

Flow Time	1st 10 Min.	2nd 61 Min.	Date	9-26-63	Ticket Number	402928 S
Closed In Press. Time	1st 30 Min.	2nd 30 Min.	Kind of Job	OPEN HOLE TEST	Halliburton District	EL DORADO
Pressure Readings	Field	Office Corrected	Tester	MR. GASPERSOON	Witness	MR. DENSMORE
Depth Top Gauge	2411 Ft.	NO Blanked Off	Drilling Contractor	WHITE & ELLIS DRILLING INCORPORATED		
BT. P.R.D. No.	536	12 Hour Clock	Elevation	1377'	Top Packer	-
Initial Hydro Mud Pressure	1260	1201	Total Depth	2430'	Bottom Packer	2418'
Initial Closed in Pres.	634	615	Interval Tested	2418'-2430'	Formation Tested	ARBUCKLE
Initial Flow Pres.	37	1 18 2 52	Casing or Hole Size	7 7/8"	Casing Perfs. { Top Bot.	-
Final Flow Pres.	120	1 40 2 116	Surface Choke	1 1/4"	Bottom Choke	5/8"
Final Closed in Pres.	460	437	Size & Kind Drill Pipe	3 1/2" IF	Drill Collars Above Tester	2 1/4" x 194' I.D. - LENGTH
Final Hydro Mud Pressure	1260	1193	Mud Weight	9.8	Mud Viscosity	40
Depth Cen. Gauge	2428 Ft.	YES Blanked Off	Temperature	100 °F Est. °F Actual	Anchor Size ID	3 1/2" OD 4.00" X 12'
BT. P.R.D. No.	538	12 Hour Clock	Depths Mea. From	Kelly Bushings	Depth of Tester Valve	2409' Ft.
Initial Hydro Mud Pres.		1308	Cushion	-	Depth Back Pres. Valve	- Ft.
Initial Closed in Pres.		649	Recovered	230 Feet of Oil		
Initial Flow Pres.	1 18 2 46		Recovered	70 Feet of Mud cut oil		
Final Flow Pres.	1 41 2 123		Recovered	Feet of		
Final Closed in Pres.		462	Recovered	Feet of		
Final Hydro Mud Pres.		1308	Oil A.P.I. Gravity	37	Water Spec. Gravity	-
Depth Bot. Gauge	Ft.	Blanked Off	Gas Gravity	-	Surface Pressure	- psi
BT. P.R.D. No.		Hour Clock	Tool Opened	10:20 A.M. P.M.	Tool Closed	12:01 A.M. P.M.
Initial Hydro Mud Pres.			Remarks	Opened tool at 10:20 for 10 minute 1st flow.		
Initial Closed in Pres.				Closed tool at 10:30 for 30 minute initial		
Initial Flow Pres.	1 2			closed in pressure. Reopened tool at 11:00 for 61		
Final Flow Pres.	1 2			minute 2nd flow with good blow throughout test.		
Final Closed in Pres.				Closed tool at 12:01 for 30 minute final closed		
Final Hydro Mud Pres.				in pressure.		

FORMATION TEST DATA

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Gauge No.		536	Depth		2411'	Clock		12	hour	Ticket No.	402928
	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	18	.000		40	.000	52	.000		116	
P ₁	.0114	27	.020		437	.1003	76	.0195		289	
P ₂	.0228	30	.040		507	.2006	93	.0390		333	
P ₃	.0342	35	.060		540	.3009	104	.0585		358	
P ₄	.0456	37	.080		561	.4080	116*	.0780		375	
P ₅	.0570	40	.100		574			.0975		391	
P ₆			.120		586			.1170		403	
P ₇			.140		595			.1365		413	
P ₈			.160		603			.1560		422	
P ₉			.180		609			.1755		428	
P ₁₀			.200		615			.1950		437	

Gauge No. 538			Depth 2428'			Clock 12		hour		
P ₀	.000	18	.000		41	.000	46	.000		123
P ₁	.0128	28	.0188		526	.1008	81	.0175		338
P ₂	.0256	32	.0376		563	.2016	97	.0350		365
P ₃	.0384	35	.0564		586	.3024	110	.0525		387
P ₄	.0512	41	.0752		603	.4100	123*	.0700		402
P ₅	.0640	41	.0940		617			.0875		415
P ₆			.1128		627			.1050		426
P ₇			.1316		635			.1225		437
P ₈			.1504		642			.1400		446
P ₉			.1692		648			.1575		455
P ₁₀			.1880		649			.1750		462
Reading Interval 2			3			15		3 Minutes		

REMARKS:

*Last interval equal to 16 minutes.

SPECIAL PRESSURE DATA

ADST

Lease Name

23

Well No.

2

Test No.

CITIES SERVICE PETROLEUM COMPANY

Lease Owner/Company Name

EL DORADO

Owner's District

Legal Location
Sec. - Twp. - Rng.

SEC. 36 - 25 - 4E

Field Area

EL DORADO

County

BUTLER

State

KANSAS

Flow Time	1st Min. 11	2nd Min. 60	Date	9-26-63	Ticket Number	402929 S
Closed In Press. Time	1st Min. 30	2nd Min. 30	Kind of Job	Open hole test	Halliburton District	El Dorado
Pressure Readings	Field	Office Corrected	Tester	Mr. Gasperson	Witness	Mr. Densmore
Depth Top Gauge	2418 Ft.	NO Blanked Off	Drilling Contractor	White & Ellis Drilling Company		
BT. P.R.D. No.	536	12 Hour Clock	Elevation	1377'	Top Packer	-
Initial Hydro Mud Pressure	1250	1242	Total Depth	2445'	Bottom Packer	2430'
Initial Closed in Pres.	689	697	Interval Tested	2430' - 2445'	Formation Tested	Arbuckle
Initial Flow Pres.	83	1 23	Casing or Hole Size	7 7/8"	Casing Perfs. { Top Bot.	-
Final Flow Pres.	230	1 76	Surface Choke	1/4"	Bottom Choke	5/8"
Final Closed in Pres.	653	648	Size & Kind Drill Pipe	3 1/2" IF	Drill Collars Above Tester	I.D. - LENGTH 2 1/4" x 194'
Final Hydro Mud Pressure	1250	1237	Mud Weight	9.8	Mud Viscosity	38
Depth Cen. Gauge	2433 Ft.	YES Blanked Off	Temperature	100 °F Est.	Anchor Size & Length	ID 3 1/2" OD 4" X 15'
BT. P.R.D. No.	538	12 Hour Clock	Depths Mea. From	Kelly Bushings	Depth of Tester Valve	2416' Ft.
Initial Hydro Mud Pres.		1239	Cushion	-	Depth Back Pres. Valve	- Ft.
Initial Closed in Pres.		697	Recovered	535 Feet of OIL	Mea. From Tester Valve	
Initial Flow Pres.		1 25	Recovered	80 Feet of Mud cut oil		
Final Flow Pres.		1 78	Recovered	Feet of		
Final Closed in Pres.		649	Recovered	Feet of		
Final Hydro Mud Pres.		1232	Oil A.P.I. Gravity	37	Water Spec. Gravity	-
Depth Bot. Gauge	Ft.	Blanked Off	Gas Gravity	-	Surface Pressure	- psi
BT. P.R.D. No.		Hour Clock	Tool Opened	7:24 A.M.	Tool Closed	9:05 A.M.
Initial Hydro Mud Pres.			Remarks Opened tool for 11 minute 1st flow. Closed			
Initial Closed in Pres.			tool for 30 minute initial closed in pressure.			
Initial Flow Pres.		1	Reopened tool for 60 minute 2nd flow with blow			
Final Flow Pres.		1	throughout test. Closed tool for 30 minute			
Final Closed in Pres.			final closed in pressure.			
Final Hydro Mud Pres.						

FORMATION TEST DATA

Gauge No. 536			Depth 2418'			Clock 12 hour		Ticket No. 402929		
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	23	.000		76	.000	85	.000		232
P ₁	.0149	32	.0179		621	.0993	132	.0189		557
P ₂	.0298	43	.0358		647	.1986	168	.0378		582
P ₃	.0447	55	.0537		659	.2979	202	.0567		598
P ₄	.0596	66	.0716		671	.3970	232	.0756		610
P ₅	.0820	76*	.0895		678			.0945		618
P ₆			.1074		683			.1134		626
P ₇			.1253		688			.1323		632
P ₈			.1432		691			.1512		639
P ₉			.1611		694			.1701		643
P ₁₀			.1790		697			.1890		648

Gauge No. 538			Depth 2433'			Clock 12 hour				
P ₀	.000	25	.000		78	.000	97	.000		234
P ₁	.0133	35	.0194		576	.0993	135	.0207		539
	.0266	44	.0388		628	.1986	170	.0414		576
	.0399	54	.0582		649	.2979	203	.0621		594
	.0532	65	.0776		664	.3970	234	.0828		608
	.0730	78*	.0970		674			.1035		618
			.1164		680			.1242		627
			.1358		686			.1449		633
			.1552		691			.1656		639
			.1746		695			.1863		645
			.1940		697			.2070		649
2		3			15		3			Minutes

*Last interval equal to 3 minutes

SPECIAL PRESSURE DATA

ADSTT

Lease Name

Well No.

Test No.

CITIES SERVICE PETROLEUM COMPANY

Lease Owner/Company Name

EL DORADO

Owner's District

Legal Location
Sec. - Twp. - Rng.

SEC. 36 - 25S - 4E

Field Area

EL DORADO

County

BUTLER

State

KANSAS

Flow Time	1st Min. 10	2nd Min. 60	Date	9-27-63	Ticket Number	402930 S
Closed In Press. Time	1st Min. 30	2nd Min. 30	Kind of Job	Open hole test	Halliburton District	El Dorado
Pressure Readings	Field	Office Corrected	Tester	Mr. Gasperson	Witness	Mr. Densmore
Depth Top Gauge	2438 Ft.	NO Blanked Off	Drilling Contractor	White & Ellis Drilling Company		
BT. P.R.D. No.	536	12 Hour Clock	Elevation	1377'	Top Packer	-
Initial Hydro Mud Pressure	1260	1239	Total Depth	2465'	Bottom Packer	2445'
Initial Closed in Pres.	725	728	Interval Tested	2445'-2465'	Formation Tested	Arbuckle
Initial Flow Pres.	27	1 13 2 29	Casing or Hole Size	7 7/8"	Casing Perfs. } Top Bot.	-
Final Flow Pres.	73	1 26 2 85	Surface Choke	1/4"	Bottom Choke	5/8"
Final Closed in Pres.	698	699	Size & Kind Drill Pipe	3 1/2" IF	Drill Collars Above Tester	I.D. - LENGTH 2 1/2" x 194'
Final Hydro Mud Pressure	-	1233	Mud Weight	9.8	Mud Viscosity	39
Depth Cen. Gauge	2463 Ft.	YES Blanked Off	Temperature	100 °F Est. °F Actual	Anchor Size & Length	ID 3 1/2" OD 4" X 20'
BT. P.R.D. No.	538	12 Hour Clock	Depths Mea. From	Kelly Bushings	Depth of Tester Valve	2436' Ft.
Initial Hydro Mud Pres.		1250	TYPE AMOUNT		Depth Back Pres. Valve	- Ft.
Initial Closed in Pres.		730	Cushion	-		
Initial Flow Pres.	1 21 2 42		Recovered	140 Feet of Oil		
Final Flow Pres.	1 33 2 92		Recovered	65 Feet of Mud cut oil		
Final Closed in Pres.		699	Recovered	Feet of		
Final Hydro Mud Pres.		1240	Recovered	Feet of		
Depth Bot. Gauge	Ft.	Blanked Off	Oil A.P.I. Gravity	37	Water Spec. Gravity	-
BT. P.R.D. No.		Hour Clock	Gas Gravity	-	Surface Pressure	- psi
Initial Hydro Mud Pres.			Tool Opened	5:53 A.M. P.M.	Tool Closed	7:33 A.M. P.M.
Initial Closed in Pres.			Remarks	Opened tool for 10 minute 1st flow. Closed tool for 30 minute initial closed in pressure.		
Initial Flow Pres.	1 2 2			Reopened tool for 60 minute 2nd flow with blow		
Final Flow Pres.	1 2			throughout test. Closed tool for 30 minute		
Final Closed in Pres.				final closed in pressure.		
Final Hydro Mud Pres.						

FORMATION TEST DATA

5

Gauge No. 536			Depth 2438'			Clock 12 hour		Ticket No. 402930		
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	13	.000		26	.000	29	.000		85
P ₁	.0124	17	.0183		600	.101	43	.0193		548
P ₂	.0248	20	.0366		650	.202	59	.0386		601
P ₃	.0372	23	.0549		677	.303	74	.0579		632
P ₄	.0496	25	.0732		693	.404	85	.0772		652
P ₅	.0620	26	.0915		705			.0965		666
P ₆			.1098		712			.1158		676
P ₇			.1281		717			.1351		684
P ₈			.1464		721			.1544		690
P ₉			.1647		725			.1737		694
P ₁₀			.1830		728			.1930		699

Gauge No.			Depth			Clock		hour		
538			2463'			12				
P ₀	.000	21	.000		33	.000	42	.000		92
P ₁	.012	25	.0186		471	.1013	49	.021		404
P ₂	.024	27	.0372		615	.2026	64	.042		569
P ₃	.036	29	.0558		661	.3039	79	.063		617
P ₄	.048	32	.0744		683	.4050	92	.084		644
P ₅	.060	33	.0930		699			.105		661
P ₆			.1116		710			.126		673
P ₇			.1302		717			.147		682
P ₈			.1488		722			.168		689
P ₉			.1674		727			.189		696
P ₁₀			.1860		730			.210		699
Reading Interval 2			3			15		3 Minutes		

REMARKS:

SPECIAL PRESSURE DATA

25

Legal Location
Sec. - Twp. - Rng.

SEC. 36 - 25E - 4E

Field Area

EL DORADO

County

BUTLER

State

KA NSAS

Owner's District

Flow Time	1st 10	Min.	2nd 30	Min.	Date	9-27-63		Ticket Number	402931 S	
Closed In Press. Time	1st 29	Min.	2nd 30	Min.	Kind of Job	Open hole test		Halliburton District	El Dorado	
Pressure Readings	Field		Office Corrected		Tester	Mr. Gasperson		Witness	Mr. Densmore	
Depth Top Gauge	2458 Ft.		NO Blanked Off		Drilling Contractor	White & Ellis Drilling Incorporated				
BT. P.R.D. No.	536		12 Hour Clock		Elevation	1377'		Top Packer	-	
Initial Hydro Mud Pressure	1241		1240		Total Depth	2485'		Bottom Packer	2465'	
Initial Closed in Pres.	854		853		Interval Tested	2465'-2485'		Formation Tested	Arbuckle	
Initial Flow Pres.	230		1 92 2 248		Casing or Hole Size	7 7/8"		Casing Perfs. { Top Bot.	{ -	
Final Flow Pres.	597		1 245 2 595		Surface Choke	1"		Bottom Choke	5/8"	
Final Closed in Pres.	854		846		Size & Kind Drill Pipe	3 1/2" IF		Drill Collars Above Tester	I.D. - LENGTH 2 1/4" x 194'	
Final Hydro Mud Pressure	1241		1221		Mud Weight	9.4		Mud Viscosity	43	
Depth Cen. Gauge	2483 Ft.		YES Blanked Off		Temperature	90 °F Est. °F Actual		Anchor Size & Length	ID 3 1/2" OD 4" X 20'	
BT. P.R.D. No.	538		12 Hour Clock		Depths Mea. From	Kelly Bushings		Depth of Tester Valve	2456' Ft.	
Initial Hydro Mud Pres.	-		1251		TYPE AMOUNT		Cushion		Ft. Depth Back Pres. Valve Ft.	
Initial Closed in Pres.	-		855		Recovered		1315		Feet of Oil & mud cut water	
Initial Flow Pres.	1 41 2 262				Recovered				Feet of	
Final Flow Pres.	1 250 2 598				Recovered				Feet of	
Final Closed in Pres.	-		850		Recovered				Feet of	
Final Hydro Mud Pres.	-		1233		Oil A.P.I. Gravity	-		Water Spec. Gravity	-	
Depth Bot. Gauge	Ft.		Blanked Off		Gas Gravity	-		Surface Pressure	psi	
BT. P.R.D. No.			Hour Clock		Tool Opened	5:00 A.M. P.M.		Tool Closed	6:09 A.M. P.M.	
Initial Hydro Mud Pres.					Remarks Opened tool for 10 minute 1st flow at 5:00.					
Initial Closed in Pres.					Closed tool at 5:10 for 29 minute initial closed					
Initial Flow Pres.	1 2				in pressure. Reopened tool at 5:40 for 30 min.					
Final Flow Pres.	1 2				2nd flow with strong blow throughout test.					
Final Closed in Pres.					Closed tool for 30 minute final closed in pressure.					
Final Hydro Mud Pres.										

FORMATION TEST DATA

5

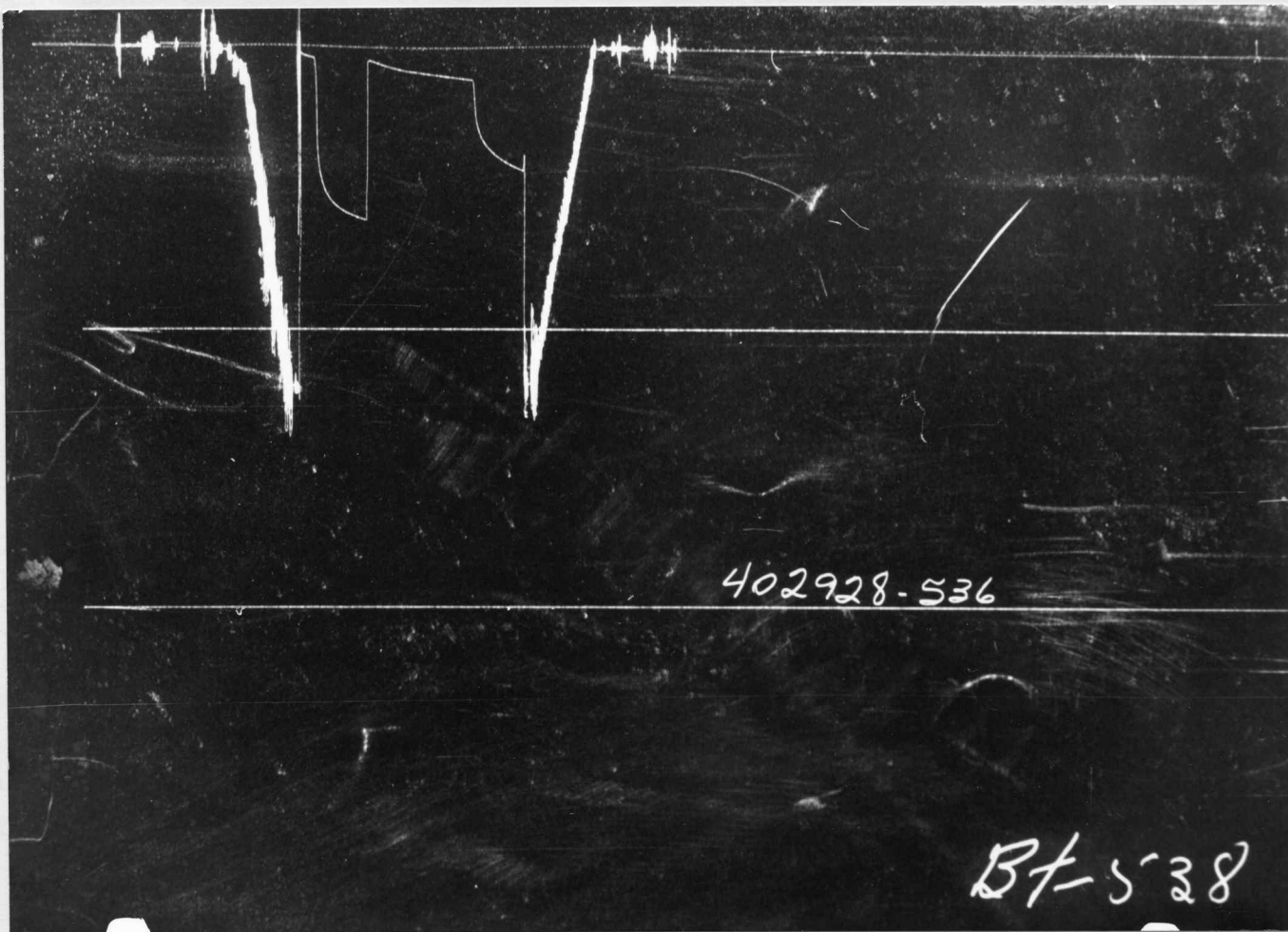
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First Flow Period			Initial Closed In Pressure			Second Flow Period			Final Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	
P ₀	.000	92	.000		245	.000	248	.000		595	
P ₁	.013	137	.0202		816	.0422	371	.0184		814	
P ₂	.026	169	.0404		828	.0844	445	.0368		822	
P ₃	.039	209	.0606		836	.1266	507	.0552		828	
P ₄	.052	238	.0808		840	.1688	560	.0736		833	
P ₅	.065	245	.1010		844	.2110	595	.0920		836	
P ₆			.1212		847			.1104		839	
P ₇			.1414		849			.1288		840	
P ₈			.1616		850			.1472		843	
P ₉			.1818		852			.1656		845	
P ₁₀			.2020		853			.1840		846	

Gauge No. 538			Depth 2483'			Clock 12 hour		
P ₀	.000	41	.000		250	.000	262	.000
P ₁	.0134	102	.0202		805	.0436	356	.020
P ₂	.0268	143	.0404		824	.0872	429	.040
P ₃	.0402	182	.0606		835	.1308	493	.060
P ₄	.0536	216	.0808		841	.1744	550	.080
P ₅	.0670	250	.1010		846	.2180	598	.100
P ₆			.1212		849			.120
P ₇			.1414		851			.140
P ₈			.1616		853			.160
P ₉			.1818		855			.180
P ₁₀			.2020		855			.200

Reading Interval	2	2.9	6	3	Minutes
REMARKS:					

SPECIAL PRESSURE DATA

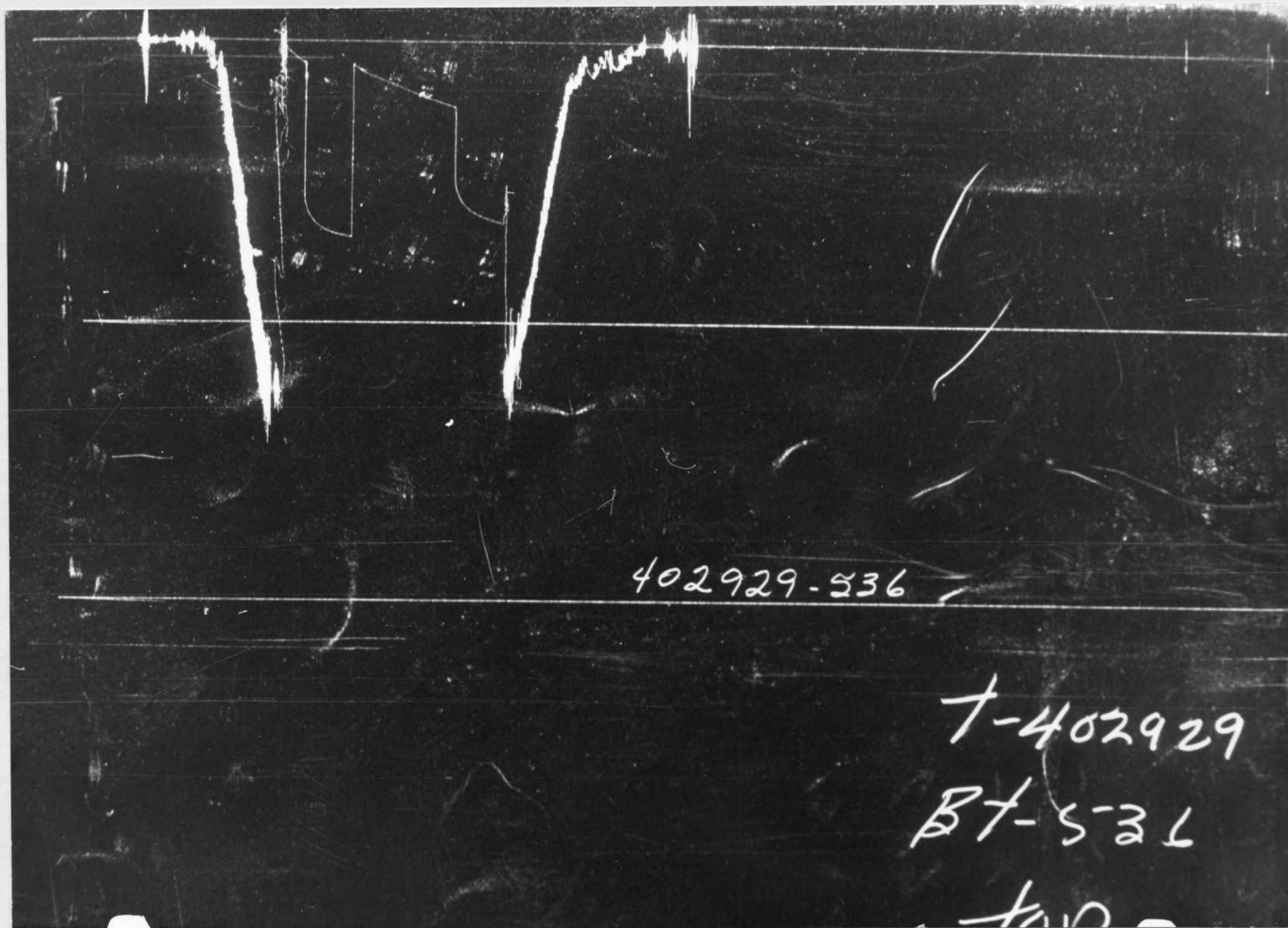
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TIME



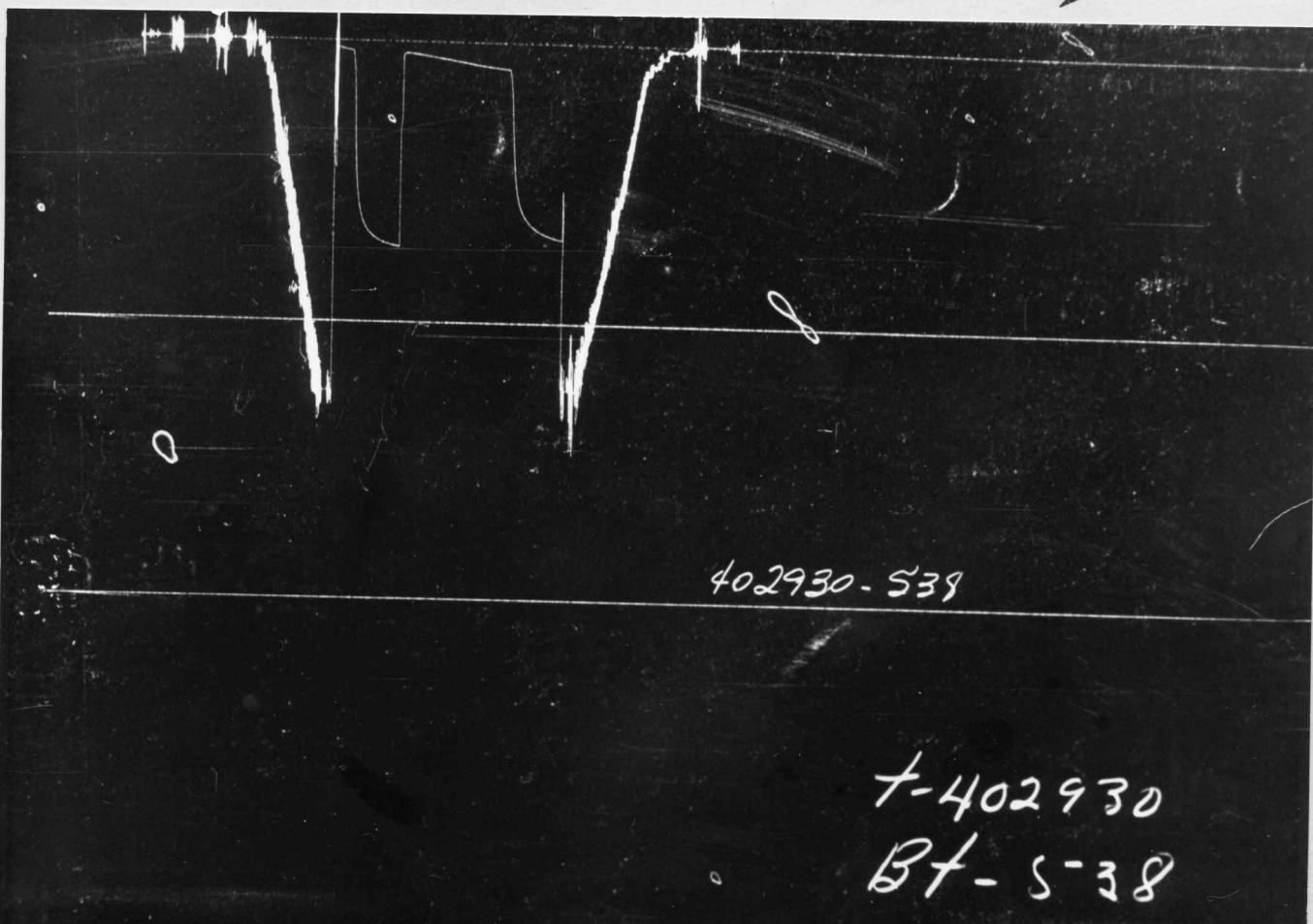
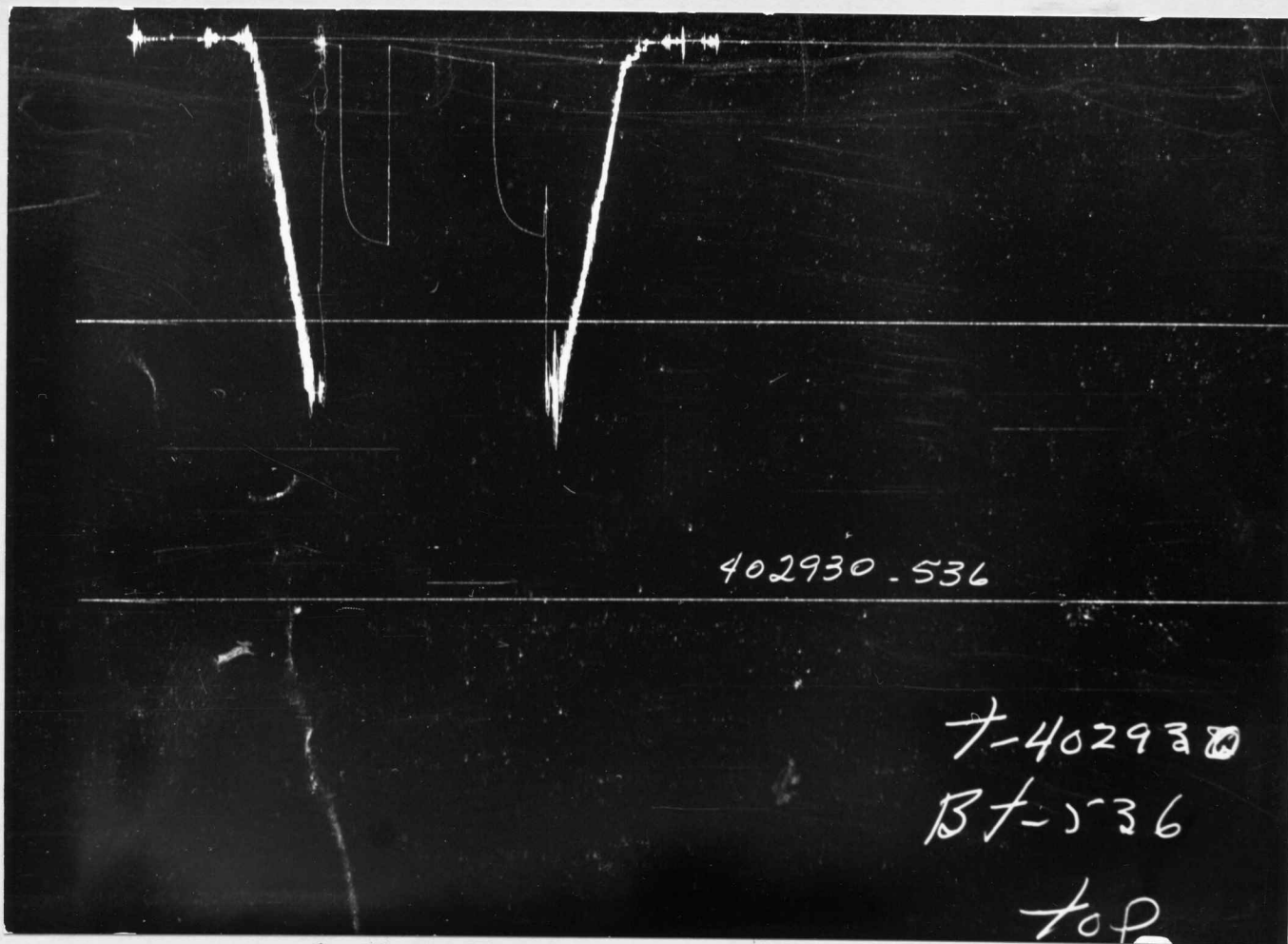
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PRESSURE
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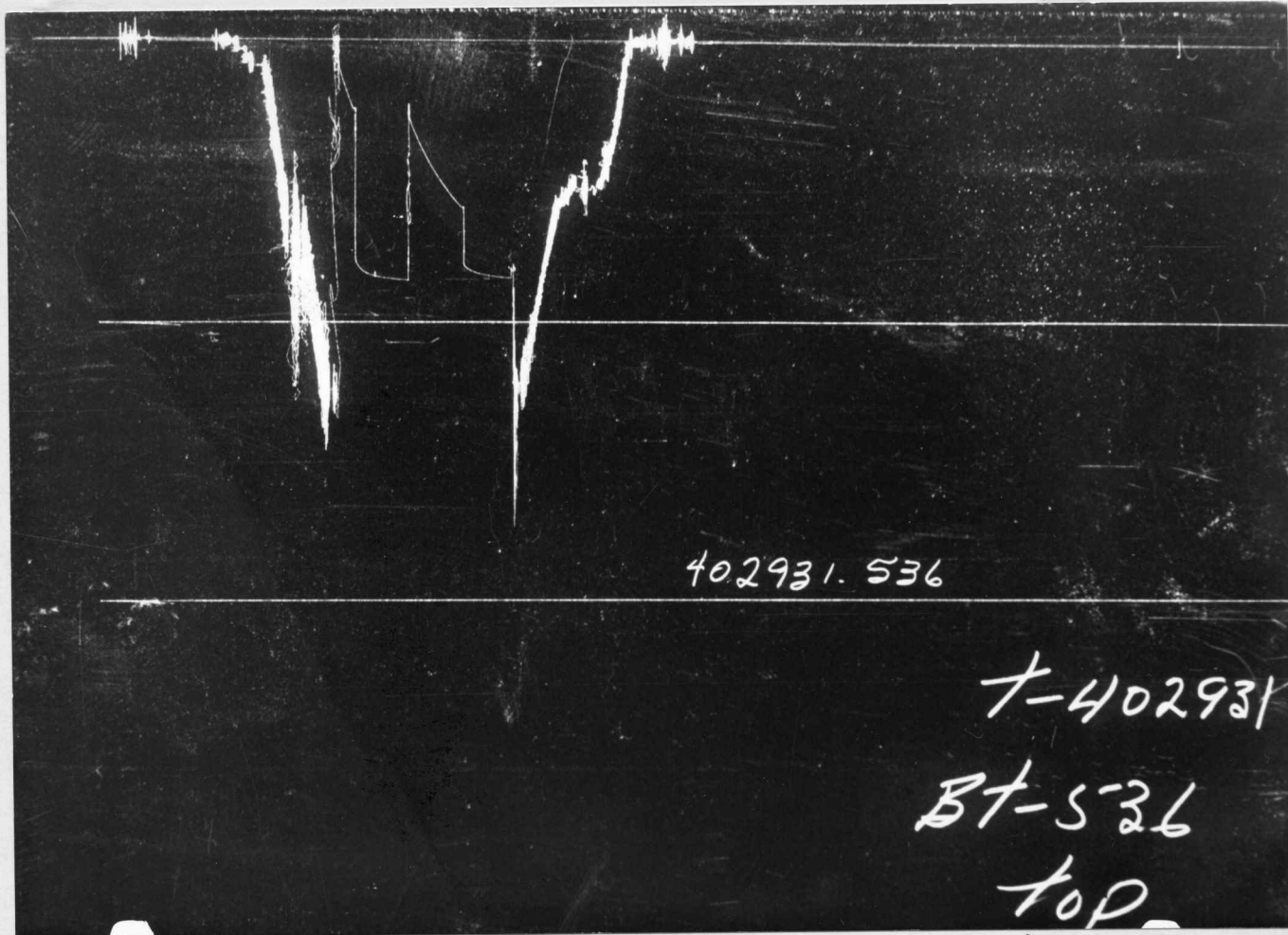
← TIME →



PRESSURE



↑
PRESSURE
↓



← TIME →

