JTL-CD-4

JOHNSTON TESTERS

TEST DATA

Formation	Tight Hole	Zone Thickness		Ft.	
Interval	4430 To 4501	T.D.	5052		
Type of Test	Open Hole, Straddle, Bypass				
Time Started in Hole	0500 Hrs.	Tool Open	0736	Hrs.	
First Flow	5 Min.	Shut In	40	Min.	
Second Flow	302 Min.	Final Shut In	90	Min.	
Pulled Loose @	1515 Hrs.	Out of Hole	1745	Hrs.	
Wt. Set on Packer	45,000	# Pulled Loose Wt.	66,000	#	

Remarks: Mud Dropped 4 Feet, Packers Settled 3 Feet and Tool was Chased 12 Feet During Test Period.

Description of Blow During Test: Good Blow. Gas to Surface in 4 Minutes. Mud to Surface in 35 Minutes.

GAS BLOW MEASUREMENTS

Measured with 3 I.D. Riser or Est. ☐

Type of Instrument Pitot Tube Mercury Water

Time	Sfce. Choke	Reading Inches	M Cubic Feet/Day
0730		1.2 Water	349
0815		4.0 Mercury	2,300
1010		15.0	4,410
1130		21.0	5,275
1230		22.0	5,400
1300		23.0	5,525
1330		23,0	5,525

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered (Total) 300' Ft.

Description of Fluid Recovered: 300' Gas Cut Sulphurous Water.

Remarks: Test Satisfactory. Tool reset after 100 Minutes of Second Flow from 0901 hrs. to 0925 hrs.

Co. Rep. A. Clare

Tester L. Navratil

Elevation 2190 KB 2178 GL

Bottom Hole Choke Size 1/2"

Fluid Cushion Type

Amount

TOOL SEQUENCE

Tool	Length	O.D.
D.P. Sub.	.67	6"
P.O. Sub.	1.02	4 3/4"
D.P. Sub.	6.06	4 3/4"
Shut In Tool	7.60	4 3/4"
D. Valve	1.89	4 3/4"
Jars	4.17	4 3/4"
Safety Jt.	1.73	4 5/8"
H. Sub.	1.01	4 3/4"
T.C. & Pkr.	6.18	6 5/8"
T.C. & Pkr.	5.65	6 5/8"
Total	35.98	
Stub	1.05	4 3/4"
Perf.	19.00	4 3/4"
R. Sub.	1.05	4 3/4"
Recorder	6.00	4 3/4"
Recorder	6.00	4 3/4"
Sub.	.82	6"
D.P.	30.80	
Sub.	.78	6"
T.C. & Stub	3.51	6 5/8"
Total Interval	69.01	
Pkr.	3.29	6 5/8"
T.C. & Pkr.	6.26	6 5/8"
Perf.	19.00	4 3/4"
Sub.	.80	6"
D.P.	518.57	
Sub.	.80	6"
Perf. & B.N.	2.38	4 3/4"
Total Below Intv.	551.10	
Total Length	656.09	

MUD AND HOLE DATA

Mud Type Gel. W.L. 5.0

Filter Cake 2/32 Visc. 82 Wt. 9.2

Time Taken May 25, 1965 @ 0730 hrs.

Contractor Parker Drilling Rig No. 10

Drill Pipe Size 4 1/2 XH

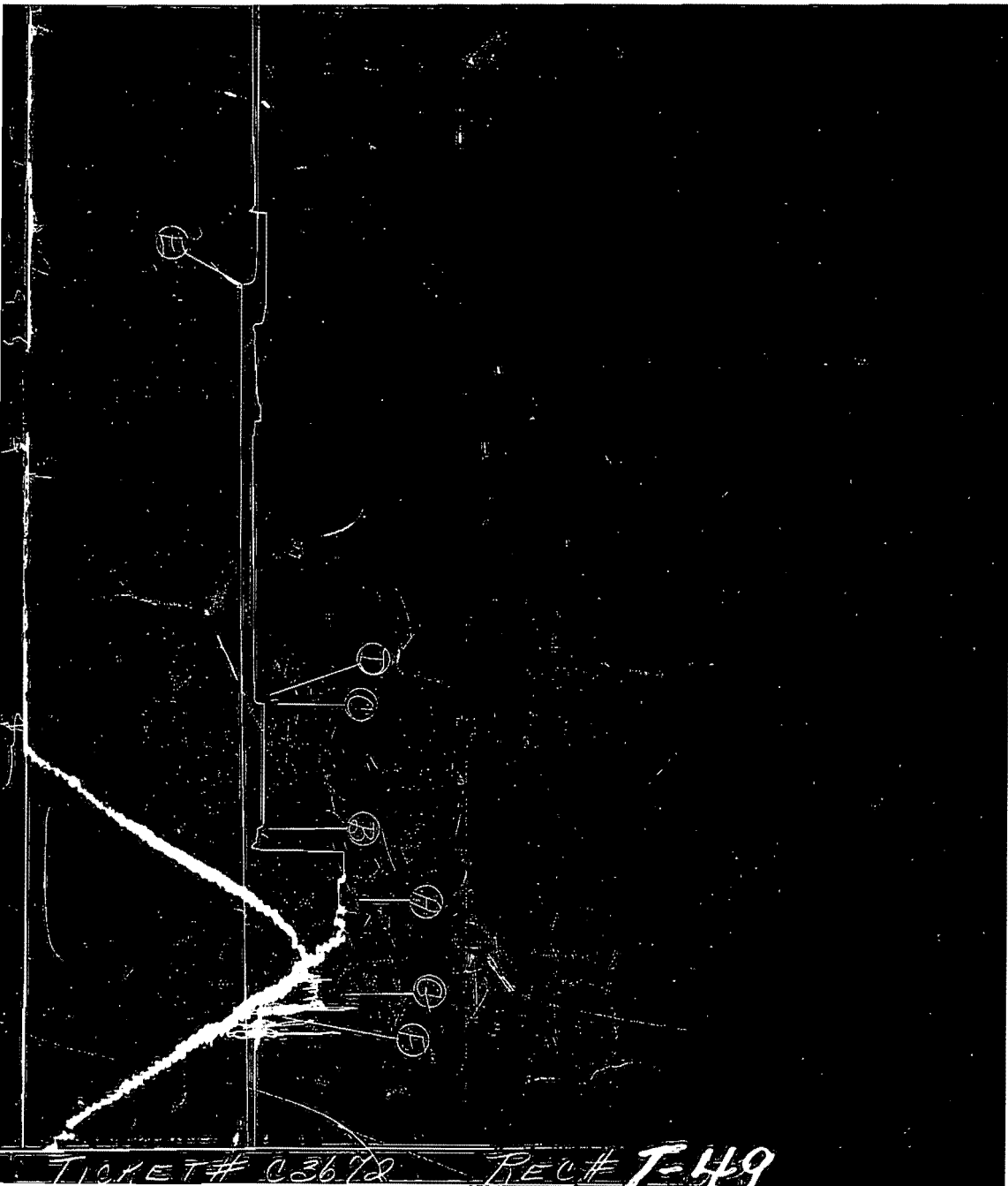
Drill Collar Size 2 7/8 ID Length 572.15'

Main Hole Size 8 5/8"

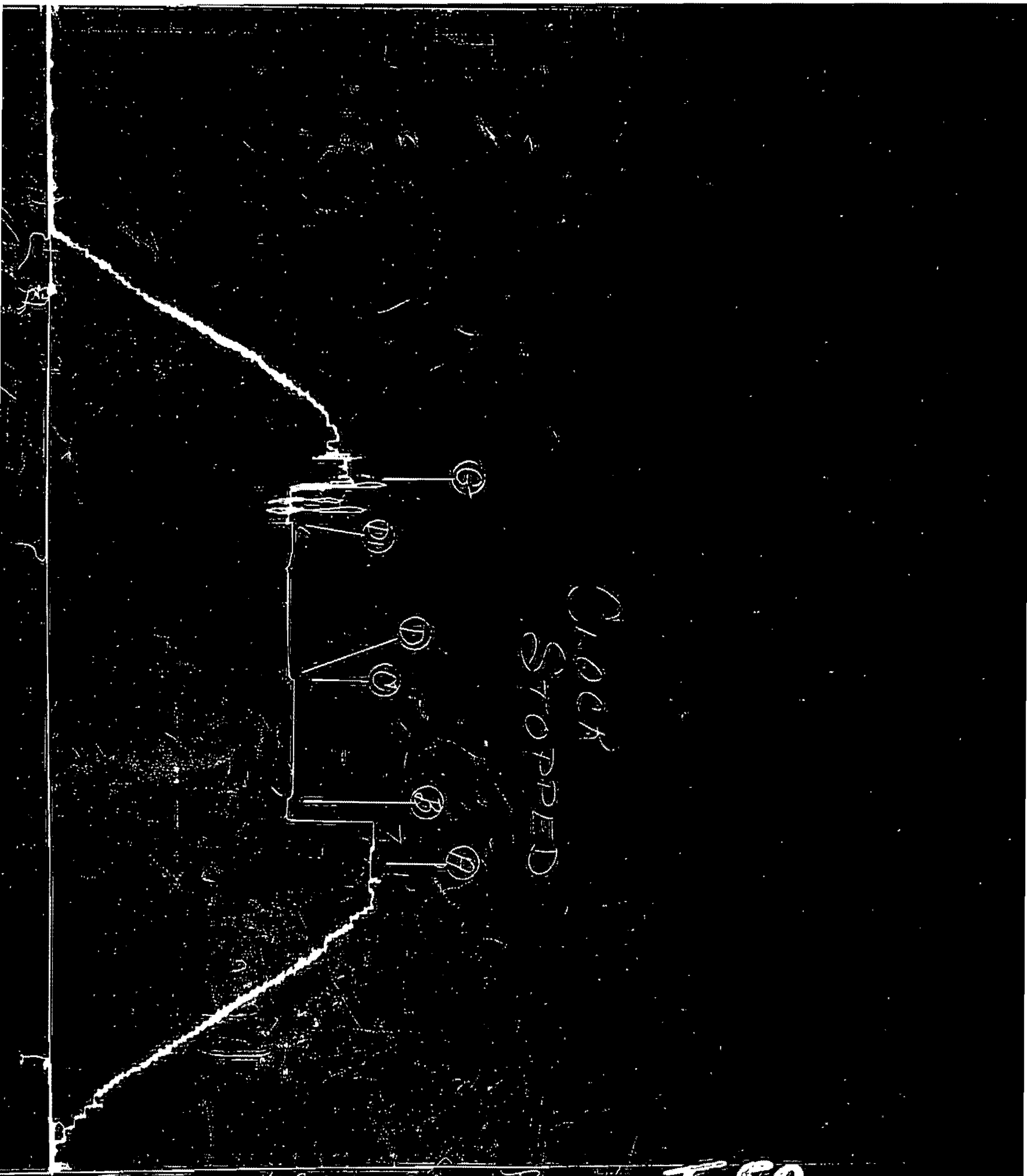
Rat Hole Size

District	Edmonton	Ticket No. C 3672	Date May 26/65
Company	Socony Mobil Oil of Canada	Address P.O. Box 240, Dawson Creek, British Columbia	
Well Name	Socony Mobil Western Min.	Test No. 6	J.T.L. Test No. 6
Number	Birch YT B-34	Field Wildcat	Province Yukon
Formation and Interval	66°-03'-03"N-136°-51'-17"W Tight Hole 4430-4501	Consultant	

Distribution of Reports: 8 - Dawson Creek



TICKET# C3672 REC# T-49



TICKET # C3672 REC # T-52

JOHNSTON TESTERS

Pressure Data

Test Ticket No. C 3672

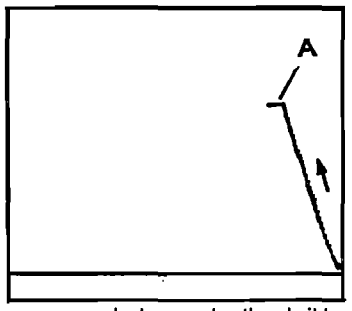
Recorder No.	T-49	T-52			
Capacity (P.S.I.G.)	7000	7000			
Recorder Depth	4450	4456			
Pressure Gradient P.S.I./Ft.					
Well Temperature °F.	94°	94°			
A Initial Hydrostatic	2190#	2212#			
B First Initial Flow	1624#	1639#			
C Initial Shut-In-Pres	1674#	1680#			
D Flowing Pres	1604#	1648#			
E Final Flow	1497#	D-1 1672#			
F Final Shut-In	1646#	Clock Stopped			
G Final Hydrostatic	2040#	2047#			

Remarks

T-49 - Outside Recorder
T-52 - Outside Recorder

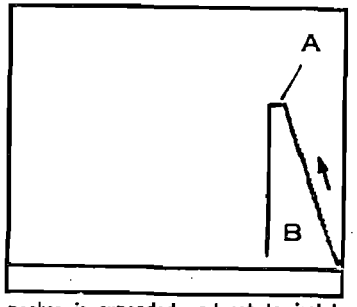
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



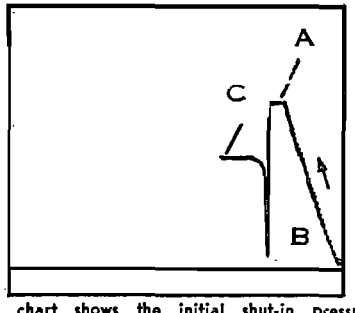
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



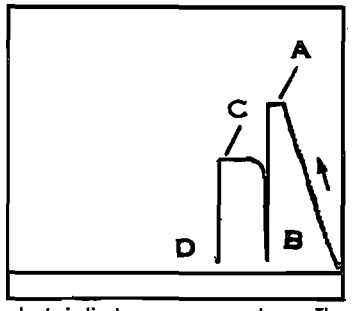
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



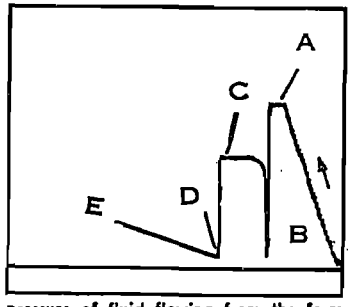
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



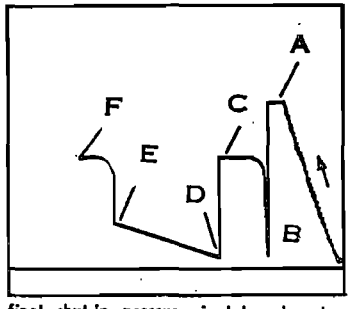
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



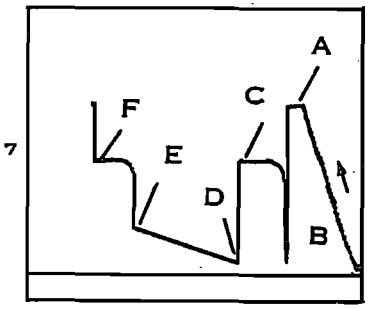
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



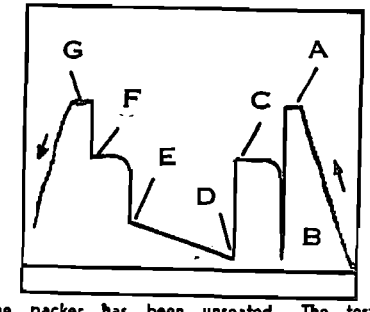
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

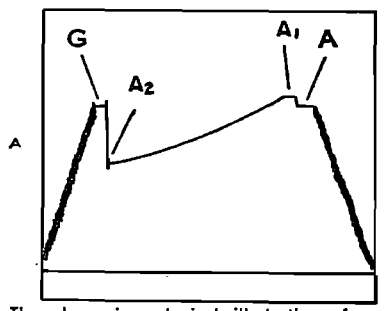
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

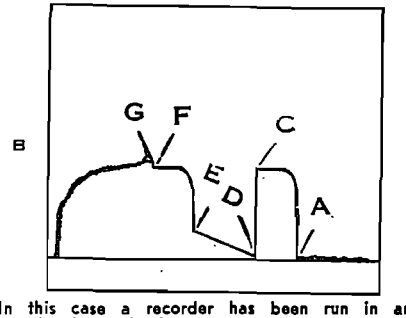
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



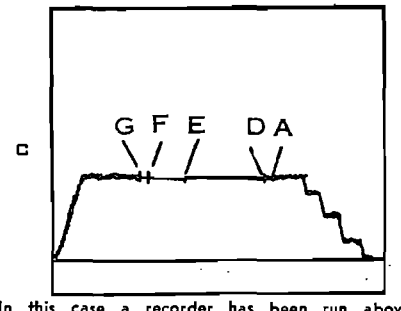
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.