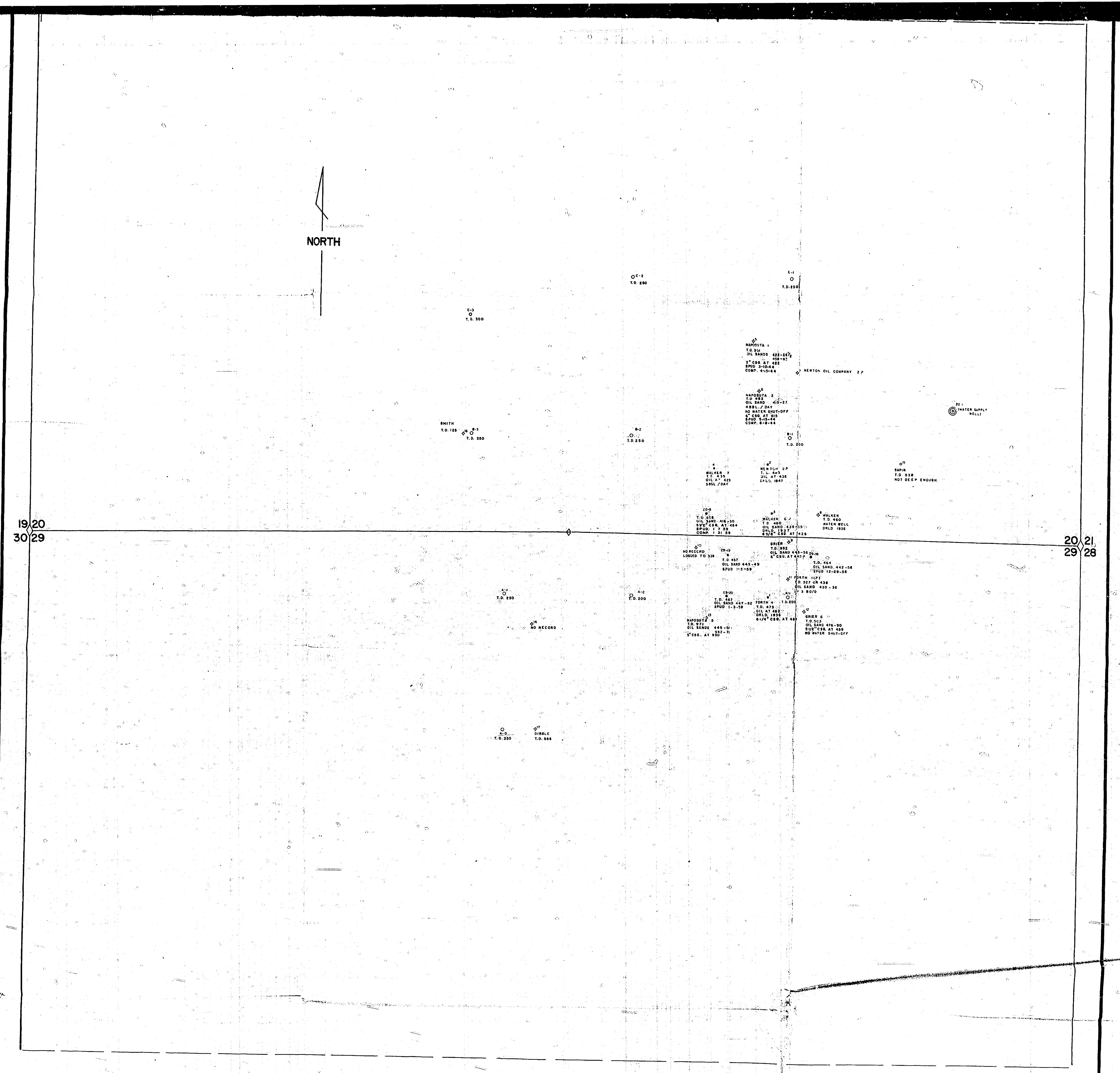
Case No.
1805

Large Exhibits


NORTH
19 20
30 29
20 21
29 28
C-3 T.D. 300
C-2 T.D. 250
C-1 T.D. 250
SMITH T.D. 125
16
B-3 T.D. 250
B-2 T.D. 250
B-1 T.D. 200
5 NAPOSUTA 1 T.D. 501 OIL SANDS 422-26½ 458-62 5" CSG. AT 422 SPUD 3-10-44 COMP. 4-15-44
7 NEWTON OIL COMPANY 2 ?
6 NAPOSUTA 2 T.D. 483 OIL SAND 415-27 4 BBL./DAY NO WATER SHUT-OFF 6" CSG. AT 415 SPUD 5-15-44 COMP. 6-8-44
20 1 (WATER SUPPLY WELL)
4 WALKER 7 T.D. 435 OIL AT 423 5 BBL./DAY
2 NEWTON 2? T.D. 463 OIL AT 436 DRLD. 1947
15 SAPIR T.D. 538 NOT DEEP ENOUGH
20-9 T.D. 458 OIL SAND 416-30 5½" CSG. AT 464 SPUD 1 7 59 COMP. 1 31 59
3 WALKER 6 ? T.D. 460 OIL SAND 439-55 DRLD. 1937 6 5/8" CSG. AT 426
8 WALKER T.D. 460 WATER WELL DRLD. 1936
10 NO RECORD LOGGED TO 338
29-19 T.D. 457 OIL SAND 443-49 SPUD 1-5-59
9 GRIER T.D. 952 OIL SAND 446-56 6" CSG. AT 445 ?
29-18 T.D. 464 OIL SAND 442-58 SPUD 12-29-58
11 FORTH 1(?) T.D. 527 OR 438 OIL SAND 430-38 1½ 3 BO/D
A-3 T.D. 250
A-2 T.D. 200
A-1 T.D. 200
29-20 T.D. 467 OIL SAND 447-62 SPUD 1-3-59
1 FORTH 4 T.D. 473 OIL AT 462 DRLD. 1936 6 1/4" CSG. AT 46?
12 GRIER 6 T.D. 503 OIL SAND 476-90 5 1/2" CSG. AT 469 NO WATER SHUT-OFF
13 NAPOSUTA 5 T.D. 971 OIL SANDS 445-51 942-71 5" CSG. AT 930
14 NO RECORD
A-0 T.D. 250
17 DIBBLE T.D. 586

WELL LOCATION AND DATA PLAT

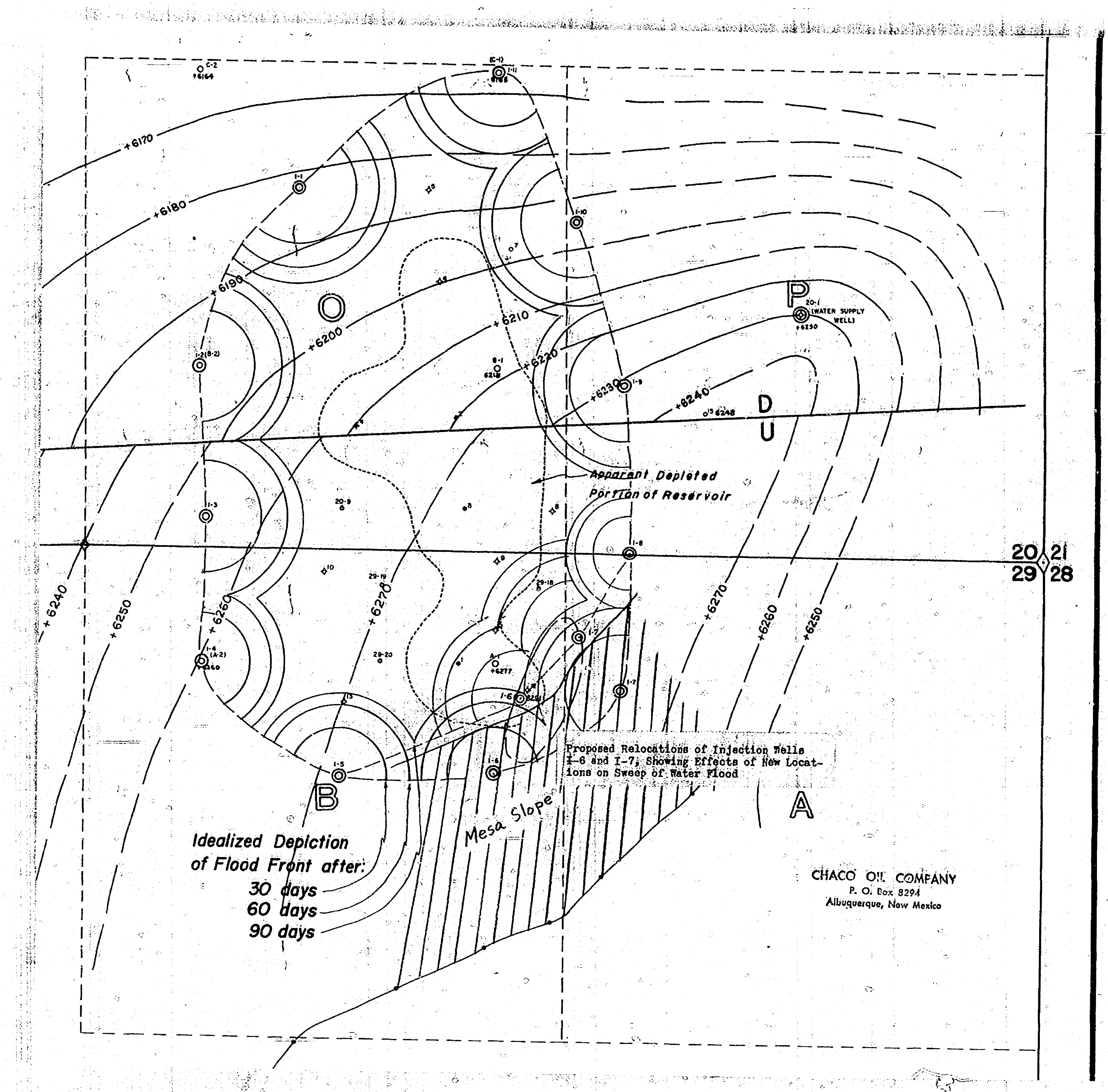
CHACO OIL COMPANY

RED MOUNTAIN OIL FIELD, N. Mex.

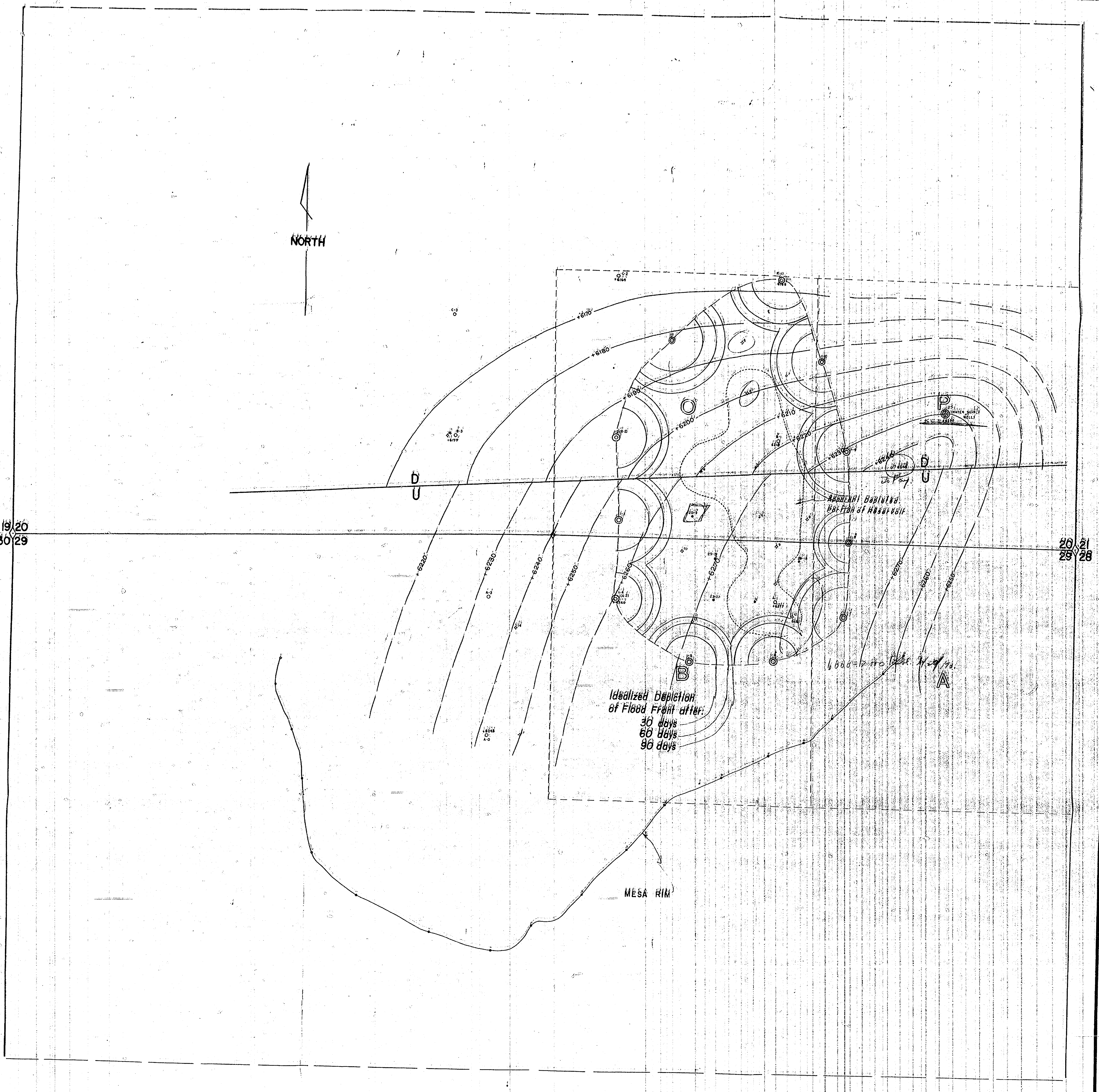
Sections 20 and 29, T. 20 N., R. 9 W., NMPM

PLANE TABLE SURVEY by HENRY S. BIRDSEYE, October, 1957. 1" = 200'

EXHIBIT 1


C-2
+6164
(C-1)
I-11
6166
+6170
+6180
+6190
+6200
+6210
+6220
+6230
+6240
+6250
+6260
+6270
I-1
I-10
O
P
20-1
(WATER SUPPLY WELL)
+6230
I-2(B-2)
B-1
6248
I-9
6248
D
U
Apparent Depleted Portion of Reservoir
I-3
20-9
I-8
20
21
29
28
29-19
29-18
I-4
(A-2)
6260
29-20
A-1
+6277
I-6
I-7
I-5
B
A
Mesa Slope
Proposed Relocations of Injection Wells I-6 and I-7, Showing Effects of New Locations on Sweep of Water Flood
Idealized Depiction of Flood Front after:
30 days
60 days
90 days

CHACO OIL COMPANY
P. O. Box 8294
Albuquerque, New Mexico


NORTH
19 20
30 29
20 21
29 28
D
U
D
U
O
P
B
A
+6170
+6180
+6190
+6200
+6210
+6220
+6230
+6240
+6250
+6260
+6270
+6240
+6250
WATER SUPPLY WELLS
To Pay
Apparent Depleted Portion of Reservoir
Idealized Depiction of Flood Front after:
30 days
60 days
90 days
MESA RIM

LEGEND:
- • Producing Well
- ✧ Abandoned Well
- ȯ Stratigraphic test
- ◎ Water Injection Well
- ◎ Water Supply Well

CHACO OIL COMPANY

RED MOUNTAIN FIELD, T 20N, R 9W

STRUCTURAL CONTOURS ON "200-FOOT" MARKER ZONE

SCALE: 1"=200', CONTOUR INTERVAL 10'

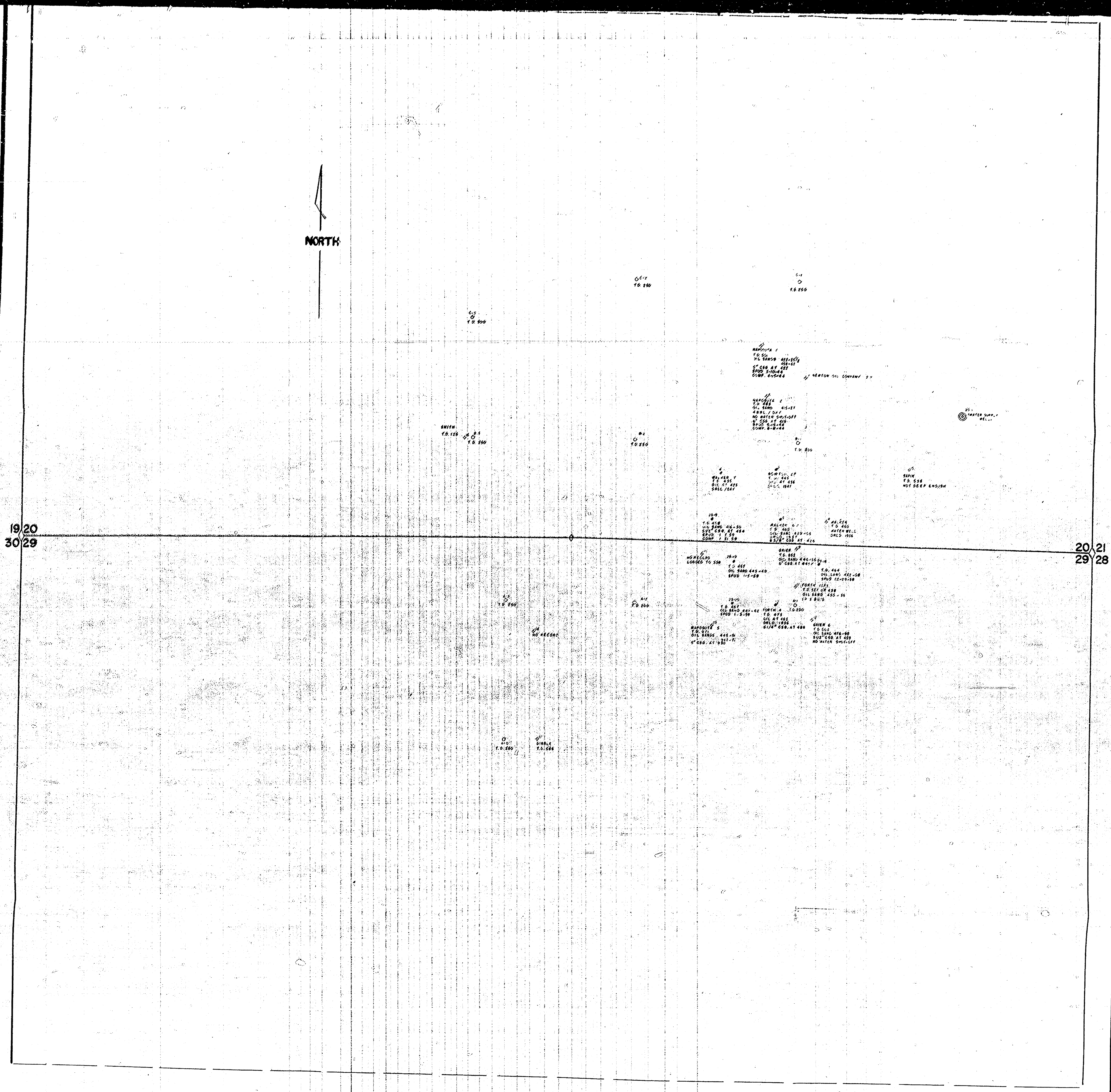
HENRY S. BIRDSEYE

OCTOBER, 1959

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Chaco EXHIBIT NO. 2
CASE NO. 1885

BEFORE EXAMINER [illegible]
[illegible]

EXHIBIT 2



WELL LOCATION AND DATA PLAT

CHACO OIL COMPANY

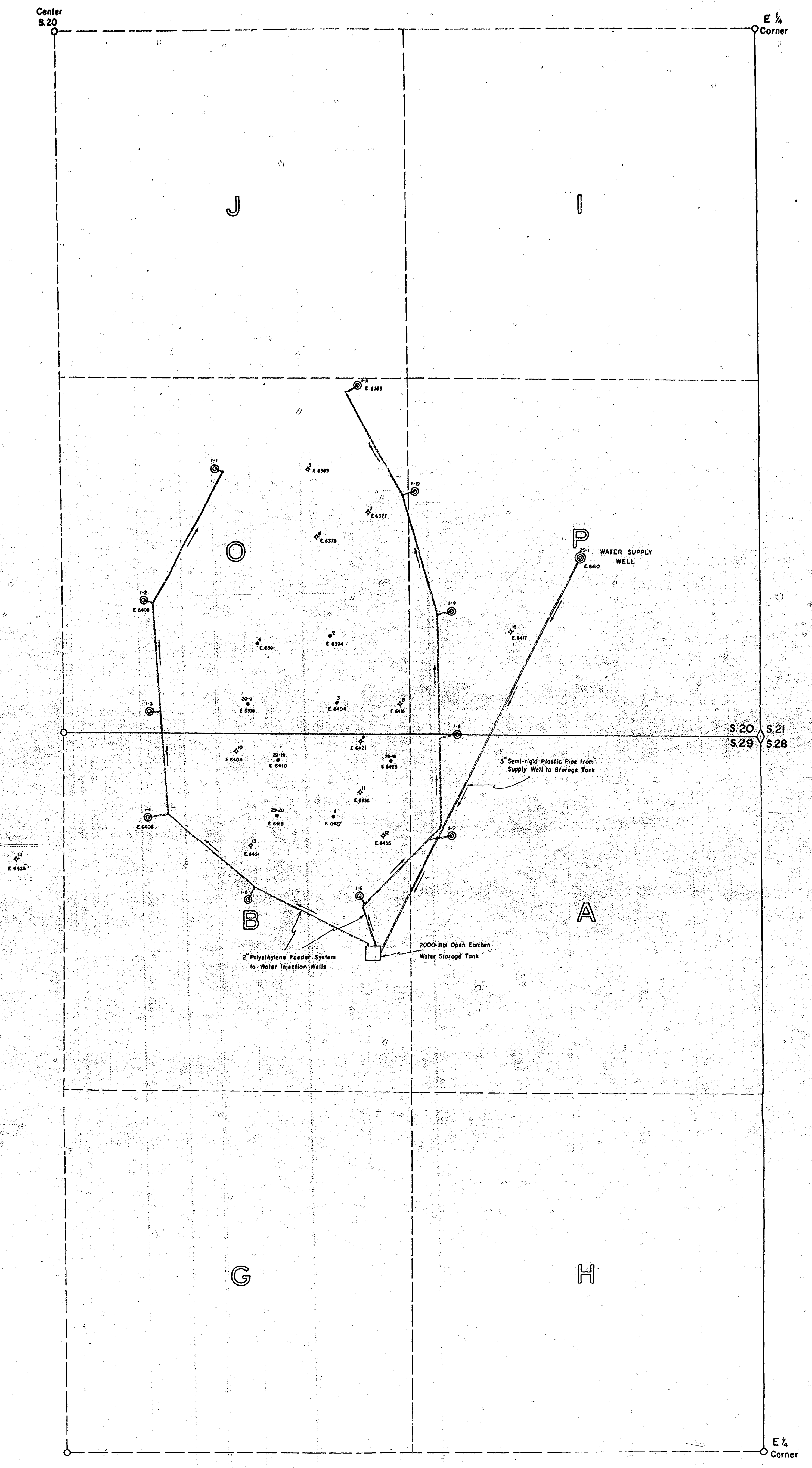
RED MOUNTAIN OIL FIELD, N. Mex.

Sections 20 and 29, T. 20 N., R. 9 W., NMPM

PLANE TABLE SURVEY by HENRY S. BIRDSEYE, October, 1957. 1" = 200'

EXHIBIT 1

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Chaco EXHIBIT NO. 1
CASE NO. 1805


Center S.20
E ¼ Corner
J
I
O
P
WATER SUPPLY WELL
20-1 E.6410
I-1
I-2 E.6408
I-3
I-4 E.6406
I-5
I-6
I-7
I-8
I-9
I-10
I-11 E.6383
5 E.6369
7 E.6377
6 E.6378
4 E.6391
2 E.6394
15 E.6417
20-9 E.6399
3 E.6404
8 E.6416
9 E.6421
10 E.6404
29-19 E.6410
29-18 E.6423
11 E.6436
29-20 E.6418
1 E.6427
12 E.6455
13 E.6451
14 E.6425
S.20
S.21
S.29
S.28
3" Semi-rigid Plastic Pipe from Supply Well to Storage Tank
B
A
2" Polyethylene Feeder System to Water Injection Wells
2000-Bbl Open Earthen Water Storage Tank
G
H
E ¼ Corner

CHACO OIL COMPANY

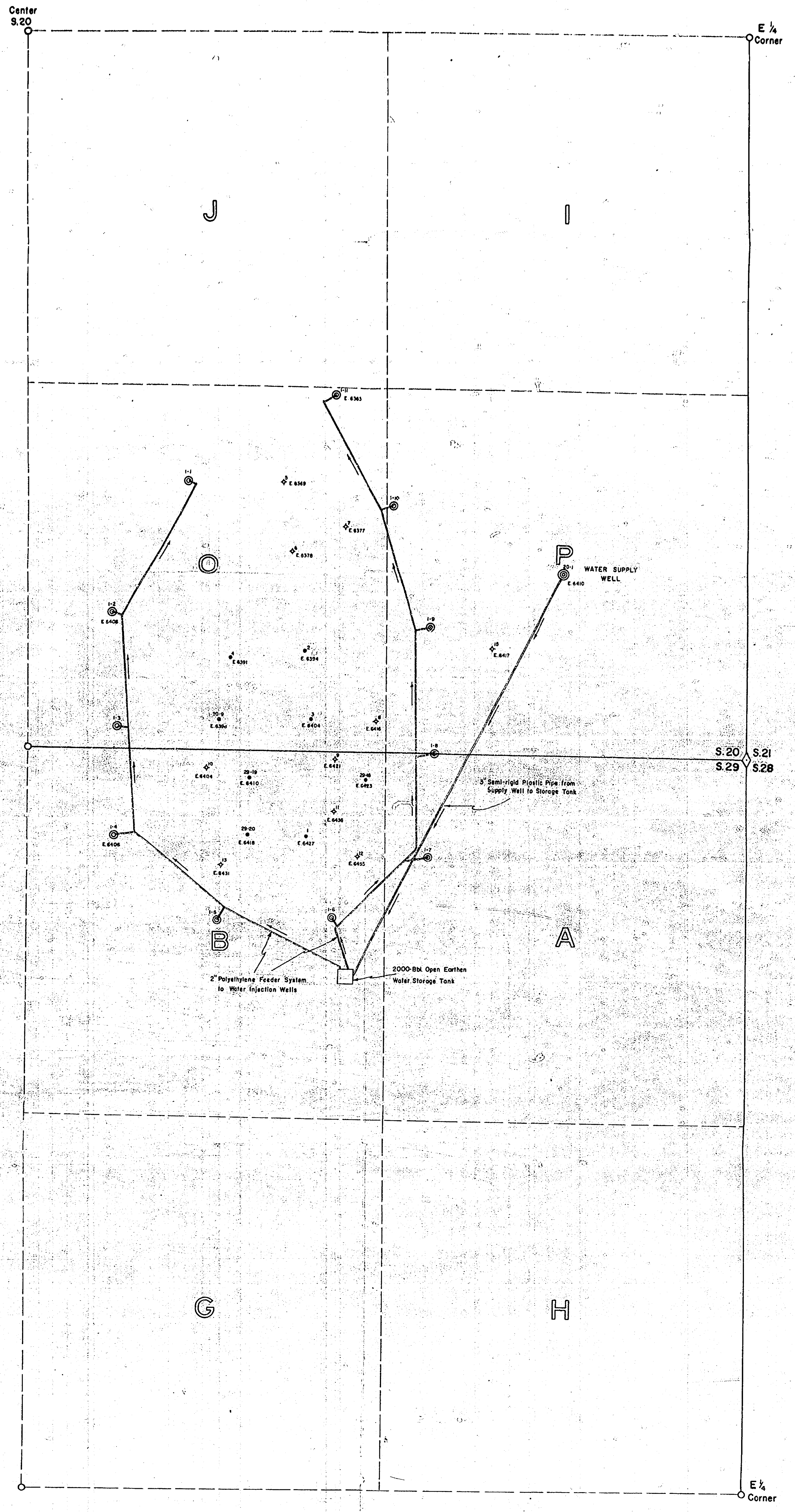
Schematic Plan of Water Supply and Injection Systems

Legend:
- • Producing Well
- ✧ Abandoned Well
- ◎ Water Injection Well

Scale: 1" = 200 ft.
Henry S. Birdseye
October, 1959

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
______ EXHIBIT NO. ______
CASE NO.______

Exhibit 4

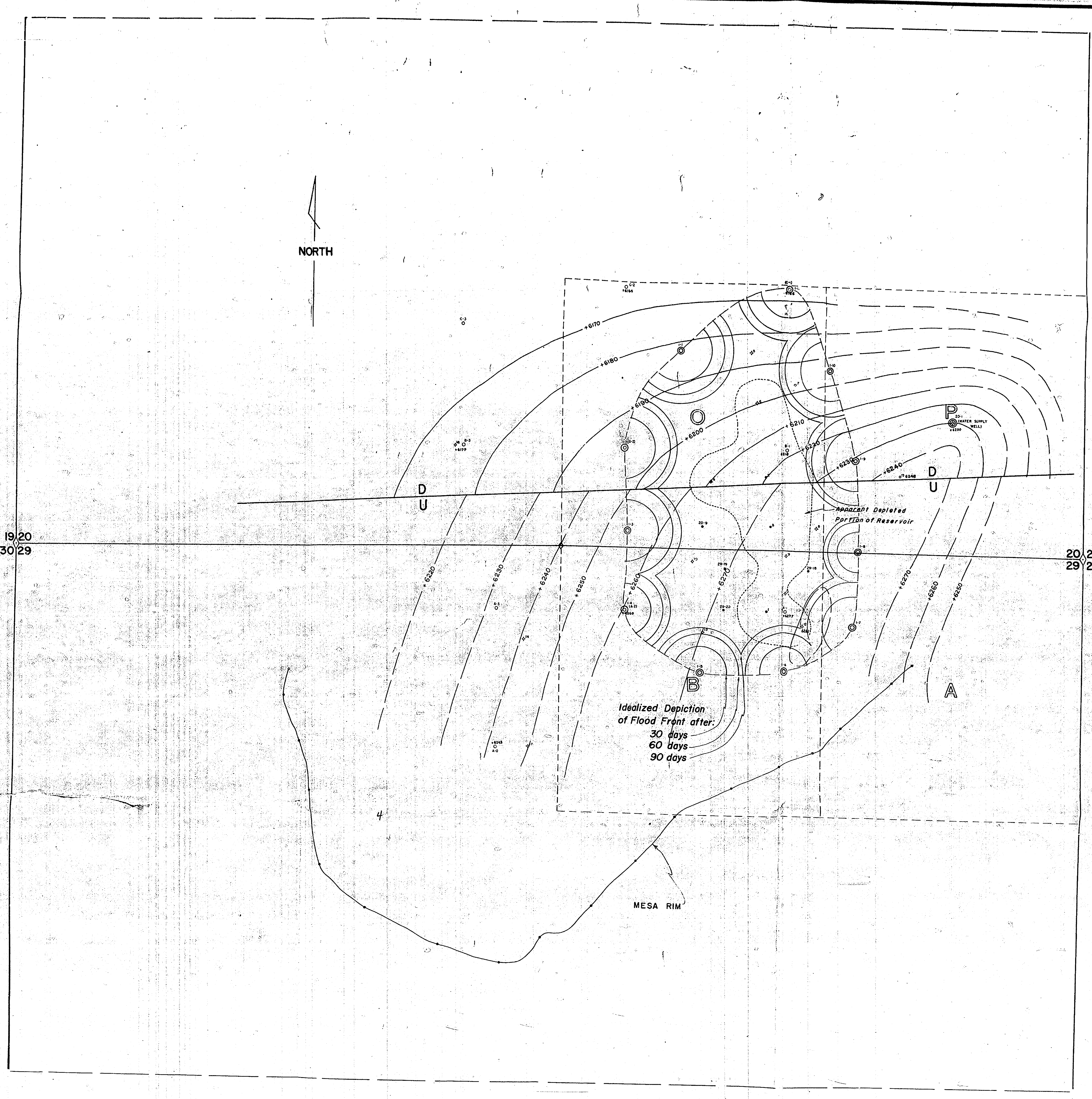

Center S.20
E 1/4 Corner
J
I
O
P
WATER SUPPLY WELL
20-1 E.6410
1-11 E.6363
1-1
5 E.6369
1-10
7 E.6377
6 E.6378
1-2 E.6408
1-9
15 E.6417
4 E.6391
2 E.6394
1-3
1-30-9 E.6398
3 E.6404
8 E.6416
1-8
S.20 S.21
S.29 S.28
10 E.6404
29-19 E.6410
9 E.6421
29-18 E.6423
3" Semi-rigid Plastic Pipe from Supply Well to Storage Tank
11 E.6436
1-4 E.6406
29-20 E.6418
1 E.6427
12 E.6455
13 E.6431
1-7
1-5
1-6
B
A
2" Polyethylene Feeder System to Water Injection Wells
2000-Bbl. Open Earthen Water Storage Tank
G
H
E 1/4 Corner

CHACO OIL COMPANY

Schematic Plan of Water Supply and Injection Systems

Legend:
- Producing Well
+ Abandoned Well
◎ Water Injection Well

Scale: 1" = 200 ft.
Henry S. Birdseye
October, 1959



NORTH
+6170
+6180
+6190
+6200
+6210
+6220
+6230
+6240
+6250
+6260
+6270
O
P
B
A
D
U
19 20
30 29
20 21
29 28
20-1 (WATER SUPPLY WELL) +6230
C-2 +6164
(C-1) 1-11 6166
1-1
1-10
1-2 (C-2)
1-9
1-3
1-8
1-4 (A-2) 6260
1-5
1-6
1-7
B-1 6218
A-1 +6277
A-3
A-0 +6243
20-9
29-19
29-18
29-20
15 6248
12 6281
Apparent Depleted Portion of Reservoir
Idealized Depiction of Flood Front after:
30 days
60 days
90 days
4
MESA RIM

LEGEND:

- • Producing Well
- ✧ Abandoned Well
- ☿ Stratigraphic test
- ◎ Water Injection Well
- ◎ Water Supply Well

CHACO OIL COMPANY

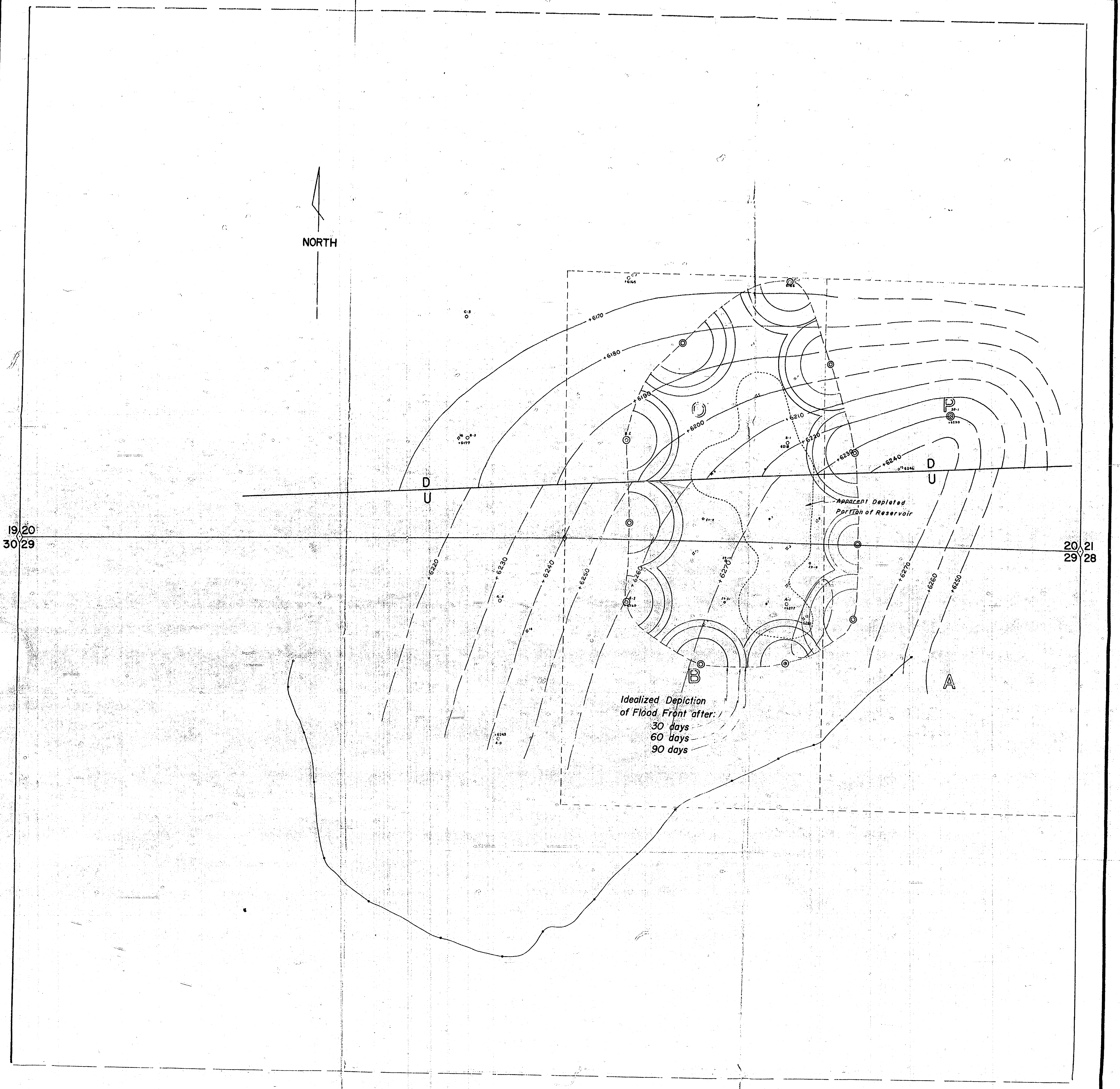
RED MOUNTAIN FIELD, T 20N, R 9W

STRUCTURAL CONTOURS ON "200-FOOT" MARKER ZONE

SCALE: 1"=200'; CONTOUR INTERVAL: 10'

HENRY S. BIRDSEYE OCTOBER, 1959

EXHIBIT 2


NORTH
6170
6180
6190
6200
6210
6220
6230
6240
6250
6260
6270
D
U
D
U
P
B
A
19 20
30 29
20 21
29 28
Apparent Depleted Portion of Reservoir
Idealized Depiction of Flood Front after:
30 days
60 days
90 days

LEGEND:
- • Producing Well
- ✧ Abandoned Well
- ○ Stratigraphic test
- ◎ Water Injection Well
- ◉ Water Supply Well

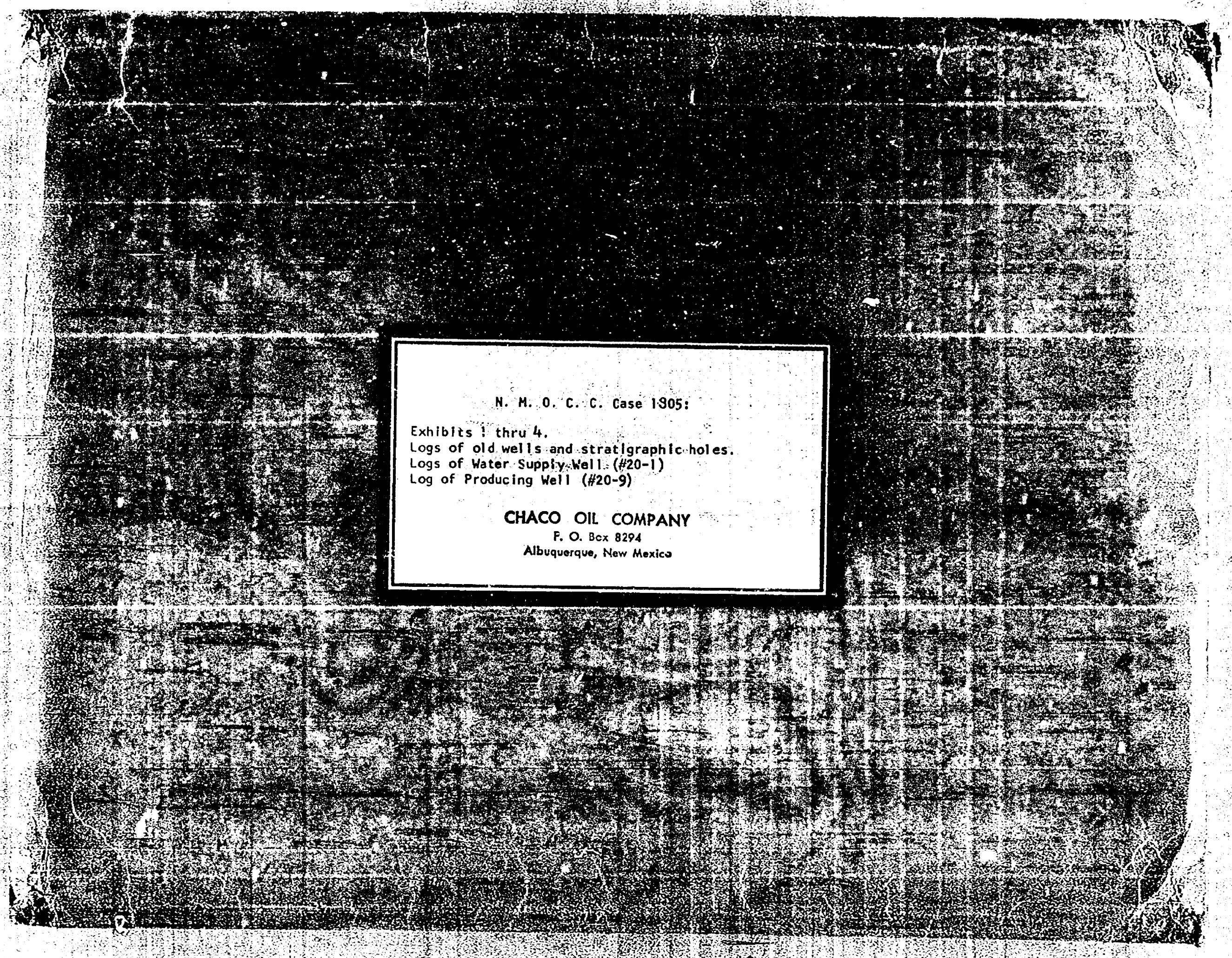
CHACO OIL COMPANY

RED MOUNTAIN FIELD, T 20N, R 9W

STRUCTURAL CONTOURS ON "200-FOOT" MARKER ZONE

SCALE: 1" = 200'; CONTOUR INTERVAL: 10'

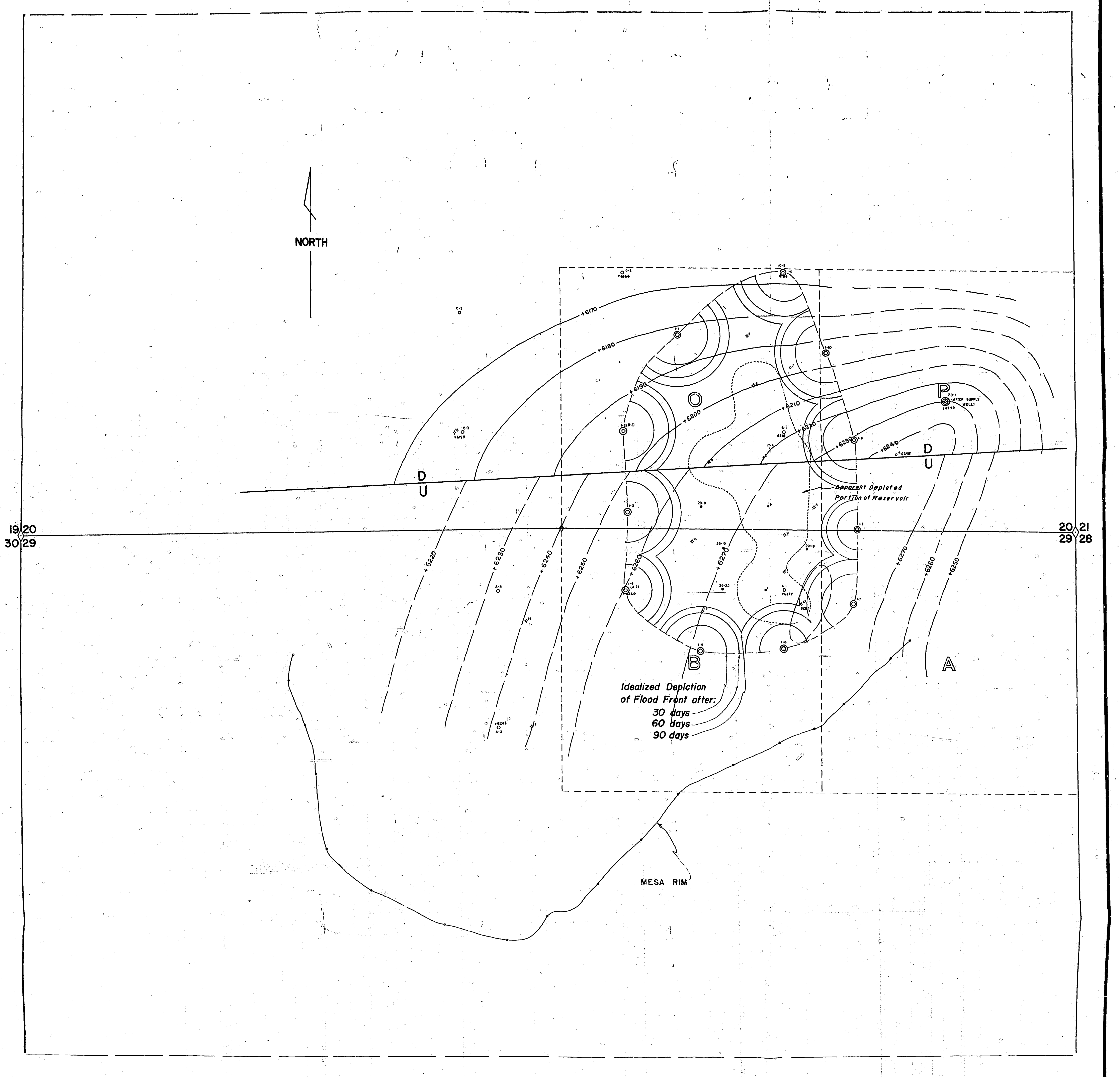
EXHIBIT D



N. M. O. C. C. Case 1905:

Exhibits 1 thru 4.
Logs of old wells and stratigraphic holes.
Logs of Water Supply Well (#20-1)
Log of Producing Well (#20-9)

CHACO OIL COMPANY
P. O. Box 8294
Albuquerque, New Mexico


NORTH
+6170
+6180
+6190
+6200
+6210
+6220
+6230
+6240
+6250
+6260
+6270
D
U
O
P
B
A
20-1 (WATER SUPPLY WELL) +6250
Apparent Depleted Portion of Reservoir
Idealized Depiction of Flood Front after:
30 days
60 days
90 days
MESA RIM
19 20
30 29
20 21
29 28

LEGEND:
- • Producing Well
- ✧ Abandoned Well
- ♁ Stratigraphic test
- ◎ Water Injection Well
- ◎ Water Supply Well

CHACO OIL COMPANY

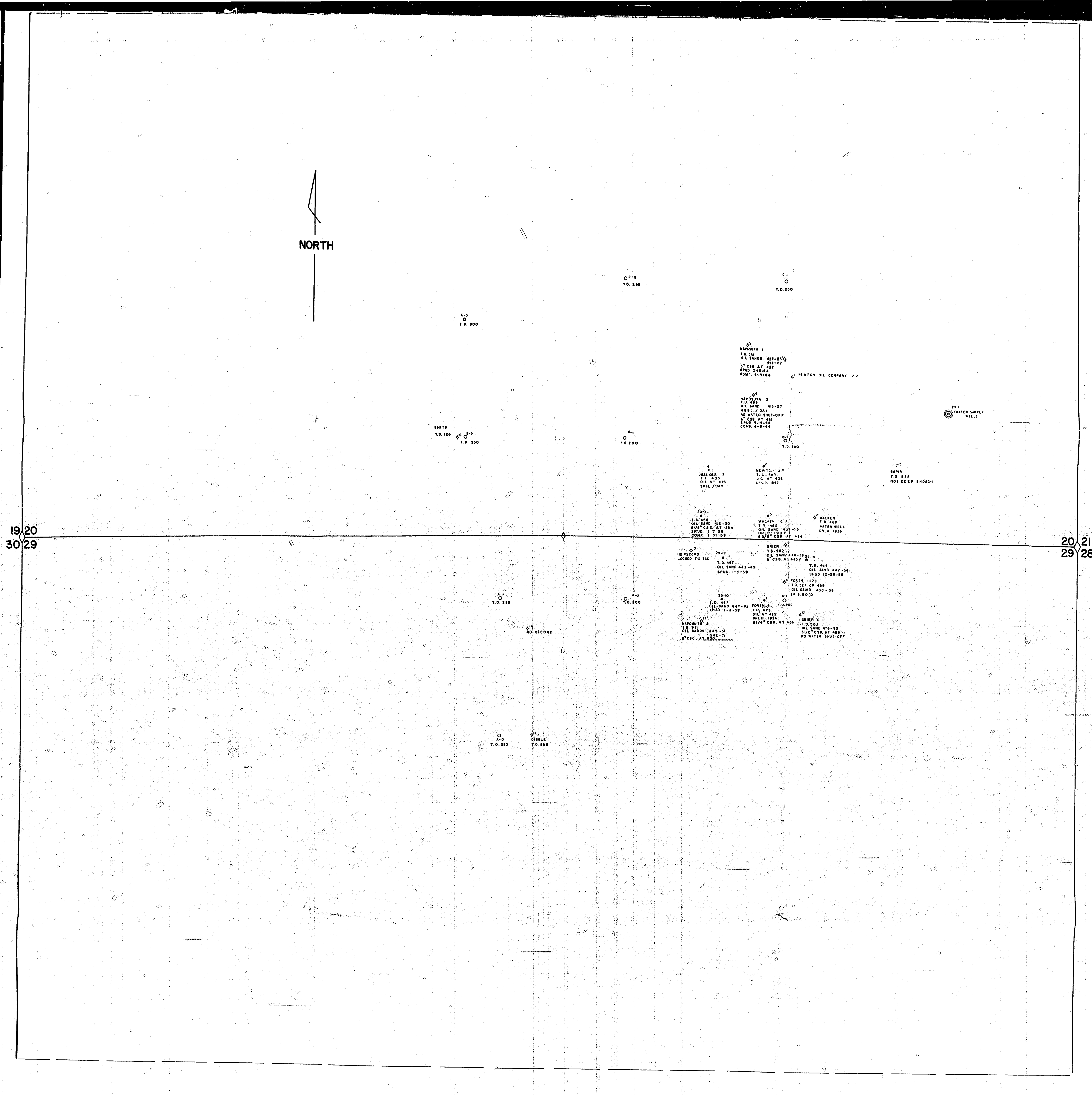
RED MOUNTAIN FIELD, T 20N, R 9W

STRUCTURAL CONTOURS ON "200-FOOT" MARKER ZONE

SCALE: 1"=200'; CONTOUR INTERVAL: 10'

HENRY S. BIRDSEYE OCTOBER, 1959

EXHIBIT 2


NORTH
C-2 T.D. 250
C-1 T.D. 250
C-3 T.D. 300
5 NAPOSUTA 1 T.D. 511 OIL SANDS 422-26½ 458-62 5" CSG AT 422 SPUD 3-10-44 COMP. 4-15-44
7 NEWTON OIL COMPANY 2 ?
6 NAPOSUTA 2 T.D. 483 OIL SAND 415-27 4 BBL./DAY NO WATER SHUT-OFF 6" CSG AT 415 SPUD 5-15-44 COMP. 6-8-44
20-1 (WATER SUPPLY WELL)
SMITH T.D. 125
16
B-3 T.D. 250
B-2 T.D. 250
B-1 T.D. 200
4 WALKER 7 T.D. 435 OIL AT 423 5 BBL./DAY
2 NEWTON 2 ? T.D. 463 OIL AT 436 DRLD. 1947
15 SAPIR T.D. 538 NOT DEEP ENOUGH
20-9 T.D. 458 OIL SAND 416-30 5½" CSG. AT 454 SPUD. 1 7 59 COMP. 1 31 59
3 WALKER 6 ? T.D. 460 OIL SAND 439-55 DRLD. 1937 6 5/8" CSG AT 426
8 WALKER T.D. 460 WATER WELL DRLD 1936
19 20
30 29
20 21
29 28
10 NO RECORD LOGGED TO 336
29-19 T.D. 457 OIL SAND 443-49 SPUD 1-5-59
9 GRIER T.D. 982 OIL SAND 446-56 6" CSG. AT 445?
29-18 T.D. 464 OIL SAND 442-58 SPUD 12-29-58
11 FORTH. 1(?) T.D. 527 OR 438 OIL SAND 430-38 IP 3 BO/D
A-3 T.D. 250
A-2 T.D. 200
A-1 T.D. 200
29-20 T.D. 467 OIL SAND 447-62 SPUD 1-3-59
1 FORTH 4 T.D. 473 OIL AT 462 DRLD. 1936 6 1/4" CSG. AT 465
12 GRIER 6 T.D. 503 OIL SAND 476-90 5 1/2" CSG. AT 489 NO WATER SHUT-OFF
13 NAPOSUTA 5 T.D. 971 OIL SANDS 445-51 942-71 5" CSG. AT 930
14 NO RECORD
A-0 T.D. 250
17 GIBBLE T.D. 566

WELL LOCATION AND DATA PLAT

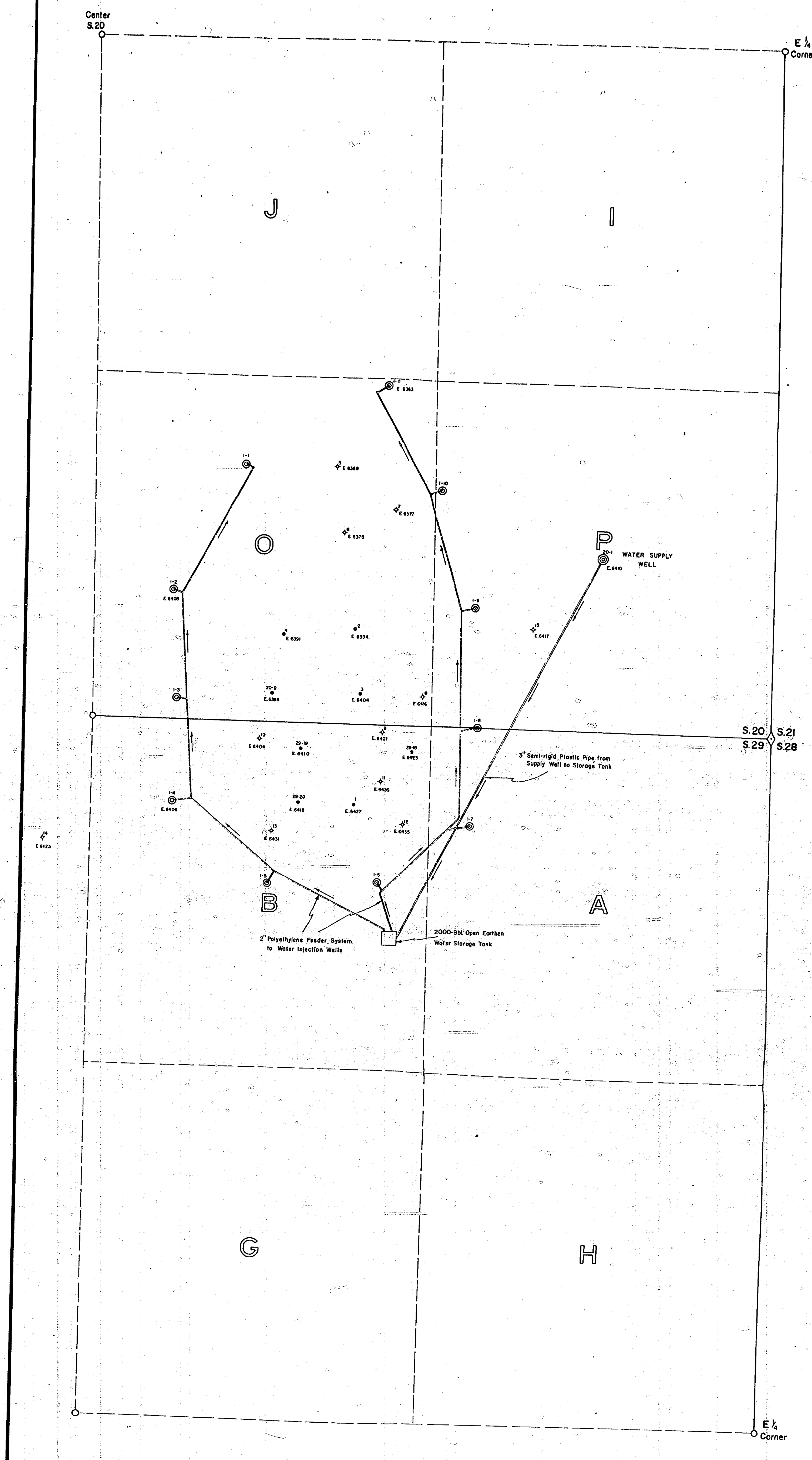
CHACO OIL COMPANY

RED MOUNTAIN OIL FIELD, N. Mex.

Sections 20 and 29, T. 20 N., R. 9 W., NMPM

PLANE TABLE SURVEY by HENRY S. BIRDSEYE, October, 1957. 1" = 200'

EXHIBIT 1


Center S.20
E¼ Corner
J
I
O
P
B
A
G
H
1-1
1-2 E.6408
1-3
1-4 E.6406
1-5
1-6
1-7
1-8
1-9
1-10
1-11 E.6363
5 E.6369
7 E.6377
6 E.6376
4 E.6391
2 E.6394
20-9 E.6398
3 E.6404
8 E.6416
10 E.6404
29-19 E.6410
9 E.6421
29-18 E.6423
11 E.6436
29-20 E.6418
1 E.6427
13 E.6431
12 E.6455
15 E.6417
20-1 E.6410
WATER SUPPLY WELL
S.20 S.21
S.29 S.28
3" Semi-rigid Plastic Pipe from Supply Well to Storage Tank
2" Polyethylene Feeder System to Water Injection Wells
2000-Bbl Open Earthen Water Storage Tank
E¾ Corner

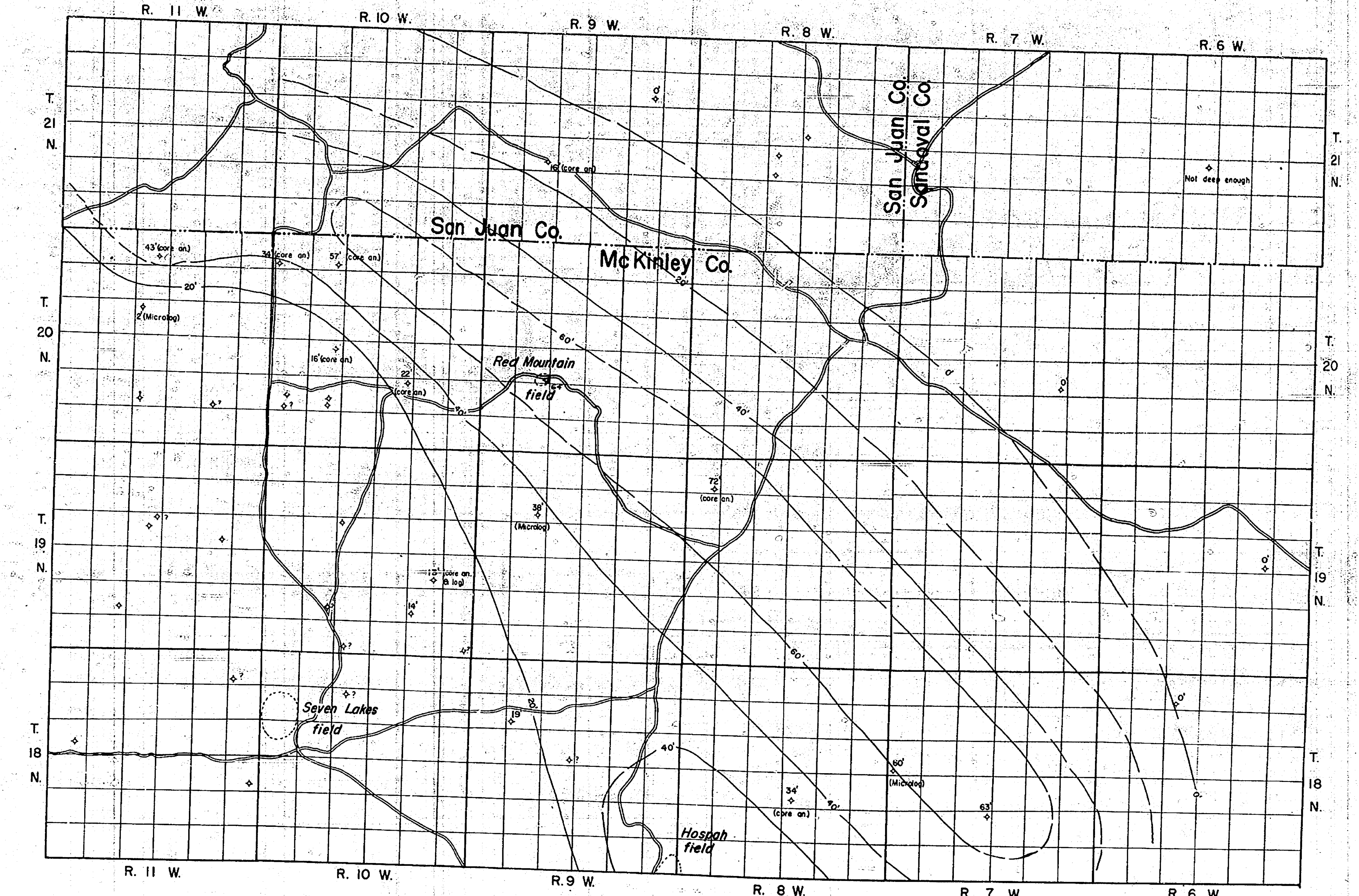
CHACO OIL COMPANY

Schematic Plan of Water Supply and Injection Systems

Legend:
- • Producing Well
- ✧ Abandoned Well
- ◎ Water Injection Well

Scale: 1" = 200 ft.
Henry S. Birdseye
October, 1959

Exhibit 4


R. 11 W.
R. 10 W.
R. 9 W.
R. 8 W.
R. 7 W.
R. 6 W.
T. 21 N.
T. 20 N.
T. 19 N.
T. 18 N.
San Juan Co.
McKinley Co.
San Juan Co.
Sandoval Co.
Not deep enough
16' (core an)
43' (core an)
34' (core an)
57' (core an)
20'
2 (Microlog)
16' (core an)
22' (core an)
Red Mountain field
60'
40'
20'
0'
72' (core an)
38' (Microlog)
13' (core an. & log)
14'
Seven Lakes field
19
40'
60' (Microlog)
34' (core an)
63'
Hospah field

HOSPAH-RED MOUNTAIN AREA

SOUTHERN SAN JUAN BASIN

ISOPACH MAP of Net HOSPAH Sand

Contour Interval =20' Scale: 1" = 2 mi. NMOCC Case 1805, Exh. 7

H. S. Birdseye Nov., 1957

LOGGING DATA

PROBE SIZE: 1-3/8" CALIBRATION: 300
DATE: 3-13-58 FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	C-2						
HOLE DIA.	IN						
DRILLED DEPTH	250 FT						
LOGGED DEPTH	235 FT						
GAMMA SCALE	— CPS						
TIME CONSTANT	— SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT SCALE	10 MV/IN			SELF POT T.D.			
BORE HOLE MEDIUM	water	WITH					
MUD READINGS	RESISTIVITY			TYPE BASE			
	VISCOSITY			SALINITY			
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE		PAPER SCALE			
TIME IN	0130	CASED TO				I.D.	IN
TIME OUT	0200	CORE INT.				DIAM	IN

LOCATION	TIME
SEC. 20 TWP. 20 RGE. 9	OFFICE:
COUNTY: McKinley	DRIVE:
STATE New Mexico	STANDBY: 7.0
AREA:	FIELD: 0.5
CLIENT: CHACO OIL	TOTAL: 7.5
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR: Griffin
H S Birdseye	PARTY NO: U-5

GEOPHYSICAL CORP.

TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL CO.
BORE HOLE NO. C-2
FIELD Red Mountain
COUNTY McKinley
LOCATION: SEC. 20 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.
DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO
LOCATION OF HOLE
ELEVATION KB GL 6377
BKGRD. COUNT
SLUSH PIT CT.
REMARKS: No Gamma Log

MINERALIZATION OR DIRECTIONAL DRIFT METER

COUNTS PER SEC.	BED THICKNESS	K KD	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag Brng	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR

INTERPRETATION BY:

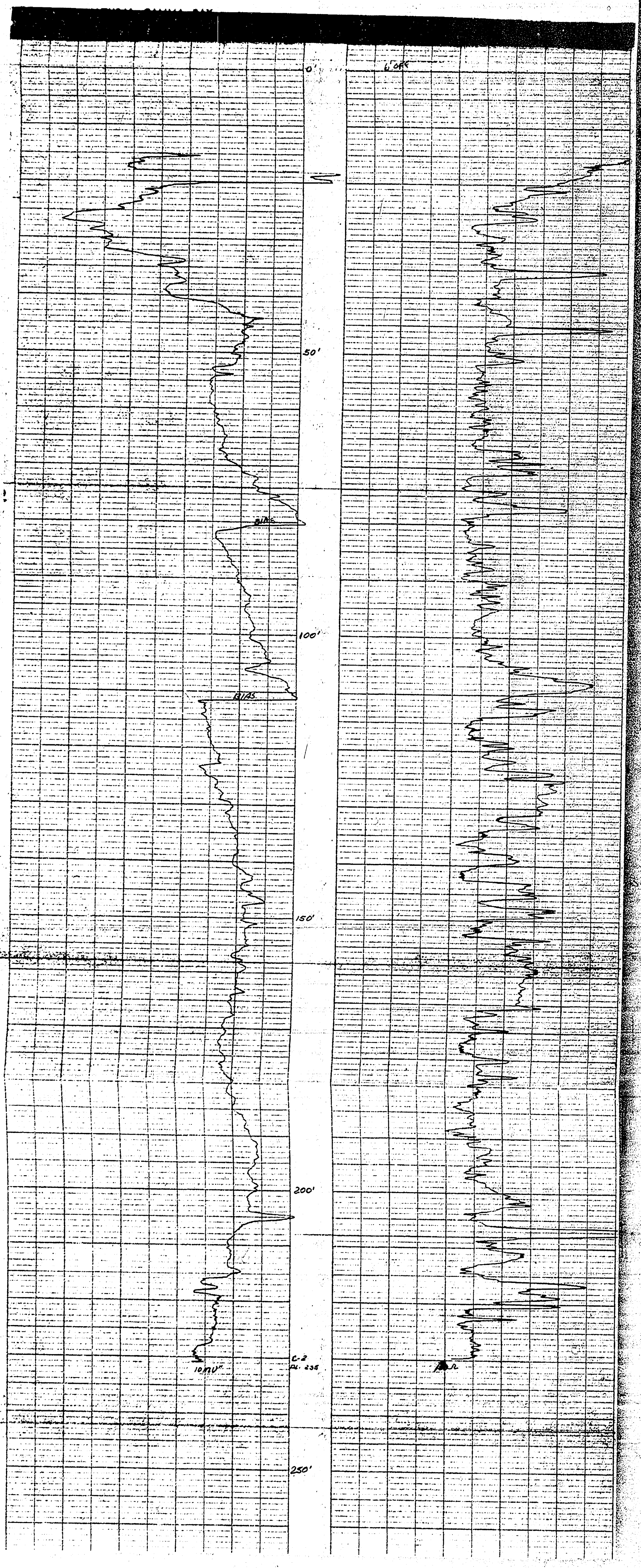
GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL

— MV +

CALIPER



LOGGING DATA

PROBE SIZE: 1-3/8" CALIBRATION: 300
DATE: 3-12-58 FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	C-3						
HOLE DIA.	4½ IN						
DRILLED DEPTH	300 FT						
LOGGED DEPTH	280 FT						
GAMMA SCALE	— CPS						
TIME CONSTANT	— SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT SCALE	10 MV/IN			SELF POT T.D.			
BORE HOLE MEDIUM	Water	WITH					
MUD READINGS	RESISTIVITY			TYPE BASE			
	VISCOSITY			SALINITY			
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE		PAPER SCALE			
TIME IN		CASED TO				I.D.	IN
TIME OUT		CORE INT.				DIAM	IN

LOCATION	TIME
SEC. 20 TWP. 20 RGE. 9W	OFFICE:
COUNTY: McKinley	DRIVE:
STATE N. M.	STANDBY:
AREA:	FIELD:
CLIENT: CHACO OIL	TOTAL:
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR: Griffin
H S Birdseye	PARTY NO:

COPY

GEOPHYSICAL CORP.

TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL
BORE HOLE NO. C-3
FIELD Red Mountain
COUNTY McKinley, N.M.
LOCATION: SEC. 20 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.
DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO
LOCATION OF HOLE
ELEVATION KB GL 6428
BKGRD. COUNT
SLUSH PIT CT.
REMARKS:

MINERALIZATION OR DIRECTIONAL DRIFT METER

COUNTS PER SEC.	BED THICKNESS	K KD	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag Brng	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR

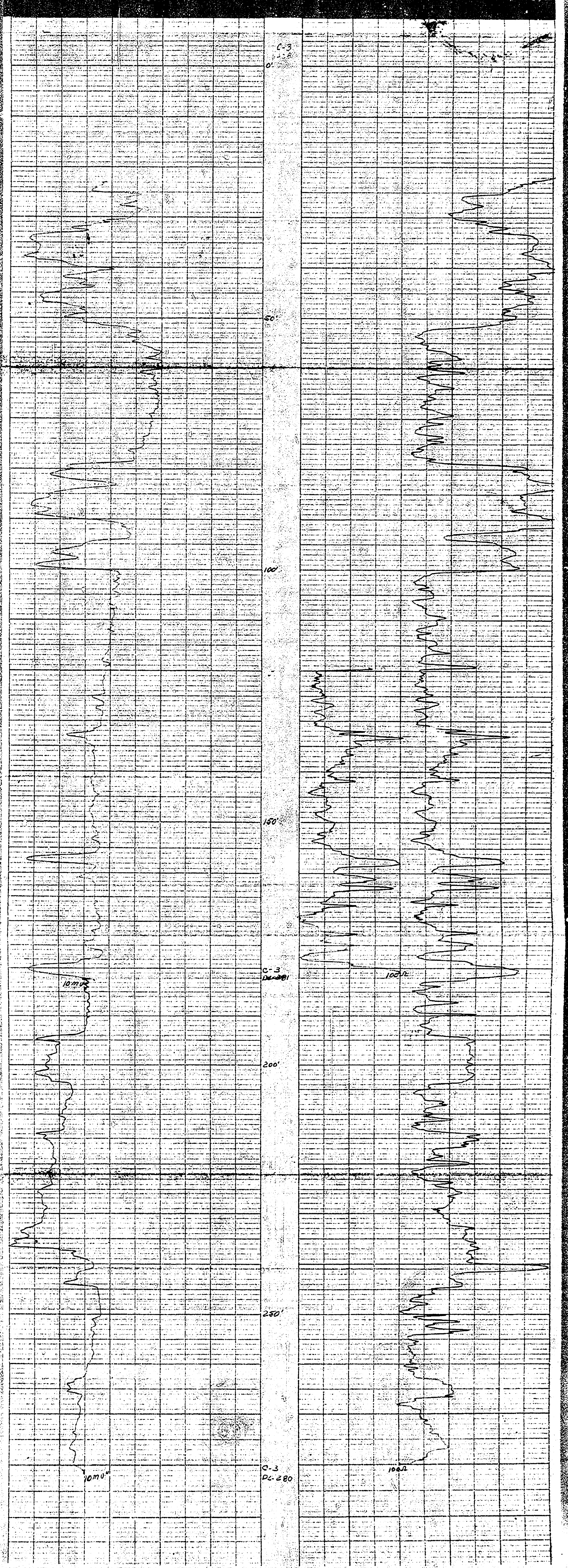
INTERPRETATION BY:

GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL

CALIPER



LOGGING DATA

PROBE SIZE: 1-3/8" CALIBRATION: 300
DATE: 3-12-58 FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	C-3						
HOLE DIA.	4½ IN						
DRILLED DEPTH	300 FT						
LOGGED DEPTH	281 FT						
GAMMA SCALE	25 CPS						
TIME CONSTANT	8 SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT SCALE	— MV/IN	No SP		SELF POT T.D.			
BORE HOLE MEDIUM	Water	WITH					
MUD READINGS	RESISTIVITY			TYPE BASE			
	VISCOSITY			SALINITY			
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE		PAPER SCALE			
TIME IN	1800	CASED TO				I.D.	IN
TIME OUT		CORE INT.				DIAM	IN

LOCATION	TIME
SEC. 20 TWP 20 RGE. 9W	OFFICE: 2.0
COUNTY: McKinley	DRIVE: 5.0
STATE N.M.	STANDBY:
AREA:	FIELD: 0.5
CLIENT: CHACO OIL	TOTAL:
Dr. Contractor	BREAKDOWN: 2.0
Log Received and Approved By	OPERATOR: Griffin
H S Birdseye	PARTY NO: U-5

COPY

GEOPHYSICAL CORP.

TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL
BORE HOLE NO. C-3
FIELD Red Mountain
COUNTY McKinley, N.M.
LOCATION: SEC. 20 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.
DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO
LOCATION OF HOLE
ELEVATION KB GL
BKGRD. COUNT
SLUSH PIT CT.
REMARKS:

MINERALIZATION OR DIRECTIONAL DRIFT METER

COUNTS PER SEC.	BED THICKNESS	K KD	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag Brng	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR

INTERPRETATION BY:

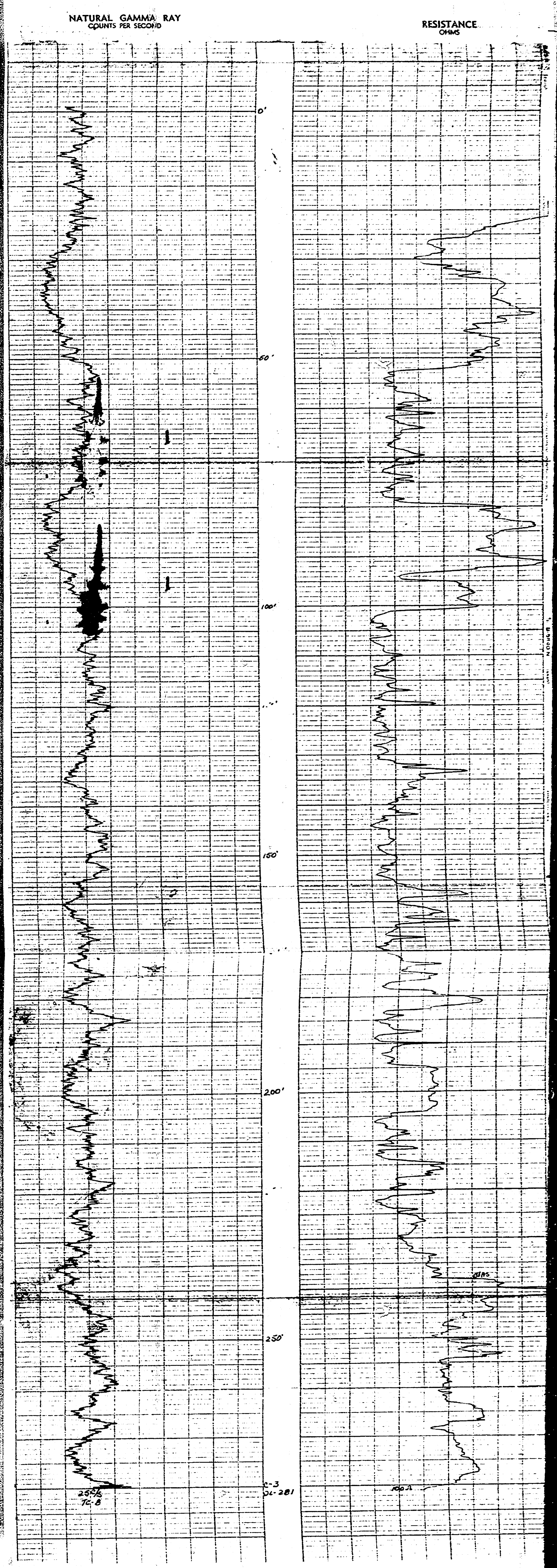
GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL

— MV +

CALIPER



LOGGING DATA

PROBE SIZE: 2"
CALIBRATION: 300
DATE: 3-13-58
FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	A-2						
HOLE DIA.	4½ IN						
DRILLED DEPTH	200 FT						
LOGGED DEPTH	122 FT	132					
GAMMA SCALE	— CPS						
TIME CONSTANT	— SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT SCALE	10 MV/IN			SELF POT T.D.			
BORE HOLE MEDIUM	water	WITH		TYPE BASE			
MUD READINGS	RESISTIVITY			SALINITY			
	VISCOSITY		LBS/GAL				
	WEIGHT						
CALIPER SCALE	INCH	LEG SIZE		PAPER SCALE			
TIME IN	1300	CASED TO			I.D.	IN	
TIME OUT	1330	CORE INT.			DIAM	IN	

LOCATION	TIME
SEC. 29 TWP. 20 RGE. 9	OFFICE:
COUNTY: McKinley	DRIVE:
STATE N. M.	STANDBY:
AREA:	FIELD:
CLIENT: CHACO OIL	TOTAL:
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR:
H S Birdseye	Griffin
	PARTY NO: U-5

GEOPHYSICAL CORP.
TULSA, OKLA., U.S.A.
EXPLORATION LOG

COMPANY: CHACO OIL
BORE HOLE NO. A-2
FIELD Red Mountain
COUNTY McKinley
LOCATION: SEC. 29 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.

DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO

LOCATION OF HOLE
ELEVATION KB
GL 6406
BKGRD. COUNT SLUSH PIT CT.

REMARKS: No Gamma Log

MINERALIZATION OR
DIRECTIONAL DRIFT METER

COUNTS PER SEC. Reading	BED THICKNESS Depth	K KD Drift	CORR. CPS. Mag Brng	% U3O8 True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR.

INTERPRETATION BY:

GEOLOGIC TOPS

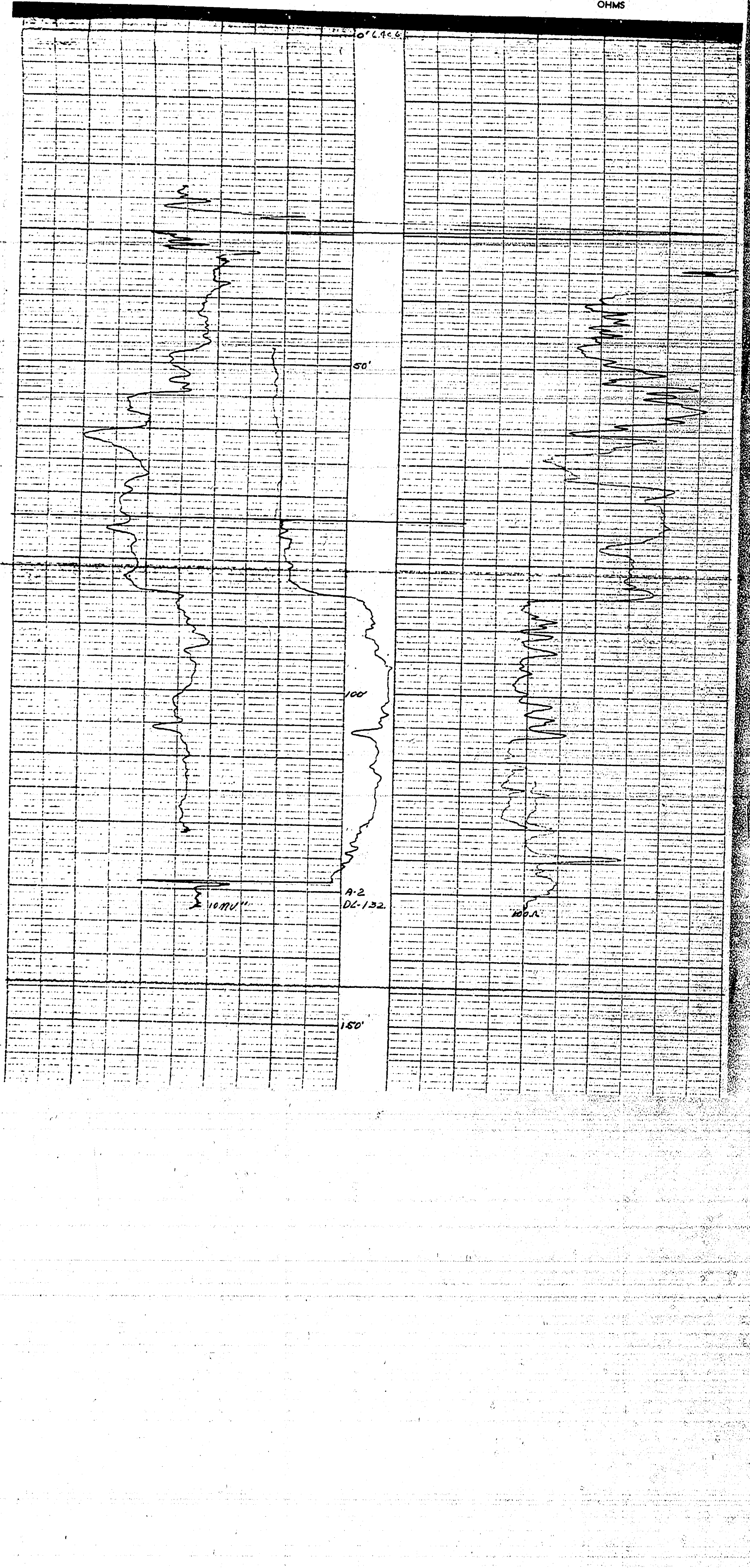
FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL
— |◄ 10 MV ►| +

CALIPER

NATURAL GAMMA RAY
COUNTS PER SECOND

RESISTANCE
OHMS



LOGGING DATA

COPY

PROBE SIZE: 2"
CALIBRATION: 300
DATE: 3-13-58
FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	B-3						
HOLE DIA.	4½ IN						
DRILLED DEPTH	250 FT						
LOGGED DEPTH	228 FT						
GAMMA SCALE	25 CPS						
TIME CONSTANT	8 SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT. SCALE	10 MV/IN			SELF POT T.D.			
BORE HOLE MEDIUM	Water	WITH		TYPE BASE			
MUD READINGS	RESISTIVITY			SALINITY			
	VISCOSITY		LBS/GAL				
	WEIGHT						
CALIPER SCALE	INCH	LEG SIZE		PAPER SCALE			
TIME IN	0600	CASED TO			I.D.	IN	
TIME OUT	0630	CORE INT.			DIAM	IN	

LOCATION	TIME
SEC. 20 TWP. 20 RGE. 9W	OFFICE:
COUNTY: McKinley	DRIVE:
STATE N. M.	STANDBY:
AREA:	FIELD: 0.5
CLIENT: CHACO OIL	TOTAL: 0.5
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR:
H S Birdseye	Griffin
	PARTY NO: U-5

GEOPHYSICAL CORP.
TULSA, OKLA., U.S.A.
EXPLORATION LOG

COMPANY: CHACO OIL
BORE HOLE NO. B-3
FIELD Red Mountain
COUNTY McKinley, N. M.
LOCATION: SEC. 20 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.

DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO

LOCATION OF HOLE
ELEVATION KB
GL 6416
BKGRD. COUNT SLUSH PIT CT.

REMARKS:

MINERALIZATION OR
DIRECTIONAL DRIFT METER

COUNTS PER SEC. Reading	BED THICKNESS Depth	K KD Drift	CORR. CPS. Mag Brng	% U3O8 True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR.

INTERPRETATION BY:

GEOLOGIC TOPS

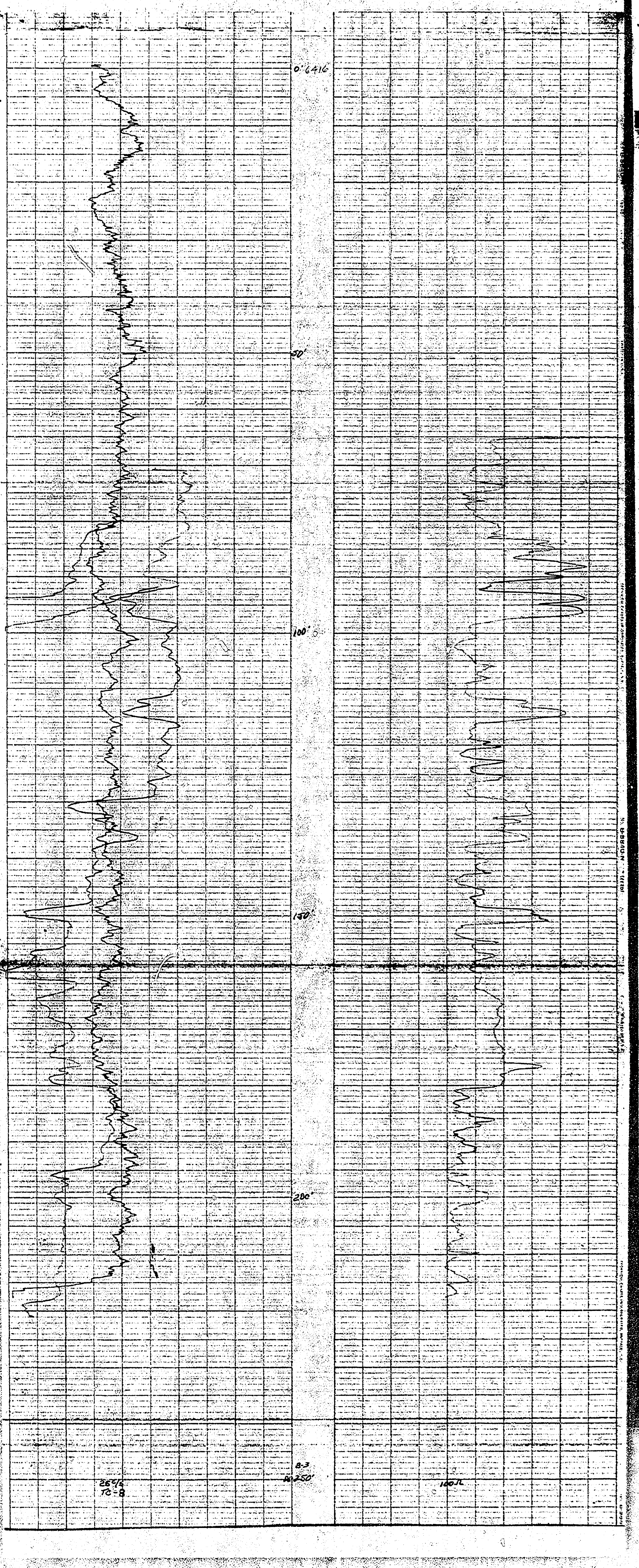
FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL
— |◄ 10 MV ►| +

CALIPER

NATURAL GAMMA RAY
COUNTS PER SECOND

RESISTANCE
OHMS



LOGGING DATA

PROBE SIZE: 1-3/8"
CALIBRATION: 300
DATE: 3-13-58
FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	C-1						
HOLE DIA.	4½ IN						
DRILLED DEPTH	250 FT						
LOGGED DEPTH	185 FT						
GAMMA SCALE	— CPS						
TIME CONSTANT	— SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT SCALE	10 MV/IN			SELF POT T.D.			
BORE HOLE MEDIUM	water	WITH		TYPE BASE			
MUD READINGS	RESISTIVITY			SALINITY			
	VISCOSITY		LBS/GAL				
	WEIGHT						
CALIPER SCALE	INCH	LEG SIZE		PAPER SCALE			
TIME IN	0200	CASED TO			I.D.	IN	
TIME OUT	0230	CORE INT.			DIAM	IN	

LOCATION	TIME
SEC. 20 TWP. 20 RGE. 9W	OFFICE:
COUNTY: McKinley	DRIVE:
STATE N. M.	STANDBY:
AREA:	FIELD: 0.5
CLIENT: CHACO OIL	TOTAL: 0.5
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR:
H S Birdseye	Griffin
	PARTY NO: U-5

GEOPHYSICAL CORP.
TULSA, OKLA., U.S.A.
EXPLORATION LOG

COMPANY: CHACO OIL CO.
BORE HOLE NO. C-1
FIELD Red Mountain
COUNTY McKinley, N. M.
LOCATION: SEC. 20 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.

DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO

LOCATION OF HOLE
ELEVATION KB
GL 6363
BKGRD. COUNT SLUSH PIT CT.

REMARKS:

MINERALIZATION OR
DIRECTIONAL DRIFT METER

COUNTS PER SEC. Reading	BED THICKNESS Depth	K KD Drift	CORR. CPS. Mag Brng	% U3O8 True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR.

INTERPRETATION BY:

GEOLOGIC TOPS

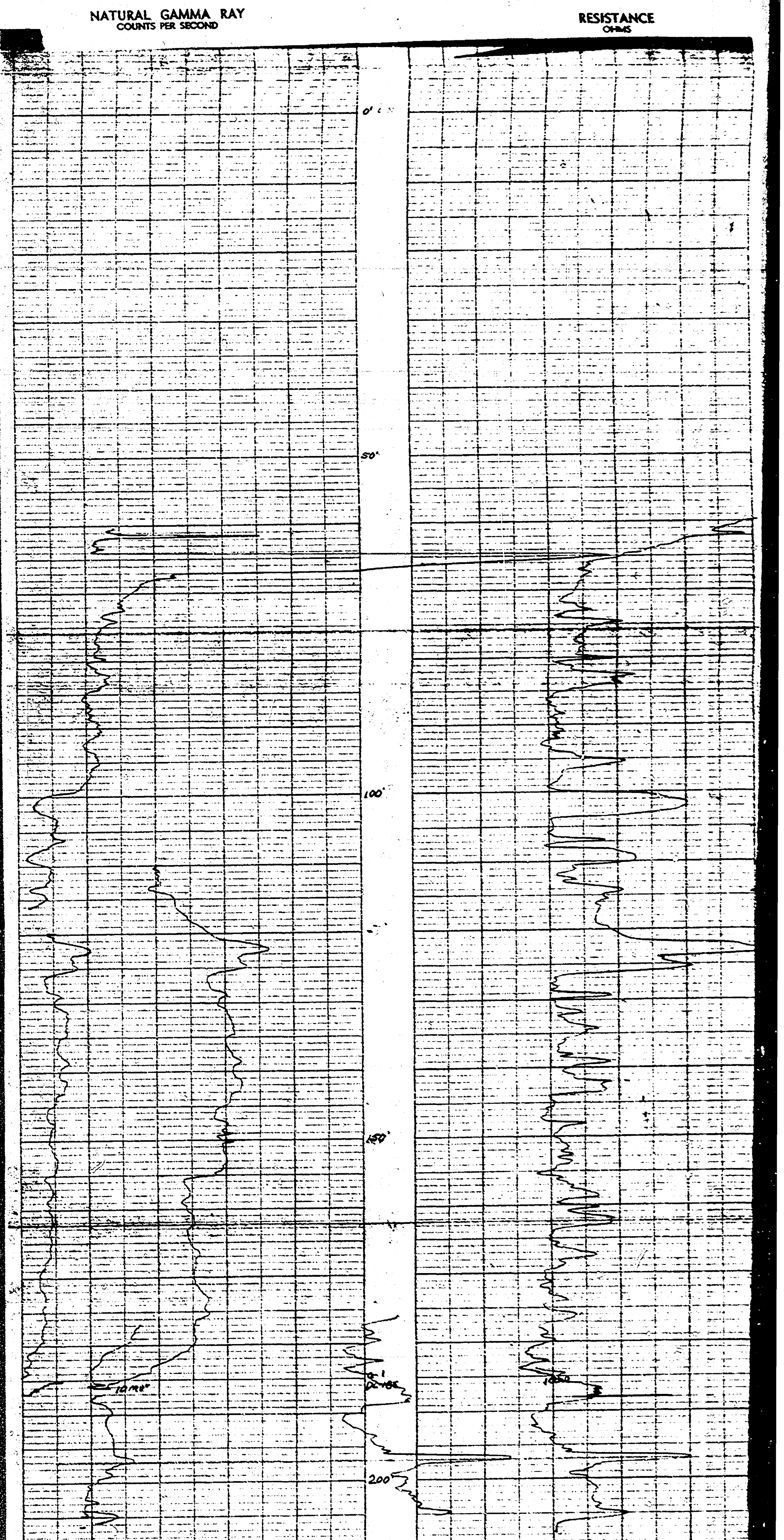
FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL
— |◄ MV ►| +

CALIPER

NATURAL GAMMA RAY
COUNTS PER SECOND

RESISTANCE
OHMS



LOGGING DATA

PROBE SIZE: 1-3/8"
CALIBRATION: 300
DATE: 10-2-57
FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	20-16						
HOLE DIA.	4½ IN						
DRILLED DEPTH	? FT						
LOGGED DEPTH	100 FT						
GAMMA SCALE	25 CPS						
TIME CONSTANT	8 SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	--						
SELF POT SCALE	-- MV/IN		SELF POT T.D.				
BORE HOLE MEDIUM	dry	WITH					
MUD READINGS	RESISTIVITY		TYPE BASE				
	VISCOSITY		SALINITY				
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE	PAPER SCALE				
TIME IN	1645	CASED TO		I.D.	IN		
TIME OUT	1700	CORE INT.		DIAM	IN		

LOCATION
SEC. TWP. RGE.
COUNTY: McKinley
STATE New Mex.
AREA:
CLIENT: CHACO OIL
Dr. Contractor
Log Received and Approved By
H S Birdseye

TIME
OFFICE:
DRIVE: 0.1
STANDBY: 1.5
FIELD: 0.3
TOTAL: 1.9
BREAKDOWN:
OPERATOR:
Mash & Meek
PARTY NO: U-1

Century
GEOPHYSICAL CORP.
TULSA, OKLA., U.S.A.
EXPLORATION LOG

COMPANY: CHACO OIL
BORE HOLE NO. 20-16
FIELD Red Mountain
COUNTY McKinley, N. M.
LOCATION: SEC. 20 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.
DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO
LOCATION OF HOLE
ELEVATION
KB
GL 6414
BKGRD. COUNT
SLUSH PIT CT.
REMARKS:

MINERALIZATION OR
DIRECTIONAL DRIFT METER

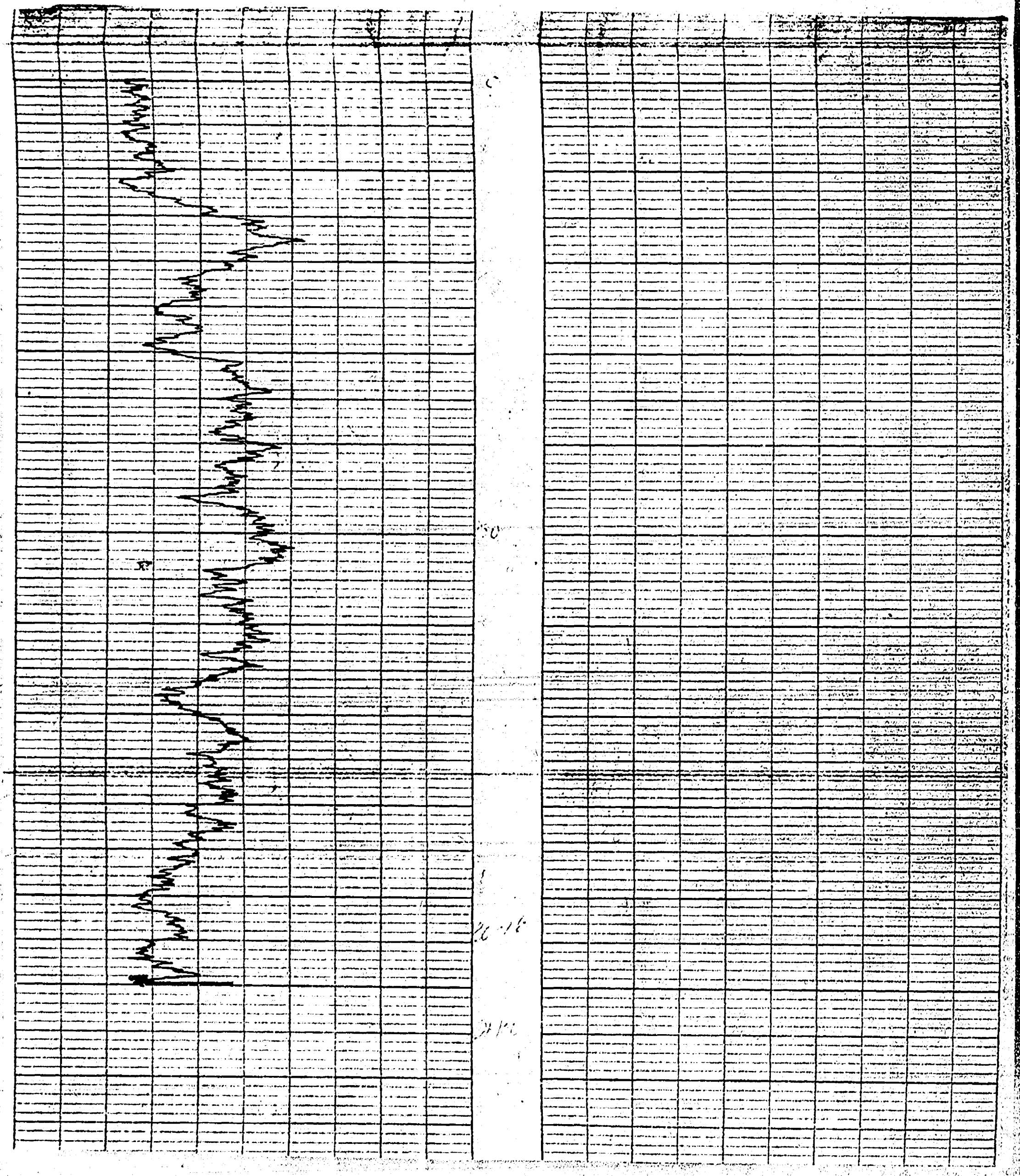
COUNTS PER SEC.	BED THICKNESS	K KO	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag Brng	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR
INTERPRETATION BY:

GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL
– |◄ -- MV ►| +
CALIPER
NATURAL GAMMA RAY
COUNTS PER SECOND
RESISTANCE
OHMS



LOGGING DATA

PROBE SIZE: 2"
CALIBRATION: 300
DATE: 3-13-58
FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	A-1						
HOLE DIA.	4½ IN						
DRILLED DEPTH	200 FT						
LOGGED DEPTH	209 FT						
GAMMA SCALE	25 CPS						
TIME CONSTANT	8 SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT SCALE	10 MV/IN		SELF POT T.D.				
BORE HOLE MEDIUM	water	WITH					
MUD READINGS	RESISTIVITY		TYPE BASE				
	VISCOSITY		SALINITY				
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE	PAPER SCALE				
TIME IN	1030	CASED TO		I.D.	IN		
TIME OUT	1100	CORE INT.		DIAM	IN		

LOCATION
SEC. 29 TWP. 20 RGE. 9
COUNTY: McKinley
STATE N. M.
AREA:
CLIENT: CHACO OIL
Dr. Contractor
Log Received and Approved By
H S Birdseye

TIME
OFFICE:
DRIVE:
STANDBY: 3.5
FIELD: 0.5
TOTAL: 4.0
BREAKDOWN:
OPERATOR:
Griffin
PARTY NO: U-5

Century
GEOPHYSICAL CORP.
TULSA, OKLA., U.S.A.
EXPLORATION LOG

COMPANY: CHACO OIL CO.
BORE HOLE NO. A-1
FIELD Red Mountain
COUNTY McKinley, N.M.
LOCATION: SEC. 29 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.
DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO
LOCATION OF HOLE
ELEVATION
KB
GL 6431
BKGRD. COUNT
SLUSH PIT CT.
REMARKS:

MINERALIZATION OR
DIRECTIONAL DRIFT METER

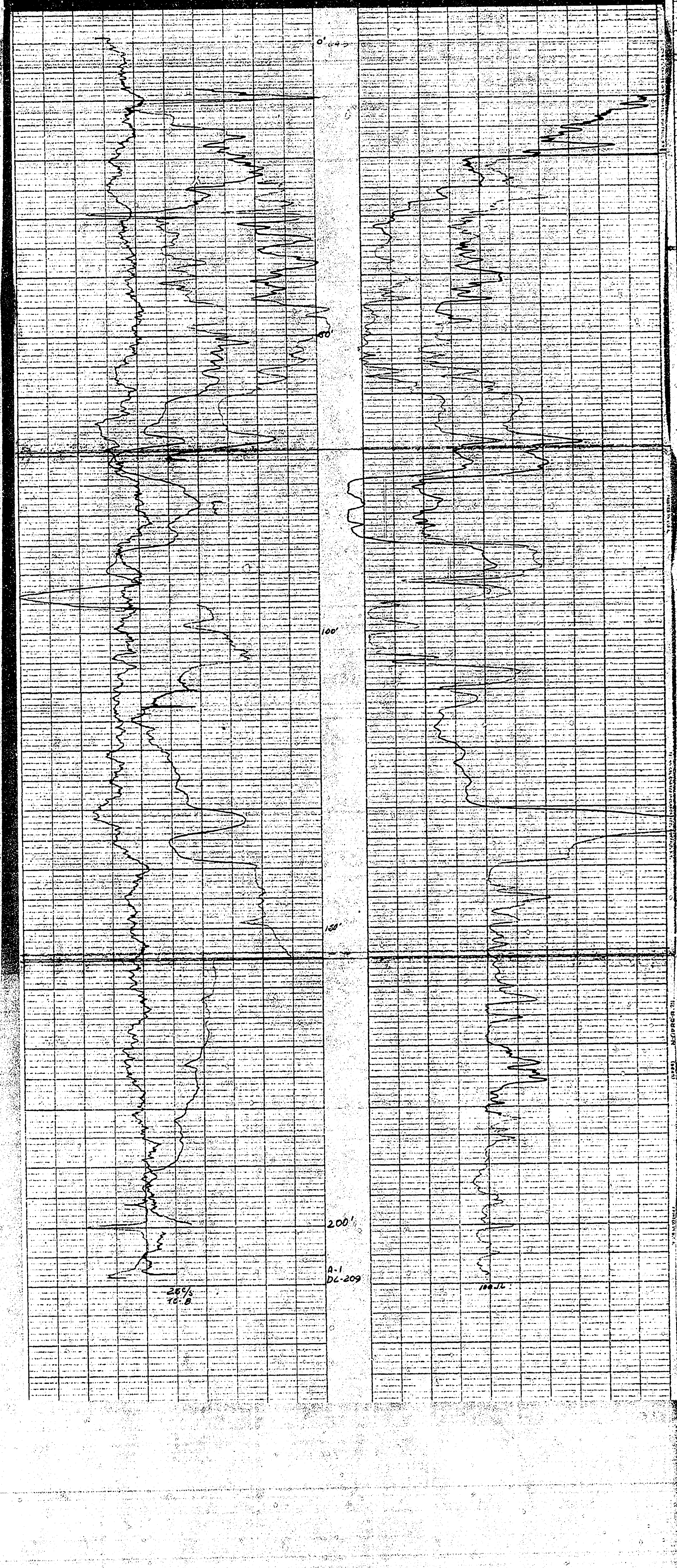
COUNTS PER SEC.	BED THICKNESS	K KO	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag Brng	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR
INTERPRETATION BY:

GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL
CALIPER



LOGGING DATA

PROBE SIZE: 2"
CALIBRATION: 300
DATE: 3-13-58
FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	A-0						
HOLE DIA.	4½ IN						
DRILLED DEPTH	250 FT						
LOGGED DEPTH	258 FT						
GAMMA SCALE	– CPS						
TIME CONSTANT	– SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT SCALE	10 MV/IN		SELF POT T.D.				
BORE HOLE MEDIUM	water	WITH					
MUD READINGS	RESISTIVITY		TYPE BASE				
	VISCOSITY		SALINITY				
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE	PAPER SCALE				
TIME IN	1700	CASED TO		I.D.	IN		
TIME OUT	1730	CORE INT.		DIAM	IN		

LOCATION
SEC. TWP. RGE.
COUNTY: McKinley
STATE N. M.
AREA:
CLIENT: CHACO OIL
Dr. Contractor
Log Received and Approved By
H S Birdseye

TIME
OFFICE:
DRIVE:
STANDBY: 3.5
FIELD: 0.5
TOTAL: 4.0
BREAKDOWN:
OPERATOR:
Griffin
PARTY NO: U-5

Century
GEOPHYSICAL CORP.
TULSA, OKLA., U.S.A.
EXPLORATION LOG

COMPANY: CHACO OIL
BORE HOLE NO. A-0
FIELD Red Mountain
COUNTY McKinley
LOCATION: SEC. 29 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.
DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO
LOCATION OF HOLE
ELEVATION
KB
GL 6436
BKGRD. COUNT
SLUSH PIT CT.
REMARKS: No Gamma Log

MINERALIZATION OR
DIRECTIONAL DRIFT METER

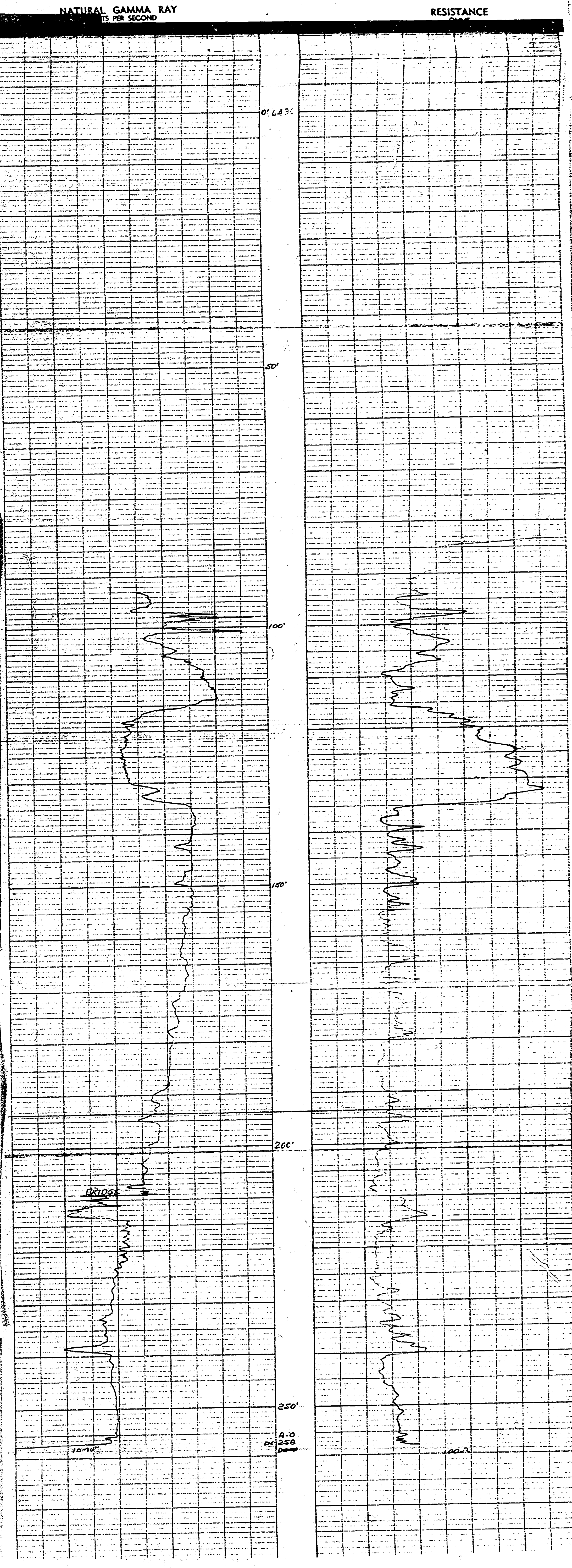
COUNTS PER SEC.	BED THICKNESS	K KO	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag Brng	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR
INTERPRETATION BY:

GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL
– |◄ 10 MV ►| +
CALIPER
NATURAL GAMMA RAY
COUNTS PER SECOND
RESISTANCE



LOGGING DATA

PROBE SIZE: 1-3/8"		CALIBRATION: 300	
DATE: 10-2-57		FIELD HDQTRS: Grants	
	INITIAL RUN	RE-RUN	
HOLE NO.	29-12		
HOLE DIA.	5-5/8" casing		
DRILLED DEPTH	? FT		
LOGGED DEPTH	460 FT		
GAMMA SCALE	25 CPS		
TIME CONSTANT	8 SEC		
PAPER SPEED	10 FT/IN		
LOGGING SPEED	10 FT/M	FT/M	
RESISTANCE SCALE	50 ohm		
SELF POT SCALE	-- MV/IN	SELF POT T.D.	
BORE HOLE MEDIUM	Oil	WITH	
MUD READINGS	RESISTIVITY	TYPE BASE	
	VISCOSITY	SALINITY	
	WEIGHT	LBS/GAL	
CALIPER SCALE	INCH	LEG SIZE	PAPER SCALE
TIME IN	1250	CASED TO	I.D. IN
TIME OUT	1325	CORE INT.	DIAM IN

LOCATION	TIME
SEC. 29 TWP. 20 RGE. 9W	OFFICE:
COUNTY: McKinley	DRIVE: 0.1
STATE N. M.	STANDBY: 0.3
AREA:	FIELD: 0.6
CLIENT: CHACO OIL	TOTAL: 1.0
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR: Mash & Meek
H S Birdseye	PARTY NO: U-1

COPY

GEOPHYSICAL CORP.

TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL CO.
BORE HOLE NO. 29-12
FIELD Red Mountain
COUNTY McKinley, N.M.
LOCATION: SEC. 29 TWP. 20N RGE. 9W

LOG. MEAS. FROM ...... FILE
DRLG. MEAS. FROM ...... NO.

DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO

LOCATION OF HOLE

ELEVATION
KB
GL 6455
BKGRD. COUNT
SLUSH PIT CT.

REMARKS: Oil in casing

MINERALIZATION OR DIRECTIONAL DRIFT METER

COUNTS PER SEC.	BED THICKNESS	K KD	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag Brng	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR

INTERPRETATION BY:

GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

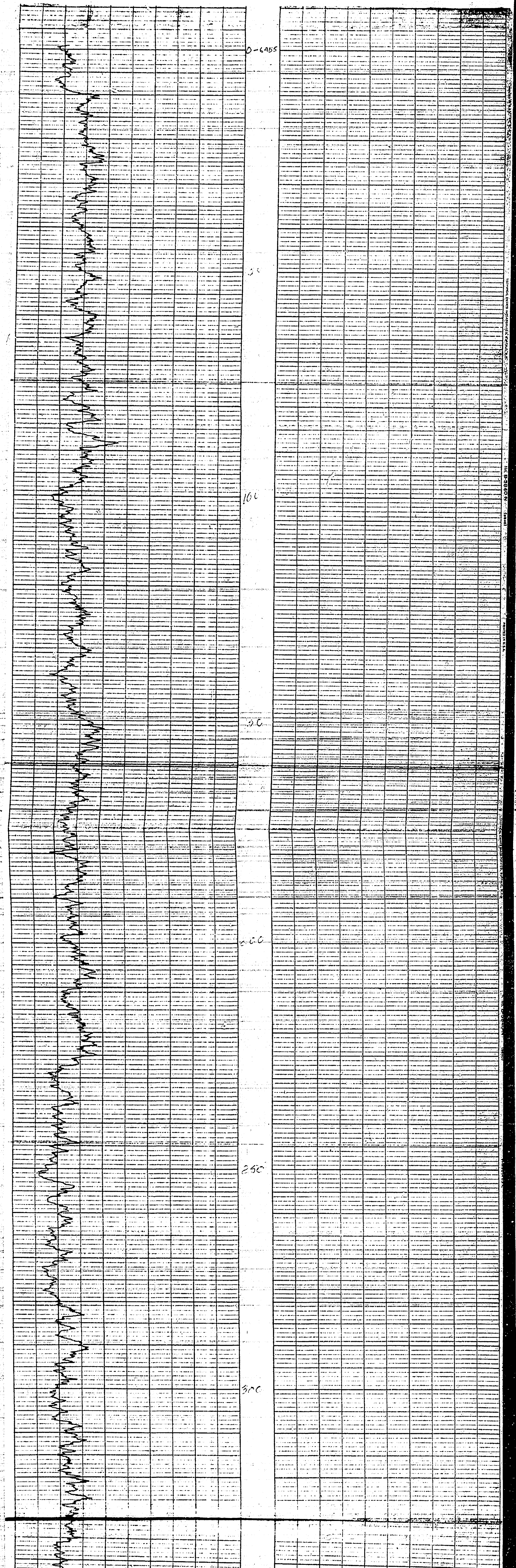
SELF POTENTIAL

– |◄ -- MV ►| +

CALIPER

NATURAL GAMMA RAY
COUNTS PER SECOND

RESISTANCE
OHMS



LOGGING DATA

PROBE SIZE: 1-3/8"		CALIBRATION: 300	
DATE: 10-2-57		FIELD HDQTRS: Grants	
	INITIAL RUN	RE-RUN	
HOLE NO.	29-15		
HOLE DIA.	7-7/8" to 390', 4" to 471		
DRILLED DEPTH	538 FT		
LOGGED DEPTH	469 FT		
GAMMA SCALE	25 CPS		
TIME CONSTANT	8 SEC		
PAPER SPEED	10 FT/IN		
LOGGING SPEED	10 FT/M	FT/M	
RESISTANCE SCALE	100 ohm		
SELF POT SCALE	10 MV/IN	SELF POT T.D.	
BORE HOLE MEDIUM	water	WITH	
MUD READINGS	RESISTIVITY	TYPE BASE	
	VISCOSITY	SALINITY	
	WEIGHT	LBS/GAL	
CALIPER SCALE	INCH	LEG SIZE	PAPER SCALE
TIME IN	2000	CASED TO	I.D. IN
TIME OUT	2045	CORE INT.	DIAM IN

LOCATION	TIME
SEC. 29 TWP. 20 RGE. 9W	OFFICE:
COUNTY: McKinley	DRIVE: 4.0
STATE New Mexico	STANDBY: 3.0
AREA: Red Mountain	FIELD: 0.8
CLIENT: Chaco Oil	TOTAL: 7.8
Dr. Contractor	BREAKDOWN:
Log Received and Approved By:	OPERATOR: Mash & Meek
	PARTY NO: U 1

COPY

GEOPHYSICAL CORP.

TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL COMPANY
BORE HOLE NO. 29-15
FIELD Red Mountain
COUNTY McKinley, New Mexico
LOCATION: SEC. 29 TWP. 20 N RGE. 9W

LOG. MEAS. FROM ...... FILE
DRLG. MEAS. FROM ...... NO.

DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO

LOCATION OF HOLE

ELEVATION
KB
GL 6417
BKGRD. COUNT
SLUSH PIT CT.

REMARKS:

MINERALIZATION OR DIRECTIONAL DRIFT METER

COUNTS PER SEC.	BED THICKNESS	K KD	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag Brng	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR

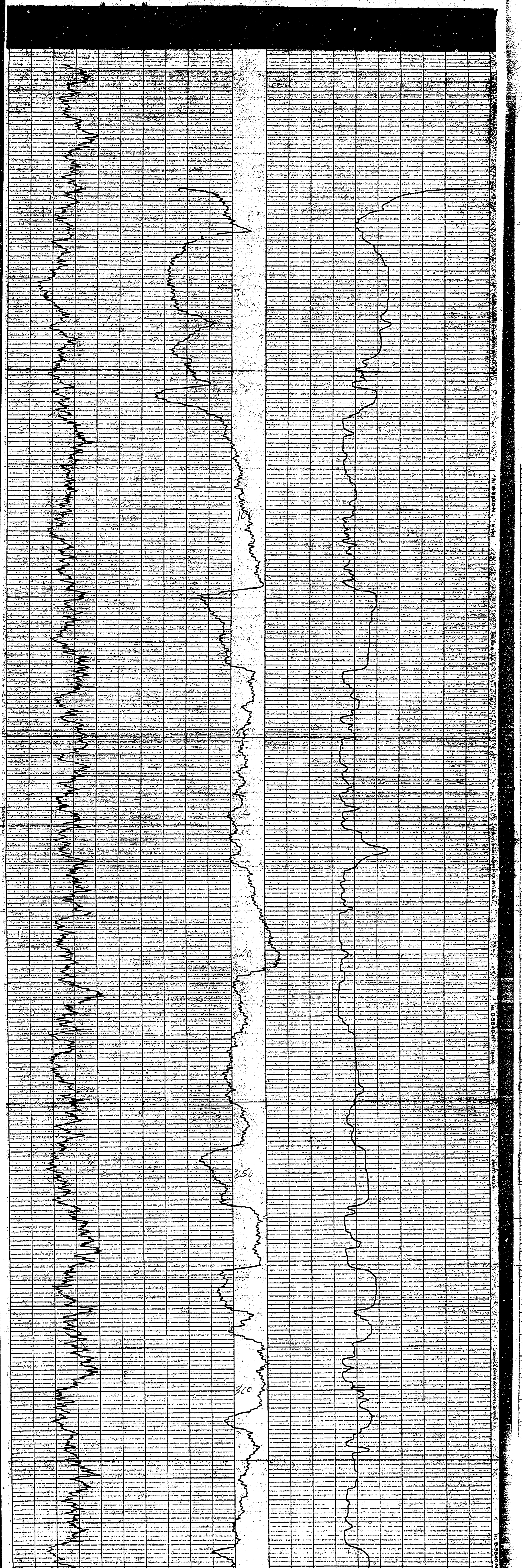
INTERPRETATION BY:

GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL

CALIPER



LOGGING DATA

PROBE SIZE: 1-3/8"		CALIBRATION: 300	
DATE: 3-13-58		FIELD HDQTRS: Grants	
	INITIAL RUN	RE-RUN	
HOLE NO.	B-1		
HOLE DIA.	4½ IN		
DRILLED DEPTH	200 FT		
LOGGED DEPTH	150 FT		
GAMMA SCALE	-- CPS		
TIME CONSTANT	-- SEC		
PAPER SPEED	10 FT/IN		
LOGGING SPEED	10 FT/M	FT/M	
RESISTANCE SCALE	100 ohm		
SELF POT SCALE	-- MV/IN	No SP	SELF POT T.D.
BORE HOLE MEDIUM	water	WITH	
MUD READINGS	RESISTIVITY	TYPE BASE	
	VISCOSITY	SALINITY	
	WEIGHT	LBS/GAL	
CALIPER SCALE	INCH	LEG SIZE	PAPER SCALE
TIME IN	0300	CASED TO	I.D. IN
TIME OUT	0500	CORE INT.	DIAM IN

LOCATION	TIME
SEC. 20 TWP. 20 RGE. 9W	OFFICE:
COUNTY: McKinley	DRIVE:
STATE N. M.	STANDBY: 1.5
AREA:	FIELD: 0.5
CLIENT: CHACO OIL	TOTAL: 2.0
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR: Griffin
H S Birdseye	PARTY NO: U-5

COPY

GEOPHYSICAL CORP.

TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL CO.
BORE HOLE NO. B-1
FIELD Red Mountain
COUNTY McKinley
LOCATION: SEC. 20 TWP. 20N RGE. 9W

LOG. MEAS. FROM ...... FILE
DRLG. MEAS. FROM ...... NO.

DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO

LOCATION OF HOLE

ELEVATION
KB
GL
BKGRD. COUNT
SLUSH PIT CT.

REMARKS:

MINERALIZATION OR DIRECTIONAL DRIFT METER

COUNTS PER SEC.	BED THICKNESS	K KD	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag Brng	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR

INTERPRETATION BY:

GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

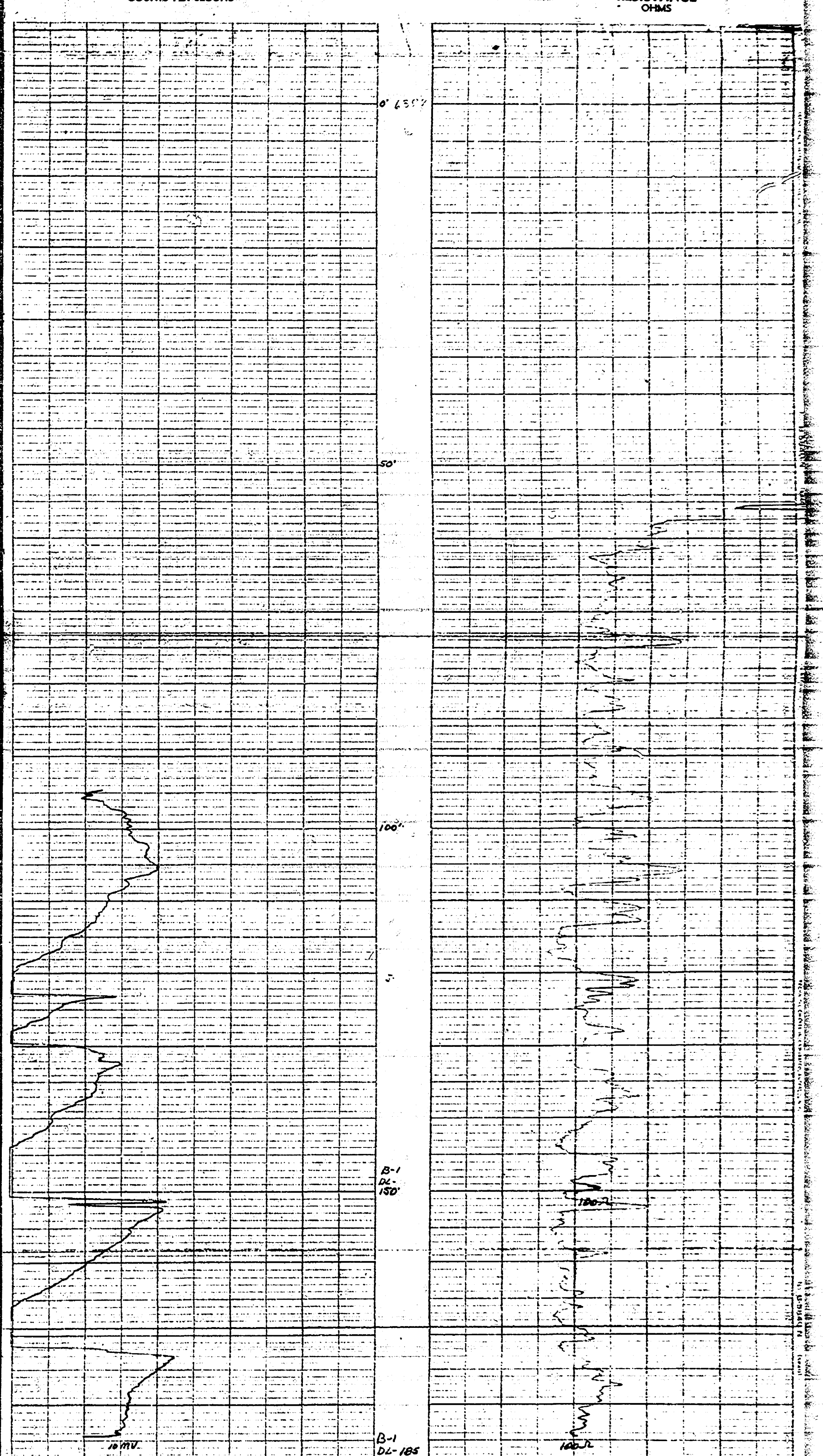
SELF POTENTIAL

– |◄ -- MV ►| +

CALIPER

NATURAL GAMMA RAY
COUNTS PER SECOND

RESISTANCE
OHMS



LOGGING DATA

PROBE SIZE: 1-3/8"				CALIBRATION: 300			
DATE: 10-2-57				FIELD HDQTRS: Grants			
	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	29-10						
HOLE DIA.	5-7/8 IN	casing					
DRILLED DEPTH	? FT						
LOGGED DEPTH	388 FT						
GAMMA SCALE	25 CPS						
TIME CONSTANT	8 SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	25 ohm						
SELF POT SCALE	-- MV/IN			SELF POT T.D.			
BORE HOLE MEDIUM	Oil	WITH					
MUD READINGS	RESISTIVITY			TYPE BASE			
	VISCOSITY			SALINITY			
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE		PAPER SCALE			
TIME IN	1140	CASED TO			I.D.	IN	
TIME OUT	1230	CORE INT.			DIAM	IN	

LOCATION	TIME
SEC 29 TWP. 20 RGE 9W	OFFICE:
COUNTY: McKinley	DRIVE: 0.1
STATE N. M.	STANDBY: -
AREA:	FIELD: 0.8
CLIENT: CHACO OIL	TOTAL: 0.9
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR: Mash & Meek
H S Birdseye	PARTY NO: U-1

COPY

Century

GEOPHYSICAL CORP.
TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL
BORE HOLE NO. 29-10
FIELD Red Mountain
COUNTY McKinley, N.M.
LOCATION: SEC. 29 TWP. 20N RGE. 9W

LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.

		LOCATION OF HOLE
DATE:		
FOOTAGE		
TOTAL DEPTH (DR)		
HOLE DIAM.		
LOGGING SPEED		
TIME CONSTANT		ELEVATION KB
MUD TYPE		GL 6404
CASED TO		BKGRD. COUNT SLUSH PIT CT.

REMARKS: Oil in Casing

MINERALIZATION OR
DIRECTIONAL DRIFT METER

COUNTS PER SEC. Reading	BED THICKNESS Depth	K KD Drift	CORR. CPS. Mag Brng	% U3O8 True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR

INTERPRETATION BY:

GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

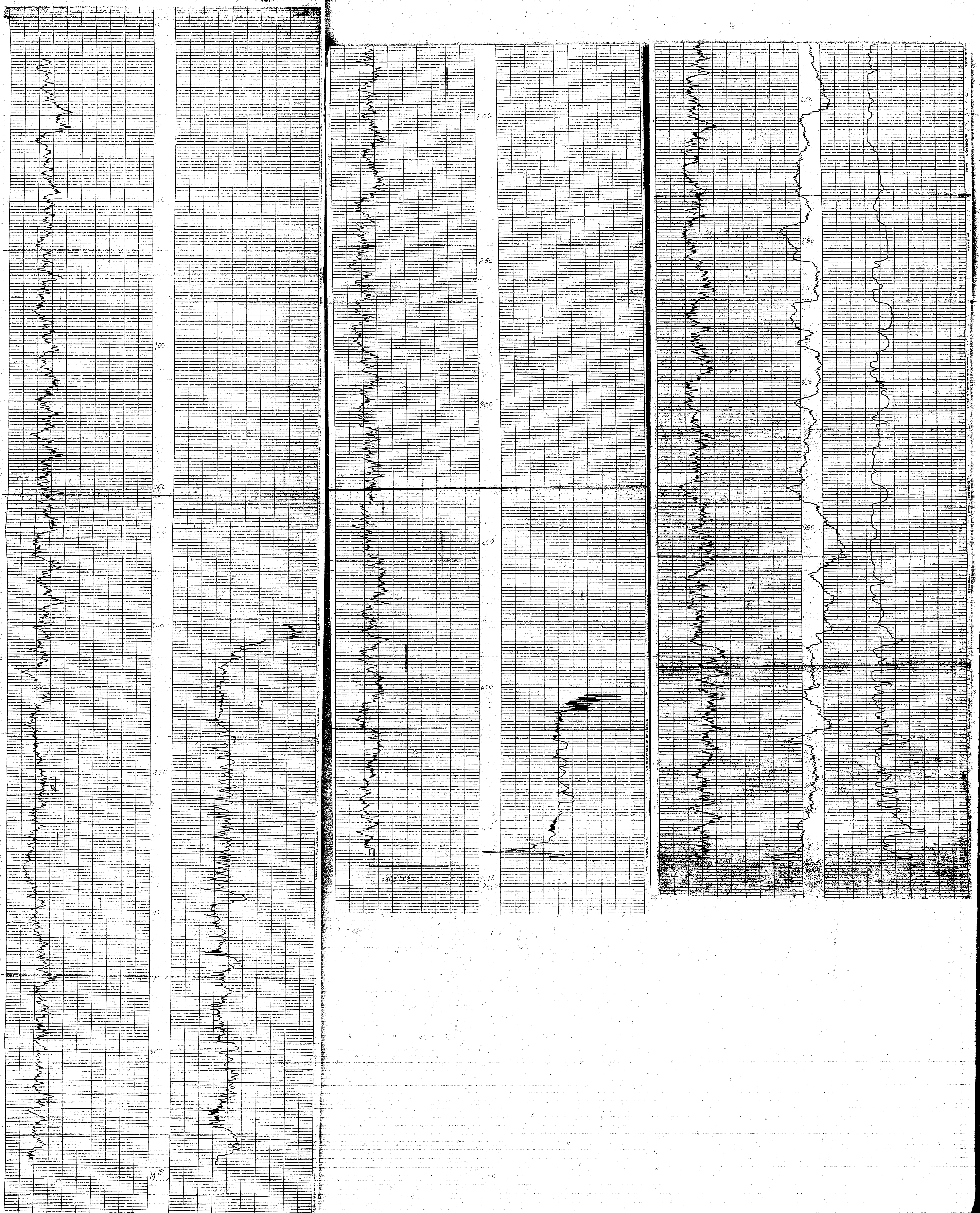
SELF POTENTIAL

— |◊ MV ◊| +

CALIPER

NATURAL GAMMA RAY
COUNTS PER SECOND

RESISTANCE
OHMS



LOGGING DATA

PROBE SIZE: 1-3/8" CALIBRATION: 300
DATE: 10-2-57 FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	20-8						
HOLE DIA.	5-7/8 IN	casing					
DRILLED DEPTH	? FT						
LOGGED DEPTH	461 FT						
GAMMA SCALE	25 CPS						
TIME CONSTANT	8 SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT SCALE	— MV/IN		SELF POT T.D.				
BORE HOLE MEDIUM	oil	WITH					
MUD READINGS	RESISTIVITY		TYPE BASE				
	VISCOSITY		SALINITY				
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE	PAPER SCALE				
TIME IN	1330	CASED TO			I.D.	IN	
TIME OUT	1410	CORE INT.			DIAM	IN	

LOCATION	TIME
SEC. 20 TWP. 20 RGE. 9W	OFFICE:
COUNTY McKinley	DRIVE: 0.1
STATE N. M.	STANDBY:
AREA:	FIELD: 0.7
CLIENT: CHACO OIL	TOTAL: 0.8
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR: Mash & Meek
H S Birdseye	PARTY NO: U-1

COPY

GEOPHYSICAL CORP.

TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL
BORE HOLE NO. 20-8
FIELD Red Mountain
COUNTY McKinley, N.M.
LOCATION: SEC. 20 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.
DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO
LOCATION OF HOLE
ELEVATION KB GL 6416
BKGRD. COUNT
SLUSH PIT CT.
REMARKS: Oil in casing

MINERALIZATION OR DIRECTIONAL DRIFT METER

COUNTS PER SEC.	BED THICKNESS	K KD	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag. Brng.	True Bearing

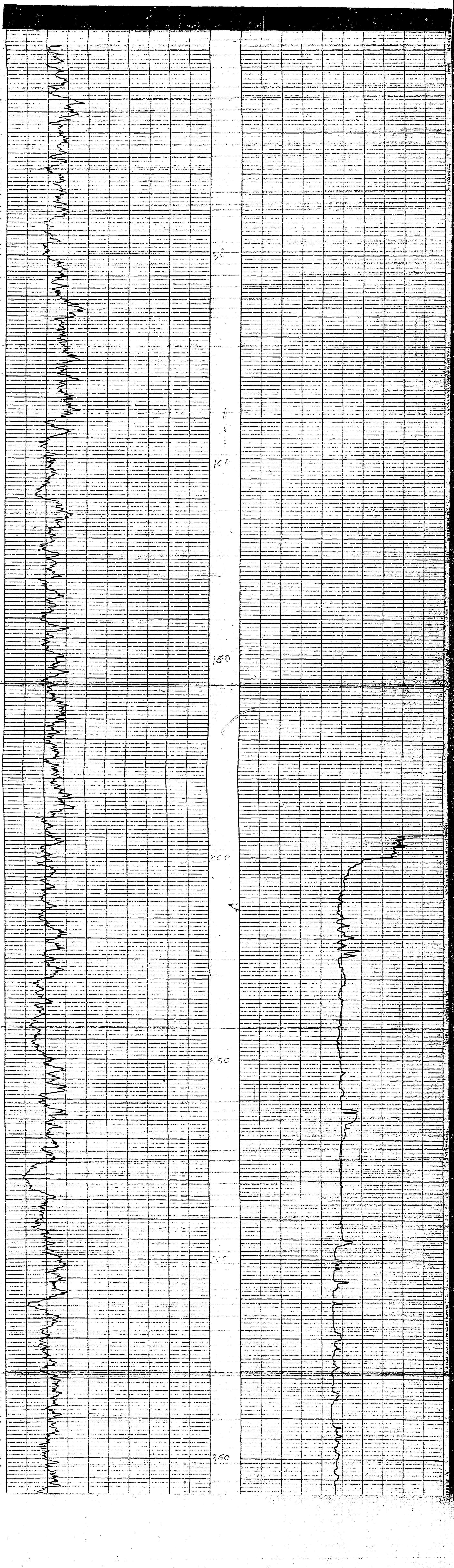
RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR.
INTERPRETATION BY:

GEOLOGIC TOPS

FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL
— |◄ -- ►| +

CALIPER



LOGGING DATA

PROBE SIZE: 1-3/8" CALIBRATION: 300
DATE: 10-2-57 FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	20-4						
HOLE DIA.	5-7/8 IN	cased					
DRILLED DEPTH	? FT						
LOGGED DEPTH	436 FT						
GAMMA SCALE	25 CPS						
TIME CONSTANT	8 SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	dry						
SELF POT SCALE	— MV/IN		SELF POT T.D.				
BORE HOLE MEDIUM	dry	WITH					
MUD READINGS	RESISTIVITY		TYPE BASE				
	VISCOSITY		SALINITY				
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE	PAPER SCALE				
TIME IN	1100	CASED TO			I.D.	IN	
TIME OUT	1135	CORE INT.			DIAM	IN	

LOCATION	TIME
SEC. TWP. RGE.	OFFICE:
COUNTY: McKinley	DRIVE: 3.0
STATE N. M.	STANDBY:
AREA:	FIELD: 0.6
CLIENT: CHACO OIL	TOTAL: 3.6
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR: Mash & Meeker
H S Birdseye	PARTY NO: U-1

GEOPHYSICAL CORP.

TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL
BORE HOLE NO. 20-4
FIELD Red Mountain
COUNTY McKinley
LOCATION: SEC. 20 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.
DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO
LOCATION OF HOLE
ELEVATION KB GL 6391
BKGRD. COUNT
SLUSH PIT CT.
REMARKS: Cased hole; no fluid

MINERALIZATION OR DIRECTIONAL DRIFT METER

COUNTS PER SEC.	BED THICKNESS	K KD	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag. Brng.	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR.
INTERPRETATION BY:

GEOLOGIC TOPS

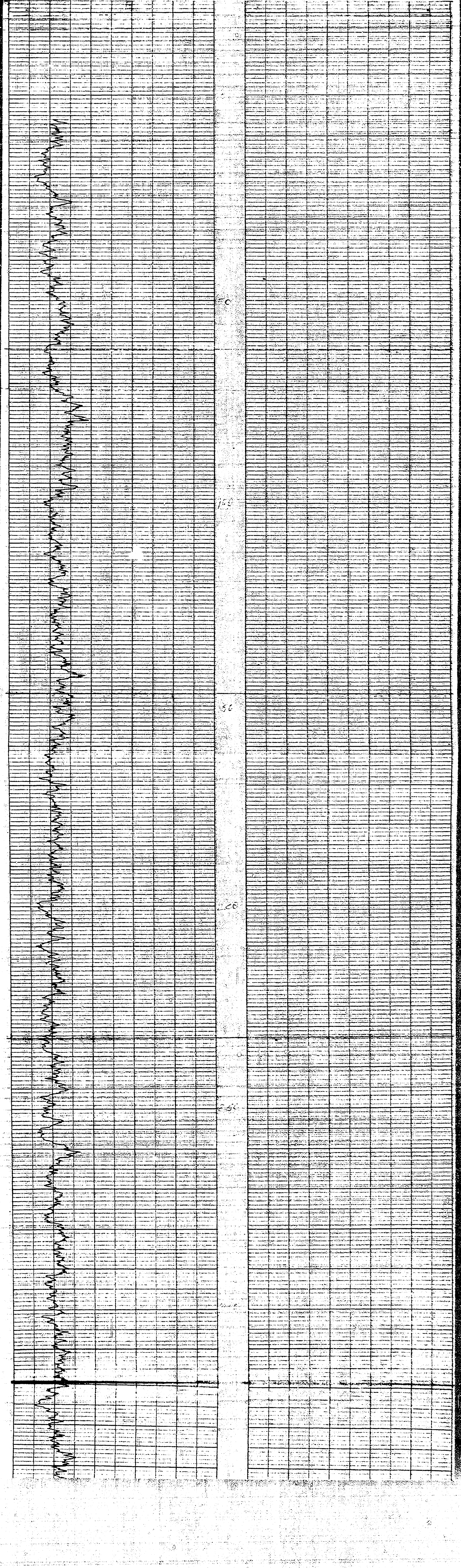
FORMATION	DEPTHS	THICKNESS

SELF POTENTIAL
— |◄ -- MV ►| +

CALIPER

NATURAL GAMMA RAY
COUNTS PER SECOND

RESISTANCE
OHMS



LOGGING DATA

PROBE SIZE: 1-3/8" CALIBRATION: 300
DATE: 10-2-57 FIELD HDQTRS: Grants

	INITIAL RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN	RE-RUN
HOLE NO.	29-9						
HOLE DIA.	5-7/8 IN	casing					
DRILLED DEPTH	? FT						
LOGGED DEPTH	442 FT						
GAMMA SCALE	25 CPS						
TIME CONSTANT	8 SEC						
PAPER SPEED	10 FT/IN						
LOGGING SPEED	10 FT/M	FT/M	FT/M	FT/M	FT/M	FT/M	FT/M
RESISTANCE SCALE	100 ohm						
SELF POT SCALE	— MV/IN		SELF POT T.D.				
BORE HOLE MEDIUM	oil	WITH					
MUD READINGS	RESISTIVITY		TYPE BASE				
	VISCOSITY		SALINITY				
	WEIGHT	LBS/GAL					
CALIPER SCALE	INCH	LEG SIZE	PAPER SCALE				
TIME IN	1415	CASED TO			I.D.	IN	
TIME OUT	1515	CORE INT.			DIAM	IN	

LOCATION	TIME
SEC. 29 TWP. 20 RGE. 9W	OFFICE:
COUNTY: McKinley	DRIVE: 0.1
STATE N. M.	STANDBY:
AREA:	FIELD: 1.0
CLIENT: CHACO OIL	TOTAL: 1.1
Dr. Contractor	BREAKDOWN:
Log Received and Approved By	OPERATOR: Mash & Meek
H S Birdseye	PARTY NO: U-1

COPY

GEOPHYSICAL CORP.

TULSA, OKLA., U.S.A.

EXPLORATION LOG

COMPANY: CHACO OIL CO.
BORE HOLE NO. 29-9
FIELD Red Mountain
COUNTY McKinley, N.M.
LOCATION: SEC. 29 TWP. 20N RGE. 9W
LOG. MEAS. FROM .... FILE
DRLG. MEAS. FROM .... NO.
DATE:
FOOTAGE
TOTAL DEPTH (DR)
HOLE DIAM.
LOGGING SPEED
TIME CONSTANT
MUD TYPE
CASED TO
LOCATION OF HOLE
ELEVATION KB GL 6421
BKGRD. COUNT
SLUSH PIT CT.
REMARKS: Oil in casing

MINERALIZATION OR DIRECTIONAL DRIFT METER

COUNTS PER SEC.	BED THICKNESS	K KD	CORR. CPS.	% U3O8
Reading	Depth	Drift	Mag. Brng.	True Bearing

RADIOMETRIC % VALUES COMPUTED WITHOUT BENEFIT OF LOCAL ORE EQUILIBRIUM FACTOR.
INTERPRETATION BY:

GEOLOGIC TOPS

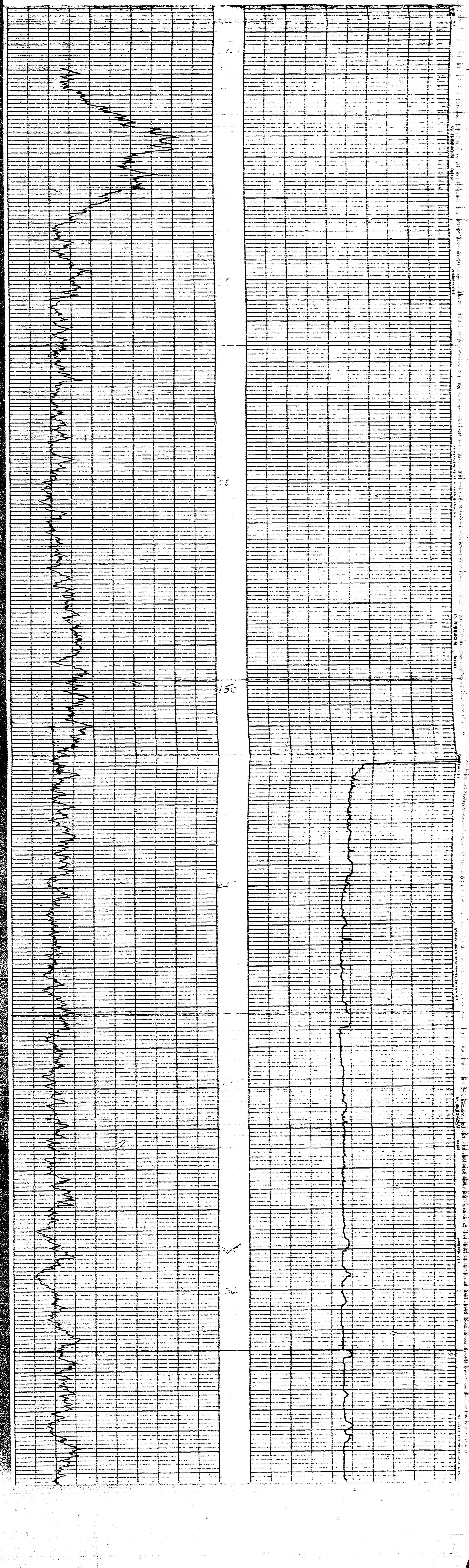
FORMATION	DEPTHS	THICKNESS

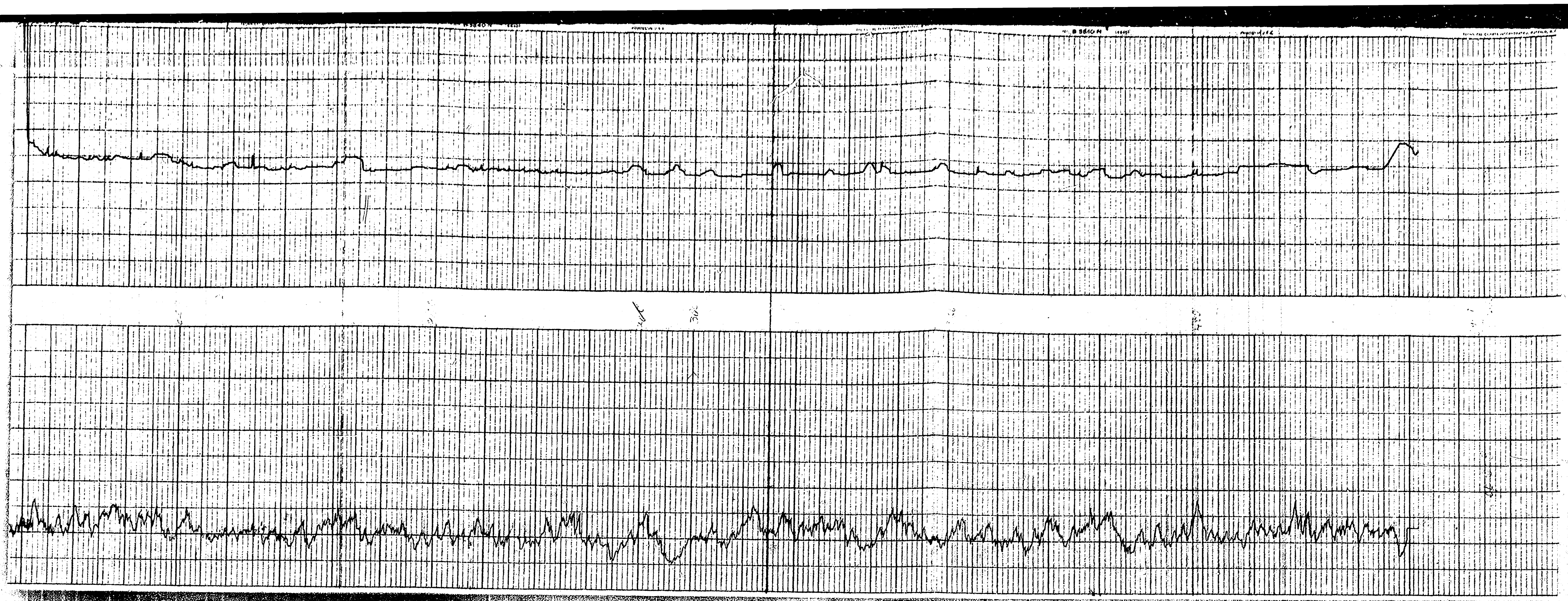
SELF POTENTIAL
— |◄ -- ►| +

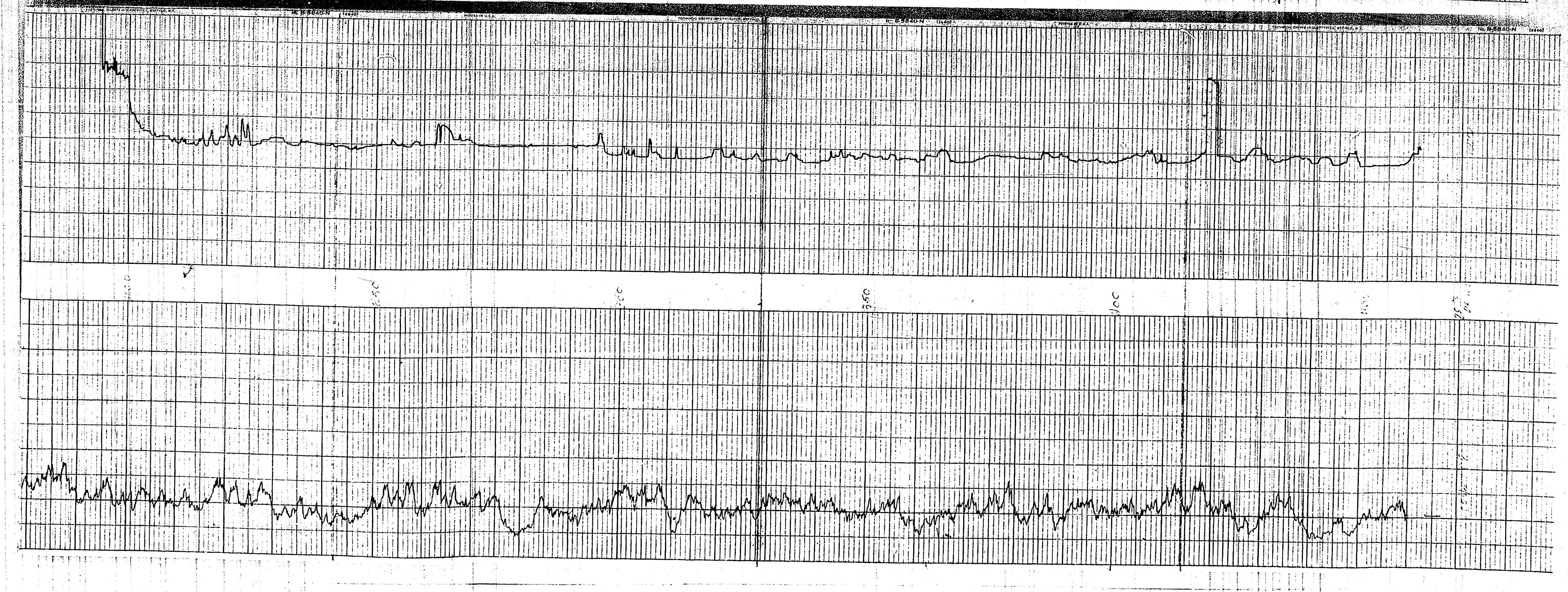
CALIPER

NATURAL GAMMA RAY
COUNTS PER SECOND

RESISTANCE
OHMS







SCHLUMBERGER WELL SURVEYING CORPORATION
HOUSTON, TEXAS

Induction-Electrical Log

COUNTY McKINELY, N.M.
FIELD or LOCATION WILDCAT
WELL 20-1 SANTA FE PACIFIC
COMPANY CHACO OIL COMPANY

COMPANY CHACO OIL COMPANY
WELL 20-1 SANTA FE PACIFIC
FIELD WILDCAT
LOCATION SEC. 20-20N-9W
COUNTY McKINLEY
STATE NEW MEXICO

Other Surveys
ML GRN

Location of Well
C-SE-SE
SEC. 20-20N-9W

Elevation: D.F.: --
K.B.: 6481'
or G.L.: 6471'

FILING No.

RUN No.	ONE				
Date	7-29-58				
First Reading	3930				
Last Reading	104				
Feet Measured	3826				
Csg. Schlum.	104				
Csg. Driller	96				
Depth Reached	3936				
Bottom Driller	3938				
Depth Datum	KB				
Mud Nat.	GEL CHEM				
Dens. | Visc.	10.5 | 60				
Mud Resist.	2.2 @ 84 °F	@ °F	@ °F	@ °F	@ °F
" Res. BHT	1.7 @ 110 °F	@ °F	@ °F	@ °F	@ °F
Rmf	1.6 @ 110 °F	@ °F	@ °F	@ °F	@ °F
Rmc	2.0 @ 110 °F	@ °F	@ °F	@ °F	@ °F
" pH	-- @ °F	@ °F	@ °F	@ °F	@ °F
" Wtr. Loss	-- CC30 min.	CC30 min.	CC30 min.	CC30 min.	CC30 min.
Bit Size	7 7/8"				
Spcgs.—AM	16"				
MN	27'2"				
IND.	40"				
Opr. Rig Time	2 HRS				
Truck No.	2515FARM				
Recorded By	JULIUS				
Witness	BIRDSEYE				

REMARKS C.D. USED S.O. = 1 1/2"

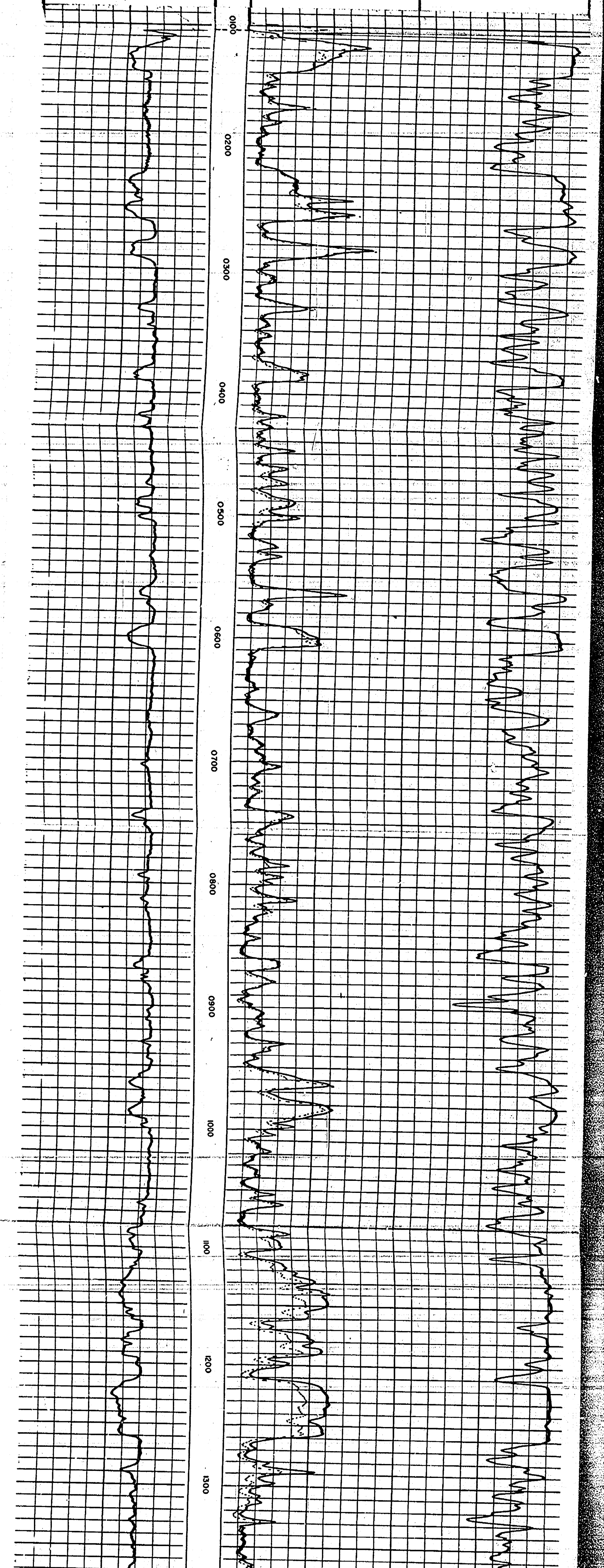
Cartridge No. IRC-C-61
Panel No. IRP-B-41
Sonde No. IRS-C-164

SPONTANEOUS-POTENTIAL millivolts
10
− ↕mV +

DEPTHS
2" = 100'
CSG. 104'

CONDUCTIVITY millimhos/m = 1000/ohms. m²/m
INDUCTION
1000 600 0

RESISTIVITY -ohms. m²/m
16" NORMAL
0 50
0 500
INDUCTION
0 50
0 500



SCHLUMBERGER WELL SURVEYING CORPORATION
HOUSTON, TEXAS

MicroLogging®

COUNTY McKINLEY, N.M.
FIELD or LOCATION WILDCAT
WELL 20-1 SANTA FE PACIFIC
COMPANY CHACO OIL COMPANY

COMPANY CHACO OIL COMPANY
WELL 20-1 SANTA FE PACIFIC
FIELD WILDCAT
LOCATION SEC. 20-20N-9W
COUNTY McKINLEY
STATE NEW MEXICO

Other Surveys
IND-ES GRN

Location of Well
C-SE-SE
SEC. 20-20N-9W

Elevation: D.F.: --
K.B.: 6481'
or G.L.: 6471'

Log Depths Measured From KB 10 Ft. above G.L.

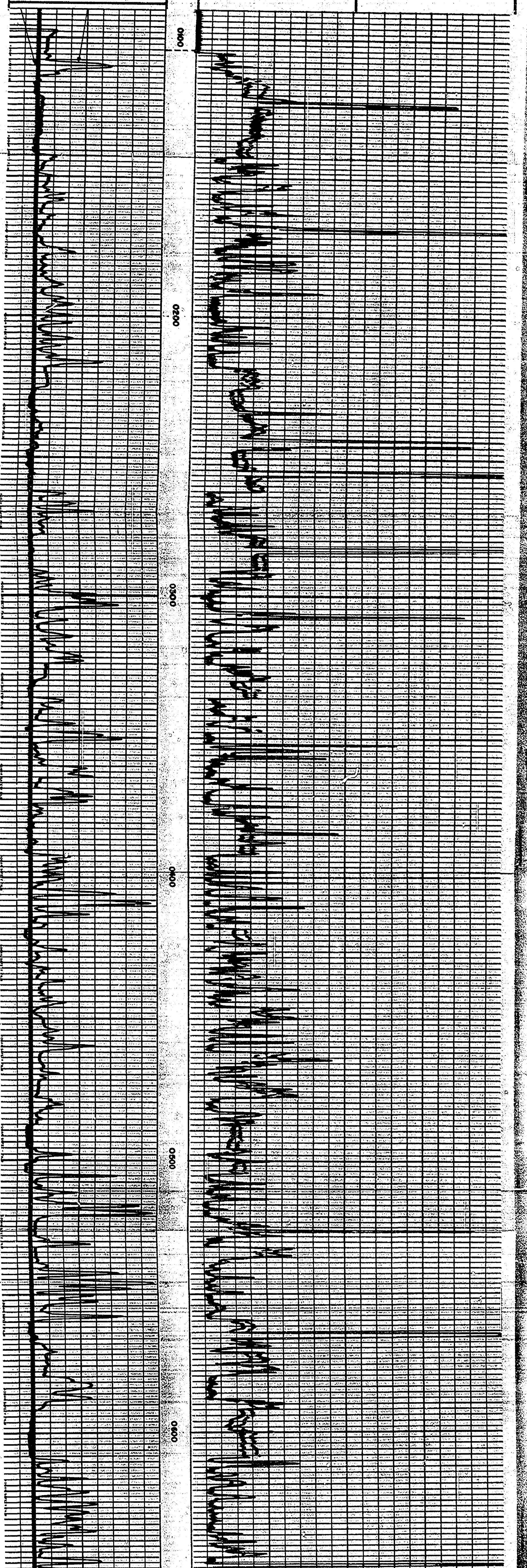
RUN No.	ONE		
Date	7-29-58		
First Reading	3925		
Last Reading	104		
Feet Measured	2931*		
Depth Reached	3936		
Bottom Driller	3938		
Mud Nat.	GEL CHEM		
Dens. | Visc.	10.5 | 60		
Mud Resist.	2.2 @ 84 °F	@ °F	@ °F
" Res. BHT	1.7 @ 110 °F	@ °F	@ °F
" pH	-- @ °F	@ °F	@ °F
" Wtr. Loss	-- CC 30 min	CC 30 min	CC 30 min
" Rmf	1.6 @ 110 °F	@ °F	@ °F
" Rmc	2.0 @ 110 °F	@ °F	@ °F
Mud Log: Rm	1.7		
Depth	3750		
Bit Size	7 7/8"		
Sonde Type	PMS-A		
Pad Type	H		
Opr. Rig Time	3 HRS		
Truck No.	2515FARM		
Recorded By	JULIUS		
Witness	BIRDSEYE		

REMARKS MUD FROM FLOW LINE
RMF = 1.95 @ 90°F.M
RMC = 2.5 @ 90°F.M
*104 to 1900 = 1796'
2300 to 3050 = 750'
3550 to 3935 = 385
TOTAL 2931'

MICROCALIPER
6 7 8 9 10 11 12 13 14 15 16
Hole Diameter in Inches
BIT SIZE CALIPER

DEPTHS
5" = 100'
L.R. 104'

RESISTIVITY ohms. m²/m
0 Micro Inverse 1" x 1" 20 40
0 Micro Normal 2" 20 40



BJ SERVICE, INC.
A SUBSIDIARY OF BORG-WARNER CORP.

Simultaneous Nuclear Log

BJ Service

LOG NO.		COMPANY	CHACO OIL COMPANY
STATION		WELL	20-9 SANTA FE
TRUCK NO.		FIELD	RED MOUNTAIN
		COUNTY STATE	McKINLEY NEW MEXICO
		LOCATION	SEC. 20-20N-9W S.W./S.E.

LOG MEAS. FROM GROUND LEVEL ELEV.
DRLG. MEAS. FROM GROUND LEVEL ELEV.
PERMANENT DATUM GROUND LEVEL ELEV.

CASING RECORD			BORE HOLE RECORD		
SIZE "-WT.#	FROM	TO	BIT SIZE-"	FROM	TO
5½" 14#	SURF.	452'			

COMPANY
WELL
FIELD
COUNTY
STATE

REMARKS:

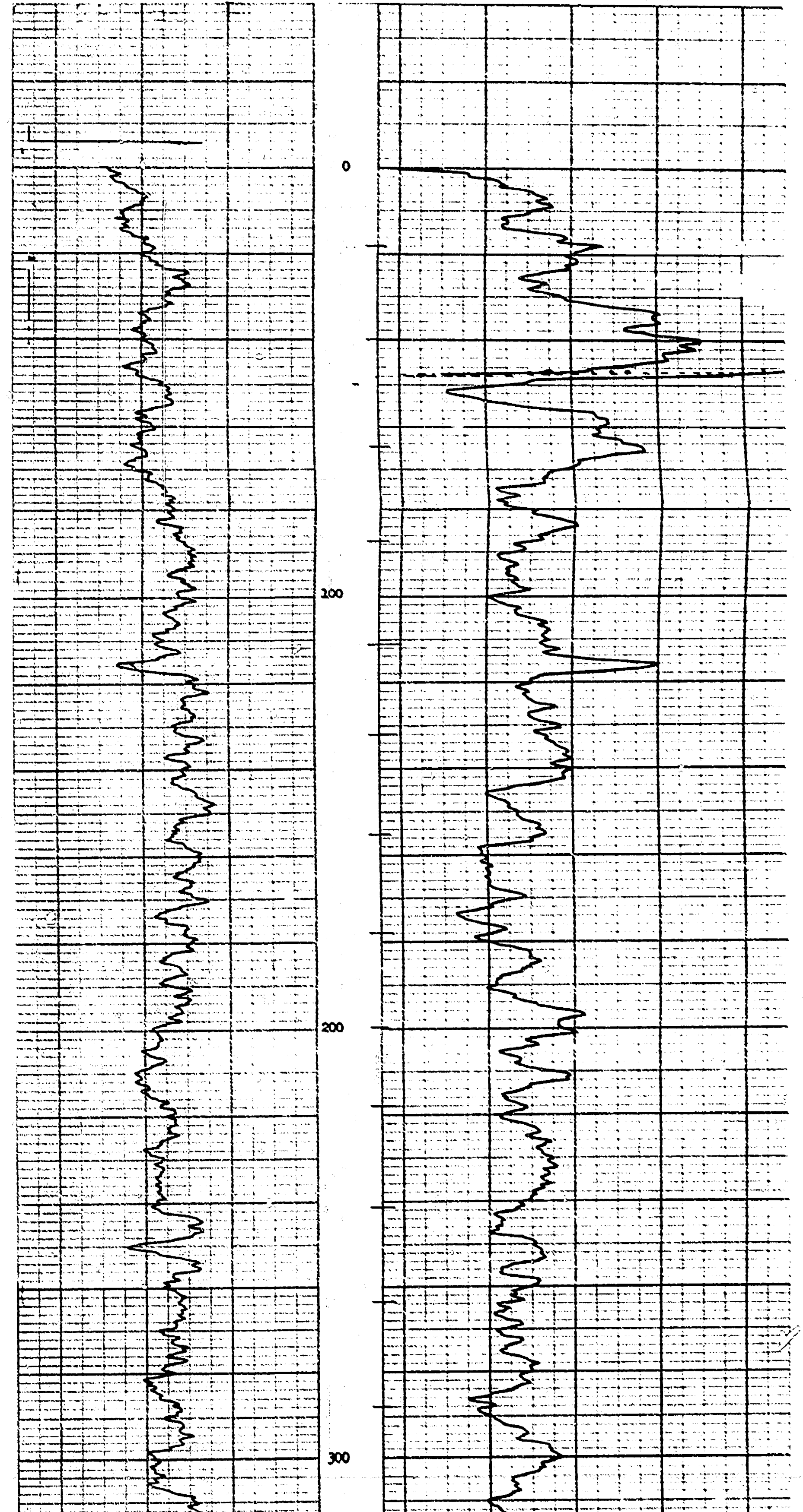
TYPE OF LOG	Gamma Ray	Neutron
RUN NO.	One	One
DATE	1-27-59	1-28-59
TOTAL DEPTH – DRILLER	448	448
TOTAL DEPTH – BJS	444	444
FLUID IN HOLE	Mud	Mud
FLUID LEVEL	48'	48'
MAXIMUM TEMPERATURE °F.		
INSTRUMENT O.D. AND NO.	3 5/8"	3 5/8"
INSTRUMENT TYPE	T.A. Scintillation	P.E.
NEUTRON SOURCE TYPE		
CPS FOR CALIB. STD. – GR		
– N		
RECORDED BY	Kleinegger	
WITNESSED BY	H.S. Byrdseye	

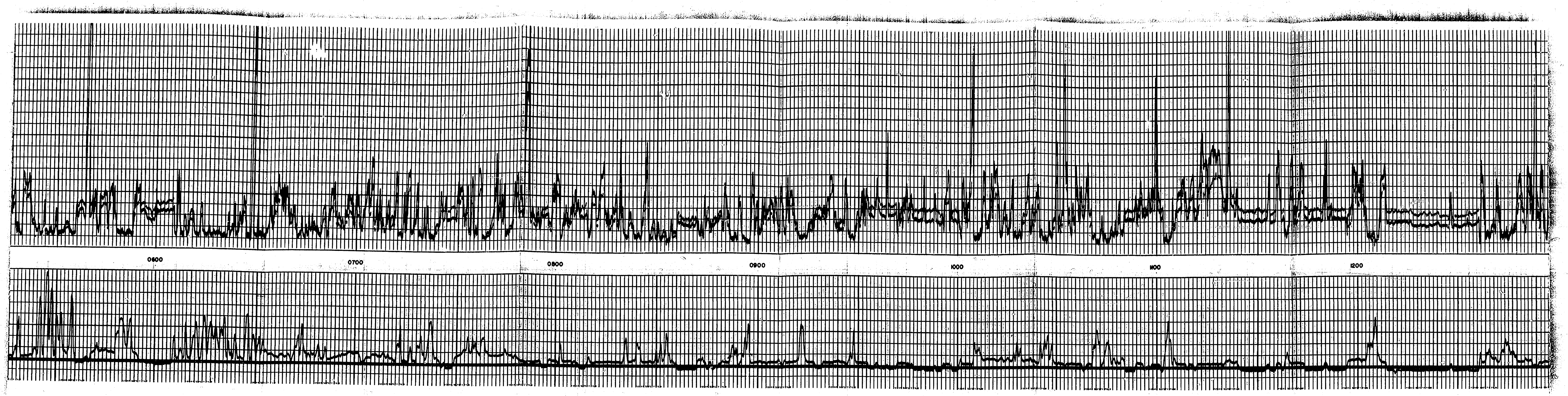
LOGGED INTERVAL RECORD				GAMMA-RAY			NEUTRON		
				SENSITIVITY			SENSITIVITY		
SCALE "/100'	FROM FT.	TO FT.	SPEED '/MIN.	RECD'R	SCALE "/(μR/HR)	T.C. SEC.	RECD'R	SCALE "/100 SNU	T.C. SEC.
5	0	443	25	46	4	3	132	4.0	4

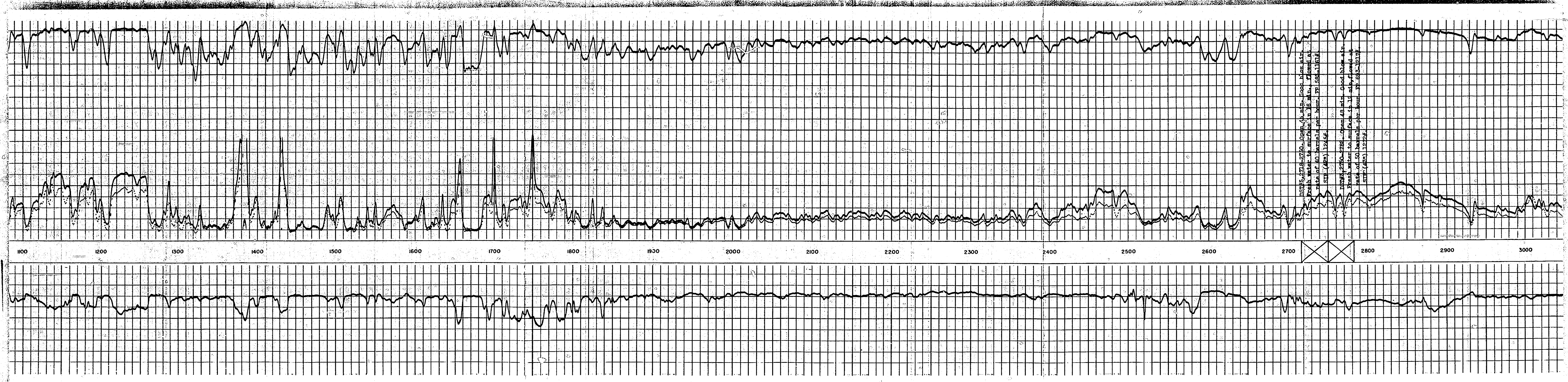
LOG ZERO AND SCALE DESIG.
IN. TO ZERO | SCALE* SCALE*
* GAMMA-RAY – IN./(μR/HR.)
* NEUTRON – IN./100 S.N.U.

REMARKS:

GAMMA-RAY
NEUTRON







DST#5, 2718-2750. Open 45 min. Good blow air. Fresh water to surface in 16 min., flowed at rate of 40 barrels per hour. FP 583-1161#. SIP (42m) 1245#.

DST#5 2750-2788. Open 48 min. Good blow air. Fresh water to surface in 12 min, flowed at rate of 50 barrels per hour. FP 603-1217#. SIP (43m) 1272#.

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

SIMULTANEOUS

Gamma Ray-Neutron

COUNTY McKINLEY, N.M.
FIELD or LOCATION WILDCAT
WELL 20-1 SANTA FE PACIFIC
COMPANY CHACO OIL COMPANY

COMPANY CHACO OIL COMPANY
WELL 20-1 SANTA FE PACIFIC
FIELD WILDCAT
LOCATION SEC. 20-20N-9W
COUNTY McKINLEY
STATE NEW MEXICO

Other Surveys IND-ES ML
Location of Well C-SE-SE SEC. 20-20N-9W
Elevation: D.F.: --
K.B.: 6481'
or G.L.: 6471'
FILING No.

Log Depths Measured From KB 10 Ft. above G.L.

RUN NO.	ONE			
Date	7-29-58			
First Reading	3935			
Last Reading	0000			
Footage Measured	3935			
Max. Depth Reached	3936			
Bottom Driller	3938			
Maximum Temp. °F.	110°F.			
Fluid Nature	GEL CHEM			
Fluid Level	FULL			
Casing Size	8 5/8 in.		in.	
Casing Weight	lb. 0 to 96		lb.	
Casing Size	in.		in.	
Casing Weight	lb. to		lb.	to
Bit Size	7 7/8 in. CSG. to T.D.		in.	to
Bit Size	in. to		in.	to
No. Counters Used	SCINT			
Type Equipment	GNAM-4			
Type Panel	GNP-C			
Opr. Rig Time	3 HRS			
Truck No.	2515FARM			
Observer	JULIUS			
Witness	BIRDSEYE			

FOLD HERE

REMARKS: CALIBRATION	BACKGROUND CPS	TEST SOURCE CPS	GALV. INCREASE-DIVISIONS	PANEL SENS. TAP. FOR CAL.
GAMMA RAY	160	500	100	400
NEUTRON	10	240	100	400

NEUTRON
STANDARD COUNTS SECOND

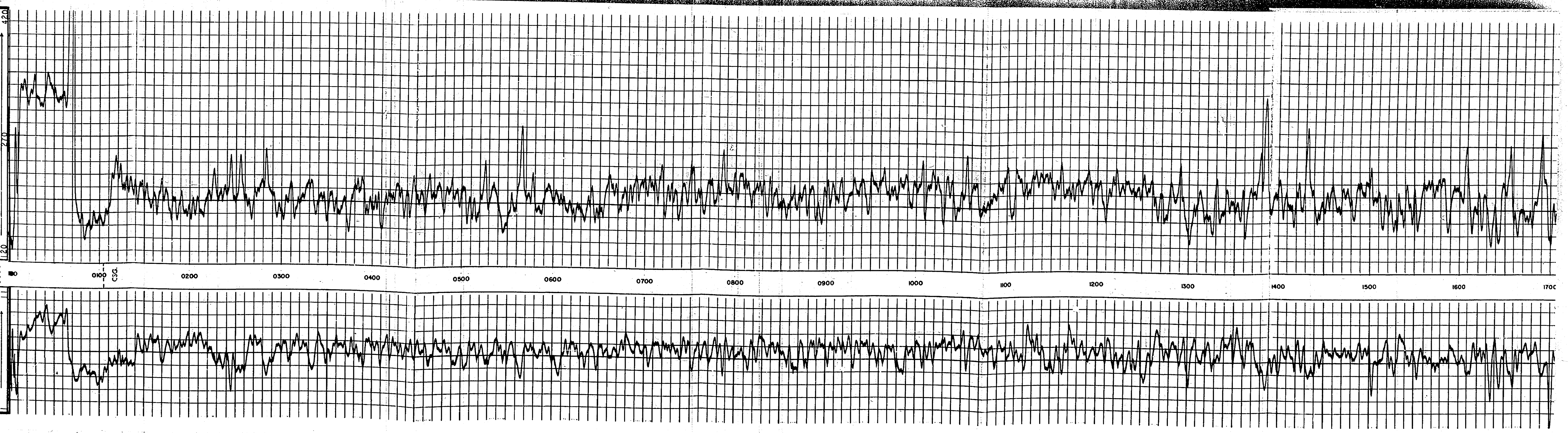
INTERVAL: 0 to T.D.
Sensitivity 300 Time Constant 2
Logging Speed 30 ft./min.
ZERO 8 divisions to left of this line

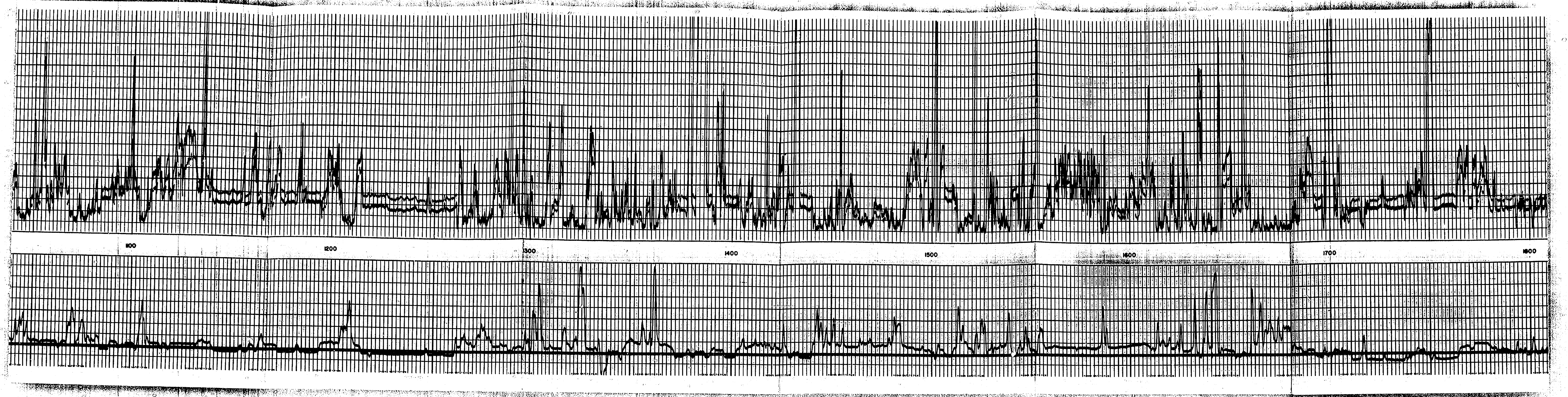
CASING → COLLARS

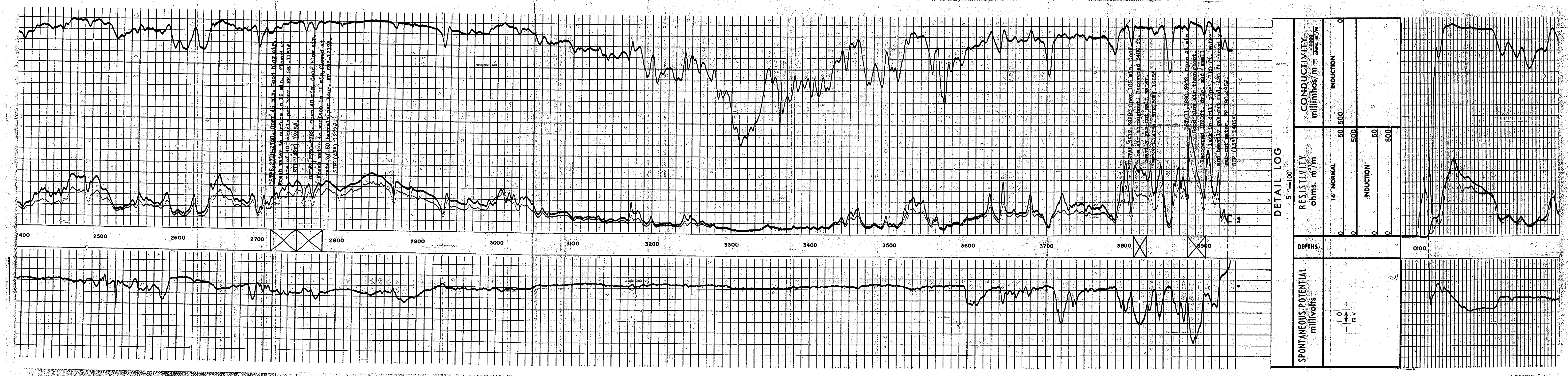
2" = 100'
L.R. 0000

GAMMA RAY
MICROGRAMS RA-EQ/TON

INTERVAL: 0 to T.D.
Sens. 400 T.C. 2
Logging Speed 30 ft./min.
ZERO 1 div. to left





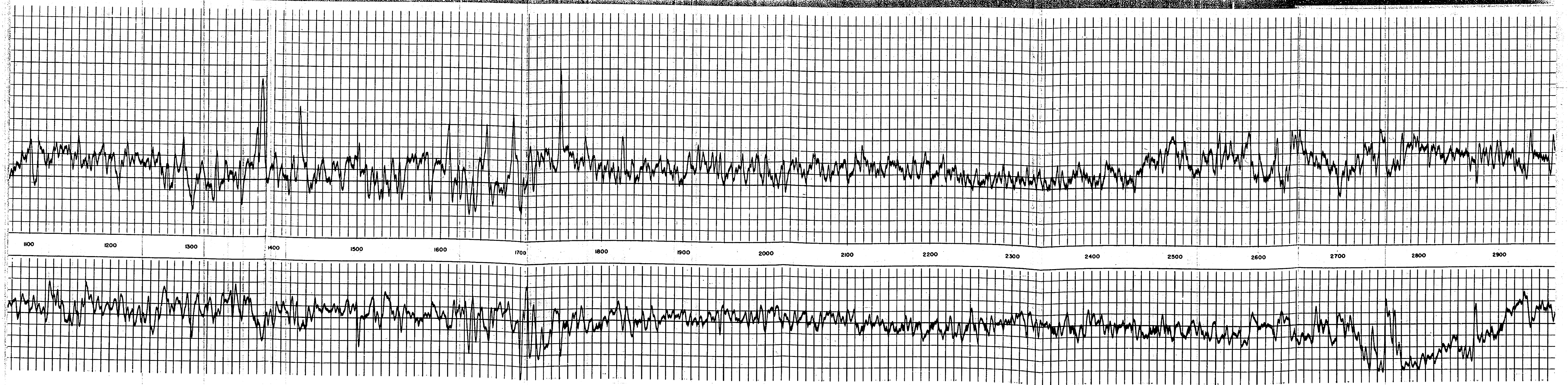


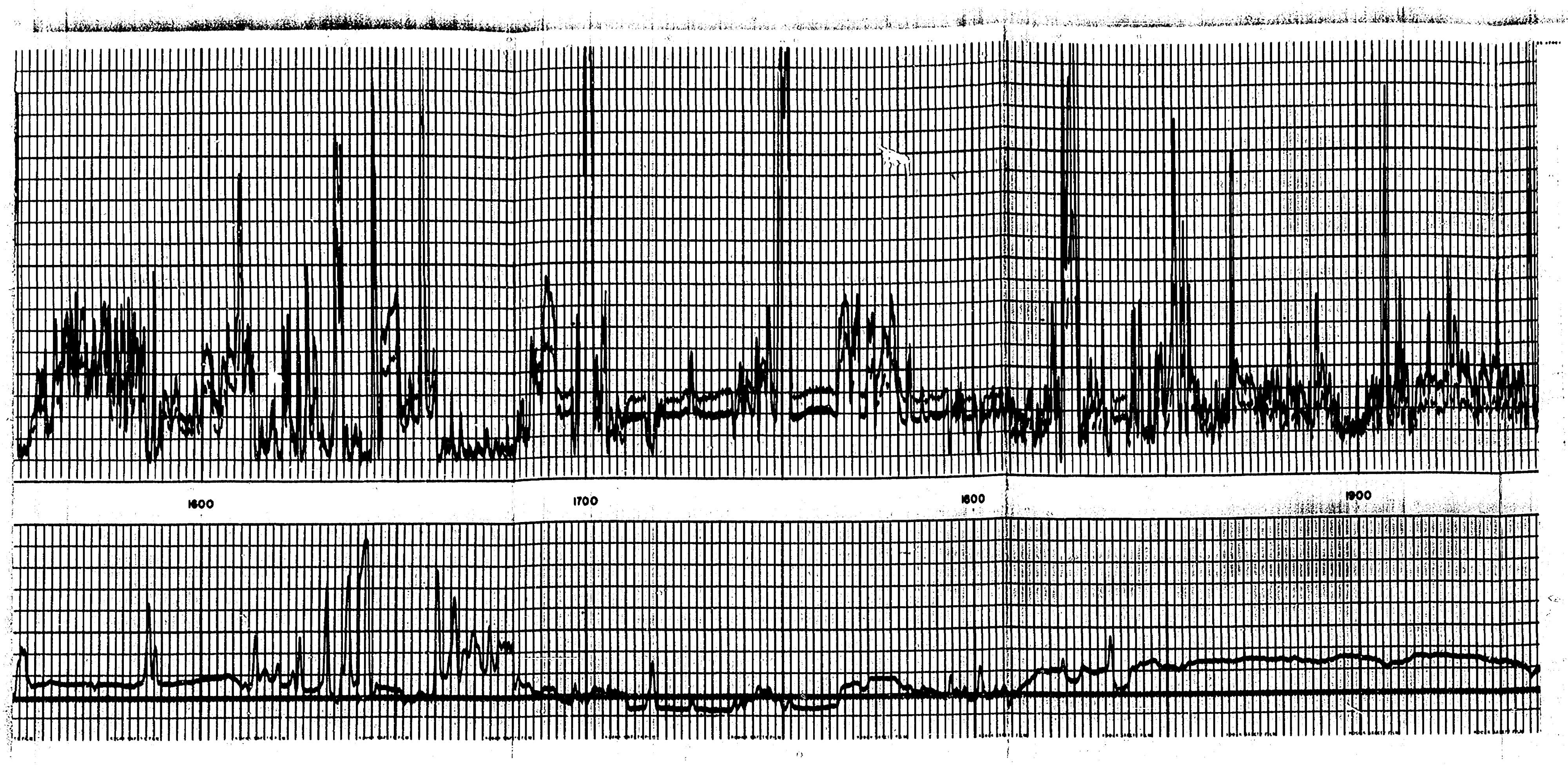
DST#5, 2718-2750. Open 45 min. Good blow air. Fresh water to surface in 16 min. Flowed at rate of 40 barrels per hour. FP 585-1161#. STP (APH) 1245#.

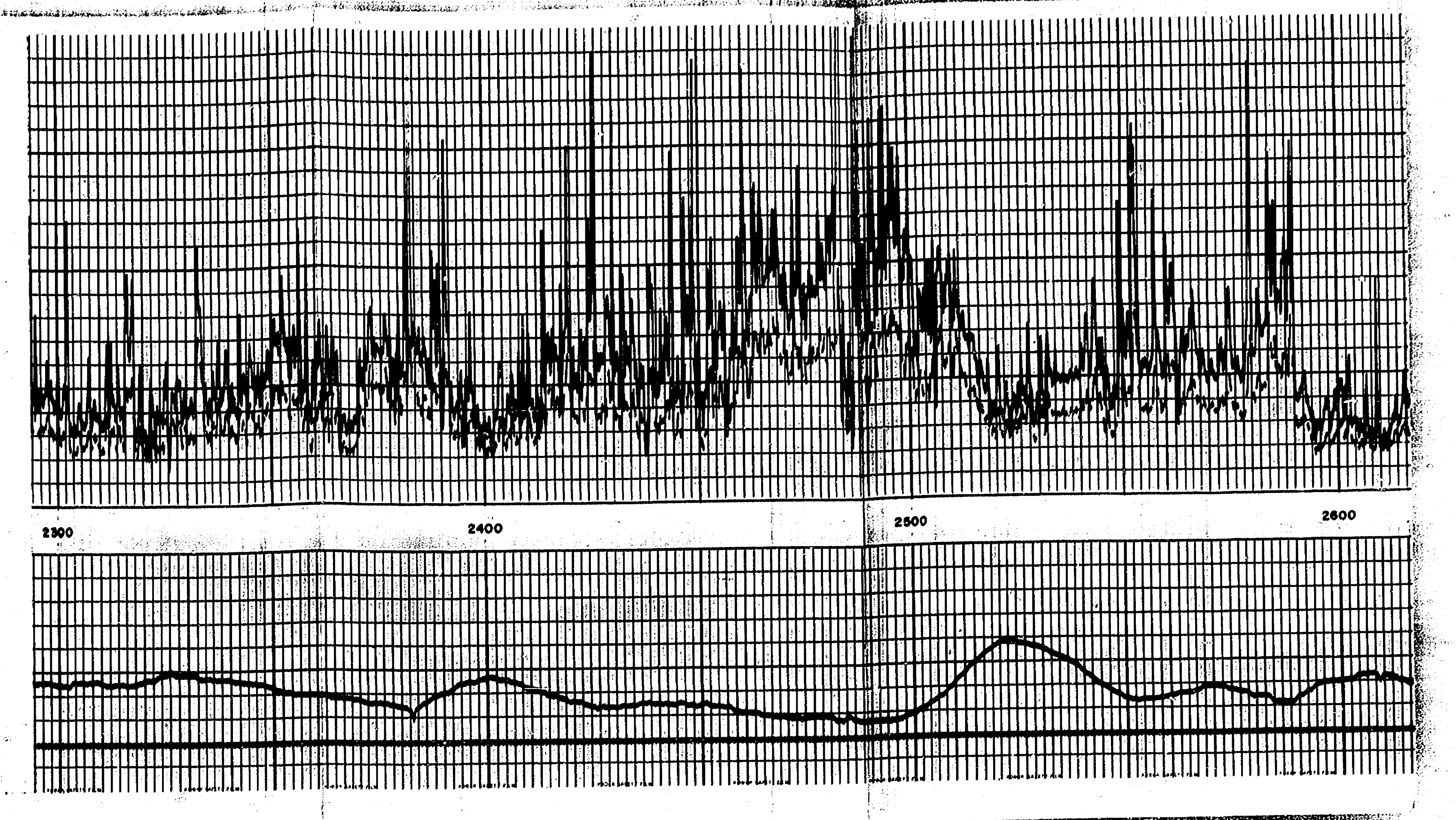
DST#6, 2750-2782. Open 48 min. Good blow air. Fresh water to surface in 12 min, flowed at rate of 50 barrels per hour. FP 693-1217#. STP (APH) 1272#.

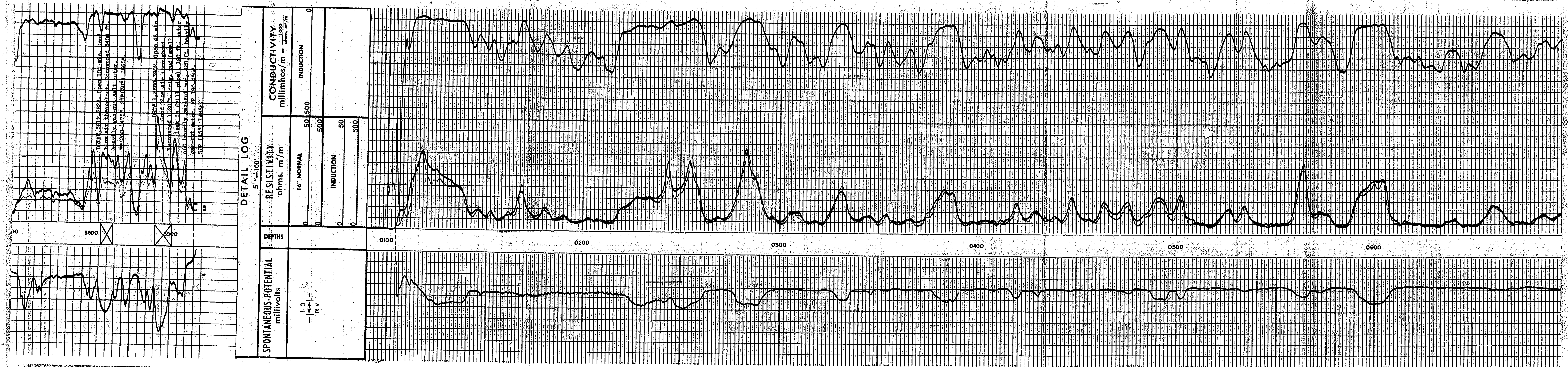
DST#10, 3812-3828. Open 105 min. Good blow air throughout. Recovered 3400 ft. heavily gas-cut salt water. FP 200-1475#. STP (150M) 1665#.

DST#11, 3880-3902. Open 45 min. Good blow air throughout. Recovered 1020 ft. drlg. mud (small leak in drill pipe) 180 ft. water and heavily gas-cut mud, 120 ft. heavily gas-cut water. FP 190-495#. STP (15M) 1485#.

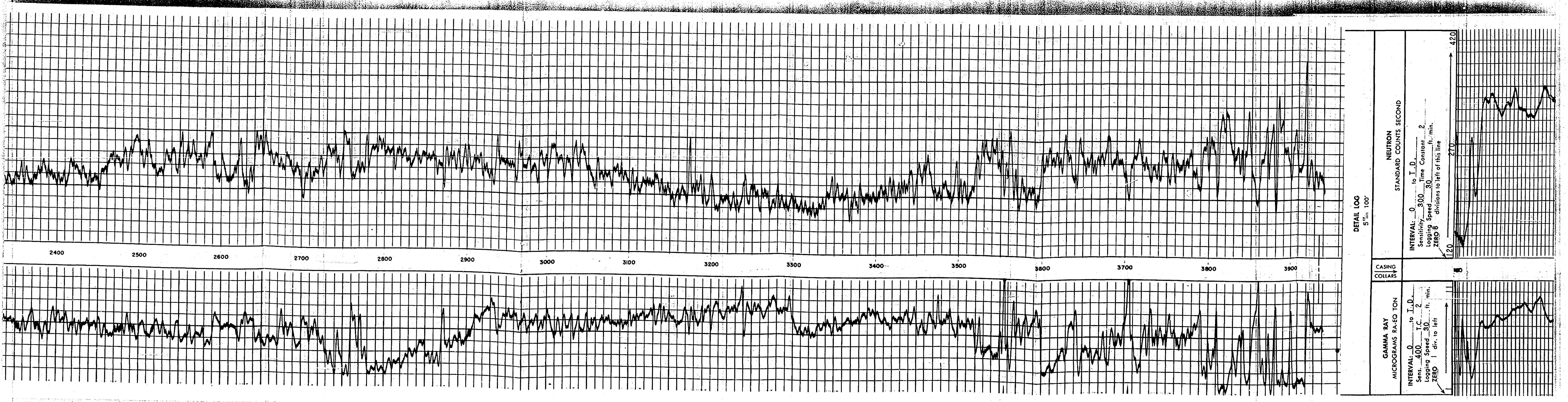


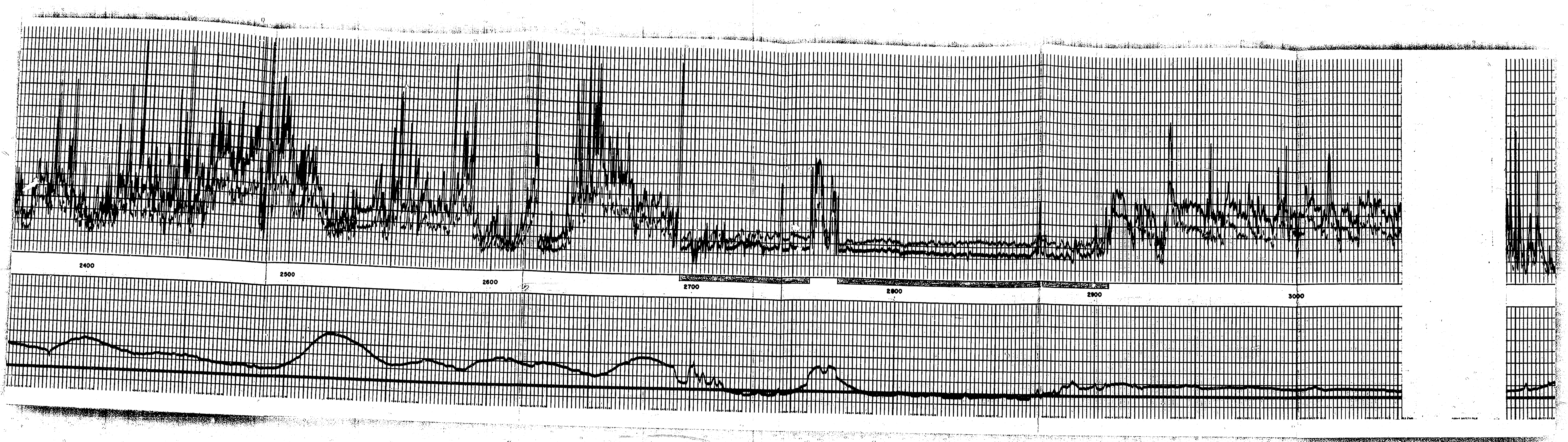





DST#2, 3812-3828. Open 106 min. Good blow air throughout. Recovered 2400 ft. heavily gas-cut salt water. FP 200-1475#. SIP(30M) 1665#.

DST#1, 3880-3902. Open 45 min. Good blow air throughout. Recovered 1020 ft. drlg. mud (small leak in drill pipe) 180 ft. water and heavily gas-cut mud, 120 ft. heavily gas-cut water. FP 190-495#. SIP (15M) 1485#.

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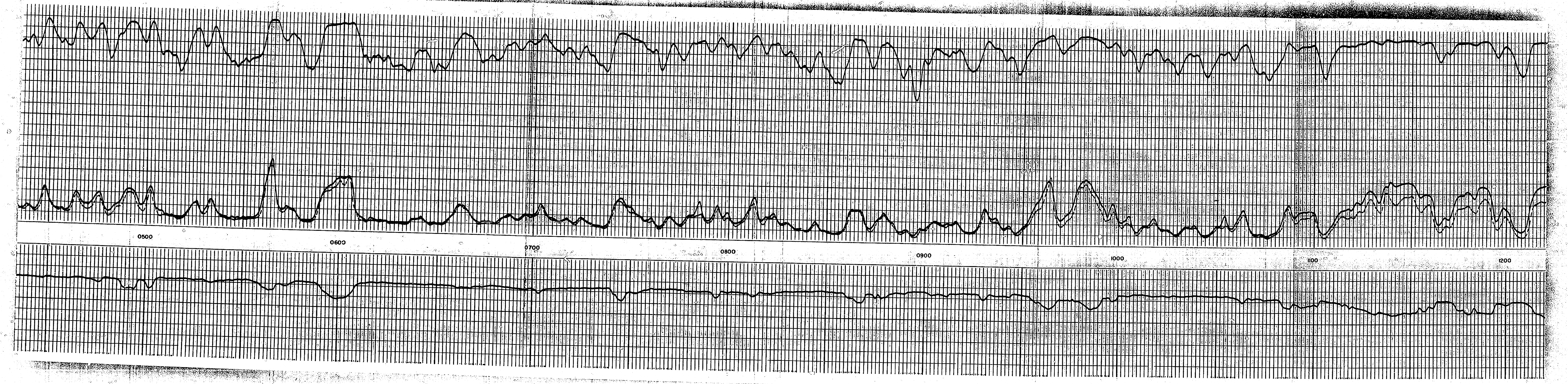
2500
2600
2700
2800
2900
3000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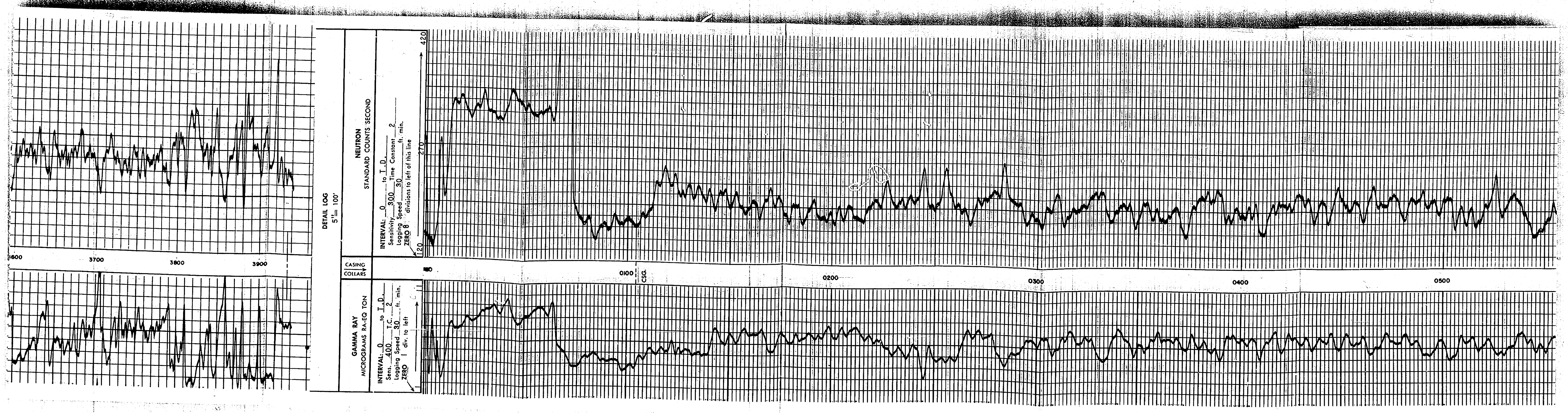
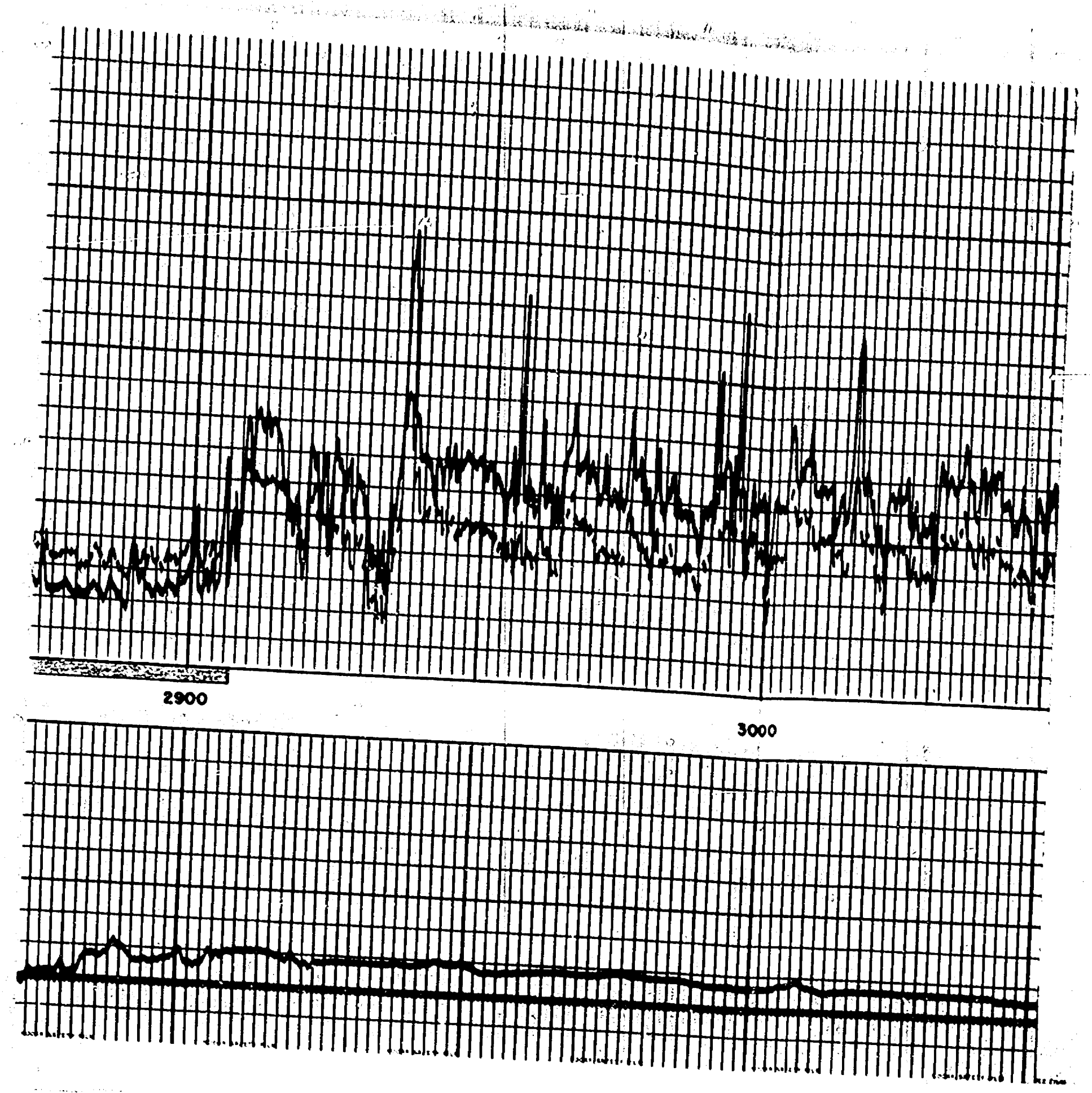
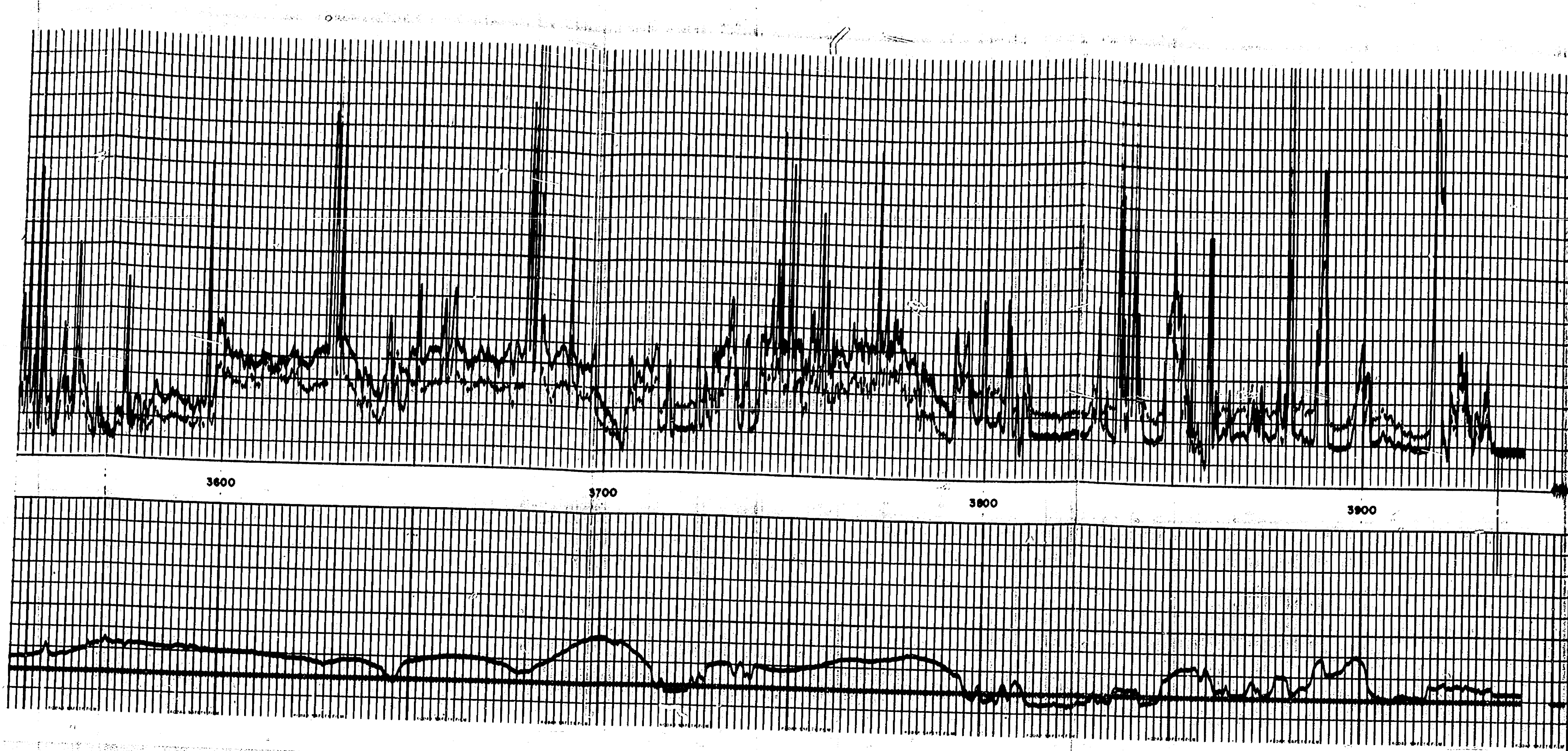
0600
0700
0800
0900
1000
1100
1200


3600
3700
3800
3900
DETAIL LOG
5" = 100'
NEUTRON
STANDARD COUNTS SECOND
INTERVAL: 0 to T.D.
Sensitivity 300 Time Constant 2
Logging Speed 30 ft. min.
ZERO 8 divisions to left of this line
120
270
420
CASING COLLARS
GAMMA RAY
MICROGRAMS RA-EQ TON
INTERVAL: 0 to T.D.
Sens. 400 T.C. 2
Logging Speed 30 ft. min.
ZERO 1 div. to left
0100
CSG.
0200
0300
0400
0500





6 7 8 9 10 11 12 13 14 15 16
Hole Diameter in Inches

MICROCALIPER

COMPANY CHACO OIL COMPANY
WELL 20-1 SANTA FE PACIFIC
FIELD WILDCAT
COUNTY McKINLEY STATE NEW MEXICO

Apparent Rm 1.7 Ω m²/m
Depth 3750 ft.

0 Micro Inverse 1" x 1" 20 40
0 Micro Normal 2" 20 40

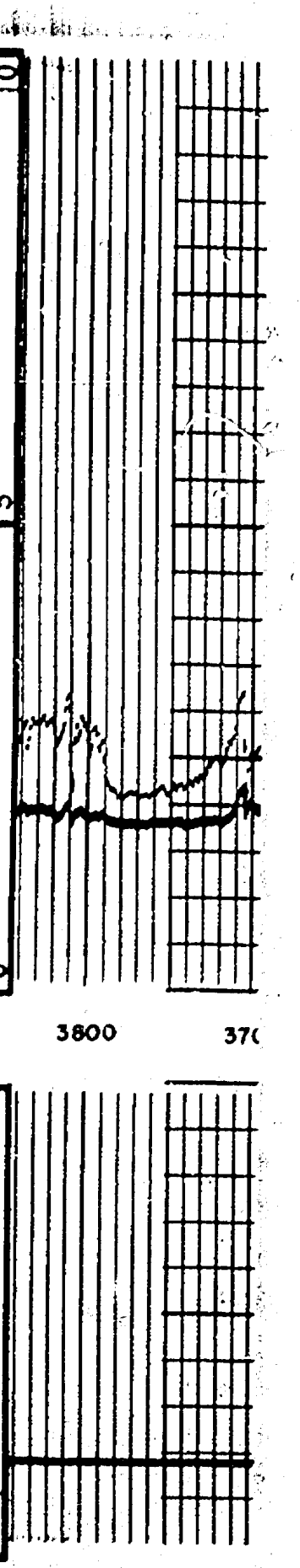
RESISTIVITY
ohms. m²/m

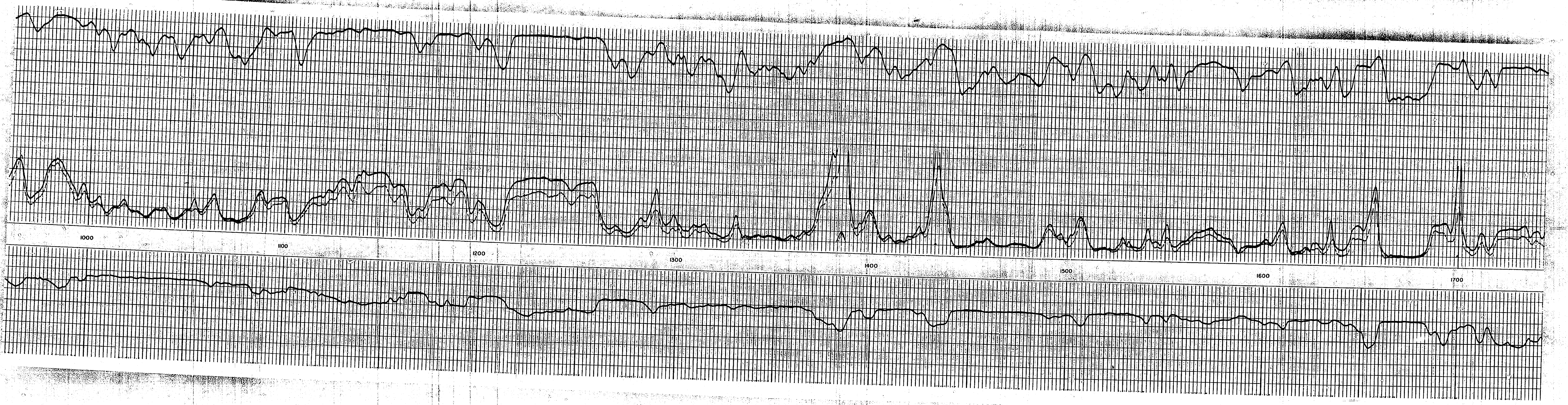
Rm -- @ 110 °F
Rmf 1.6 @ 110 °F
Rmc 2.0 @ 110 °F
BHT 110 °F

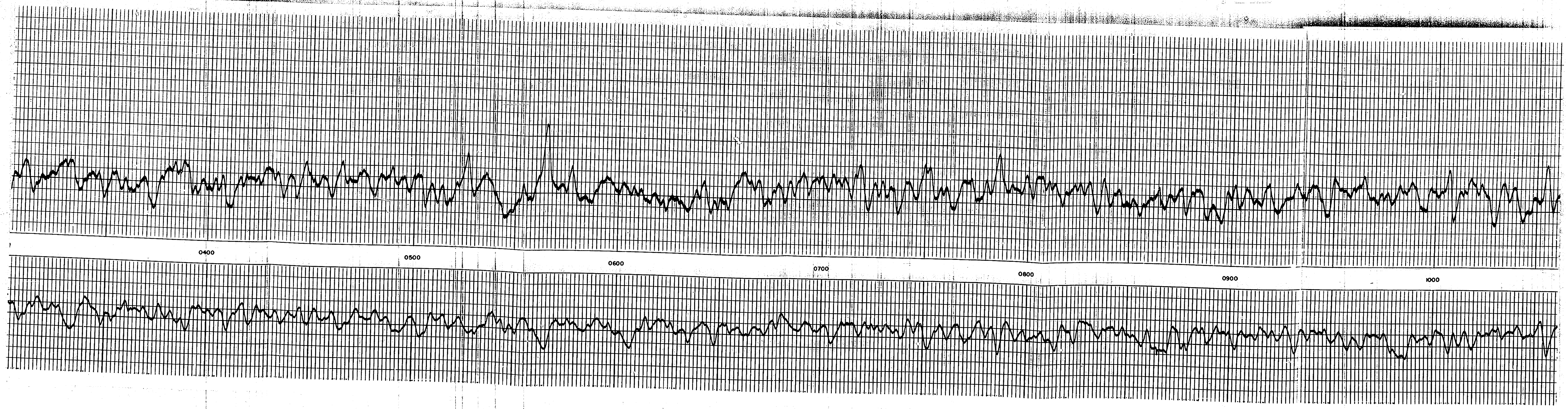
SWSC FR 3935'
SWSC TD 3936'
DRLR TD 3938'
Elev: KB 6481'
DF --
GL 6471'

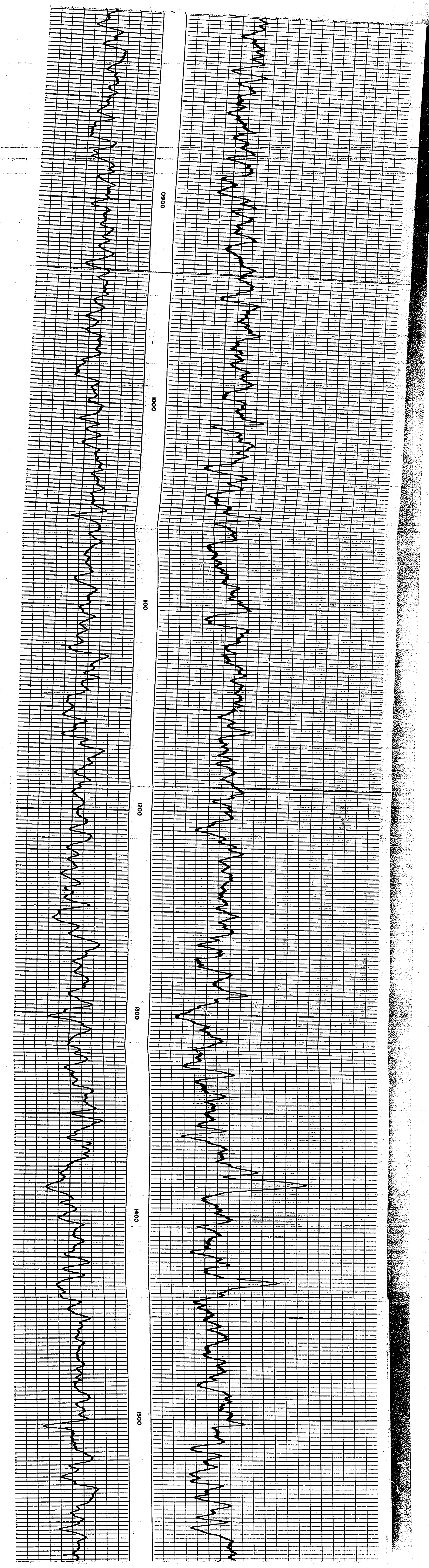
SURVEY WITH SONDE COLLAPSED

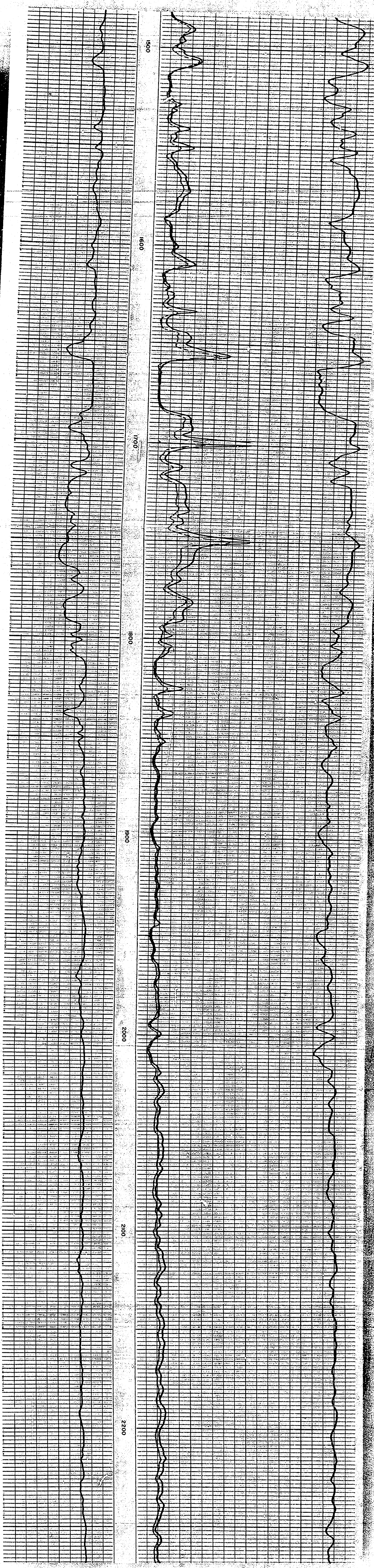
0 15 10

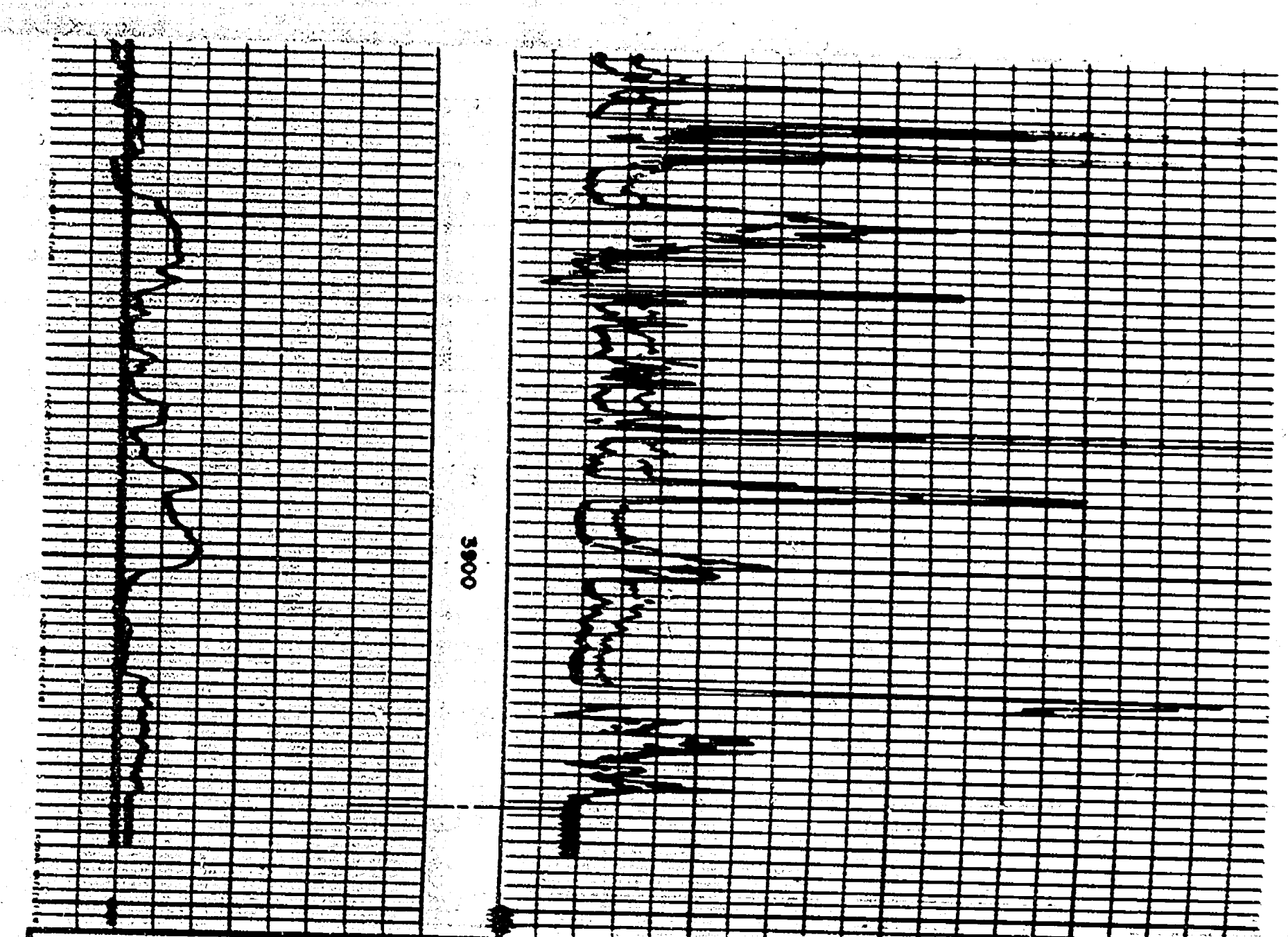












6 7 8 9 10 11 12 13 14 15 16 Hole Diameter in Inches	0 Micro Inverse 1" x 1" 20	40
	0 Micro Normal 2" 20	40
MICROCALIPER	RESISTIVITY ohms. m²/m	

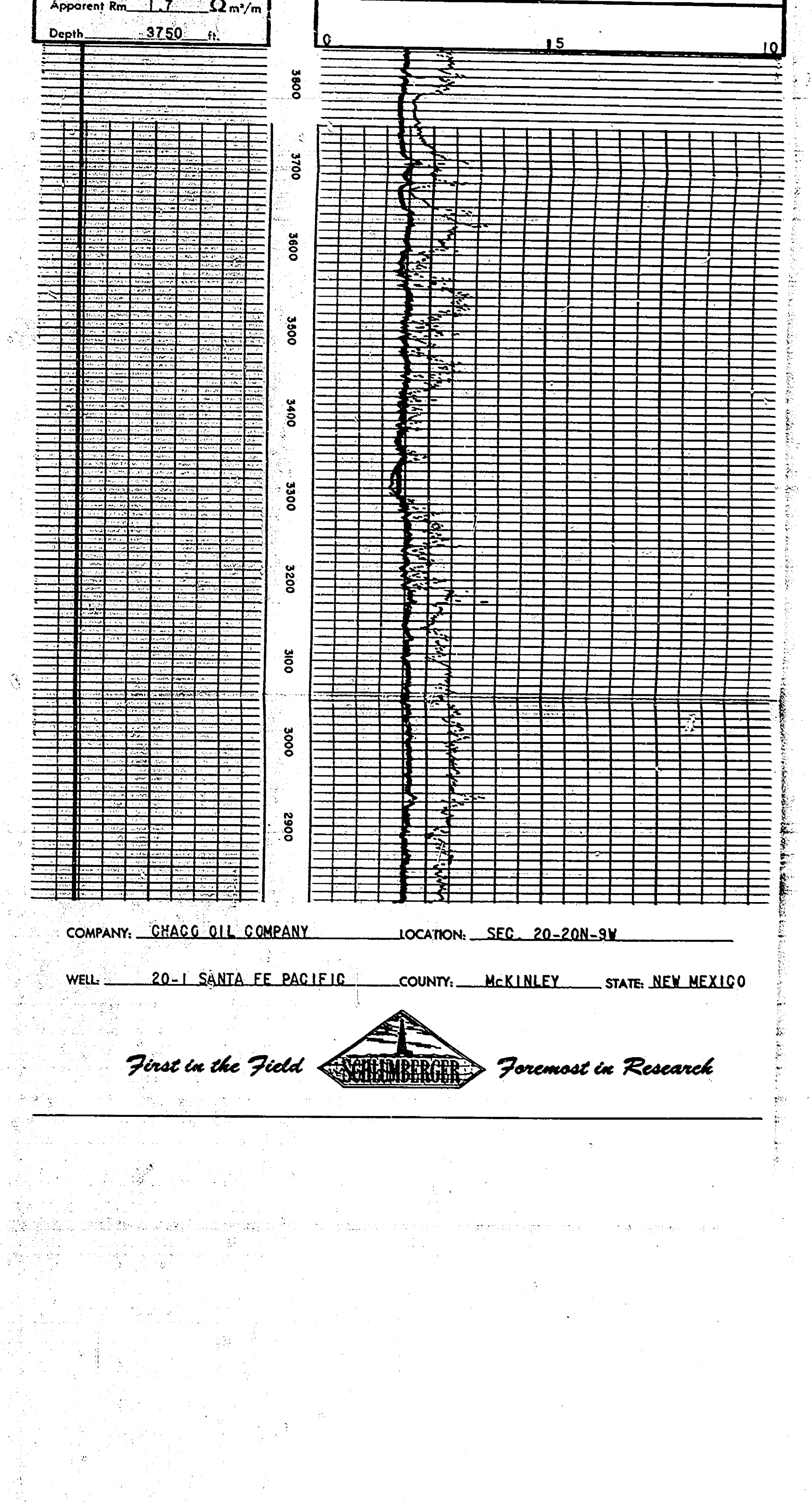
COMPANY CHACO OIL COMPANY
WELL 20-1 SANTA FE PACIFIC
FIELD WILDCAT
COUNTY McKINLEY STATE NEW MEXICO

Rm -- @ °F
Rmf 1.6 @ 110 °F
Rmc 2.0 @ 110 °F
BHT 110 °F

SWSC FR 3935'
SWSC TD 3935'
DRLR TD 3938'
Elev:
KB 6481'
DF --
GL 6471'

SURVEY WITH SONDE COLLAPSED

Apparent Rm 1.7 Ω m²/m
Depth 3750 ft.



COMPANY: CHACO OIL COMPANY LOCATION: SEC. 20-20N-9W
WELL: 20-1 SANTA FE PACIFIC COUNTY: McKINLEY STATE: NEW MEXICO

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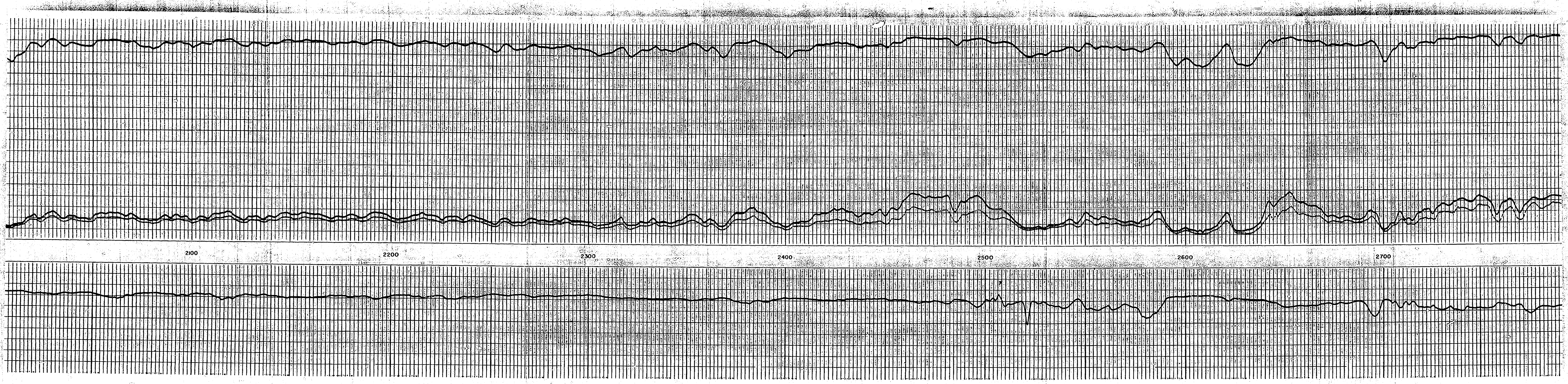
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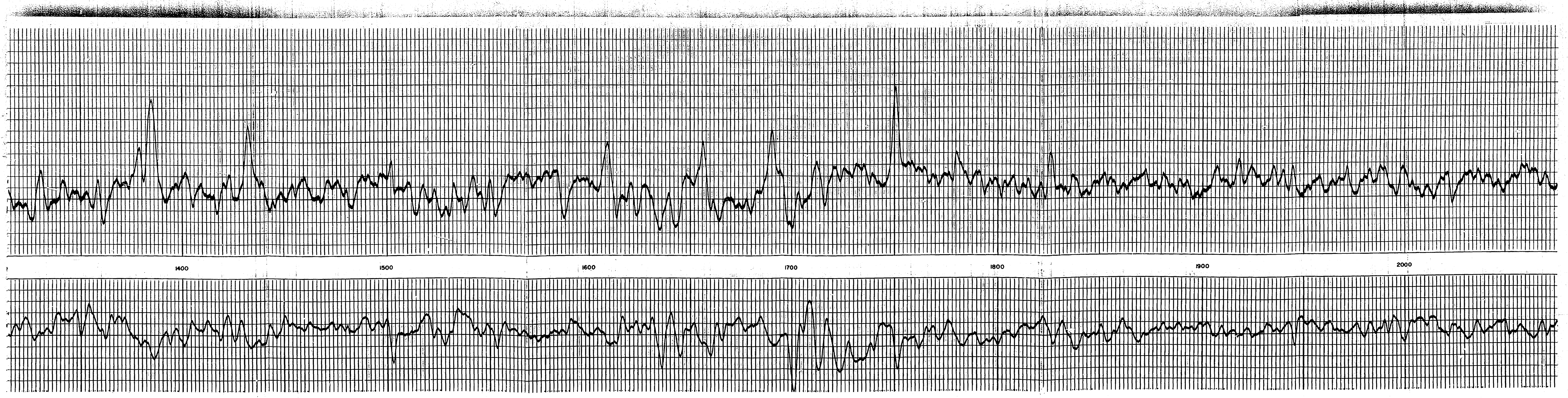
2600
2700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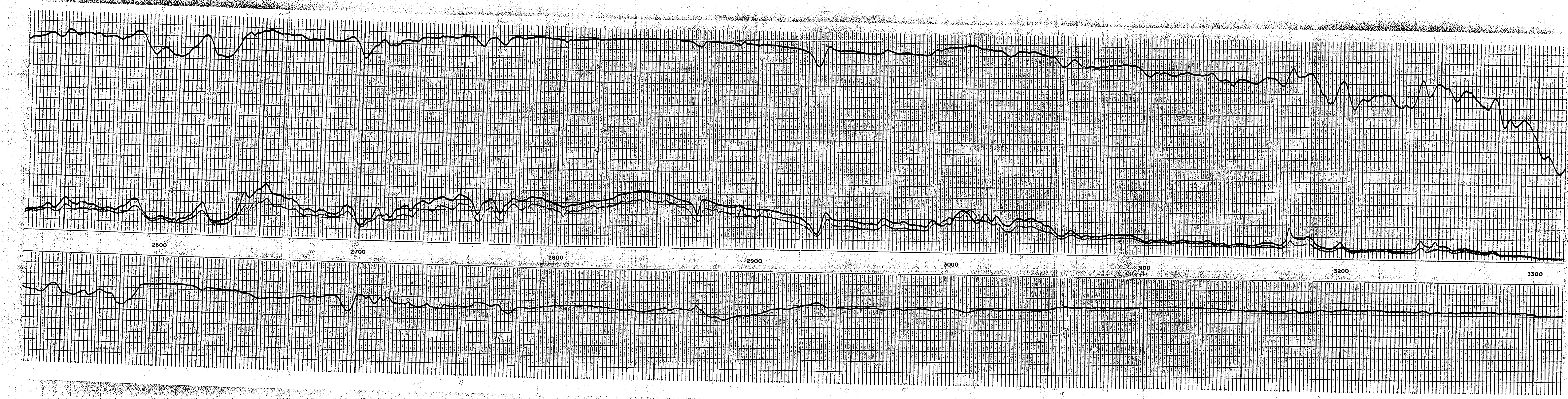
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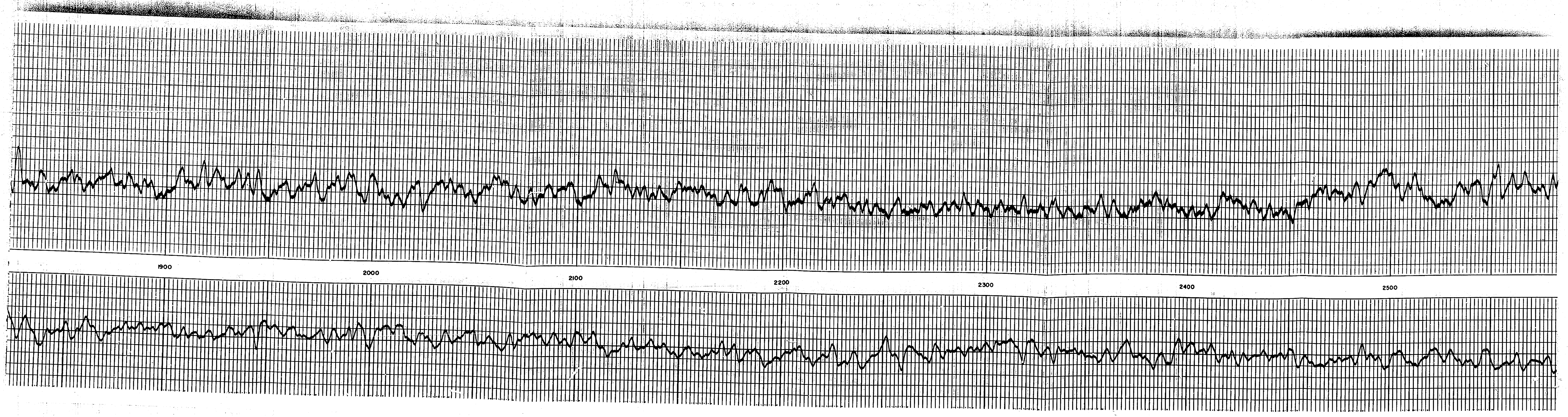
3100
3200
3300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2100
2200
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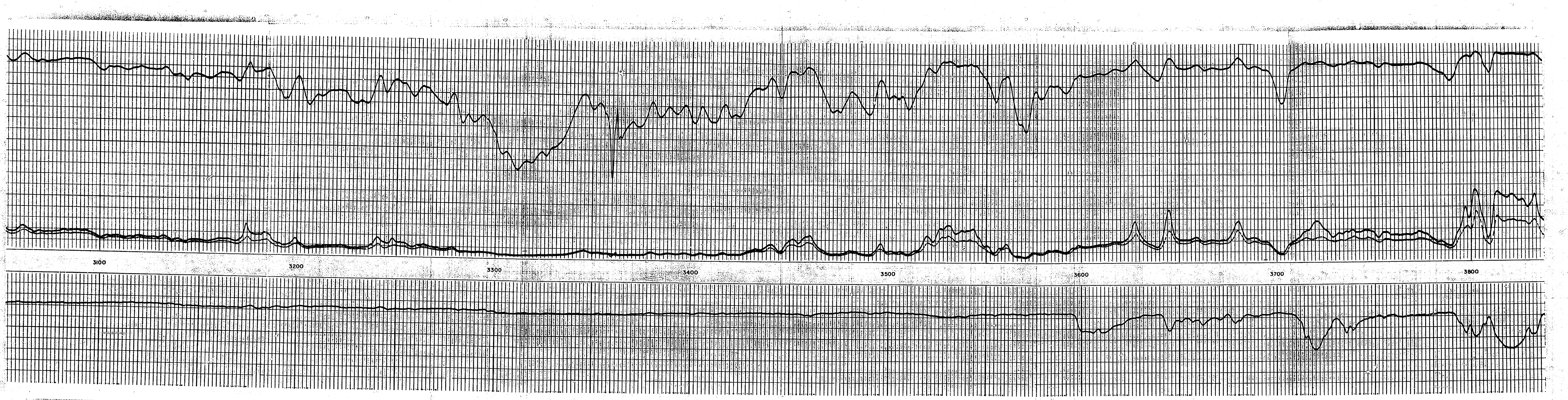
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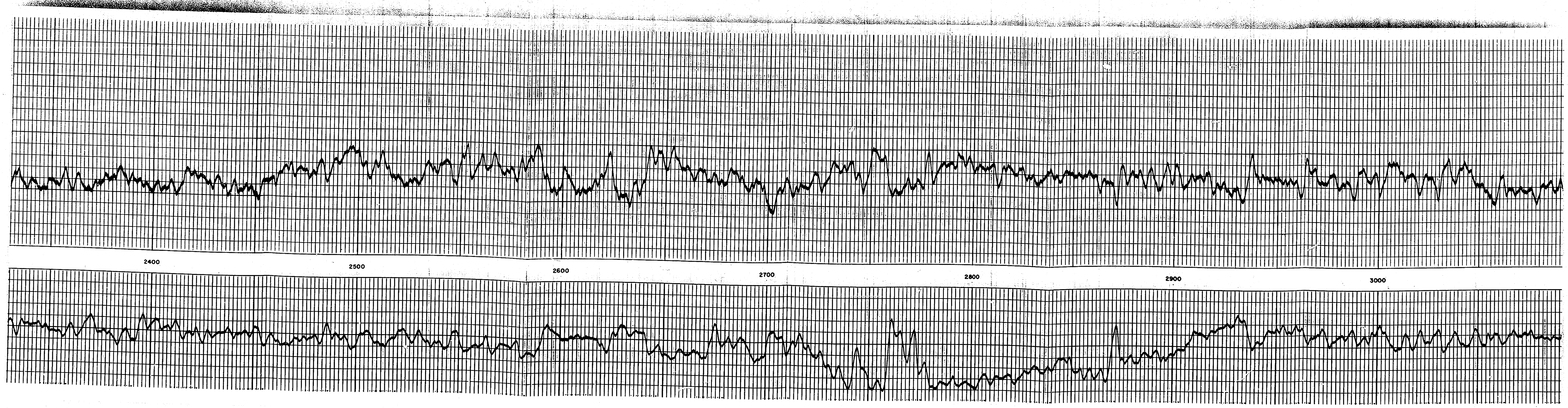
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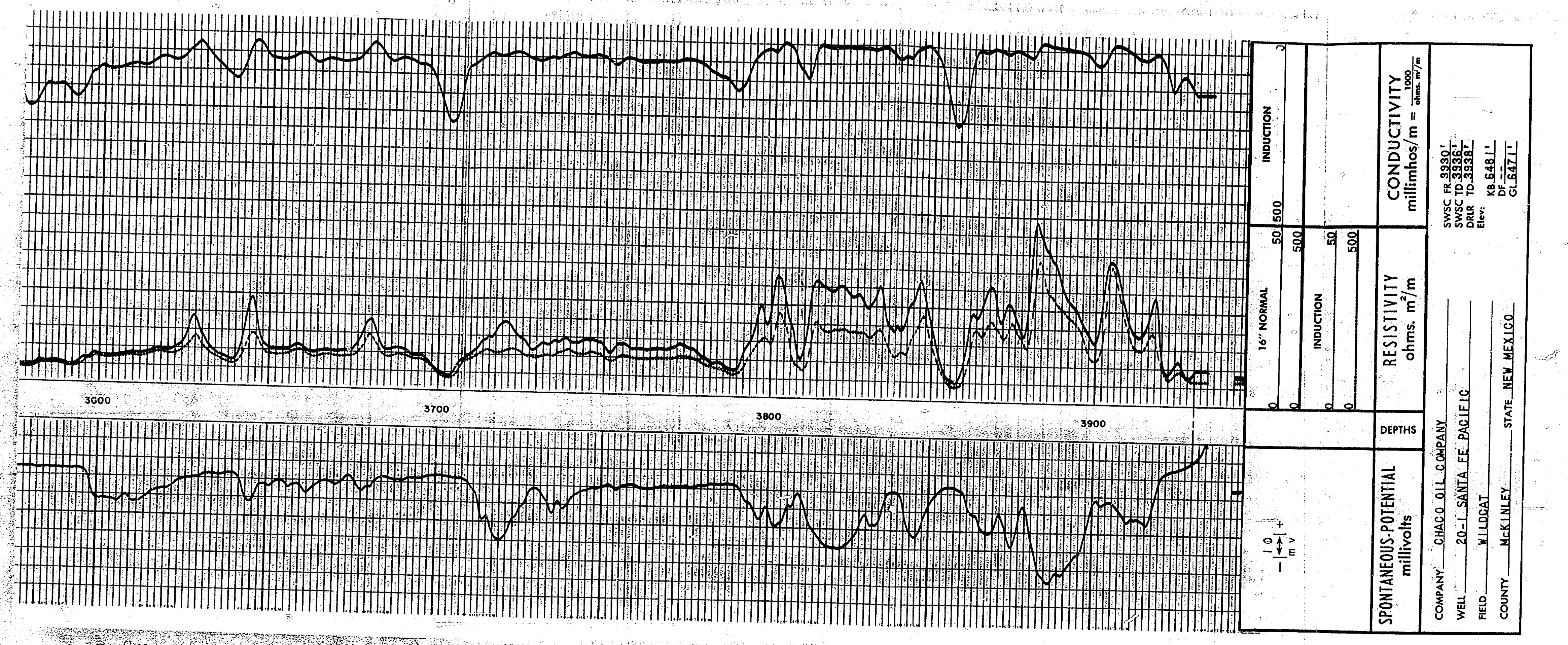
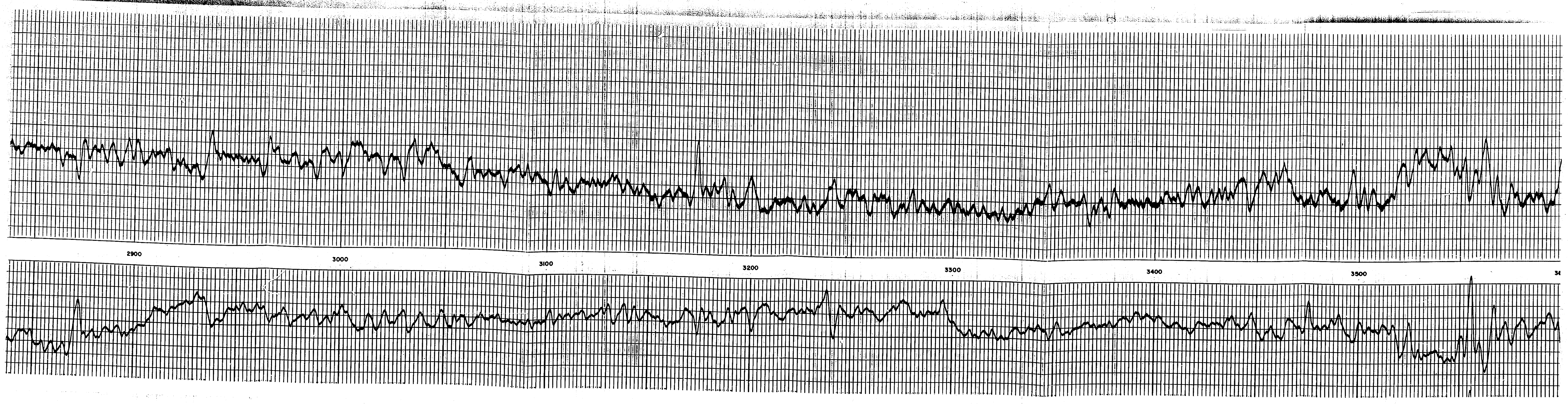

3600
3700
3800
3900
INDUCTION
0
500
16" NORMAL
50
500
INDUCTION
50
500
RESISTIVITY
ohms. m²/m
CONDUCTIVITY
millimhos/m = 1000 / ohms. m²/m
DEPTHS
SPONTANEOUS-POTENTIAL
millivolts
− | 10 mv | +
COMPANY CHACO OIL COMPANY
WELL 20-1 SANTA FE PACIFIC
FIELD WILDCAT
COUNTY McKINLEY
STATE NEW MEXICO
SWSC FR 3930'
SWSC TD 3936'
DRLR TD 3938'
Elev: KB 6481'
DF --
GL 6471'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3000
3100
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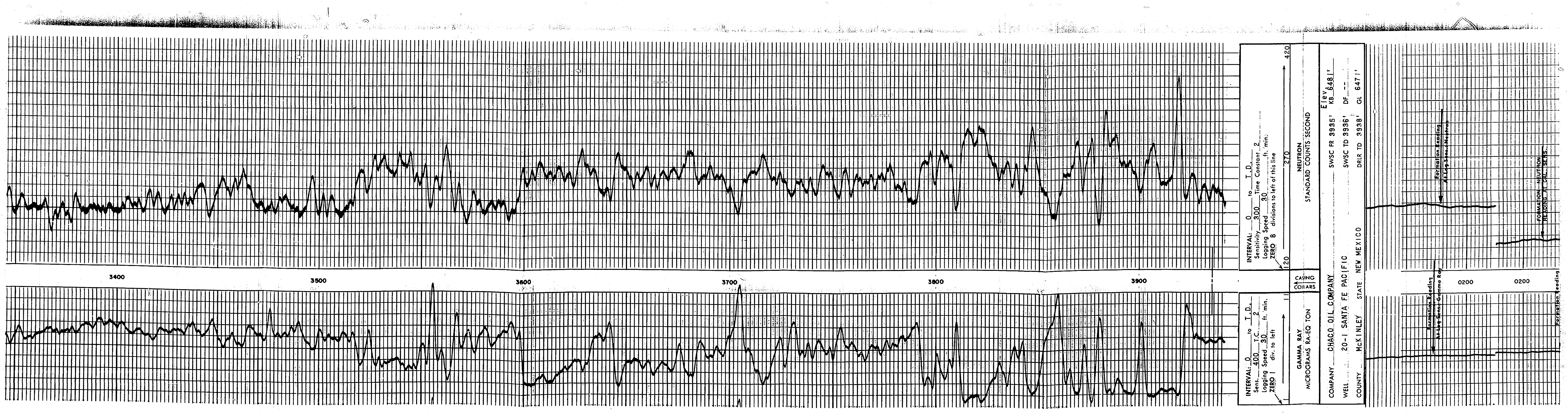
3300
3400
3500



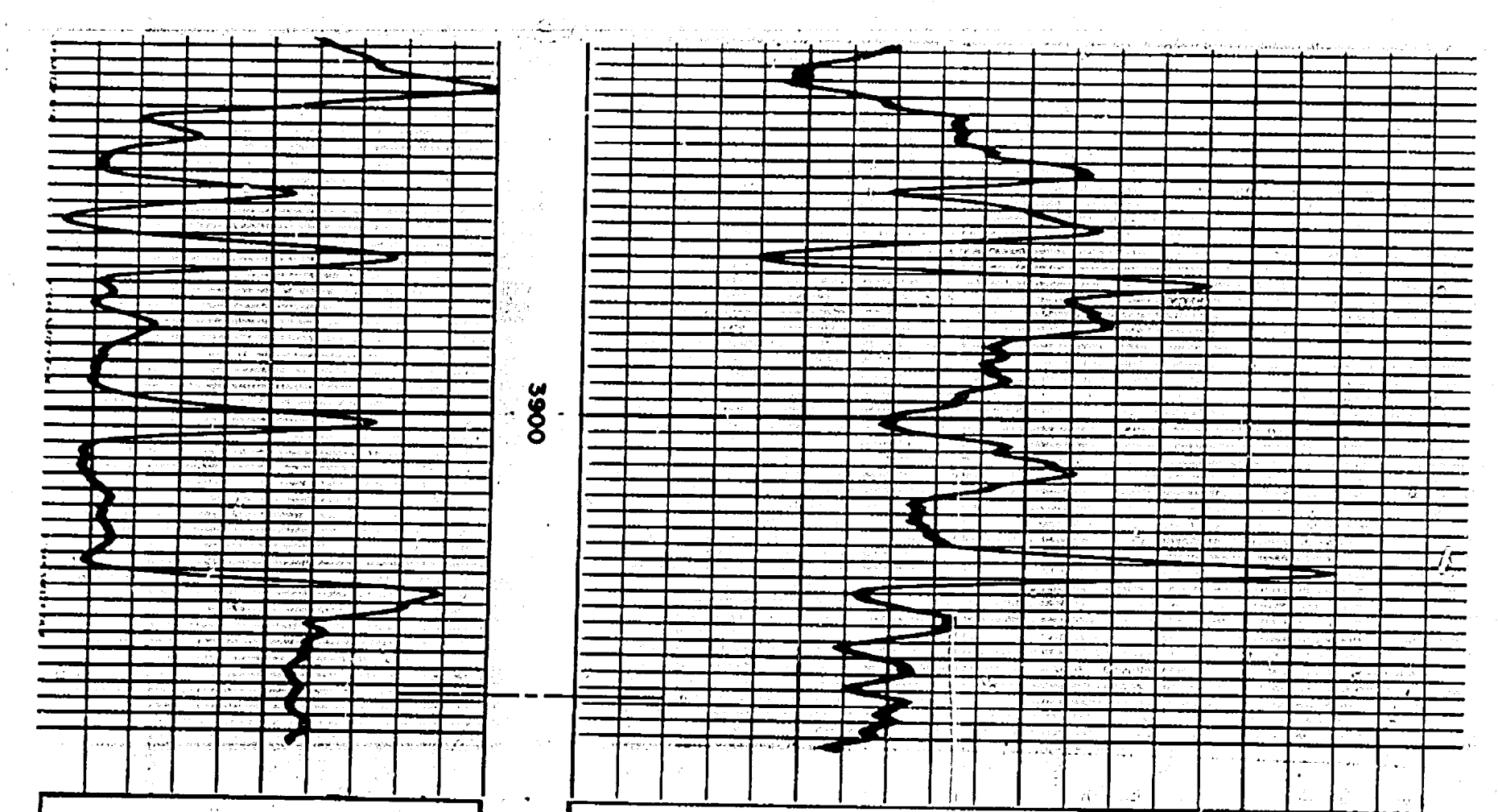
INTERVAL: 0 to T.D.
Sensitivity 300 Time Constant 2
Logging Speed 30 ft./min.
ZERO 8 divisions to left of this line

NEUTRON
STANDARD COUNTS SECOND

INTERVAL: 0 to T.D.
Sens. 400 T.C. 2
Logging Speed 30 ft./min.
ZERO 1 div. to left

GAMMA RAY
MICROGRAMS RA-EQ TON

COMPANY CHACO OIL COMPANY
WELL 20-1 SANTA FE PACIFIC
COUNTY McKINLEY STATE NEW MEXICO
SWSC FR 3935'
SWSC TD 3936'
DRLR TD 3938'
Elev. KB 6481'
DF --
GL 6471'



INTERVAL: 0 to T.D.
Sens. 400 T.C. 2
Logging Speed 30 ft./min.
ZERO 1 div. to left

1 11

GAMMA RAY
MICROGRAMS RA-EQ TON

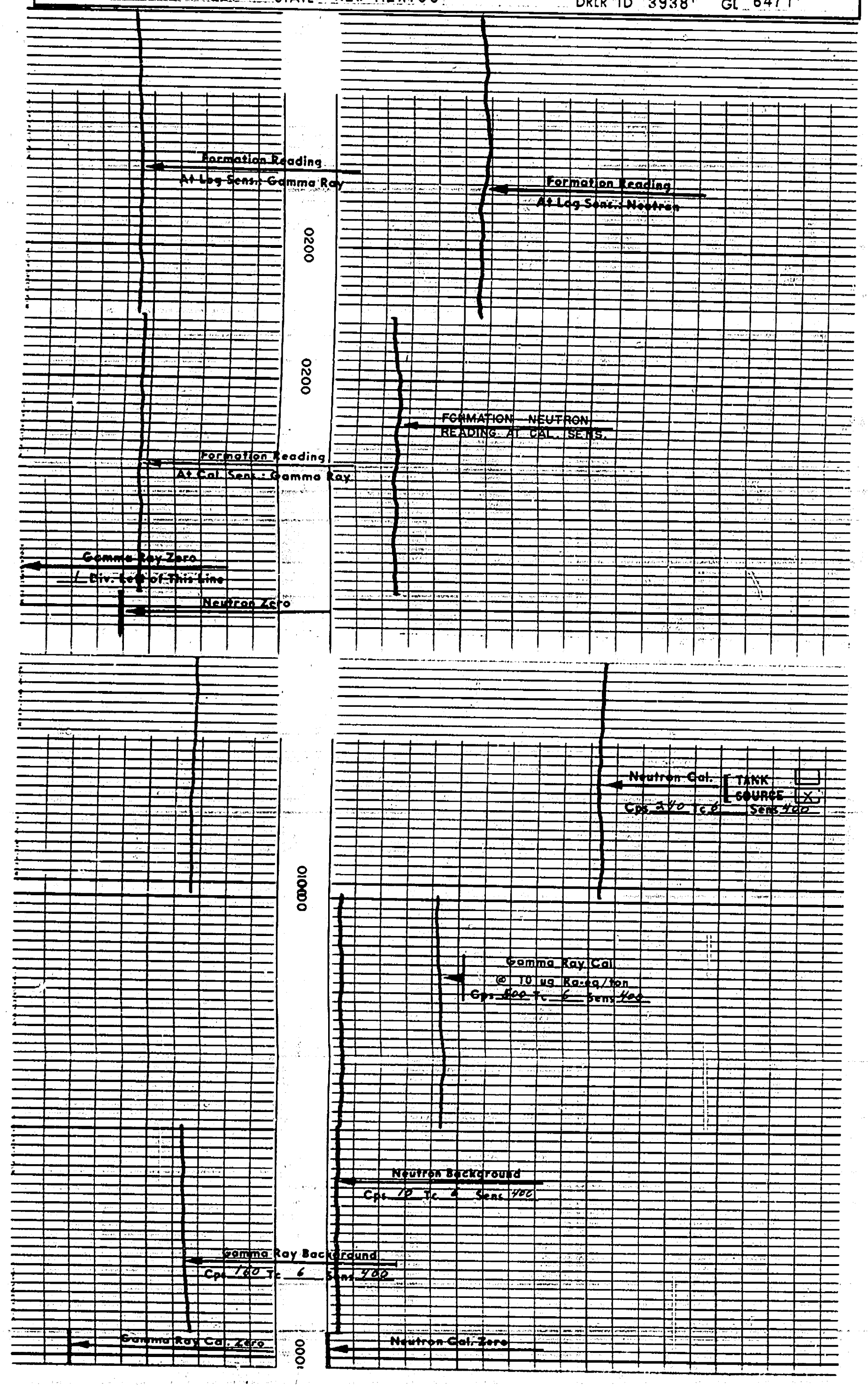
CASING COLLARS

INTERVAL: 0 to T.D.
Sensitivity 300 Time Constant 2
Logging Speed 30 ft./min.
ZERO 8 divisions to left of this line

120 270 420

NEUTRON
STANDARD COUNTS SECOND

COMPANY	CHACO OIL COMPANY	SWSC FR 3935'	Elev. KB 6481'
WELL	20-1 SANTA FE PACIFIC	SWSC TD 3936'	DF --
COUNTY	McKINLEY STATE NEW MEXICO	DRLR TD 3938'	GL 6471'



COMPANY: CHACO OIL COMPANY LOCATION: SEC. 20-20N-9W

WELL: 20-1 SANTA FE PACIFIC COUNTY: McKINLEY STATE: NEW MEXICO

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