Home Office: Great Bend, Kansas
P.O. Box 393 Telephone 7903

COMPANY GULF OIL CORPORATION WELL Koehn #3
DATE June 12, 1956 COUNTY Kiowa STATE Kansas
TEST NO. #1 TICKET NO. 5643-K TYPE TEST Open-hole (Conventional)
TEST APPROVED BY Paul Smith WESTERN REPRESENTATIVE Ed Schonhoff

TEST DATA:

Tested From 4918' To 4937' Depth 4937'
Hydrostatic Mud Pressure—Initial (A) 2720# Final (E) 2720#
Flow Pressure—Initial (B) 1185# Final (C) 1185#
Bottom Hole Pressure—Initial (F) 1680# Final (D) 1680#
Tool Open - Hr. 15 Min.; Shut-in-Initial Hr. Min.; Shut-in-Final - Hr. 30 Min.
Chokes; Surface 1/2" Bottom 3/4" Fluid Cushion: Type None Amount
Recovery:

180' Highly gas cut mud
30' Highly gas cut mud, slightly oil stained

SURFACE DATA:

BLOW: Gas to surface at once.

Maximum Surface Pressure Did Well Flow? No

Description of Flow	Time	Max. Pressure	Size Surface Choke
Guaged:	3 minutes	3,780,000 cubic feet	
	7 minutes	4,260,000 cubic feet	
	10 minutes	5,210,000 cubic feet	
	15 minutes	5,690,000 cubic feet	

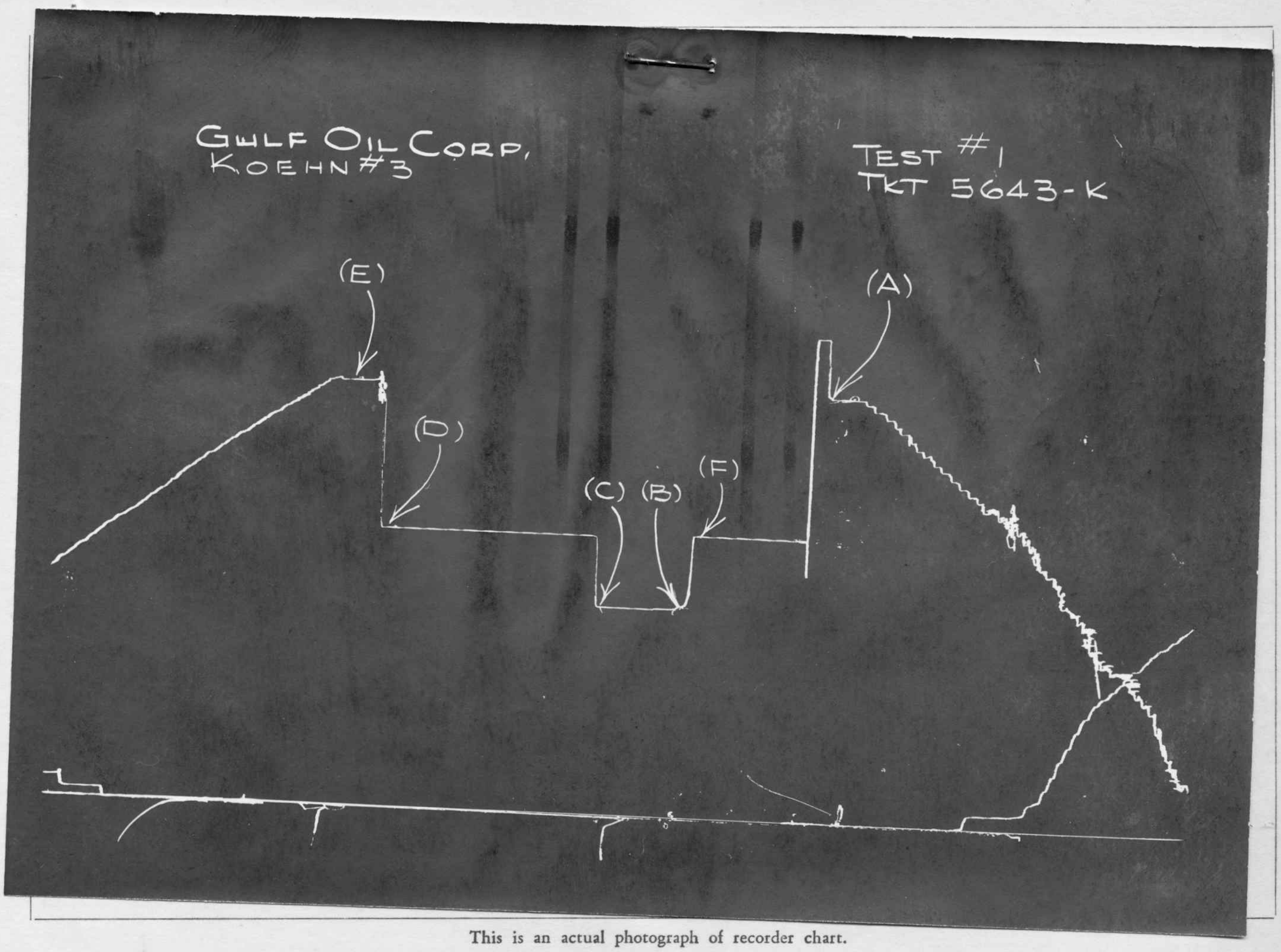
GENERAL OPERATIONAL DATA:

Hole Size: Main Hole 7-7/8" Rat Hole Drill Pipe Size 4½" F. H.
Hole Condition Good Mud Weight 10# Viscosity 41
Type Pressure Recorder Western Recorder No. 25 & 26 Date Calib. 9-20-55
Extra Equipment: Dual Packer No Jars Yes Safety Joint Yes
Was Test Recovery Reversed Out? Yes Bottom Hole Temperature 120°
Number of Copies Requested 5

REMARKS:

Water Loss - 9.2 C.C.

Miss. chert fmtn.



This is an actual photograph of recorder chart.

PRESSURE DATA		Point	Pressure
(A) Initial Hydrostatic Mud	2720#		
(B) Initial Flow	1185#		
(C) Final Flow	1185#		
(D) Final Shut-In	1680#		
(E) Final Hydrostatic Mud	2720#		
(F) Initial Shut-In	1680#		

DST ANALYSIS REPORT

DATE 8-22-57 (6-12-56)

FILE NO. 45-16-1

Since the results of a test depend upon many factors and since tests are made for many purposes, the comments and conclusions below refer solely to the values of the test for pressure extrapolation by our techniques. This report is not intended to be either an endorsement or a criticism.

In the event that further analyses reveal additional information, an amended report will be submitted.

PETROLEUM RESEARCH CORPORATION

Gulf Oil Corporation		(29S-18W) 28	
Company		Location	
Koehn		Kiowa	Kansas
Lease		County	State
#3	#1 4918'-4937'	KB: 2211'	Est. 4931'
Well	Test	Elevation	Gauge Depth

EXTRAPOLATED PRESSURE = 1680 ± ? psi

POTENTIOMETRIC SURFACE = 1190 ± 300 ft

EFFECTIVE TRANSMISS. = high md ft/cp

AVERAGE PERMEABILITY (Viscosity estimated from reported recovery) = ______ md

PRODUCTIVITY INDEX = 0.46 B/D / psi

DAMAGE RATIO = ______

DAMAGE EFFECT = ___ none ___ slight ___ moderate x strong x indeterminate

x Extrapolated pressure indefinite.

___ Closed-in time insufficient.

x Reported pressures disagree with chart.

___ Build-up curve susceptible to mud leakage.

x Mud pressure from chart does not agree with mud pressure calculated from reported mud weight.

___ Extrapolated initial & final closed-in pressures disagree.

___ Insufficient data reported.

___ Chart is unusable.

___ Insufficient air-chamber, or leakage into air-chamber, for initial closed-in time.

___ Initial closed-in time too short for section tested and air-chamber provided.

___ Closed-in pressure not taken.

___ Formation fluid insufficiently sampled.

___ Possibility of nearby barrier.

___ Clock slippage indicated.

___ Gauge friction indicated.

___ Tool disturbance indicated.

___ Plugging indicated.

WESTERN TESTERS

Home Office: Great Bend, Kansas
P.O. Box 393 Telephone 7903

COMPANY GULF OIL CORPORATION WELL Koehn #3
DATE June 13, 1956 COUNTY Kiowa STATE Kansas
TEST NO. #3 TICKET NO. 5645-K TYPE TEST Open-hole (Conventional)
TEST APPROVED BY Paul Smith WESTERN REPRESENTATIVE Ed Schonhoff

TEST DATA:

Tested From 4937' To 4962' Depth 4962'
Hydrostatic Mud Pressure—Initial (A) 2760# Final (E) 2720#
Flow Pressure—Initial (B) 300# Final (C) 810#
Bottom Hole Pressure—Initial (F) Not taken Final (D) 1660#
Tool Open 1 Hr. - Min.; Shut-in-Initial Hr. Min.; Shut-in-Final - Hr. 30 Min.
Chokes; Surface 1/2" Bottom 3/4" Fluid Cushion: Type None Amount
Recovery:
2458' Free, gassy oil
80' Oil and gas cut muddy water
92' Water

SURFACE DATA:

BLOW: Strong gas to surface in 5 minutes.

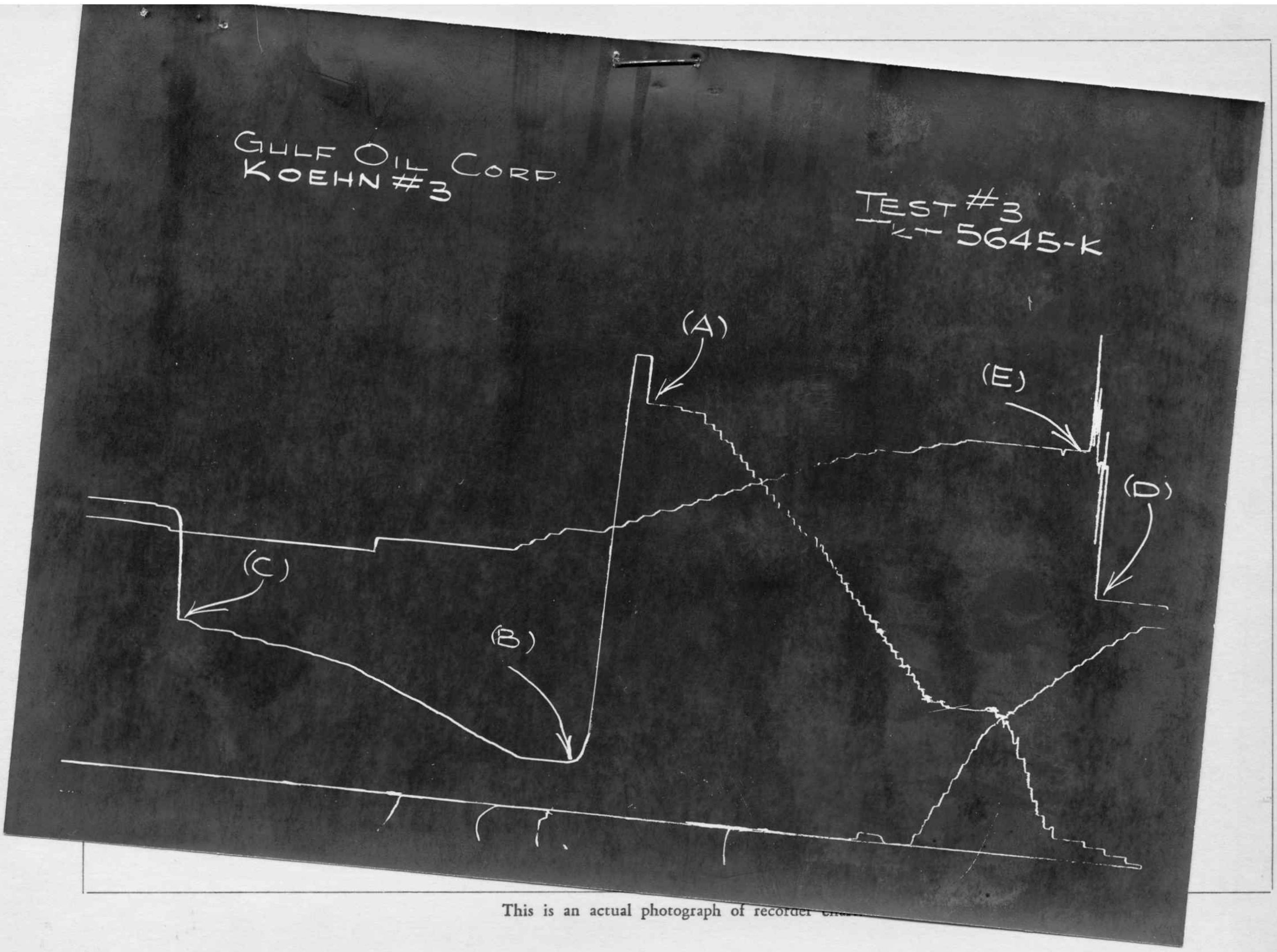
Maximum Surface Pressure Did Well Flow? No

Description of Flow	Time	Max. Pressure	Size Surface Choke
Guaged:	7 minutes	76,000 cubic feet	
	10 minutes	62,000 cubic feet	
	20 minutes	44,000 cubic feet	
	30 minutes	Too weak to guage.	

GENERAL OPERATIONAL DATA:

Hole Size: Main Hole 7-7/8" Rat Hole Drill Pipe Size 4½" F. H.
Hole Condition Good Mud Weight 10# Viscosity 41
Type Pressure Recorder Western Recorder No. 25 & 26 Date Calib. 9-30-55
Extra Equipment: Dual Packer No Jars No Safety Joint Yes
Was Test Recovery Reversed Out? Yes Bottom Hole Temperature 122
Number of Copies Requested

REMARKS: Miss. chert fmtn.



This is an actual photograph of recorder

PRESSURE DATA		Point	Pressure
(A) Initial Hydrostatic Mud	2760#		
(B) Initial Flow	300#		
(C) Final Flow	810#		
(D) Final Shut-In	1660#		
(E) Final Hydrostatic Mud	2720#		
(F) Initial Shut-In	Not taken		

DST ANALYSIS REPORT

ATE 8-22-57 (6-13-56)

ILE NO. 45-16-2

nce the results of a test depend upon many factors and since tests are made for many rposes, the comments and conclusions below refer solely to the values of the test or pressure extrapolation by our techniques. This report is not intended to be either n endorsement or a criticism.

n the event that further analyses reveal additional information, an amended report ill be submitted.

PETROLEUM RESEARCH CORPORATION

Gulf Oil Corporation		(29S-18W) 28	
Company		Location	
Koehn		Kiowa	Kansas
Lease		County	State
#3	#3 4937'-4962'	KB: 2211'	Est. 4956'
Well	Test	Elevation	Gauge Depth

XTRAPOLATED PRESSURE = 1700 ± ? psi

OTENTIOMETRIC SURFACE = 1220 ±400 ft

FFECTIVE TRANSMISS. = 2870 md ft/cp

VERAGE PERMEABILITY
(Viscosity estimated from
reported recovery) = ______ md

RODUCTIVITY INDEX = 0.99 B/D / psi

AMAGE RATIO = 3.27

AMAGE EFFECT = ______ none ______ slight x moderate ______ strong ______ indeterminate

x Extrapolated pressure indefinite.

x Closed-in time insufficient.

x Reported pressures disagree with chart.

____ Build-up curve susceptible to mud leakage.

x Mud pressure from chart does not agree with mud pressure calculated from reported mud weight.

____ Extrapolated initial & final closed-in pressures disagree.

____ Insufficient data reported.

____ Chart is unusable.

____ Insufficient air-chamber, or leakage into air-chamber, for initial closed-in time.

____ Initial closed-in time too short for section tested and air-chamber provided.

____ Closed-in pressure not taken.

____ Formation fluid insufficiently sampled.

____ Possibility of nearby barrier.

____ Clock slippage indicated.

x Gauge friction indicated.

____ Tool disturbance indicated.

____ Plugging indicated.

KOEHN	3	4	GULF OIL CORPORATION	AREA #6
LEASE	WELL NO.	TEST NO.	COMPANY	DISTRICT

Halliburton OIL WELL CEMENTING CO.

LOCATION	28-29-18W
FIELD	-
COUNTY	Kiowa
STATE	Kansas
CONTRACTOR	Falcon-Seaboard

MUD DATA

Kind	Starch
Weight	10 lbs.-gal.
Viscosity	42 Sec.
Filter Loss	9.4 c. c. Filter Cake 2/32 in.
Est. Gauge Depth Temp.	Calc. 127 F°
Time Tool Open	60 Minutes
Time Closed In.	20 Minutes-Initial 30 Minutes-Final
Depth BT. Gauge	4948'
BT. P. R. D. No.	311 — Blanked Off: no
12 Hr. Clock No.	2055

Pressure Readings	Field	Office Corrected	
Initial Hydro Mud Pressure	2695	2664	p.s.i.
Initial Flow Pres.	40	36	p.s.i.
Final Flow Pres.	135	134	p.s.i.
Closed in Pres.	1585 INITIAL 1515 FINAL	1585 1511	p.s.i.
Final Hydro Mud Pressure	2695	2664	p.s.i.

HOLE AND TOOL DATA

Total Depth	5037'	Casing Perforations	Top / Bottom
Top Packer Depth	4962'	Bottom Packer Depth	4982'
Casing or Hole Size	7 7/8"	Liner or Rathole Size	7 7/8"
Formation Tested	Mississippi		
Size Drill Pipe	4½" API FH	Size Drill Collars	5 3/4"
Size Bottom Choke	3/4"	Size Surface Choke	1"
Size Hook Wall Packer	-	Size Rings -	No. Rings -
Size & Type Wall Packer	6 3/4" E.S.W.P.	No. Packers	2
Size & Length Anchor	5" x 20' x 55'		
PRD Device No.	1604 1987	Depth	4984' 5033' — Blanked Off: yes yes

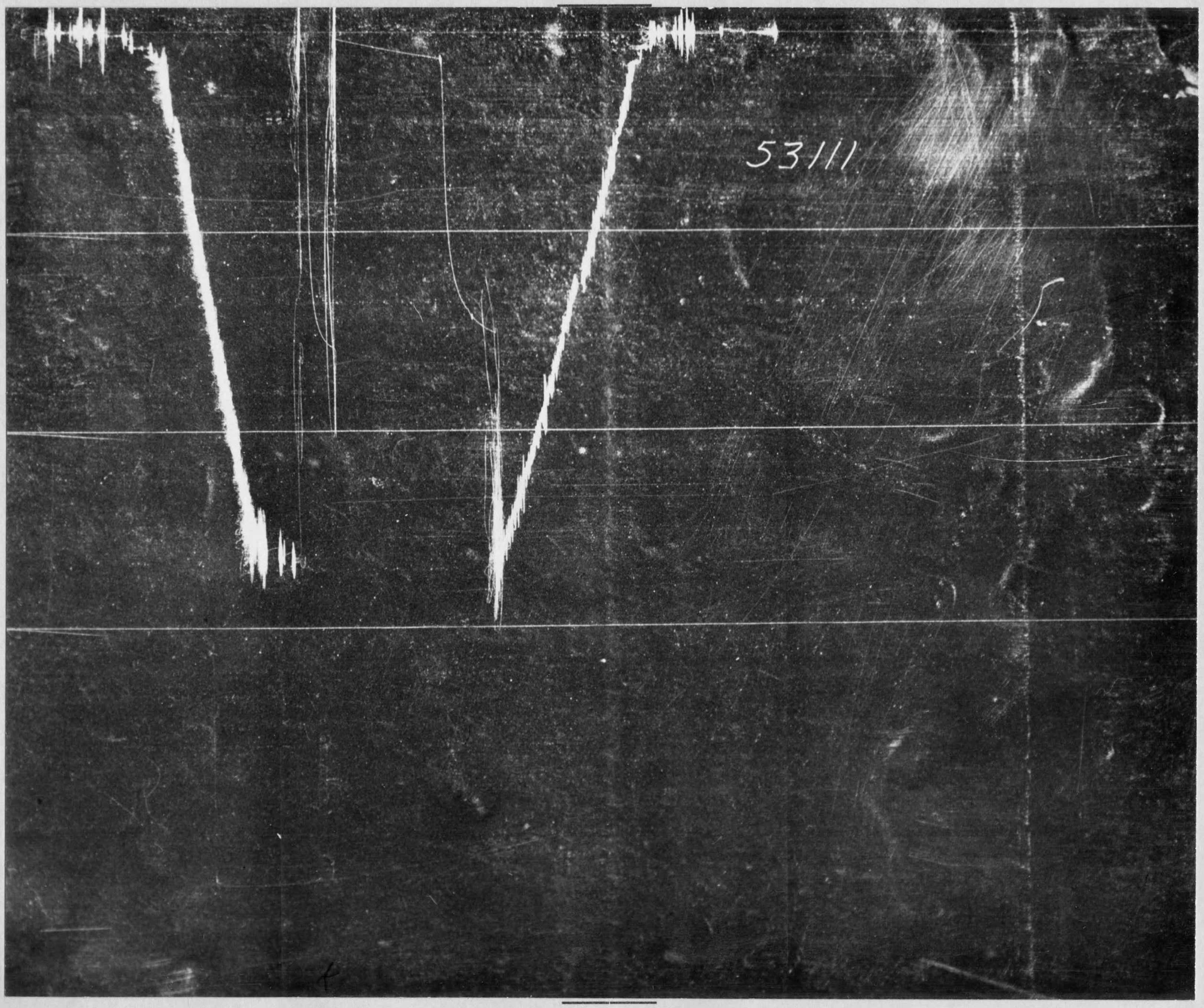
REMARKS: Set packer, opened tool and took a 20 Minute Initial closed in pressure. Dropped bar, broke disc and received no blow at first then increased to a fair blow which continued throughout test. Recovered 190' of muddy salt water with a few gas bubbles.

Amount of Cushion: None — All depths measured from: Kelly Bushing

Date	6-15-56
Ticket No.	53111
HOWCO DISTRICT	Pratt
Kind of Job	Straddle Open Hole
Price	$ 231.60
Second Packer Assembly	75.00
Safety Joint	
Extra Folder Charge	
Jars	100.00
Total	$ 406.00
Witnessed By	R.G. Bachtell
Tester	M.W. Unruh
No. Folders Reproduced	5

TIME

PRESSURE



Each Horizontal Line Equal to 1000 p.s.i.

npany GULF OIL CORPORATION

Date 6-15-56

se KOEHN

Well No. 3

Ticket No. 53111

Test No. 1

	Time	PSI
nitial Hydro Mud Pressure	---	2664
Initial Closed In Pressure	20 Min.	1585
Initial Flow		36
Final Flow	60 Min.	134
Final Closed In Pressure	30 Min.	1511
Final Hydro Mud Pressure		2664

Total Depth 5037'

Packer Depth 4962'

BT No. 311 Depth 4948'

12 Hr. Clock No. 2055

Temperature Corrected to Calc. 127 ° F.

	Initial CIP			Flow Pressure			Final CIP		
	Time Defl. .000"	PSI Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Defl. .000"	PSI Temp. Corr.
PO	.000	.014	19	.000	.027	36	.000	.100	134
P1	.013	.040	54	.103	.047	63	.020	.688	921
P2	.026	.131	176	.206	.066	89	.040	.880	1179
P3	.039	.780	1044	.309	.085	114	.060	.965	1294
P4	.052	1.010	1354	.412	.100	134	.080	1.013	1358
P5	.065	1.081	1450				.100	1.044	1400
P6	.078	1.125	1509				.120	1.071	1437
P7	.091	1.148	1540				.140	1.089	1461
P8	.104	1.164	1562				.160	1.104	1481
P9	.117	1.174	1575				.180	1.116	1497
P10	.130	1.181	1585				.200	1.126	1511
	2 Minute Intervals			15 Minute Intervals			3 Minute Intervals		

narks:

DST ANALYSIS REPORT

DATE 8-22-57 (6-15-56)

FILE NO. 45-16-3

Since the results of a test depend upon many factors and since tests are made for many purposes, the comments and conclusions below refer solely to the values of the test for pressure extrapolation by our techniques. This report is not intended to be either an endorsement or a criticism.

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PETROLEUM RESEARCH CORPORATION

Company: Gulf Oil Corporation		Location: (29S-18W) 28	
Lease: Koehn		County: Kiowa	State: Kansas
Well: #3	Test: #4 4962'-4982'	Elevation: KB: 2211'	Gauge Depth: 4948'

EXTRAPOLATED PRESSURE = 1700 ±? psi

POTENTIOMETRIC SURFACE = 1220 ±200 ft

EFFECTIVE TRANSMISS. = 18.2 md ft/cp

AVERAGE PERMEABILITY (Viscosity estimated from reported recovery) = ______ md

PRODUCTIVITY INDEX = 0.029 B/D / psi

DAMAGE RATIO = 0.72

DAMAGE EFFECT = none x; slight ___; moderate ___; strong ___; indeterminate x

x Extrapolated pressure indefinite.

x Closed-in time insufficient.

x Reported pressures disagree with chart.

___ Build-up curve susceptible to mud leakage.

x Mud pressure from chart does not agree with mud pressure calculated from reported mud weight.

___ Extrapolated initial & final closed-in pressures disagree.

___ Insufficient data reported.

___ Chart is unusable.

___ Insufficient air-chamber, or leakage into air-chamber, for initial closed-in time.

___ Initial closed-in time too short for section tested and air-chamber provided.

___ Closed-in pressure not taken.

___ Formation fluid insufficiently sampled.

___ Possibility of nearby barrier.

___ Clock slippage indicated.

___ Gauge friction indicated.

___ Tool disturbance indicated.

___ Plugging indicated.