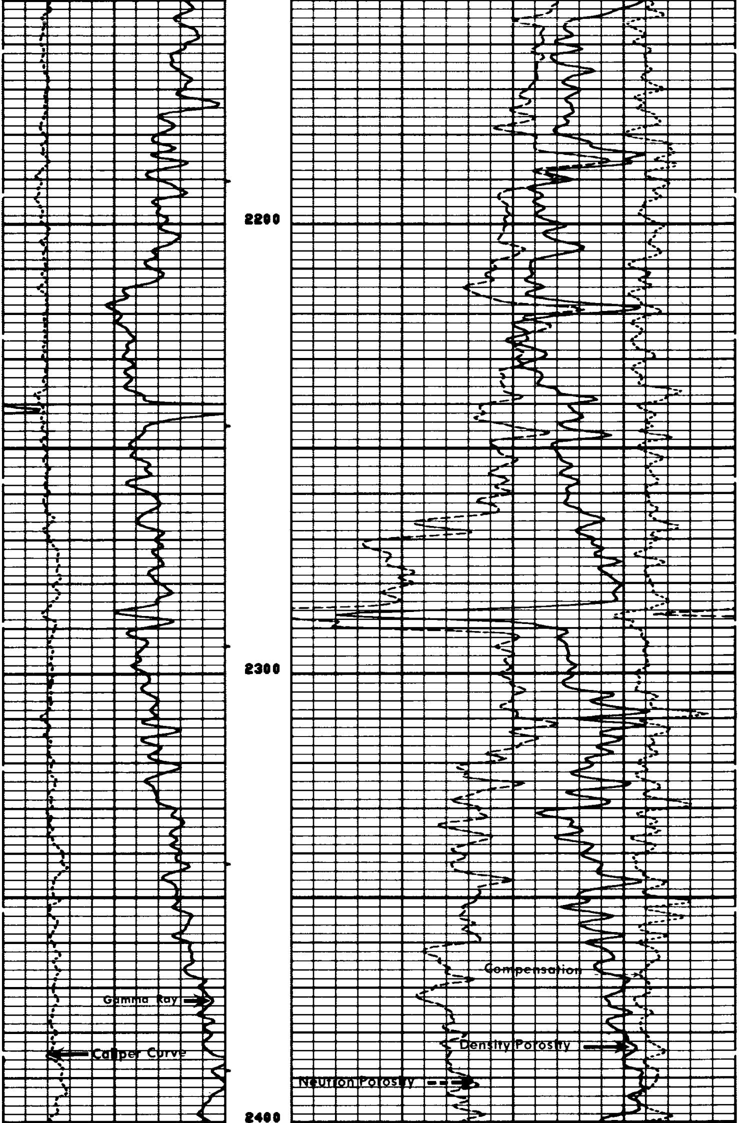


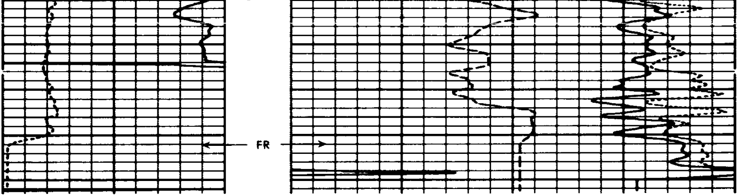












FILE

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CALI(IN)		
4.000		14.00
GR (GAPI)		
0.0		150.0

DRHO(G/C3)	
-0.250	0.2500
DPHI( )	
0.6000	0.0
NPHI( )	
0.6000	0.0

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.260	BS	INCH	6.250
MDEN	G/C3	2.650	FD	G/C3	1.000	MATR		SAND
DHF		WATE						
DO		0.0	DHS		OPEN	FPHI		PHIX

REPEAT SECTION REPEAT SECTION REPEAT SECTION

PARAMETERS

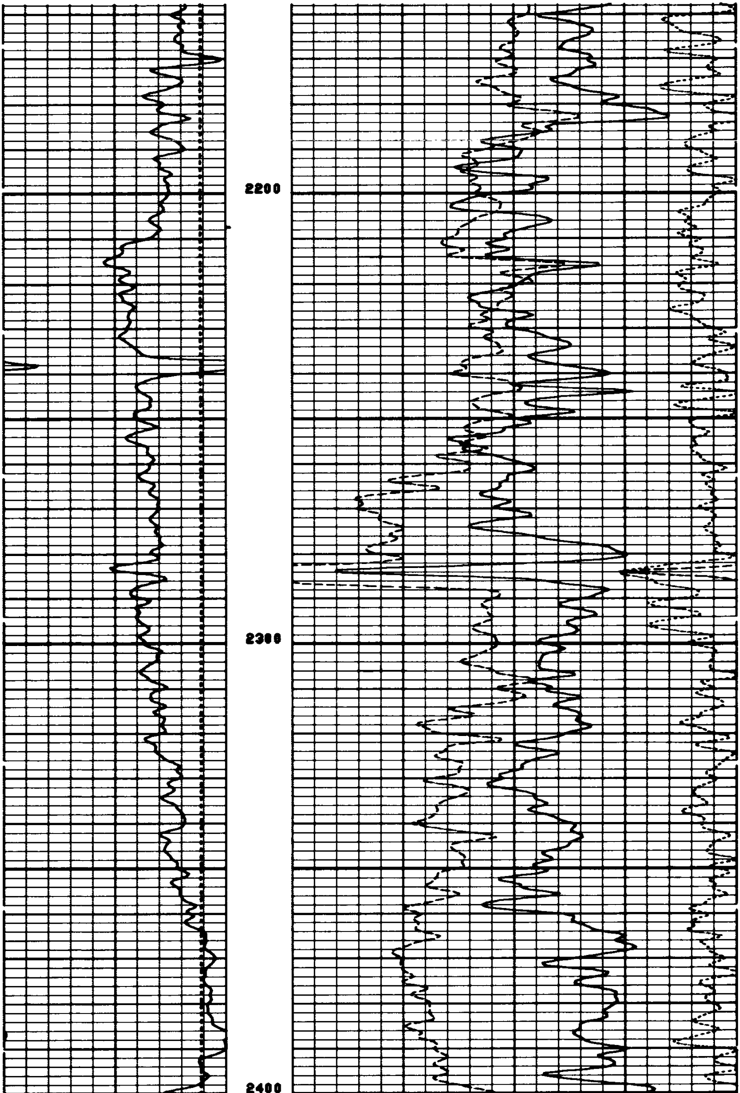
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.260	BS	INCH	6.250
MDEN	G/C3	2.650	FD	G/C3	1.000	MATR		SAND
DHF		WATE						
DO		0.0	DHS		OPEN	FPHI		PHIX

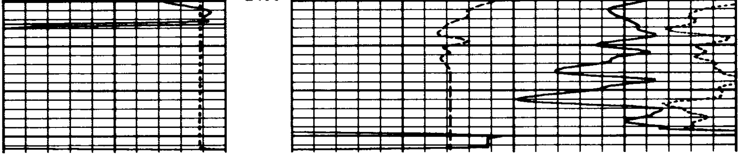
CALI(IN)		
4.000		14.00
GR (GAPI)		
0.0		150.0

DRHO(G/C3)	
-0.250	0.2500
DPHI( )	
0.6000	0.0
NPHI( )	
0.6000	0.0

FILE

5





FILE

5

CALI(IN)

4.000 14.00

GR (GAPI)

0.0 150.0

DRHO(G/C3)

-0.250 0.2500

DPHI( )

0.6000 0.0

MPHI( )

0.6000 0.0

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.260	DS	INCH	6.250
MDEN	G/C3	2.650	FD	G/C3	1.000	MATR		SAND
DHF		WATE						
DO		0.0	DHS		OPEN	FPHI		PHIX

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.260	DS	INCH	6.250
MDEN	G/C3	2.650	FD	G/C3	1.000	MATR		SAND
DHF		WATE						
DO		0.0	DHS		OPEN	FPHI		PHIX

CALI(IN)

4.000 14.00

GR (GAPI)

0.0 150.0

DRHO(G/C3)

-0.250 0.2500

DPHI( )

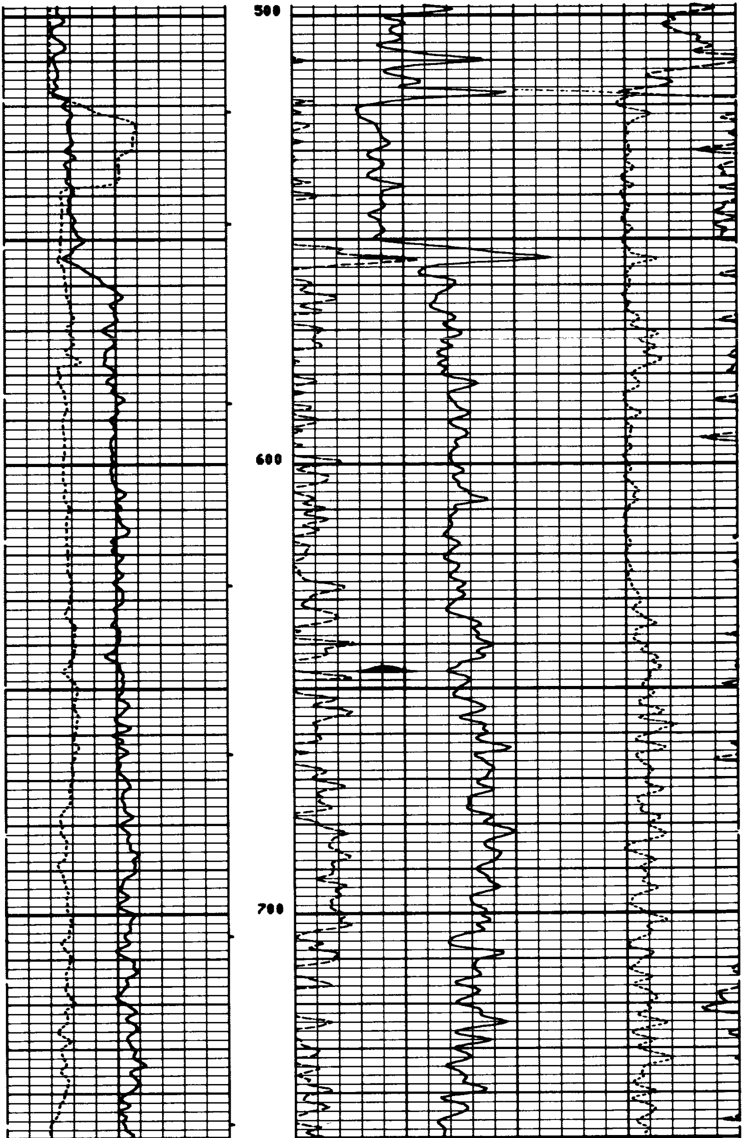
0.6000 0.0

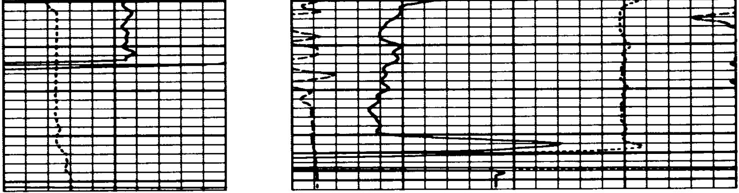
MPHI( )

0.6000 0.0

FILE

7





FILE

7

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CALI(IN  )                          DRHO(G/C3)
4.000            14.00              -0.250                 0.2500
GR  (GAPI)                          DPHI(     )
0.0              150.0              0.6000                 0.0
                                    NPHI(     )
                                    0.6000                 0.0
```

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.260	BS	INCH	6.250
MDEN	G/C3	2.650	FD	G/C3	1.000	MATR		SAND
BHF		WATE						
DO		0.0	BHS		OPEN	FPHI		PHIX

CALIBRATION RECORD

```
                 AFTER SURVEY TOOL CHECK SUMMARY

   PERFORMED:    80/09/06
   PROGRAM FILE: ISN    (VERSION    10.2    80/ 4/29)

CNTA                        TOOL   CHECK

                          JIG
                  BEFORE        AFTER
   NRAT           2.193         2.165

   POROSITY CHANGE  (LINE): -0.003

PGTE                        TOOL   CHECK

                          JIG
                  BEFORE        AFTER      UNITS
   FFDC            325           341        CPS
   NFDC            407           495        CPS
```

FILE

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```
                 BEFORE SURVEY CALIBRATION SUMMARY

   PERFORMED:    80/09/06
   PROGRAM FILE: ISN    (VERSION    10.2    80/ 4/29)

SGTE                  DETECTOR CALIBRATION SUMMARY

              MEASURED
             BKGD    JIG          CALIBRATED          UNITS
     GR       75     212             165               GAPI
```

```
CNTA                    DETECTOR CALIBRATION SUMMARY

               TANK                              JIG
          INPUT   CALIBRATED            MEASURED    CALIBRATED
  NRAT    2.260     2.150                2.297        2.193

PGTE                    DETECTOR CALIBRATION SUMMARY

               BLOCK                             JIG
          INPUT   CALIBRATED            MEASURED    CALIBRATED      UNITS
  FFDC     431       337                  416          325           CPS
  NFDC     778       528                  719          487           CPS

PGTE                    CALIPER CALIBRATION SUMMARY

            MEASURED                          CALIBRATED
           SMALL    LARGE                  SMALL       LARGE         UNITS
  CALI      5.0     10.4                    6.0        12.0           IN
                        FILE

                          2


                   SHOP SUMMARY


  PERFORMED:      80/09/02
  PROGRAM FILE:  SHOP    (VERSION     18.2     80/ 4/29)

PGTE                    DETECTOR CALIBRATION SUMMARY

              BLOCK                            JIG
        MEASURED    CALIBRATED     MEASURED    CALIBRATED     UNITS

  FFDC    431          337           424          310          CPS
  NFDC    778          528           732          492          CPS

            (PGS:392   , PDH:321   , GSR:5153 , SFT   :1177 )

                   SHOP SUMMARY


  PERFORMED:      80/08/18
  PROGRAM FILE:   SHOP    (VERSION     16.4     79/11/20)

CNTA                    DETECTOR CALIBRATION SUMMARY

              TANK                             JIG
        MEASURED   CALIBRATED      MEASURED    CALIBRATED

  NRAT    2.26        2.15           2.28         2.17

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

CALIBRATION RECORD

COMPANY AMERICAN QUASAR PETROLEUM COMPANY
WELL RAU NO. 18-14
FIELD MIST
COUNTY COLUMBIA STATE OREGON

SCHL. FR 2431
SCHL. TD 2431
DRLR. TD 2434

Elev: KB 593.5
DF --
GL 583.0

SWS-2244-A