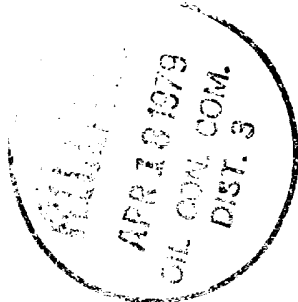
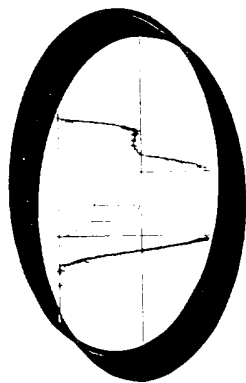


NOMENCLATURE

b	≡	Approximate Radius of Investigation	Feet
b₁	≡	Approximate Radius of Investigation (Net Pay Zone h)	Feet
D.R.	≡	Damage Ratio	—
El	≡	Elevation	Feet
GD	≡	B.T. Gauge Depth (From Surface Reference)	Feet
h	≡	Interval Tested	Feet
h₁	≡	Net Pay Thickness	Feet
K	≡	Permeability	md
K₁	≡	Permeability (From Net Pay Zone h)	md
m	≡	Slope Extrapolated Pressure Plot (Psi/cycle Gas)	psi/cycle
OF₁	≡	Maximum Indicated Flow Rate	MCF/D
OF₂	≡	Minimum Indicated Flow Rate	MCF/D
OF₃	≡	Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF₄	≡	Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	≡	Extrapolated Static Pressure	Psig.
P_f	≡	Final Flow Pressure	Psig.
P_{or}	≡	Potentiometric Surface (Fresh Water *)	Feet
Q	≡	Average Adjusted Production Rate During Test	bbls/day
Q₁	≡	Theoretical Production w/Damage Removed	bbls/day
Q_g	≡	Measured Gas Production Rate	MCF/D
R	≡	Corrected Recovery	bbls
r_w	≡	Radius of Well Bore	Feet
t	≡	Flow Time	Minutes
t_o	≡	Total Flow Time	Minutes
T	≡	Temperature Rankine	°R
Z	≡	Compressibility Factor	—
μ	≡	Viscosity Gas or Liquid	CP
Log	≡	Common Log	

* Potentiometric Surface Below which Water Table When Flowed to a Open, Fresh Water Control Point

Information Testing Service Report



HALLIBURTON SERVICES
DUNCAN, OKLAHOMA

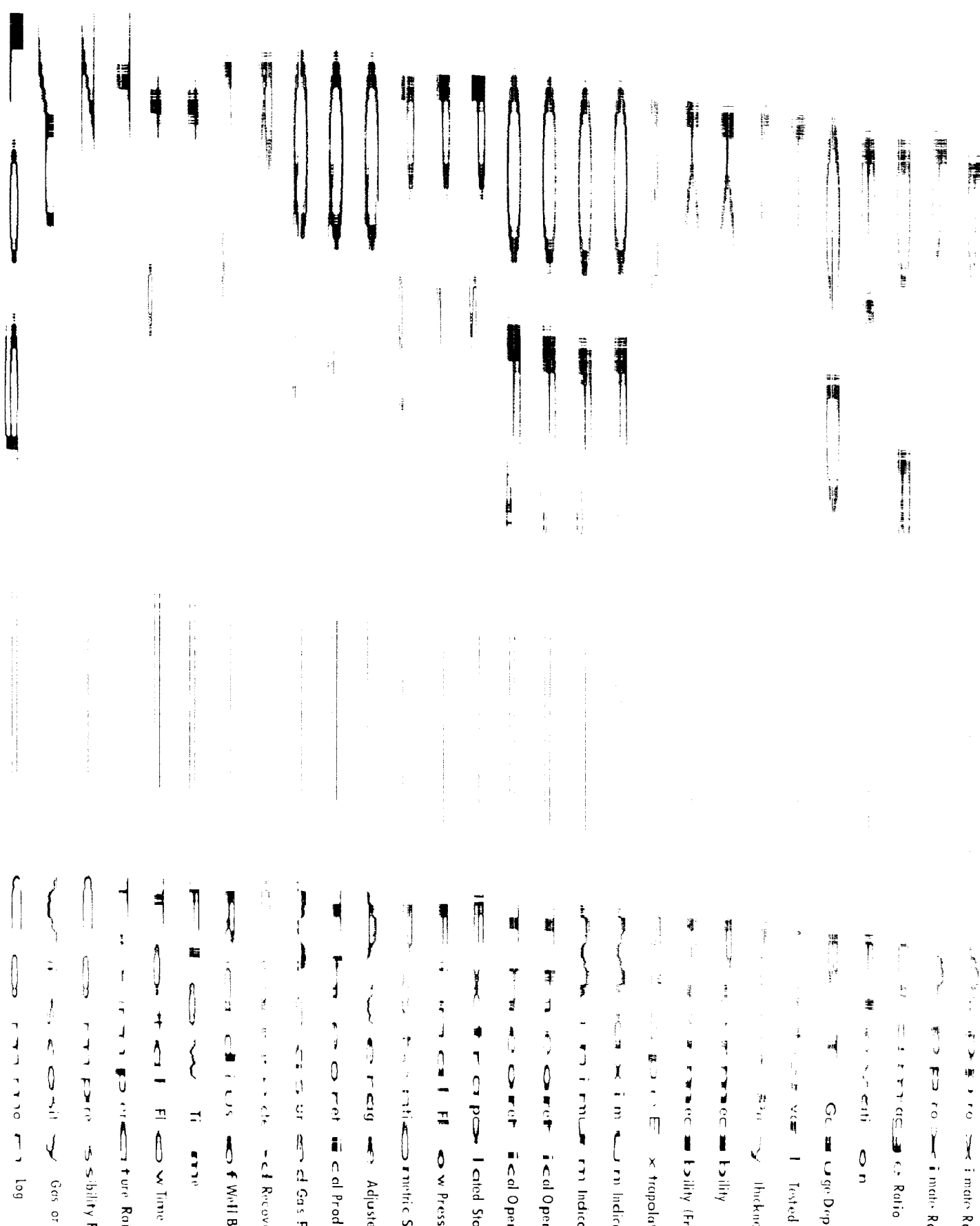
← PRESSURE →

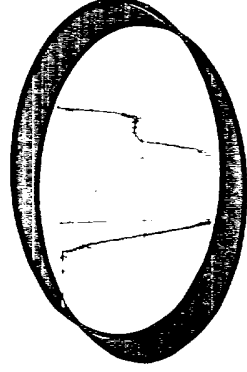
— TIME —→

2033

538038-2033

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





Gauge No. 2033				Depth 4789'				Clock No. 13840				24 hour				Ticket No. 538038							
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.	$\text{Log } \frac{t + \theta}{\theta}$	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.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.						
0 .000	51.8			.000	99.7			.000	200.7			.000	208.7										
1 .0066	51.8			.0199	386.9			.033	199.4			.0432*	304.5										
2 .0133	66.4			.0399	611.9			.066	202.1			.0832	390.9										
3 .0199	77.1			.0598	763.9			.099	203.4			.1231	478.7										
4 .0265	90.4			.0797	874.6			.132	206.1			.1630	559.8										
5 .0331	95.7			.0997	961.3			.165	207.4			.2029	638.3										
6 .0398	98.4			.1196	1029.4			.198	208.7			.2428	711.9										
7 .0464	99.7			.1395	1090.9							.2827	781.3										
8 .0530	99.7			.1594	1144.3							.3226	845.3										
9				.1794	1185.8							.3625	901.3										
10				.1993	1224.5							.4024	955.9										
11				.2192	1258.0							.4423	1004.0										
12				.2392	1290.1							.4823	1046.7										
13				.2591	1318.1							.5222	1089.5										
14				.2790	1340.9							.5621	1125.6										
15				.2990	1360.9							.6020	1155.0										

Gauge No. 2032				Depth 5019'				Clock No. 10444				hour 12			
Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	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.	Time Defl. .000"	PSIG Temp. Corr.		
0 .000	167.5			.000	230.8			.000	321.9			.000	344.3		
1 .0135	178.1			.0396	532.8			.0662	329.8			.0859*	424.8		
2 .0270	192.6			.0792	731.5			.1323	336.4			.1652	509.2		
3 .0405	204.4			.1188	880.2			.1985	337.7			.2445	593.4		
4 .0540	215.0			.1584	989.4			.2647	339.0			.3238	675.0		
5 .0675	224.2			.1980	1074.2			.3309	340.3			.4031	752.6		
6 .0810	226.9			.2376	1148.5			.3970	344.3			.4824	825.0		
7 .0945	229.5			.2772	1208.2							.5616	893.4		
8 .1080	230.8			.3168	1259.9							.6409	955.2		
9				.3564	1305.0							.7202	1013.2		
10				.3960	1343.5							.7995	1067.6		
11				.4356	1375.3							.8788	1116.7		
12				.4752	1404.5							.9581	1161.8		
13				.5148	1433.7							1.0374	1197.6		
14				.5544	1453.5							1.1167	1233.4		
15				.5940	1473.4							1.1960	1266.5		

Gauge No. 2032				Depth 5019'				Clock No. 10444				hour 12			
Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	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.	Time Defl. .000"	PSIG Temp. Corr.		
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5 .0675	224.2			.1980	1074.2										

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	6"	2.50"	1'	
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	4335'	
Drill Collars	6 1/4"	2.25"	434'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.89"	4'	4778'
Dual CIP Sampler	5"	2.75"	7'	4782'
Hydro-Spring Tester	5"	.75"	5'	4785'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2.50"	4'	4789'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53	6'	4799'
Distributor				
Packer Assembly	6 3/4"	1.53"	6'	4805'
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	6 1/4"	2.25"	170'	
Flush Joint Anchor	5 3/4"	2.50"	24'	
Blanked-Off B.T. Running Case	5 3/4"	2.50"	4'	5019'
Total Depth				5023'