

OPEN HOLE TEST

JOHNSTON TESTERS, INC.

OFFICES: Houston, Texas - Los Angeles, California - Calgary, Canada

Koehn 1

28-29-18

DATE *2-23-56*

OPEN HOLE TEST NO. 1 WELL: Koehn-Schmidt #1
 FIELD South Greensburg COUNTY Kiowa STATE Kansas
 COMPANY Gulf Oil Corporation
 ADDRESS Box 225, Great Bend, Kansas
 TEST APPROVED BY P. L. Miller
 JOHNSTON OPERATOR Wayne W. Elder TICKET NO. 38481

GENERAL TEST DATA

TYPE TEST <u>Conventional</u>		TOTAL DEPTH <u>4885'</u>	
1. Test Interval: <u>4847'</u>	To <u>4885'</u>	7. Fluid Cushion: Type <u>None</u>	Amount
2. Tool Open <u>1</u>	Hrs. <u>1</u> Min	8. Air Chamber Amount	Size:
3. Initial Shut In	Hrs. <u>20</u> Min	9. Did Packer(s) Hold? <u>Yes</u>	
4. Final Shut In	Hrs. <u>20</u> Min	10. Did Tool Plug? <u>No</u>	Where?
5. Choke: Top <u>1/8"</u>	Bottom <u>1/8"</u>	11. Was Test Reversed Out? <u>No</u>	
6. Fluid Recovery <u>25'</u>		Total,	
<u>25'</u> Drilling Mud			

REMARKS:

*Marmaton Fmtn.
KBE 2200'*

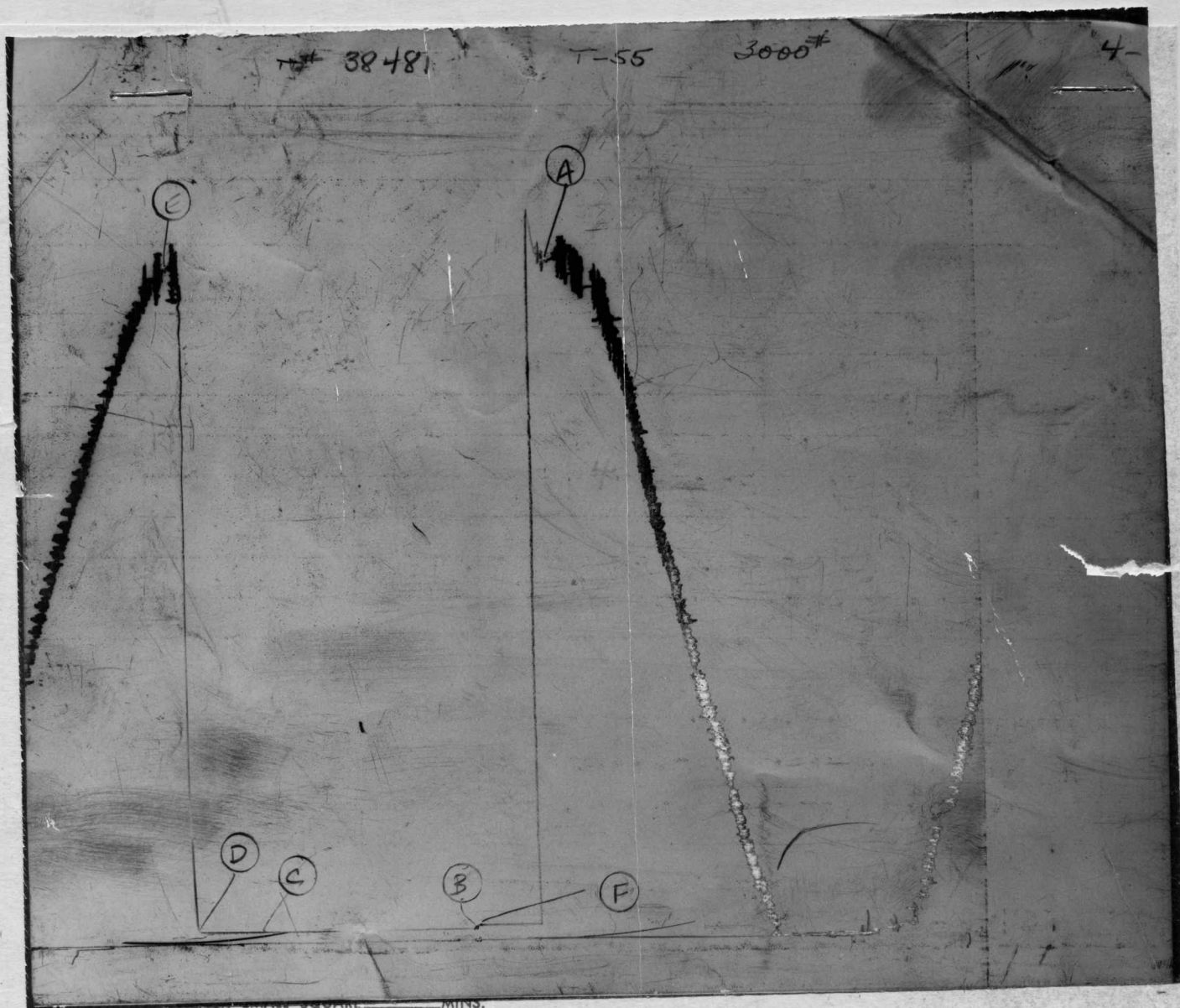
SURFACE INFORMATION

1. Blow: <u>Weak for 30 minutes</u>			
2. Maximum Surface Pressure <u>--</u>	Did Well Flow? <u>No</u>		
Description Or Rate of Flow	Time	Max. Pressure	Size Surface Choke
<u>--</u>			<u>1/8"</u>

MUD, HOLE, & TOOL DATA

MUD, HOLE & JOHNSTON TOOL DATA			
MUD: Type <u>Mud</u>	Weight <u>10</u>	Viscosity <u>43</u>	
HOLE: Main Hole Size <u>7 7/8</u>		Drill Pipe Size <u>4 1/2 FH</u>	
Rat Hole Size <u>--</u>			
JOHNSTON TOOLS:			
1. Packer(s): Type <u>Wall</u>	O.D. <u>6 5/8 BT</u>	Type <u>--</u>	O.D. <u>--</u>
Set At <u>4847'</u>		Set At <u>--</u>	
2. Extra Equipment: <u>None</u>			

Number of Copies Requested: 4



OPEN HOLE TEST

JOHNSTON TESTERS, INC.

OFFICES: Houston, Texas - Los Angeles, California - Calgary, Canada

Koehn 1

DATE 2-24-56
OPEN HOLE TEST NO. 2 WELL: Koehn & Schmidt #1
FIELD - COUNTY Kiowa STATE Kansas
SW SW NE, 28-29S-18W
COMPANY Gulf Oil Corporation
ADDRESS Box 225 Great Bend, Kansas
TEST APPROVED BY P.L. Miller
JOHNSTON OPERATOR C. B. Petty TICKET NO. 51787

GENERAL TEST DATA

TYPE TEST		Conventional	TOTAL DEPTH
1. Test Interval:	<u>4900'</u>	To <u>4957'</u>	<u>4957'</u>
2. Tool Open	Hrs. <u>37</u>	Min	7. Fluid Cushion: Type <u>None</u> Amount
3. Initial Shut In	Hrs. <u>20</u>	Min	8. Air Chamber Amount <u>-</u> Size:
4. Final Shut In	Hrs. <u>30</u>	Min	9. Did Packer(s) Hold? <u>Yes</u>
5. Choke: Top <u>$\frac{1}{2}$"</u>	Bottom <u>$\frac{1}{2}$"</u>		10. Did Tool Plug? <u>No</u> Where?
6. Fluid Recovery <u>210'</u> Total,			11. Was Test Reversed Out? <u>No</u>
<u>210' Free Oil</u>			

REMARKS:

Gas to surface in 1 minute, mud Oil & gas to surface in 12 minutes. Unable to get accurate gage, 4000,000 (TOR-)

*Miss. Fmtn.
KBE 2200'*

SURFACE INFORMATION

1. Blow:	<u>Very strong</u>		
2. Maximum Surface Pressure	<u>-</u>		
Description Or Rate of Flow	Time	Did Well Flow?	No
<u>686,000 Cu Ft</u>	<u>2 minutes</u>	Max. Pressure	Size Surface Choke
<u>1,350,000 Cu Ft</u>	<u>5 minutes</u>		<u>$\frac{1}{2}$"</u>
<u>1,790,000 Cu Ft</u>	<u>10 minutes</u>		

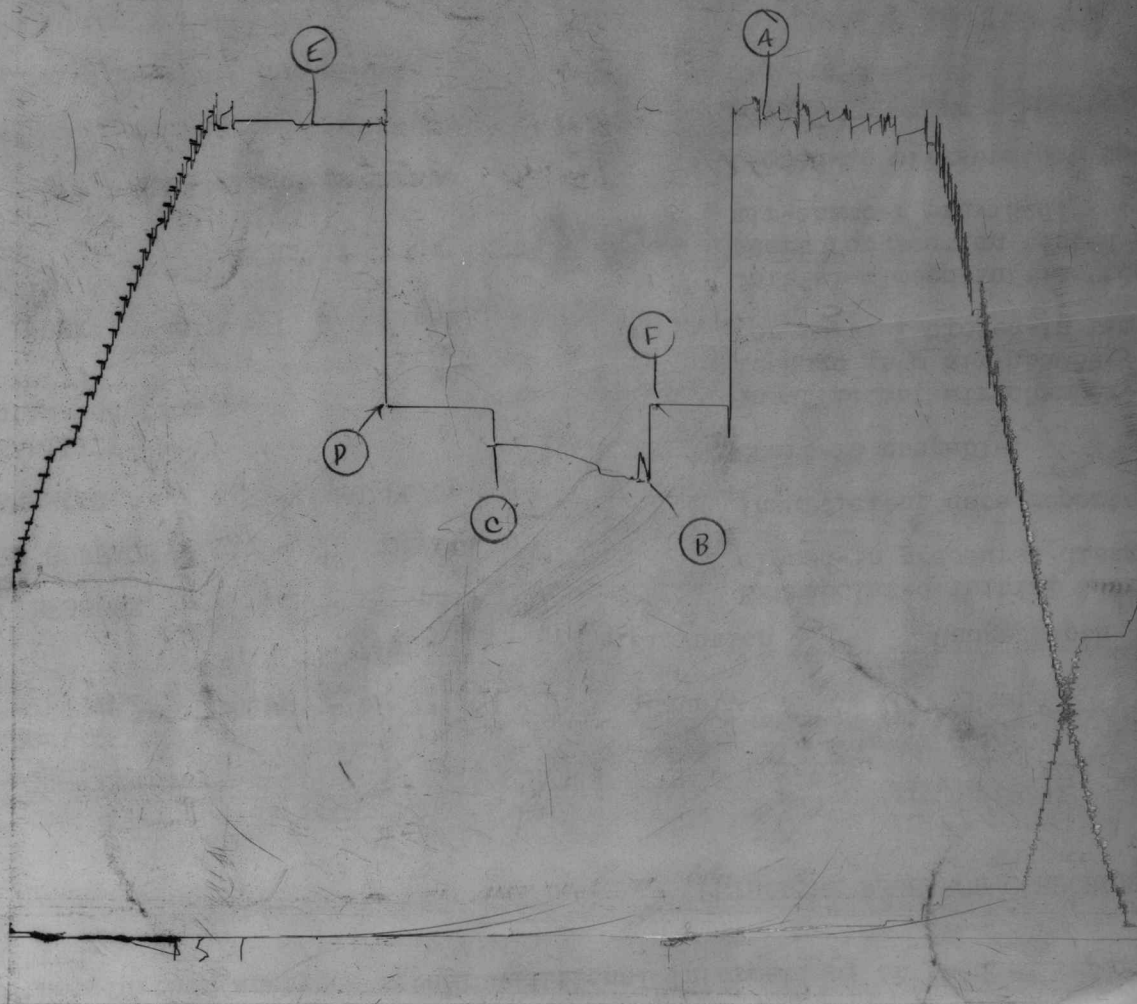
MUD, HOLE, & TOOL DATA

MUD, HOLE & JOHNSTON TOOL DATA

MUD: Type	<u>Mud</u>	Weight	<u>10</u>	Viscosity	<u>43</u>
HOLE: Main Hole Size	<u>7 7/8</u>	Drill Pipe Size	<u>4 1/2</u>	F.H.	
Rat Hole Size	<u>-</u>				
JOHNSTON TOOLS:					
1. Packer(s): Type	<u>B.T.</u>	O.D.	<u>6 5/8</u>	Type	<u>O.D.</u>
Set At	<u>4900'</u>	Set At			
2. Extra Equipment:	<u>None</u>				

Number of Copies Requested: 4

3000#



Ticket No. 51787
Part Number

Pressure Recorder:

No. T-56
Cap. 3000
Location -

PRESSURE DATA	
Initial Hydrostatic Mud	2580
Initial Flow	1433
Final Flow	1533
Final Shut-In	1660
Final Hydrostatic Mud	2560
"Initial Shut-In"	1670

marks:

[illegible]

DIST ANALYSIS REPORT

June 13, 1957 (2-24-56)

12-9-1

sults of a test depend upon many factors and since tests are made for many
e comments and conclusions below refer solely to the values of the test
extrapolation by our techniques. This report is not intended to be either
at or a criticism.

that further analyses reveal additional information, an amended report
itted.

PETROLEUM RESEARCH CORPORATION

f Oil Corporation

(29S - 18W) 28

Company

Location

hn & Schmidt

Kiowa

Kansas

Lease 4900' - 4957'

County

State

#2

2200 KB=

4951

Test

Elevation

Gauge Depth

PRESSURE = 1670 ± ? psi

Extrapolated initial & final
closed-in pressures disagree.

IC SURFACE = 1140 ± 100ft

Insufficient data reported.

ANSMISS. = 575 md ft/cp

Chart is unusable.

ABILITY

Estimated from

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

every) = md

INDEX = 0.671 B/D / psi

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

= 0.97

Closed-in pressure not taken.

none slight moderate

strong indeterminate

Formation fluid insuffi-
ciently sampled.

olated pressure indefinite.

Possibility of nearby
barrier.

l-in time insufficient.

Clock slippage indicated.

ed pressures disagree with chart.

Gauge friction indicated.

up curve susceptible to mud leakage.

Tool disturbance indicated.

essure from chart does not agree

ud pressure calculated from re-

l mud weight.

Plugging indicated.

OPEN HOLE TEST

JOHNSTON TESTERS, INC.

OFFICES: Houston, Texas - Los Angeles, California - Calgary, Canada

DATE 2-25-56

OPEN HOLE TEST NO. 3 WELL: Koehn & Schmidt #1
FIELD - COUNTY Kiowa STATE Kansas
SW SW NE, 28-29S-18W
COMPANY Gulf Oil Company
ADDRESS Box 225 Great Bend, Kansas
TEST APPROVED BY P.L. Miller
JOHNSTON OPERATOR C. B. Pittoy TICKET NO. 51788

GENERAL TEST DATA

TYPE TEST <u>Conventional</u>		TOTAL DEPTH <u>5060'</u>	
1. Test Interval: <u>4960'</u> To <u>5060'</u>	7. Fluid Cushion: Type <u>-</u> Amount <u>-</u>		
2. Tool Open <u>1</u> Hrs. <u>-</u> Min	8. Air Chamber Amount <u>60"</u> Size: <u>4 1/2</u> F.H. pipe		
3. Initial Shut In <u>Undetermined</u> Hrs. <u>20</u> Min	9. Did Packer(s) Hold? <u>Yes</u>		
4. Final Shut In <u>-</u> Hrs. <u>30</u> Min	10. Did Tool Plug? <u>Partly Where?</u> Tool		
5. Choke: Top <u>1 1/2</u> Bottom <u>1 1/2</u>	11. Was Test Reversed Out? <u>Yes</u>		
6. Fluid Recovery <u>2640'</u> Total, <u>2640'</u> Muddy Salt Water			

REMARKS:

Miss. Fmtn.
WBE 2200'

SURFACE INFORMATION

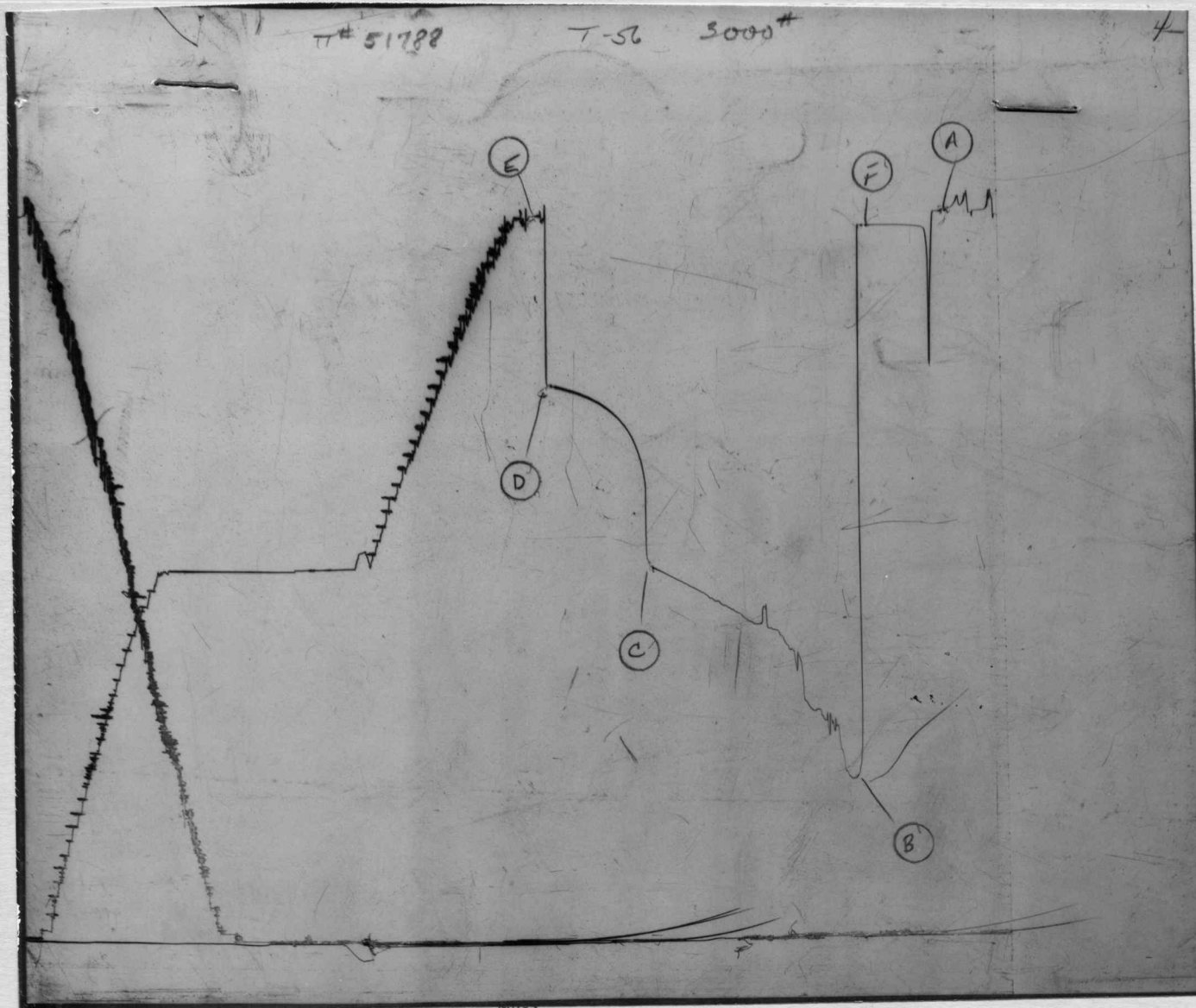
1. Blow: <u>Fair blow through out test, Weak</u>			
2. Maximum Surface Pressure <u>-</u>		Did Well Flow? <u>No</u>	
Description Or Rate of Flow	Time	Max. Pressure	Size Surface Choke
<u>-</u>	<u>-</u>	<u>-</u>	<u>1 1/2</u>
<u>-</u>	<u>-</u>	<u>-</u>	<u>2 1/2</u>
<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

MUD, HOLE, & TOOL DATA

MUD, HOLE & JOHNSTON TOOL DATA			
MUD: Type <u>Mud</u>	Weight <u>9.9</u>	Viscosity <u>45</u>	
HOLE: Main Hole Size <u>7 7/8</u>	Drill Pipe Size <u>4 1/2</u>	F.H. <u>-</u>	
Rat Hole Size <u>None</u>			
JOHNSTON TOOLS:			
1. Packer(s): Type <u>B.T.</u>	O.D. <u>6 5/8</u>	Type <u>-</u>	O.D. <u>-</u>
Set At <u>4960'</u>		Set At <u>-</u>	
2. Extra Equipment: <u>None</u>			

Number of Copies Requested: 4

T-56 3000#



Ticket No. 51788
Part Number _____

Pressure Recorder:

No. 10 T-56
Cap. 3000
Location -

PRESSURE DATA	
Initial Hydrostatic Mud	2645
Initial Flow	570
Final Flow	1350
Final Shut-In	2015
Final Hydrostatic Mud	2650
"Initial Shut-In" Undetermined	2595

marks:

[illegible]

D S T A N A L Y S I S R E P O R T

DATE June 13, 1957 (2-25-56)

FILE NO. 12-9-2

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
Company
Koehn & Schmidt
Lease 1960' - 5060'

(19s - 18w) 28	
Location	
Kiowa	Kansas
County	State
2200 KB	5054
Elevation	Gauge Depth

EXTRAPOLATED PRESSURE = 2140 + ? psi

..... x Extrapolated initial & final
closed-in pressures disagree.

POTENTIOMETRIC SURFACE = $\frac{2130}{\text{---}} + \frac{200}{\text{---}}$ ft

Insufficient data reported.

EFFECTIVE TRANSMISS. = 515 md ft/cp

Chart is unusable.

AVERAGE PERMEABILITY
(Viscosity estimated from
reported recovery) = md

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

PRODUCTIVITY INDEX = 1.12 B/D / psi

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

DAMAGE RATIO = .52

Closed-in pressure not taken.

DAMAGE EFFECT = $\begin{matrix} \times \\ \text{none slight moderate} \\ \times \\ \text{strong indeterminate} \end{matrix}$

..... Formation fluid insuffi-
ciently sampled.

× Extrapolated pressure indefinite.

..... Possibility of nearby barrier.

Closed-in time insufficient.

 x Reported pressures disagree with chart.

Clock slippage indicated.

..... Build-up curve susceptible to mud leakage.

Gauge friction indicated.

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

Tool disturbance indicated.

Plugging indicated.

OPEN HOLE TEST

JOHNSTON TESTERS, INC.

OFFICES: Houston, Texas - Los Angeles, California - Calgary, Canada

Koehn 1

DATE 2-26-56

OPEN HOLE TEST NO. 4 WELL: Koehn & Schmidt
 FIELD - COUNTY Kingman STATE Kansas
SW SW NE 28-29S-18W
 COMPANY Gulf Oil Company
 ADDRESS Box 225 Great Bend, Kansas
 TEST APPROVED BY R. G. Buckett
 JOHNSTON OPERATOR C. B. Pittoy TICKET NO. 51789

GENERAL TEST DATA

TYPE TEST <u>Between Packers</u>		TOTAL DEPTH <u>5060'</u>
1. Test Interval: <u>4900'</u>	To <u>4935'</u>	7. Fluid Cushion: Type <u>None</u> Amount
2. Tool Open <u>1</u>	Hrs. <u> </u> Min	8. Air Chamber Amount <u>30'</u> Size: <u>4 1/2</u>
3. Initial Shut In	Hrs. <u>20</u> Min	9. Did Packer(s) Hold? <u>Yes</u>
4. Final Shut In	Hrs. <u>30</u> Min	10. Did Tool Plug? <u>No</u> Where?
5. Choke: Top <u>1 1/2</u>	Bottom <u>1 1/2</u>	11. Was Test Reversed Out? <u>No</u>
6. Fluid Recovery <u>630'</u> Total,		
<u>630'</u> Gasy oil		

REMARKS:

Gas to surface in 3 mins. Flowed oil & gas in 35 minutes.

*Miss. frtn.
KBE 2200'*

SURFACE INFORMATION

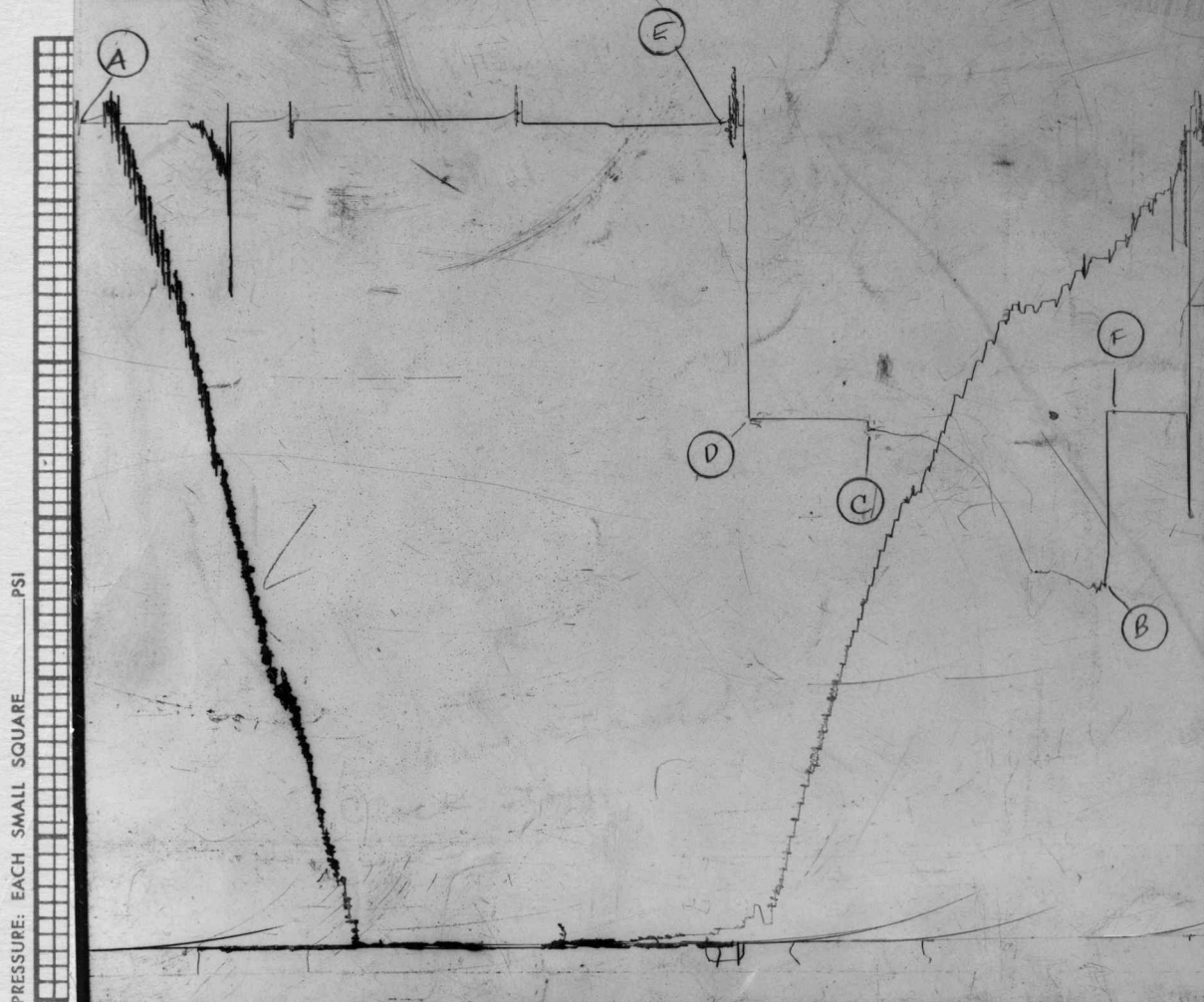
1. Blow: <u>Very strong</u>	<u>2,620,000</u>	Did Well Flow? <u>Yes</u>
2. Maximum Surface Pressure <u>-</u>		Size Surface Choke <u>1 1/2</u>
Description Or Rate of Flow	Time	Max. Pressure
<u>1,350,000</u>	<u>5 Mins.</u>	<u>-</u>
<u>2,000,000</u>	<u>10 Mins</u>	
<u>2,420,000</u>	<u>15 Mins</u>	
<u>2,620,000</u>	<u>20 Mins</u>	
<u>495,000</u>	<u>25 Mins</u>	
<u>420,000</u>	<u>30 Mins</u>	

MUD, HOLE, & TOOL DATA

MUD, HOLE & JOHNSTON TOOL DATA

MUD: Type Mud, Weight 9.9 Viscosity 45
 HOLE: Main Hole Size 7 7/8 Drill Pipe Size 4 1/2 F.H.
 Rat Hole Size None
 JOHNSTON TOOLS:
 1. Packer(s): Type Conv O.D. 6 5/8X B.T.&7" Type O.D.
 Set At 4900' Set At 4935'
 2. Extra Equipment: Straddle

Number of Copies Requested: 4

~~3000*~~

Test Ticket No. 51789
Chart Number

Pressure Recorder:

No. _____ T-56
Cap. _____ 3000
Location _____ 4930

PRESSURE DATA		
A	Initial Hydrostatic Mud	2595
B	Initial Flow	1105
C	Final Flow	1610
D	Final Shut-In	1640
E	Final Hydrostatic Mud	2595
F	"Initial Shut-In"	1650

Remarks:

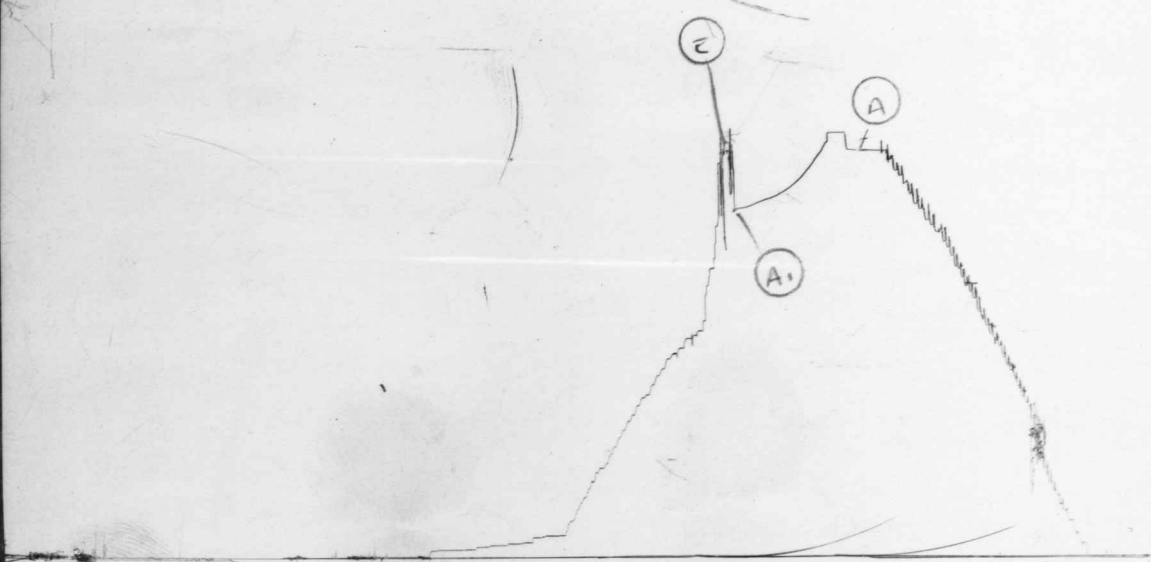
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#51789

L-329

4500

44



Below straddle
Clock stopped at end of Test.

TIME: EACH SMALL SQUARE _____ MINS.

Test Ticket No. 51789
Chart Number _____

Pressure Recorder:

No. L-329
Cap. 4500
Location -

PRESSURE DATA

A. Initial Hydrostatic Mud 2625
B. Initial Flow _____
C. Final Flow _____
D. Final Shut-In _____
E. Final Hydrostatic Mud 2640
F. "Initial Shut-In" _____

Point A 1 Pressure 2250

Point Pressure

Remarks: Below straddle. Clock stopped at end of test

BHT 123°