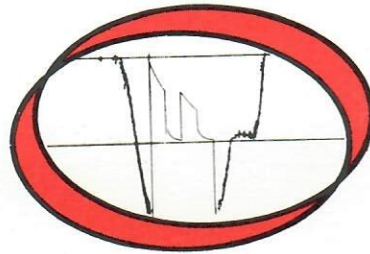


# Formation Testing Service Report

RECEIVED

NOV 14 1972

COLORADO OIL & GAS COMMISSION



02358330

**HALLIBURTON SERVICES**

DUNCAN, OKLAHOMA

PRESSURE

TIME

375239.1531

375239.1530

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

File

RECEIVED

NOV 14 1972

COLO. OIL & GAS CONS. COMM.

COMPANY

DYCO PETROLEUM  
CORPORATION

WELL

ANDERSON #1

TEST NO.

1

COUNTY

RIO BLANCO

STATE

COLORADO

JOHNSTON

Schlumberger

technical  
report

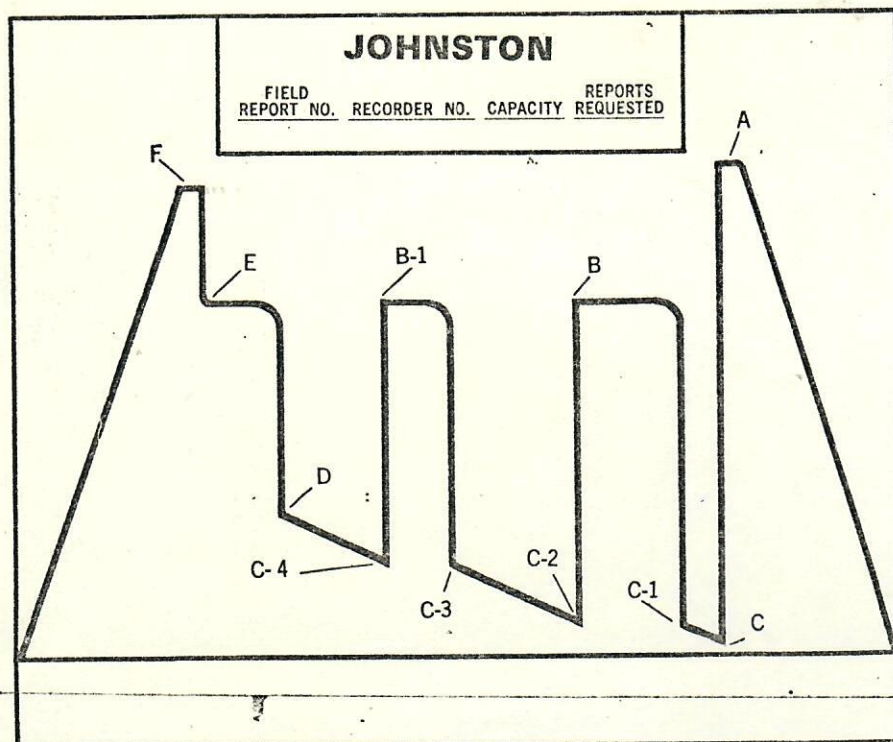


00038418

F. R. # 21137 B



## GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



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



FIELD REPORT NO.

21137 B

CAPACITY

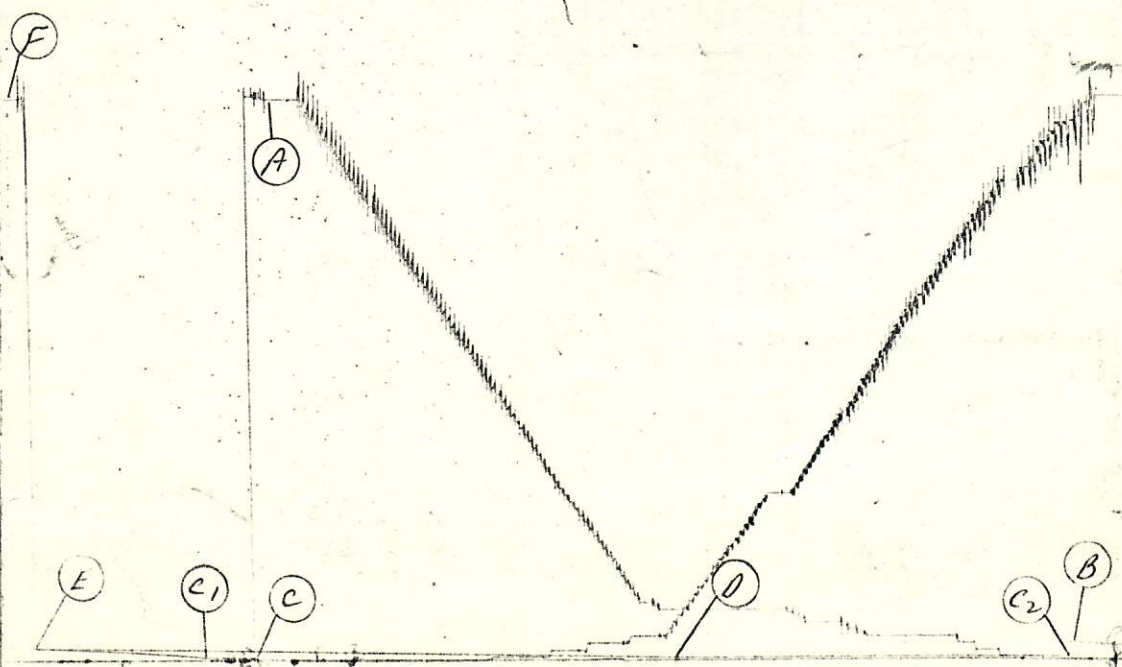
4700#

RECORDER NO.

J-040

REPORTS REQUESTED

10+

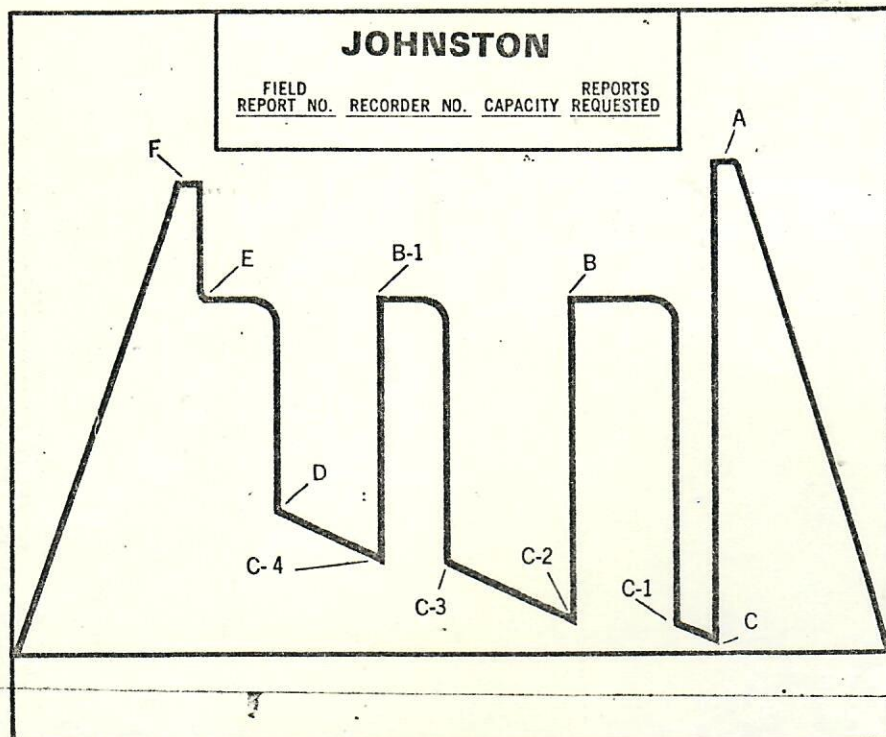




**JOHNSTON**

...found a better way

# GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



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- C. Initial Flow
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- E. Final Shut-in
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- F-1, F-2, F-3, etc. Final Hyd. Mud Pressures
- Z — Special pressure points such as pumping pressure recorded for formation breakdown.



FIELD REPORT NO.

21137 B

CAPACITY

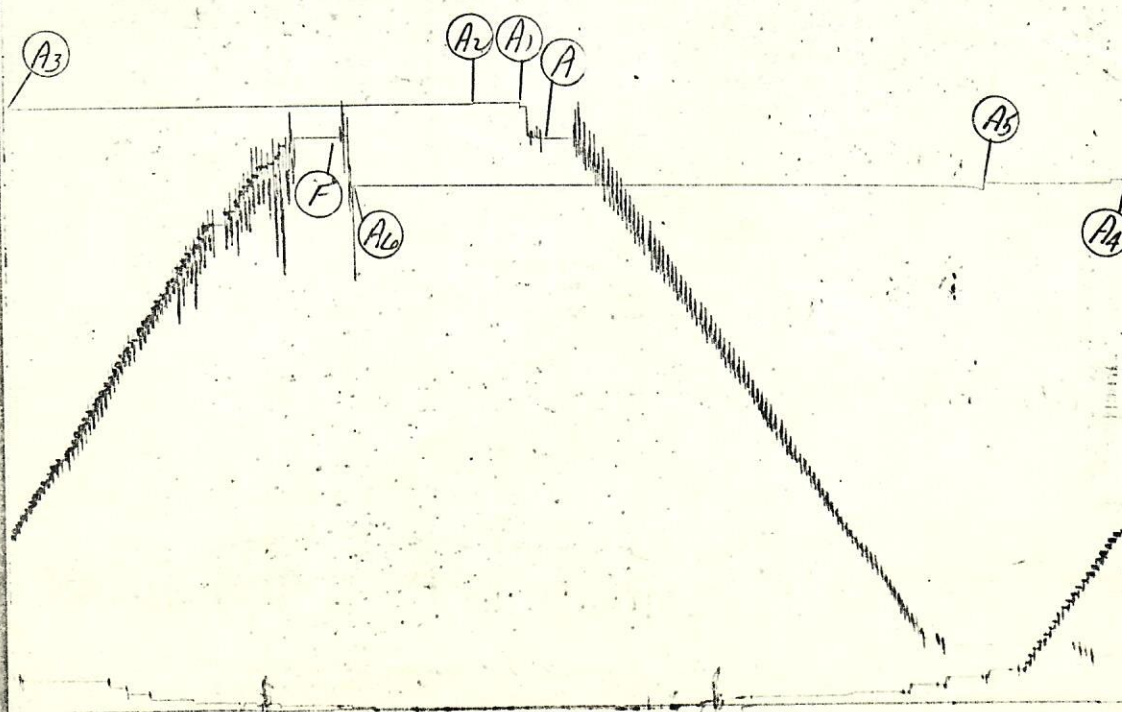
4700#

RECORDER NO.

J-451

REPORTS REQUESTED

10+





FLUID SAMPLE DATA				Date 10-13-72		Ticket Number 375239	
Sampler Pressure _____ P.S.I.G. at Surface Recovery: Cu. Ft. Gas _____ cc. Oil _____ cc. Water _____ cc. Mud _____ Tot. Liquid cc. _____				Kind of Job OPEN HOLE Tester MR. CANTRELL Drilling Contractor WILLARD PEASE DRILLING COMPANY DR S		Halliburton District VERNAL Witness MR. VITARI	
Gravity _____ ° API @ _____ °F. Gas/Oil Ratio _____ cu. ft./bbl.				EQUIPMENT & HOLE DATA			
RESISTIVITY CHLORIDE CONTENT Recovery Water 1.00 @ 98 °F. 2500 ppm Recovery Mud _____ @ _____ °F. _____ ppm Recovery Mud Filtrate _____ @ _____ °F. _____ ppm Mud Pit Sample _____ @ _____ °F. _____ ppm Mud Pit Sample Filtrate _____ @ 9.8 vis _____ cp Mud Weight _____				Formation Tested Morgan Sand Elevation 6530' KB Ft. Net Productive Interval 18' Ft. All Depths Measured From Kelly Bushing Total Depth 5386' Ft. Main Hole/Casing Size 7 7/8" Drill Collar Length 443' I.D. 2 1/2" Drill Pipe Length 4725' I.D. 3.340" Packer Depth(s) 5228'-5234' Ft. Depth Tester Valve 5210' Ft.			
TYPE		AMOUNT		Depth Back		Surface	
Cushion				Ft. Pres. Valve		Choke 1"-1/8" Bottom Choke 3/4"	
Recovered		Feet of rat hole mud		<div style="display: flex; justify-content: space-between;"> <div>Mea. From Tester Valve</div> <div>Field Area</div> </div>			
Recovered 5182		Feet of brackish water					
Recovered		Feet of					
Recovered		Feet of * TIME GIVEN AND RECORDED DOES NOT AGREE.					
Recovered		Feet of					
Remarks Opened tool for 6 minute first flow with a strong blow throughout flow. Closed tool for 80 minute first closed in pressure. Could not rotate tool to open, picked up weight trying to rotate, pulled tool loose, reopened tool, then rotated 12 turns to open sampler. Reopened tool for 61 minute second flow with a strong blow throughout flow, flowed water to surface in 52 minutes, could not rotate to close tool. Pull tools loose and came out of hole. No gas.							
TEMPERATURE		Gauge No. 1531		Gauge No. 1530		Gauge No.	
Depth:		5211 Ft.		5382 Ft.		Ft.	
Est. °F.		12 Hour Clock		12 Hour Clock		Hour Clock	
Blanked Off No		Blanked Off Yes		Blanked Off		Tool Opened 01:30 A.M. - P.M.	
Actual 142 °F.		Pressures		Pressures		Tool Closed 03:55 A.M. - P.M.	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		2677 2697		2786 2782		Reported Minutes	
Flow Initial		695 708		837 868		Computed Minutes	
Flow Final		1103 1115		1211 1230		5 6	
Closed in		2354 2362		2434 2448		70 80*	
Flow Initial		1264 1270		1398 1389		62 61	
Flow Final		2273 2273		2351 2357		- -	
Closed in		-		-		-	
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic		2697 2697		2766 2782			

Legal Location  
Sec. - Twp. - Rng.

17-1N-93W

ANDERSON

Lease Name

Well No.

Test No.

5234'-5386'

Tested Interval

MEEKER DOME

County

RIO BLANCO

State

COLORADO

DYCO PETROLEUM CORPORATION

Lease Owner/Company Name



NOV 14 1972



***...found a better way***

COLO. OIL &

[illegible]

## MUD DATA

Mud Type	GEL BASE	Wt.	9.7
Viscosity	41	Water Loss	7.6 C.C.
Resist: of Mud	- @ - °F;	of Filtrate	- @ - °F
Chloride Content	-		PPM

Type Test	M. F. E. STRADDLE OPEN HOLE		
Formation Tested	MORGEN SAND		
Elevation	6532		Ft.
Net Productive Interval	-		Ft.
Estimated Porosity	-		%
All Depths Measured From	KELLY BUSHING		
Total Depth	5386		Ft.
Main Hole/Casing Size	7 7/8"		
Rat Hole/Liner Size	-		
Drill Collar Length	217'	I.D.	2.5"
Drill Pipe Length	5019'	I.D.	3.43"
Packer Depth(s)	5266 & 5270,		Ft.
	5330		

## MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure \_\_\_\_\_ P.S.I.G. at Surface  
 Recovery: Cu. Ft. Gas \_\_\_\_\_  
               cc. Oil \_\_\_\_\_  
               cc. Water \_\_\_\_\_  
               cc. Mud \_\_\_\_\_  
               Tot. Liquid cc. \_\_\_\_\_  
 Gravity \_\_\_\_\_ ° API @ \_\_\_\_\_ ° F.  
 Gas/Oil Ratio \_\_\_\_\_ cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	_____ @ _____ °F.	_____ ppm
Recovery Mud	_____ @ _____ °F.	
Recovery Mud Filtrate	_____ @ _____ °F.	_____ ppm
Mud Pit Sample	_____ @ _____ °F.	
Mud Pit Sample Filtrate	_____ @ _____ °F.	_____ ppm

[illegible]

Remarks: \_\_\_\_\_

Address 607 PHILTOWER BUILDING; TULSA, OKLAHOMA 74103

Company DYCO PETROLEUM CORPORATION

Well ANDERSON #1

Test Interval 5270' to 5330'

Location SEC. 17-1 N-93W

Test # 1

Field WILD CAT

Date 10-13-72

County           RIO BLANCO          

State COLORADO

Technician TIGLIO (VERNAL)

Test Approved By MR. A. VITALI, JR.

Field Report No. 21137 B

No. Reports Requested 10xx



[illegible]

00038420



	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	6"	2 3/4"	1'	
Water Cushion Valve				
Drill Pipe	4"	3.340"	4725'	
Drill Collars	6 1/2"	2 1/2"	443'	
Handling Sub & Choke Assembly				
Dual CIP Valve				
Dual CIP Sampler	5"	.89"	8.00'	
Hydro-Spring Tester	5"	.75"	5.02'	5210'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2.37"	4.14'	5211'
Hydraulic Jar	5"	1.75"	5.00'	
VR Safety Joint	5"	1"	2.45'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	4.52'	5228'
Distributor	5"	1.68"	2.00'	
Packer Assembly	6 3/4"	1.53"	5.80'	5234'
Flush Joint Anchor	5 3/4"	4 3/4"	16.32'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars	6 1/2"	2 1/2"	124.94'	
Flush Joint Anchor	5 3/4"	4 3/4"	6.20'	
Blanked-Off B.T. Running Case	5 3/4"	2.5"	4.5'	5382'



# NOMENCLATURE

<b>b</b>	= Approximate Radius of Investigation	Feet
<b>b<sub>1</sub></b>	= Approximate Radius of Investigation (Net Pay Zone h <sub>1</sub> )	Feet
<b>D.R.</b>	= Damage Ratio	—
<b>EI</b>	= Elevation	Feet
<b>GD</b>	= B.T. Gauge Depth (From Surface Reference)	Feet
<b>h</b>	= Interval Tested	Feet
<b>h<sub>1</sub></b>	= Net Pay Thickness	Feet
<b>K</b>	= Permeability	md
<b>K<sub>1</sub></b>	= Permeability (From Net Pay Zone h <sub>1</sub> )	md
<b>m</b>	= Slope Extrapolated Pressure Plot (Psi <sup>2</sup> /cycle Gas)	psi/cycle
<b>OF<sub>1</sub></b>	= Maximum Indicated Flow Rate	MCF/D
<b>OF<sub>2</sub></b>	= Minimum Indicated Flow Rate	MCF/D
<b>OF<sub>3</sub></b>	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
<b>OF<sub>4</sub></b>	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
<b>P<sub>s</sub></b>	= Extrapolated Static Pressure	Psig.
<b>P<sub>f</sub></b>	= Final Flow Pressure	Psig.
<b>P<sub>ot</sub></b>	= Potentiometric Surface (Fresh Water*)	Feet
<b>Q</b>	= Average Adjusted Production Rate During Test	bbls/day
<b>Q<sub>1</sub></b>	= Theoretical Production w/Damage Removed	bbls/day
<b>Q<sub>g</sub></b>	= Measured Gas Production Rate	MCF/D
<b>R</b>	= Corrected Recovery	bbls
<b>r<sub>w</sub></b>	= Radius of Well Bore	Feet
<b>t</b>	= Flow Time	Minutes
<b>t<sub>o</sub></b>	= Total Flow Time	Minutes
<b>T</b>	= Temperature Rankine	°R
<b>Z</b>	= Compressibility Factor	—
<b>μ</b>	= Viscosity Gas or Liquid	CP
<b>Log</b>	= Common Log	

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