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.			ppm
Recovery Mud Filtrate	@ °F.			ppm
Mud Pit Sample	@ °F.			ppm
Mud Pit Sample Filtrate	@ °F.			ppm

Mud Weight 9.2 vis 52 sec

Date 1-14-78 Ticket Number 327525
Kind of Job OPEN HOLE Halliburton District PRATT
Tester MR. MOFF Witness MR. ARMSTRONG
Drilling Contractor GABBERT & JONES DRILLING COMPANY SM

EQUIPMENT & HOLE DATA

Formation Tested Lansing
Elevation - Ft.
Net Productive Interval - Ft.
All Depths Measured From Kelly bushing
Total Depth 4200' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 150' I.D. 2.25"
Drill Pipe Length 4002' I.D. 3.826"
Packer Depth(s) 4176-4182' Ft.
Depth Tester Valve 4163' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve
Surface Choke 1" Bottom Choke 3/4"

Recovered 65 Feet of slight gas cut mud
Recovered 60 Feet of slight oil & gas cut mud
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET....Charts indicate partial plugging of anchor perforations

TEMPERATURE	Gauge No. 6144 Depth: 4168 Ft.	Gauge No. 6143 Depth: 4196 Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool A.M.
Est. °F.	Blanked Off no	Blanked Off yes	Blanked Off	Opened 2125 P.M.
Actual 112 °F.	Pressures	Pressures	Pressures	Opened A.M. Bypass 2340 P.M.

	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2017	2028	2025				
First Period Flow Initial		26	61	85			———	———
First Period Flow Final		34	81	83			33	
First Period Closed in		539	545	548			45	
Second Period Flow Initial		48	81	100			———	———
Second Period Flow Final		62	101	101			60	
Second Period Closed in		545	545	560			60	
Third Period Flow Initial							———	———
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic		2014	2028	2025			———	———

Legal Location Sec. - Twp. - Rng. 22 27 19 W
Lease Name BARNES
Well No. B-1
Test No. 1
Tested Interval 4182 - 4200'
Lease Owner/Company Name OIL PROPERTIES COMPANY INCORPORATED
Field Area
Mea. From Tester Valve
County KIOWA
State KANSAS

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

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Casing perfs. _____ Bottom choke .75" Surf. temp 31 °F Ticket No. 327525

Gas gravity _____ Oil gravity _____ GOR _____

Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
1950					Picked up tools
2005					Tools thru table
2121					Tool on bottom with 50,000# weight
2125					Opened with fair blow
2155					Closed tool
2240					Opened tool with fair blow
2340					Closed tool
2440					Came off bottom.

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PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

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TICKET NO. 327525

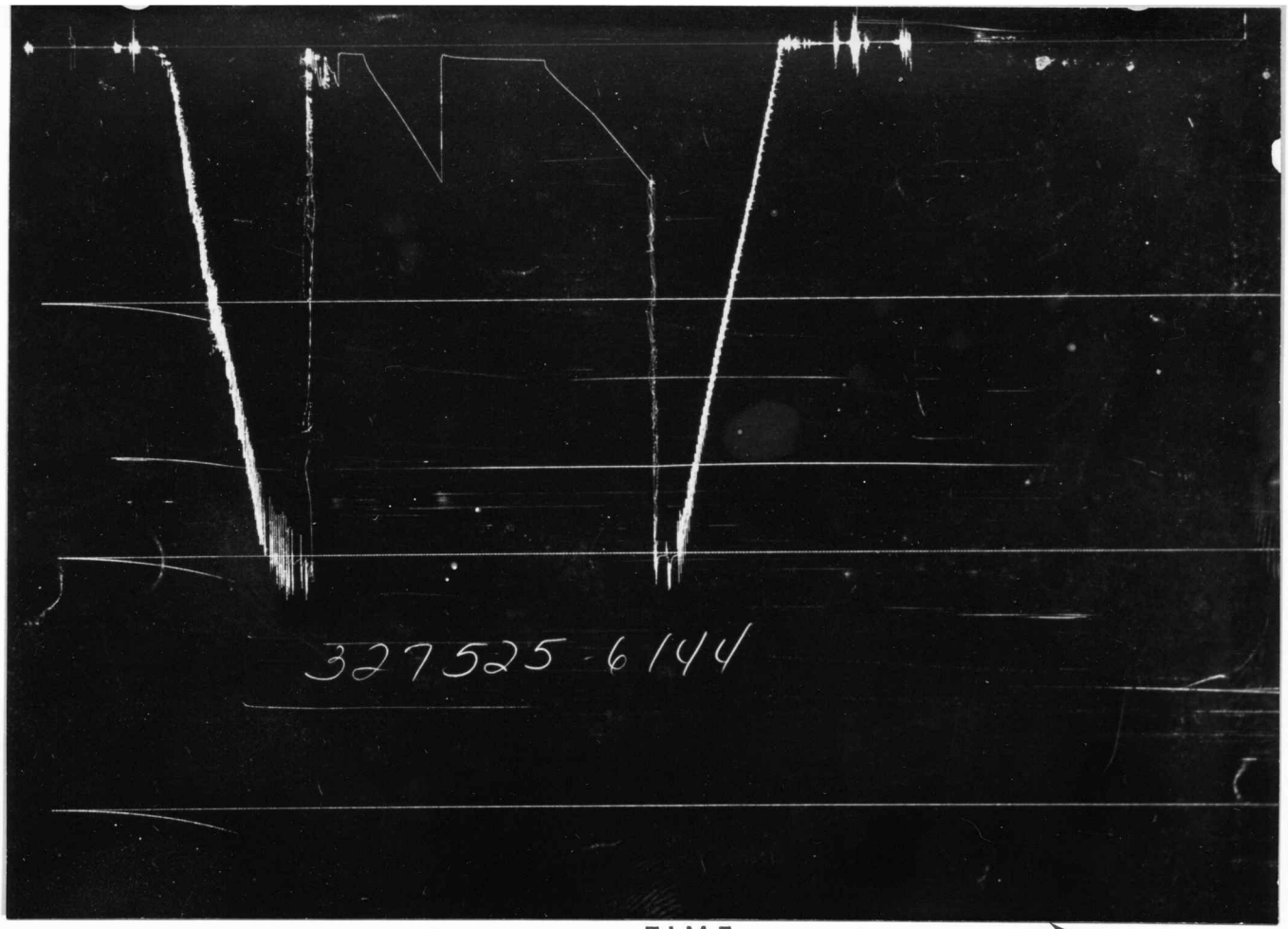


	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5 5/8"	2"	1'	
Water Cushion Valve				
Drill Pipe	4½"	3.826"	4002'	
Drill Collars	6"	2.25"	150'	
Handling Sub & Choke Assembly	5 3/4"	2.25"	5'	
Dual CIP Valve	5"	.87"	4'	4158'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4163'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	4168'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	6'	4176'
Distributor				
Packer Assembly	6 3/4"	1.53"	6'	4182'
Flush Joint Anchor	5"	2.37"	12'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2.44"	4'	4196'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				
Total Depth				4200'

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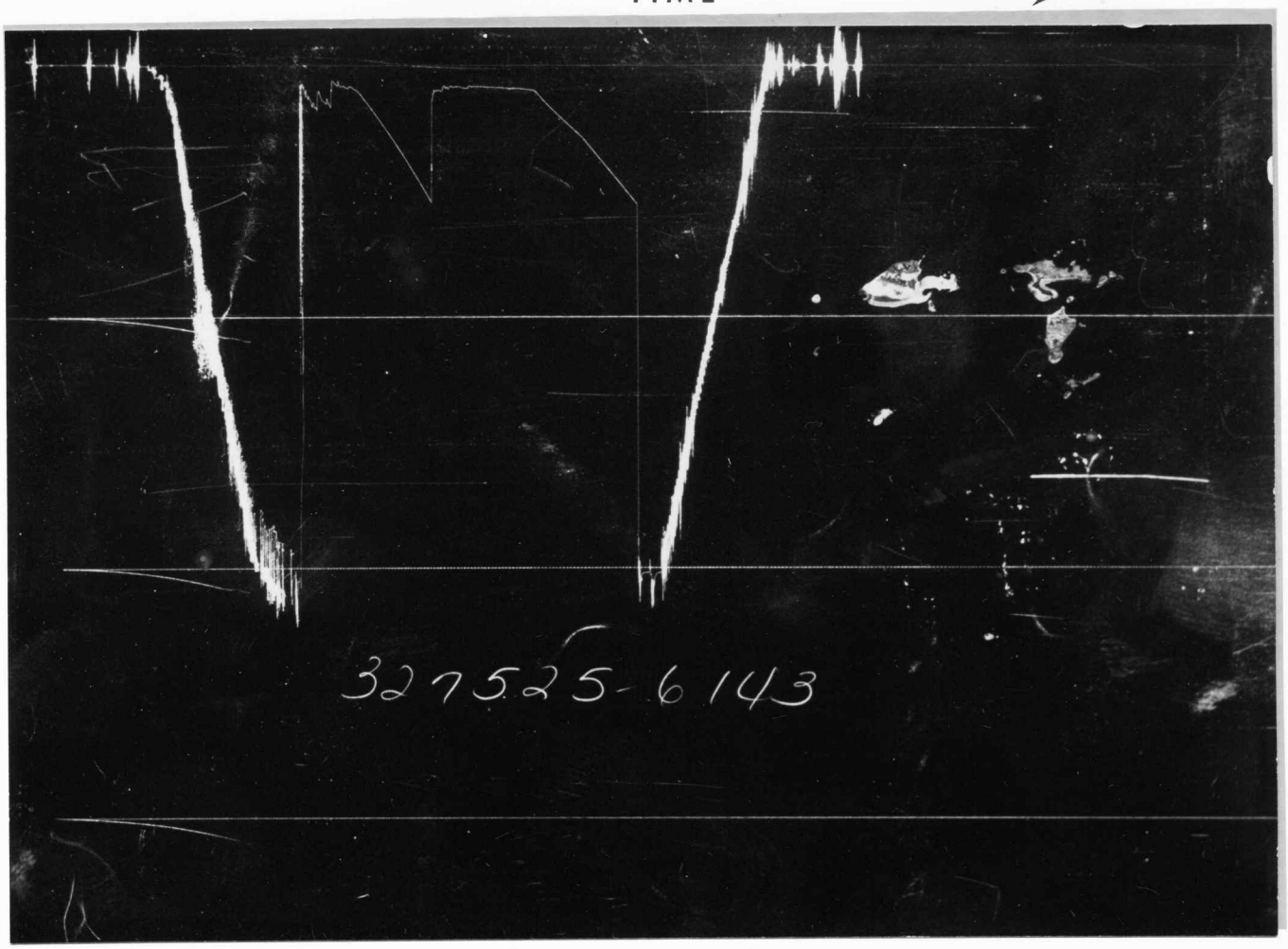
EQUIPMENT DATA

LITTLE'S 96676 75C 8/74



PRESSURE

TIME



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

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.		ppm
Recovery Mud Filtrate	@	°F.		ppm
Mud Pit Sample	@	°F.		ppm
Mud Pit Sample Filtrate	@	°F.		ppm

Mud Weight 9.5 vis 48 sec

Date 1-17-78 Ticket Number 316805
Kind of Job OPEN HOLE TEST Halliburton District PRATT
Tester GROSS Witness ARMSTRONG
Drilling Contractor GABBERT & JONES PW

EQUIPMENT & HOLE DATA

Formation Tested Mississippi
Elevation 2237' K.B. Ft.
Net Productive Interval 7' Ft.
All Depths Measured From Kelly Bushing
Total Depth 4797' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 150' I.D. 2.25"
Drill Pipe Length 4609' I.D. 3.826"
Packer Depth(s) 4780' - 4786' Ft.
Depth Tester Valve 4771' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve
Surface Choke 1" Bottom Choke 3/4"

Recovered 80 Feet of heavy gas cut mud.
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET.....

(* = Time given and recorded does not agree).

TEMPERATURE	Gauge No. 6144 Depth: 4776 Ft.	Gauge No. 6143 Depth: 4793 Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened A.M. P.M.
Est. 117 °F.	Blanked Off no	Blanked Off yes	Blanked Off	
Actual °F.	Pressures	Pressures	Pressures	Opened Bypass A.M. P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			2321	2349	2324				
First Period	Flow Initial		51	81	52			———	———
	Flow Final		56	81	57			30	33*
	Closed in		1175	1186	1172			45	45
Second Period	Flow Initial		58	81	61			———	———
	Flow Final		59	101	57			60	62*
	Closed in		1171	1206	1169			60	70*
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic			2328	2329	2332			———	———

Legal Location Sec. - Twp. - Rng. 22 - 27 - 19 W
Lease Name BARNES
Well No. B-1
Test No. 2
Tested Interval 4786' - 4797'
Lease Owner/Company Name OIL PROPERTIES COMPANY, INCORPORATED
Field Area
Mea. From Tester Valve
County KIOWA
State KANSAS

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

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Casing perfs._____ Bottom choke_____ Surf. temp_____ °F Ticket No. 316805

Gas gravity_____ Oil gravity_____ GOR_____

Spec. gravity_____ Chlorides_____ ppm Res._____ @_____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED_____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
2300					Called for job.
2440					On location. Requested at 0100 am -
					rig still drilling.
1145					Hole completed ciruclating 1½ hours.
1315					Started out of hole.
1550					Out with drill pipe.
1610					Picked up tool.
1625					Tool through table.
1802					Tool on bottom.
1805					Opened tool with a strong blow.
1808					Gas to the surface in 3 minutes.
1815	1"	5	319		
1825	"	"	"		
1835	"	6.5	369		Closed tool.
1920					Reopened tool.
1930	"	6	253		
1940	"	6.5	369		
1950	"	9.5	458		
2000	"	"	"		
2010	"	"	"		
2020	"	"	"		Closed tool.
2120					Started off bottom.

Gauge No.	6144		Depth	4776'		Clock No.	14284		12 hour	Ticket No.	316805			
	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third 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.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	51	.000		56	.000	58	.000		59					
1	.0553*	52	.0205		1161	.413	59	.0338		1158					
2	.0898	53	.0409		1166			.0676		1162					
3	.1244	55	.0614		1168			.1014		1165					
4	.1589	55	.0819		1170			.1352		1166					
5	.1935	56	.1024		1171			.1690		1167					
6	.2280	56	.1228		1172			.2027		1168					
7			.1433		1172			.2365		1169					
8			.1638		1173			.2703		1169					
9			.1842		1173			.3041		1170					
10			.2047		1174			.3379		1170					
11			.2252		1174			.3717		1170					
12			.2456		1174			.4055		1170					
13			.2661		1174			.4393		1171					
14			.2866		1175			.4730		1171					
15			.3070		1175										
Gauge No.	6143		Depth	4793'		Clock No.	17481		12 hour					
0	.000	52	.000		57	.000	61	.000		57					
1	.0541*	53	.0201		1159	.413	57	.0334		1156					
2	.0879	54	.0402		1164			.0667		1160					
3	.1216	55	.0603		1166			.1001		1162					
4	.1554	56	.0804		1167			.1334		1163					
5	.1892	56	.1005		1168			.1668		1164					
6	.2230	57	.1206		1169			.2002		1165					
7			.1407		1170			.2335		1166					
8			.1608		1170			.2669		1167					
9			.1809		1171			.3002		1168					
10			.2010		1171			.3336		1168					
11			.2211		1171			.3670		1168					
12			.2412		1172			.4003		1169					
13			.2613		1172			.4337		1169					
14			.2814		1172			.4670		1169					
15			.3020		1172										
Reading Interval	5		3					5							Minutes

REMARKS: * = 8 minute interval.

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SPECIAL PRESSURE DATA

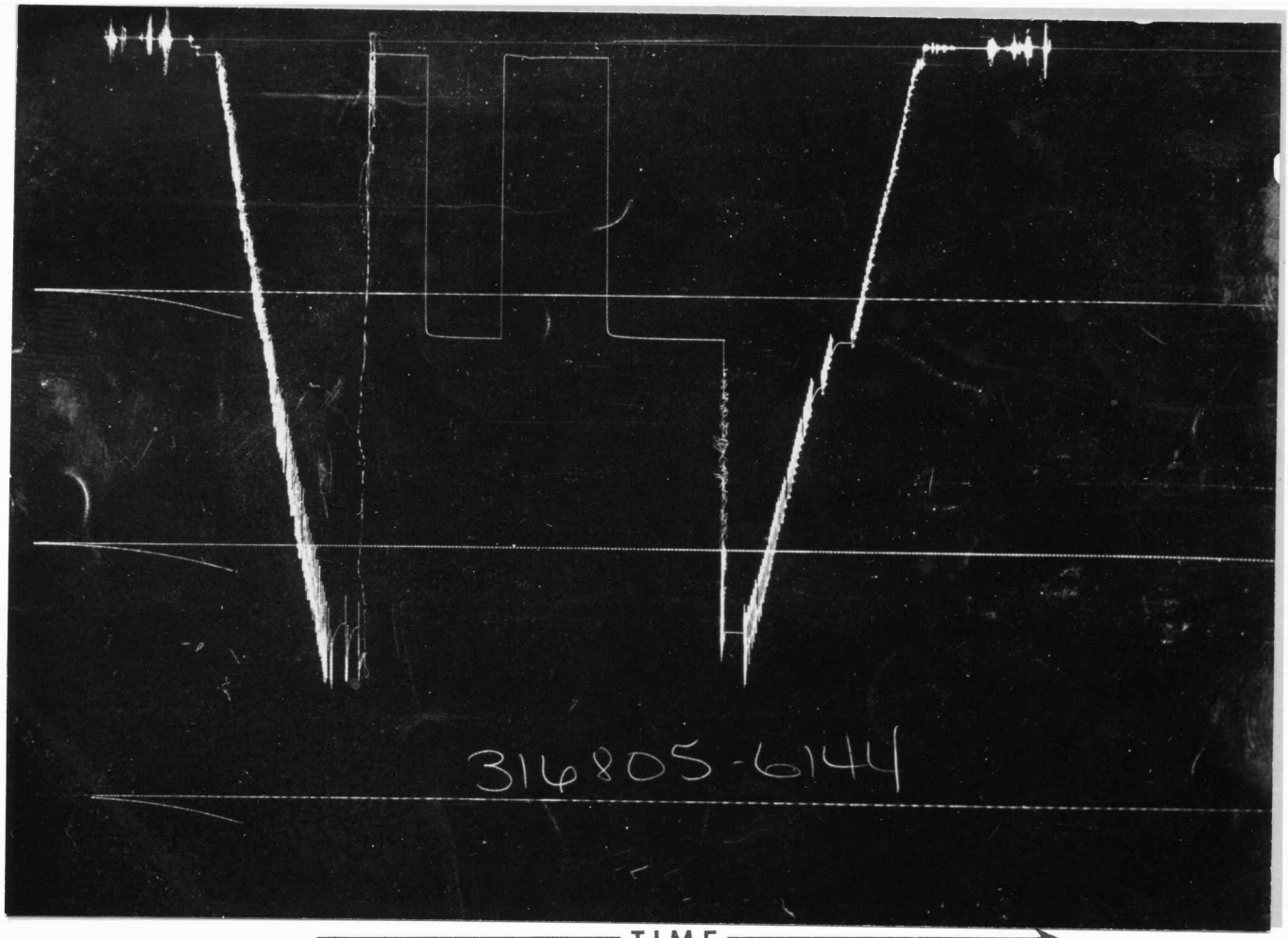
LITTLE'S 96673 75C 8/74

TICKET NO. 316805



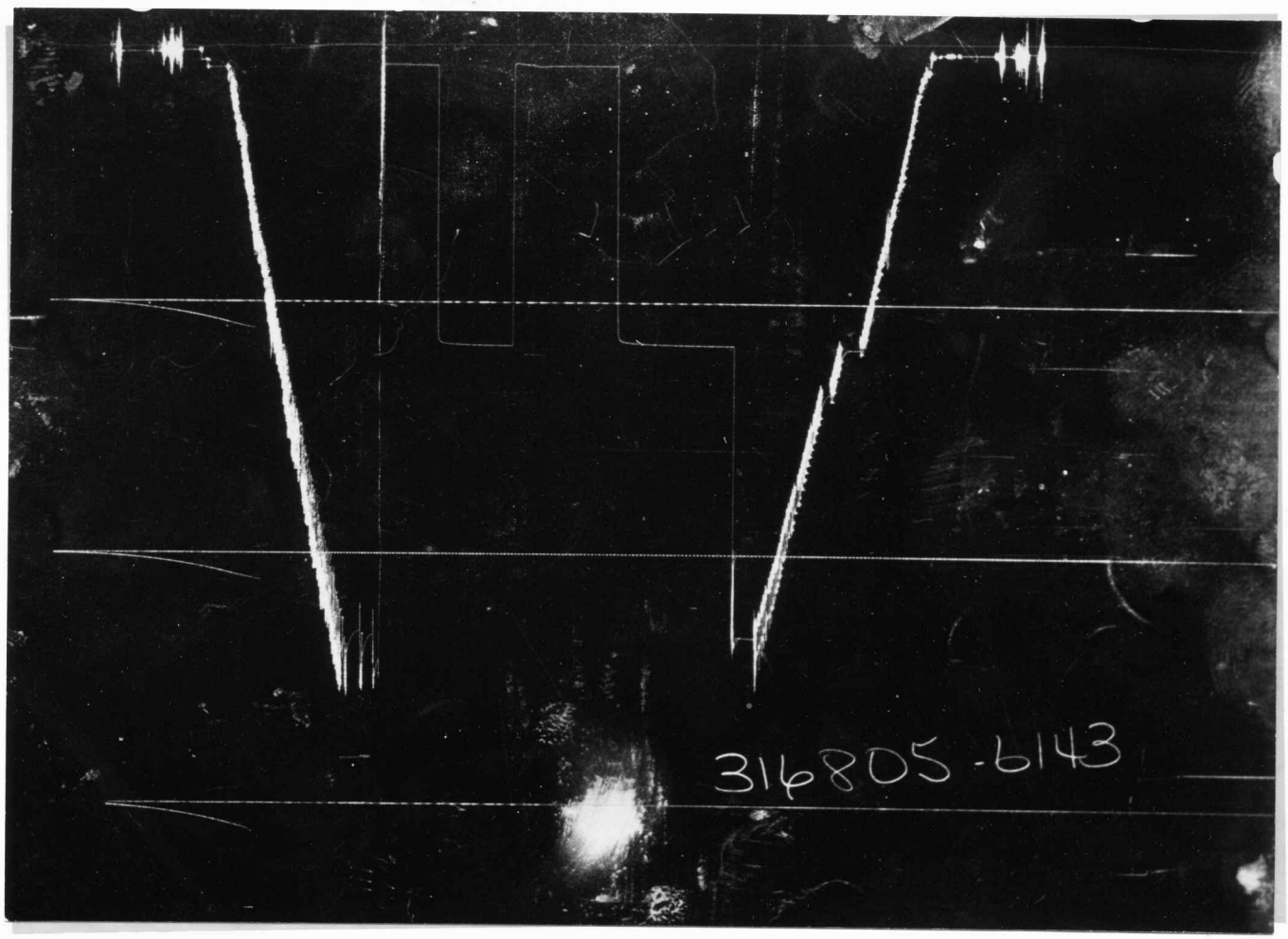
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5 5/5"	2"	1'	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	4609'	
Drill Collars	6"	2.25"	150'	
Handling Sub & Choke Assembly	5 3/4"	2"	5'	
Dual CIP Valve	5"	.87"	5'	4766'
Dual CIP Sampler				
Hydro-Spring Tester	6"	.75"	5'	4771'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	4776'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	6'	4780'
Distributor				
Packer Assembly	6 3/4"	1.53"	6'	4786'
Flush Joint Anchor	5"	2.37"	1'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2.44"	4'	4793'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				
Total Depth				4797'

EQUIPMENT DATA



PRESSURE

TIME



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

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.			ppm
Recovery Mud Filtrate	@ °F.			ppm
Mud Pit Sample	@ °F.			ppm
Mud Pit Sample Filtrate	@ °F.			ppm

Mud Weight 9.5 vis 48 sec

Date 1-18-78 Ticket Number 316806
Kind of Job OPEN HOLE Halliburton District PRATT
Tester GROSS Witness ARMSTRONG
Drilling Contractor GABBERT AND JONES NM

EQUIPMENT & HOLE DATA

Formation Tested Mississippi
Elevation 2237' K.B. Ft.
Net Productive Interval 10' Ft.
All Depths Measured From Kelly Bushing
Total Depth 4807' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 150' I.D. 2.25"
Drill Pipe Length 4616' I.D. 3.826"
Packer Depth(s) 4791' - 4797' Ft.
Depth Tester Valve 4782' Ft.

Cushion TYPE NONE AMOUNT Ft. Depth Back Pres. Valve NONE Surface Choke NONE Bottom Choke 3/4"

Recovered 40' Feet of drilling mud
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET...

Meas. From Tester Valve

TEMPERATURE	Gauge No. 6144 Depth: 4787' Ft.	Gauge No. 6143 Depth: 4803' Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened A.M. P.M.
Est. °F.	Blanked Off YES	Blanked Off NO??	Blanked Off	
Actual 118 °F.	Pressures	Pressures	Pressures	Opened Bypass A.M. P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		-	2356	2329	2348				
First Period	Flow Initial	-	25	20	20			—	—
	Flow Final	-	35	41	27			30	
	Closed in	-	88	81	82			30	
Second Period	Flow Initial	-	47	41	38			—	—
	Flow Final	-	50	41	45			30	
	Closed in	-	82	101	76			30	
Third Period	Flow Initial							—	—
	Flow Final								
	Closed in								
Final Hydrostatic		-	2356	2309	2348			—	—

Legal Location Sec. - Twp. - Rng. 22 - 27 - 19W
Lease Name BARNES
Well No. B-1
Test No. 3
Tested Interval 4797' - 4807'
Field Area -
County KIOWA
State KANSAS
Lease Owner/Company Name OIL PROPERTIES COMPANY, INCORPORATED

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No. 316806

Gas gravity____ Oil gravity____ GOR____

Spec. gravity____ Chlorides____ ppm Res.____ @ ____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
01:30					Cut 10' - going nack in for TEST # 3.
11:20					Started out with drill pipe.
13:08					Out with drill pipe.
13:10					Picked up the tools.
13:30					Tool through the table.
14:47					Tool on bottom.
14:50					Tool opened with a very weak blow.
15:20					Closed tool.
15:50					Opened tool with a very weak blow.
16:20					Closed tool.
16:50					Started off bottom.
18:30					Off bottom.

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PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

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TICKET NO. 316806



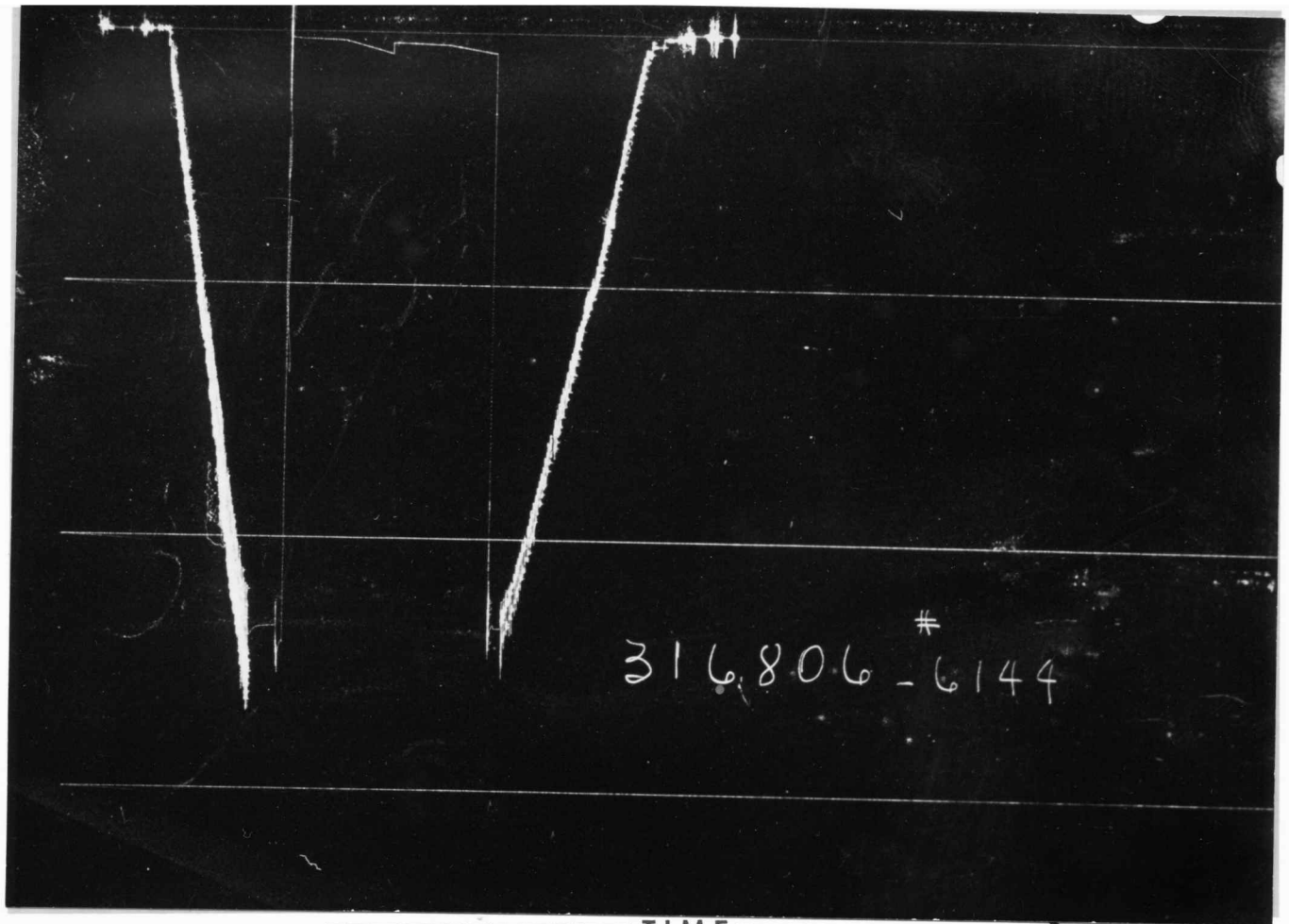
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5 3/4"	2"	1'	
Water Cushion Valve				
Drill Pipe	4½"	3.826"	4616'	
Drill Collars	6"	2.25"	150'	
Handling Sub & Choke Assembly	5 3/4"	2"	5'	
Dual CIP Valve	5"	.87"	5'	4777'
Dual CIP Sampler				
Hydro-Spring Tester	6"	.75"	5'	4782'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	4787'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	6'	4791'
Distributor				
Packer Assembly	6 3/4"	1.53"	6'	4797'
Flush Joint Anchor	5"	2.37"	4'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2.44"	4'	4803'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				
Total Depth				4807'

FORM 187-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

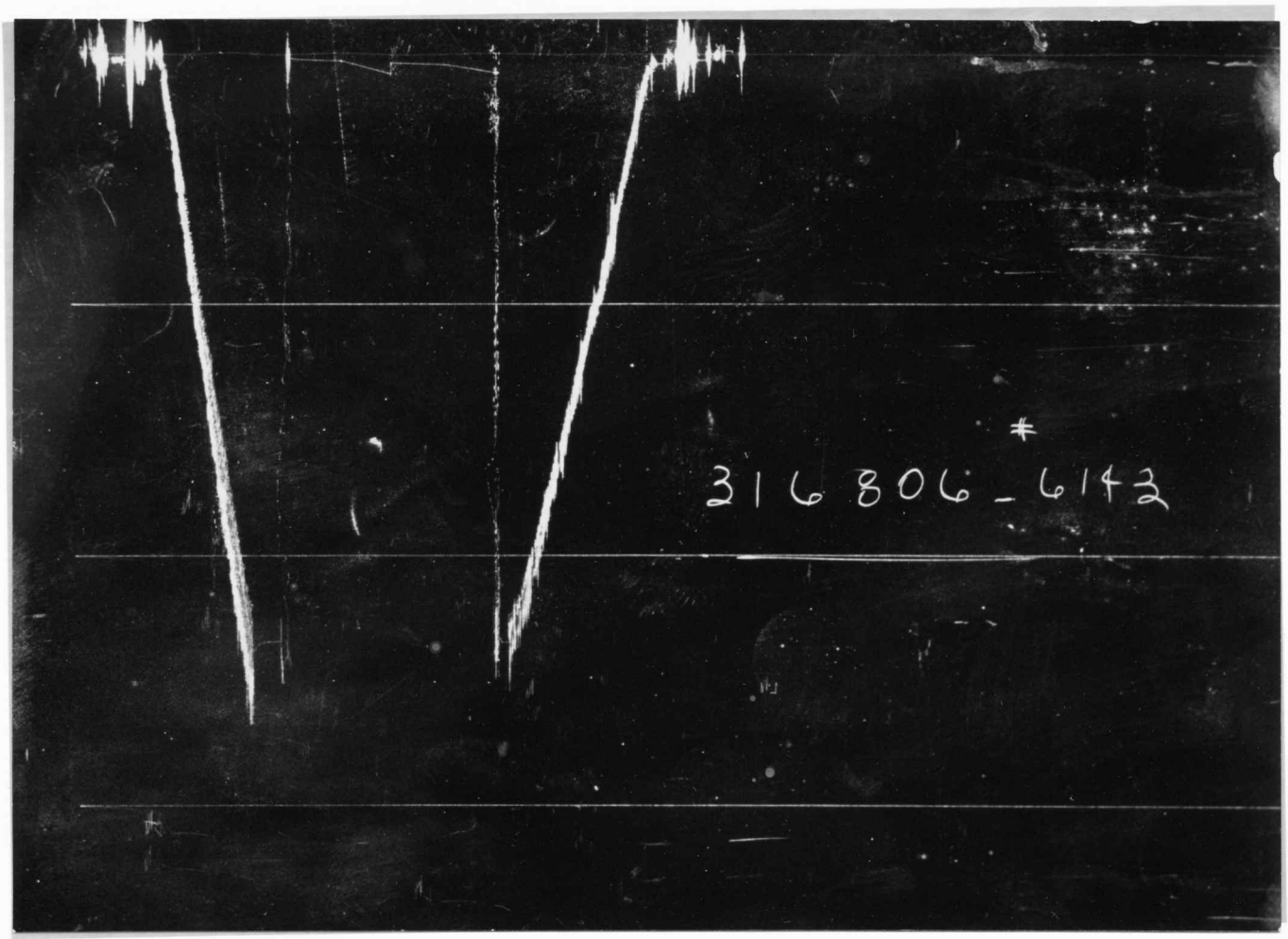
LITTLE'S 96676 75C 8/74

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PRESSURE

TIME



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