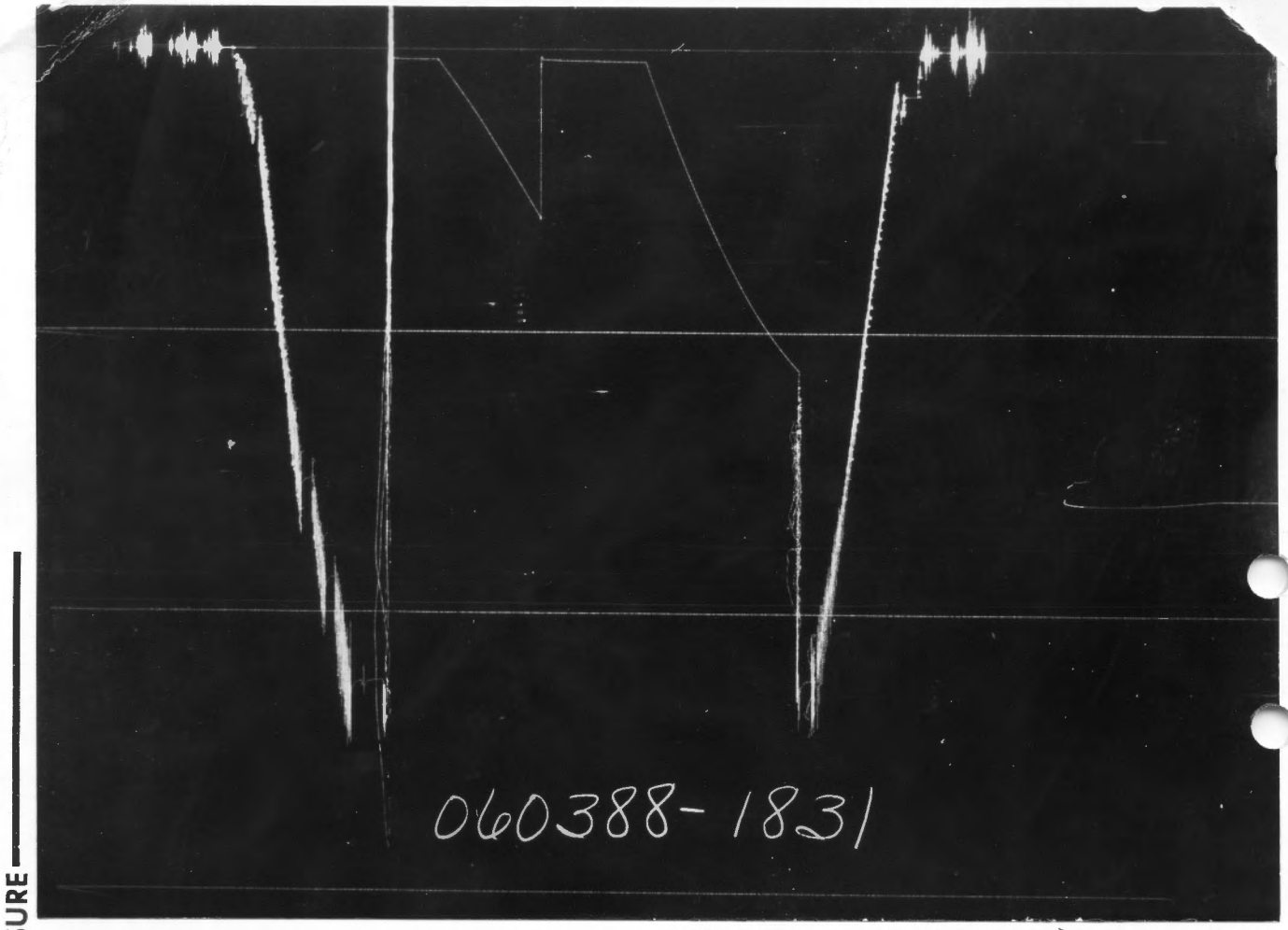
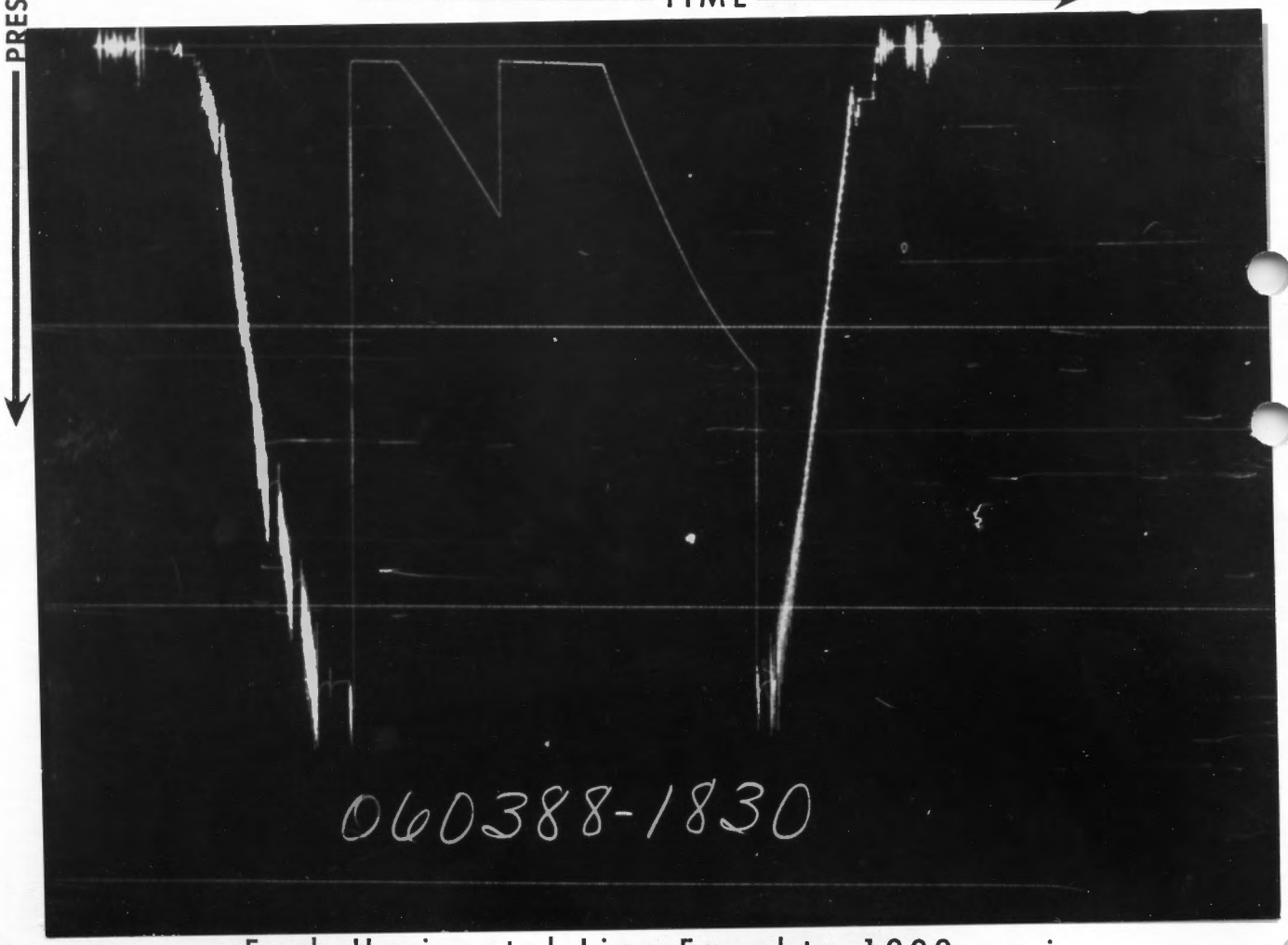


PRESSURE

TIME



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

2-29-13W

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 9.7 vis 43 cp

Date 1-31-76 Ticket Number 060388
Kind of Job OPEN HOLE Halliburton District PRATT
Tester MR. THOMPSON Witness MR. HOLKE
Drilling Contractor ABERCROMBIE DRILLING COMPANY BC S

EQUIPMENT & HOLE DATA

Formation Tested Mississippi
Elevation 1928' GL Ft.
Net Productive Interval 10' Ft.
All Depths Measured From Ground Level
Total Depth 4420' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 300' I.D. 2¼"
Drill Pipe Length 4120' I.D. 3.826"
Packer Depth(s) 4370' Ft.
Depth Tester Valve 4350' Ft.

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

Recovered 70 Feet of Drilling mud
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks Tool opened for a 29 minute first flow with a good blow. Closed tool for 60 minute first closed in pressure. Reopened tool for 61 minute second flow with a good blow. Closed tool for 90 minute second closed in pressure.

TEMPERATURE	Gauge No. 1831	Gauge No. 1830	Gauge No.	TIME
	Depth: 4360' Ft.	Depth: 4416' Ft.	Depth: Ft.	
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 0905 A.M. P.M.
Est. °F.	Blanked Off –	Blanked Off –	Blanked Off	
Actual 113 °F.	Pressures	Pressures	Pressures	Opened A.M. Bypass P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2214	2239	2214	2269				
First Period	Flow Initial	19	35	19	53			———	———
	Flow Final	28	36	28	55			30	29
	Closed in	629	591	629	606			60	60
Second Period	Flow Initial	28	27	28	50			———	———
	Flow Final	37	44	37	67			60	61
	Closed in	1102	1130	1102	1145			90	90
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic		2195	2234	2195	2266			———	———

RECEIVED STATE GEOLOGICAL SURVEY OF KANSAS MAY 1976

Legal Location Sec. - Twp. - Rng. 2 - 29 - 13
Lease Name SWISHER
Well No. 1
Test No. 1
Field Area WILDCAT
Tested Interval 4370' - 4420'
County PRATT
State KANSAS
Lease Owner/Company Name SOHIO PETROLEUM COMPANY
Meas. From Tester Valve

161-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

12

Gauge No.	1831	Depth	4360'	Clock No.	???	12 hour	Ticket No.	060388

	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	.0000	35	.0000		36	.0000	27	.0000		44					
1	.1870	36	.4040		591	.0741	39*	.0599		194					
2						.1415	41	.1198		334					
3						.2089	42	.1797		469					
4						.2762	43	.2396		595					
5						.3436	43	.2995		708					
6						.4110	44	.3594		815					
7								.4193		910					
8								.4792		995					
9								.5391		1069					
10								.5990		1130					
11															
12															
13															
14															
15															

Gauge No.	1830				Depth	4416'		Clock No.	???		12 hour				
0	.0000	53	.0000		55	.0000	50	.0000		67					
1	.1910	55	.4000		606	.0738	56*	.0599		212					
2						.1408	58	.1198		351					
3						.2079	61	.1797		481					
4						.2749	63	.2396		605					
5						.3420	65	.2995		720					
6						.4090	67	.3594		830					
7								.4193		925					
8								.4792		1007					
9								.5391		1082					
10								.5990		1145					
11															
12															
13															
14															
15															
Reading Interval							10			9					Minutes

REMARKS: *Interval = 11 minutes

RECEIVED
STATE GEOLOGICAL SURVEY OF KANSAS
MAY 1976

2-29-13w

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FORM 183-R1—PRINTED IN U.S.A.

SPECIAL PRESSURE DATA

LITTLE B 96673 75C 8/74

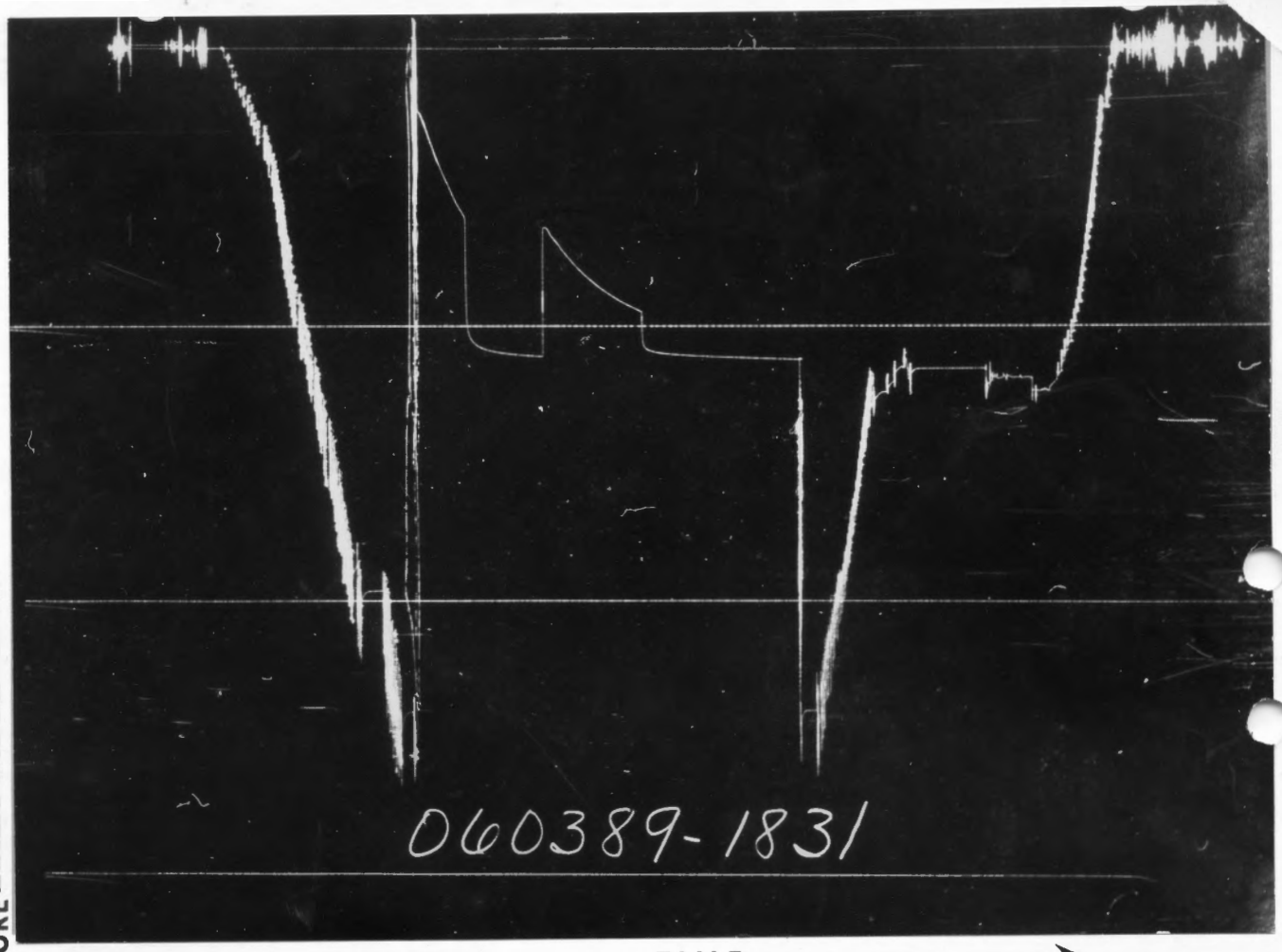
TICKET NO. 2-29 06038

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5 5/8"	2"	1½'	
Water Cushion Valve				
Drill Pipe	4½"	3.826"	4120'	
Drill Collars	–	2¼"	300'	
Handling Sub & Choke Assembly	5 3/4"	2¼"	2½'	
Dual CIP Valve	5"	3/4"	6'	4344'
Dual CIP Sampler				
Hydro-Spring Tester	5"	3/4"	5'	4350'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2¼"	4'	4360'
Hydraulic Jar	5"	2½"	5'	
VR Safety Joint	5"	1½"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1½"	6'	4370'
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	2½"	50'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2½"	4'	4416'
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				4420'

FORM 197-R1—PRINTED IN U.S.A.

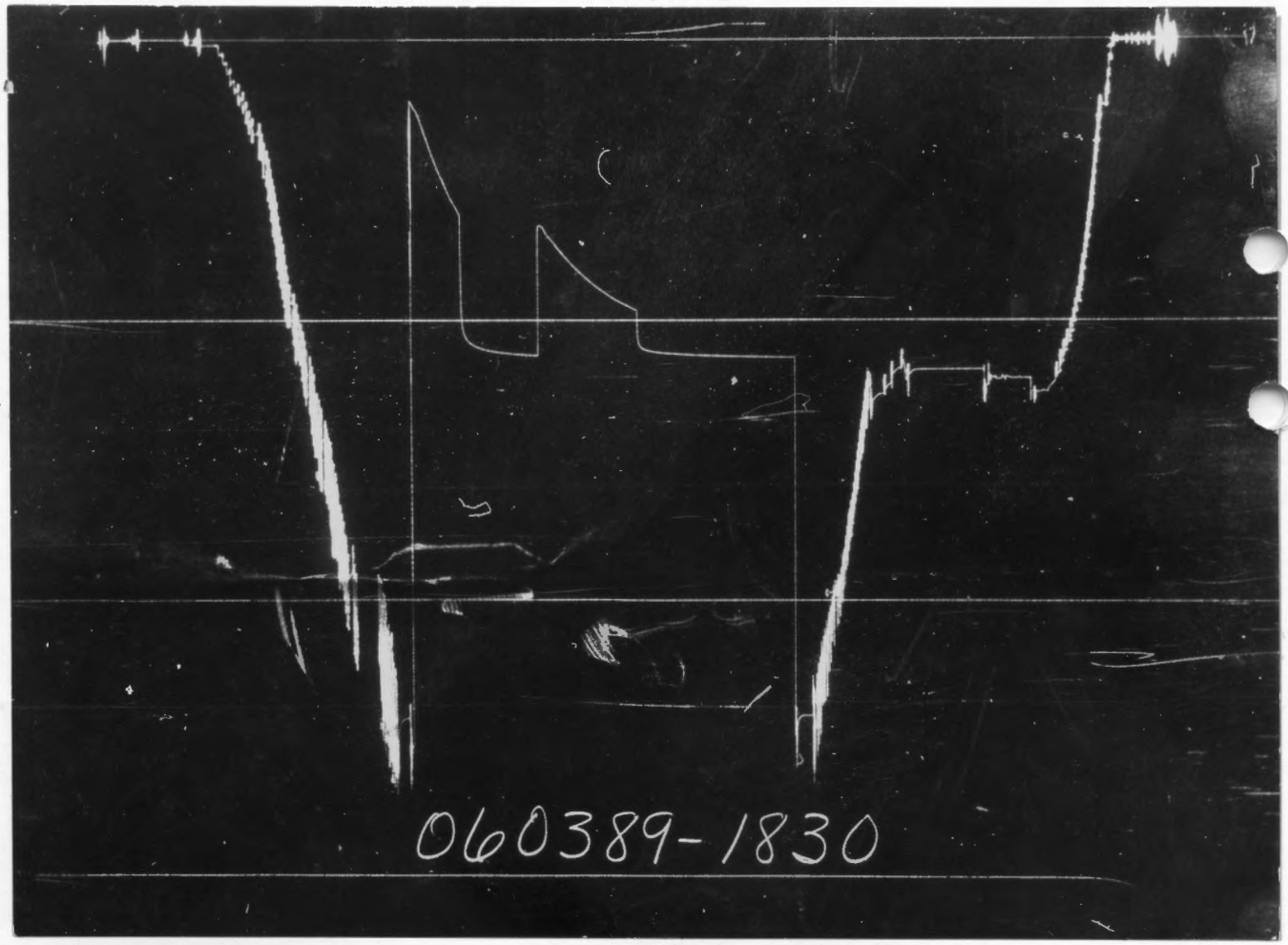
EQUIPMENT DATA

LITTLE'S 96676 75C 8/74



PRESSURE

TIME



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

2-29-13W

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 36.5 ° API @ 60 °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 9.8 vis 43 cp

Date 2-2-76 Ticket Number 060389
Kind of Job OPEN HOLE Halliburton District PRATT
Tester MR. THOMPSON Witness MR. HOLKE
Drilling Contractor ABERCROMBIE DRILLING COMPANY BC S

EQUIPMENT & HOLE DATA

Formation Tested Simpson
Elevation 2913' GL Ft.
Net Productive Interval 10' Ft.
All Depths Measured From Kelly Bushing
Total Depth 4630' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 600' I.D. 2.25"
Drill Pipe Length 3974' I.D. 3.826"
Packer Depth(s) 4610' Ft.
Depth Tester Valve 4590' Ft.

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

Recovered 60 Feet of Oil and gas cut mud
Recovered 60 Feet of Muddy oil
Recovered (-) 1740 Feet of Free gassy oil 36° API
Recovered (+) 240 Feet of Slightly muddy water
Recovered Feet of
Remarks SEE PRODUCTION TEST DATA SHEET....

TEMPERATURE	Gauge No. 1831 Depth: 4600' Ft.	Gauge No. 1830 Depth: 4626' Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 7:25 A.M. P.M.
Est. °F.	Blanked Off No	Blanked Off Yes	Blanked Off	Opened A.M.
Actual 115 °F.	Pressures	Pressures	Pressures	Bypass 11:10 P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2394	2400	2394	2424				
First Period Flow	Initial	194	185	194	219			———	———
	Final	619	611	619	625			30	29
	Closed in	1136	1109	1136	1124			45	45
Second Period Flow	Initial	638	644	638	663			———	———
	Final	970	947	970	963			60	58
	Closed in	1136	1121	1136	1133			90	92
Third Period Flow	Initial							———	———
	Final								
	Closed in								
Final Hydrostatic		2376	2395	2376	2416			———	———

Legal Location Sec. - Twp. - Rng. 2 - 29 - 13
Lease Name SWISHER
Well No. 1
Test No. 2
Tested Interval 4610' - 4630'
Field Area WILDCAT
County PRATT
State KANSAS
Lease Owner/Company Name SOHIO PETROLEUM COMPANY
Mea. From Tester Valve

FORM 181-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

12

2-29-13w

Casing perfs. _____ Bottom choke 3/4" Surf. temp _____ °F Ticket No. 060389

Gas gravity _____ Oil gravity _____ GOR _____

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

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED MERLA ORIFICE WELL TESTER

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
5:30					Started tool
7:23					On bottom
7:25					Opened tool with a strong blow
7:45	1/8"	1#	2.76		
7:50	"	2#	3.98		
7:55	"	2#	3.98		Closed tool
8:40					Opened tool with a strong blow
8:50	"	2#	3.98		
9:00	"	2#	3.98		
9:10	"	2#	3.98		
9:20	"	2#	3.98		
9:30	"	2#	3.98		
9:40	"	2#	3.98		Closed tool
11:10					Off bottom

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No.	1831	Depth	4600'	Clock No.	???	12 hour	Ticket No.	060389

	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	.0000	185	.0000	----	611	.0000	644	.0000	-----	947					
1	.0276	242*	.0204	1.034	1044	.0545	692**	.0408	1.193	1090					
2	.0621	331	.0408	.771	1065	.1226	771	.0815	.919	1098					
3	.0966	416	.0612	.630	1076	.1907	831	.1223	.768	1101					
4	.1310	486	.0816	.538	1084	.2588	880	.1630	.667	1104					
5	.1655	557	.1020	.471	1088	.3269	916	.2038	.593	1106					
6	.2000	611	.1224	.421	1093	.3950	947	.2446	.536	1108					
7			.1428	.380	1096			.2853	.489	1110					
8			.1632	.347	1099			.3261	.451	1112					
9			.1836	.320	1100			.3668	.419	1112					
10			.2040	.297	1102			.4076	.391	1114					
11			.2244	.277	1103			.4484	.367	1115					
12			.2448	.259	1105			.4891	.346	1116					
13			.2652	.244	1107			.5299	.327	1118					
14			.2856	.231	1108			.5706	.310	1119					
15			.3060	.218	1109			.6250	.290	1121**					

Gauge No.	1830		Depth	4626'		Clock No.	???		12 hour				
0	.0000	219	.0000	-----	625	.0000	663	.0000	-----	963			
1	.0269	256*	.0203	1.025	1059	.0543	712**	.0406	1.190	1107			
2	.0605	342	.0407	.763	1082	.1223	787	.0813	.916	1114			
3	.0941	429	.0610	.623	1093	.1902	848	.1219	.766	1118			
4	.1278	500	.0813	.531	1100	.2581	897	.1625	.665	1120			
5	.1614	570	.1017	.465	1105	.3261	934	.2032	.591	1122			
6	.1950	625	.1220	.415	1109	.3940	963	.2438	.534	1124			
7			.1423	.375	1111			.2844	.487	1125			
8			.1627	.342	1114			.3250	.449	1127			
9			.1830	.315	1116			.3657	.417	1128			
10			.2033	.292	1119			.4063	.389	1129			
11			.2237	.272	1120			.4469	.365	1130			
12			.2440	.255	1122			.4876	.344	1131			
13			.2643	.240	1122			.5282	.325	1132			
14			.2847	.227	1123			.5688	.309	1133			
15			.3050	.215	1124			.6230	.289	1133**			
Reading Interval	5		3			10		6					Minutes

REMARKS: *Interval = 4 minutes **Interval = 8 minutes

(12)

2-29-13w

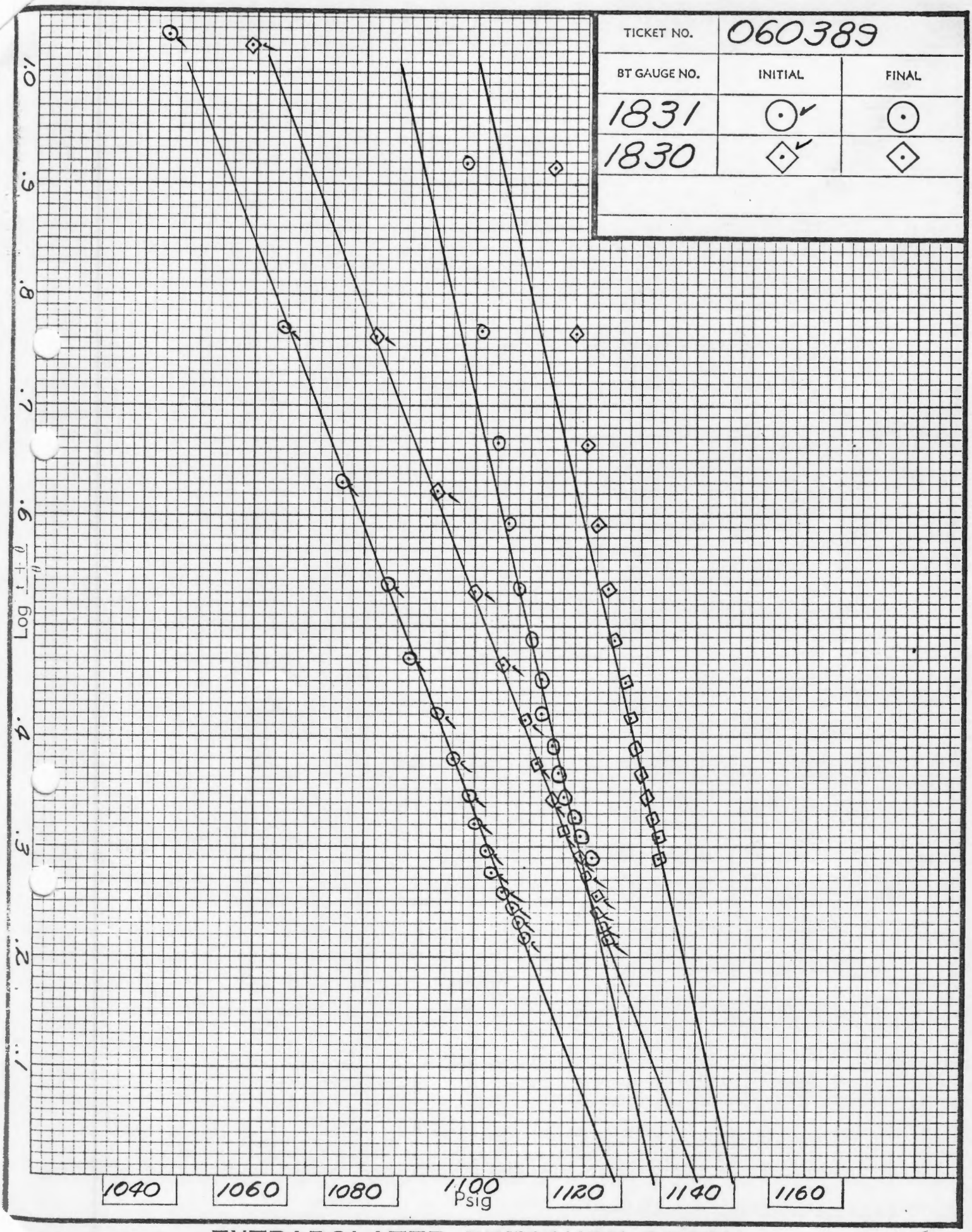
FORM 183-R1—PRINTED IN U.S.A.

SPECIAL PRESSURE DATA

LITTLE'S 96673 75C 8/74

2-29-13w

TICKET NO.	060389	
BT GAUGE NO.	INITIAL	FINAL
1831	⊙	⊙
1830	◇	◇



EXTRAPOLATED PRESSURE GRAPH

PRINTED IN U.S.A.
LITTLE'S

Liquid Production

B.T. Gauge Numbers			1831	1830	Ticket Number		060389	
			PRESSURE	PRESSURE				
Initial Hydrostatic			2400	2424	Elevation		2913' GL	ft.
Final Hydrostatic			2395	2416	Indicated Production	1st Flow	881	bbls./day
1st Flow	Initial	Time	185	219		2nd Flow	346*	bbls./day
	Final	29	611	625		3rd Flow	-	bbls./day
	Closed In Pressure	45	1109	1124	Drill Collar Length		600	ft.
2nd Flow	Initial	-	644	663	Drill Collar I.D.		2.25	in.
	Final	58	947	963	Drill Pipe Factor		.01422	bbls./ft.
	Closed In Pressure	92	1121	1133	Hole Size		7.875	in.
3rd Flow	Initial	Time			Footage Tested		10	ft.
	Final				Mud Weight		9.8	lbs./gal.
	Closed In Pressure				Viscosity, Oil ~~or Water~~		3.7	cp
Extrapolated Static Pressure		1st	1125	1140	Oil API Gravity		36.5	—
		2nd	1132	1147	Water Specific Gravity		-	—
		3rd	-	-	Temperature		115	°F
Slope P/10		1st	1048	1063				
		2nd	1086	1101				
		3rd	-	-				

Remarks:

*Rate calculated from final flow period may be somewhat low due to possible back-pressure effect.

SUMMARY

PRODUCT	EQUATION	B.T. Gauge No. 1831 Depth 4600' FIRST	SECOND	THIRD	B.T. Gauge No. 1830 Depth 4626' FIRST	SECOND	THIRD	UNITS
Production	$Q = \frac{1440\ R}{t}$	884	352		881	346		bbls. day
Transmissibility	$\frac{Kh}{\mu} = \frac{162.6\ Q}{m}$	1866.885	1243.385		1860.956	1223.546		$\frac{\text{md. ft.}}{\text{cp}}$
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$	6907.469	4600.520		6885.531	4527.117		md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$	-	-		-	-		md.
	$K_1 = \frac{Kh}{h_1}$	690.747	460.052		688.553	452.712		md.
Damage Ratio	$DR = .183\ \frac{Ps - Pf}{m}$	1.222	0.736		1.224	0.732		—
Theoretical Potential w/Damage Removed	$Q_1 = Q\ DR$	1080	352		1079	346		bbls. day
Approx. Radius of Investigation	$b \leftrightarrows \sqrt{Kt}$ or $\sqrt{Kt_0}$	-	-		-	-		ft.
	$b_1 \leftrightarrows \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$	141.5	200.0		141.3	198.5		ft.
Potentiometric Surface *	$Pot. = El - GD + 2.319\ Ps$	922	938		931	947		ft.

NOTICE: These calculations are based upon information furnished by you and taken from Drill Stem Test pressure charts, and are furnished you for your information. In furnishing such calculations and evaluations based thereon, Halliburton is merely expressing its opinion. You agree that Halliburton makes no warranty express or implied as to the accuracy of such calculations or opinions, and that Halliburton shall not be liable for any loss or damage, whether due to negligence or otherwise, in connection with such calculations and opinions.

TICKET NO. 060389

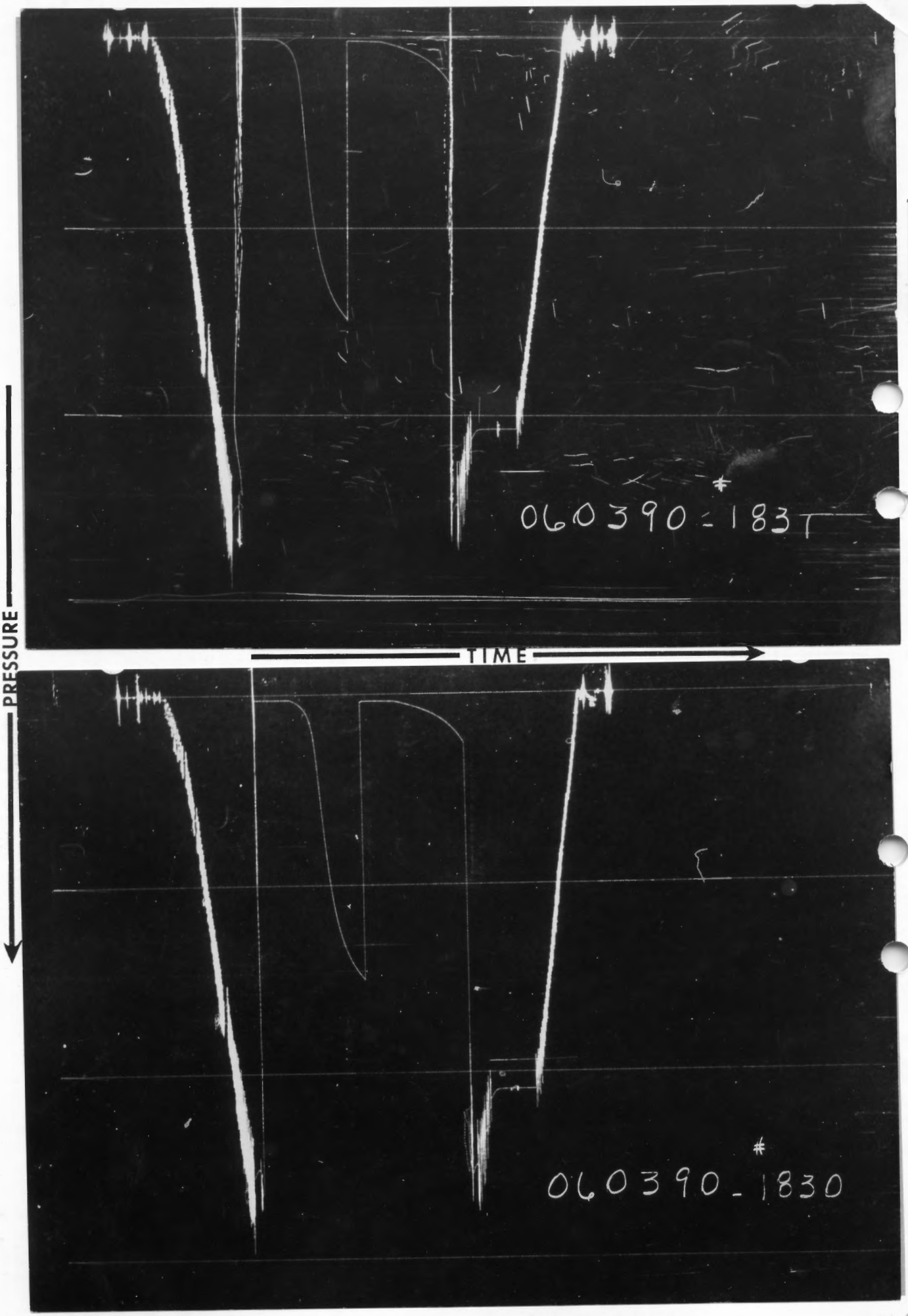
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5 5/8"	2"	1½'	
Water Cushion Valve				
Drill Pipe	4½"	3.826"	3974'	
Drill Collars	6"	2.25"	600'	
Handling Sub & Choke Assembly	5 3/4"	2¼"	2½'	
Dual CIP Valve	-	3/4"	6'	4584'
Duol CIP Sampler				
Hydro-Spring Tester	5 3/4"	3/4"	5'	4590'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5 3/4"	2¼"	4'	4600'
Hydraulic Jar	5 3/4"	2½"	5'	
VR Safety Joint	5 3/4"	1½"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1½"	6'	4610'
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	2¼"	20'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2½"	4'	4626'
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				
Totol Depth				4630'

FORM 187-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

LITTLE'S 96676 75C 6/74

12



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

2-29-13W

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 9.8 vis 43 cp

Date 2-4-76 Ticket Number 060390
Kind of Job OPEN HOLE Halliburton District PRATT
Tester THOMPSON Witness HOLKE
Drilling Contractor ABERCROMBIE DRILLING, INC.

EQUIPMENT & HOLE DATA

Formation Tested Arbuckle
Elevation - Ft.
Net Productive Interval 13' Ft.
All Depths Measured From Kelly Bushing
Total Depth 4750' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 600' I.D. 2¼"
Drill Pipe Length 4101' I.D. 3.826"
Packer Depth(s) 4737' Ft.
Depth Tester Valve 4727' Ft.

Cushion TYPE NONE AMOUNT Ft. Depth Back Pres. Valve NONE Surface Choke 1" Bottom Choke 3/4"

Recovered 20' Feet of drilling mud
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks Tool opened for a 32 minute first flow with a weak blow which died in 10 minutes. Closed tool for a 60 minute first closed in pressure. Tool reopened for a 28 minute second flow with no blow. Took a 60 minute second closed in pressure.

TEMPERATURE	Gauge No. 1831 Depth: 4729' Ft.	Gauge No. 1830 Depth: 4746' Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 0855 A.M. P.M.
Est. °F.	Blanked Off NO	Blanked Off YES	Blanked Off	Opened A.M.
Actual 117°F.	Pressures	Pressures	Pressures	Bypass 1005 P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2535	2622	2535	2644				
First Period	Flow Initial	19	7	19	28			———	———
	Flow Final	19	9	19	29			30	32
	Closed in	1526	1490	1526	1507			60	60
Second Period	Flow Initial	19	20	19	44			———	———
	Flow Final	28	20	28	38			30	28
	Closed in	296	243	298	260			60	60
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic		2516	2478	2516	2502			———	———

Legal Location Sec. - Twp. - Rng. 2 - 29 - 13
Lease Name SWISHER Well No. 1 Test No. 3
Field Area WILDCAT
Meas. From Tester Valve
Tested Interval 4737' - 4750'
County PRATT State KANSAS
Lease Owner/Company Name SOHIO PETROLEUM COMPANY - UGLAND

Gauge No.	1831	Depth	4729'	Clock No.	????	12 hour	Ticket No.	060390	

	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	7	.000		9	.000	20	.000		20					
1	.214	9	.0341		25	.197	20	.395		243					
2			.0682		50										
3			.1022		104										
4			.1363		249										
5			.1704		595										
6			.2045		910										
7			.2386		1112										
8			.2727		1245										
9			.3067		1338										
10			.3408		1404										
11			.3749		1452										
12			.4090		1490										
13															
14															
15															

Gauge No.	1830	Depth	4746'	Clock No.	????	hour	12		

0	.000	28	.000		29	.000	44	.000		38					
1	.218	29	.0342		43	.194	38	.411		260					
2			.0683		69										
3			.1025		122										
4			.1367		272										
5			.1708		602										
6			.2050		905										
7			.2392		1122										
8			.2733		1261										
9			.3075		1356										
10			.3417		1420										
11			.3758		1469										
12			.4100		1507										
13															
14															
15															

Reading Interval	5						Minutes

REMARKS:

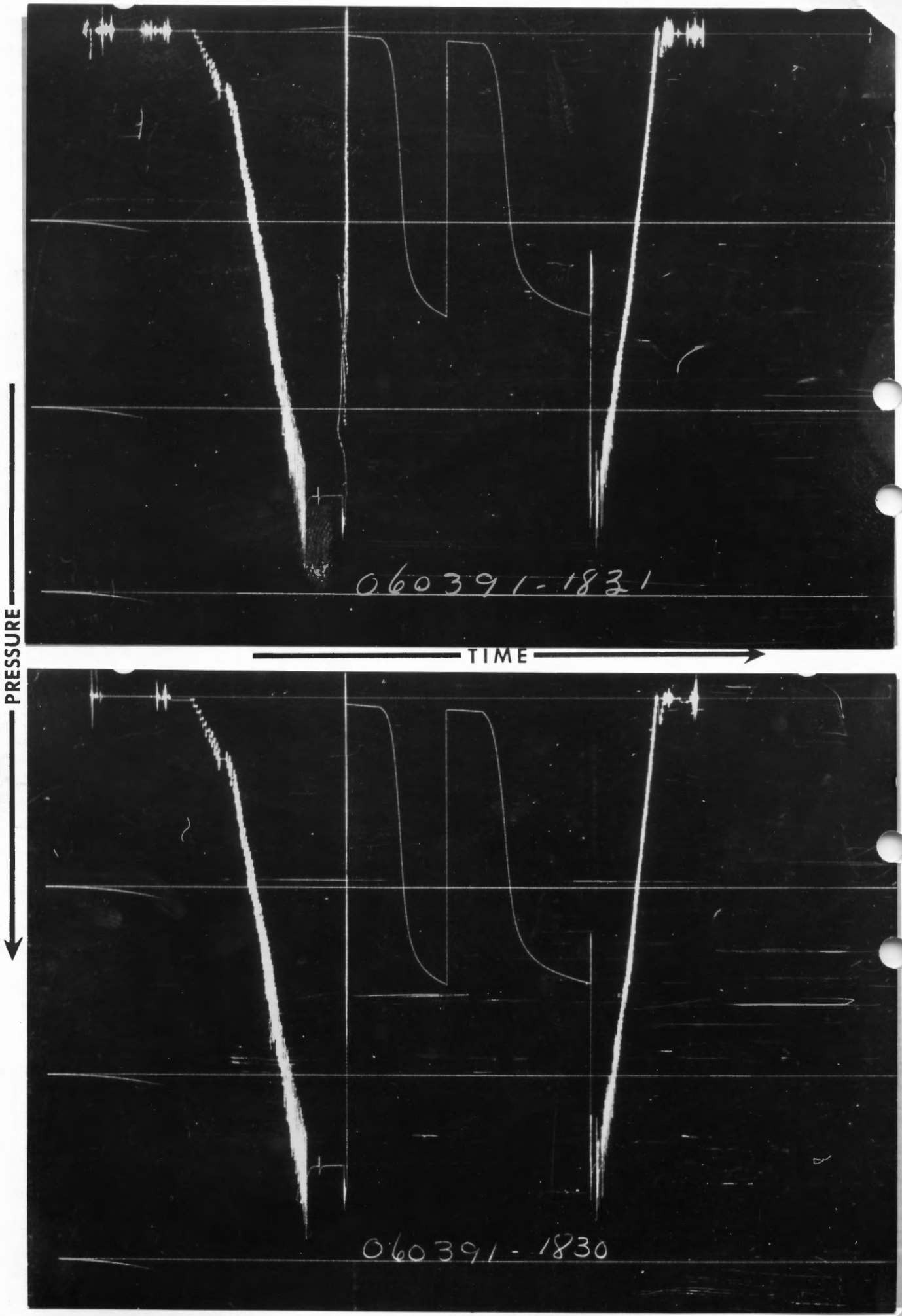
12

2-29-13w

SPECIAL PRESSURE DATA

TICKET NO. 2-29-13w 060390

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5 5/8"	2"	1½'	
Water Cushion Valve				
Drill Pipe	4½"	3.826"	4101'	
Drill Collars	-	2.25"	600'	
Handling Sub & Choke Assembly	5 3/4"	2¼"	2½'	
Dual CIP Valve	5"	3/4"	6'	4721'
Dual CIP Sampler				
Hydro-Spring Tester	5"	3/4"	5'	4727'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2¼"	4'	4729'
Hydraulic Jar	5"	2½"	5'	
VR Safety Joint	5"	1½"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1½"	6'	4737'
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	2¼"	13'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2½"	4'	4746'
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				4750'



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

2-29-13W

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 9.8 vis 43 cp

Date 2-5-76 Ticket Number 060391
Kind of Job OPEN HOLE Halliburton District PRATT
Tester MR. GEORGE Witness MR. HOLKE
Drilling Contractor ABERCROMIE DRILLING INCORPORATED DR S

EQUIPMENT & HOLE DATA

Formation Tested Arbuckle
Elevation - Ft.
Net Productive Interval 20' Ft.
All Depths Measured From Kelly Bushing
Total Depth 4766' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 600' I.D. 2 1/4"
Drill Pipe Length 4110' I.D. 3.826"
Packer Depth(s) 4746' Ft.
Depth Tester Valve 4726' Ft.

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

Recovered 90 Feet of slightly oil and gas cut 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, died in 25 minutes. Closed tool for 58 minute first closed in pressure. Reopened tool for 32 minute second flow. Closed tool for 94 minute second closed in pressure.

TEMPERATURE	Gauge No. 1831 Depth: 4728' Ft.	Gauge No. 1830 Depth: 4762 Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened A.M. 7:15 P.M.
Est. °F.	Blanked Off No	Blanked Off Yes	Blanked Off	Opened A.M.
Actual 117 °F.	Pressures	Pressures	Pressures	Bypass 10:45 P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2488	2470	2488	2492				
First Period Flow	Initial	28	11	28	34			———	———
	Final	46	32	46	49			30	30
	Closed in	1526	1503	1526	1519			60	58
Second Period Flow	Initial	46	46	46	68			———	———
	Final	55	55	55	73			30	32
	Closed in	1526	1495	1526	1511			60	94
Third Period Flow	Initial							———	———
	Final								
	Closed in								
Final Hydrostatic		2469	2455	2469	2473			———	———

Legal Location Sec. - Twp. - Rng. 2-29-13
Lease Name SWISHER
Well No. 1
Test No. 4
Field Area WILDCAT
Tested Interval 4746-4766'
County PRATT
State KANSAS
Lease Owner/Company Name SOHIO PETROLEUM COMPANY-UGLAND
Mea. From Tester Valve

101-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

Gauge No.	1831	Depth	4728'	Clock No.	-	12 hour	Ticket No.	060391

	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	11	.000		32	.000	46	.000		55					
1	.0338	18	.0268		54*	.027	44	.0875		284**					
2	.0677	20	.0671		161	.054	46	.1482		897					
3	.1015	24	.1073		544	.081	48	.2088		1235					
4	.1353	27	.1476		1112	.108	50	.2694		1337					
5	.1692	30	.1878		1305	.135	51	.3300		1388					
6	.2030	32	.2280		1386	.162	53	.3906		1421					
7			.2683		1432	.189	54	.4512		1447					
8			.3085		1463	.216	55	.5118		1467					
9			.3488		1485			.5724		1482					
10			.3890		1503			.6330		1495					
11															
12															
13															
14															
15															

Gauge No.	1830	Depth	4762'	Clock No.	-	hour	12

0	.000	34	.000		49	.000	68	.000		73					
1	.0335	35	.0271		70*	.0264	62	.0875		287**					
2	.0670	38	.0677		175	.0528	63	.1482		875					
3	.1005	40	.1084		568	.0791	64	.2088		1238					
4	.1340	43	.1491		1118	.1055	65	.2694		1334					
5	.1675	46	.1897		1319	.1319	67	.3300		1393					
6	.2010	49	.2304		1404	.1583	68	.3906		1436					
7			.2711		1448	.1847	69	.4512		1460					
8			.3117		1480	.2110	73	.5118		1479					
9			.3524		1502			.5724		1496					
10			.3930		1519			.6330		1511					
11															
12															
13															
14															
15															

Reading Interval	5	6	4	9			Minutes

REMARKS: *-4 minutes **-13 minutes.

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2-29-13w

FORM 183-RI—PRINTED IN U.S.A.

SPECIAL PRESSURE DATA

LITTLE'S 96673 75C 6/74

TICKET NO. 2-28-63W 06039

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5 5/8"	2"	1½'	
Water Cushion Valve				
Drill Pipe	4½"	3.826"	4110'	
Drill Collars	6"	2.75"	600'	
Handling Sub & Choke Assembly	5 3/4"	2 1/4"	2½'	
Dual CIP Valve	5"	3/4"	6'	4720'
Dual CIP Sampler				
Hydro-Spring Tester	5"	3/4"	5'	4726'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2½"	4'	4728'
Hydraulic Jar	5"	2½"	5'	
VR Safety Joint	5"	1½"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1½"	6'	4746'
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	2 1/4"	20'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2 1/2"	4'	4762'
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				4766'