

Flow Time	1st 10	Min.	2nd 75	Min.	Date	2-8-63	Ticket Number	379313 S
Closed In Press. Time	1st 60	Min.	2nd 75	Min.	Kind of Job	Open hole test	Halliburton District	Pratt
Pressure Readings	Field		Office Corrected		Tester	Cline	Witness	Mr. Sherwin
Depth Top Gauge	3632	Ft.	NO	Blanked Off	Drilling Contractor	Garvey Drilling Company		
BT. P.R.D. No.	3000# - 297		3.368	Hour Clock	Elevation	1407'	Top Packer	-
Initial Hydro Mud Pressure	1881		1891		Total Depth	3650'	Bottom Packer	3630'
Initial Closed in Pres.	708		735		Interval Tested	20'	Formation Tested	Douglas Sand
Initial Flow Pres.	97		1 121		Casing or Hole Size	7 7/8"	Casing Perfs. { Top Bot.	-
Final Flow Pres.	115		1 112		Surface Choke	1"	Bottom Choke	5/8"
Final Closed in Pres.	708		735		Size & Kind Drill Pipe	4 1/2" FH	Drill Collars Above Tester	I.D. - LENGTH
Final Hydro Mud Pressure	1854		1884		Mud Weight	10	Mud Viscosity	36
Depth Cen. Gauge	3646	Ft.	YES	Blanked Off	Temperature	106	Anchor Size & Length	ID 2 3/8" OD 4 5/8" X 20'
BT. P.R.D. No.	3000# - 585		3.224	Hour Clock	Depths Mea. From	Ground Level	Depth of Tester Valve	3617' Ft.
Initial Hydro Mud Pres.	1908		1891		Cushion	-	Depth Back Pres. Valve	-
Initial Closed in Pres.	731		731		Recovered	70	Feet of	Oil cut drilling mud
Initial Flow Pres.	109		1 132		Recovered	180	Feet of	Oil cut muddy water
Final Flow Pres.	291		1 111		Recovered	250	Feet of	Water
Final Closed in Pres.	731		730		Recovered		Feet of	
Final Hydro Mud Pres.	1880		1884		Oil A.P.I. Gravity	-	Water Spec. Gravity	1.151 @ 72°
Depth Bot. Gauge		Ft.		Blanked Off	Gas Gravity	-	Surface Pressure	4 3/4 psi
BT. P.R.D. No.				Hour Clock	Tool Opened	10:15 A.M.	Tool Closed	1:55 A.M.
Initial Hydro Mud Pres.					Remarks	Opened tool for 10 minute 1st flow. Closed		
Initial Closed in Pres.						tool for 60 minute initial closed in pressure.		
Initial Flow Pres.						Reopened tool for 75 minute 2nd flow with gas		
Final Flow Pres.						to surface in 4 minutes. Estimated gauged 196 MCF.		
Final Closed in Pres.						Increased throughout test slowly to 652 MCF in		
Final Hydro Mud Pres.						1 hour 15 minutes. Closed tool for 75 minute FCIP.		

FORMATION TEST DATA

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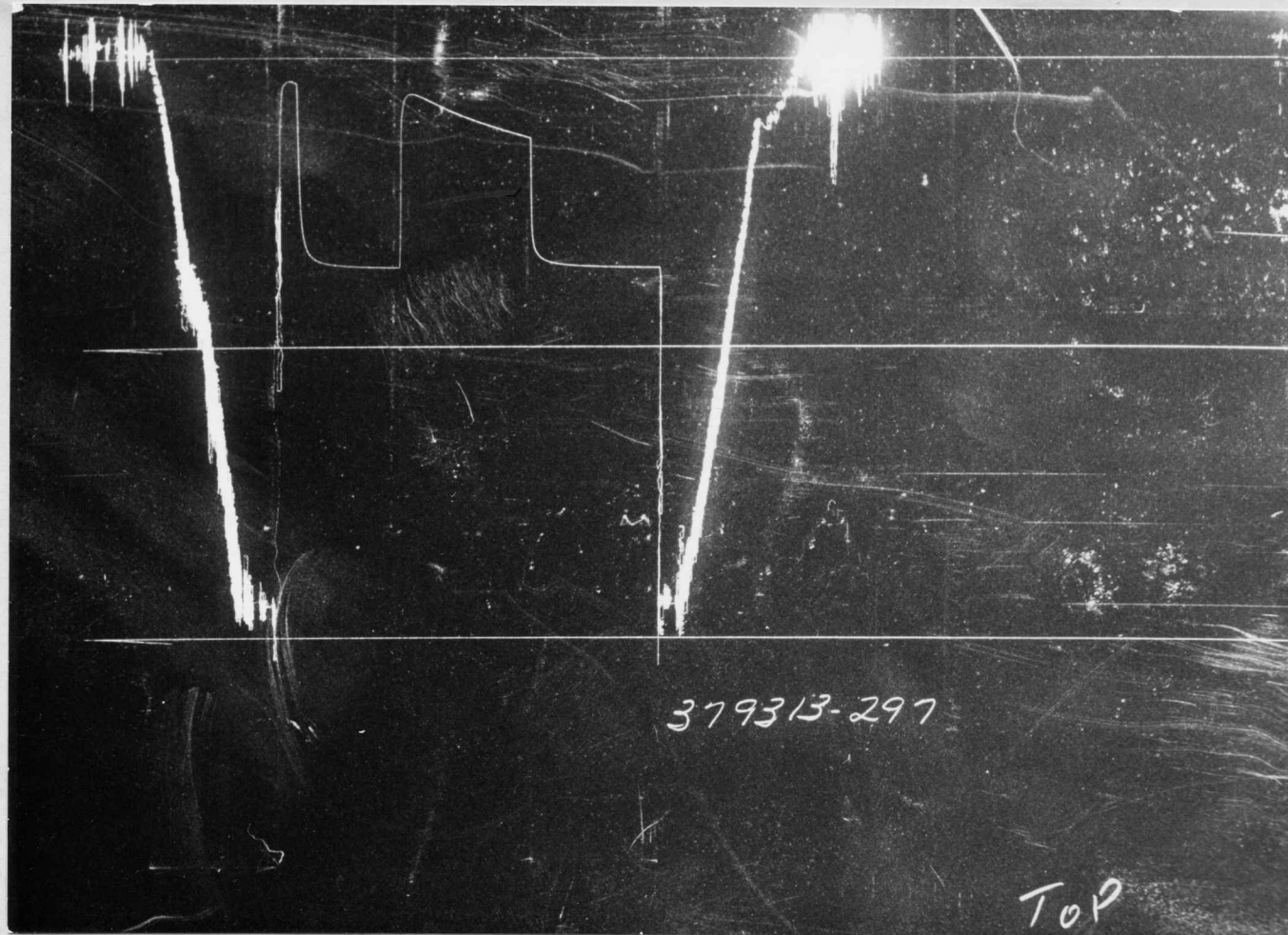
W. A. NEWKIRK
 Lease Name
 Well No. 14
 Test No. 1
 SINCCLAIR OIL & GAS COMPANY
 Lease Owner/Company Name
 BARBER
 County
 KANSAS
 State
 KANSAS
 Owner's District

Gauge No. 297			Depth 3632'			Clock 12 hour			Ticket No. 379313		
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	121	.000		112	.000	165	.000		296	
P ₁	.0106	110	.0398		677	.0978	171	.0501		707	
P ₂	.0212	104	.0796		712	.1956	211	.1002		721	
P ₃	.0318	104	.1194		722	.2934	243	.1503		727	
P ₄	.0424	107	.1592		727	.3912	271	.2004		729	
P ₅	.0530	112	.1990		730	.4890	296	.2505		731	
P ₆			.2388		732			.3006		732	
P ₇			.2786		734			.3507		734	
P ₈			.3184		734			.4008		734	
P ₉			.3582		735			.4509		735	
P ₁₀			.3980		735			.5010		735	

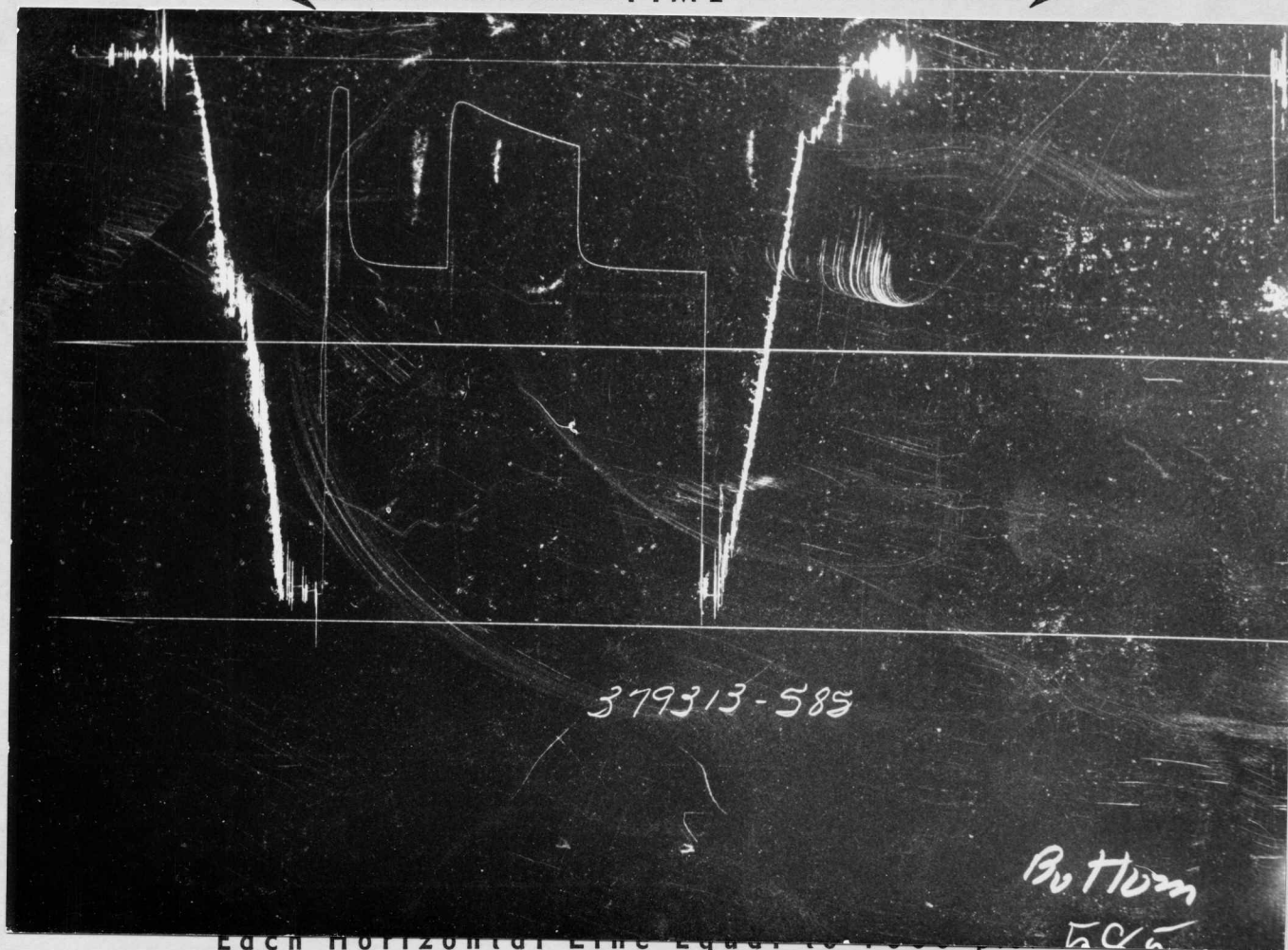
Gauge No. 585			Depth 3646'			Clock 12 hour				
P ₀	.000	132	.000		111	.000	165	.000		296
P ₁	.0118	110	.0397		681	.0972	171	.0503		705
P ₂	.0236	101	.0794		709	.1944	210	.1006		717
P ₃	.0354	102	.1191		719	.2916	242	.1509		722
P ₄	.0472	107	.1588		724	.3888	270	.2012		725
P ₅	.0590	111	.1985		727	.4860	296	.2515		727
P ₆			.2382		728			.3018		728
P ₇			.2779		728			.3521		728
P ₈			.3176		730			.4024		729
P ₉			.3573		730			.4527		730
P ₁₀			.3970		731			.5030		730
Reading Interval 2			6			15			7.5 Minutes	
REMARKS:										

SPECIAL PRESSURE DATA

↑
PRESSURE
↓



← TIME →



NOMENCLATURE

b	= Approximate Radius of Investigation	Feet
b₁	= Approximate Radius of Investigation (Net Pay Zone h ₁)	Feet
D.R.	= Damage Ratio	—
EI	= Elevation	Feet
GD	= B.T. Gauge Depth (From Surface Reference)	Feet
h	= Interval Tested	Feet
h₁	= Net Pay Thickness	Feet
K	= Permeability	md
K₁	= Permeability (From Net Pay Zone h ₁)	md
m	= Slope Extrapolated Pressure Plot (Psi ² /cycle Gas)	psi/cycle
OF₁	= Maximum Indicated Flow Rate	MCF/D
OF₂	= Minimum Indicated Flow Rate	MCF/D
OF₃	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF₄	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	= Extrapolated Static Pressure	Psig.
P_f	= Final Flow Pressure	Psig.
P_{ot}	= Potentiometric Surface (Fresh Water *)	Feet
Q	= Average Adjusted Production Rate During Test	bbls/day
Q₁	= Theoretical Production w/Damage Removed	bbls/day
Q_g	= Measured Gas Production Rate	MCF/D
R	= Corrected Recovery	bbls
r_w	= Radius of Well Bore	Feet
t	= Flow Time	Minutes
t_o	= Total Flow Time	Minutes
T	= Temperature Rankine	°R
Z	= Compressibility Factor	—
μ	= Viscosity Gas or Liquid	CP
Log	= Common Log	

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