

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.

Date **10-21-73** Ticket Number **601433**

Kind of Job **OPEN HOLE** Halliburton District **GREAT BEND**

Tester **MR. WILLINGER** Witness **MR. SCHNEIDER**

Drilling Contractor **SLAWSON DRILLING COMPANY** DR **S**

Legal Location
Sec. - Twp. - Rng.
1-17-28

EQUIPMENT & HOLE DATA

Formation Tested **Kansas City**

Elevation **2736'** KB Ft.

Net Productive Interval **30'** Tested Ft.

All Depths Measured From **Kelly Bushing**

Total Depth **4116'** Ft.

Main Hole/Casing Size **7 7/8"**

Drill Collar Length **600'** I.D. **2.764"** WP

Drill Pipe Length **3467'** I.D. **3.826"**

Packer Depth(s) **4081'-4086'** Ft.

Depth Tester Valve **4073'** Ft.

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

Mud Weight **9** vis **42** cp

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

Recovered **20** Feet of **thin drilling mud**

Recovered _____ Feet of _____

Recovered _____ Feet of _____

Recovered _____ Feet of _____

Recovered _____ Feet of _____

Remarks **Opened tool for 30 minute first flow with a weak blow. Closed tool for 60 minute first closed in pressure. Reopened tool for 32 minute second flow with no blow. Closed tool for 33 minute second closed in pressure.**

TEMPERATURE	Gauge No. 585		Gauge No. 297		Gauge No.		TIME	
	Depth:	4074 Ft.	Depth:	4112 Ft.	Depth:	Ft.	Tool	A.M.
Est. 111 °F.	12 Hour Clock		12 Hour Clock		Hour Clock		Opened	1:30-P.M.
Actual _____ °F.	Blanked Off No		Blanked Off Yes		Blanked Off		Tool	A.M.
	Pressures		Pressures		Pressures		Closed	4:00-P.M.
	Field	Office	Field	Office	Field	Office	Reported	Computed
Initial Hydrostatic		1975	1980	1997			Minutes	Minutes
First Period	Flow Initial	8	26	30			_____	_____
	Flow Final	11	35	32			30	30
	Closed in	1151	1171	1170			60	60
Second Period	Flow Initial	19	35	40			_____	_____
	Flow Final	17	35	38			30	32
	Closed in	989	1004	1004			30	33
Third Period	Flow Initial						_____	_____
	Flow Final						_____	_____
	Closed in						_____	_____
Final Hydrostatic		1975	1980	1997			_____	_____

Lease Name **1**

Well No. **1**

Test No. **1**

Tested Interval **4086'-4016'**

County **LANE**

State **KANSAS**

Lease Owner/Company Name **PATRICK PETROLEUM CORPORATION**

Gauge No.		585		Depth		4074'		Clock No.		6947		12 hour		Ticket No.		601433	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	
0	.000	8	.000	11	.000	19	17	.000	.000	17	.000	.000	17	.000	.000	17	
1	.211	11	.0414	570	.231	17	210	.0206	.0206	210	.0206	.0206	210	.0206	.0206	210	
2			.0828	799			511	.0412	.0412	511	.0412	.0412	511	.0412	.0412	511	
3			.1242	918			654	.0618	.0618	654	.0618	.0618	654	.0618	.0618	654	
4			.1656	989			744	.0824	.0824	744	.0824	.0824	744	.0824	.0824	744	
5			.2070	1036			805	.1030	.1030	805	.1030	.1030	805	.1030	.1030	805	
6			.2484	1066			849	.1236	.1236	849	.1236	.1236	849	.1236	.1236	849	
7			.2898	1097			888	.1442	.1442	888	.1442	.1442	888	.1442	.1442	888	
8			.3312	1122			918	.1648	.1648	918	.1648	.1648	918	.1648	.1648	918	
9			.3726	1139			945	.1854	.1854	945	.1854	.1854	945	.1854	.1854	945	
10			.4140	1151			967	.2060	.2060	967	.2060	.2060	967	.2060	.2060	967	
11							989	.2270	.2270	989	.2270	.2270	989	.2270	.2270	989	
12																	
13																	
14																	
15																	

Gauge No.		297		Depth		4112'		Clock No.		3722		hour		12		
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0.000		30	.000	32	.000	40	38	.000	.000	38	.000	.000	38	.000	.000	38
1	.204	32	.0403	556	.218	38	215	.0202	.0202	215	.0202	.0202	215	.0202	.0202	215
2			.0806	804			535	.0404	.0404	535	.0404	.0404	535	.0404	.0404	535
3			.1209	928			691	.0606	.0606	691	.0606	.0606	691	.0606	.0606	691
4			.1612	1004			781	.0808	.0808	781	.0808	.0808	781	.0808	.0808	781
5			.2015	1054			818	.1010	.1010	818	.1010	.1010	818	.1010	.1010	818
6			.2418	1086			866	.1212	.1212	866	.1212	.1212	866	.1212	.1212	866
7			.2821	1118			904	.1414	.1414	904	.1414	.1414	904	.1414	.1414	904
8			.3224	1140			936	.1616	.1616	936	.1616	.1616	936	.1616	.1616	936
9			.3627	1158			962	.1818	.1818	962	.1818	.1818	962	.1818	.1818	962
10			.4030	1170			986	.2020	.2020	986	.2020	.2020	986	.2020	.2020	986
11							1004	.2220	.2220	1004	.2220	.2220	1004	.2220	.2220	1004
12																
13																
14																
15																

Reading Interval

REMARKS:

6

3

Minutes

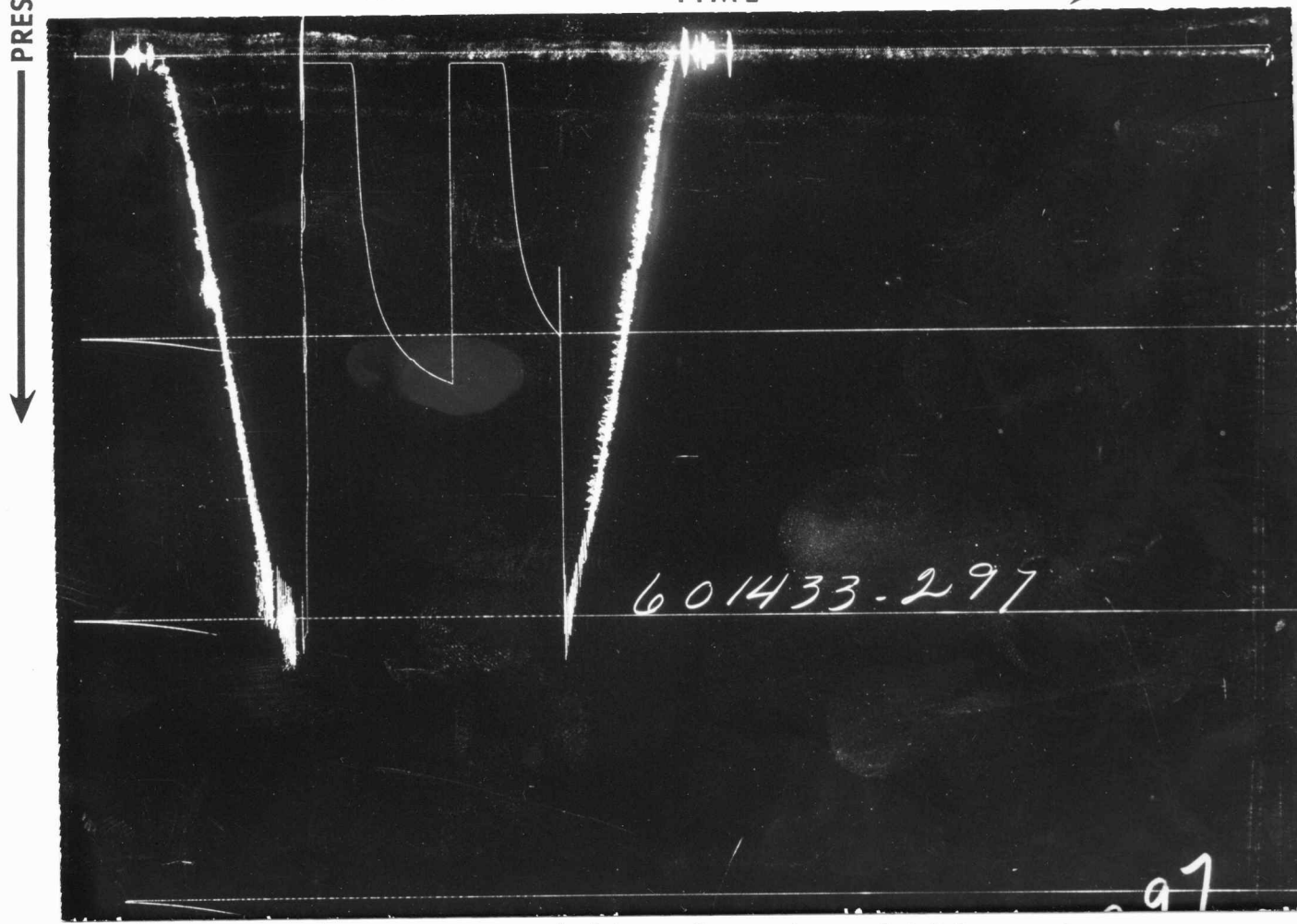
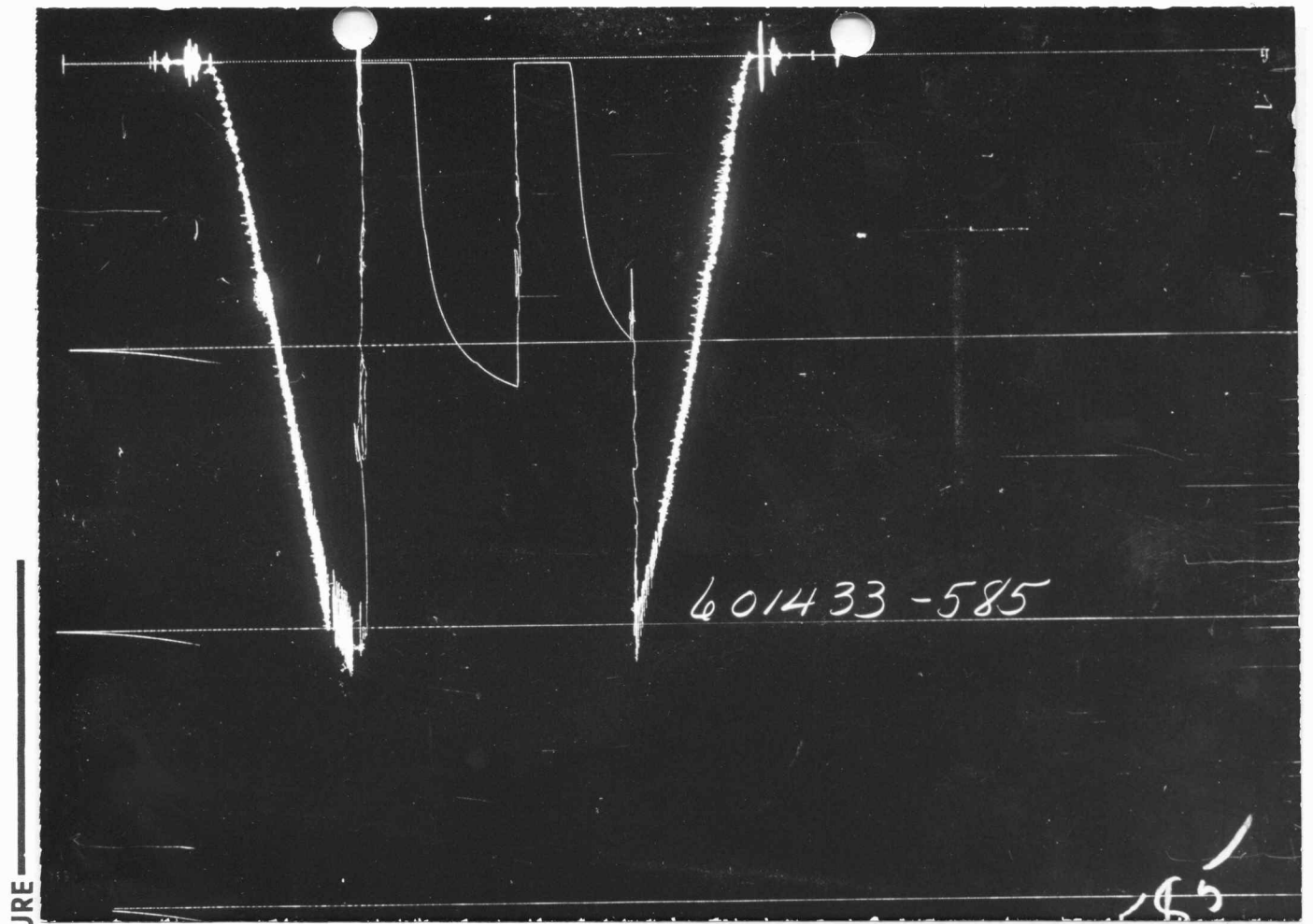
EQUIPMENT DATA

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601433



	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5.75"	2.75"	12"	
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3467'	
Drill Collars	4.5"	2.764"	122' WP	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	48.92"	
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	4073'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	4074'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	48.89"	4081'
Distributor				
Packer Assembly	6 3/4"	1.53"	48.89"	4086'
Flush Joint Anchor	5"	2.37"	30'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	3.06"	49.63"	4112'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				



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

FLUID SAMPLE DATA				Date	Ticket Number			
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.				10-22-73	601434			
Kind of Job Tester Drilling Contractor				OPEN HOLE D.A. WILLINGER SLAWSON DRILLING COMPANY	Halliburton District Witness SM S			
				EQUIPMENT & HOLE DATA				
				Formation Tested	Kansas City			
				Elevation	2736' Kelly bushing Ft.			
				Net Productive Interval	92' Tested Ft.			
				All Depths Measured From	Kelly bushing			
				Total Depth	4263' Ft.			
				Main Hole/Casing Size	7 7/8"			
				Drill Collar Length	540'	I.D. 2.764" WP		
				Drill Pipe Length	3681'	I.D. 3.826"		
				Packer Depth(s)	4167-4171' Ft.			
				Depth Tester Valve	4159' Ft.			
				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 9.1 vis 48 cp								
Cushion				TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
						Ft.	1"	3/4"
Recovered				550	Feet of muddy water			
Recovered					Feet of			
Recovered					Feet of			
Recovered					Feet of			
Recovered					Feet of			
Remarks				Tool opened for 30 minute flow period with a weak blow which increased to good in 30 minutes. Closed tool for 30 minute first closed in pressure period. Tool reopened for 62 minute second flow with a good blow throughout. Closed tool for 58 minute second closed in pressure period.				
TEMPERATURE		Gauge No. 585	Gauge No. 297	Gauge No.		TIME		
		Depth: 4160 Ft.	Depth: 4259 Ft.	Depth: _____ Ft.				
Est. 112 °F.		12 Hour Clock	12 Hour Clock	Hour Clock		Tool _____ A.M.		
		Blanked Off no	Blanked Off yes	Blanked Off		Opened 1:55 XXXX		
Actual _____ °F.		Pressures		Pressures		Tool _____ A.M.		
		Field	Office	Field	Office	Field	Office	
Initial Hydrostatic			2031	2086	2084	Reported	Computed	
						Minutes	Minutes	
First Period	Flow Initial		15	70	70			
	Flow Final		105	157	156	30	30	
	Closed in		1180	1224	1228	60	60	
Second Period	Flow Initial		112	157	162			
	Flow Final		261	314	312	60	62	
	Closed in		1158	1188	1206	60	58	
Third Period	Flow Initial							
	Flow Final							
	Closed in							
Final Hydrostatic			2031	2095	2083			

Legal Location Sec. - Twp. - Rng. 1 17 28
 Lease Name SPECK
 Well No. 1
 Test No. 2
 Tested Interval 4171 - 4263'
 County LANE
 State KANSAS
 Lease Owner/Company Name PATRICK PETROLEUM CORPORATION

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Gauge No. 585		Depth 4160'		Clock No. 6947		12 hour		Ticket No. 601434	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$	
0	.0000	15	105	.0000	112	.0000	261		
1	.0352	34	1023	.0832*	142	.0138**	938		
2	.0704	48	1078	.1526	167	.0414	1029		
3	.1056	63	1104	.2219	192	.0690	1064		
4	.1408	77	1121	.2913	216	.0966	1086		
5	.1760	90	1134	.3606	238	.1242	1101		
6	.2110	105	1144	.4300	261	.1518	1112		
7			1152			.1794	1121		
8			1157			.2070	1129		
9			1163			.2346	1135		
10			1167			.2622	1140		
11			1170			.2898	1145		
12			1173			.3174	1148		
13			1175			.3450	1152		
14			1179			.3726	1155		
15			1180			.4000	1158		

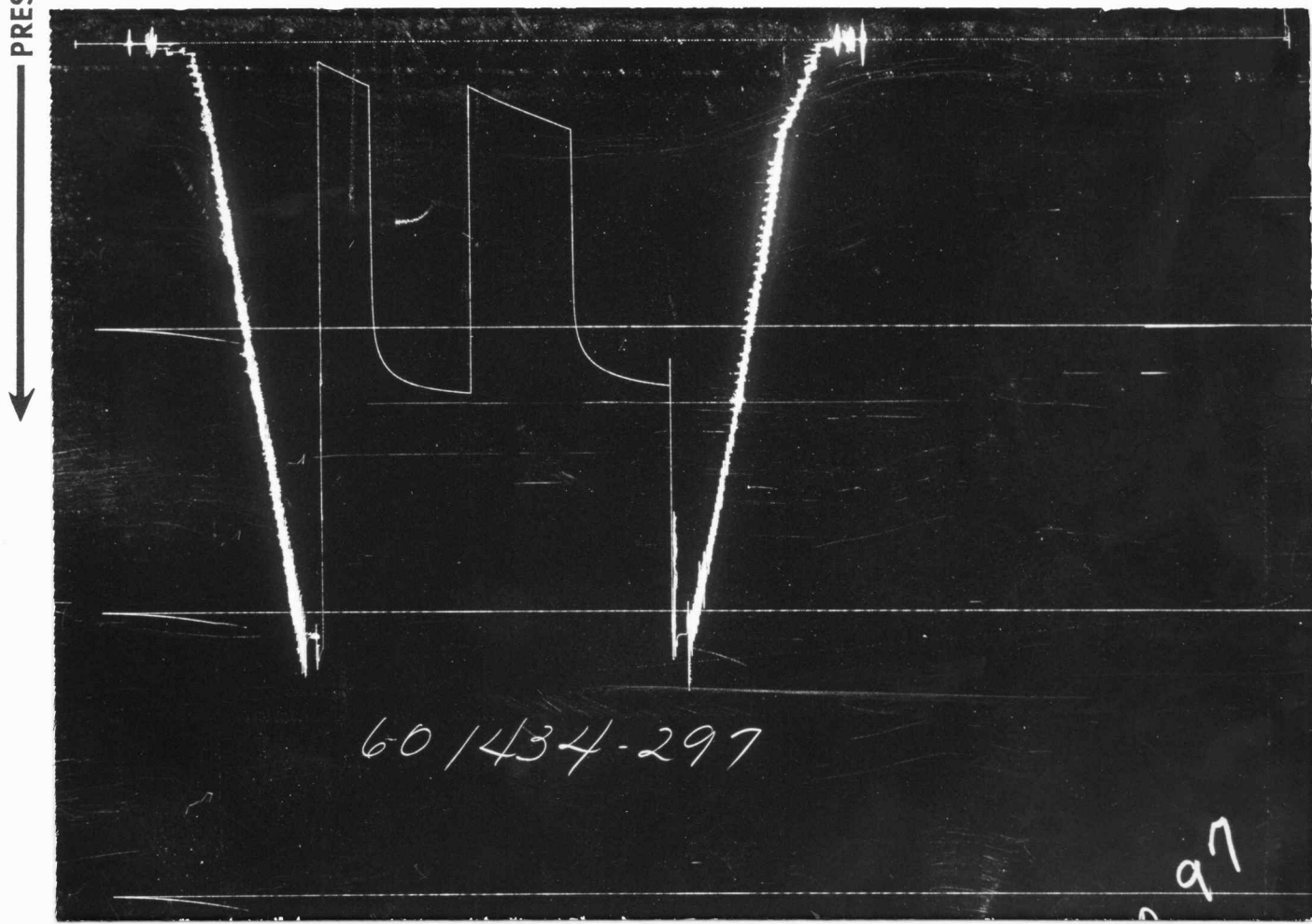
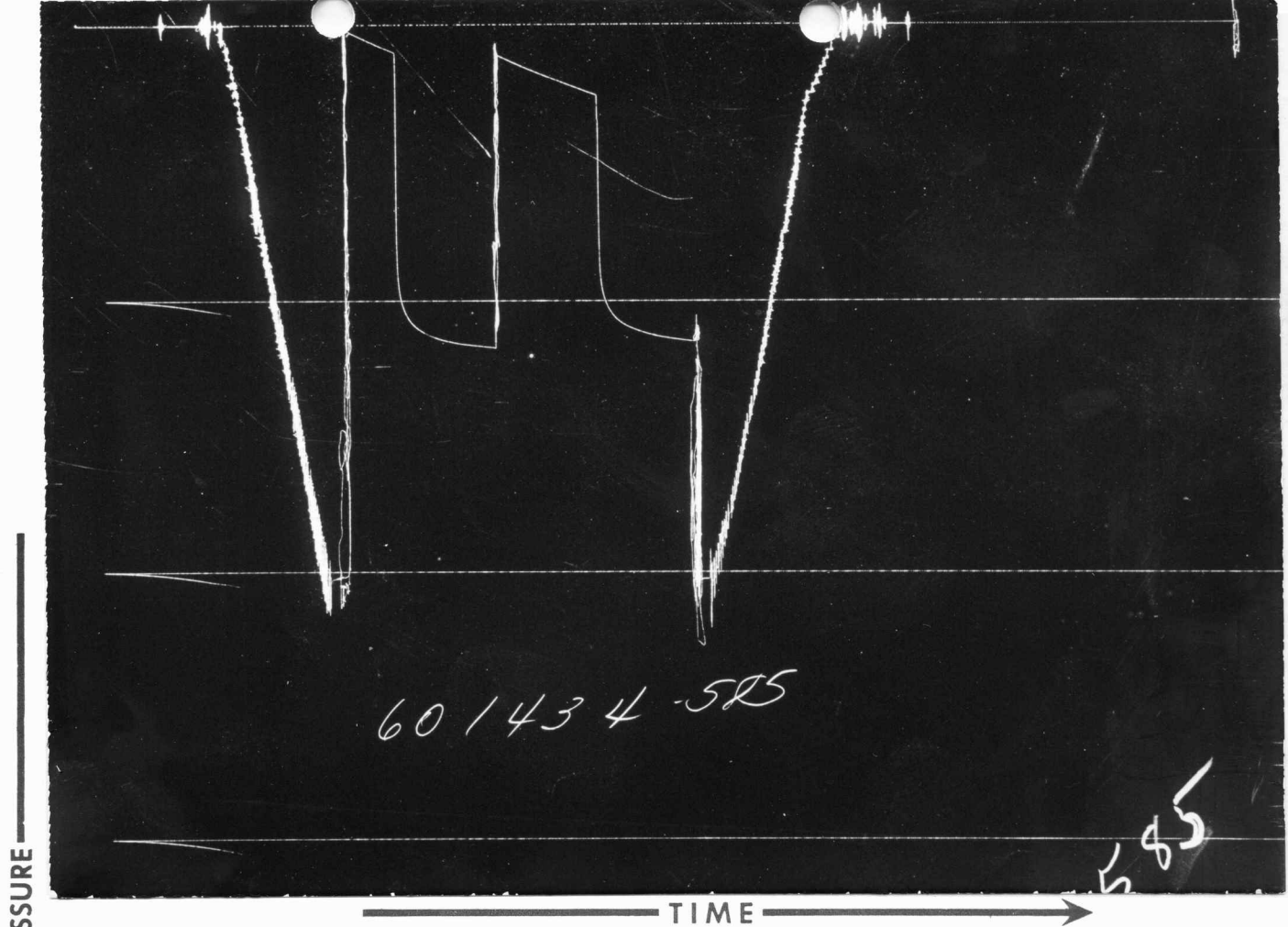
Gauge No. 297		Depth 4259'		Clock No. 3722		12 hour	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
0	.0000	70	156	.0000	162	.0000	312
1	.0342	85	1074	.0799*	192	.0135**	997
2	.0684	99	1127	.1465	220	.0405	1079
3	.1026	114	1155	.2132	243	.0675	1113
4	.1368	128	1173	.2798	267	.0945	1134
5	.1710	142	1185	.3465	289	.1215	1149
6	.2050	156	1194	.4130	312	.1485	1161
7			1201			.1755	1170
8			1207			.2025	1177
9			1213			.2295	1184
10			1216			.2565	1189
11			1220			.2835	1193
12			1222			.3105	1197
13			1225			.3375	1200
14			1228			.3645	1204
15			1228			.3910	1206
Reading Interval 5		6		10		4	

REMARKS: *First interval is equal to 12 minutes. ** = 2 minutes.

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	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5.75"	2.75"	12"	
Water Cushion Valve				
Drill Pipe	4.5"	2.764"	540' Weight Pipe	
Drill Collar Pipe	4.5"	3.826"	3681'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	48.92"	
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	4159'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	4160'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	48.89"	4167'
Distributor				
Packer Assembly	6 3/4"	1.53"	48.89"	4171'
Flush Joint Anchor	5"	2.37"	92'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	3.06"	49.63"	4259'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				



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