

15-095-20398

15-285-6W

FLUID SAMPLE DATA				Date	4-9-75	Ticket Number	790891
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job	OPEN HOLE	Halliburton District	WINFIELD
Recovery: Cu. Ft. Gas _____				Tester	MR. DURHAM	Witness	MR. ROACK
cc. Oil _____				Drilling Contractor			
cc. Water _____				GABBERT AND JONES DRILLING COMPANY			
cc. Mud _____				EQUIPMENT & HOLE DATA			
Tot. Liquid cc. _____				BC S			
Gravity _____ ° API @ _____ °F.				Formation Tested	Kansas City Lime		
Gas/Oil Ratio _____ cu. ft./bbl.				Elevation	1469' KB	Ft.	
RESISTIVITY _____				Net Productive Interval	5'	Ft.	
CHLORIDE CONTENT _____				All Depths Measured From	Kelly Bushing		
Recovery Water @ _____ °F. _____ ppm				Total Depth	3475'	Ft.	
Recovery Mud @ _____ °F. _____ ppm				Main Hole/Casing Size	7 7/8"		
Recovery Mud Filtrate @ _____ °F. _____ ppm				Drill Collar Length	323'	I.D.	2 1/4"
Mud Pit Sample @ _____ °F. _____ ppm				Drill Pipe Length	3105'	I.D.	3.826"
Mud Pit Sample Filtrate @ _____ °F. _____ ppm				Packer Depth(s)	3459'	Ft.	
Mud Weight 9.8 vis 43 cp				Depth Tester Valve	3441'	Ft.	

TYPE	AMOUNT	DCIP Valve	Surface	Bottom
Cushion		Depth Back Pres. Valve 3437'	Choke 1/4"	Choke 3/4"

Recovered	295	Feet of	Muddy salt water with a few oil specks	Mea. From Tester Valve
Recovered		Feet of		
Recovered		Feet of		
Recovered		Feet of		
Recovered		Feet of		

Remarks Tool opened for a 45 minute first flow with blow building to a fair blow. Closed tool for 45 minute first closed in pressure. Reopened tool for 45 minute second flow blow building to a fair blow. Closed tool for 45 minute second closed in pressure.

TEMPERATURE	Gauge No. 737		Gauge No. 397		Gauge No.		TIME	
	Depth: 3445'	Ft.	Depth: 3471'	Ft.	Depth:	Ft.	Tool	A.M.
Est. 110 °F.	12	Hour Clock	12	Hour Clock	Hour Clock		Opened 10:50	P.M.
	Blanked Off	NO	Blanked Off	YES	Blanked Off		Opened	<del>P.M.</del>
Actual °F.	Pressures		Pressures		Pressures		Bypass 1:50	P.M.
	Field	Office	Field	Office	Field	Office	Reported	Computed
Initial Hydrostatic	1826	1811		1826			Minutes	Minutes
First Period	Flow Initial	17	9	22				
	Flow Final	86	90	99			45	45
	Closed in	1316	1313	1320			45	45
Second Period	Flow Initial	86	96	106				
	Flow Final	155	157	168			45	45
	Closed in	1307	1302	1312			45	45
Third Period	Flow Initial							
	Flow Final							
	Closed in							
Final Hydrostatic	1826	1801		1815				

Legal Location Sec. - Twp. - Rng. CNL SW NE 15 - 285 - 6W Field Area Mea. From Tester Valve 1 3459' - 3475' Tested Interval County KINGMAN State KANSAS

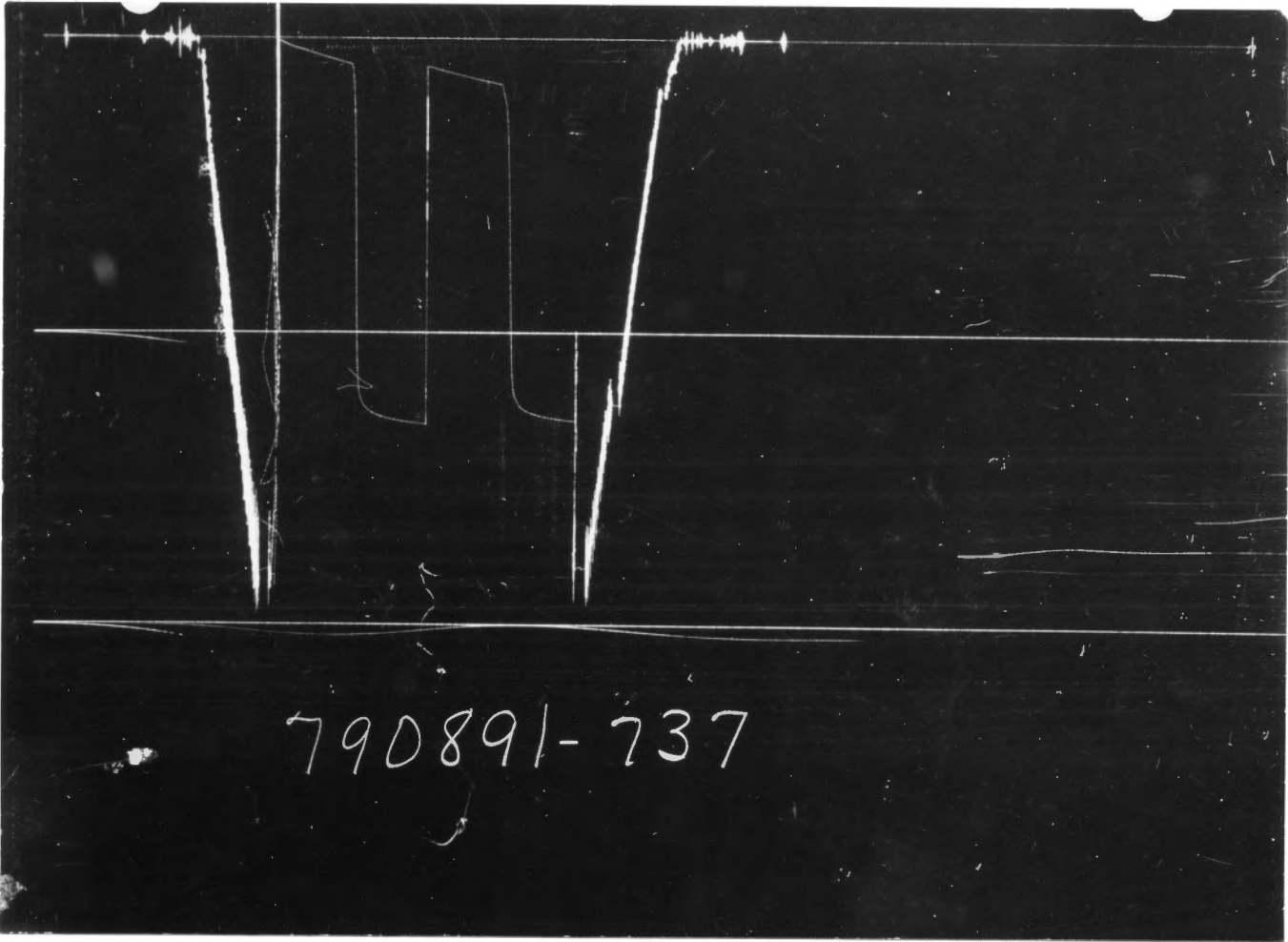
Lease Name CLAUSE 1 THE MAURICE L. BROWN TRUST Lease Owner/Company Name

Gauge No. 737		Depth 3445'		Clock No. 4204		12 hour		Ticket No. 790891	
First Flow Period		First Closed In Pressure		Second Flow Period		Second 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	9	90	.0000	96	.0000	157		
1	.0606	28	1181*	.0604	109	.0333	647*		
2	.1212	43	1254	.1208	122	.0599	1228		
3	.1818	59	1273	.1812	134	.0867	1259		
4	.2424	74	1284	.2416	146	.1133	1272		
5	.3030	90	1291	.3020	157	.1400	1279		
6			1297			.1667	1285		
7			1302			.1933	1290		
8			1305			.2200	1293		
9			1308			.2467	1297		
10			1310			.2733	1300		
11			1313			.3000	1302		
12									
13									
14									
15									

Gauge No. 397		Depth 3471'		Clock No. 3121		12 hour			
First Flow Period		First Closed In Pressure		Second Flow Period		Second Closed In Pressure			
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.		
$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$			
0	.0000	22	99	.0000	106	.0000	168		
1	.0598	40	1222*	.0600	119	.0329	674*		
2	.1196	54	1267	.1200	133	.0592	1238		
3	.1794	71	1284	.1800	146	.0855	1268		
4	.2392	84	1295	.2400	157	.1118	1281		
5	.2990	99	1302	.3000	168	.1381	1290		
6			1306			.1644	1296		
7			1312			.1908	1301		
8			1315			.2171	1304		
9			1317			.2434	1306		
10			1319			.2697	1310		
11			1320			.2960	1312		
12									
13									
14									
15									
Reading Interval	9	4	9	4	9	4	4	Minutes	

REMARKS: \*Interval = 5 minutes

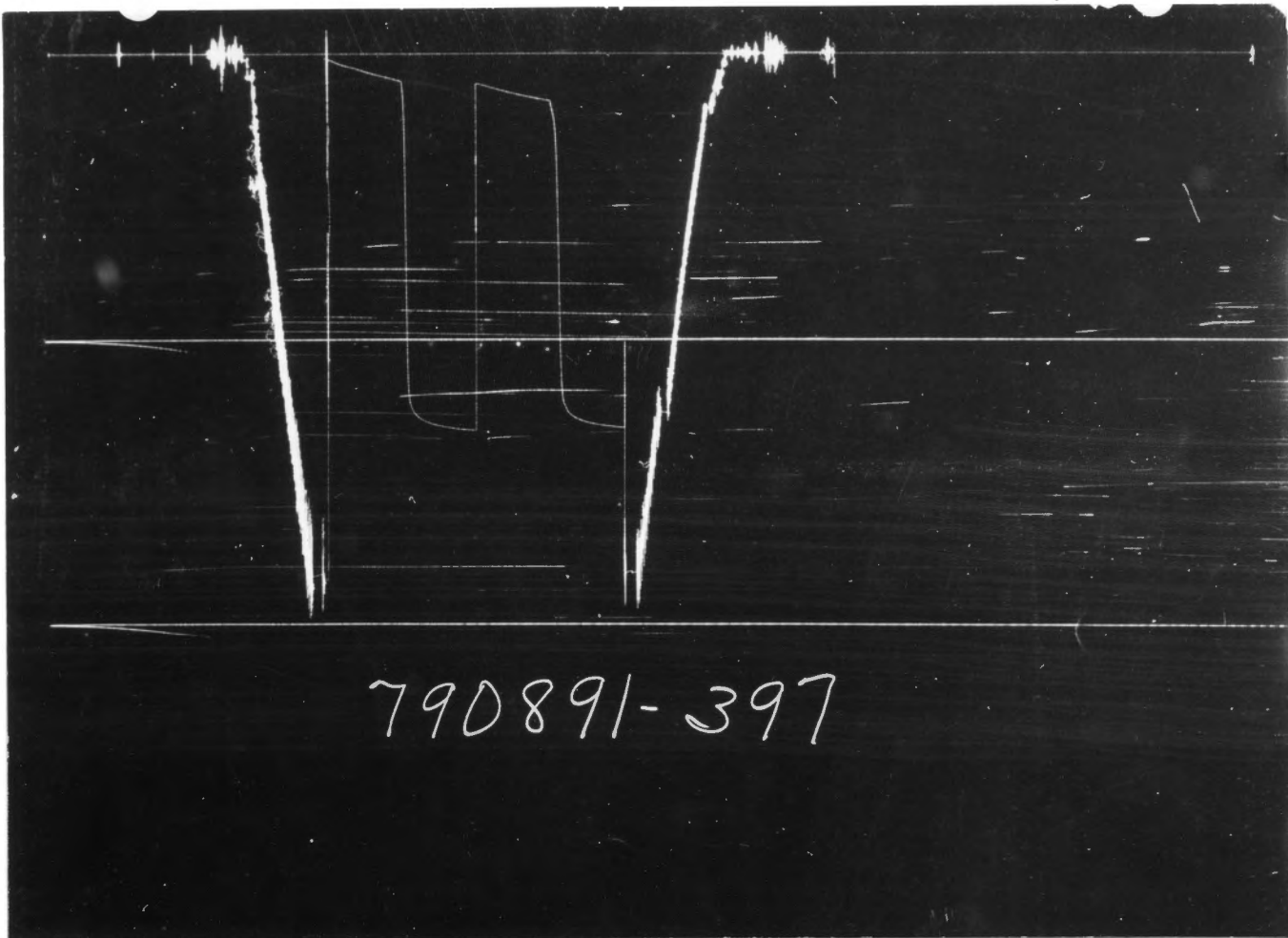
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing .....	5 3/4"	2"	1'	
Reversing Sub .....				
Water Cushion Valve .....				
Drill Pipe .....	4 1/2"	3.826"	3105'	
Drill Collars .....	6 1/4"	2 1/4"	323'	
Handling Sub & <del>Choke Assembly</del> .....	4 1/2"	3.826"	4'	
Dual CIP Valve .....	5"	3/4"	4'	3437'
Dual CIP Sampler .....				
Hydro-Spring Tester .....	5"	3/4"	4'	3441'
Multiple CIP Sampler .....				
Extension Joint .....				
AP Running Case .....	5"	2 1/4"	4'	3445'
Hydraulic Jar .....	5"	1"	5'	
VR Safety Joint .....	5"	1"	3'	
Pressure Equalizing Crossover .....				
Packer Assembly .....	6 3/4"	2 1/4"	4'	3459'
Distributor .....				
Packer Assembly .....				
Flush Joint Anchor .....	5"	2 1/4"	12'	
Pressure Equalizing Tube .....				
Blanked-Off B.T. Running Case .....	5"	2 1/4"	4'	3471'
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 .....				3475'



790891-737

PRESSURE

TIME



790891-397

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

Legal Location  
Sec. - Twp. - Rng.

15-28-6W

Field Area  
Med. From Tester Valve

MURDOCK

County

KINGMAN

State

KANSAS

<b>FLUID SAMPLE DATA</b>				Date	4-11-75	Ticket Number	791222
Sampler Pressure _____ P.S.I.G. at Surface	Recovery: Cu. Ft. Gas _____	cc. Oil _____	cc. Water _____	Kind of Job	OPEN HOLE	Halliburton District	EL DORADO
cc. Mud _____	Tot. Liquid cc. _____	Gravity _____ ° API @ _____ °F.	Gas/Oil Ratio _____ cu. ft./bbl.	Tester	MR. CANNON	Witness	MR. ROACH
RESISTIVITY _____	CHLORIDE CONTENT _____	Recovery Water _____ @ _____ °F. _____ ppm	Recovery Mud _____ @ _____ °F. _____ ppm	Drilling Contractor	GABBERT AND JONES	DR	S
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm	Mud Pit Sample _____ @ _____ °F. _____ ppm	Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm	Mud Weight 9.5 vis 38 cp	<b>EQUIPMENT &amp; HOLE DATA</b>			
				Formation Tested	Mississippi		
				Elevation	1469'	KB	Ft.
				Net Productive Interval	3852-3867' Ft.		
				All Depths Measured From	Kelly Bushing		
				Total Depth	3867' Ft.		
				Main Hole/Casing Size	7 7/8"		
				Drill Collar Length	322'	I.D.	2.125"
				Drill Pipe Length	3563'	I.D.	3.826"
				Packer Depth(s)	3852' Ft.		
				Depth Tester Valve	3834' Ft.		

TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
Cushion			1/4"	3/4"
Recovered	160	Feet of salt water mud		
Recovered	90	Feet of salt water		
Recovered		Feet of CHARTS INDICATE SLIGHT PLUGGING OF ANCHOR PERFORATIONS AT END OF INITIAL FLOW PERIOD.		
Recovered		Feet of		
Recovered		Feet of		
Remarks	SEE PRODUCTION TEST DATA SHEET			

TEMPERATURE	Gauge No. 566		Gauge No. 239		Gauge No.		TIME	
	Depth:	3839 Ft.	Depth:	3864 Ft.	Depth:	Ft.	Hour Clock	Tool A.M.
Est. 110 °F.	12 Hour Clock		12 Hour Clock		Hour Clock		Tool A.M.	
	Blanked Off No		Blanked Off Yes		Blanked Off		Opened 13:05 P.M.	
	Blanked Off		Blanked Off		Blanked Off		Opened 17:38 A.M.	
Actual °F.	Pressures		Pressures		Pressures		Bypass P.M.	
	Field	Office	Field	Office	Field	Office	Reported	Computed
Initial Hydrostatic	2041	2009	2023				Minutes	Minutes
First Period Flow	Initial	35	31	358				
	Final	79	81	195			44	44
	Closed in	1443	1447	1451			49	50
Second Period Flow	Initial	49	55	60				
	Final	85	87	90			90	90
	Closed in	1398	1405	1410			90	89
Third Period Flow	Initial							
	Final							
	Closed in							
Final Hydrostatic	1997	1988	2003					



Casing perms. \_\_\_\_\_ Bottom choke 3/4" Surf. temp. \_\_\_\_\_ °F Ticket No. 791222  
 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
8:00						Called out
10:45						On location
11:20						Picked up tool
12:00						Started tool in hole
13:02						On bottom
13:05		1/4"				Opened tool with a very good blow
13:21		1/4"				Gas to surface
13:23		1/2"	4#	68.8		
13:25		1/4"	4	18.5		
13:30		"	9	29.0		
13:35		"	11	32.4		
13:40		"	14	37.6		
13:45		"	17	42.4		
13:47		"	18	43.9		
13:49		"				Closed tool
14:38		"				Reopened tool with a good blow
14:40		"	15	39.2		
14:45		"	21	48.7		
14:50		"	25	54.7		
14:55		"	27	57.7		
15:00		"	29	60.4		
15:03		1/2"	20	177.0		
15:05		1/2"	15	147.0		



Gauge No.		566		Depth		3839'		Clock No.		13663		12 hour		Ticket No.		791222	
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"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	
0	.000	31	.000	81	.000	.000	55	.000	.000	87	.000	.000	87	.000	.000		
1	.0366	364	.0337	1014	.1003	.0540	89	.0540	.0540	999**	.0540	.0540	999**	.0540	.0540		
2	.0796	49	.0674	1227	(.157 96C)	.1148	75	.1756	.1148	1196	.1148	.1148	1196	.1148	.1148		
3	.1327	53	.1011	1318	.2007	.1756	73	.2364	.1756	1251	.1756	.1756	1251	.1756	.1756		
4	.1858	64	.1348	1363	.3010	.2971	78	.3579	.2971	1341	.2971	.2971	1341	.2971	.2971		
5	.2389	74	.1685	1390	.4013	.4187	83	.4795	.4187	1360	.4187	.4187	1360	.4187	.4187		
6	.2920	81	.2022	1410	.5017	.5403	87	.6010	.5403	1374	.5403	.5403	1374	.5403	.5403		
7			.2359	1422	.6020												
8			.2696	1432													
9			.3033	1441													
10			.3370	1447													
11																	
12																	
13																	
14																	
15																	

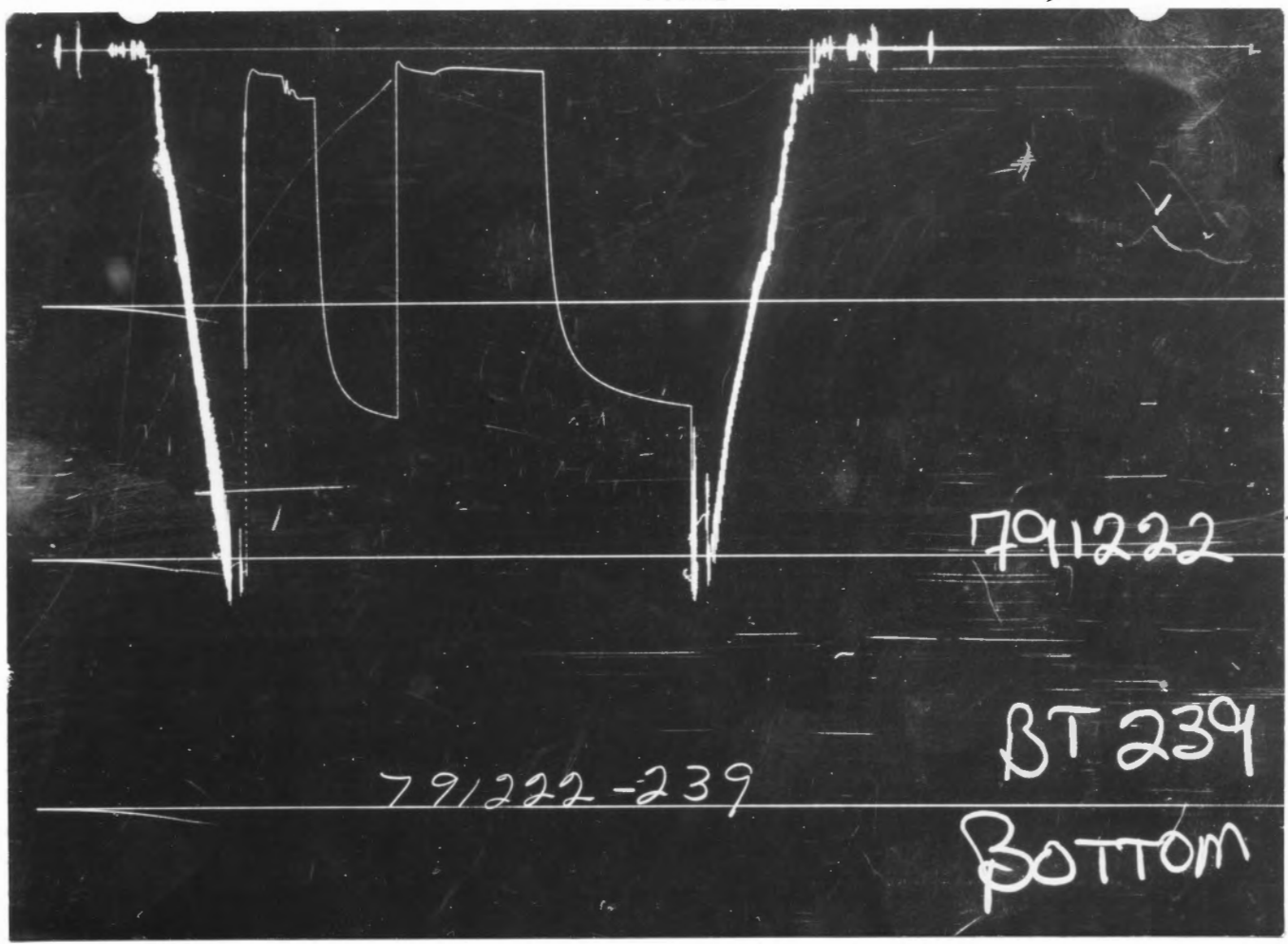
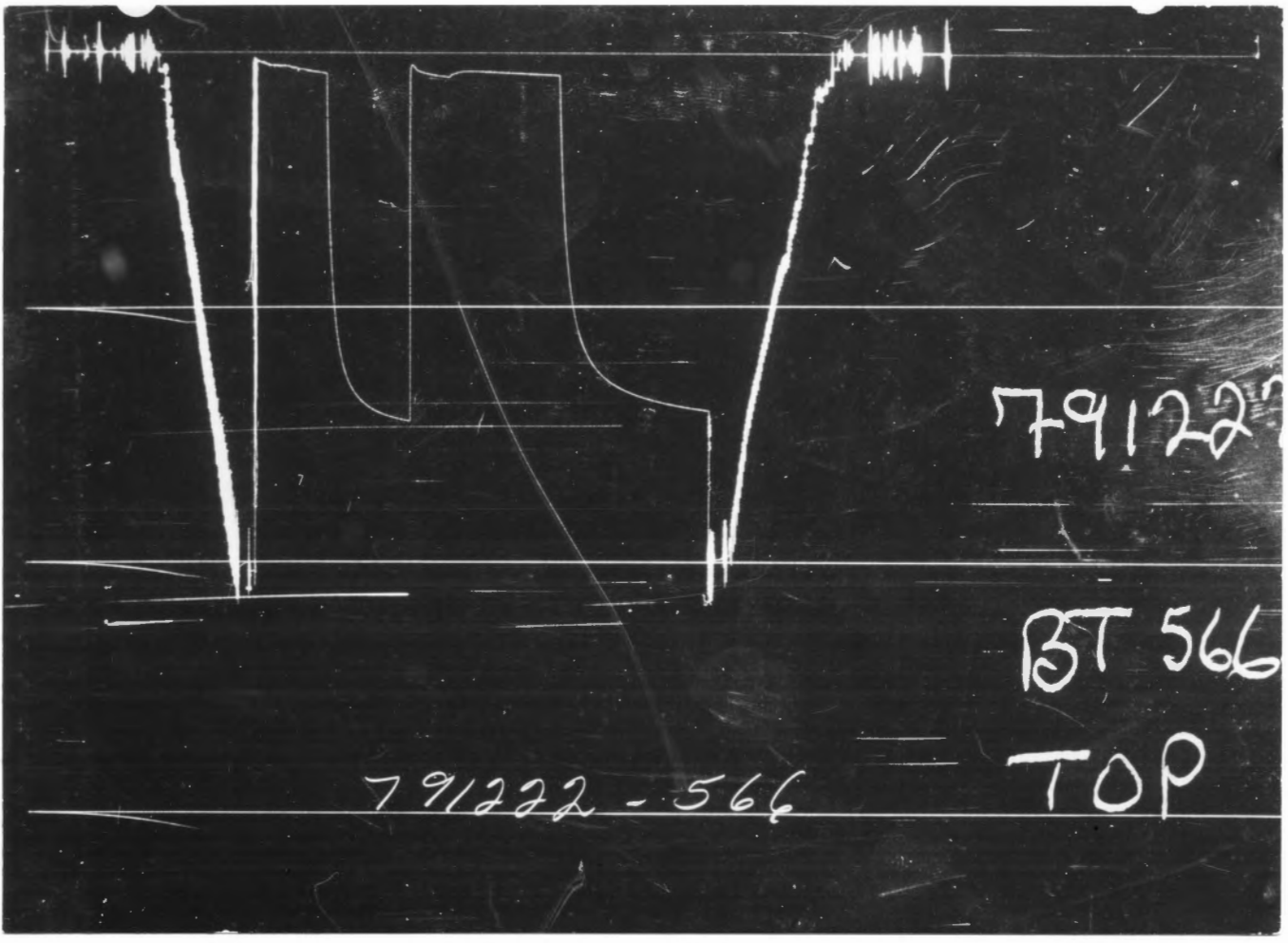
  

Gauge No.		239		Depth		3864'		Clock No.		3459		hour		12			
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$		
0	.000	358	.000	195	.000	.000	60	.000	.000	90	.000	.000	90	.000	.000		
1	.288	195	.033	1032	.0987	.0530	91	.0530	.0530	1002**	.0530	.0530	1002**	.0530	.0530		
2			.066	1245	(.156 99C)	.1127	80	.1724	.1127	1198	.1127	.1127	1198	.1127	.1127		
3	Plugging		.099	1324	.1973	.1724	78	.2320	.1724	1276	.1724	.1724	1276	.1724	.1724		
4			.132	1368	.2960	.2320	83	.2917	.2320	1317	.2320	.2320	1317	.2320	.2320		
5			.165	1396	.3947	.2917	87	.3513	.2917	1345	.2917	.2917	1345	.2917	.2917		
6			.198	1416	.4934	.3513	90	.4110	.3513	1365	.3513	.3513	1365	.3513	.3513		
7			.231	1427	.5920	.4110	90	.4707	.4110	1378	.4110	.4110	1378	.4110	.4110		
8			.264	1438				.5303		1401			1401				
9			.297	1446				.5900		1410			1410				
10			.330	1451													
11																	
12																	
13																	
14																	
15																	

Reading Interval 8

\* First interval equal to 4 minutes \*\*-8 minutes C-Choke change

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing .....				
Reversing Sub .....	5"	3.00"	1'	
Water Cushion Valve .....				
Drill Pipe .....	4 1/2"	3.826"	3563'	
Drill Collars .....	6 1/4"	2.125"	322'	
Handling Sub & Choke Assembly .....	5"	3.00"	1' 4 1/2" Double Pin	
Dual CIP Valve .....	5"	.87"	5'	3829'
Dual CIP Sampler .....				
Hydro-Spring Tester .....	5"	.75"	5'	3834'
Multiple CIP Sampler .....				
Extension Joint .....				
AP Running Case .....	5"	2.25"	4'	3839'
Hydraulic Jar .....	5"	1.00"	4'	
VR Safety Joint .....	5"	1.00"	3'	
Pressure Equalizing Crossover .....				
Packer Assembly .....	6 3/4"	1.53"	5'	3852'
Distributor .....				
Packer Assembly .....				
Flush Joint Anchor .....	5"	2.37"	10'	
Pressure Equalizing Tube .....				
Blanked-Off B.T. Running Case .....				
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 .....	5"	2.75"	4'	3864'
Total Depth .....				3867'



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

FLUID SAMPLE DATA			Date	4-11-75	Ticket Number	791223
Sampler Pressure	P.S.I.G. at Surface		Kind of Job	OPEN HOLE	Halliburton District	EL DORADO
Recovery: Cu. Ft. Gas	_____		Tester	MR. CANNON	Witness	MR. ROACH
cc. Oil	_____		Drilling Contractor	GABBERT AND JONES DRILLING COMPANY		RIG # 12
cc. Water	_____		EQUIPMENT & HOLE DATA BC S			
cc. Mud	_____		Formation Tested	Mississippi		
Tot. Liquid cc.	_____		Elevation	1469'	KB	Ft.
Gravity _____ ° API @ _____ ° F.	RESISTIVITY _____ CHLORIDE CONTENT _____		Net Productive Interval	3876' - 3885'		Ft.
Gas/Oil Ratio _____ cu. ft./bbl.	Recovery Water _____ @ _____ ° F. _____ ppm		All Depths Measured From	Kelly Bushing		
Recovery Mud _____ @ _____ ° F. _____ ppm	Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm		Total Depth	3885' _____ Ft.		
Mud Pit Sample _____ @ _____ ° F. _____ ppm	Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm		Main Hole/Casing Size	7 7/8" Hole		
Mud Weight 9.6 vis 44 cp	Mud Weight 9.6 vis 44 cp		Drill Collar Length	322'	I.D.	2.125"
			Drill Pipe Length	3552'	I.D.	3.826"
			Packer Depth(s)	3876' _____ Ft.		
			Depth Tester Valve	3859' _____ Ft.		

Cushion	TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
			Ft.	1/4"	3/4"
Recovered		62 Feet of	Oil and gas cut mud		
Recovered		90 Feet of	Heavily oil and gas cut mud		
Recovered		75 Feet of	Slightly muddy gas cut oil		
Recovered		255 Feet of	Salt water	NET 9'	GRAVITY 38°
Recovered		Feet of			
Remarks	Tool opened for a 44 minute first flow with a strong blow. No gas. Closed tool for 40 minute first closed in pressure. Reopened tool for 46 minute second flow with a strong blow. Closed tool for 44 minute second closed in pressure. Released pressure, gas to surface.				

TEMPERATURE	Gauge No. 566		Gauge No. 239		Gauge No.		TIME	
	Depth:	3864' Ft.	Depth:	3881' Ft.	Depth:	Ft.		
Est. 110 °F.	12 Hour Clock		12 Hour Clock		Hour Clock		Tool Opened	0556 A.M.
	Blanked Off NO		Blanked Off YES		Blanked Off		Opened	0850 P.M.
Actual °F.	Pressures		Pressures		Pressures		Reported	Computed
	Field	Office	Field	Office	Field	Office	Minutes	Minutes
Initial Hydrostatic	2049	2013		2027				
First Period Flow	Initial	25	30	37				
	Final	128	133	141			40	44
	Closed in	1487	1488	1502			45	40
Second Period Flow	Initial	168	171	179				
	Final	227	227	235			46	46
	Closed in	1487	1482	1495			44	44
Third Period Flow	Initial							
	Final							
	Closed in							
Final Hydrostatic	2002	2005		2018				





Legal Location Sec. - Twp. - Rng. 5 - 28S - 6W  
 Lease Name CLAUSE  
 Well No. 1  
 Test No. 3  
 Tested Interval 3876' - 3885'  
 County KINGMAN  
 State KANSAS  
 Lease Owner/Company Name THE MAURICE L. BROWN TRUST

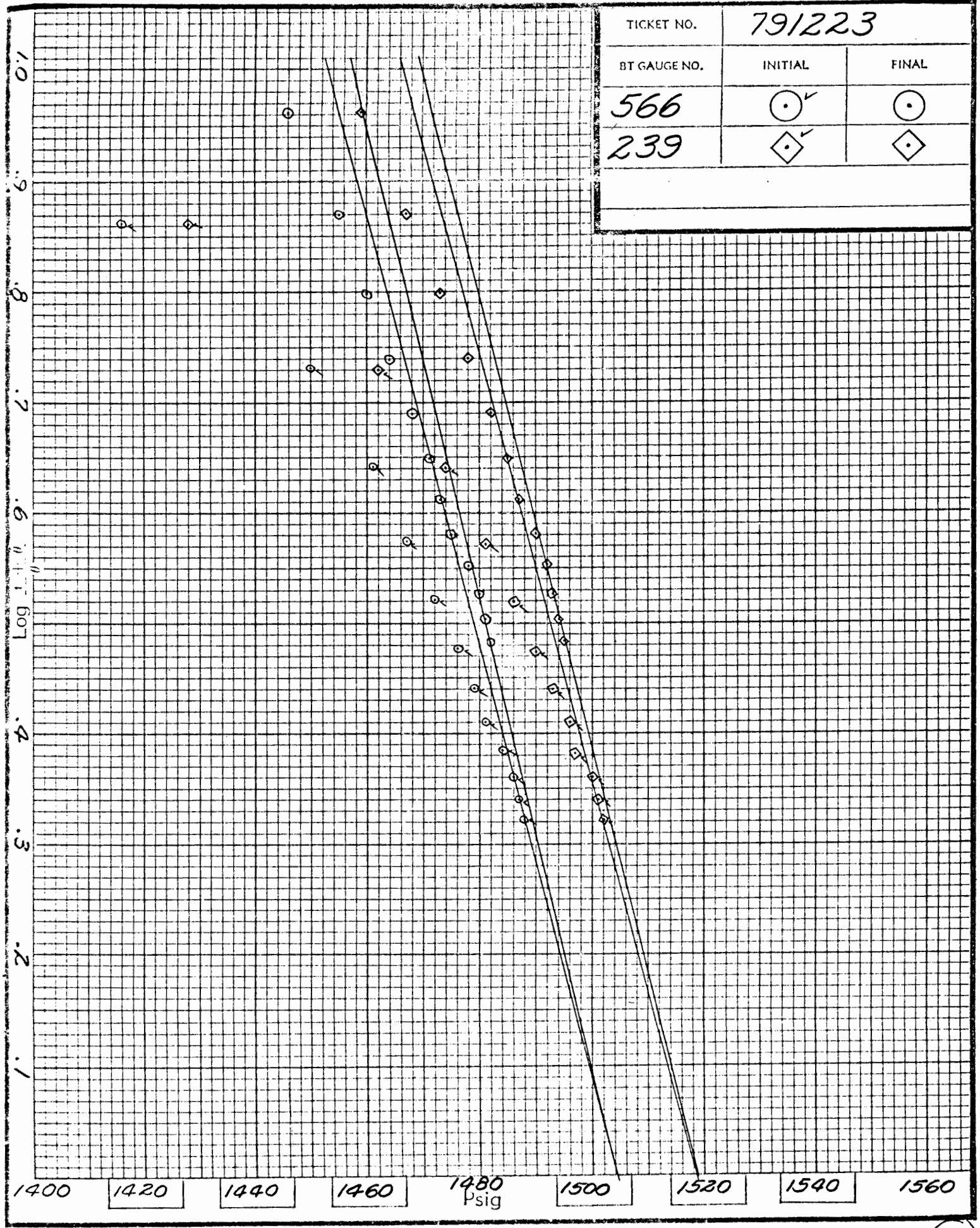
Gauge No.		566		Depth		3864'		Clock No.		13663		12 hour		Ticket No.		791223	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0	.0000	30	-----	.0000	133	.0000	171	.0000	-----	227	-----	.0000	227				
1	.0610	57*	1.653	.0068	268**	.0404	161***	.0135	1.662	666****		.0135	1.662				
2	.1084	86	1.079	.0271	1091	.0943	169	.0339	1.277	1348		.0339	1.277				
3	.1558	104	.863	.0474	1416	.1483	179	.0542	1.087	1428		.0542	1.087				
4	.0232	109	.732	.0678	1450	.2022	196	.0745	.962	1446		.0745	.962				
5	.2506	120	.642	.0881	1461	.2561	213	.0948	.870	1455		.0948	.870				
6	.2980	133	.574	.1084	1467	.3100	227	.1151	.798	1460		.1151	.798				
7			.521	.1287	1472			.1355	.739	1464		.1355	.739				
8			.477	.1491	1476			.1558	.690	1468		.1558	.690				
9			.441	.1694	1479			.1761	.649	1471		.1761	.649				
10			.410	.1897	1481			.1964	.612	1473		.1964	.612				
11			.384	.2100	1484			.2167	.580	1475		.2167	.580				
12			.360	.2304	1486			.2370	.552	1478		.2370	.552				
13			.340	.2507	1487			.2574	.527	1480		.2574	.527				
14			.322	.2710	1488			.2777	.504	1481		.2777	.504				
15								.2980	.483	1482		.2980	.483				

Gauge No.		239		Depth		3881'		Clock No.		3459		12 hour	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0	.0000	37	-----	.0000	141	.0000	179	.0000	-----	235	-----	.0000	235
1	.0599	63*	1.652	.0067	268**	.0399	166***	.0133	1.663	699****		.0133	1.663
2	.1065	91	1.078	.0267	1108	.0931	175	.0333	1.278	1364		.0333	1.278
3	.1532	111	.862	.0467	1429	.1463	186	.0533	1.088	1442		.0533	1.088
4	.1998	117	.731	.0668	1462	.1996	203	.0732	.963	1459		.0732	.963
5	.2464	128	.641	.0868	1474	.2528	220	.0932	.871	1467		.0932	.871
6	.2930	141	.573	.1068	1481	.3060	235	.1132	.799	1473		.1132	.799
7			.520	.1268	1486			.1332	.740	1478		.1332	.740
8			.476	.1469	1490			.1532	.691	1482		.1532	.691
9			.440	.1669	1493			.1731	.649	1485		.1731	.649
10			.410	.1869	1496			.1931	.613	1487		.1931	.613
11			.383	.2069	1497			.2131	.581	1490		.2131	.581
12			.360	.2270	1500			.2331	.553	1492		.2331	.553
13			.340	.2470	1501			.2530	.527	1493		.2530	.527
14			.322	.2670	1502			.2730	.504	1494		.2730	.504
15								.2930	.484	1495		.2930	.484

Reading Interval 7  
 REMARKS: \*Interval = 9 minutes \*\*Interval = 1 minute \*\*\*Interval = 6 minutes \*\*\*\*Interval = 2 minutes

TICKET NO.	791223	
BT GAUGE NO.	INITIAL	FINAL
566		
239		



EXTRAPOLATED PRESSURE GRAPH

## Liquid Production

B.T. Gauge Numbers			566	239	Ticket Number	791223
			PRESSURE	PRESSURE		
Initial Hydrostatic			2013	2027	Elevation	1469 ft.
Final Hydrostatic			2005	2018	Indicated Production	-
1st Flow	Initial	Time	30	37	1st Flow	-
	Final		133	141	2nd Flow	98.8 bbls./day
	Closed In Pressure		40	1488	3rd Flow	-
2nd Flow	Initial		171	179	Drill Collar Length	322 ft.
	Final		227	235	Drill Collar I.D.	2.25 in.
	Closed In Pressure		44	1482	Drill Pipe Factor	.01422 bbls./ft.
3rd Flow	Initial	Time			Hole Size	7.875 in.
	Final				Footage Tested	9 ft.
	Closed In Pressure				Mud Weight	9.6 lbs./gal.
Extrapolated Static Pressure	1st		1504	1519	Viscosity, Oil <del>For Water</del>	3.4 cp
	2nd		1504	1519	Oil API Gravity	38
	3rd		-	-	Water Specific Gravity	-
Slope P/10	1st		1453	1466	Temperature Estimated	110 °F
	2nd		1457	1470		
	3rd		-	-		

Remarks: Calculated parameters are based upon a combined fluid gradient of 60% water with a salinity of 50,000 ppm and 40% 38° API gravity oil. Production rate is for total fluid production. The viscosity value used in calculations is relative to the oil.

### SUMMARY

B.T. Gauge No. 566


B.T. Gauge No. 239

Depth 3864'

Depth 3881'

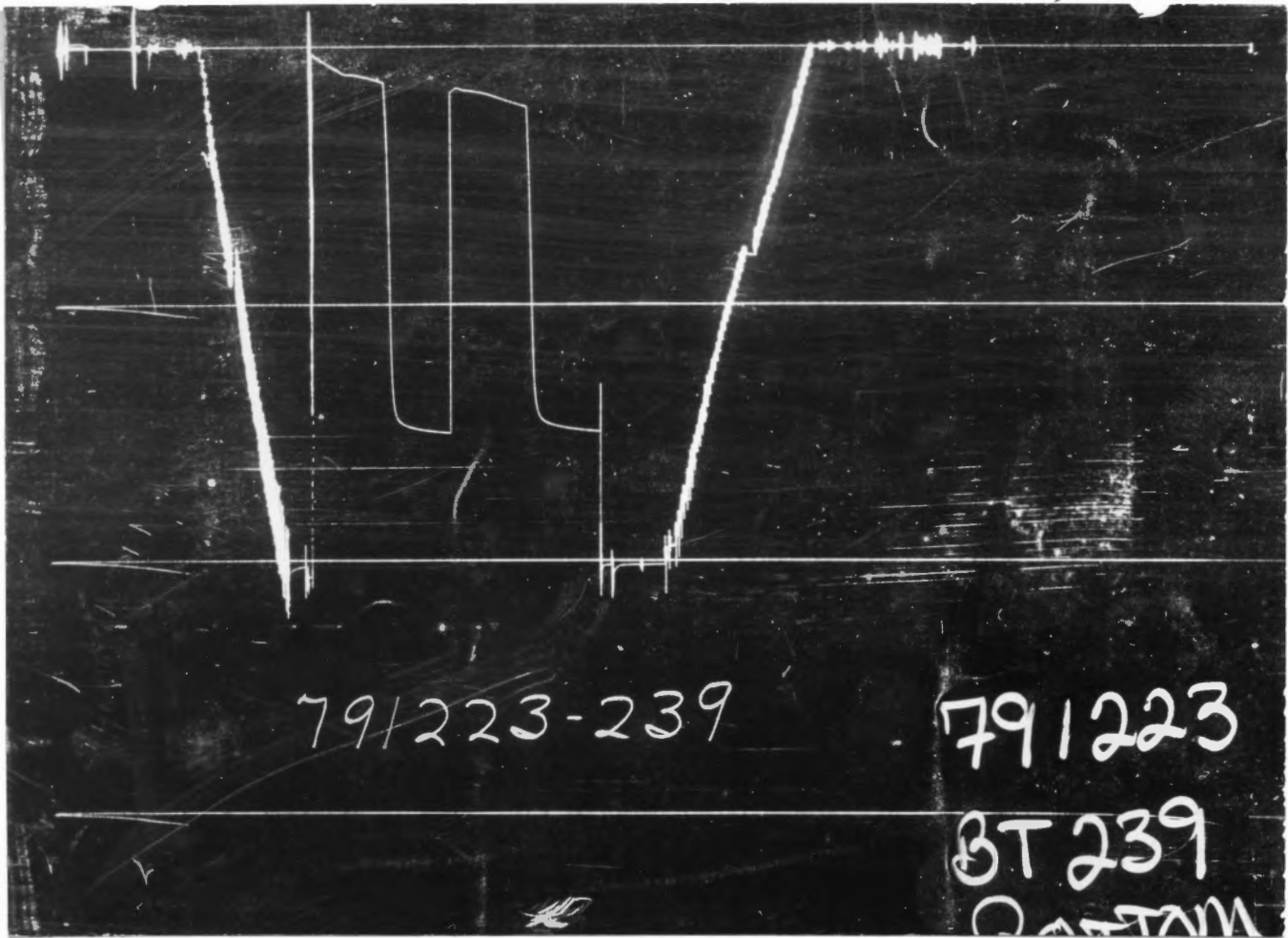
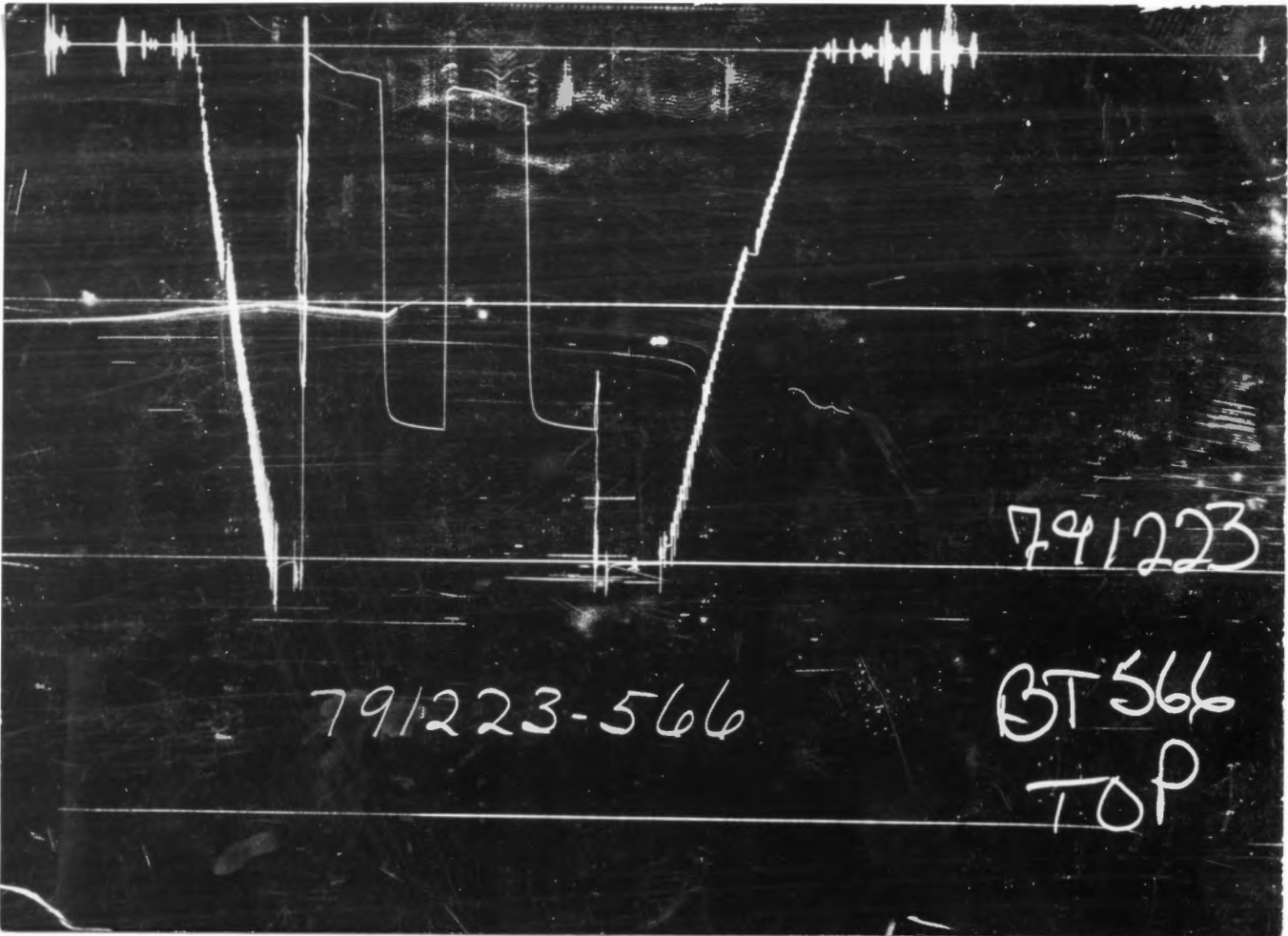
PRODUCT	EQUATION	FIRST	SECOND	THIRD	FIRST	SECOND	THIRD	UNITS
Production	$Q = \frac{1440 R}{t}$		96.8			98.834		bbls. day
Transmissibility	$\frac{Kh}{\mu} = \frac{162.6 Q}{m}$		334.946			327.968		md. ft. / cp
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu} \mu$		1138.814			1115,088		md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$		126.535			123.899		md.
	$K_1 = \frac{Kh}{h_1}$		-			-		md.
Damage Ratio	$DR = .183 \frac{P_s - P_f}{m}$		4.973			4.796		—
Theoretical Potential w/Damage Removed	$Q_1 = Q DR$		481.388			473.943		bbls. day
Approx. Radius of Investigation	$b \approx \sqrt{Kt}$ or $\sqrt{Kt_0}$		106.7			105.6		ft.
	$b_1 \approx \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		-			-		ft.
Potentiometric Surface *	$Pot. = EI - GD + 2.319 P_s$		1092.8			1110.6		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 and 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.



	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing .....				
Reversing Sub .....	5"	3"	1'	
Water Cushion Valve .....				
Drill Pipe .....	4 1/2"	3.826"	3552'	
Drill Collars 4 1/2" Double Pin .....	6"	2.125"	322'	
<del>Handling Sub &amp; Choke Assembly</del> .....	5"	3"	1'	
Dual CIP Valve .....	5"	.87"	5'	3854'
Dual CIP Sampler .....				
Hydro-Spring Tester .....	5"	.75"	5'	3859'
Multiple CIP Sampler .....				
Extension Joint .....				
AP Running Case .....	5"	2.25"	4'	3864'
Hydraulic Jar .....	5"	.87"	4'	
VR Safety Joint .....	5"	1"	3'	
Pressure Equalizing Crossover .....				
Packer Assembly NR .....	6 3/4"	1.53"	5'	3876'
Distributor .....				
Packer Assembly .....				
Flush Joint Anchor .....	5"	2.37"	4'	
Pressure Equalizing Tube .....				
Blanked-Off B.T. Running Case .....				
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 .....	5"	2.75"	4'	3881'
Total Depth .....				3885'





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

FLUID SAMPLE DATA				Date	Ticket Number
Sampler Pressure _____ P.S.I.G. at Surface				4-12-75	753274
Recovery: Cu. Ft. Gas _____				Kind of Job	Halliburton District
cc. Oil _____				OPEN HOLE TEST	PRATT, KS
cc. Water _____				Tester	Witness
cc. Mud _____				LLOYD R. PARKER	CLARK ROACH
Tot. Liquid cc. _____				Drilling Contractor	
Gravity _____ ° API @ _____ °F.				GABBERT - JONES DRILLING COMPANY TH S	
Gas/Oil Ratio _____ cu. ft./bbl.				EQUIPMENT & HOLE DATA	
RESISTIVITY _____ CHLORIDE CONTENT _____				Formation Tested	Mississippi
Recovery Water _____ @ _____ °F. _____ ppm				Elevation	1469' Ft.
Recovery Mud _____ @ _____ °F. _____ ppm				Net Productive Interval	8' Ft.
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm				All Depths Measured From	Kelly Bushing
Mud Pit Sample _____ @ _____ °F. _____ ppm				Total Depth	3898' Ft.
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm				Main Hole/Casing Size	7 7/8"
Mud Weight 9.7 vis 47 cp				Drill Collar Length	332' I.D. 2.25"
				Drill Pipe Length	3523' I.D. 3.826"
				Packer Depth(s)	3888' Ft.
				Depth Tester Valve	3866' Ft.

Cushion	TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
Recovered 30		Feet of watery mud with a few specks of oil.			
Recovered 180		Feet of muddy water.			
Recovered		Feet of			
Recovered		Feet of			
Recovered		Feet of			
Remarks Tool opened for 45 minute first flow period with weak blow increasing to fair blow. Closed tool for 59 minute first closed in pressure. Tool reopened for 61 minute second flow period with weak blow. Closed tool for 90 minute second closed in pressure.					

TEMPERATURE	Gauge No. 1831		Gauge No. 1830		Gauge No.		TIME	
	Depth:	1831	Depth:	1830	Depth:			
Est. °F.	12 Hour Clock	Blanked Off NO	12 Hour Clock	Blanked Off YES	Hour Clock	Blanked Off	Tool	A.M.
Actual 124 °F.	Pressures	Pressures	Pressures	Pressures	Reported	Computed	Opened	10:00 P.M.
	Field	Office	Field	Office	Field	Office	Opened	A.M.
Initial Hydrostatic	2037	2066	2039	2079			Bypass	2:15 P.M.
First Period Flow	Initial	09	15	37	26		Minutes	Minutes
	Final	56	47	65	58		45	45
	Closed in	1504	1509	1526	1520		60	59
Second Period Flow	Initial	56	57	65	72		60	61
	Final	102	103	120	113		90	90
	Closed in	1494	1513	1508	1520			
Third Period Flow	Initial							
	Final							
	Closed in							
Final Hydrostatic	2037	2015	2039	2033				

Legal Location Sec. - Twp. - Rng. 15 - 28 - 6  
Lease Name GLOUSE  
Well No. 1  
Test No. 4  
3888' - 3898'  
Tested Interval  
Country KINGMAN  
State KANSAS  
THE MAURICE L. BRONN TRUST  
Lessee Owner/Company Name

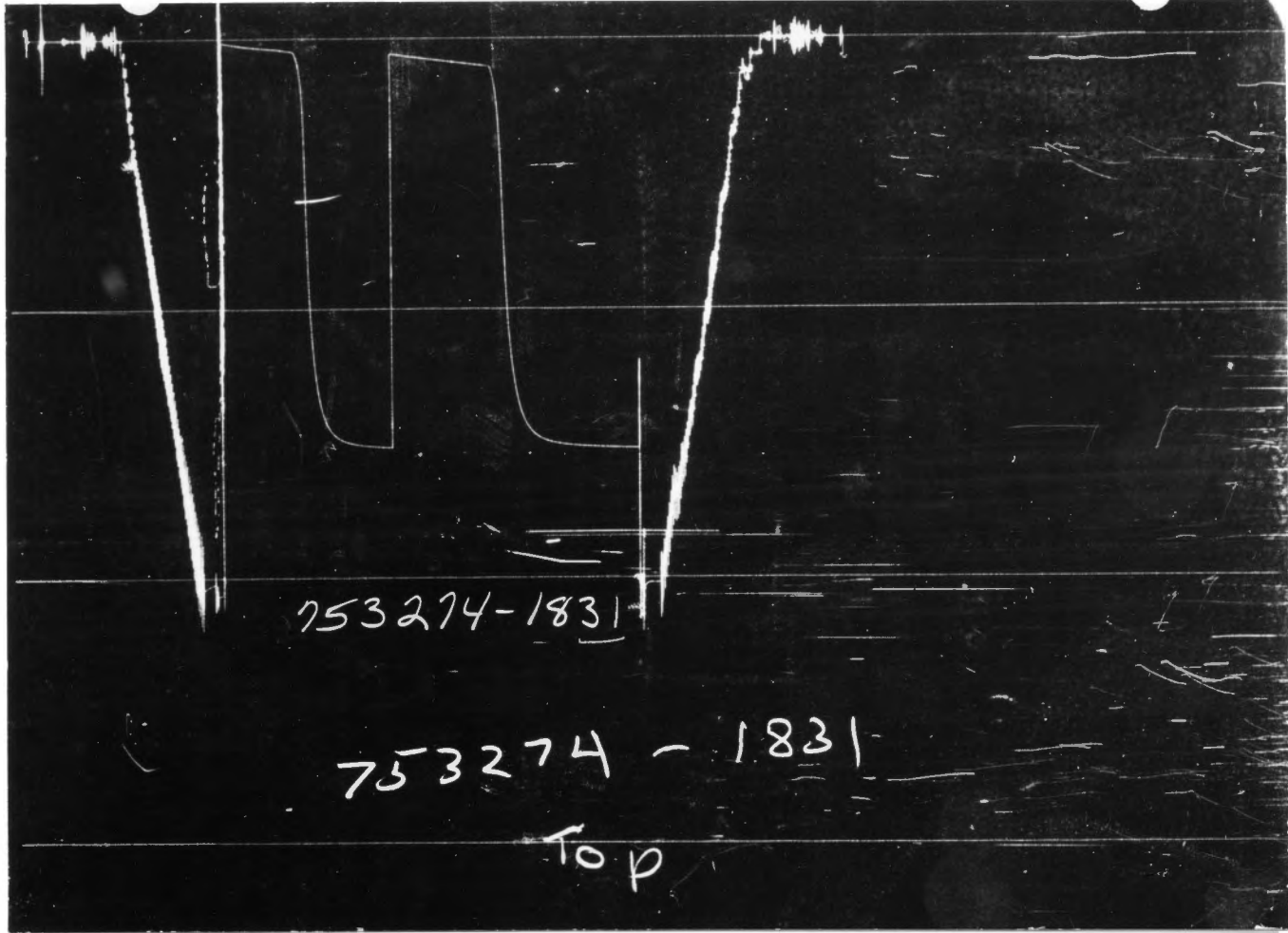
Gauge No. 1831			Depth 3871			Clock No. 14285			12 hour			Ticket No. 753274					
First Flow Period			First Closed In Pressure			Second Flow Period			Second Closed In Pressure			Third Flow Period			Third Closed In Pressure		
Time Defl. .000"	PSIG Temp. Corr.		Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"		PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"		PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.
0	.0000	15	.0000		47	.0000		57	.0000		103	.0000		103			
1	.0493	21	.0202*		94	.0712**		67	.0402		358	.0804		1104			
2	.0987	28	.0472		455	.1360		73	.0804		1355	.1206		1442			
3	.1480	32	.0742		1083	.2007		81	.1608		1476	.2010		1492			
4	.1973	37	.1012		1319	.2655		88	.2412		1499	.2814		1502			
5	.2467	42	.1282		1412	.3302		95	.3216		1506	.3618		1507			
6	.2960	47	.1552		1457	.3950		103	.4020		1509	.4422		1510			
7			.1821		1480				.4824		1512	.5226		1513			
8			.2091		1492				.5628		1513	.6030		1513			
9			.2361		1499												
10			.2631		1501												
11			.2901		1504												
12			.3171		1507												
13			.3440		1508												
14			.3710		1509												
15			.3980		1509												

Gauge No. 1830			Depth 3894			Clock No. 2478			12 hour					
Time Defl. .000"	PSIG Temp. Corr.		Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"		PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"		PSIG Temp. Corr.
0	.0000	26	.0000		58	.0000		72	.0000		113	.0000		113
1	.0612	34	.0203*		120	.0741**		77	.0407		393	.0815		1126
2	.1224	41	.0473		573	.1415		83	.1222		1366	.1629		1447
3	.1836	46	.0744		1147	.2089		91	.2037		1480	.2444		1496
4	.2448	52	.1014		1343	.2762		98	.2851		1504	.3259		1508
5	.3060	58	.1285		1426	.3436		105	.3666		1512	.4073		1514
6			.1555		1467	.4110		113	.4481		1516	.4888		1517
7			.1826		1488				.5295		1519	.5703		1520
8			.2096		1495				.6110		1520			
9			.2367		1506									
10			.2637		1510									
11			.2908		1514									
12			.3178		1516									
13			.3449		1518									
14			.3719		1519									
15			.3990		1520									
Reading Interval	9		4		10			6						Minutes

REMARKS: \* - First interval is equal to 3 minutes, \*\* - 11 minutes.

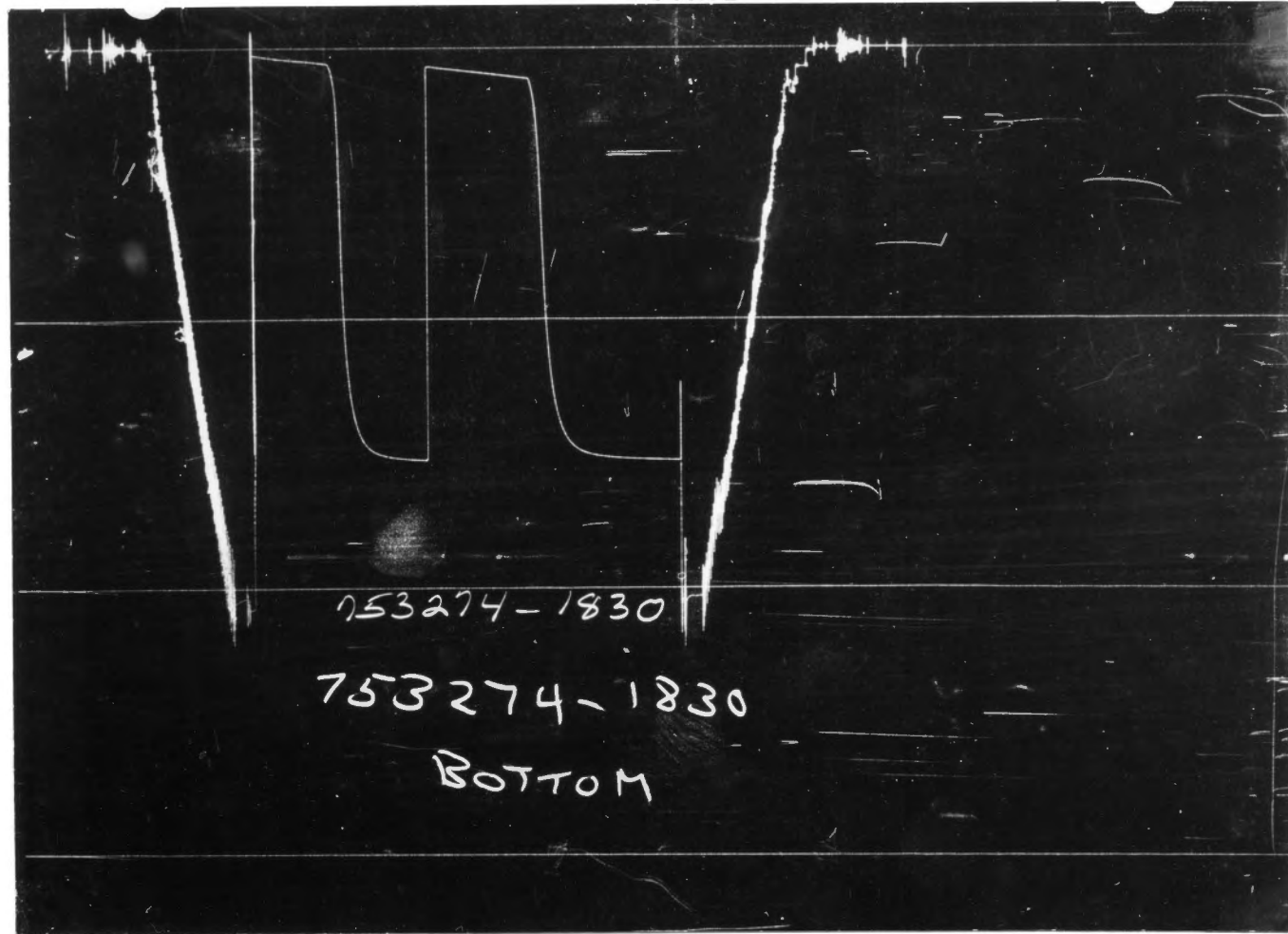
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing .....	5 5/8"	2"	1'	
Reversing Sub .....				
Water Cushion Valve .....				
Drill Pipe .....	4 1/2 FH	3.826"	3523'	
Drill Collars .....	6"	2.25"	332'	
Hondling Sub & Choke Assembly .....	5 3/4"	2 1/4"	5'	
Dual CIP Valve .....	5"	.87"	5'	3861'
Dual CIP Sampler .....				
Hydro-Spring Tester .....	5"	3/4"	5'	3866'
Multiple CIP Sampler .....				
Extension Joint .....				
AP Running Case .....	5"	3.06"	4'	3871'
Hydraulic Jar .....	5"	.87"	5'	
VR Safety Joint .....	5"	1"	3'	
Pressure Equalizing Crossover .....				
Packer Assembly .....	6 3/4"	1.53"	6'	3888'
Distributor .....				
Packer Assembly .....				
Flush Joint Anchor .....	5"	2.37"	5'	
Pressure Equalizing Tube .....				
Blanked-Off B.T. Running Case .....	5"	2.44"	4'	3894'
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 .....				3898'

↑  
PRESSURE  
↓



TIME →

↑  
PRESSURE  
↓



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