

JOHNSTON TESTERS, INC.

SURFACE INFORMATION

TOOL, HOLE & MUD DATA

[illegible][illegible]

Company CITIES SERVICE PETROLEUM CO.; BOX 1147; LIBERAL, KANSAS; ATTN: BILL ^{DEVANEY} Date 3-30-62
 Well DREW #A-2 Field E. RICHFIELD Location 1-32-40
 Test Interval 2,816' TO 2,860' Formation Test # 1 Casing Test # -
 County MORTON State KANSAS Field Report No. 64046 L
 Tester O. E. CHANCE Test Approved By MR. R. E. BURLINGAME No. DST Reports Requested 5

JOHNSTON TESTERS, INC.

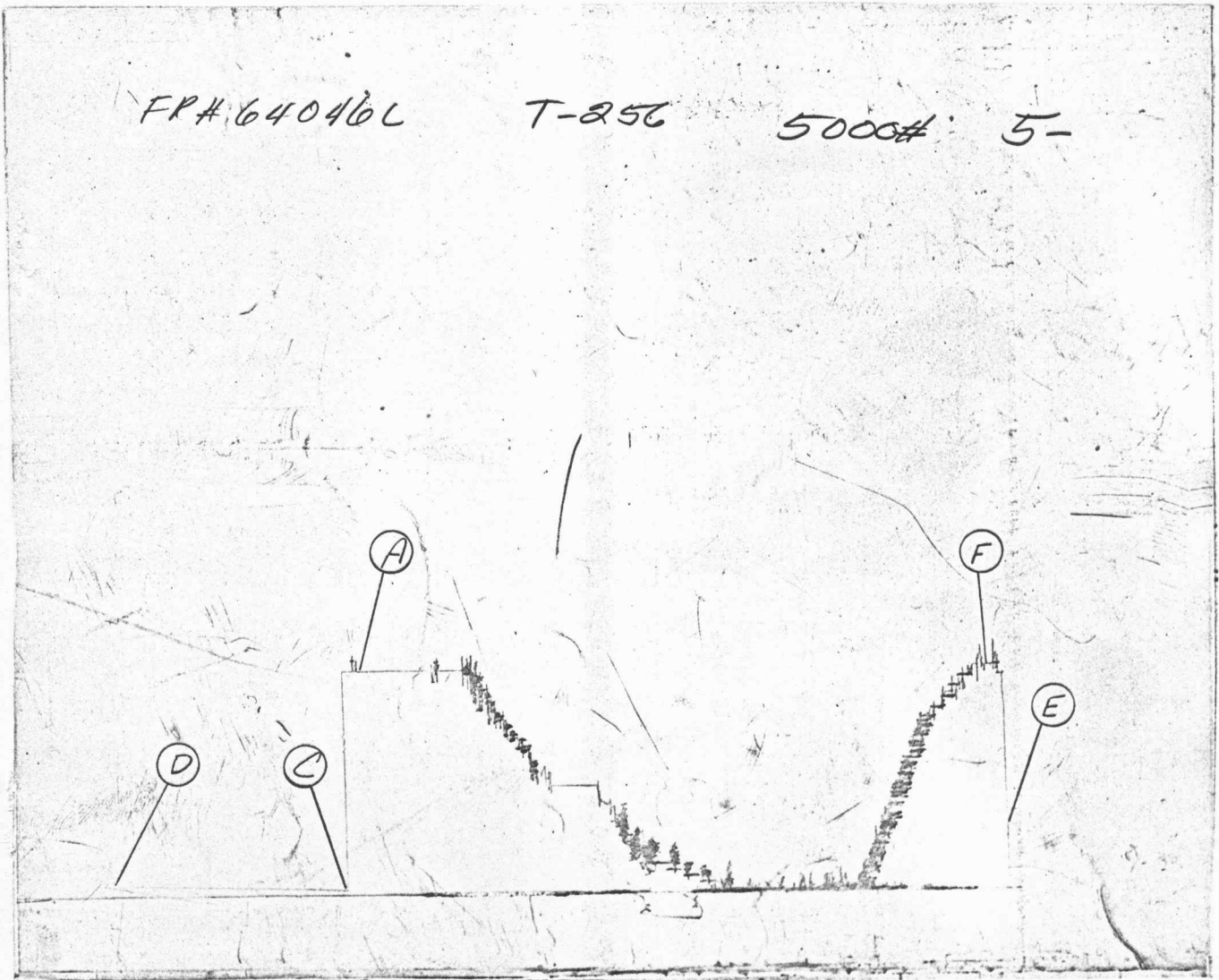
Pressure Data

Field Report No. 64046 L

Recorder No.	T-256				
Capacity (P.S.I.G.)	5000				
Recorder Depth	2856'				
Pressure Gradient P.S.I./Ft.					
Well Temperature °F.	90				
A Initial Hydrostatic Mud	1409				
B Initial Shut-in	-				
C Initial Flow	31				
D Final Flow	69				
E Final Shut-in	* 408				
F Final Hydrostatic Mud	1420				

Remarks:

*Shut in pressure did not reach static reservoir pressure.





A WORLD OF EXPERIENCE

JOHNSTON TESTERS

Pressure
Log*

Field Report No. 64046L

Recorder No. T-256

Capacity 5000 p.s.i.

Recorder Depth 2856 ft.

*a continuous tracing of the original chart

1 Hour

FINAL SHUT IN
408#

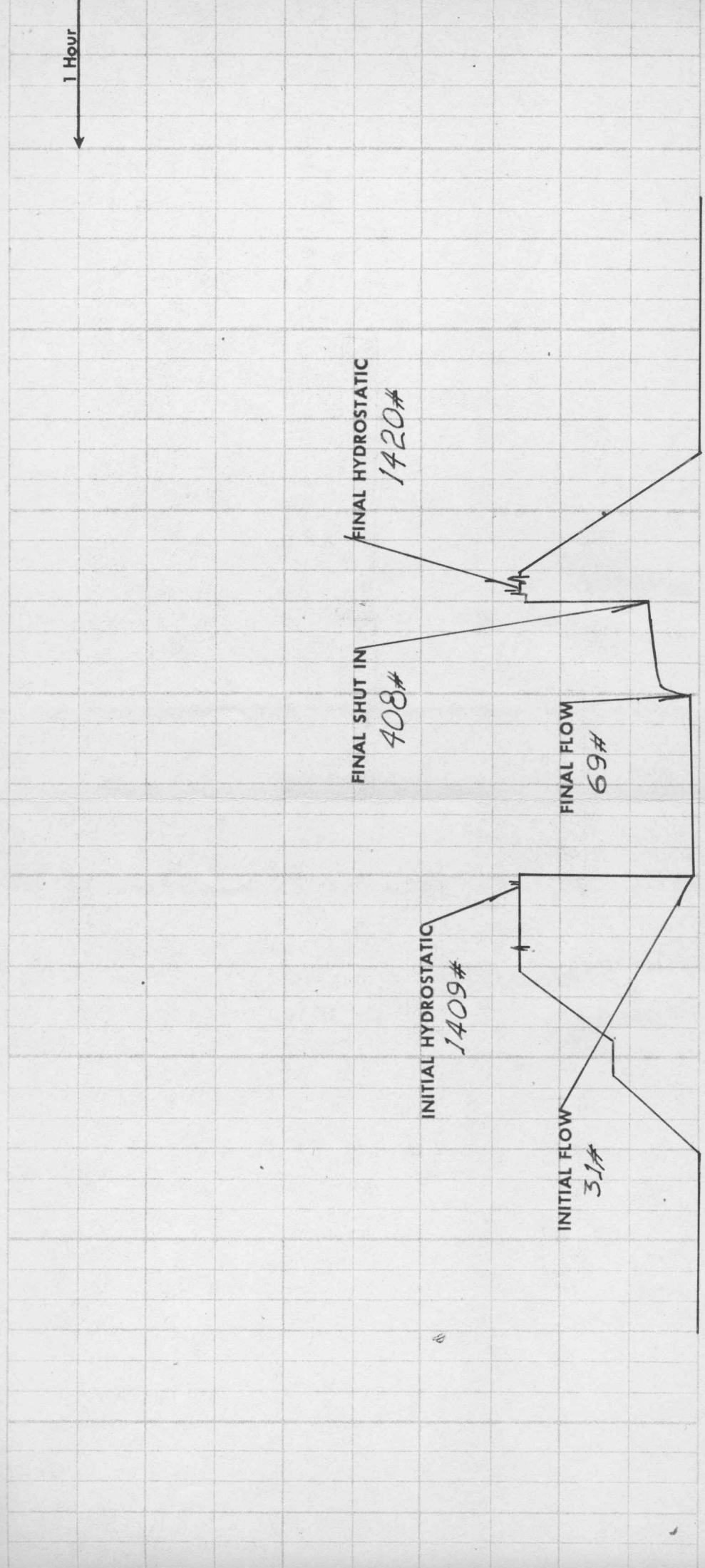
FINAL HYDROSTATIC
1420#

INITIAL HYDROSTATIC
1409#

INITIAL FLOW
31#

FINAL FLOW
69#

TIME



Flow Time	1st - Min.	2nd 60 Min.	Date	4-11-62	Ticket Number	178811 - S
Closed In Press. Time	1st - Min.	2nd 30 Min.	Kind of Job	OPEN HOLE	Halliburton District	ELKHART, KS.
Pressure Readings	Field	Office Corrected	Tester	DUDSON	Witness	HETZEL
Depth Top Gauge	5651' Ft.	NO Blanked Off	Drilling Contractor	BARBOUR DRILLING COMPANY		
BT. P.R.D. No.	373	- Hour Clock	Elevation	-	Top Packer	-
Initial Hydro Mud Pressure	2812	2730	Total Depth	5690'	Bottom Packer	5664'
Initial Closed in Pres.	-	-	Interval Tested	5664' - 5690'	Formation Tested	MORROW
Initial Flow Pres.	105	2 72	Casing or Hole Size	7 7/8"	Casing Perfs. { Top - Bot. -	
Final Flow Pres.	140	2 151	Surface Choke	1"	Bottom Choke	5/8"
Final Closed in Pres.	1595	1596	Size & Kind Drill Pipe	4 1/2" F.H.	Drill Collars Above Tester	I.D. - LENGTH 2 1/4" x 646'
Final Hydro Mud Pressure	2706	2717	Mud Weight	9.4	Mud Viscosity	46
Depth Cen. Gauge	-	Blanked Off	Temperature	126 °F Est. °F Actual	Anchor Size ID 3" OD 5" X 26'	
BT. P.R.D. No.	-	Hour Clock	Depths Mea. From	KELLY BUSHING	Depth of Tester Valve	5646' Ft.
Initial Hydro Mud Pres.	-	-	Cushion	NONE	Depth Back Pres. Valve	- Ft.
Initial Closed in Pres.	-	-	Recovered	4' Feet of mud		
Initial Flow Pres.	1	2	Recovered	Feet of		
Final Flow Pres.	1	2	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	5690' Ft.	YES Blanked Off	Gas Gravity	-	Surface Pressure	0# psi
BT. P.R.D. No.	376	- Hour Clock	Tool Opened	6:57 A.M. P.M.	Tool Closed	7:57 A.M. P.M.
Initial Hydro Mud Pres.	2825	2753	Remarks	Tool opened with gas to the surface in 3		
Initial Closed in Pres.	-	-		minutes with 460,000 MCF blow, 499,000 MCF in 5		
Initial Flow Pres.	145	2 147		minutes - 1,020,000 MCF in 15 minutes, 1,200,000		
Final Flow Pres.	205	2 203		MCF in 30 minutes - 1,275,000 in 60 minutes. Took		
Final Closed in Pres.	1605	1608		a 30 minute final closed in pressure.		
Final Hydro Mud Pres.	2745	2736				

FORMATION TEST DATA

Legal Location
Sec. - Twp. - Rng.

Well No. A-2

Test No. 2

CITIES SERVICE PETROLEUM COMPANY
Lease Owner/Company Name

LIBERAL, KANSAS
Owner's District

Lease Name

Field Area

County

MORTON

State

KANSAS

Gauge No.		373		Depth		5651'		Clock		hour		Ticket No.		178811	
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	72	.000		151					
P ₁						.0658	115	.023		1552					
P ₂						.1316	133	.046		1567					
P ₃						.1974	141	.069		1573					
P ₄						.2632	146	.092		1578					
P ₅						.3290	150	.115		1582					
P ₆						.3948	151	.138		1586					
P ₇								.161		1590					
P ₈								.184		1591					
P ₉								.207		1592					
P ₁₀								.230		1596					

Gauge No.		376		Depth		5690'		Clock		- hour	
P ₀								.000	147	.000	203
P ₁								.0665	179	.0229	1566
P ₂								.1330	185	.0458	1583
P ₃								.1995	195	.0687	1588
P ₄								.2660	195	.0916	1592
P ₅								.3325	196	.1145	1596
P ₆								.3990	203	.1374	1599
P ₇										.1603	1602
P ₈										.1832	1604
P ₉										.2061	1606
P ₁₀										.229	1608
Reading Interval								10		3	
REMARKS:											

SPECIAL PRESSURE DATA

↑ PRESSURE ↓

← TIME →

178811-373

178811-376

JOHNSTON TESTERS, INC.

SURFACE INFORMATION

TOOL, HOLE & MUD DATA

[illegible][illegible]

Company CITIES SERVICE PET. CO.; BOX 1147; LIBERAL, KANSAS; ATTN: BILL DEVANEY Date 4-13-62
Well DREW #A-2 Field E. RICHFIELD Location 1-32-40
Test Interval 5742' TO 5770' Formation Test # 3 Casing Test # -
County MORTON State KANSAS Field Report No. 64004 L
Tester O. E. CHANCE Test Approved By MR. R. H. SOLE No. DST Reports Requested 7 x

JOHNSTON TESTERS, INC.

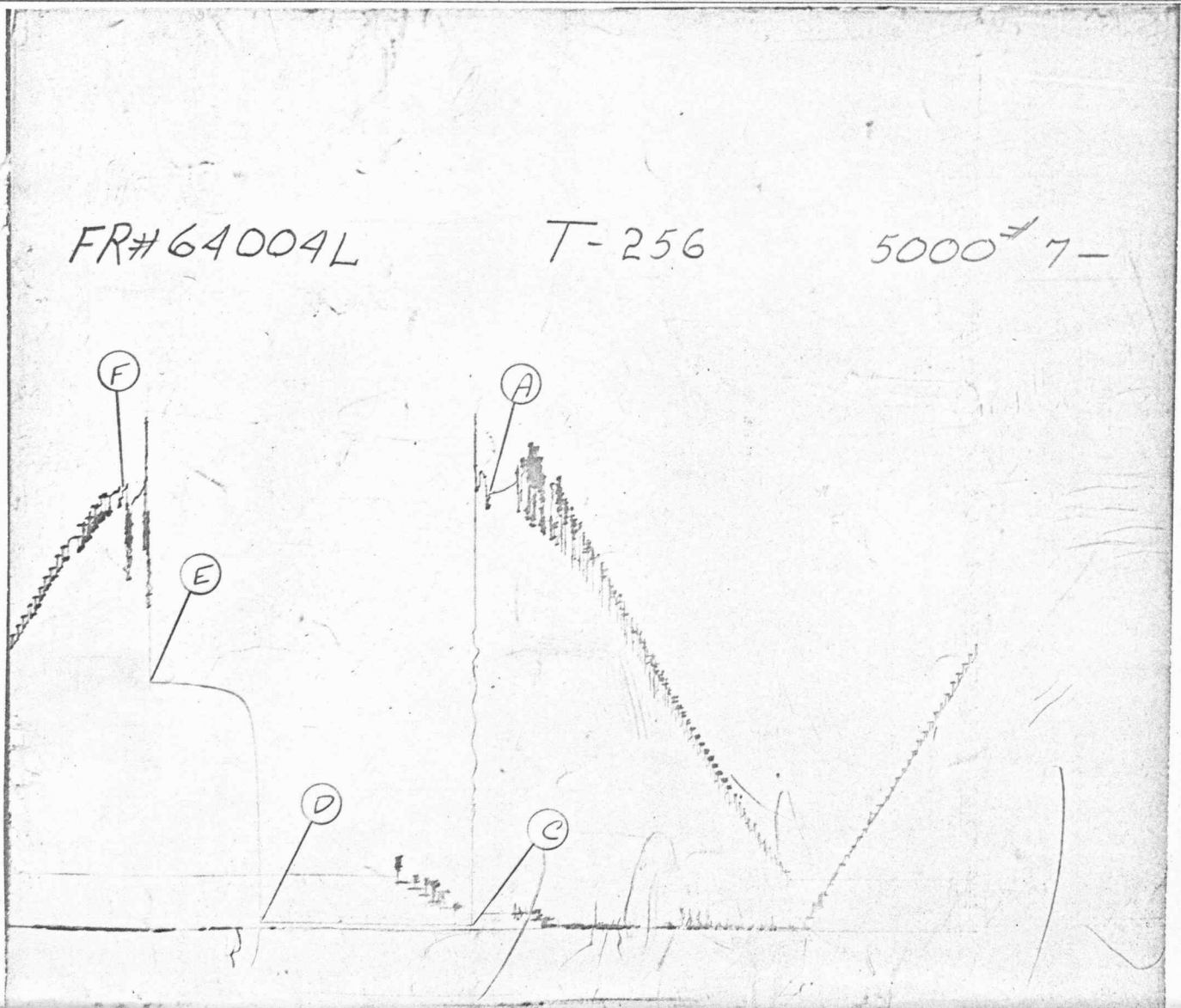
Pressure Data

Field Report No. 64004 L

Recorder No.	T-256				
Capacity (P.S.I.G.)	5000				
Recorder Depth	5766'				
Pressure Gradient P.S.I./Ft.					
Well Temperature °F.	-				
A Initial Hydrostatic Mud	2808				
B Initial Shut-in	-				
C Initial Flow	31				
D Final Flow	39				
E Final Shut-in	*1577				
F Final Hydrostatic Mud	2821				

Remarks: READ ON 150° F. CURVE.

*Shut in pressure did not reach static reservoir pressure.



FIELD REPORT No. 64004 L

DISTRIBUTION FOR ALL TESTS RUN ON THIS WELL LISTED BELOW:

2. RUSS CLAUSING
PEPL
LIBERAL, KANSAS

5. CITIES SERVICE PETROLEUM COMPANY
Box 1147
LIBERAL, KANSAS
ATTN: BILL DEVANEY



A WORLD OF EXPERIENCE

JOHNSTON TESTERS

Pressure
Log*

Field Report No. 64004L

Recorder No. T-256

Capacity 5000 p.s.i.

Recorder Depth 5766 ft.

*a continuous tracing of the original chart

1 Hour

FINAL HYDROSTATIC

282 f#

FINAL SHUT IN

1577#

FINAL FLOW

39#

INITIAL HYDROSTATIC

2808#

INITIAL FLOW

31#

TIME

