COUNTY MC MULLEN
FIELD or LOCATION WILDCAT
WELL NUECES "A" LEASE WELL #1
COMPANY PHILLIPS

# SCHLUMBERGER INDUCTION-ELECTRICAL LOG

SCHLUMBERGER WELL SURVEYING CORPORATION
Houston, Texas

COMPANY PHILLIPS PETROLEUM COMPANY

WELL NUECES "A" LEASE WELL #1

FIELD WILDCAT

COUNTY MC MULLEN STATE TEXAS

LOCATION 619' FWL, 751' FNL, A C. H. & B SURVEY NO. 1. A-36.

Other Services:
SL-ST-DR-CDM

Permanent Datum: GROUND LEVEL, Elev. 255.0
Log Measured From K.B. 28.5 Ft. Above Perm. Datum
Drilling Measured From K.B. 28.5' ABOVE G.L.

Elev.: K.B. 283.5
D.F. 281.0
G.L. 255.0

| | | | | |
|---|---|---|---|---|
| Date | 9-23-64 | 10-25-64 | 12-11-64 | 1-12-65 |
| Run No. | ONE | TWO | THREE | FOUR |
| Depth—Driller | 7610 | 12556 | 15198 | 17655 |
| Depth—Logger | 7567 | 12555 | 15195 | 17659 |
| Btm. Log Interval | 7566 | 12554 | 15194 | 17658 |
| Top Log Interval | 487 | 7566 | 12554 | 15194 |
| Casing—Driller | 20" @ 488 | 13-3/8 @ 7099 | 13-3/8 @ 7099 | 13-3/8 @ 7099 |
| Casing—Logger | 487 | 7096 | 7096 | 7096 |
| Bit Size | 17-1/2" TO | 2022; 12-1/4 | " TO 17632 | |
| Type Fluid in Hole | CAUS.-TAN.<br>OIL EMUL | CAUSTIC<br>Q-BROXIN | CAUSTIC<br>Q-BROXIN | CAUSTIC-Q-<br>BROX-O.E. |
| Dens. \| Visc. | 10.0 \| 44 | 12.2 \| 53 | 14.6 \| 43 | 14.3 \| 47 |
| pH \| Fluid Loss | 9.8 \| 8.8 ml | 9.5 \| 3.0 ml | 9.8 \| 4.7 ml | 9.8 \| 4.6 ml |
| Source of Sample | FLOW LINE | FLOW LINE | MUD PIT | FLOW LINE |
| $R_m$ @ Meas. Temp. | 1.46 @ 112 °F | 0.91 @ 107 °F | 0.96 @ 86 °F | 0.88 @ 89 °F |
| $R_{mf}$ @ Meas. Temp. | 1.49 @ 80 °F | 0.70 @ 74 °F | 0.63 @ 75 °F | 0.55 @ 75 °F |
| $R_{mc}$ @ Meas. Temp. | 1.94 @ 80 °F | 0.97 @ 74 °F | 1.80 @ 75 °F | 1.70 @ 75 °F |
| Source: $R_{mf}$ \| $R_{mc}$ | M \| M | M \| C | M \| C | M \| C |
| $R_m$ @ BHT | 0.91 @ 178 °F | 0.37 @ 248 °F | 0.28 @ 284 °F | 0.25 @ 322 °F |
| Time Since Circ. | 4 HOURS | 7 HOURS | 8 HOURS | 4 HOURS |
| Max. Rec. Temp. | 178 °F | 248 °F | 284 °F | 322 °F |
| Equip. \| Location | 3521 \| AL | 4519 \| AL | 3521 \| AL | 3521 \| AL |
| Recorded By | DODD | SCHOECH | MOORE | MOORE |
| Witnessed By | MR EVANS | MR FEITER | MR GRIZZAFFI | MR MC DANIEL |

FOLD HERE

| | | | | |
|---|---|---|---|---|
| Run No. | | | | |
| Depth—Driller | | | | |
| Depth—Logger | | | | |
| Btm. Log Interval | | | | |
| Top Log Interval | | | | |
| Casing—Driller | @ | @ | @ | @ |
| Casing—Logger | | | | |
| Bit Size | | | | |
| Type Fluid in Hole | | | | |
| Dens. \| Visc. | | | | |
| pH \| Fluid Loss | ml | ml | ml | ml |
| Source of Sample | | | | |
| $R_m$ @ Meas. Temp. | @ °F | @ °F | @ °F | @ °F |
| $R_{mf}$ @ Meas. Temp. | @ °F | @ °F | @ °F | @ °F |
| $R_{mc}$ @ Meas. Temp. | @ °F | @ °F | @ °F | @ °F |
| Source: $R_{mf}$ \| $R_{mc}$ | | | | |
| $R_m$ @ BHT | @ °F | @ °F | @ °F | @ °F |
| Time Since Circ. | | | | |
| Max. Rec. Temp. | °F | °F | °F | °F |
| Equip. \| Location | | | | |
| Recorded By | | | | |
| Witnessed By | | | | |

FOLD HERE

Permanent Datum: GROUND LEVEL, Elev. 255.0
Log Measured From K.B. 28.5 Ft. Above Perm. Datum
Drilling Measured From K.B. 28.5' ABOVE G.L.

Elev.: K.B. 283.5
D.F. 281.0
G.L. 255.0

| | | | | |
|---|---|---|---|---|
| Date | 2-15-65 | 3-1-65 | 6-23-65 | |
| Run No. | FIVE | SIX | SEVEN (GRN) | |
| Depth—Driller | 19474 | 21029 | 24220 | |
| Depth—Logger | 19490 | 21038 | 24213 | |
| Btm. Log Interval | 19489 | 21037 | 24213 | |
| Top Log Interval | 17658 | 19489 | 20700 | |
| Casing—Driller | 9-5/8 @ 17633 | 9-5/8 @ 17633 | 9-5/8 @ 17633 | @ |
| Casing—Logger | 17632 | 17632 | 17632 | |
| Bit Size | 8-1/2" | 8-1/2" | 8-1/2" TO 22816; 6-3/4" | TD |
| Type Fluid in Hole | Q-BROXIN | Q-BROXIN | INVERMUL | |
| Dens. \| Visc. | 13.3 \| 47 | 13.3 \| 45 | 17.6 \| -- | |
| pH \| Fluid Loss | 9.5 \| 4.8 ml | 10.3 \| 6.0 ml | -- \| -- ml | ml |
| Source of Sample | FLOW LINE | FLOW LINE | -- | |
| $R_m$ @ Meas. Temp. | 0.64 @ 72 °F | 0.78 @ 72 °F | -- @ -- °F | @ °F |
| $R_{mf}$ @ Meas. Temp. | 0.43 @ 68 °F | 0.44 @ 70 °F | -- @ -- °F | @ °F |
| $R_{mc}$ @ Meas. Temp. | 0.95 @ 68 °F | 1.42 @ 70 °F | -- @ -- °F | @ °F |
| Source: $R_{mf}$ \| $R_{mc}$ | M \| M | M \| C | -- \| -- | |
| $R_m$ @ BHT | 0.10 @ 410 °F | 0.12 @ 414 °F | -- @ 485 °F | @ °F |
| Time Since Circ. | 22 HOURS | 8 HOURS | 2-1/2 HOURS | |
| Max. Rec. Temp. | 410 °F | 414 °F | 485 °F | °F |
| Equip. \| Location | 3521 \| AL | 3521 \| AL | OSC-164 AL | |
| Recorded By | DODD | DODD-MOORE | BRUTON-YOUNGBLOOD | |
| Witnessed By | MR GRIZZAFFI & MR WASSON | | | |

FOLD HERE

REMARKS

Changes in Mud Type or Additional Samples -NONE
Date | Sample No.
Depth—Driller
Type Fluid in Hole

Scale Changes

| Type Log | Depth | Scale Up Hole | Scale Down Hole |
|---|---|---|---|
| COND | 13100 | 1000 0 | 500 0 |
| REST | 13100 | 0 200 | 100 |

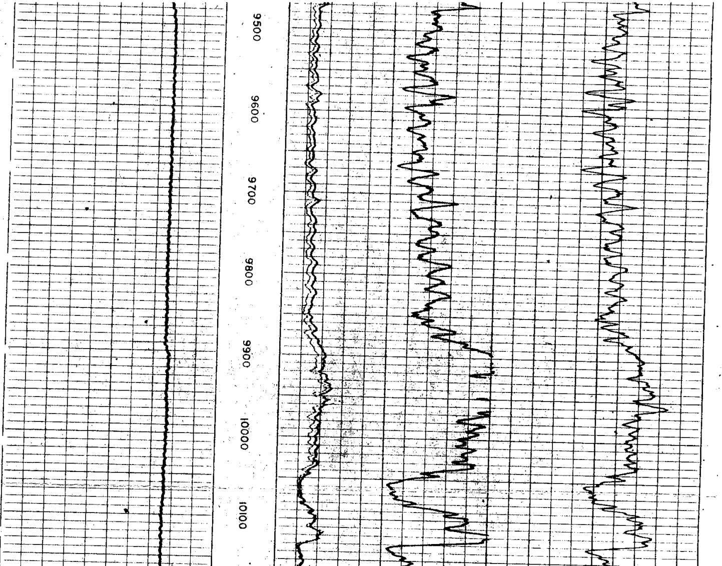
| | | |
|---|---|---|
| Dens. Visc. | | |
| ph Fluid Loss | ml | |
| Source of Sample | | |
| $R_m$ @ Meas. Temp | @ °F | @ °F |
| $R_{mf}$ @ Meas. Temp | @ °F | @ °F |
| $R_{mc}$ @ Meas. Temp | @ °F | @ °F |
| Source: $R_{mf}$ $R_{mc}$ | | |
| $R_m$ @ BHT | @ °F | @ °F |
| $R_{mf}$ @ BHT | @ °F | @ °F |
| $R_{mc}$ @ BHT | @ °F | @ F |

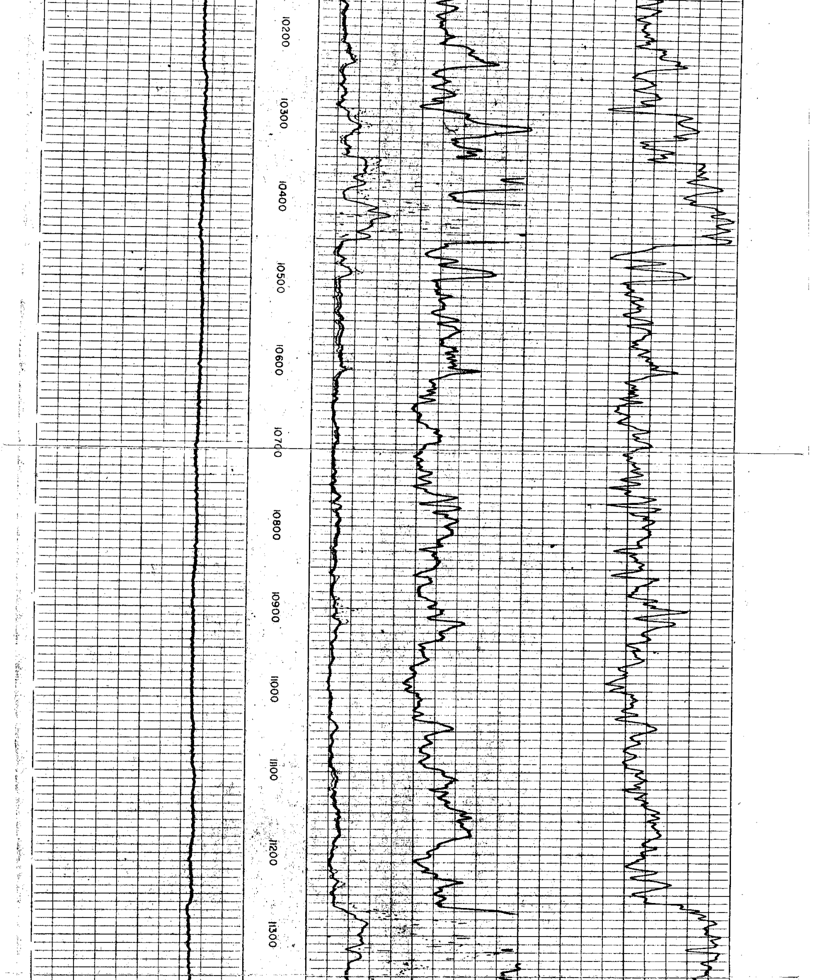
Equipment Data

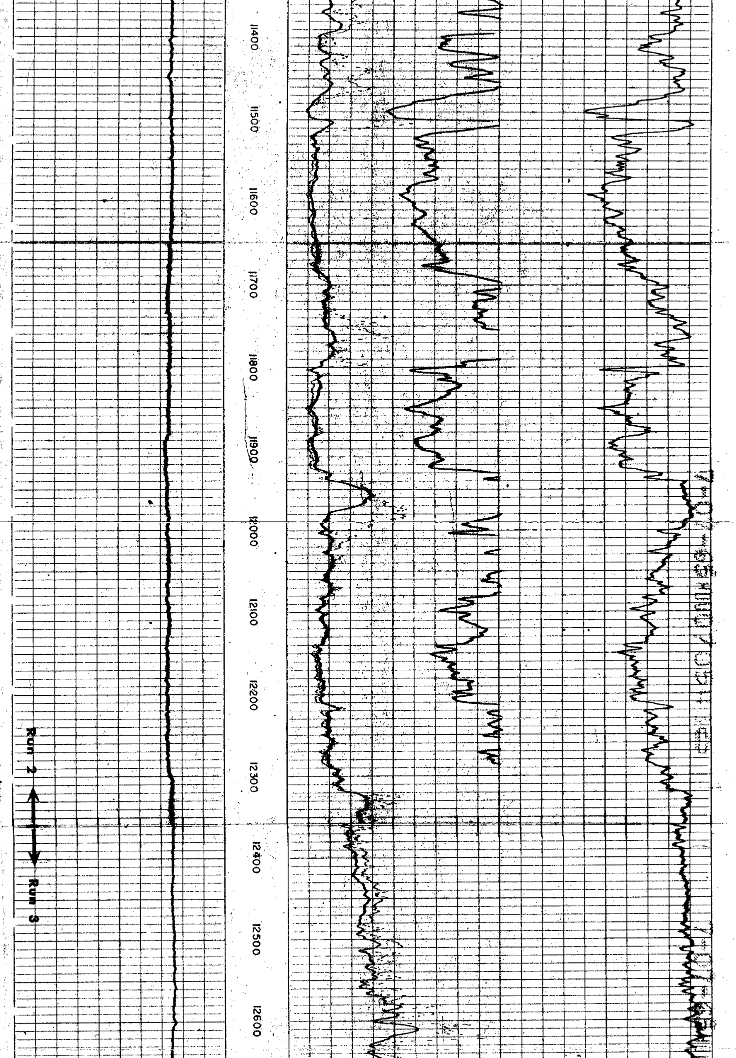
| Run No. | Tool Type | Tool Position | Other |
|---|---|---|---|
| 1-6 | 6FF40 | CENTERED | |
| 7 | GRN | | |

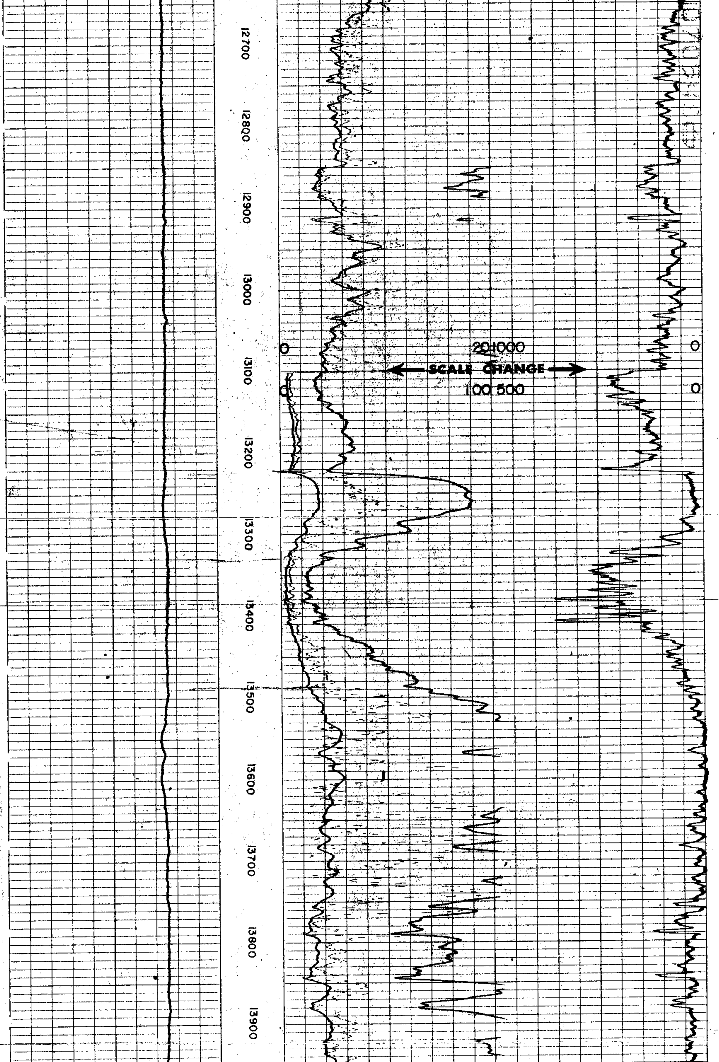
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Run No.: | ONE | TWO | THREE | FOUR | FIVE | SIX | SEVEN(GRN) |
| C.D.: | USED | USED | USED | USED | USED | USED | |
| S.O.: | 1.5" | 1.5" | 1.5" | 1.5" | 1.5" | 1.5" | |
| Equip. Used: CART. No.: | 30 | 132 | 30 | 55 | 53 | 14 | |
| PANEL No.: | 144 | 269 | 144 | 76 | 76 | 117 | |
| SONDE No.: | 252 | 158 | 252 | 387 | 252 | 252 | |
| S.B.R.: | 1 OHM | 1 OHM | 1 OHM | 1 OHM | 1 OHM | 1 OHM | |

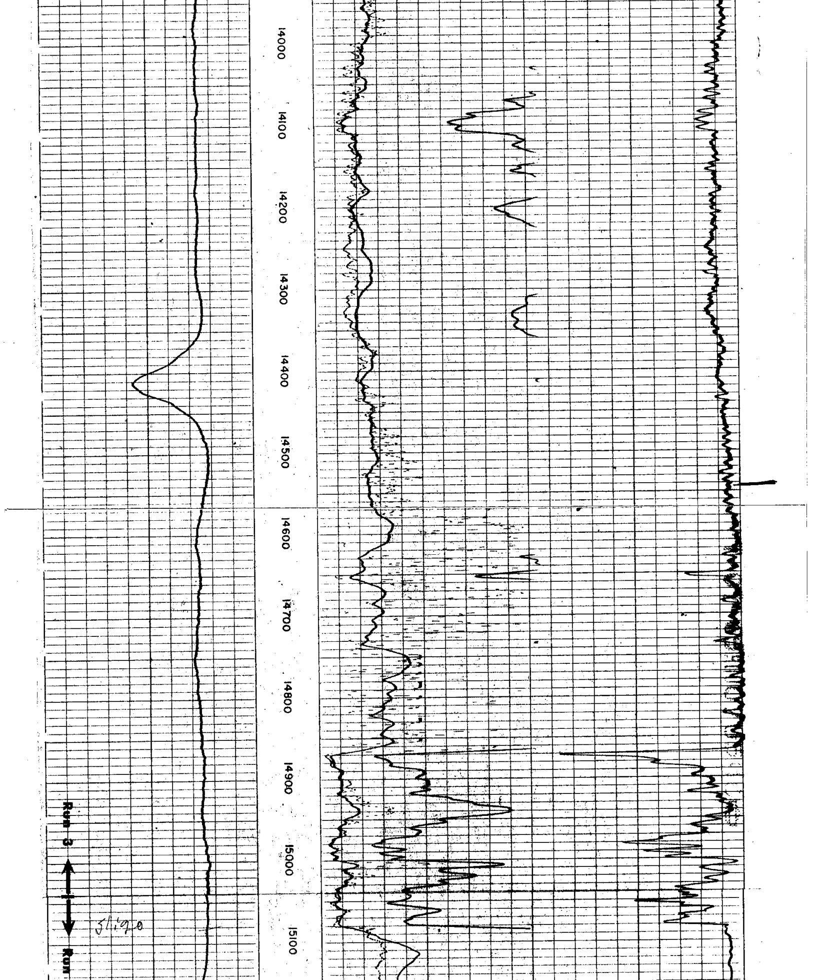
| SPONTANEOUS POTENTIAL millivolts | DEPTHS | RESISTIVITY ohms - $m^2/m$ | CONDUCTIVITY millimhos/m = $\frac{1000}{\text{ohms}\ m^2/m}$ |
|---|---|---|---|
| 10<br>− ↔ + | | A - 16" - M<br>SHORT NORMAL<br>0 20<br>0 200 | 6FF40<br>INDUCTION<br>1000 0<br>2000' 1000 |
| | | INDUCTION<br>0 40" 20<br>0 40" 200 | |

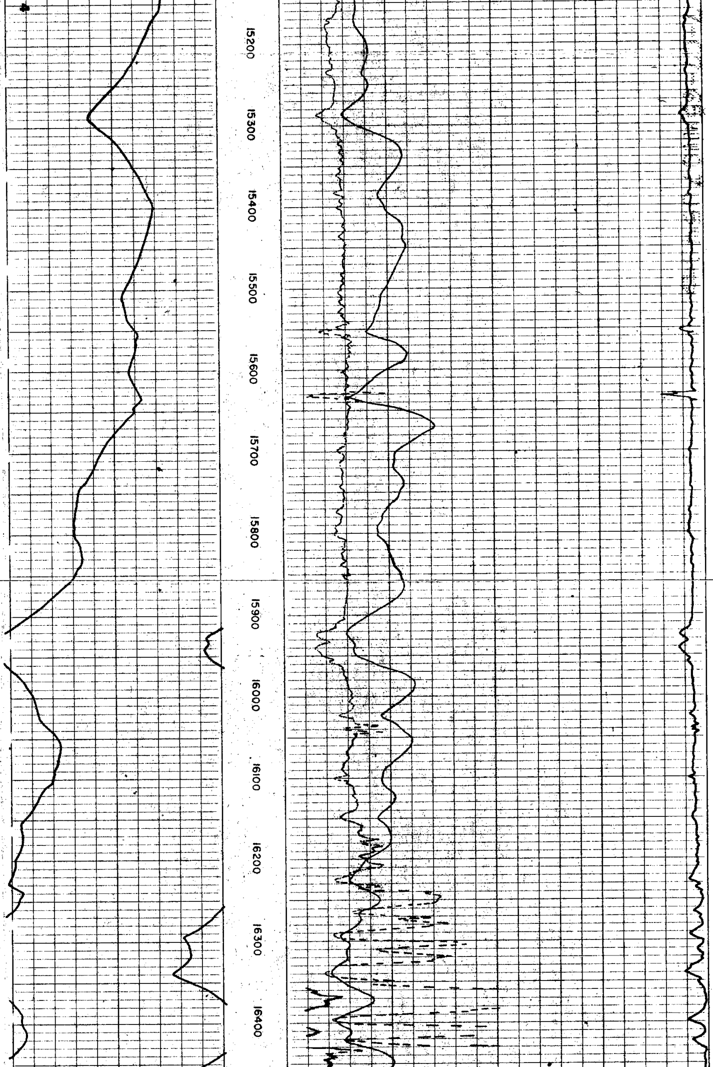


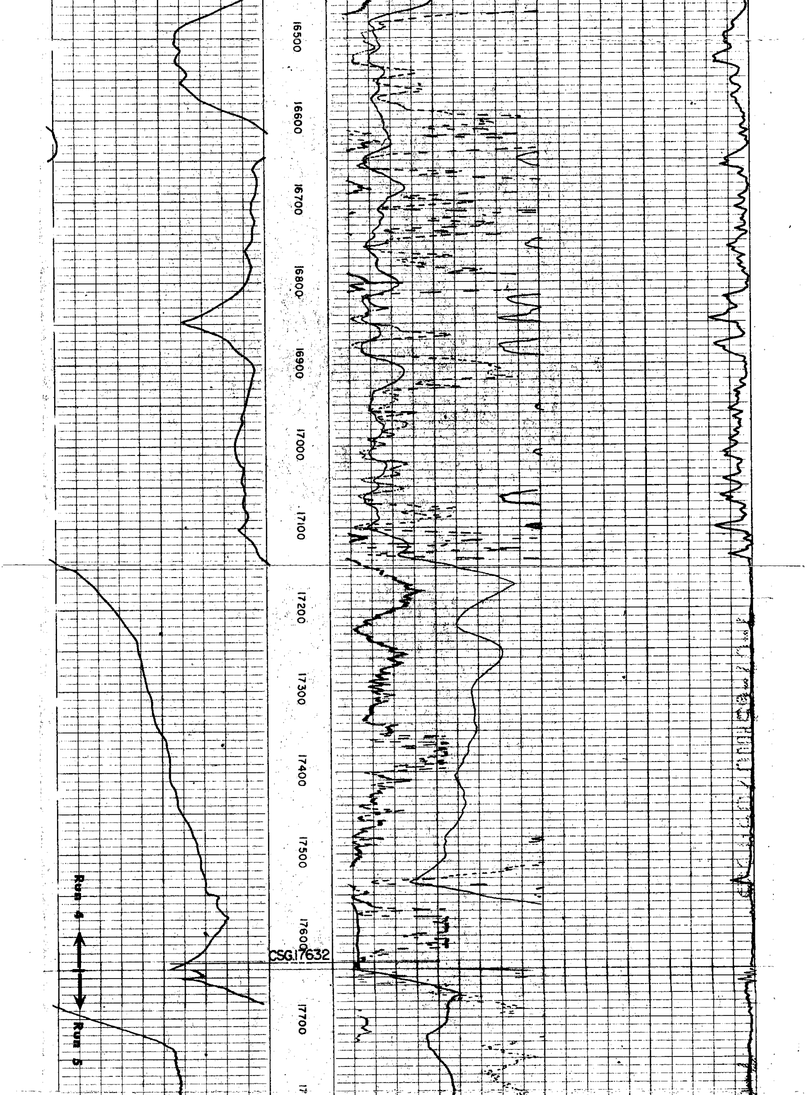


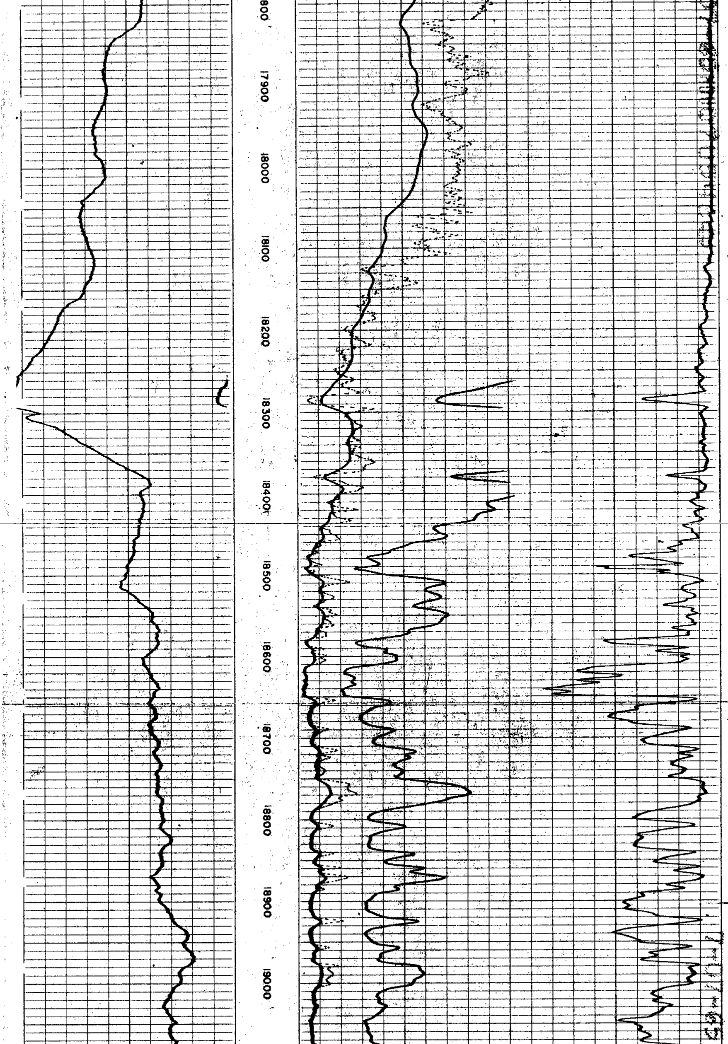


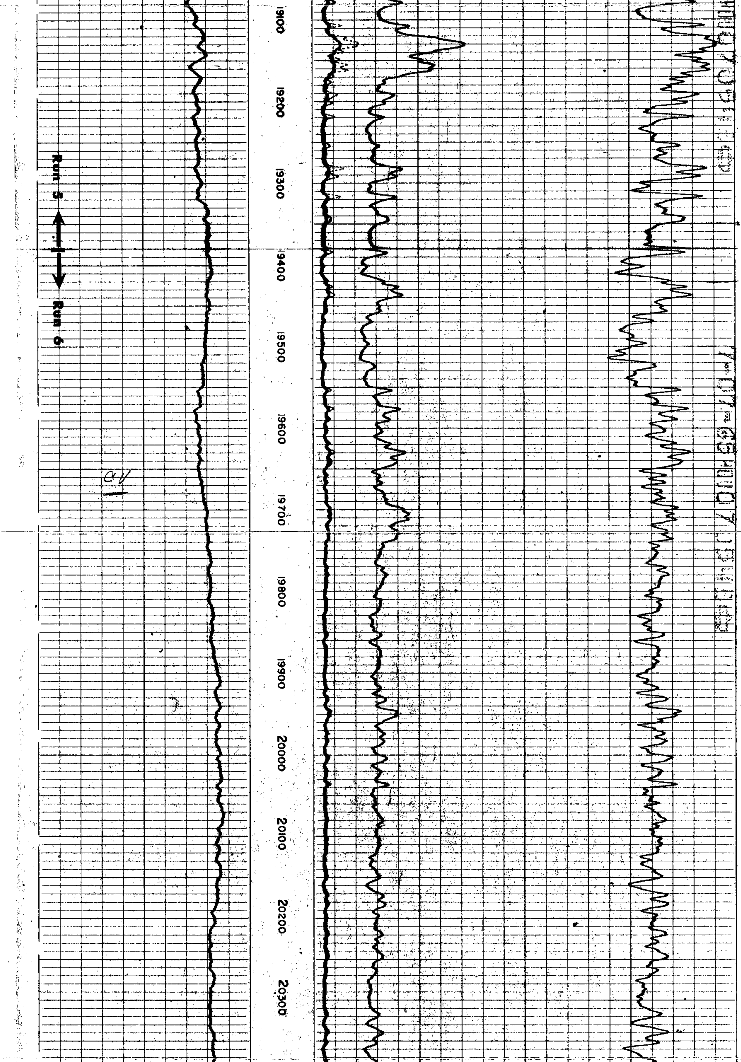


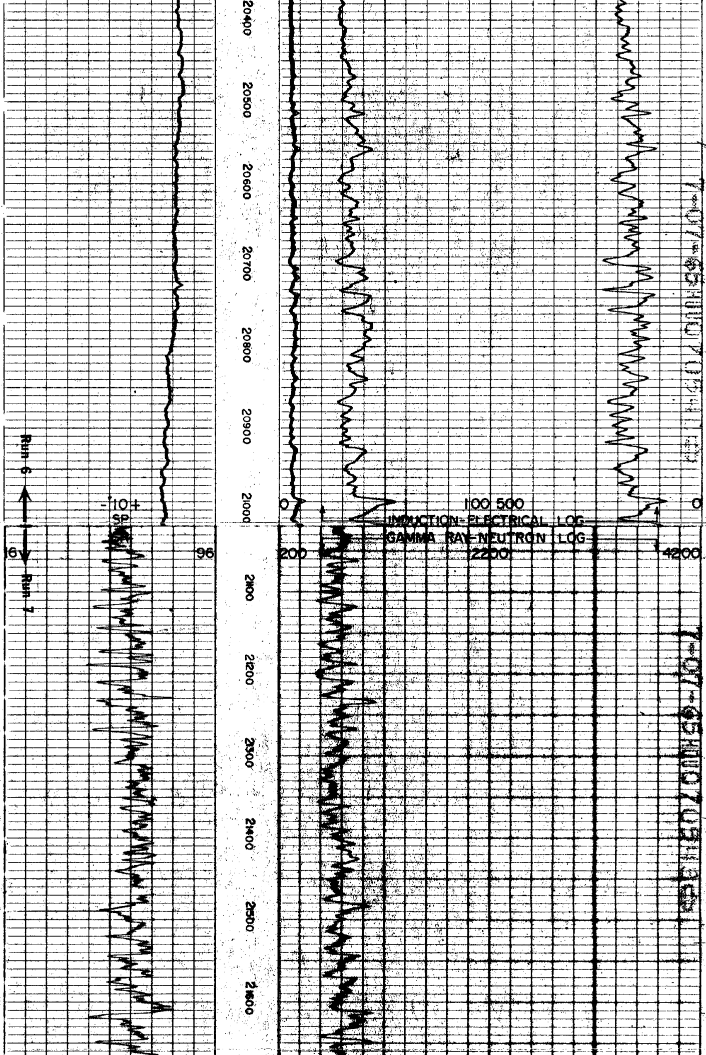


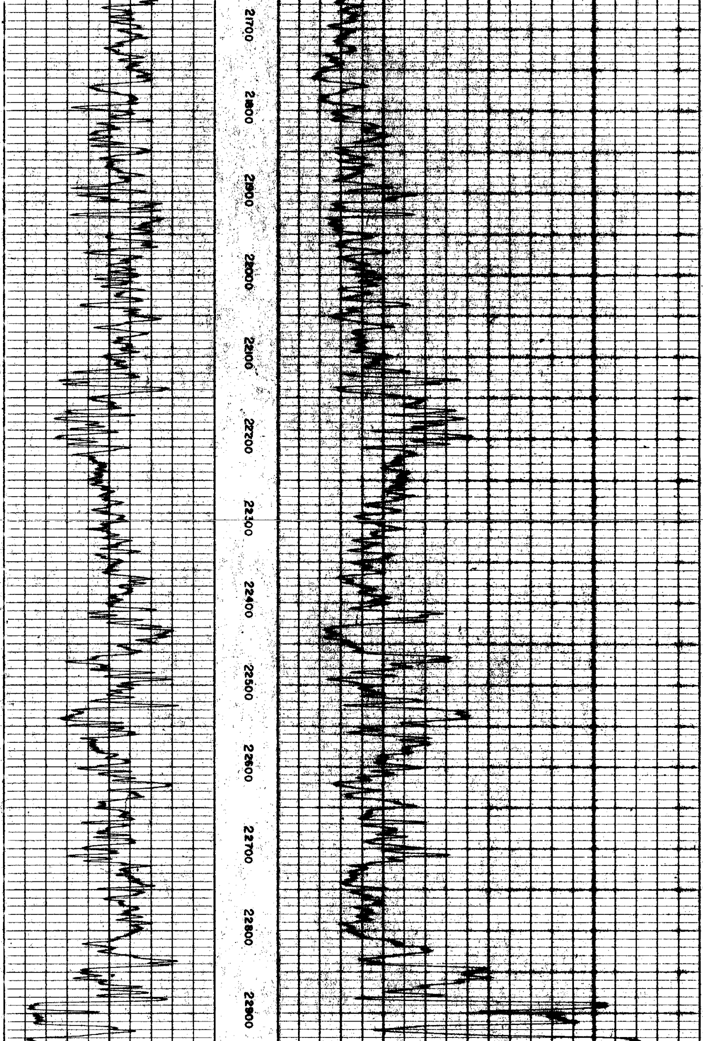


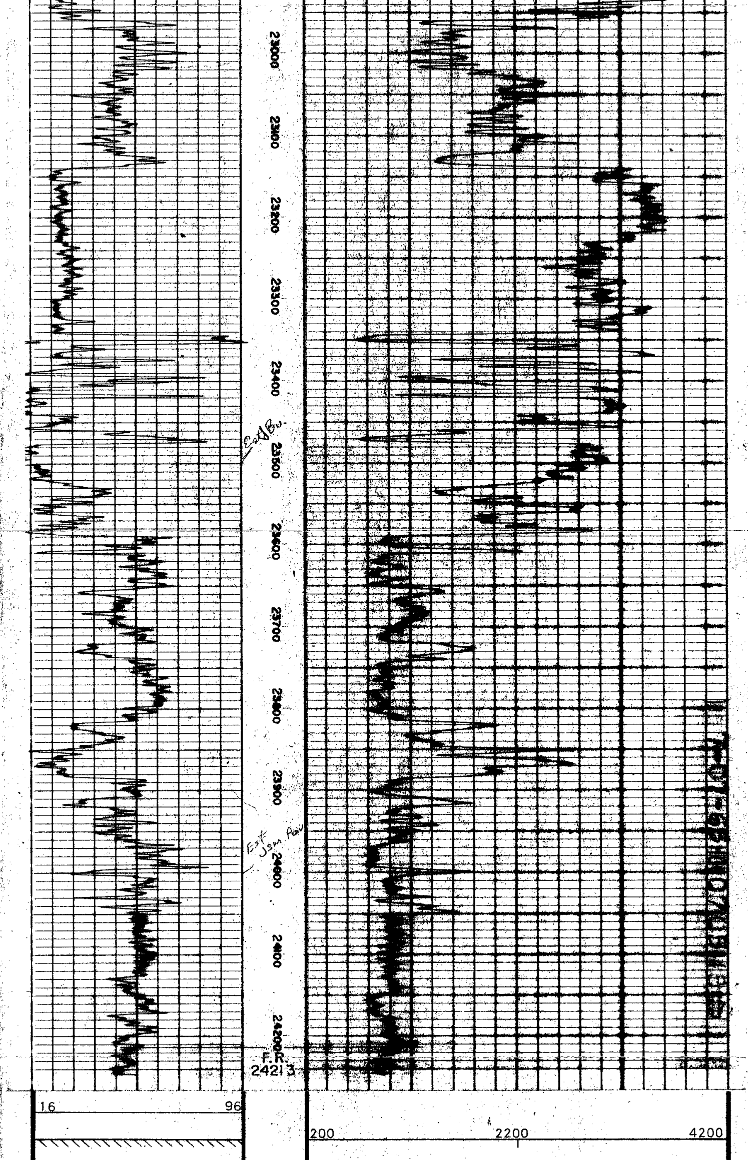












| GAMMA RAY<br>API UNITS | DEPTHS | NEUTRON<br>API UNITS |
|---|---|---|

COMPANY PHILLIPS PETROLEUM COMPANY
WELL NUECES "A" LEASE WELL #1
FIELD WILDCAT
COUNTY MC MULLEN STATE TEXAS

SWSC FR 24213
SWSC TD 24213
DRLR TD 24220
Elev:
KB 283.5
DF 281.0
GL 255.0

JJ

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**SCHLUMBERGER**

# GAMMA RAY - NEUTRON

SCHLUMBERGER WELL SURVEYING CORPORATION
Houston, Texas

COUNTY MC MULLEN
FIELD or LOCATION WILDCAT
WELL NUECES "A" LSE #1
COMPANY PHILLIPS PETROLEUM COMPANY

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WELL NUECES "A" LEASE WELL #1
FIELD WILDCAT
COUNTY MC MULLEN STATE TEXAS

Location: 619' FWL, 751' FNL, A.C.H. & B. SURVEY NO. 1 A-36.

Other Services:
IES-SL-DR-CDM
ST

Permanent Datum: GROUND LEVEL, Elev.: 255.0
Log Measured From K.B. 28.5 Ft. Above Perm. Datum
Drilling Measured From K.B. 28.5' ABOVE G.L.

Elev.: K.B. 283.5
D.F. 281.0
G.L. 255.0

| | | | |
|---|---|---|---|
| Date | 6-23-65 | | |
| Run No. | SEVEN | | |
| Type Log | GAMMA RAY NEUTRON | | |
| Depth—Driller | 24220 | | |
| Depth—Logger | 24213 | | |
| Bottom logged interval | 24213 | | |
| Top logged interval | 20700 | | |
| Type fluid in hole | INVERMUL | | |
| Salinity, PPM Cl. | -- | | |
| Density | 17.6 | | |
| Level | FULL | | |
| Max rec. temp., deg F. | 485* | | |
| Operating rig time | 2-1/2 HOURS | | |
| Recorded by | BRUTON & YOUNGBLOOD | | |
| Witnessed by | MR GRIZZAFFI | | |

| RUN | BORE-HOLE RECORD | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| No. | Bit | From | To | Size | Wgt. | From | To |
| 7 | 8-1/2 | CASING | 22816 | 9-5/8 | | SURFACE | 17635 |
| 7 | 6-3/4 | 22816 | T.D. | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |