WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Dunigan Operating Company Lease & Well No. Reeves #1

Elevation 2549 Kelly Bushings Formation Ft. Scott Effective Pay Ft. Ticket No. 16771

Date 6-14-72 Sec. 32 Twp. 18 Range 26 County Ness State Kansas

Test Approved by Harold Steincamp Western Representative Leon Elmore

Formation Test No. 1 O.K. X Misrun Interval Tested From 4405' to 4440' Total Depth 4440'

Size Main Hole 7 7/8" Rat Hole Conv. B.T. X Damaged Yes X No Conv. B.T. X Damaged Yes X No

Packer Depth 4400 Ft. Size 6 3/4" Packer Depth 4405 Ft. Size 6 3/4"

Straddle Yes No X Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 35 Ft. Size 5 1/2" O.D.

RECORDERS Depth 4431 Ft. Clock No. 8377 Depth 4434 Ft. Clock No. 5665

Top Make Kuster Cap 4500 No. 3085 Inside Outside Bottom Make Kuster Cap 4400 No. 2603 Inside Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap No. Inside Outside Bottom Make Cap No. Inside Outside

Time Set Packer 1:50 P.M

Tool Open I.F.P. From 1:52 M. to 2:07P M. Hr. 15 Min. From (B) 23 P.S.I. To (C) 23 P.S.I.

Tool Closed I.C.I.P. From 2:07 M. to 2:37P M. Hr. 30 Min. (D) 41 P.S.I.

Tool Open F.F.P. From 2:37 M. to 3:07P M. Hr. 30 Min. From (E) 21 P.S.I. To (F) 21 P.S.I.

Tool Closed F.C.I.P. From 3:07 M. to 3:37P M. Hr. 30 Min. (G) 28 P.S.I.

Initial Hydrostatic Pressure (A) 2337 P.S.I. Final Hydrostatic Pressure (H) 2311 P.S.I.

SURFACE INFORMATION	Size Choke 3/4 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Weak for 10 min. - died Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 3 feet mud with few oil spots

Reversed Out Yes X No Mud Type Starch Viscosity 45 Weight 9.6 Water Loss 10.4 cc. Maximum Temp. 129 °F

Type Circ. Sub. Plug Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 3373 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1012 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ft.

I.D. Drill Collars in. Length D.S.T. Tool 55 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

Date 6-14-72 Test Ticket No. 16771

Recorder No. 3085 Capacity 4500 Location 4431 Ft.

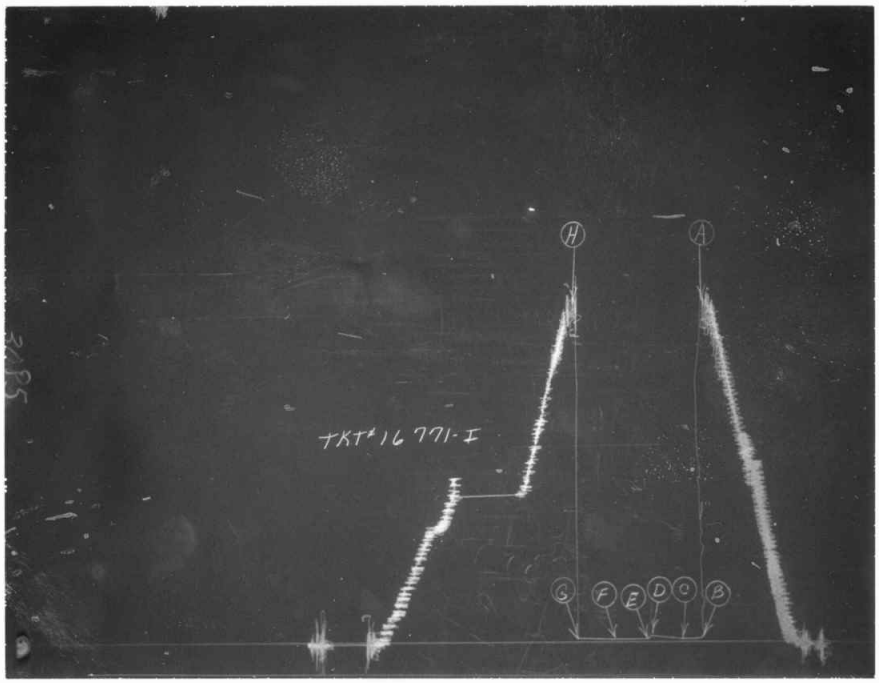
Clock No. 8377 Elevation 2549 Kelly Bushings Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2337 P.S.I.	Open Tool	1:52 P. M	
B First Initial Flow Pressure	23 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C First Final Flow Pressure	23 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	41 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	21 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	21 P.S.I.			
G Final Closed-in Pressure	28 P.S.I.			
H Final Hydrostatic Mud	2311 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
Breakdown: 3 Inc.	Breakdown: 10 Inc.	Breakdown: 6 Inc.	Breakdown: 10 Inc.
of 5 mins. and a	of 3 mins. and a	of 5 mins. and a	of 3 mins. and a
final inc. of Min.	final inc. of Min.	final inc. of Min.	final inc. of Min.

Point	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	0	23	0	23	0	21	0	21
P 2	5	23	3	23	5	21	3	21
P 3	10	23	6	24	10	21	6	21
P 4	15	23	9	26	15	21	9	21
P 5			12	28	20	21	12	21
P 6			15	31	25	21	15	21
P 7			18	33	30	21	18	22
P 8			21	35			21	23
P 9			24	37			24	24
P10			27	39			27	26
P11			30	41			30	28
P12								
P13								
P14								
P15								
P16								
P17								
P18								
P19								
P20								



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2343	2337	PSI
(B)	First Initial Flow Pressure	30	23	PSI
(C)	First Final Flow Pressure	30	23	PSI
(D)	Initial Closed-in Pressure	47	41	PSI
(E)	Second Initial Flow Pressure	23	21	PSI
(F)	Second Final Flow Pressure	23	21	PSI
(G)	Final Closed-in Pressure	23	28	PSI
(H)	Final Hydrostatic Mud	2326	2311	PSI

COMPANY Dunigan Operating Co. LEASE AND WELL NO. Reeves #1 SEC. 32 TWP. 18 RGE. 26 TEST NO. 1 DATE 6-14-72

RELIANCE EXPLORATION INCORPORATED

TELEPHONE
316 262-0483

1015 CENTURY PLAZA BLDG. • WICHITA, KANSAS 67202 • CONTRACT SEISMOGRAPH SERVICE

Mr. Charles W. Steincamp
STRATA DRILLING, INC.
2421 Tenth St.
Great Bend 67530

Date August 10, 1972

Mr. Steincamp:

We are transmitting the following on PROSPECT REEVES
Township 18 South Range 26 West
County Ness State Kansas

1 Set(s) of the following maps: Contoured

1. Shot Point Elevations
2. Anhydrite: Rough Topo Using (TUH)
3. Isotime: Anhydrite to Upper Penn
4. Isotime: Anhydrite to Near Lansing
5. Isotime: Anhydrite to Mississippian

☐ Survey Notes
☐ Survey Overlay
☐ Drill Logs
☐ _____

☐ Records _____

Yours very truly,

W.R. Heatley

Please sign and return the copy of this form.

Received this _____ day of _____

By _____

R 26 W

KB 2588

BB +1218
An + 636
UP - 877
Hb -1320
L -1364
Paw -1824
Ck -1903
M -1994

An + 640
Hb -
L -1361
FS -1875
TD -1975

29

28

G10 +2534

G12 +2545

T

KB 2584

An + 644
Hb -1306
L -1349
FS -1868
Ch -1949
M -1966

G4 +2553

G20 +2540

G14 +2521

S

G6 +2551

G21 +2544

EL +2542 G16,A

G17 +2519

An + 671
Hb -1305
L -1347
Mrm -1733
FS -1867
Cksh -1889
Cksd -1949
M -1971

32

33

KB 2529

BB +1242
An + 654
UP - 860
Hb -1315
L -1358
Paw -1827
Ck -1908
M -2006

NOTES: "G" POINTS SHOT BY GEOSEARCH.

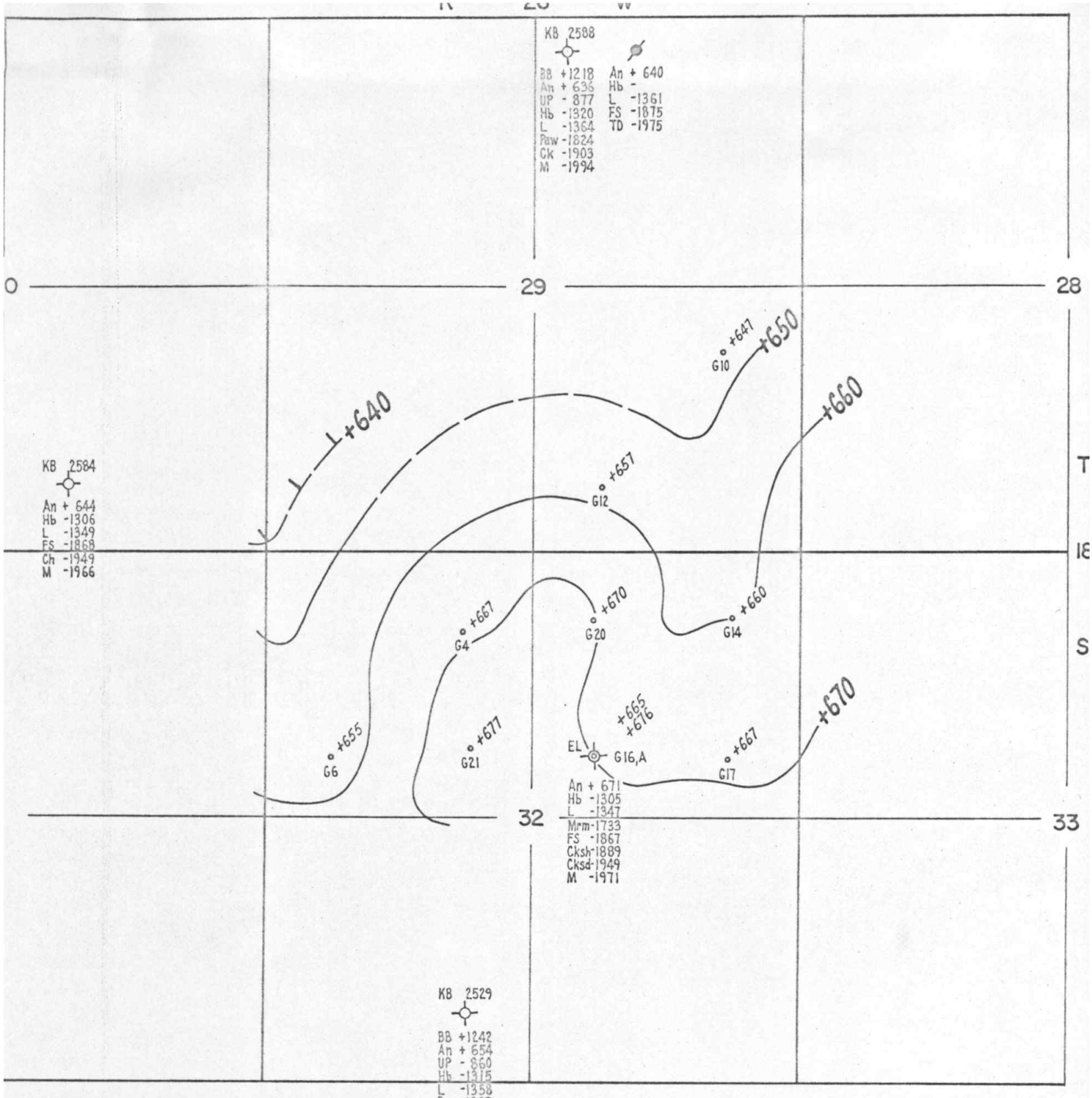
REEVES PROSPECT
NESS COUNTY, KANSAS
FOR
FRANCIS OIL & GAS INC.

SHOT POINT ELEVATIONS

Scale: 4" = 1 Mile
Date: 8-10-72
Map (1) of (5) maps

Contour Interval:
Interpretation By: W.R. HEATLEY
Plane: 2400

RELIANCE EXPLORATION, INC.
Wichita, Kansas



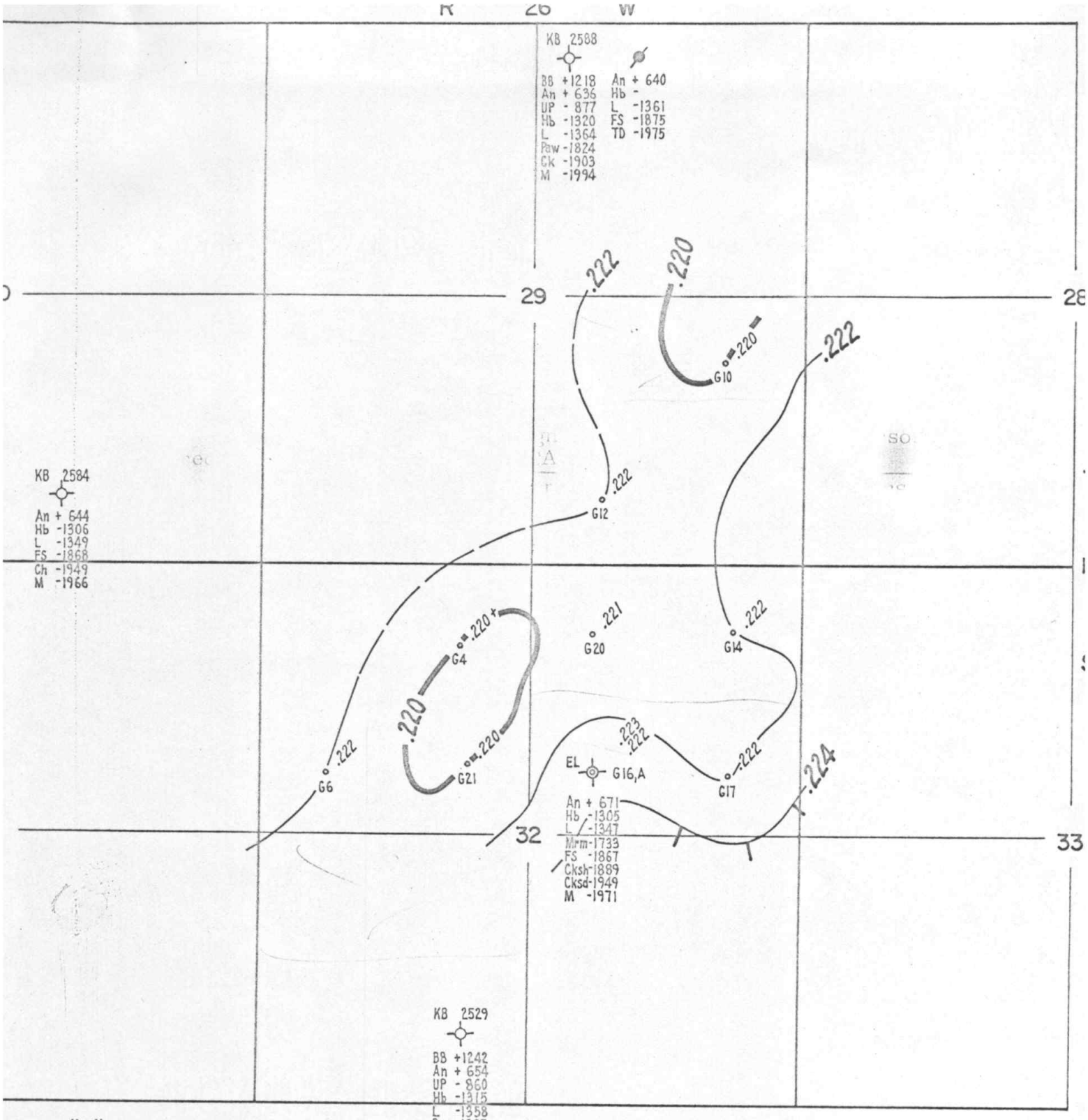
NOTES: "G" POINTS SHOT BY GEOSEARCH.
REFLECTION QUALITY GOOD.

REEVES PROSPECT
NESS COUNTY, KANSAS
FOR
FRANCIS OIL & GAS INC.

ANHYDRITE: ROUGH TOPO USING (TUH)

Scale: 4" = 1 Mile
Contour Interval: 10'
Date: 8-10-72
Interpretation By: W.R. HEATLEY
Map (2) of (5) maps
Plane: 2400

RELIANCE EXPLORATION, INC.
Wichita, Kansas



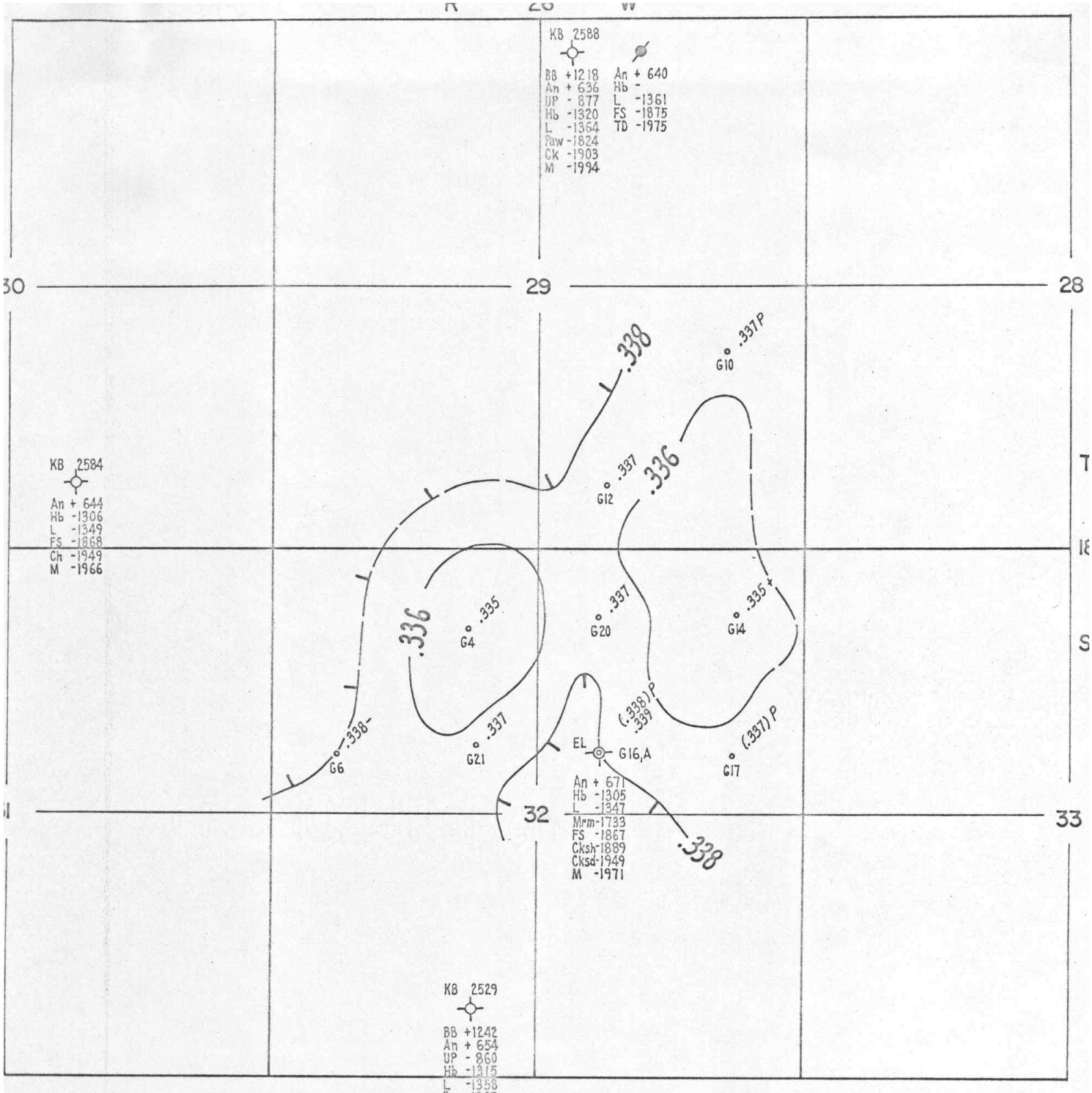
OTES: "G" POINTS SHOT BY GEOSEARCH.
REFLECTION QUALITY FAIR.

REEVES PROSPECT
NESS COUNTY, KANSAS
FOR
FRANCIS OIL & GAS INC.

ISOTIME: ANHYDRITE TO UPPER PENN

Scale: 4" = 1 Mile
Contour Interval: .002 Sec.
Date: 8-10-72
Interpretation By: W.R. HEATLEY
Map (3) of (5) maps
Plane: 2400

RELIANCE EXPLORATION, INC.
Wichita, Kansas



NOTES: "G" POINTS SHOT BY GEOSEARCH.
REFLECTION QUALITY FAIR TO POOR.

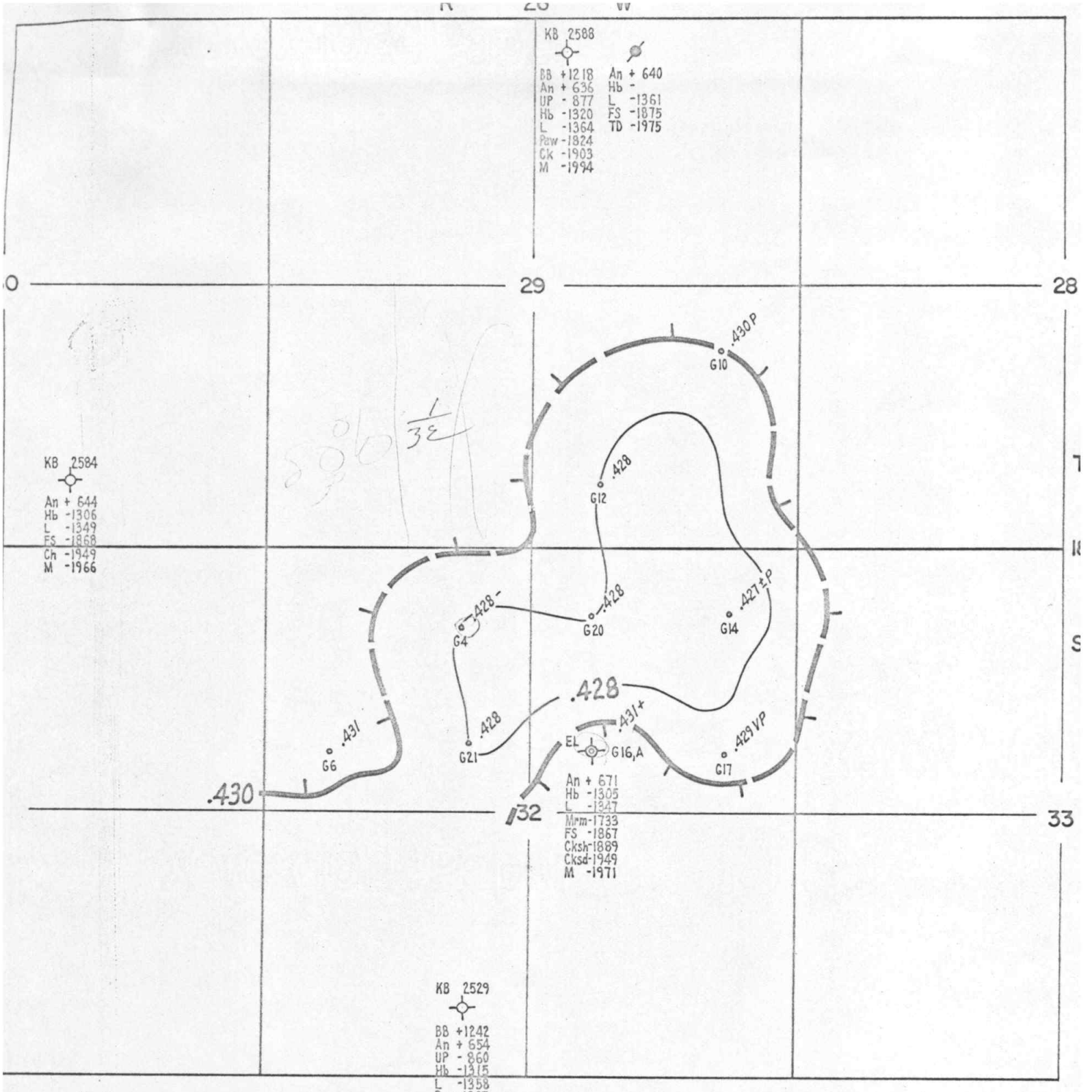
REEVES PROSPECT
NESS COUNTY, KANSAS
FOR
FRANCIS OIL & GAS INC.

ISOTIME: ANHYDRITE TO NEAR LANSING

Scale: 4" = 1 Mile
Date: 8-10-72
Map (4) of (5) maps

Contour Interval: .002 Sec.
Interpretation By: W.R. HEATLEY
Plane: 2400

RELIANCE EXPLORATION, INC.
Wichita, Kansas



NOTES: "G" POINTS SHOT BY GEOSEARCH.
REFLECTION QUALITY FAIR TO POOR.
RECORD QUALITY POOR.
BEST MAP.

REEVES PROSPECT
NESS COUNTY, KANSAS
FOR
FRANCIS OIL & GAS INC.

ISOTIME: ANHYDRITE TO MISSISSIPPIAN

Scale: 4" = 1 Mile
Date: 8-10-72
Map (5) of (5) maps

Contour Interval: .002 Sec.
Interpretation By: W.R. HEATLEY
Plane: 2400

RELIANCE EXPLORATION, INC.
Wichita, Kansas

6-4-19HP Map. No. _____

WILDCAT

OPER DUNIGAN OPERATING
BOX 261, PAMPA, TEXAS
WELL #1 REEVES
CONTR CHIEF DRILLING
WC 2½ MI SW ALDRICH (FS-MISS)
IP D&A
API#15-135-20627

S-T-R 32-18S-26W
SPOT C SW NE
CO NESS, KS
ELEV 2549 KB

WF INIT
WF FIN

SPUD 6-7-72, 8-5/8"@344 w/225, Geol-Jim Guinotte & Harold Steincamp
No Cores
DST#1(FS)4405-40, op15min, si30min, op30min, si30min, rec5'drlg mud, ISIP 47, IFP 23, FFP 23, FSIP 23;
DST#2(CHER SD)4488-4512, op15min, si30min, op60min, si 45min, 180GIP, rec600'oil-mdy oil, gty 38, ISIP 1221, IFP 150, FFP 325, FSIP 1036;
DST#3(MISS)4518-27, op15min, si30min, op30min, si30min, Rec5'OCM, ISIP 286, IFP 0, FFP 0, FSIP 167;
DST STRD#4(CHER-MISS)4488-4525, op15min, si45min, op120 min, si45min, 60'GIP, rec100'clean oil, 168'mdy oil, 120' HOCM, ISIP 1225, IFP 156, FFP 435, FSIP 955;
RTD 4569, Log, D&A COMPLETED 6-18-72.

KB LOG TOPS

HEEBNER	3854 -1305
LANSING	3896 -1347
MARMATON	4282 -1733
FORT SCOTT	4416 -1867
CHEROKEE SAND	4498 -1949
MISS	4520 -1971
LTD	4568 -2019
TD IN MISS	

KB SPL TOPS

ANHYDRITE	1888 + 661
B/ANHYDRITE	1934 + 615
HEEBNER	3857

CONT.

Petroleum Information Corporation.
A Subsidiary of A. C. Nielsen Company

Welex

RADIATION-GUARD LOG

COMPANY Dunigan Operating Company
WELL Reeves #1
FIELD Wildcat
COUNTY Ness STATE Kansas

COMPANY / WELL Field Print / FIELD / County / State

Location SW - NE
Sec. 32 Twp 18S Rge 26W

Other Services: None

Permanent Datum Ground Level Elev. 2544
Log Measured From Kelly Bushing Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elev.: K.B. 2549
D.F. 2546
G.L. 2544

Date	6-16-72	6-16-72	6-16-72
Run No. One	Gamma	Neutron	Guard
Depth—Driller	4569	4569	4569
Depth—Welex	4568	4568	4568
Btm. Log Inter.	4560	4568	4560
Top Log Inter.	0	0	3800
Casing—Driller	@	@	8 5/8 @ 347
Casing—Welex			347
Bit Size			7 7/8
Type Fluid in Hole			Salt Base Mud
Dens. | Visc.	|	|	9.6 | 54
pH | Fluid Loss	| ml	| ml	6.6 | 10.2 ml
Source of Sample			Flo-Line
R_m @ Meas.Temp.	@ °F	@ °F	.18 @ 98 °F
R_{mf} @ Meas.Temp.	@ °F	@ °F	.134 @ 98 °F
R_{mc} @ Meas.Temp.	@ °F	@ °F	.252 @ 98 °F
Source R_{mf} R_{mc}	|	|	Meas |
R_m @ BHT	@ °F	@ °F	.15 @ 120 °F
Time Since Circ.			Two Hours
Max. Rec. Temp.	°F @	°F @	120 °F @ B.H.
Equip. | Location	7434 | Hays	|	|
Recorded By	J Davis +	B. Brull	
Witnessed By	Mr. Steincamp + Mr.		Guinotte

	@	
		ml
	@	°F
	@	°F
	@	°F
	|	
	@	°F
	°F @	
	|	

LAHOH - - - AA .05845

Service Ticket No. 60111 Remarks: —

Change in Mud Type or Additional Samples		
Date / Sample No.		
Depth—Driller		
Type Fluid in Hole		
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	.15 @120° F	@ °F
R_{mf} BHT	.112 @120° F	@ °F
R_{mc} BHT	.21 @120° F	@ °F

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole
R-Grd	4568	No Change	

EQUIPMENT DATA

Run No.	Tool Type and No.	Pad Type	Tool Position	Other
One	Kansas 12822		Cent.	

Welex does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may be given by Welex personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees that Welex is not responsible, except where due to gross negligence or wilful misconduct, for any loss, damages, or expenses resulting from the use thereof .

EQUIPMENT DATA

GAMMA RAY			
Run No.	One		
Tool Model No.	Kansas		
Diameter	3 3/8		
Detector Model No.	D461		
Type	Scint.		
Length	4"		
Distance to N. Source	96"		

NEUTRON			
Run No.	One		
Log Type	Neutron-Gamma		
Tool Model No.	Kansas		
Diameter	3 3/8		
Detector Model No.	1C8		
Type	G.M.		
Length	14"		

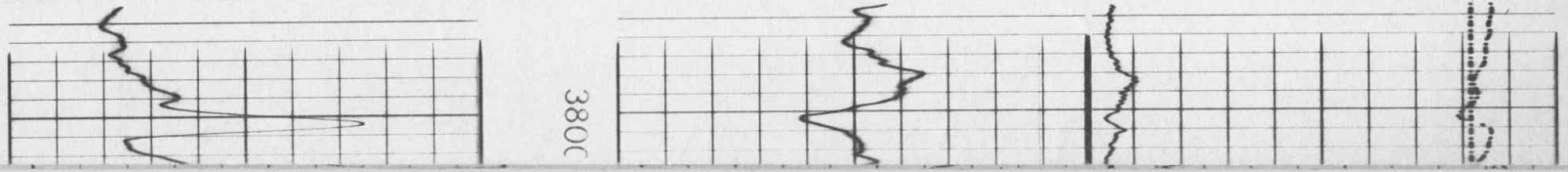
Hoist Truck No.	7434			Spacing	13.9"			
Instrument Truck No.	7434			Type	Pu.Be.			
Tool Serial No.	12822			Strength	8.5X10⁶	N.C.P.S		

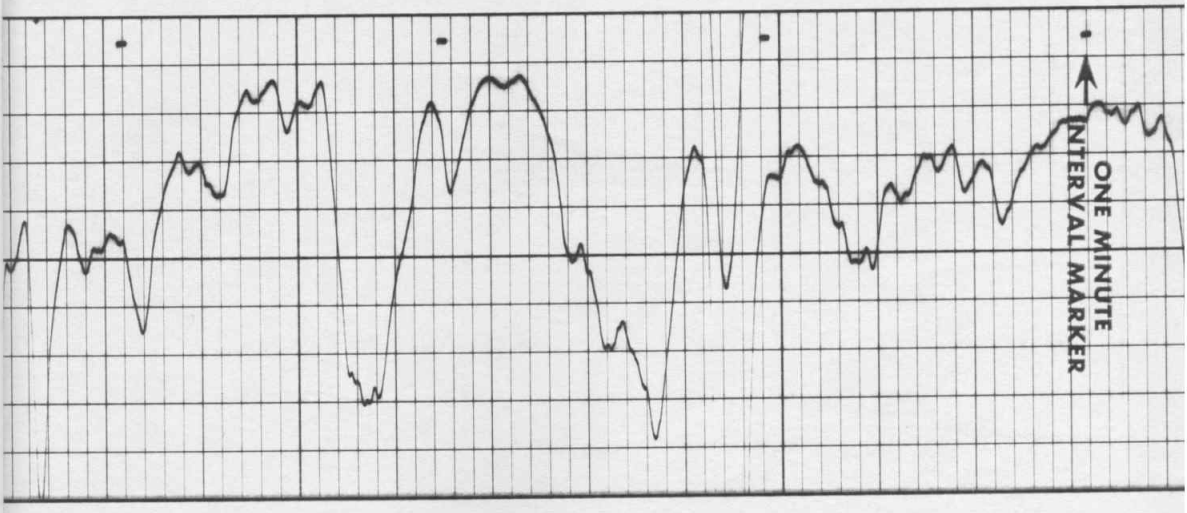
LOGGING DATA

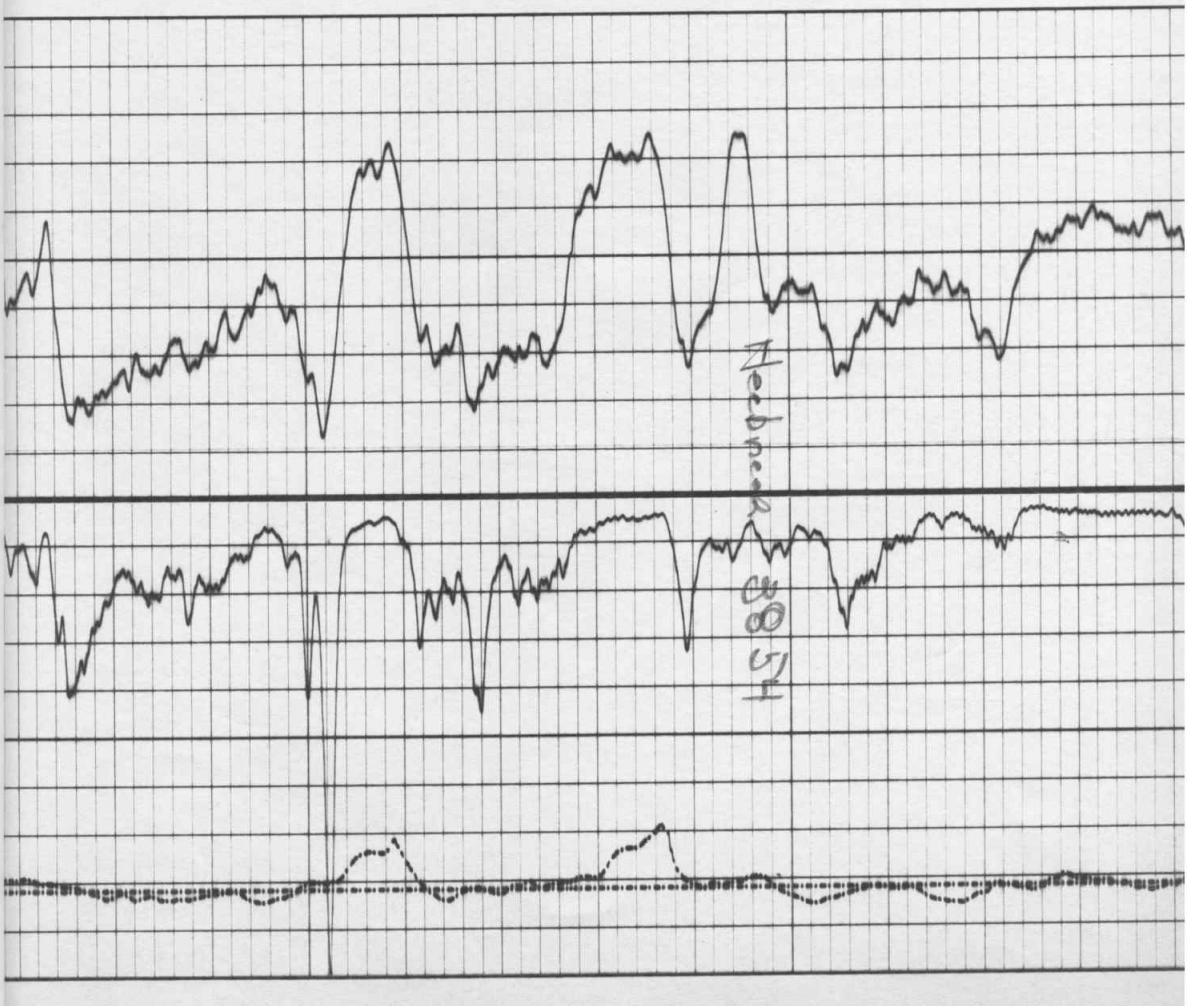
GENERAL				GAMMA RAY				NEUTRON			
Run No.	Depths From	Depths To	Speed Ft/Min.	T.C. Sec.	Sens. Settings	Zero Div. L. or R.	API GR Units per Log Div.	T.C. Sec.	Sens. Settings	Zero Div. L. or R.	API Neutron Units per Log Div.
One	4568	3800	*	1	100	16	10	1	1000	66	100
			See Time Marker								

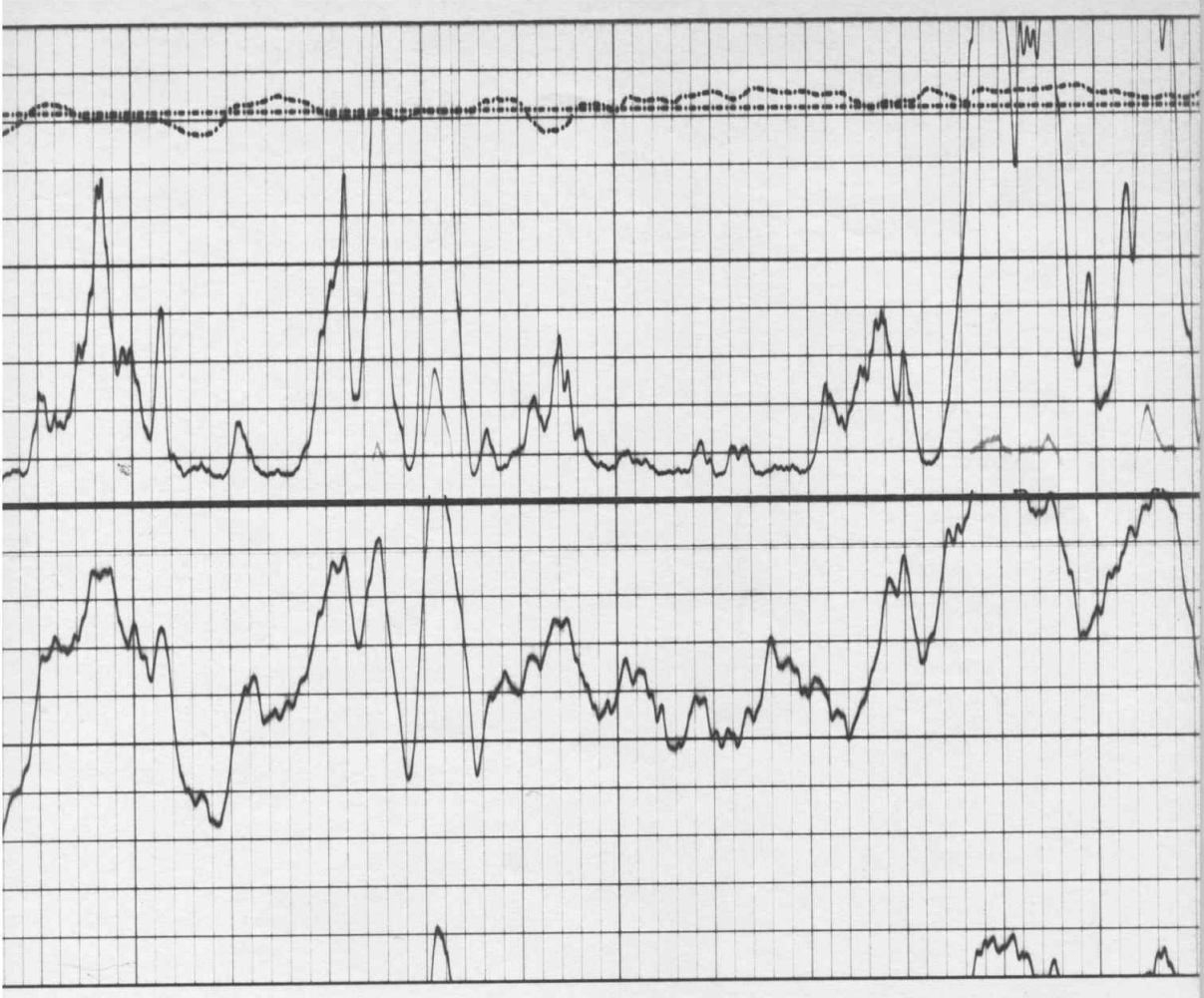
5" = 100'

GAMMA API Gamma Ray Units		DEPTH	NEUTRON GAMMA API Neutron Units		GUARD Resistivity Ohms M²/M	
10	110		600	1600	0	50
110	310		1600	2600	0	500
					16---- Caliper ----6	
INDICATION OF LOGGING SPEED FEET PER MINUTE						

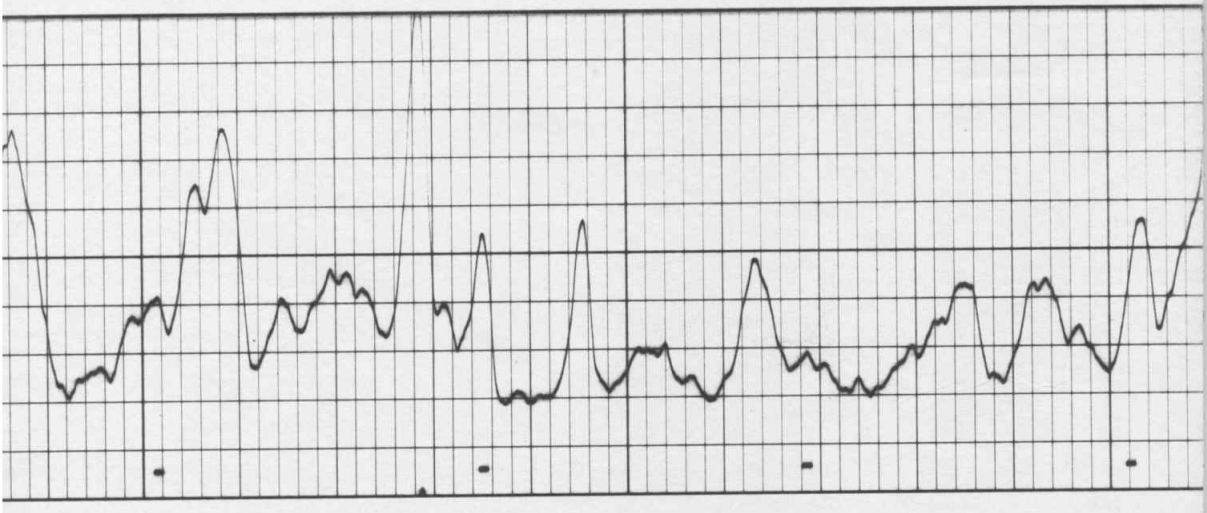


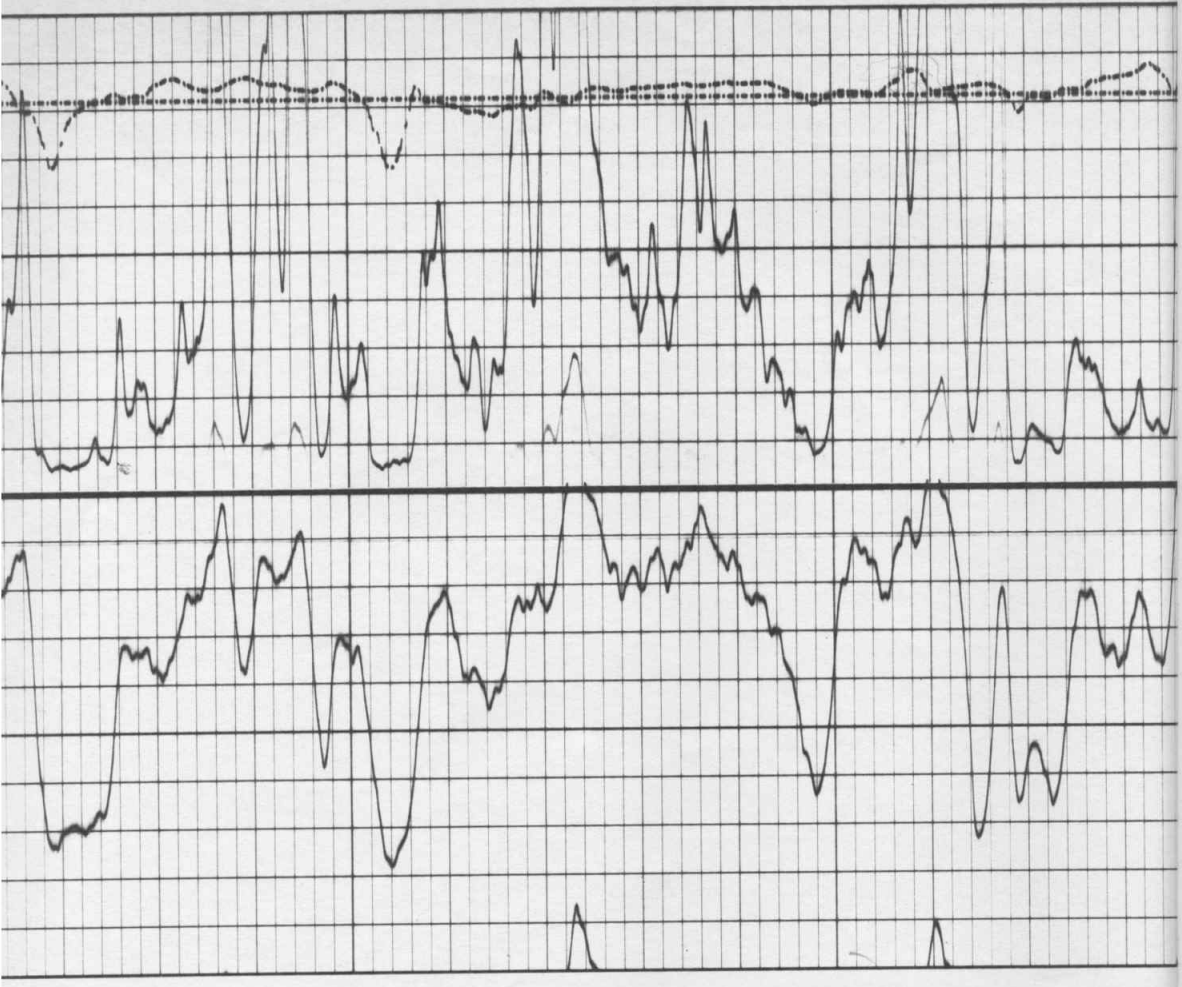

ONE MINUTE
INTERVAL MARKER


Herbner
CV 80 VI

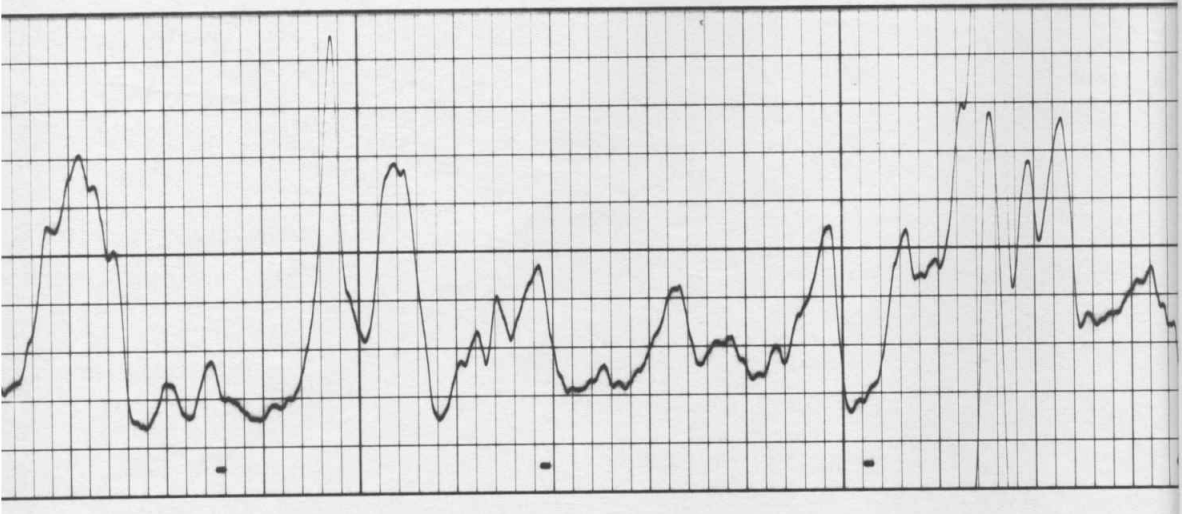


4000

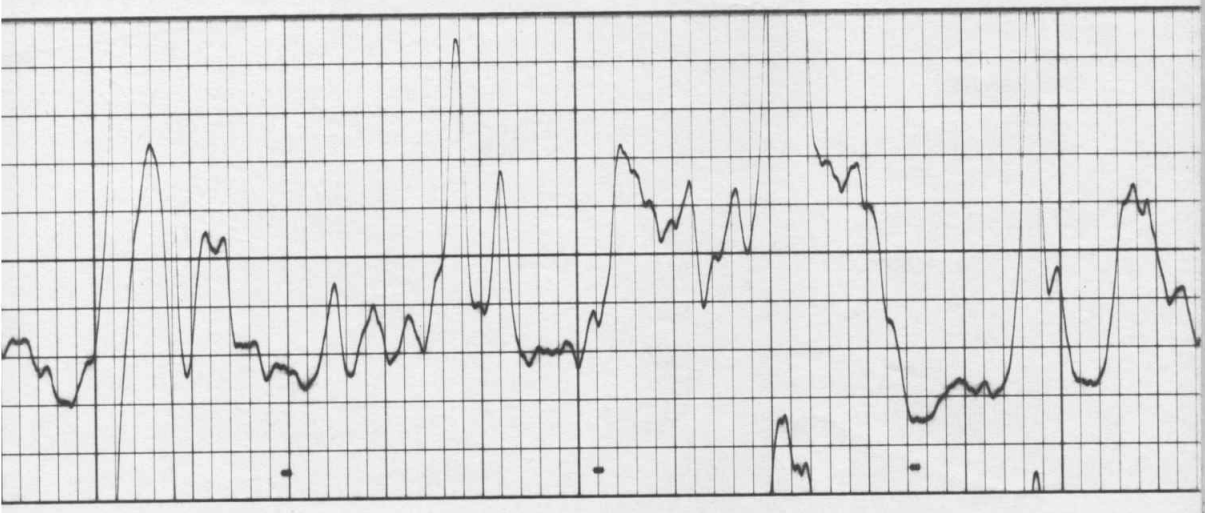


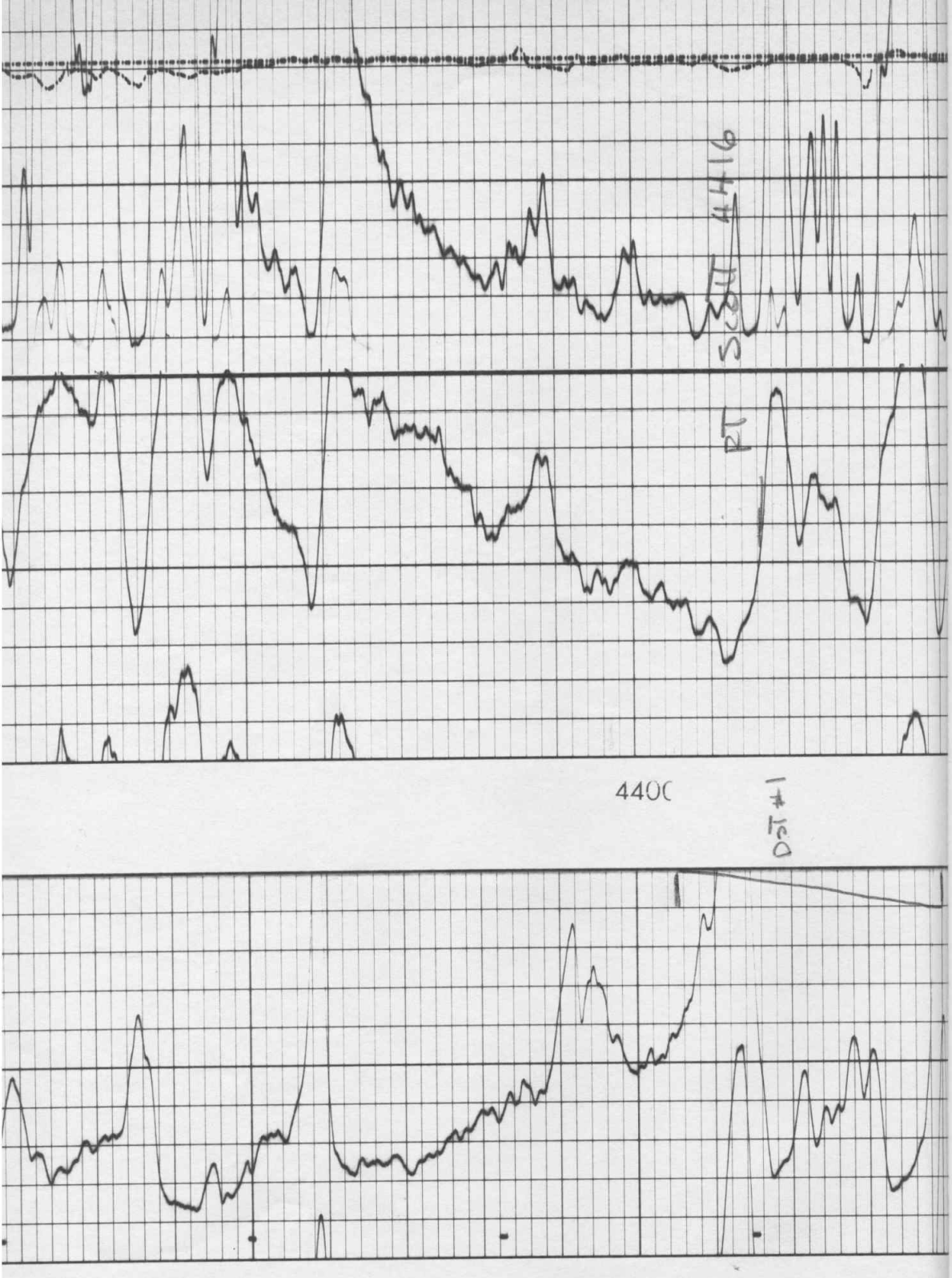


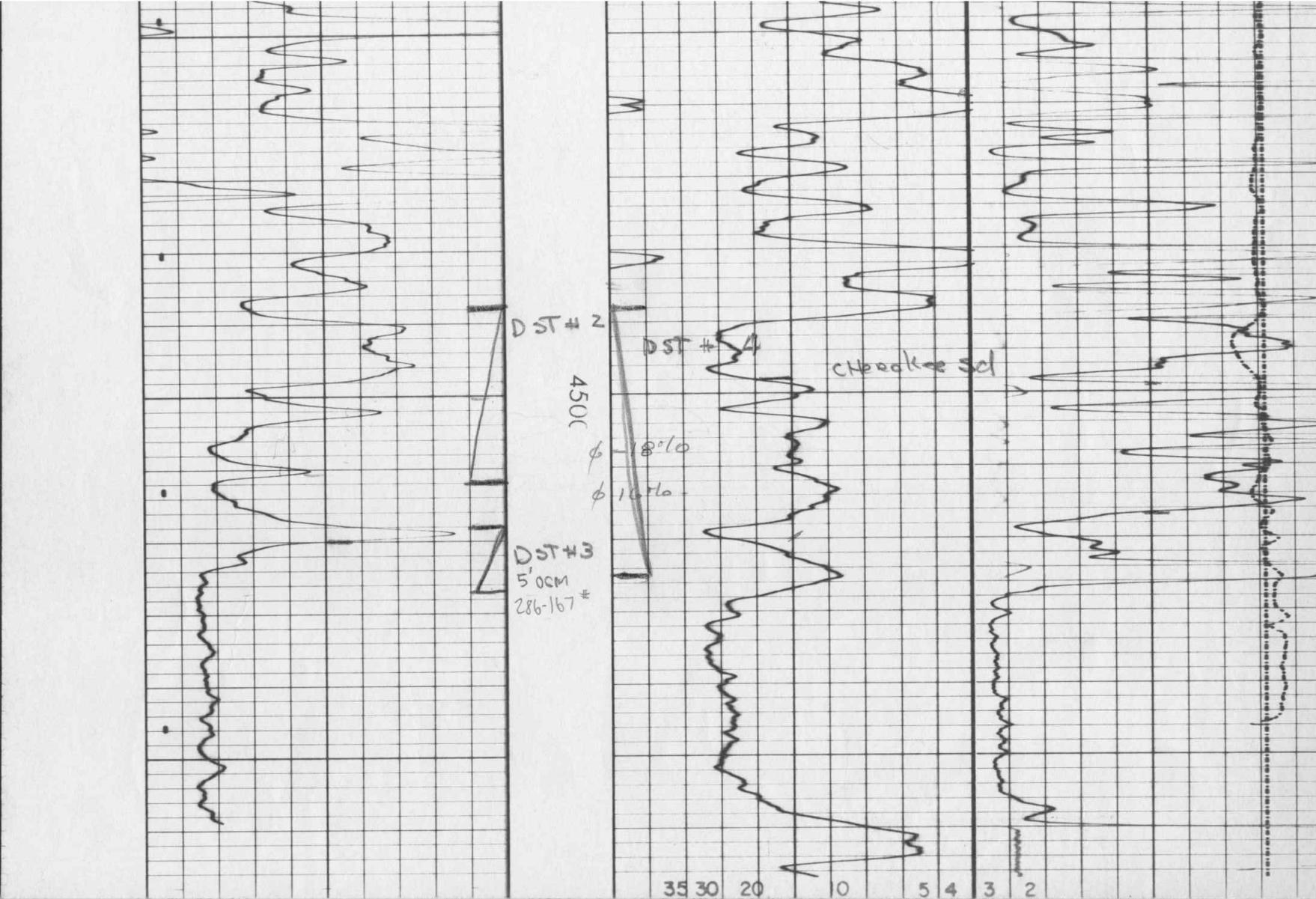
4100




28 27
Wave V1
4200
4300




9144
Scott
pT
4400
051 ±1

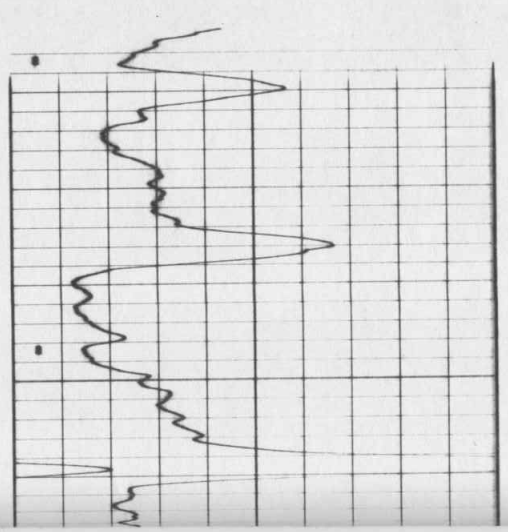

DST # 2
4500
DST #3
5' OCM
286-167 #
DST # 4
Cherokee Sd
35 30 20 10 5 4 3 2

LM — DOL — CHERTS

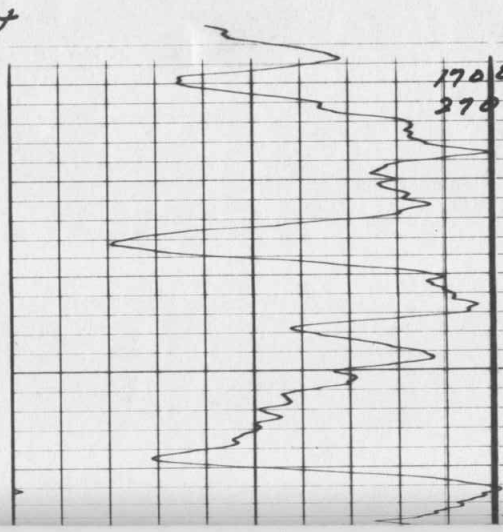
POROSITY IN PERCENT (API)
MOST SANDSTONES

35 30 20 10 5 4 3 2

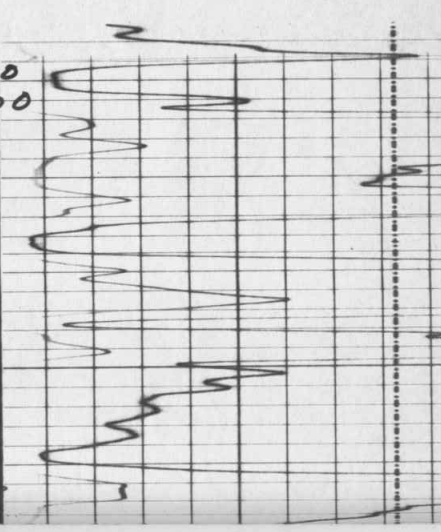
GAMMA API Gamma Ray Units	NEUTRON GAMMA API Neutron Units	GUARD Resistivity Ohms M^2/M
		16----Caliper----
10 110	600 1600	0 5
110 310	1600 2600	0 50

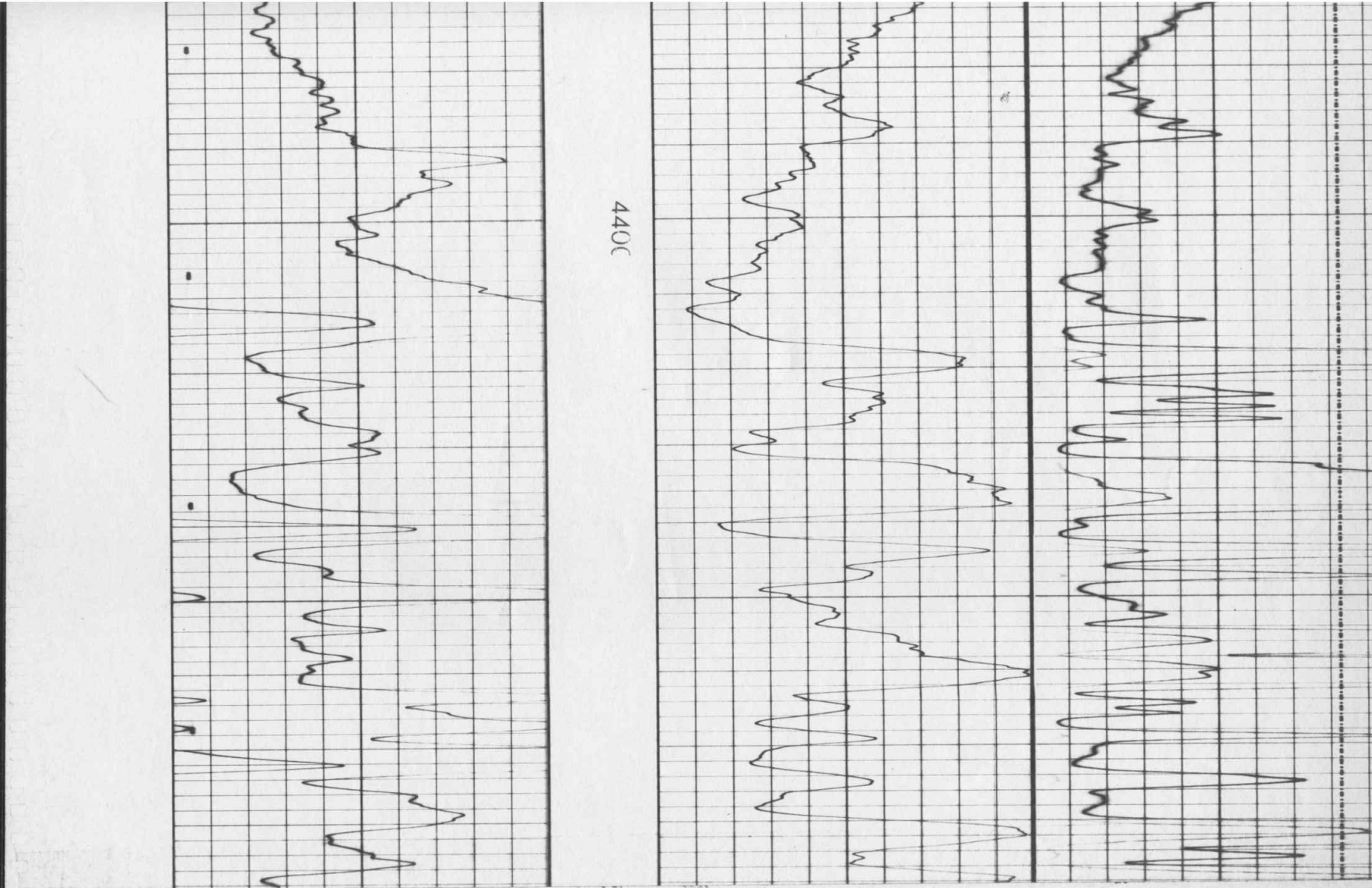


Repeat Run
700
1700



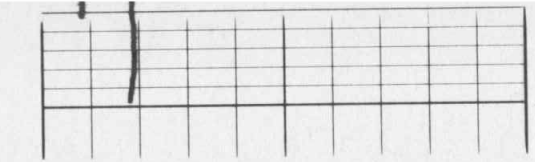
1700
2700

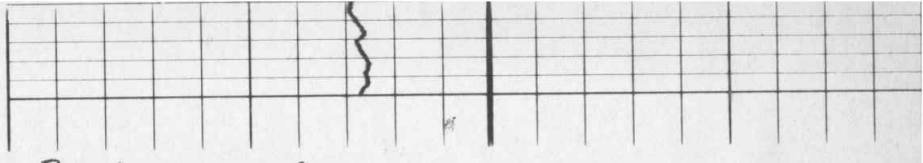




Background

Before Log Calibration

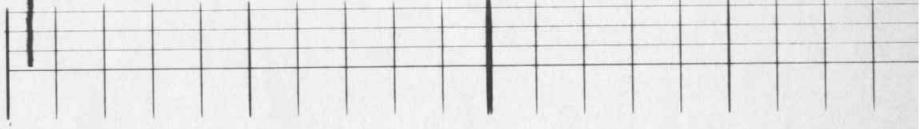




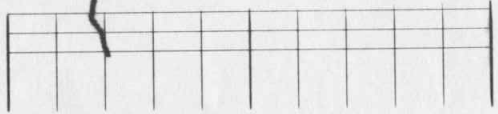
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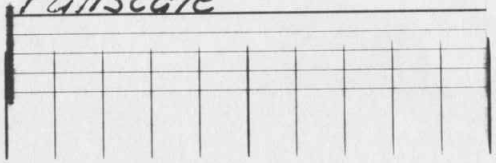
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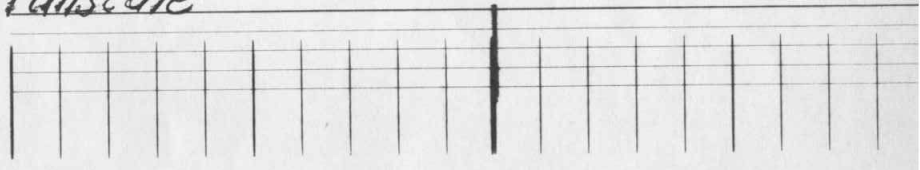
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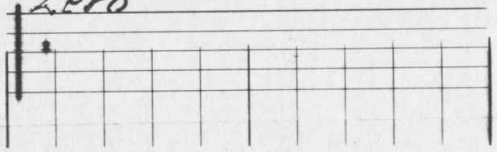
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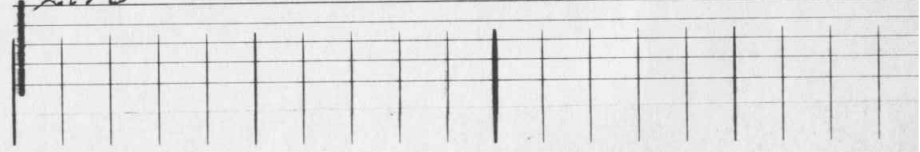
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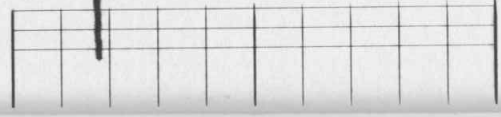


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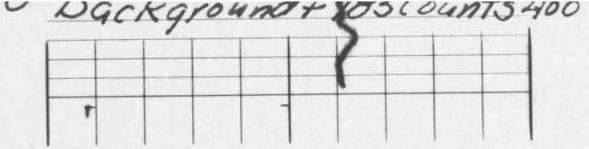
After Log Calibration

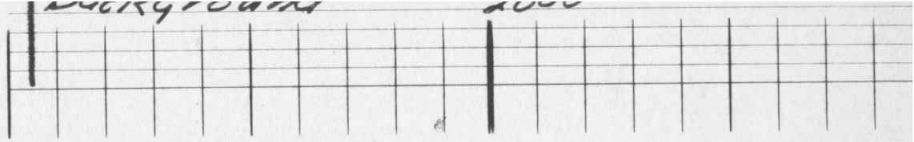
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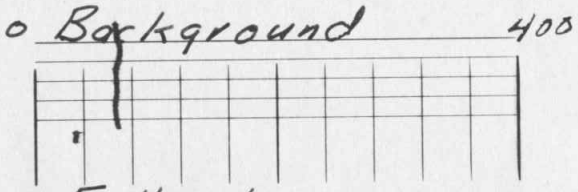


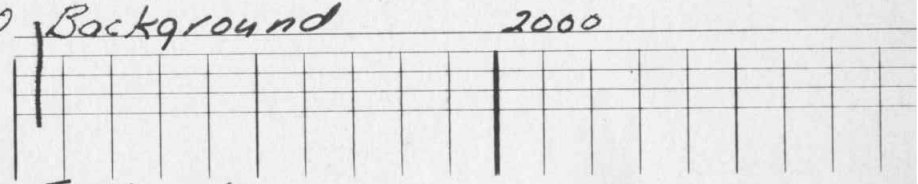
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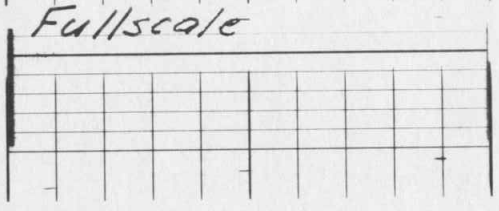


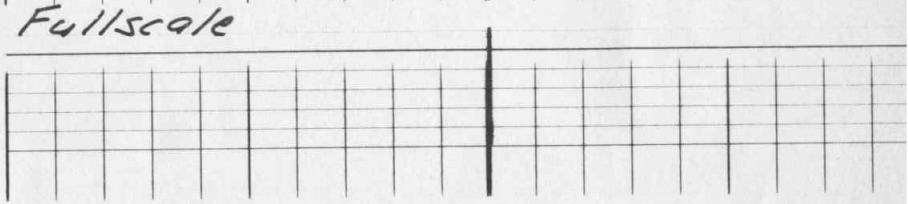

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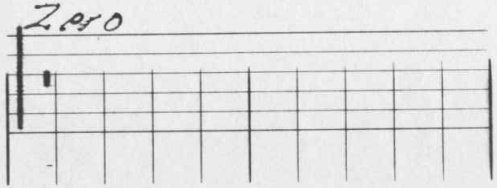

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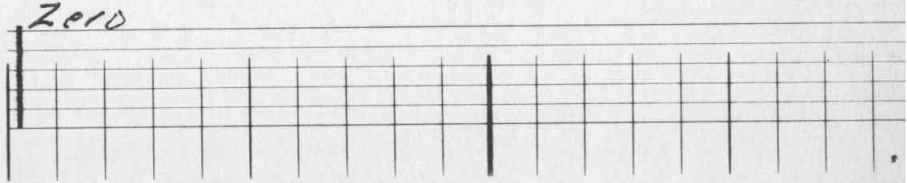

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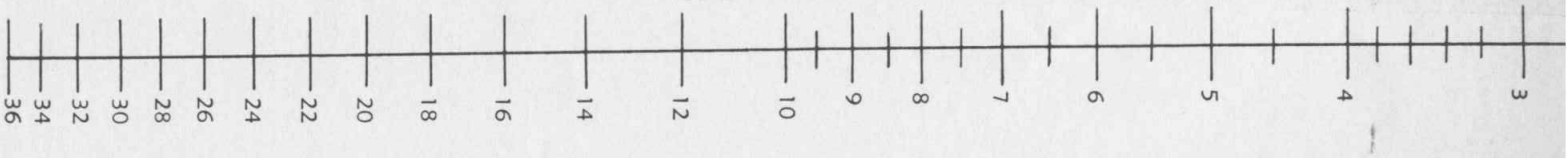

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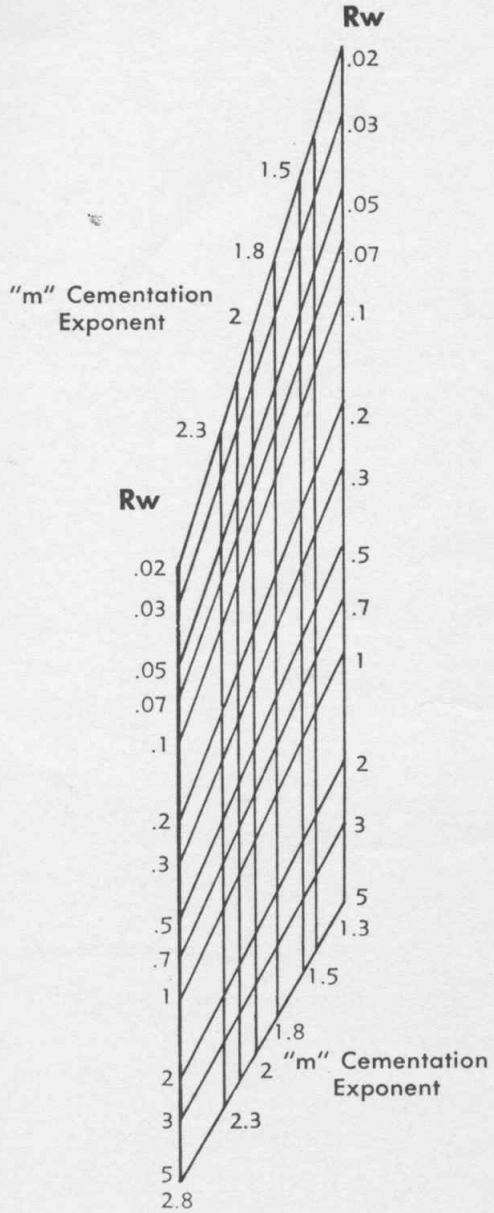

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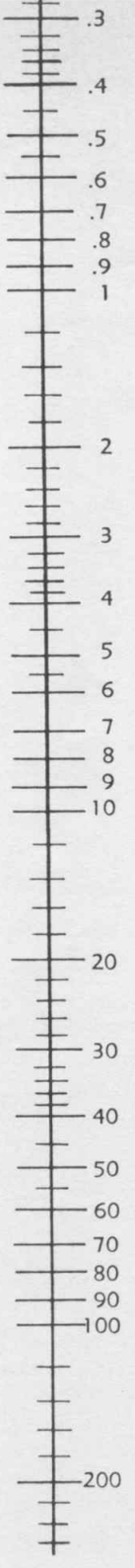

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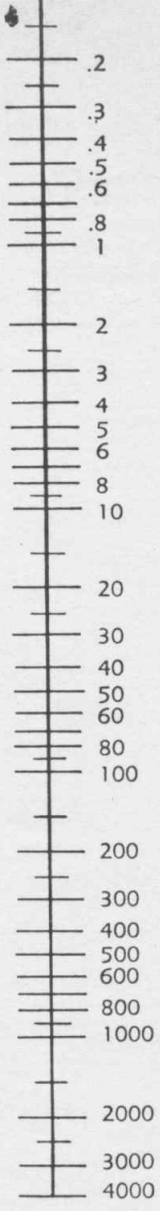

Zero


Zero

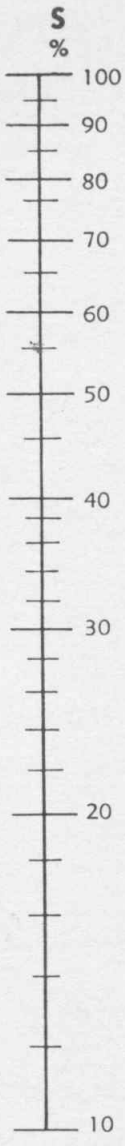

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WESTERN TESTERS

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Dunigan Operating Company Lease & Well No. Reeves #1

Elevation 2549 Kelly Bushings Formation Cherokee Sand Effective Pay 7 Ft. Ticket No. 16772

Date 6-15-72 Sec. 32 Twp. 18 Range 26 County Ness State Kansas

Test Approved by Harold Steincamp Western Representative Leon Elmore

Formation Test No. 2 O.K. X Misrun Interval Tested From 4488' to 4512' Total Depth 4512'

Size Main Hole 7 7/8" Rat Hole Conv. B.T. X Damaged Yes X No Conv. B.T. X Damaged Yes X No

Packer Depth 4483 Ft. Size 6 3/4" Packer Depth 4488 Ft. Size 6 3/4"

Straddle Yes No X Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 24 Ft. Size 5 1/2" O.D.

RECORDERS Depth 4503 Ft. Clock No. 8377 Depth 4506 Ft. Clock No. 5665

Top Make Kuster Cap 4500 No. 3085 Inside Outside Bottom Make Kuster Cap 4400 No. 2603 Inside Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap No. Inside Outside Bottom Make Cap No. Inside Outside

Time Set Packer 1:32 P. M

Tool Open I.F.P. From 1:34 M. to 1:49P. M. Hr. 15 Min. From (B) 28 P.S.I. To (C) 66 P.S.I.

Tool Closed I.C.I.P. From 1:49 M. to 2:19P. M. Hr. 30 Min. (D) 1216 P.S.I.

Tool Open F.F.P. From 2:19 M. to 3:22P. M. Hr. 63 Min. From (E) 93 P.S.I. To (F) 226 P.S.I.

Tool Closed F.C.I.P. From 3:22 M. to 4:07P. M. Hr. 45 Min. (G) 1036 P.S.I.

Initial Hydrostatic Pressure (A) 2386 P.S.I. Final Hydrostatic Pressure (H) 2331 P.S.I.

SURFACE INFORMATION	Size Choke 3/4 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Weak to good Bottom Choke Size In.

Did Well Flow Yes X No Recovery Total Ft. 240 feet clean oil - 360 feet muddy oil - 180 feet gas in pipe (7% mud-6% water-87%oil)

Reversed Out Yes X No Mud Type Starch Viscosity 53 Weight 9.6 Water Loss 9 cc. Maximum Temp. 132 °F

Type Circ. Sub Plug Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 3456 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1012 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ft.

I.D. Drill Collars in. Length D.S.T. Tool 44 ft.

Remarks 38° gravity oil - corrected

WESTERN TESTING CO., INC.

Pressure Data

ite 6-15-72 Test Ticket No. 16772

:corder No. 3085 Capacity 4500 Location 4503 Ft.

ock No. 8377 Elevation 2549 Kelly Bushings Well Temperature 132 °F

oint		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	2386 P.S.I.	Open Tool		1:34 P.M	
B	First Initial Flow Pressure	28 P.S.I.	First Flow Pressure		15 Mins.	16 Mins.
C	First Final Flow Pressure	66 P.S.I.	Initial Closed-in Pressure		30 Mins.	31 Mins.
D	Initial Closed-in Pressure	1216 P.S.I.	Second Flow Pressure		63 Mins.	62 Mins.
E	Second Initial Flow Pressure	93 P.S.I.	Final Closed-in Pressure		45 Mins.	45 Mins.
F	Second Final Flow Pressure	226 P.S.I.				
G	Final Closed-in Pressure	1036 P.S.I.				
H	Final Hydrostatic Mud	2331 P.S.I.				

PRESSURE BREAKDOWN

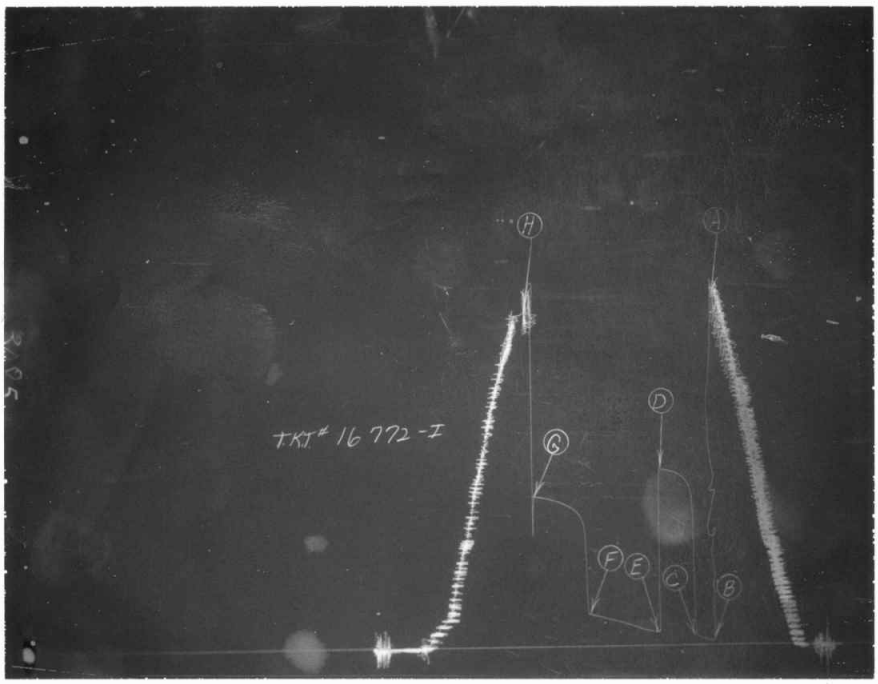
First Flow Pressure
Breakdown: 3 Inc.
of 5 mins. and a
final inc. of 1 Min.

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 1 Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 2 Min.

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	28	0	66	0	93	0	226
P 2 5	33	3	743	5	96	3	916
P 3 10	45	6	1057	10	105	6	883
P 4 15	62	9	1122	15	114	9	918
P 5 16	66	12	1152	20	131	12	944
P 6		15	1171	25	143	15	960
P 7		18	1187	30	155	18	974
P 8		21	1196	35	169	21	983
P 9		24	1203	40	179	24	995
P10		27	1210	45	191	27	1004
P11		30	1214	50	201	30	1009
P12		31	1216	55	210	33	1016
P13				60	222	36	1023
P14				62	226	39	1030
P15						42	1033
P16						45	1036
P17							
P18							
P19							
P20							



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2400	2386	PSI
(B)	First Initial Flow Pressure	35	28	PSI
(C)	First Final Flow Pressure	65	66	PSI
(D)	Initial Closed-in Pressure	1221	1216	PSI
(E)	Second Initial Flow Pressure	95	93	PSI
(F)	Second Final Flow Pressure	227	226	PSI
(G)	Final Closed-in Pressure	1036	1036	PSI
(H)	Final Hydrostatic Mud	2291	2331	PSI

COMPANY Dunigan Operating Co. LEASE AND WELL NO. Reeves #1 SEC. 32 TWP. 18 RGE. 26 TEST NO. 2 DATE 6-15-72

WESTERN TESTERS

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Dunigan Operating Company Lease & Well No. Reeves #1

Elevation 2549 Kelly Bushings Formation Cherokee Sand Effective Pay 7 Ft. Ticket No. 16773

Date 6-16-72 Sec. 32 Twp. 18 Range 26 County Ness State Kansas

Test Approved by Harold Steincamp Western Representative Leon Elmore

Formation Test No. 3 O.K. X Misrun ____ Interval Tested From 4518' to 4527' Total Depth 4527'

Size Main Hole 7 7/8" Rat Hole ____ Conv. ____ B.T. X Damaged ____ Yes X No Conv. ____ B.T. X Damaged ____ Yes X No

Packer Depth 4513 Ft. Size 6 3/4" Packer Depth 4518 Ft. Size 6 3/4"

Straddle ____ Yes ____ No X Conv. ____ B.T. ____ Damaged ____ Yes ____ No

Packer Depth ____ Ft. Size ____

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 9 Ft. Size 5 1/2" O.D.

RECORDERS Depth 4521 Ft. Clock No. 8377 Depth 4524 Ft. Clock No. 5665

Top Make Kuster Cap 4500 No. 3085 Inside Outside Bottom Make Kuster Cap 4400 No. 2603 Inside Outside

Below Straddle: Depth ____ Clock No. ____ Inside Outside Depth ____ Ft. Clock No. ____ Inside Outside

Top Make ____ Cap ____ No. ____ Inside Outside Bottom Make ____ Cap ____ No. ____ Inside Outside

Time Set Packer 6:18 A. M

Tool Open I.F.P. From 6:20 M. to 6:35A. M Hr. 15 Min. From (B) 0 P.S.I. To (C) 0 P.S.I.

Tool Closed I.C.I.P. From 6:35 M. to 7:05A. M Hr. 30 Min. (D) 287 P.S.I.

Tool Open F.F.P. From 7:05 M. to 7:35A. M Hr. 30 Min. From (E) 4 P.S.I. To (F) 4 P.S.I.

Tool Closed F.C.I.P. From 7:35 M. to 8:05A. M Hr. 30 Min. (G) 172 P.S.I.

Initial Hydrostatic Pressure (A) 2399 P.S.I. Final Hydrostatic Pressure (H) 2371 P.S.I.

SURFACE INFORMATION	Size Choke 3/4 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Weak for 13 min. - died Bottom Choke Size 3/4 In.

Did Well Flow ____ Yes X No Recovery Total Ft. 5 feet oil cut mud

Reversed Out ____ Yes X No Mud Type Starch Viscosity 53 Weight 9.6 Water Loss 9 cc. Maximum Temp. 130 °F

Type Circ. Sub. Plug Safety Joint No Jars: Size ____ Make ____ Ser. No. ____

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where? ____

Length Drill Pipe 3486 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1012 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ____ ft.

I.D. Drill Collars ____ in. Length D.S.T. Tool 29 ft.

Remarks

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 6-16-72 Test Ticket No. 16773

Recorder No. 3085 Capacity 4500 Location 4521 Ft.

Clock No. 8377 Elevation 2549 Kelly Bushings Well Temperature 130 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2399 P.S.I.	Open Tool	6:20 A. M	
B First Initial Flow Pressure	0 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C First Final Flow Pressure	0 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	287 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	4 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	4 P.S.I.			
G Final Closed-in Pressure	172 P.S.I.			
H Final Hydrostatic Mud	2371 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 3 Inc.
of 5 mins. and a
final inc. of ____ Min.

Point Mins.	Press.
P 1 0	0
P 2 5	0
P 3 10	0
P 4 15	0
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of ____ Min.

Point Minutes	Press.
0	0
3	0
6	3
9	9
12	12
15	15
18	31
21	55
24	98
27	179
30	287

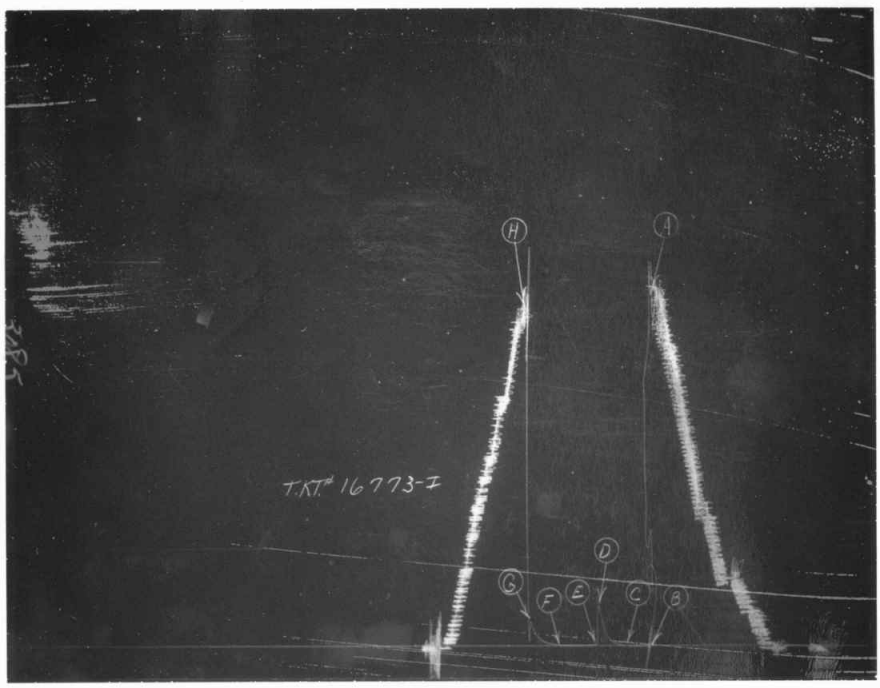
Second Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of ____ Min.

Point Minutes	Press.
0	4
5	4
10	4
15	4
20	4
25	4
30	4

Final Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of ____ Min.

Point Minutes	Press.
0	4
3	4
6	6
9	9
12	11
15	14
18	24
21	40
24	59
27	96
30	172

COMPANY Dunigan Operating Company LEASE AND WELL NO. Reeves #1 SEC. 32 TWP. 18 RGE. 26 TEST NO. 3 DATE 6-16-72



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2440	2399	PSI
(B)	First Initial Flow Pressure	0	0	PSI
(C)	First Final Flow Pressure	0	0	PSI
(D)	Initial Closed-in Pressure	286	287	PSI
(E)	Second Initial Flow Pressure	0	4	PSI
(F)	Second Final Flow Pressure	0	4	PSI
(G)	Final Closed-in Pressure	167	172	PSI
(H)	Final Hydrostatic Mud	2326	2371	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Dunigan Operating Company Lease & Well No. Reeves #1

Elevation 2549 Kelly Bushings Formation Cherokee Sand Effective Pay 13 Ft. Ticket No. 16774

Date 6-17-72 Sec. 32 Twp. 18 Range 26 County Ness State Kansas

Test Approved by Harold Steincamp Western Representative Leon Elmore

Formation Test No. 4 O.K. X Misrun Interval Tested From 4488' to 4525' Total Depth 4568'

Size Main Hole 7 7/8" Rat Hole Conv. B.T. X Damaged Yes X No Conv. B.T. Damaged Yes No

Packer Depth 4488 Ft. Size 6 3/4" Packer Depth Ft. Size

Straddle Yes X No Conv. B.T. X Damaged Yes X No

Packer Depth 4525 Ft. Size 6 3/4"

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 37 Ft. Size 5 1/2" O.D.

RECORDERS Depth 4513 Ft. Clock No. 8377 Depth 4516 Ft. Clock No. 5665

Top Make Kuster Cap 4500 No. 3085 Inside Outside Bottom Make Kuster Cap 4400 No. 2603 Inside Outside

Below Straddle: Depth 4568 Clock No. 152 Inside Outside Depth Ft. Clock No. Inside Outside

Top Make WTC Cap 4000 No. 35 Inside Outside Bottom Make Cap No. Inside Outside

Time Set Packer 5:18 A.M

Tool Open I.F.P. From 5:20 M. to 5:35A M. Hr. 15 Min. From (B) 62 P.S.I. To (C) 123 P.S.I.

Tool Closed I.C.I.P. From 5:35 M. to 6:20A. M. Hr. 45 Min. (D) 1225 P.S.I.

Tool Open F.F.P. From 6:20 M. to 8:20A. M. Hr. 120 Min. From (E) 149 P.S.I. To (F) 433 P.S.I.

Tool Closed F.C.I.P. From 8:20 M. to 9:05A. M. Hr. 45 Min. (G) 956 P.S.I.

Initial Hydrostatic Pressure (A) 2412 P.S.I. Final Hydrostatic Pressure (H) 2381 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/4 In.		M.	
			M.	
			M.	

BLOW Weak to good Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 780 feet muddy oil - 120 feet heavy oil cut mud - 100 feet clean oil - 60 feet gas in pipe.

Reversed Out Yes X No Mud Type Starch Viscosity 45 Weight 9.6 Water Loss 10.2 cc. Maximum Temp. 129 °F

Type Circ. Sub. Plug Safety Joint No Jars: Size 4½"O.D. Make WTC Ser. No. 406

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 3456 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1012 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ft.

I.D. Drill Collars in. Length D.S.T. Tool 100 ft.

Remarks Read outside recorder

WESTERN TESTING CO., INC.
Pressure Data

Date 6-17-72 Test Ticket No. 16774

Recorder No. 2603 Capacity 4400 Location 4516 Ft.

Clock No. 8377 Elevation 2549 Kelly Bushings Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2412 P.S.I.	Open Tool	5:20 A. M	
B First Initial Flow Pressure	62 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C First Final Flow Pressure	123 P.S.I.	Initial Closed-in Pressure	45 Mins.	42 Mins.
D Initial Closed-in Pressure	1225 P.S.I.	Second Flow Pressure	120 Mins.	119 Mins.
E Second Initial Flow Pressure	149 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F Second Final Flow Pressure	433 P.S.I.			
G Final Closed-in Pressure	956 P.S.I.			
H Final Hydrostatic Mud	2381 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 3 Inc.
of 5 mins. and a
final inc. of ____ Min.

Point Mins.	Press.
P 1 0	62
P 2 5	74
P 3 10	101
P 4 15	123
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 14 Inc.
of 3 mins. and a
final inc. of ____ Min.

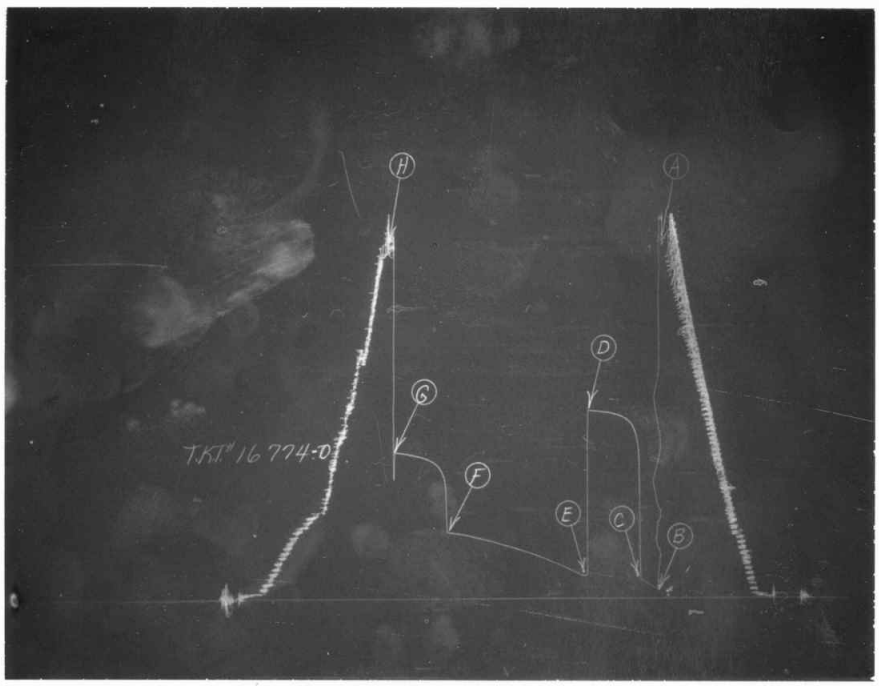
Point Minutes	Press.
0	123
3	1033
6	1104
9	1146
12	1168
15	1184
18	1193
21	1199
24	1206
27	1211
30	1217
33	1219
36	1221
39	1223
42	1225

Second Flow Pressure
Breakdown: 23 Inc.
of 5 mins. and a
final inc. of 4 Min.

Point Minutes	Press.
0	149
5	154
10	171
15	189
20	207
25	223
30	236
35	257
40	272
45	285
50	299
55	312
60	323
65	335
70	348
75	359
~~80~~	~~372~~
85	381
90	390
~~95~~	~~399~~
100	410
105	419
~~110~~	~~423~~
115	430
119	433

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of ____ Min.

Point Minutes	Press.
0	433
3	785
6	845
9	873
12	891
15	902
18	915
21	922
24	929
27	933
30	937
33	942
36	946
39	949
42	953
45	956



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2421	2412	PSI
(B)	First Initial Flow Pressure	66	62	PSI
(C)	First Final Flow Pressure	128	123	PSI
(D)	Initial Closed-in Pressure	1225	1225	PSI
(E)	Second Initial Flow Pressure	156	149	PSI
(F)	Second Final Flow Pressure	435	433	PSI
(G)	Final Closed-in Pressure	955	956	PSI
(H)	Final Hydrostatic Mud	2388	2381	PSI

COMPANY Dunigan Operating Company LEASE AND WELL NO. Reeves #1 SEC. 32 TWP. 18 RGE. 26 TEST NO. 4 DATE 6-17-72