

FLUID SAMPLE DATA		Date	12-16-72	Ticket Number	435564
Sampler Pressure _____ P.S.I.G. at Surface	Kind of Job	OPEN HOLE	Halliburton District	GREAT BEND	
Recovery: Cu. Ft. Gas _____	Tester	MR. MOORE	Witness	MR. STUDE	
cc. Oil _____	Drilling Contractor	SAGE DRILLING COMPANY		BC S	
cc. Water _____	EQUIPMENT & HOLE DATA				
cc. Mud _____	Formation Tested	Kansas City			
Tot. Liquid cc. _____	Elevation	2036' DF Ft.			
Gravity _____ ° API @ _____ ° F.	Net Productive Interval	_____ Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.	All Depths Measured From	Kelly Bushing			
	Total Depth	3650' Ft.			
	Main Hole/Casing Size	7 7/8"			
	Drill Collar Length	661'	I.D.	2.764"	
	Drill Pipe Length	2932'	I.D.	3.826"	
	Packer Depth(s)	3628' - 3632' Ft.			
	Depth Tester Valve	3616' Ft.			

TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
Cushion			1/4"	3/4"
Recovered	600 Feet of	Gas in pipe		
Recovered	40 Feet of	Slightly oil cut mud		
Recovered	Feet of			
Recovered	Feet of			
Recovered	Feet of			

Remarks Tool opened for a 30 minute first flow with a weak blow. Slid tool to bottom. Closed tool for 30 minute first closed in pressure. Reopened tool for 29 minute second flow with no blow. Closed tool for 31 minute second closed in pressure.

TEMPERATURE	Gauge No.	1839	Gauge No.	1838	Gauge No.	TIME	
	Depth:	3621' Ft.	Depth:	3646' Ft.	Depth:	Ft.	
Est. 106 °F.	12 Hour Clock	Blanked Off No	12 Hour Clock	Blanked Off Yes	Hour Clock	Blanked Off	Tool Opened 3:40 <del>P.M.</del> A.M.
Actual °F.	Pressures	Pressures	Pressures	Pressures	Reported	Computed	Tool Closed _____ A.M. P.M.
	Field	Office	Field	Office	Minutes	Minutes	
Initial Hydrostatic		1843	1855	1852			
First Period	Flow Initial	37	47	177			
	Flow Final	30	57	58	30	30	
	Closed in	877	901	885	30	30	
Second Period	Flow Initial	37	66	63			
	Flow Final	34	57	53	30	29	
	Closed in	585	587	595	30	31	
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic		1843	1855	1852			

Legal Location Sec. - Twp. - Rng. 23 - 16 - 23  
 Lease Name ZOOK-SCHARTZ  
 Well No. 1  
 Test No. 1  
 Tested Interval 3632' - 3650'  
 County PAWNEE  
 State KANSAS  
 Lease Owner/Company Name ALPINE DRILLING COMPANY

Gauge No. 1839		Depth 3621'		Clock No. ??		12 hour		Ticket No. 435564	
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	37	30	.0000	37	.0000	34		
1	.2030	30	59	.0197	34	.0268	57*		
2			89	.0394		.0469	72		
3			137	.0591		.0670	95		
4			220	.0788		.0871	124		
5			337	.0985		.1072	165		
6			476	.1182		.1273	225		
7			603	.1379		.1474	313		
8			717	.1576		.1675	405		
9			809	.1773		.1876	501		
10			877	.1970		.2080	585		
11									
12									
13									
14									
15									

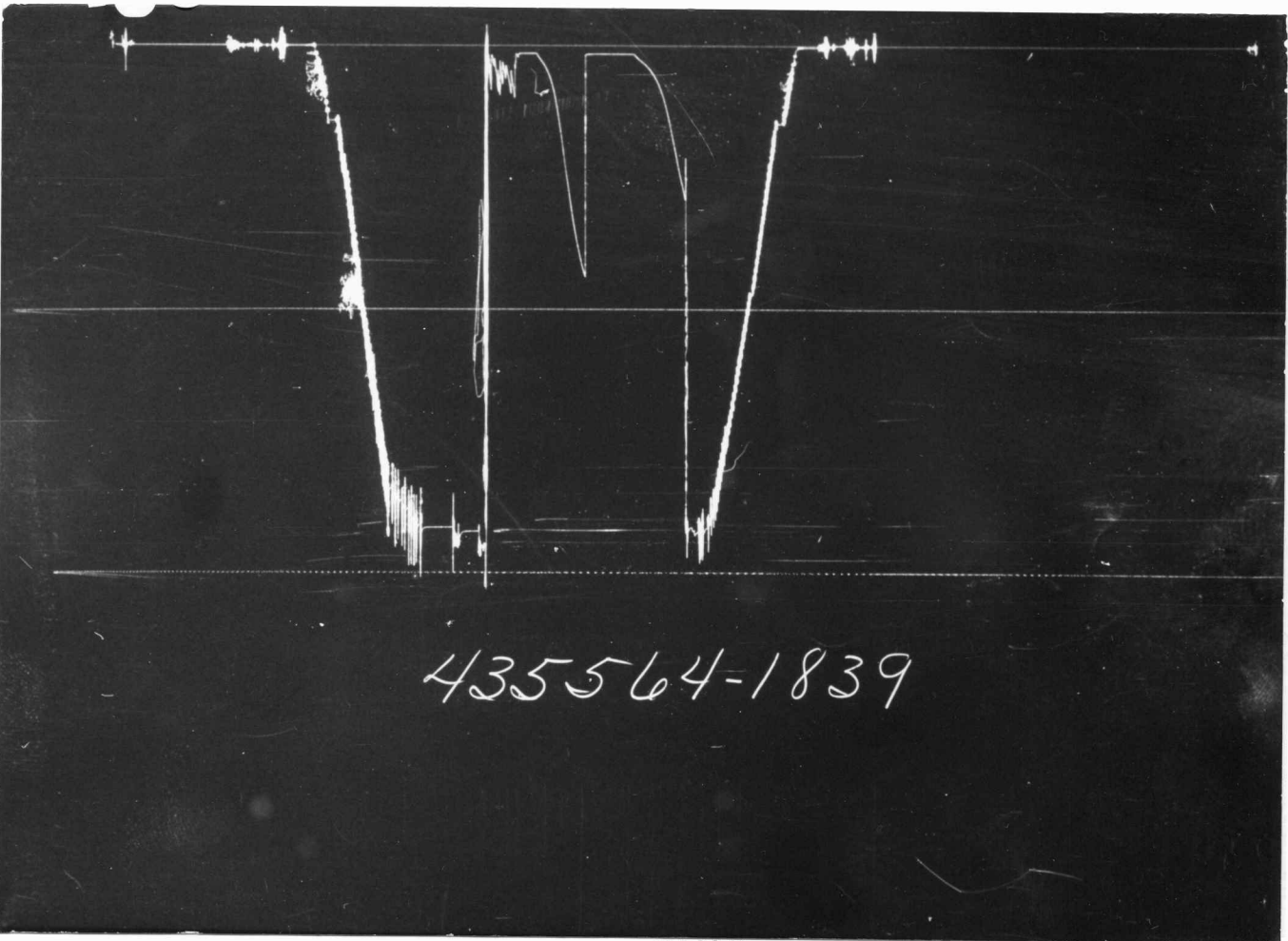
Gauge No. 1838		Depth 3646'		Clock No. ??		12 hour		Minutes	
First Flow Period		First Closed In Pressure		Second Flow Period		Second Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. 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	177	58	.0000	63	.0000	53		
1	.2130	58	79	.0193	53	.0261	72*		
2			110	.0386		.0456	90		
3			159	.0579		.0651	114		
4			248	.0772		.0846	143		
5			367	.0965		.1041	190		
6			500	.1158		.1236	250		
7			627	.1351		.1431	333		
8			729	.1544		.1626	421		
9			815	.1737		.1821	513		
10			885	.1930		.2020	595		
11									
12									
13									
14									
15									
Reading Interval		3				3			

\*Interval = 4 minutes

REMARKS:



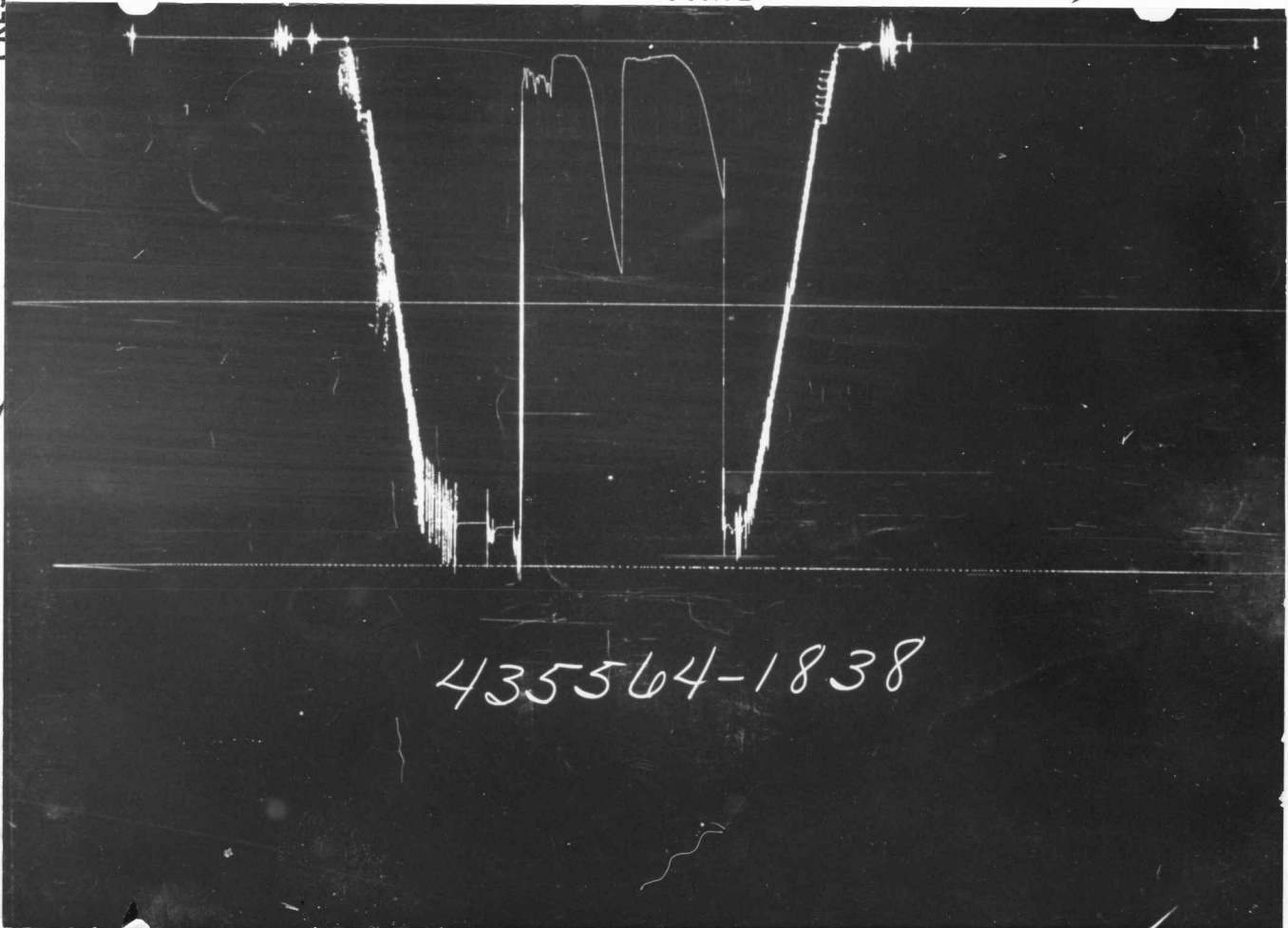
	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5.75"	2.75"	12"	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	2932'	
Drill Collars	4 1/2"	2.764"	661'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	60.92"	
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	3616'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	3621'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	48.89"	3628'
Distributor				
Packer Assembly	6 3/4"	1.53"	60.20"	3632'
Flush Joint Anchor	5"	2.37"	10'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	3.06"	61.63"	3646'
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				



435564-1839

PRESSURE

TIME



435564-1838

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

FLUID SAMPLE DATA				Date	12-18-72 <th>Ticket Number</th> <td>435565 </td>	Ticket Number	435565
Sampler Pressure _____ P.S.I.G. at Surface	Recovery: Cu. Ft. Gas _____		Kind of Job		OPEN HOLE	Halliburton District	GREAT BEND
cc. Oil _____	cc. Water _____		Tester		MR. MOORE	Witness	MR. STUDE
cc. Mud _____	Tot. Liquid cc. _____		Drilling Contractor		SAGE DRILLING COMPANY		DR S
Gravity _____ ° API @ _____ ° F.	Gas/Oil Ratio _____ cu. ft./bbl.		EQUIPMENT & HOLE DATA				
RESISTIVITY _____		CHLORIDE CONTENT _____		Formation Tested		Conglomerate	
Recovery Water _____ @ _____ ° F. _____ ppm		Recovery Mud _____ @ _____ ° F. _____ ppm		Elevation		2036'	DF Ft.
Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm		Mud Pit Sample _____ @ _____ ° F. _____ ppm		Net Productive Interval		-	
Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm		Mud Weight _____ 9.6 vis 38 cp		All Depths Measured From		Kelly Bushing	
				Total Depth		4030' Ft.	
				Main Hole/Casing Size		7 7/8"	
				Drill Collar Length		661' WP I.D. 2.764"	
				Drill Pipe Length		3364' I.D. 3.826"	
				Packer Depth(s)		3980' - 3984' Ft.	
				Depth Tester Valve		3972' Ft.	
TYPE		AMOUNT		Depth Back Pres. Valve		Surface Choke	
Cushion				Ft.		1"	
Recovered 130		Feet of gas cut mud				Bottom Choke 3/4"	
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks Opened tool for 31 minute first flow with a strong blow, gas to surface in 2 minutes. Closed tool for 30 minute first closed in pressure. Reopened tool for 43 minute second flow. Closed tool for 46 minute second closed in pressure.							
TEMPERATURE		Gauge No. 1838		Gauge No.		Gauge No.	
Depth: 4026 Ft.		Depth: _____ Ft.		Depth: _____ Ft.		TIME	
Est. 108 ° F.		12 Hour Clock		Hour Clock		Hour Clock	
Actual _____ ° F.		Blanked Off Yes		Blanked Off		Blanked Off	
		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		2065 2080				Tool _____ A.M.	
Flow Initial		171 256				Opened 6:00 P.M.	
Flow Final		189 188				Tool _____ A.M.	
Closed in		1025 1027				Closed 8:30 P.M.	
Second Period						Reported Computed	
Flow Initial		142 262				Minutes Minutes	
Flow Final		123 132				30 31	
Closed in		996 1007				30 30	
Third Period							
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic		2046 2054					

Legal Location Sec. - Twp. - Rng. 11-23-16  
 Lease Name ZOOK SCHARTZ  
 Well No. 1  
 Test No. 2  
 Field Area ZOOK  
 Meas. From Tester Valve  
 Country PAWNEE  
 State KANSAS  
 Tested Interval 3984' - 4030'  
 ALPINE DRILLING COMPANY INCORPORATED  
 Lease Owner/Company Name





Gauge No. 1838		Depth 4026'		Clock No. 435565		Ticket No. 435565					
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"	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	256	0	188	0	262	0	132	0	132	0	132
1	179*	0.0203	879	0.0552	138**	0.0409	887*	0.0409	887*	0.0409	887*
2	188	0.0406	947	0.1035	135	0.0681	932	0.0681	932	0.0681	932
3	191	0.0609	974	0.1518	140	0.0953	952	0.0953	952	0.0953	952
4	191	0.0812	991	0.2001	133	0.1225	966	0.1225	966	0.1225	966
5	189	0.1015	1002	0.2484	133	0.1497	976	0.1497	976	0.1497	976
6	188	0.1218	1010	0.2970	132	0.1769	984	0.1769	984	0.1769	984
7		0.1421	1015			0.2041	990	0.2041	990	0.2041	990
8		0.1625	1020			0.2313	994	0.2313	994	0.2313	994
9		0.1827	1024			0.2585	996	0.2585	996	0.2585	996
10		0.2030	1027			0.2857	1003	0.2857	1003	0.2857	1003
11						0.3170	1007	0.3170	1007	0.3170	1007
12											
13											
14											
15											

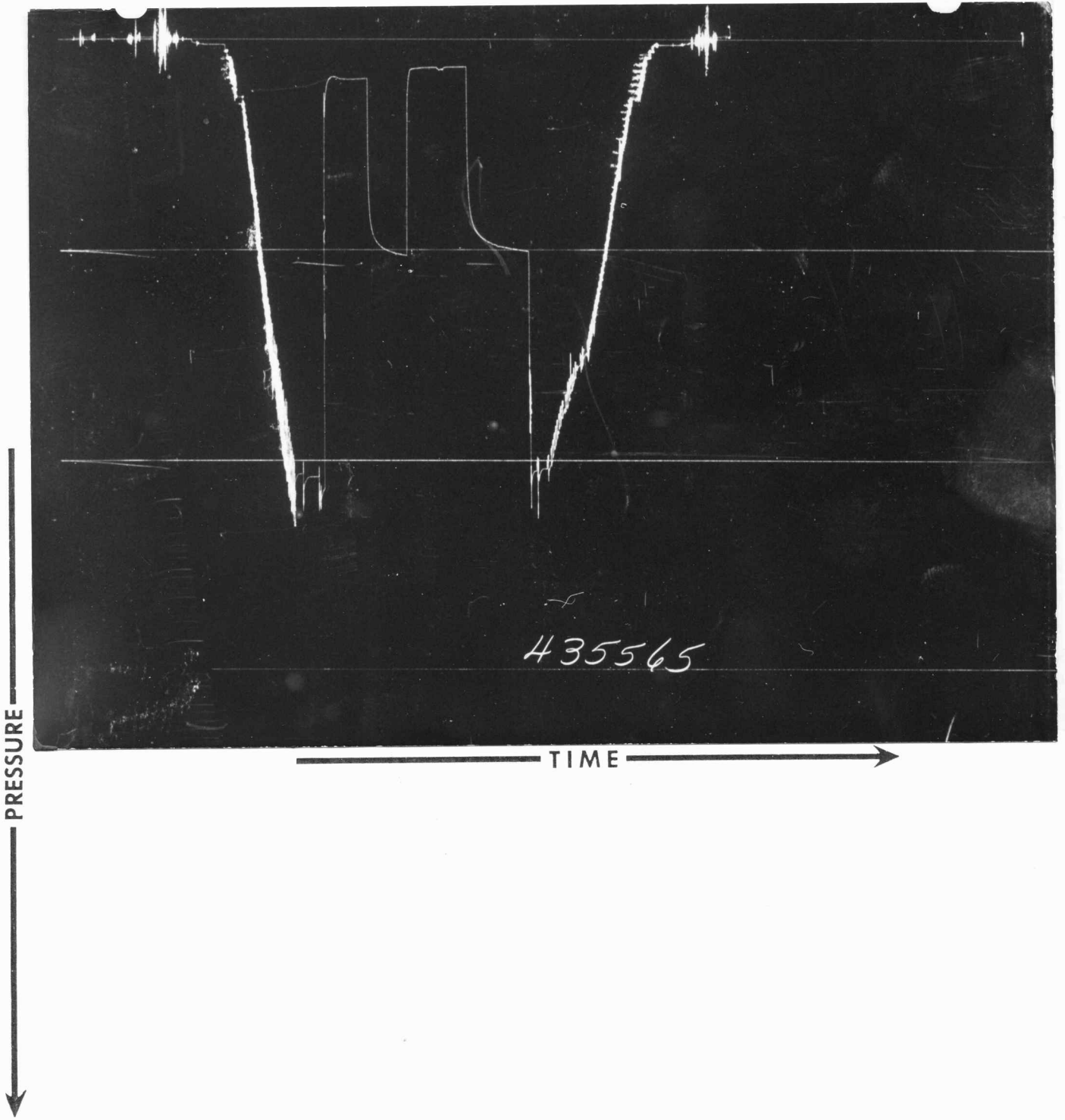
Gauge No.	Depth	Clock No.	hour
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Reading Interval	5	3	7	4	Minutes
REMARKS:	* First interval equal to 6 minutes **-8, minutes				



	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub .....	5.75"	2.75"	12"	
Water Cushion Valve .....				
Drill Pipe .....	4½"	3.826"	3364'	
Drill Collars .....	4½"	2.764"	661' WP	
Handling Sub & Choke Assembly .....				
Dual CIP Valve .....	5"	.87"	60.92"	
Dual CIP Sampler .....				
Hydro-Spring Tester .....	5"	.75"	60.21"	3972'
Multiple CIP Sampler .....				
Extension Joint .....				
AP Running Case .....	Inside of upper case bridge while making up tool-case and B.T. was not run.			
Hydraulic Jar .....				
VR Safety Joint .....				
Pressure Equalizing Crossover .....				
Packer Assembly .....	6 3/4"	1.53"	48.89"	3980'
Distributor .....				
Packer Assembly .....	6 3/4"	1.53"	60.20"	3984'
Flush Joint Anchor .....	5"	2.37"	2'	
Pressure Equalizing Tube .....				
Blanked-Off B.T. Running Case .....				
Drill Collars .....	4½"	2.764"	32' WP	
Anchor Pipe Safety Joint .....				
Packer Assembly .....				
Packer Assembly .....				
Anchor Pipe Safety Joint .....				
Side Wall Anchor .....				
Drill Collars .....				
Flush Joint Anchor .....	5"	2.37"	3'	
Blanked-Off B.T. Running Case .....	5"	3.06"	61.63"	4026'



435565

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

ZOOK-SCHARTZ  
 Lease Name  
 11 - 23 - 16  
 Well No.  
 3  
 Test No.  
 4030' - 4070'  
 Tested Interval  
 ALPINE DRILLING COMPANY, INCORPORATED  
 Lease Owner/Company Name

Legal Location  
 Sec. - Twp. - Rng.  
 Field Area  
 ZOOK  
 County  
 PAWNEE  
 State  
 KANSAS

Date	12-19-72	Ticket Number	435566
Kind of Job	OPEN HOLE	Halliburton District	GREAT BEND
Tester	MR. MOORE	Witness	MR. STUDE
Drilling Contractor	SAGE DRILLING COMPANY	BC	
EQUIPMENT & HOLE DATA			
Formation Tested	Conglomerate		
Elevation	2036'	DF	Ft.
Net Productive Interval	Ft.		
All Depths Measured From	Kelly Bushing		
Total Depth	4070'		Ft.
Main Hole/Casing Size	7 7/8"		
Drill Collar Length	661'	WP I.D.	2.764"
Drill Pipe Length	3648'	I.D.	3.826"
Packer Depth(s)	4026' - 4030' Ft.		
Depth Tester Valve	4015' Ft.		

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	10.6 cp

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

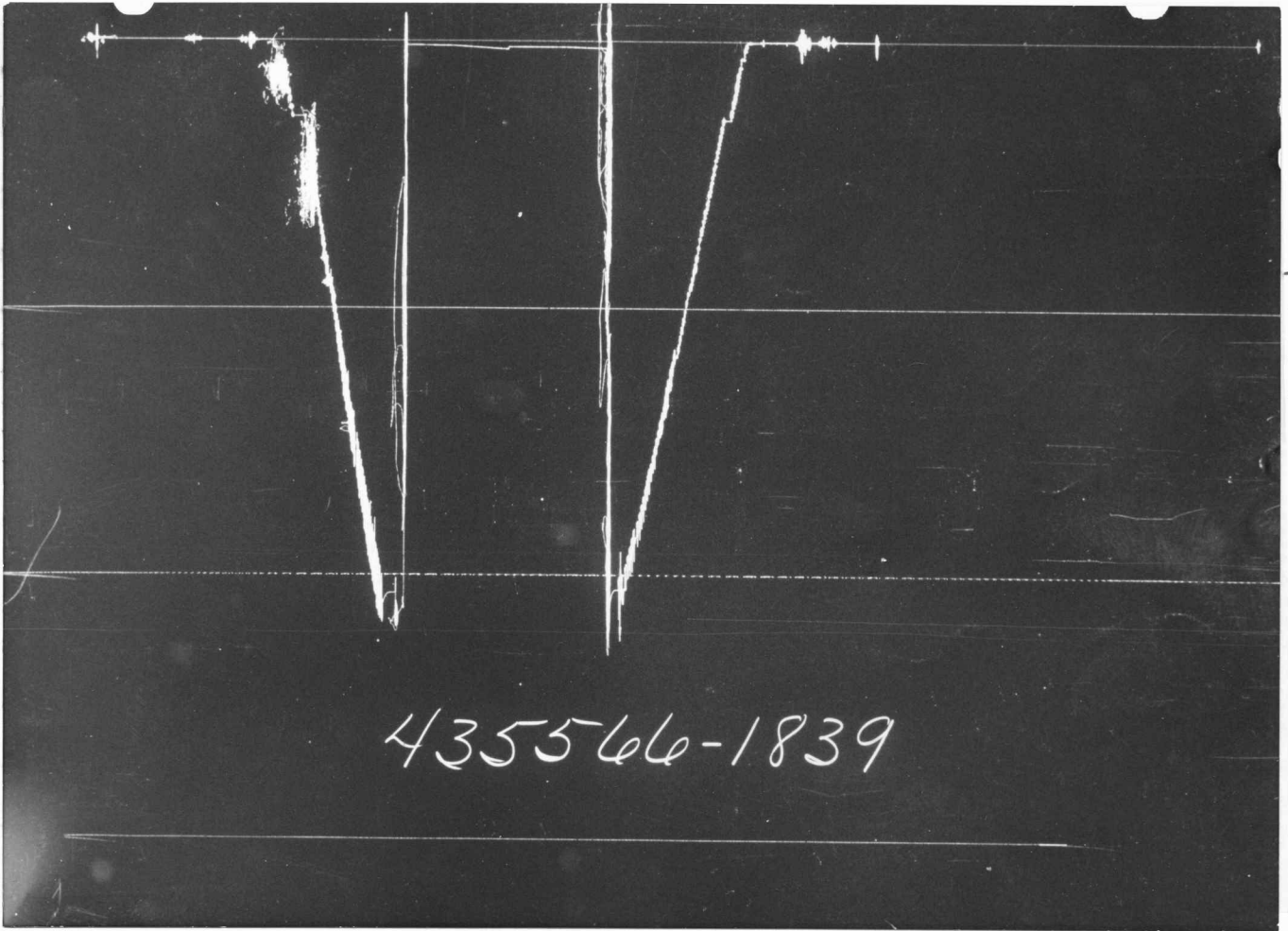
Recovered	20	Feet of	Mud with a few specks of oil
Recovered		Feet of	
Recovered		Feet of	
Recovered		Feet of	
Recovered		Feet of	

Remarks Tool opened for a 30 minute first flow with a weak blow. Closed tool for 30 minute first closed in pressure. Reopened tool for 30 minute second flow with a weak blow, slightly decreasing. Closed tool for 30 minute second closed in pressure.

TEMPERATURE	Gauge No. 1839		Gauge No. 1838		Gauge No.		TIME
	Depth:	4019'	Depth:	4066'	Depth:	Ft.	
Est. 108 °F.	12	Hour Clock	12	Hour Clock	Hour Clock		Tool A.M.
	Blanked Off	No	Blanked Off	Yes	Blanked Off		Opened 1115 <del>P.M.</del>
Actual °F.	Pressures		Pressures		Pressures		Tool <del>A.M.</del>
	Field	Office	Field	Office	Field	Office	Closed 0115 P.M.
Initial Hydrostatic		2068	2075	2095			Reported
First Period	Flow Initial	16	38	40			Minutes
	Flow Final	19	38	43			30
	Closed in	31	57	55			30
Second Period	Flow Initial	24	38	46			30
	Flow Final	24	38	46			30
	Closed in	28	47	50			30
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic		2056	2046	2080			



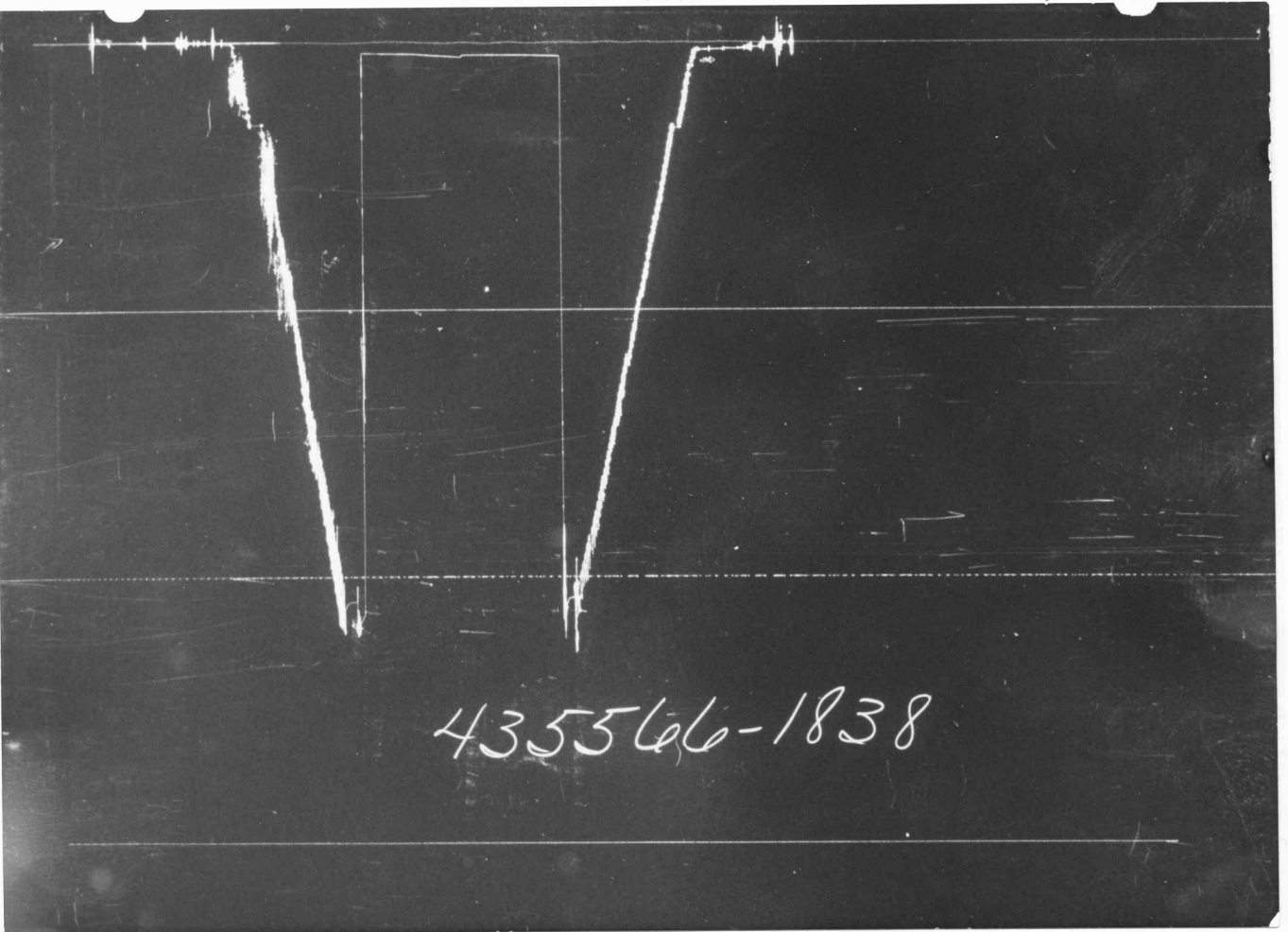
	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5.75"	2.75"	12"	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	3648'	
Drill Collars	4 1/2" WP	2.764"	661'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	60.92"	
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	4015'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	4019'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	48.89"	4026'
Distributor				
Packer Assembly	6 3/4"	1.53"	60.20"	4030'
Flush Joint Anchor	5"	2.37"	32'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	3.06"	61.63"	4066'
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				



435566-1839

↑  
PRESSURE  
↓

← TIME →



435566-1838

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

ZOOK - SCHARTZ

1

4

4088' - 4135'

ALPINE DRILLING COMPANY, INC.

Legal Location  
Sec. - Twp. - Rng.

11 - 23 - 16

Lease Name

Well No.

Test No.

Tested Interval

Field Area

ZOOK

County

PAWNEE

State

KANSAS

Lease Owner/Company Name

**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 \_\_\_\_\_ 48 cp

Date 12-20-72 Ticket Number 435567

Kind of Job OPEN HOLE Halliburton District GREAT BEND

Tester MOORE Witness STUDE

Drilling Contractor SAGE DRILLING COMPANY NM

**EQUIPMENT & HOLE DATA**

Formation Tested Simpson  
 Elevation 2036' D.F. \_\_\_\_\_ Ft.  
 Net Productive Interval - \_\_\_\_\_ Ft.  
 All Depths Measured From Kelly Bushing  
 Total Depth 4135' \_\_\_\_\_ Ft.  
 Main Hole/Casing Size 7 7/8"  
 Drill Collar Length 661' I.D. 2.764"  
 Drill Pipe Length 3406' I.D. 3.826"  
 Packer Depth(s) 4083' - 4088' \_\_\_\_\_ Ft.  
 Depth Tester Valve 4071' \_\_\_\_\_ Ft.

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

Recovered	5'	Feet of	mud
Recovered		Feet of	
Recovered		Feet of	
Recovered		Feet of	
Recovered		Feet of	

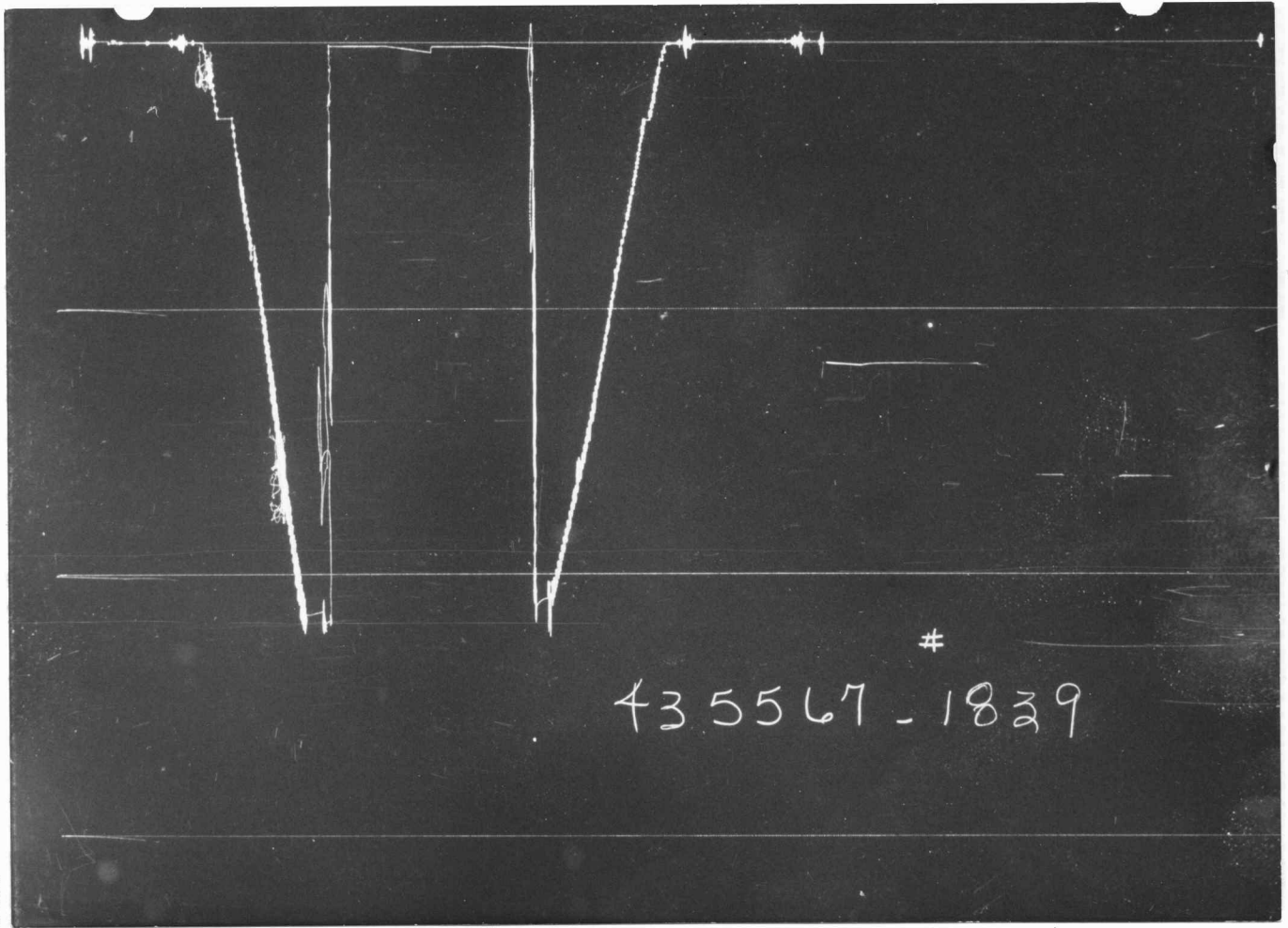
Remarks Tool opened for a 30 minute first flow with a weak blow - which decreased to no blow in 25 minutes. Closed tool for a 30 minute first closed in pressure. Tool reopened with no blow for a 30 minute second flow. Took a 30 minute second closed in pressure.

TEMPERATURE	Gauge No. 1839		Gauge No. 1838		Gauge No.		TIME
	Depth: 4076' Ft.	12 Hour Clock	Depth: 4131' Ft.	12 Hour Clock	Depth:	Hour Clock	
Est. 110 °F.	Blanked Off NO		Blanked Off YES		Blanked Off		Tool Opened 1042 <del>AM</del>
Actual °F.	Pressures		Pressures		Pressures		Tool Closed 1242 P.M.
	Field	Office	Field	Office	Field	Office	Reported Minutes
Initial Hydrostatic	-	2181	2132	2208			Computed Minutes
First Period	Flow Initial	-	17	47	44		
	Flow Final	-	14	47	43		
	Closed in	-	39	66	64		30
Second Period	Flow Initial	-	21	47	50		
	Flow Final	-	15	47	43		
	Closed in	-	23	57	50		30
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic	-	2095	2094	2123			



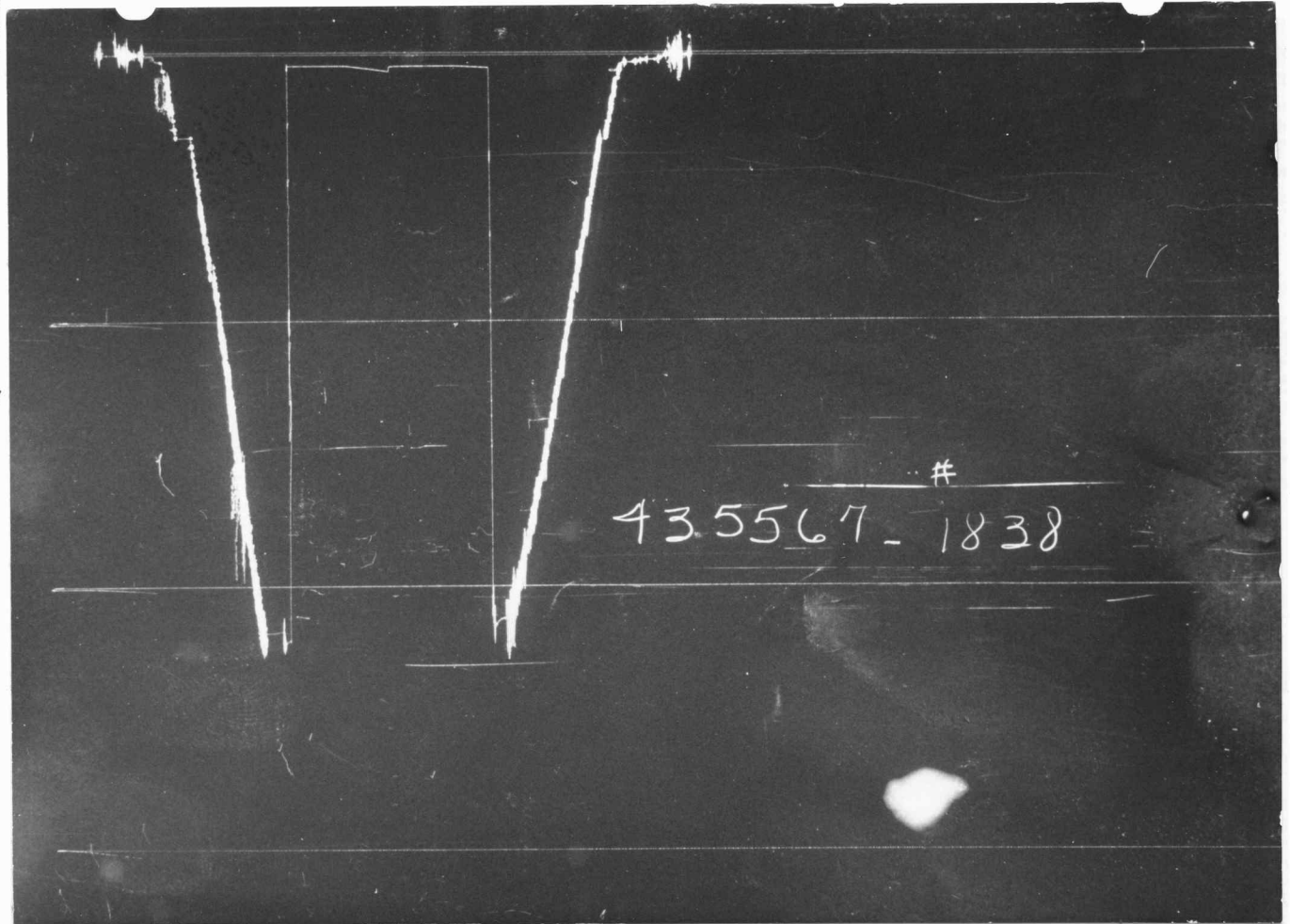


	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5.75"	2.75"	12"	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	3406'	
Drill Collars	4 1/2"	2.764"	661'	
WEIGHT PIPE				
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	60.92"	
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	4071'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	4076'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	48.89"	4083'
Distributor				
Packer Assembly	6 3/4"	1.53"	60.20"	4088'
Flush Joint Anchor	5"	2.37"	39'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	3.06"	61.63"	4131'
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				



PRESSURE

TIME



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