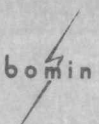


Initial Closed in Time	30	Minutes	 BOMIN TESTING CO. BOX 782 LIBERAL, KANSAS	Date	7/28/62	
Tool Open Flow Period	30	Minutes		Ticket No.	1898	
Final Closed In Time	30	Minutes		DISTRICT	LIBERAL	
Depth Top Gauge	4159	Ft.		Blanked Off	No	Kind of Job
Recorder No.	2897	12	Hr. Clock	CONTRACTOR PRIME DRILLING COMPANY		
Pressure Readings	Field	Office Corrected	HOLE & TOOL DATA			
Initial Hydro Mud Pressure		1993	Elevation	Top Packer Depth		
Initial Closed in Pres.		1006	Total Depth	4166'	Bottom Packer Depth 4115'	
Initial Flow Pres.		306	Casing or Hole Size	7 7/8"	Size & Type Wall Packer 6 1/2" BT	
Final Flow Pres.		431	Liner or Rathole Size		Size Bottom Choke 1/2"	
Final Closed in Pres.		985			Size Surface Choke 1"	
Final Hydro Mud Pressure		1993	Interval Tested	4115'-4166'	ID & Length Air Chamber	
Depth Bottom Gauge	4166	Ft.	Blanked Off	YES	Formation Tested	LANSING
Recorder No.	88	4	Hr. Clock	Est. Gauge Depth Temp.	110	Size Drill Pipe 4 1/2" FH
Pressure Readings	Field	Office Corrected	MUD DATA Weight		9.5	Viscosity 50
Initial Hydro Mud Pressure			All depths measured from	KB	No. Folders Reproduced 5	
Initial Closed in Pres.			REMARKS: PRE-FLOW, 4 MIN. AFTER ICIP,			
Initial Flow Pres.			WEAK BLOW, INCREASING TO GOOD BLOW,			
Final Flow Pres.			GAS TO SURFACE IN 14 MIN. TOO SMALL			
Final Closed in Pres.			TO MEASURE.			
Final Hydro Mud Pressure						
Recovered	295	Feet of	FREE OIL			
Recovered	185	Feet of	HEAVY OIL & GAS CUT MUD			
Recovered	90	Feet of	HEAVY GAS & SLIGHTLY OIL & WATER CUT MUD			
Recovered	90	Feet of	SLIGHTLY OIL & GAS & MUD CUT WATER			
Witnessed By	J. W. WALKER					
Amount-Type of Cushion				Tester	ROBERT IVES	

LOCATION 29-30-33

FIELD

COUNTY HASKELL

STATE KANSAS

LEASE NAME

WELL NO.

TEST NO.

LEASE OWNER

OWNERS DISTRICT

BLAIR

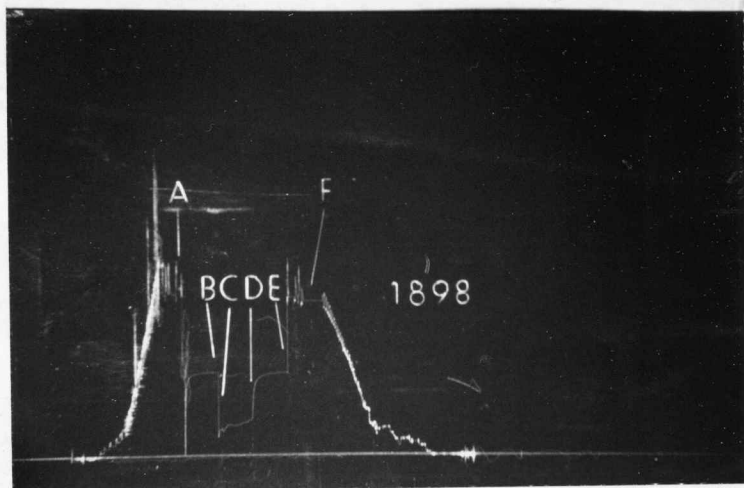
C-2

(4115'-4166')

CITIES SERVICE PETROLEUM COMPANY

LIBERAL

A-1HMF B-ICIP C-IFP D-FFP E-FCIP F-FHMP

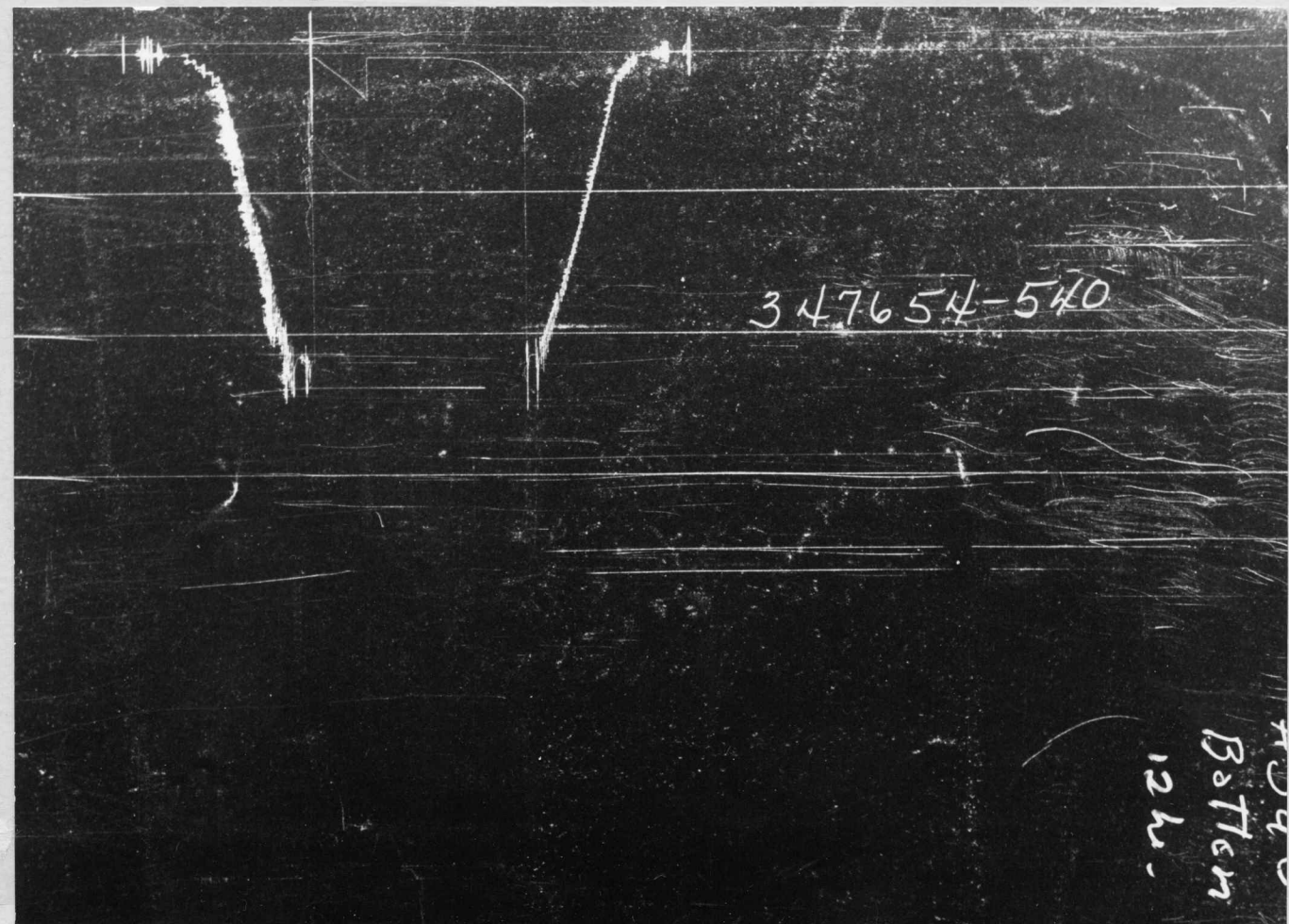
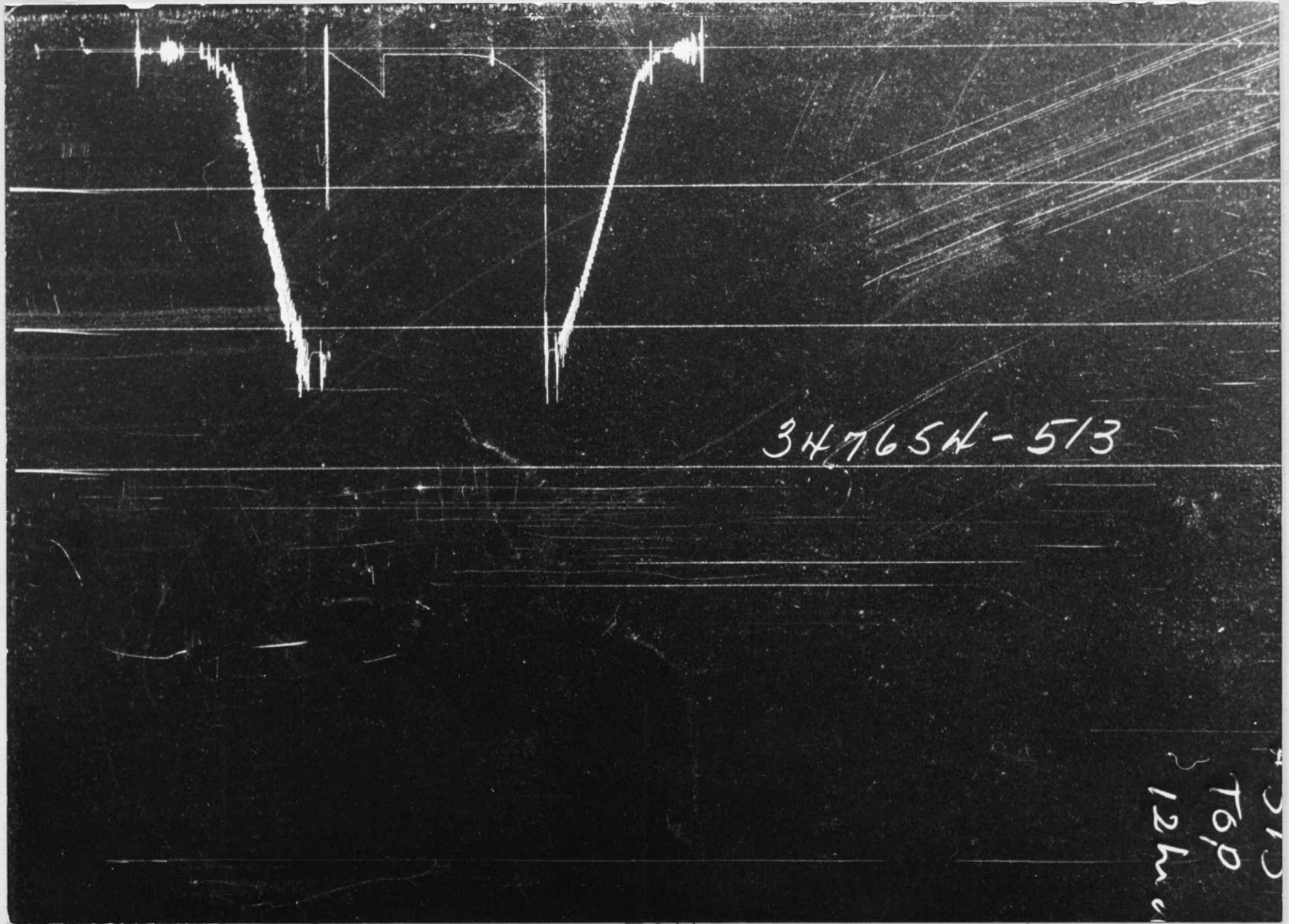



Flow Time	1st 2	Min.	2nd 60	Min.	Date	7-30-62	Ticket Number	347654	Legal Location Sec. - Twp. - Rng. 29-30-33
Closed In Press. Time	1st 30	Min.	2nd 30	Min.	Kind of Job	Open Hole	Halliburton District	Liberal	
Pressure Readings	Field		Office Corrected		Tester	Mr Plunk	Witness	Mr Walker	
Depth Top Gauge	4387	Ft.	no	Blanked Off	Drilling Contractor	Prime Drlg Co.	Top Packer	4392'	
BT. P.R.D. No.	513		12	Hour Clock	Elevation	-	Bottom Packer	-	
Initial Hydro Mud Pressure	2310		2158		Total Depth	4411'	Formation Tested	Lansing	
Initial Closed in Pres.	335		343		Interval Tested	4392-4411'	Casing Perfs. } Top		
Initial Flow Pres.	35		1 31 2 42		Casing or Hole Size	7 7/8" - 6 1/8"	Casing Perfs. } Bot.		
Final Flow Pres.	75		1 31 2 66		Surface Choke	1-1/4"	Bottom Choke	1/2"	
Final Closed in Pres.	335		341		Size & Kind Drill Pipe	4 1/2" FH	Drill Collars Above Tester	2 1/4" x 380'	
Final Hydro Mud Pressure	2290		2147		Mud Weight	9.3	Mud Viscosity	44	
Depth Cen. Gauge		Ft.		Blanked Off	Temperature	109	*F Est. Anchor Size & Length	ID 5" X 19'	
BT. P.R.D. No.				Hour Clock	Depths Mea. From	KB	Depth of Tester Valve	4382	
Initial Hydro Mud Pres.					TYPE AMOUNT		Depth Back Pres. Valve	4376	
Initial Closed in Pres.					Cushion		Ft.		
Initial Flow Pres.			1		Recovered	360	Feet of	gas	
Final Flow Pres.			2		Recovered	20	Feet of	oil cut mud	
Final Closed in Pres.			1		Recovered		Feet of		
Final Hydro Mud Pres.			2		Recovered		Feet of		
Depth Bot. Gauge	4407	Ft.	yes	Blanked Off	Oil A.P.I. Gravity		Water Spec. Gravity		
BT. P.R.D. No.	540		12	Hour Clock	Gas Gravity		Surface Pressure	psi	
Initial Hydro Mud Pres.	2235		2152		Tool Opened	9:04	A.M. Tool Closed	11:36	
Initial Closed in Pres.	330		342		Remarks	Open tool at 9:04 with a fair blow.			
Initial Flow Pres.	35		1 35 2 35		Closed at 9:06 for 30 mins. Reopen at 9:36 AM				
Final Flow Pres.	75		1 35 2 66		blow increased slightly to fair blow thru out test. Closed at 10:36 AM. Off bottom at 11:06 AM.				
Final Closed in Pres.	330		332		No special reading adaptable.				
Final Hydro Mud Pres.	2220		2127						

BLAIR
 Lease Name
 C 2
 Well No.
 2
 Test No.
 CITIES SERVICE PETROLEUM COMPANY
 Lease Owner/Company Name
 County
 HASKELL
 State
 KANSAS
 Owner's District

FORMATION TEST DATA

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.



Initial Closed in Time	30	Minutes	 BOMIN TESTING CO. BOX 782 LIBERAL, KANSAS	Date	8/1/62	
Tool Open Flow Period	60	Minutes		Ticket No.	1881	
Final Closed in Time	30	Minutes		DISTRICT	LIBERAL	
Depth Top Gauge	4560	Ft.		Blanked Off	No	Kind of Job
Recorder No.	2896	12 Hr. Clock	CONTRACTOR PRIME DRILLING COMPANY			
Pressure Readings	Field	Office Corrected	HOLE & TOOL DATA			
Initial Hydro Mud Pressure		2374	Elevation	Top Packer Depth		
Initial Closed in Pres.		1312	Total Depth	4577'	Bottom Packer Depth	4565'
Initial Flow Pres.		489	Casing or Hole Size	7 7/8"	Size & Type Wall Packer	6 1/2" BT
Final Flow Pres.		530	Liner or Rathole Size		Size Bottom Choke	1/2"
Final Closed in Pres.		1295			Size Surface Choke	1"
Final Hydro Mud Pressure		2313	Interval Tested	4565'-4577'	ID & Length Air Chamber	
Depth Bottom Gauge	4577	Ft.	Blanked Off	YES	Formation Tested	ID & Length Drill Collars
Recorder No.	86	4 Hr. Clock	Est. Gauge Depth Temp.	115	Size Drill Pipe	4 1/2" FH
Pressure Readings	Field	Office Corrected	MUD DATA Weight	9.5	Viscosity	49
Initial Hydro Mud Pressure			All depths measured from	KB	No. Folders Reproduced	5
Initial Closed in Pres.			REMARKS: GAS TO SURFACE IN 1 1/2 MIN.			
Initial Flow Pres.			5 MIN. 993MCF, 10 MIN 1302MCF, 15 MIN.			
Final Flow Pres.			1860MCF, 20 MIN. TO 50 MIN. 1982MCF, 60			
Final Closed in Pres.			MIN. 2104MCF.			
Final Hydro Mud Pressure						
Recovered	150	Feet of	OIL & GAS CUT MUDDY WATER			
Recovered		Feet of				
Recovered		Feet of				
Recovered		Feet of				
Witnessed By	DEAN HEINZE					
Amount-Type of Cushion		Tester	TOM BROWN			

LOCATION 29-30-33

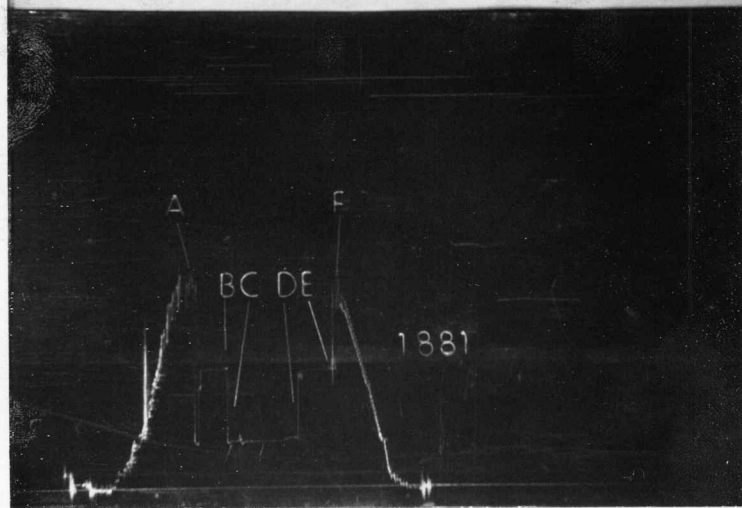
FIELD

COUNTY HASKELL

STATE KANSAS

LEASE NAME: BLAIR
 WELL NO.: C-2
 TEST NO.: (4565'-4577')
 LEASE OWNER: CITIES SERVICE PETROLEUM CO.
 OWNERS DISTRICT: LIBERAL, KANSAS

A-IHMP B-ICIP C-IFP D-FFP E-FCIP F-FHMP



JOHNSTON TESTERS, INC.

Pressure Data

Field Report No. 64082 I

Recorder No.	T-247	Inside			
Capacity (P.S.I.G.)	5,000				
Recorder Depth	4,587'				
Pressure Gradient P.S.I./Ft.					
Well Temperature °F.	126				
A Initial Hydrostatic Mud	2226				
B Initial Shut-in	-				
C Initial Flow	35				
D Final Flow	185				
E Final Shut-in	* 1219				
F Final Hydrostatic Mud	2201				

Remarks:

*Shut in pressure did not reach static reservoir pressure.



Flow Time	1st 3	Min.	2nd 60	Min.	Date	8-3-62	Ticket Number	347656-S
Closed In Pres. Time	1st 30	Min.	2nd 30	Min.	Kind of Job	Open Hole	Halliburton District	Liberal
Pressure Readings	Field			Office Corrected	Tester	Mr. Plunk	Witness	Mr. Hines
Depth Top Gauge	4724	Ft.	no	Blanked Off	Drilling Contractor	PRIME DRILLING COMPANY		
BT. P.R.D. No.	196		12	Hour Clock	Elevation	2967' KB	Top Packer	4736'
Initial Hydro Mud Pressure	2350		2245		Total Depth	4780'	Bottom Packer	None
Initial Closed in Pres.	1390		1391		Interval Tested	4736-4780'	Formation Tested	Marmaton
Initial Flow Pres.	80		1 85		Casing or Hole Size	7 7/8 - 6 1/8"	Casing Perfs.	{ Top Bot.
Final Flow Pres.	240		1 79		Surface Choke	1" - 1/4"	Bottom Choke	5/8"
Final Closed in Pres.	1320		1327		Size & Kind Drill Pipe	4 1/2" FH	Drill Collars Above Tester	I.D. - LENGTH 2 1/4 390
Final Hydro Mud Pressure	2325		2222		Mud Weight	9.4	Mud Viscosity	42
Depth Cen. Gauge		Ft.		Blanked Off	Temperature	A 113	Anchor Size & Length	ID OD X
BT. P.R.D. No.				Hour Clock	Depths Mea. From	Kelly bushing	Depth of Tester Valve	4719 Ft.
Initial Hydro Mud Pres.					Cushion		Depth Back Pres. Valve	4713 Ft.
Initial Closed in Pres.					Recovered	900	Feet of oil	Mea. From Tester Valve
Initial Flow Pres.					Recovered	450	Feet of oil & gas cut mud	
Final Flow Pres.					Recovered		Feet of	
Final Closed in Pres.					Recovered		Feet of	
Final Hydro Mud Pres.					Oil A.P.I. Gravity		Water Spec. Gravity	
Depth Bot. Gauge	4776	Ft.	yes	Blanked Off	Gas Gravity		Surface Pressure	psi
BT. P.R.D. No.	699		24	Hour Clock	Tool Opened	10:41 AM	Tool Closed	12:14 PM
Initial Hydro Mud Pres.	2425		2298		Remarks	Tool opened with a good blow for a 3 minute first flow. Rotated for a 30 minute initial closed in pressure. Tool re-opened with gas to the surface in 5 minutes at 11:17 measured 196,000, 11:22		
Initial Closed in Pres.	1430		1428			196,000 at 11:27 139,000, 11:32 139,000 - 11:37		
Initial Flow Pres.	120		1 133			139,000, 11:42 139,000, 11:47 139, 11:52 139, 11:52		
Final Flow Pres.	290		1 115			100,000, 12:02 100, 12:07 139,000, 12:13 139,000.		
Final Closed in Pres.	1365		1359					
Final Hydro Mud Pres.	2400		2284					

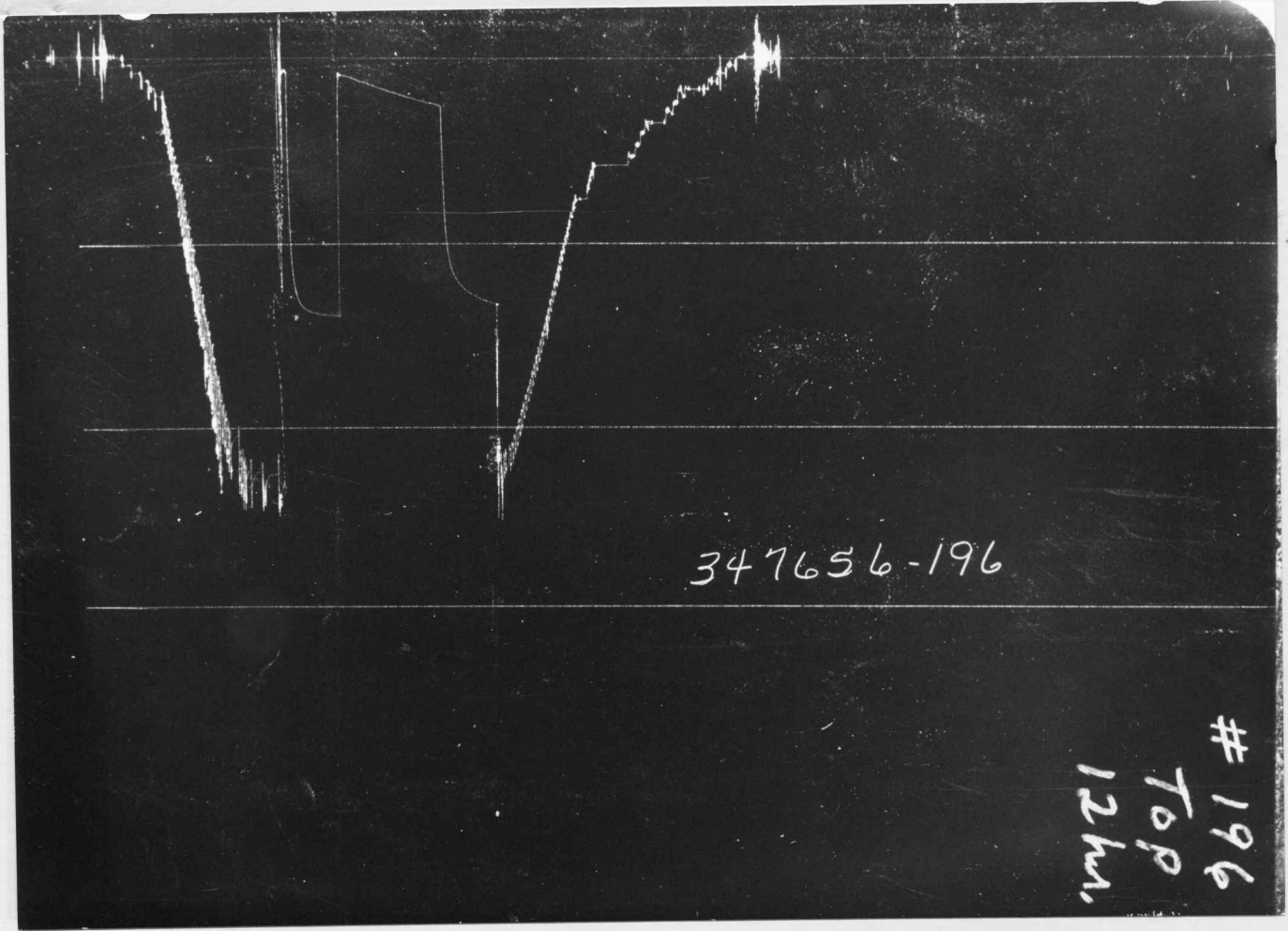
FORMATION TEST DATA

Took a 30 minute FCIP

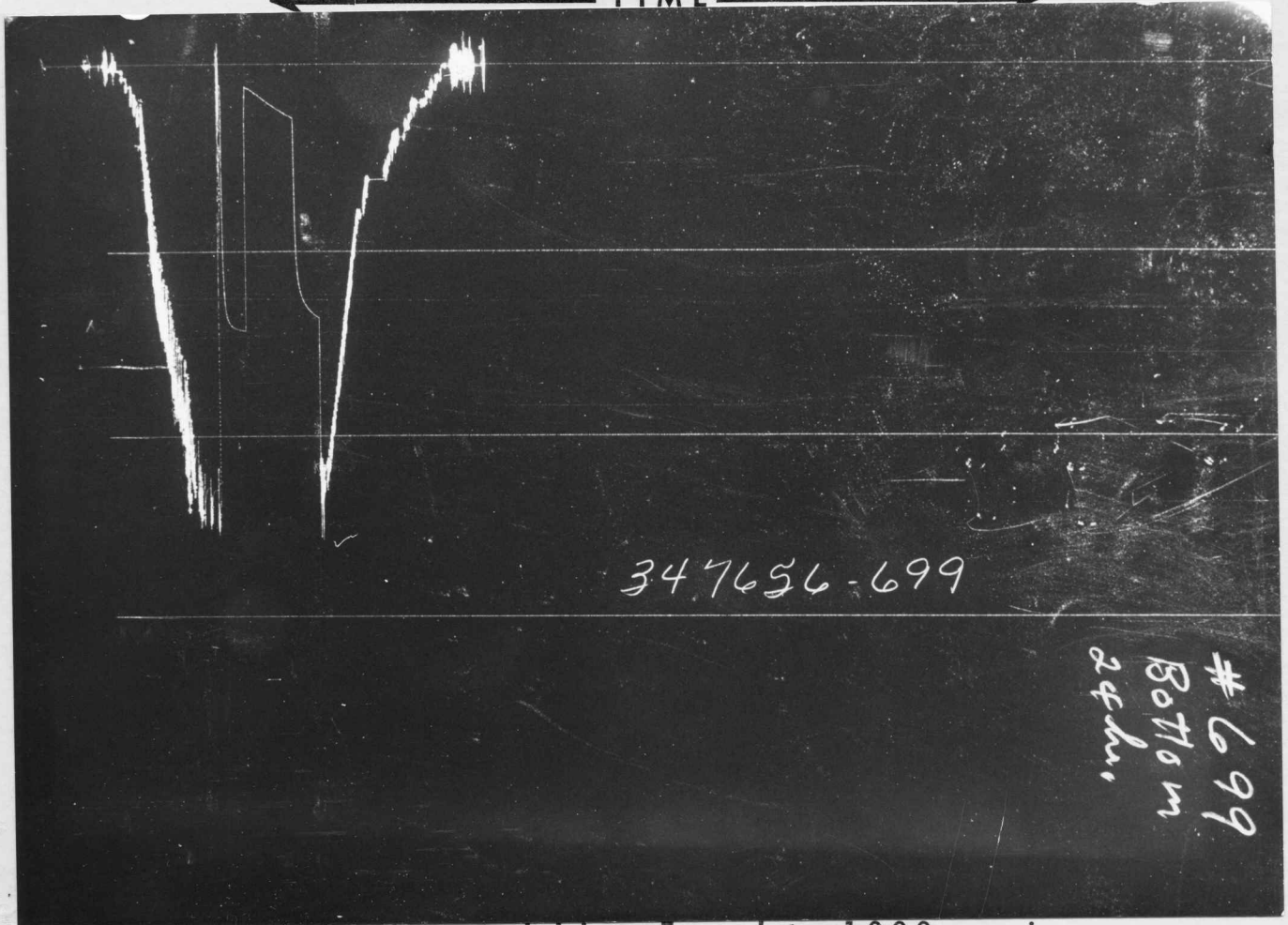
Legal Location Sec. Twp. - Rng. 29 30 33
 Lease Name BLAIR
 Well No. C-2
 Test No. 5
 Field Area
 County HASKELL
 State KANSAS
 Owner's District
 CITIES SERVICE PETROLEUM COMPANY
 Lease Owner/Company Name

Gauge No. 196		Depth 4724'			Clock 12 hour		Ticket No. 347656			
First Flow Period		Initial Closed In Pressure			Second Flow Period		Final Closed In Pressure			
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	
P ₀	.000	85	.000		79	.000	85	.000		259
P ₁	.023	79	.0211		1138	.1045	131	.0226		993
P ₂			.0422		1298	.2090	181	.0452		1146
P ₃			.0633		1343	.3135	223	.0678		1206
P ₄			.0844		1363	.4180	259	.0904		1241
P ₅			.1055		1373			.1130		1265
P ₆			.1266		1378			.1356		1283
P ₇			.1477		1383			.1582		1298
P ₈			.1688		1386			.1808		1311
P ₉			.1899		1389			.2034		1320
P ₁₀			.2110		1391			.2260		1327
Gauge No. 699		Depth 4776'			Clock 24 hour					
P ₀	.000	133	.000		115	.000	129	.000		288
P ₁	.008	115	.0099		1154	.0493	162	.0103		1048
P ₂			.0198		1334	.0986	212	.0206		1181
P ₃			.0297		1382	.1479	255	.0309		1238
P ₄			.0396		1400	.1970	288	.0412		1274
P ₅			.0495		1411			.0515		1297
P ₆			.0594		1418			.0618		1314
P ₇			.0693		1422			.0721		1330
P ₈			.0792		1426			.0824		1342
P ₉			.0891		1427			.0927		1351
P ₁₀			.0990		1428			.1030		1359
Reading Interval		3			15		3 Minutes			
REMARKS:										

↑
PRESSURE
↓



← TIME →



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

1 HOUR

INITIAL HYDROSTATIC
2226#

2226#

FINAL HYDROSTATIC
2201#

2201#

FINAL SHUT IN
1219#

1219#

INITIAL FLOW
35#

35#

FINAL FLOW
185#

185#

TIME



A WORLD OF EXPERIENCE

JOHNSTON TESTERS

Pressure
Log*

Field Report No. GA082L

Recorder No. F-247

Capacity 5000 p.s.i.

Recorder Depth 4587 ft.

* a continuous tracing of the original chart