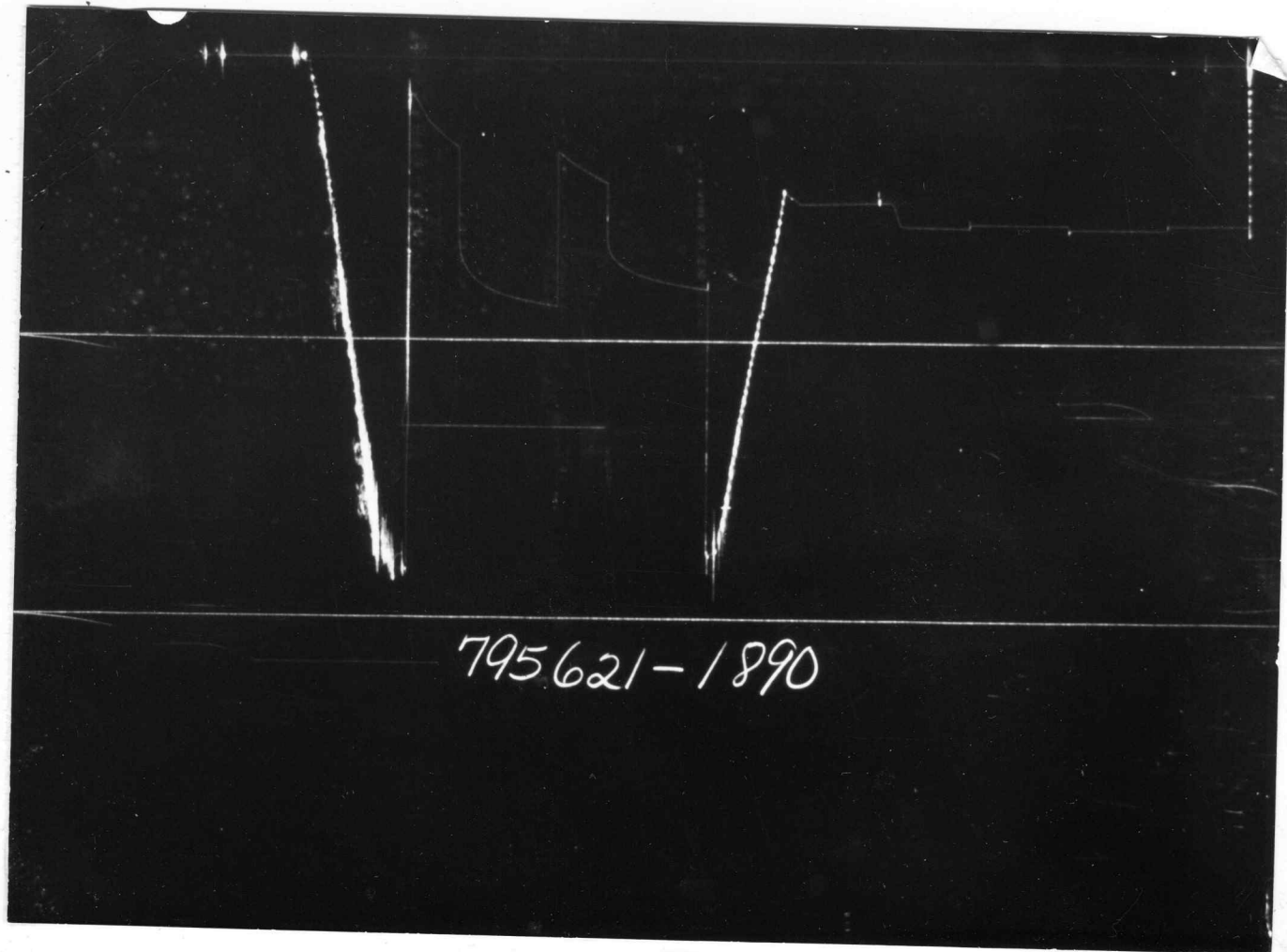


795621-1891



795621-1890

FLUID SAMPLE DATA		Date	4-11-76	Ticket Number	795621
Sampler Pressure _____ P.S.I.G. at Surface	Kind of Job	OPEN HOLE	Halliburton District	HAYS	
Recovery: Cu. Ft. Gas _____	Tester	MR. PALMBERG	Witness	MR. WHISLER	
cc. Oil _____	Drilling Contractor	H-30 DRILLING COMPANY		BJ S	
cc. Water _____	EQUIPMENT & HOLE DATA				
cc. Mud _____	Formation Tested	Reagan Sand			
Tot. Liquid cc. _____	Elevation	1903' KB		Ft.	
Gravity _____ 32 ° API @ _____ 60 °F.	Net Productive Interval	4'		Ft.	
Gas/Oil Ratio _____ cu. ft./bbl.	All Depths Measured From	Kelly Bushing			
RESISTIVITY _____ CHLORIDE CONTENT _____	Total Depth	3322' Ft.			
Recovery Water _____ @ _____ °F. _____ ppm	Main Hole/Casing Size	7 7/8"			
Recovery Mud _____ @ _____ °F. _____ ppm	Drill Collar Length	610' FW	I.D.	2.764" FW	
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm	Drill Pipe Length	2672'	I.D.	3.826"	
Mud Pit Sample _____ @ _____ °F. _____ ppm	Packer Depth(s)	3309'	3313' Ft.		
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm	Depth Tester Valve	3294' Ft.			
Mud Weight 10.0 vis 43 cp					

Cushion	TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
			Ft.	1/4"	3/4"
Recovered	1030'	Feet of	clean oil.		
Recovered	60'	Feet of	muddy oil.		
Recovered		Feet of			
Recovered		Feet of			
Recovered		Feet of			
Remarks					

SEE PRODUCTION TEST DATA SHEET....

TEMPERATURE	Gauge No. 1891	Gauge No. 1890	Gauge No.	TIME	
	Depth: 3295' Ft.	Depth: 3318' Ft.	Depth: _____ Ft.		
Est. 103 °F.	12 Hour Clock	12 Hour Clock	Hour Clock	Tool A.M.	
	Blanked Off NO	Blanked Off YES	Blanked Off	Opened 1900 P.M.	
Actual °F.	Pressures		Pressures		Opened A.M.
	Field	Office	Field	Office	Bypass 2200 P.M.
Initial Hydrostatic		1754	1827	1772	Reported Minutes
First Period Flow	Initial	64	126	128	Computed Minutes
	Final	295	305	318	30 30
	Closed in	863	878	876	60 60
Second Period Flow	Initial	311	305	331	30 30
	Final	421	421	437	60 60
	Closed in	799	814	814	
Third Period Flow	Initial				
	Final				
Final Hydrostatic		1742	1781	1760	

Legal Location Sec. - Twp. - Rng. NE SW SW 19 12S. 15W
 Lease Name RUSCH "A"
 Well No. 6
 Test No. 1
 Tested Interval 3313' to 3322'
 County RUSSELL
 State KANSAS
 SOHIO PETROLEUM COMPANY
 Lease Owner/Company Name



Lease Owner/Company Name

Ticket Number

B.T. 1891

B.T. 1890

B.T. _____

Depth 3295'

Depth 3318'

Depth .

	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.
	FIRST FLOW PERIOD			FIRST FLOW PERIOD					
0	.0000		64	.0000		128			
1	.0209		83	.0202		136			
2	.0418		123	.0404		164			
3	.0627		160	.0606		198			
4	.0836		192	.0808		226			
5	.1045		213	.1010		243			
6	.1254		231	.1212		260			
7	.1463		250	.1414		276			
8	.1672		266	.1616		292			
9	.1881		281	.1818		306			
10	.2090		295	.2020		318			
	3 minute intervals			3 minute intervals					
	FIRST CLOSED IN			FIRST CLOSED IN					
0	.0000	----	295	.0000	----	318			
1	.0205	1.049	707	.0199	1.047	724			
2	.0409	.786	739	.0398	.784	754			
3	.0614	.644	760	.0597	.642	776			
4	.0818	.551	776	.0796	.549	791			
5	.1023	.483	789	.0995	.481	804			
6	.1227	.432	799	.1194	.430	814			
7	.1432	.391	808	.1393	.389	823			
8	.1636	.357	816	.1592	.356	830			
9	.1841	.329	822	.1791	.328	836			
10	.2045	.306	828	.1990	.304	841			
11	.2250	.285	833	.2189	.284	847			
12	.2454	.268	838	.2388	.266	851			
13	.2659	.252	841	.2587	.251	856			
14	.2863	.238	846	.2786	.237	859			
15	.3068	.226	849	.2985	.224	863			
16	.3272	.215	852	.3184	.213	866			
17	.3477	.204	855	.3383	.203	868			
18	.3681	.195	858	.3592	.194	872			
19	.3886	.187	860	.3781	.186	875			
20	.4090	.179	863	.3980	.178	876			
	3 minute intervals			3 minute intervals					
	(CONTINUED)			(CONTINUED)					

REMARKS:

SOHIO PETROLEUM COMPANY
Lease Owner/Company Name

795621
Ticket Number

B.T. 1891
Depth 3295'

B.T. 1890
Depth 3318'

B.T. _____
Depth _____

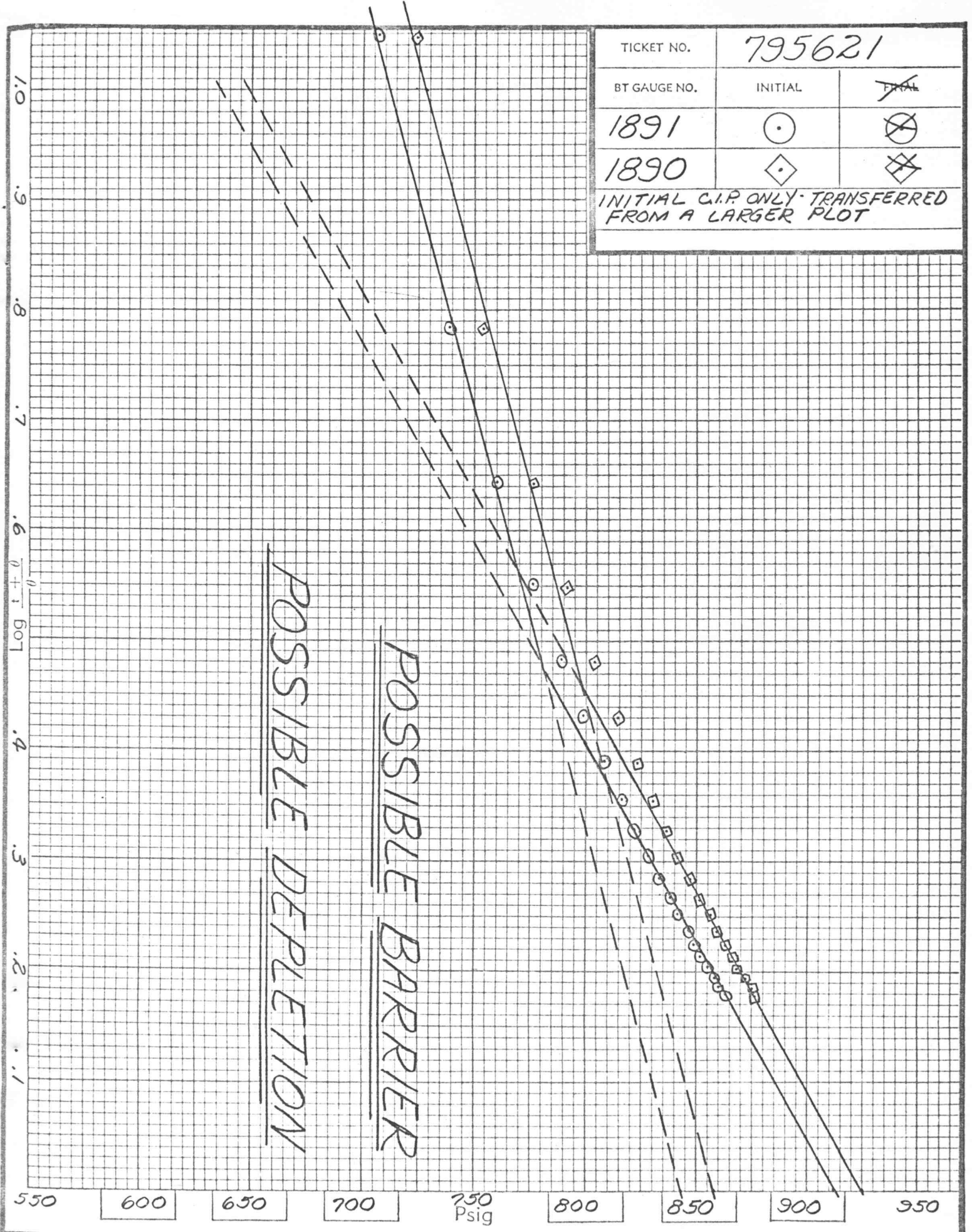
	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.
	SECOND FLOW PERIOD			SECOND FLOW PERIOD					
0	.0000		311	.0000		331			
1	.0201		323	.0199		343			
2	.0402		337	.0398		357			
3	.0603		350	.0597		370			
4	.0804		363	.0796		382			
5	.1005		374	.0995		392			
6	.1206		385	.1194		401			
7	.1407		395	.1393		411			
8	.1608		404	.1592		421			
9	.1809		413	.1791		430			
10	.2010		421	.1990		437			
	3 minute intervals			3 minute intervals					
	SECOND CLOSED IN			SECOND CLOSED IN					
0	.0000	----	421	.0000	----	437			
1	.0208	1.316	681	.0202	1.319	697			
2	.0415	1.037	702	.0404	1.038	717			
3	.0623	.880	717	.0606	.882	728			
4	.0830	.774	728	.0808	.775	743			
5	.1038	.695	738	.1010	.696	753			
6	.1245	.633	746	.1212	.634	760			
7	.1453	.582	753	.1414	.584	767			
8	.1660	.540	758	.1616	.542	772			
9	.1868	.504	763	.1818	.506	778			
10	.2075	.474	768	.2020	.475	782			
11	.2283	.447	773	.2222	.448	787			
12	.2490	.423	776	.2424	.424	790			
13	.2698	.401	780	.2626	.403	794			
14	.2905	.382	783	.2828	.383	798			
15	.3113	.365	786	.3030	.366	801			
16	.3320	.349	789	.3232	.350	804			
17	.3528	.335	792	.3434	.336	806			
18	.3735	.322	794	.3636	.323	809			
19	.3943	.310	798	.3838	.311	812			
20	.4150	.298	799	.4040	.299	814			
	3 minute intervals			3 minute intervals					

REMARKS: _____

SPECIAL PRESSURE DATA

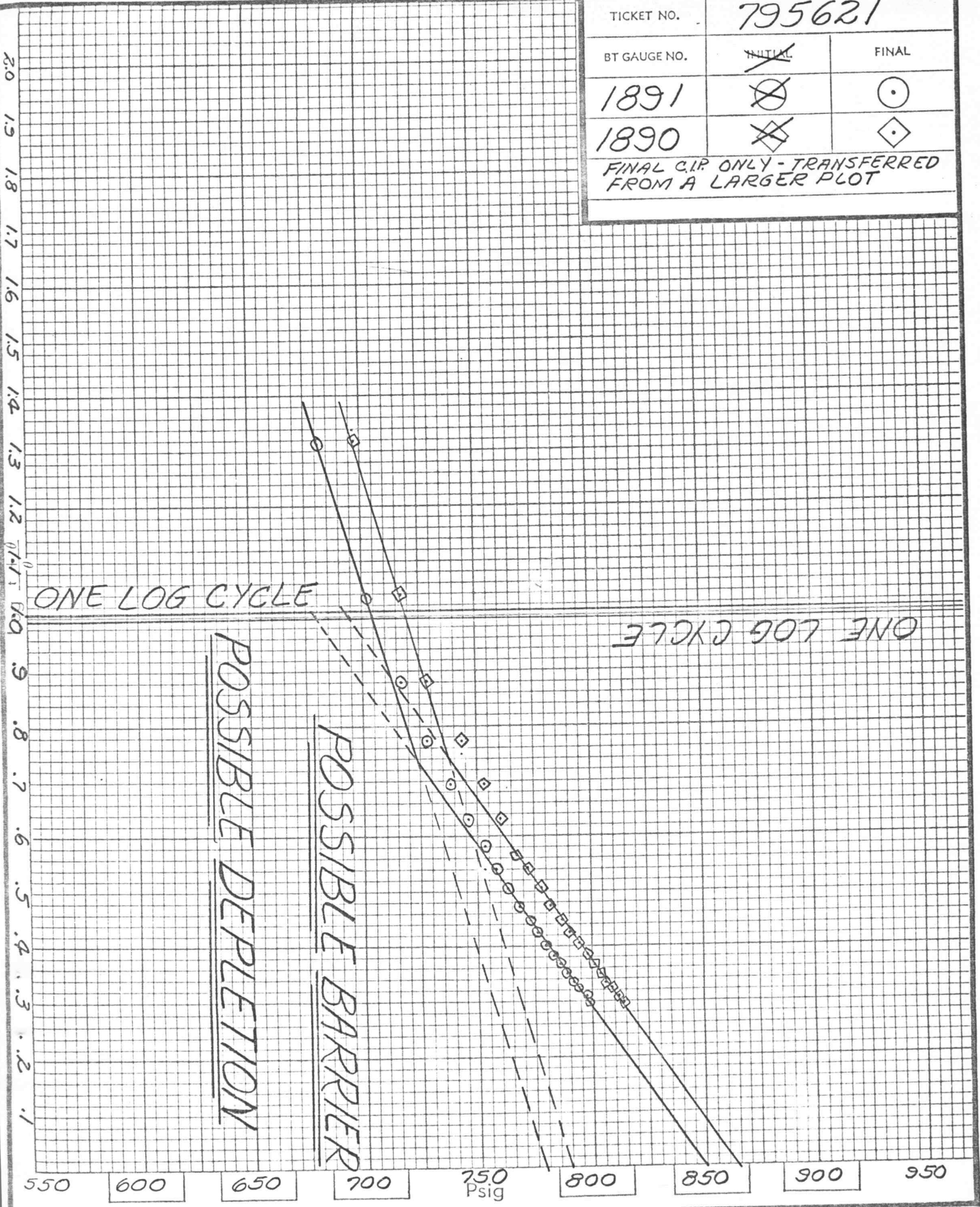
①

TICKET NO.	795621	
BT GAUGE NO.	INITIAL	FINAL
1891	○	⊗
1890	◇	⊠
INITIAL C.I.P. ONLY - TRANSFERRED FROM A LARGER PLOT		



EXTRAPOLATED PRESSURE GRAPH

TICKET NO.	795621	
BT GAUGE NO.	INITIAL	FINAL
1891	⊗	⊙
1890	⊠	⊠
FINAL C.I.P. ONLY - TRANSFERRED FROM A LARGER PLOT		



EXTRAPOLATED PRESSURE GRAPH

Liquid Production

B.T. Gauge Numbers			1891	1890	Ticket Number	795621
			PRESSURE	PRESSURE		
Initial Hydrostatic			1754	1772	Elevation	1903' ft.
Final Hydrostatic			1742	1760	1st Flow	273 bbls./day
1st Flow	Initial	Time	64	128	Indicated Production	190 bbls./day
	Final	30	295	318	3rd Flow	- bbls./day
	Closed In Pressure	60	863	876	Drill Collar Length WP	610 ft.
2nd Flow	Initial		311	331	Drill Collar I.D. WP	2.764 in.
	Final	30	421	437	Drill Pipe Factor	.01422 bbls./ft.
	Closed In Pressure	60	799	814	Hole Size	7.875 in.
3rd Flow	Initial	Time			Footage Tested	4 ft.
	Final				Mud Weight	10.1 lbs./gal.
	Closed In Pressure				Viscosity, Oil or Water	8.7 cp
Extrapolated Static Pressure		1st	887-843	900-858	Oil API Gravity	32
		2nd	824-778	838-790	Water Specific Gravity	-
		3rd			Temperature	103 (EST) °F
Slope P/10		1st	636-712	648-728		
		2nd	679-704	694-719		
		3rd				

Remarks: POSSIBLE BARRIER

POSSIBLE DEPLETION

SUMMARY

		B.T. Gauge No. 1891 Depth 3295'			B.T. Gauge No. 1890 Depth 3318'			
PRODUCT	EQUATION	FIRST	SECOND	THIRD	FIRST	SECOND	THIRD	UNITS
Production	$Q = \frac{1440 R}{r}$	271	198		273	190		bbls. day
Transmissibility	$\frac{Kh}{\mu} = \frac{162.6 Q}{m}$	336.342	435.843		341.764	435.718		md. ft. cp
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu} \mu$	2926.172	3791.826		2973.340	3790.739		md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$ $K_1 = \frac{Kh}{h_1}$	-	-		-	-		md.
Damage Ratio	$DR = .183 \frac{P_s - P_f}{m}$	0.432	0.509		0.423	0.510		-
Theoretical Potential w/Damage Removed	$Q_1 = Q DR$	271	198		273	190		bbls. day
Approx. Radius of Investigation	$b \approx \sqrt{Kt}$ or $\sqrt{Kt_0}$	-	-		-	-		ft.
	$b_1 \approx \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$	148	238		149	238		ft.
Potentiometric Surface *	$Pot. = El - GD + 2.319 P_s$	665	519		672	528		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.



	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1'	
Water Cushion Valve				
Drill Pipe	4.50"	3.826"	2672'	
Drill Collars	4.50"	2.764"	610' FW	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	5'	3289'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	3294'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	3295'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1.00"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	4'	3309'
Distributor				
Packer Assembly	6.75"	1.53"	4'	3313'
Flush Joint Anchor				
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	5"	3.84"	5'	
Blanked-Off B.T. Running Case	5"	2.44"	4'	3318'
Total Depth				3322'