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 46 cp

Date	8-17-74	Ticket Number	653966
Kind of Job	OPEN HOLE	Halliburton District	HAYS
Tester	PALMBERG	Witness	DICKS
Drilling Contractor	AMBERCROMBIE DRILLING COMPANY NM S		

EQUIPMENT & HOLE DATA

Formation Tested: Mississippi
Elevation: - Ft.
Net Productive Interval: - Ft.
All Depths Measured From: Kelly Bushing
Total Depth: 4490' Ft.
Main Hole/Casing Size: 7 7/8"
Drill Collar Length: WP 401' I.D. 2.764" WP
Drill Pipe Length: 4043' I.D. 3.826"
Packer Depth(s): 4452'-4460' Ft.
Depth Tester Valve: 4447' Ft.

Cushion TYPE NONE AMOUNT Ft. Depth Back Pres. Valve NONE Surface Choice ¼" Bottom Choice 3/4"

Recovered 30' Feet of slightly oil cut mud
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Mea. From Tester Valve

Remarks Tool opened for a 31 minute first flow with a very weak blow which was dead in 10 minutes. Closed tool for a 30 minute first closed in pressure. Tool reopened for a 31 minute second flow. Took a 29 minute second closed in pressure.

TEMPERATURE	Gauge No. 536		Gauge No. 392		Gauge No.		TIME	
	Depth: 4462' Ft.		Depth: 4486' Ft.		Depth: Ft.			
	12 Hour Clock		12 Hour Clock		Hour Clock		Tool Opened	A.M. P.M.
Est. °F.	Blanked Off NO		Blanked Off YES		Blanked Off			
4490' @ Actual 117F.	Pressures		Pressures		Pressures		Opened Bypass	A.M. P.M.
	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic	-	2296	2307	2306				
First Period Flow Initial	-	17	31	30			—	—
First Period Flow Final	-	26	47	38			30	31
First Period Closed in	-	1188	1205	1198			30	30
Second Period Flow Initial	-	34	47	49			—	—
Second Period Flow Final	-	35	63	48			30	31
Second Period Closed in	-	1082	1103	1095			30	29
Third Period Flow Initial							—	—
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic	-	2284	2291	2294			—	—

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GREAT BEND
Division Office

Legal Location Sec. - Twp. - Rng.: SW SW 8 - 20S - 25W
Lease Name: BECK
Well No.: C-1
Test No.: 1
Tested Interval: 4400 - 4490'
Field Area: WILDCAT
County: NESS
State: KANSAS
Lease Owner/Company Name: PETROLEUM, INCORPORATED

FORM 181—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 93974 5M 6/73

Gauge No.	536	Depth	4462'	Clock No.	3577	12 hour	Ticket No.	653966

	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	.000	17	.000		26	.000	34	.000		35					
1	.0397	19*	.020		48	.0399	31*	.0137		43**					
2	.0728	20	.040		106	.0731	32	.0342		59					
3	.1059	22	.060		379	.1063	33	.0547		85					
4	.1390	24	.080		760	.1395	34	.0752		135					
5	.1721	25	.100		939	.1727	34	.0957		287					
6	.2050	26	.120		1040	.2060	35	.1162		585					
7			.140		1097			.1367		821					
8			.160		1138			.1572		954					
9			.180		1170			.1777		1028					
10			.200		1188			.1980		1082					
11															
12															
13															
14															
15															

Gauge No.	392	Depth	4486'	Clock No.	2820	hour	12

0	.000	30	.000		38	.000	49	.000		48					
1	.0399	30*	.020		62	.0399	45*	.0134		56**					
2	.0731	31	.040		128	.0731	45	.0335		72					
3	.1063	33	.060		452	.1063	46	.0536		97					
4	.1395	35	.080		800	.1395	47	.0737		157					
5	.1727	36	.100		966	.1727	48	.0938		295					
6	.2060	38	.120		1065	.2060	48	.1139		576					
7			.140		1122			.1340		819					
8			.160		1160			.1541		965					
9			.180		1188			.1742		1043					
10			.200		1198			.1940		1095					
11															
12															
13															
14															
15															
Reading Interval		5		3			5		3						Minutes

REMARKS: * INTERVAL = 6 MINUTES. ** INTERVAL = 2 MINUTES.

SPECIAL PRESSURE DATA

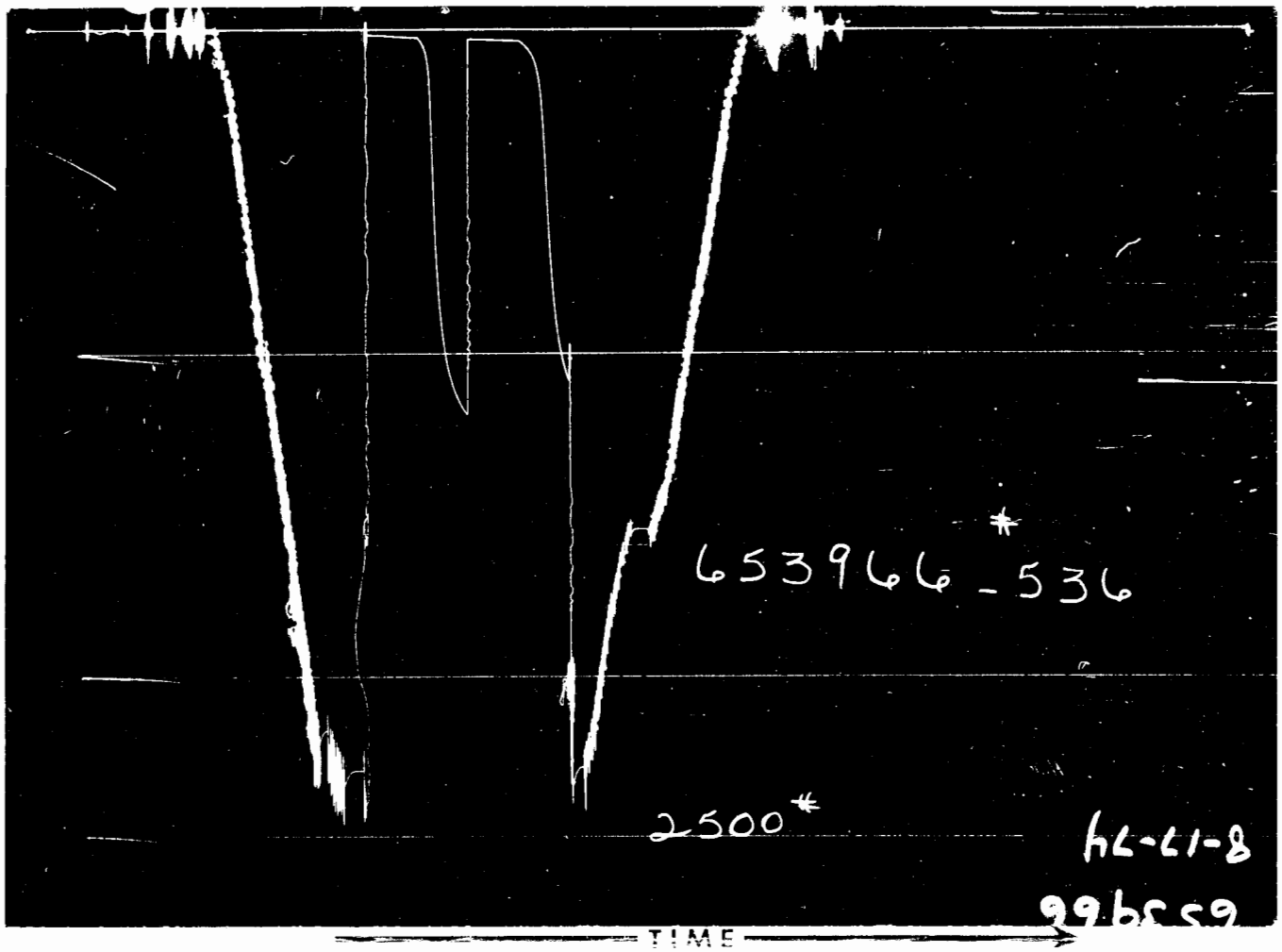
TICKET NO. 653966

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	12"	
Water Cushion Valve				
Drill Pipe	4.50"	3.826"	4043'	
FLEX WEIGHT	4.50"	2.764"	401'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.00"	.87"	49"	
Dual CIP Sampler				
Hydro-Spring Tester	5.00"	.75"	60"	4447'
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	60"	4452'
Distributor				
Packer Assembly	6.75"	1.53"	60"	4460'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5.00"	3.06"	50"	4462'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5.00"	3.84"	19'	
Blanked-Off B.T. Running Case	5.00"	3.06"	48"	4486'
Total Depth				4490'

FORM 187—PRINTED IN U.S.A.

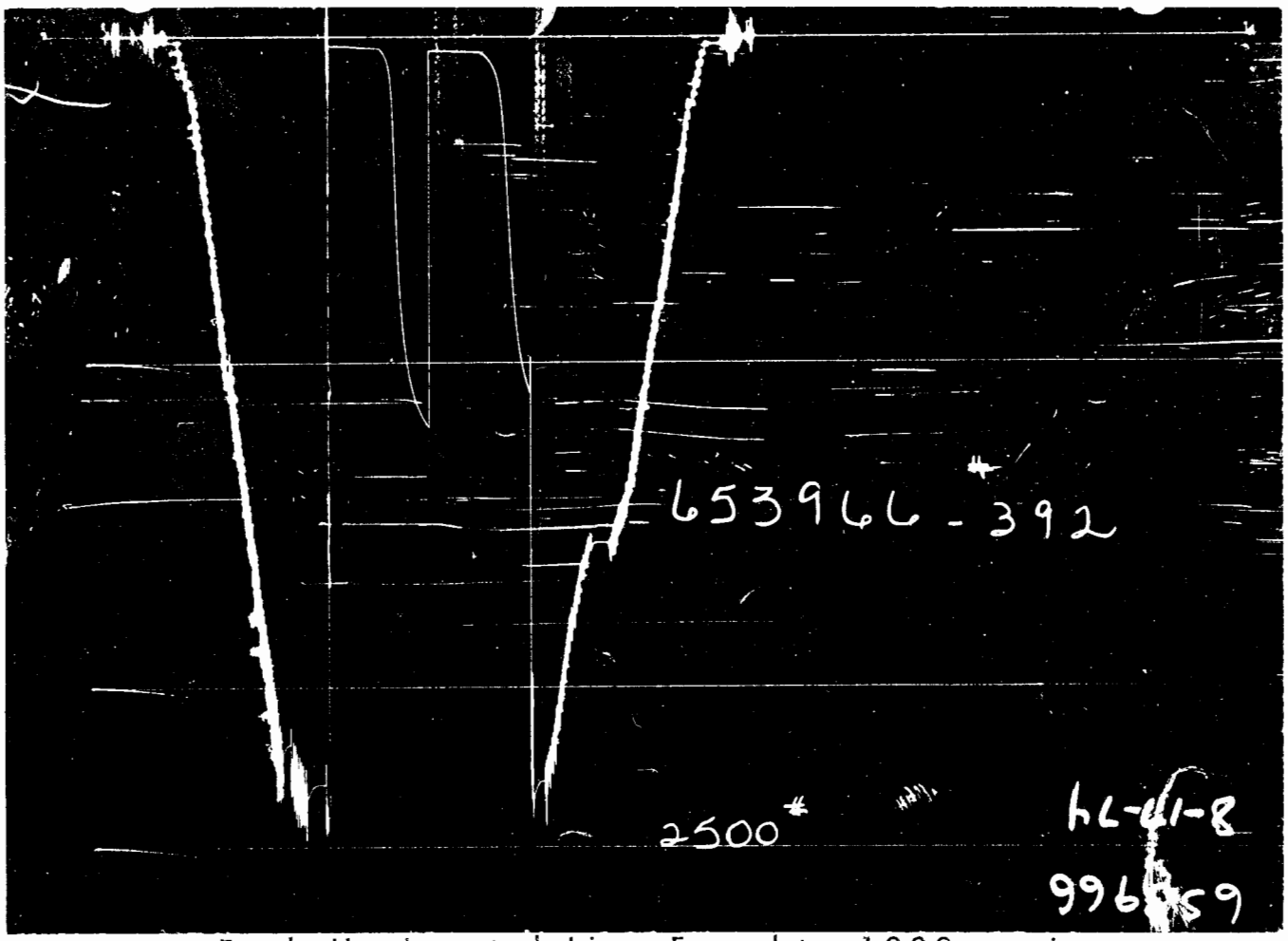
EQUIPMENT DATA

LITTLE'S



PRESSURE

TIME



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

TEMPERATURE
RECORDER
CHART

10° each circle

FLUID SAMPLE DATA			
Date	8-18-74	Ticket Number	653967
Kind of Job	OPEN HOLE	Halliburton District	HAYS
Tester	PALMBERG	Witness	DIRKS
Drilling Contractor	AMBERCROMBIE DRILLING, INC. NM S		

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity 27 ° 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 9.7 vis 46 cp

EQUIPMENT & HOLE DATA

Formation Tested: Mississippi
Elevation: - Ft.
Net Productive Interval: 10' Ft.
All Depths Measured From: Kelly Bushing
Total Depth: 4500' Ft.
Main Hole/Casing Size: 7 7/8"
~~Drill Collar~~ Length: WP 401' I.D. 2.764" WP
Drill Pipe Length: 4163' I.D. 3.826"
Packer Depth(s): 4479' - 4487' Ft.
Depth Tester Valve: 4470' Ft.

Cushion TYPE NONE AMOUNT Ft. Depth Back Pres. Valve NONE Surface Choke ¼" Bottom Choke 3/4"

Recovered 10' Feet of oil
Recovered 50' Feet of watery mud
Recovered Feet of
Recovered Feet of
Recovered Feet of

Mea. From Tester Valve

Remarks: Tool opened with a weak blow for a 32 minute first flow. Closed tool for a 29 minute first closed in pressure. Tool reopened for a 30 minute second flow. Took a 29 minute second closed in pressure.

TEMPERATURE	Gauge No. 536 Depth: 4475' Ft.	Gauge No. 392 Depth: 4496' Ft.	Gauge No. Depth: Ft.	TIME
Est. °F.	12 Hour Clock Blanked Off NO	12 Hour Clock Blanked Off YES	Hour Clock Blanked Off	Tool Opened 0645 A.M. P.M.
4495' Actual 126 °F.	Pressures	Pressures	Pressures	Opened Bypass 0815 A.M. P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		-	2308	2403	2316				
First Period Flow	Initial	-	13	31	23			—	—
	Final	-	25	47	34			30	32
	Closed in	-	1180	1189	1188			30	29
Second Period Flow	Initial	-	28	47	45			—	—
	Final	-	35	63	47			30	30
	Closed in	-	1217	1228	1227			60	59
Third Period Flow	Initial							—	—
	Final								
	Closed in								
Final Hydrostatic		-	2299	2339	2310			—	—

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Division Office

Legal Location Sec. - Twp. - Rng.: SW-SW - 8 - 20S - 25W
Lease Name: BECK
Well No.: C-1
Test No.: 2
Tested Interval: 4487' - 4500'
Field Area: WILDCAT
County: NESS
State: KANSAS
Lease Owner/Company Name: PETROLEUM, INCORPORATED

FORM 161—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 93974 5M 8/73

5

Gauge No.	536	Depth	4475'	Clock No.	3577	12 hour	Ticket No.	653967

	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	.000	13	.000		25	.000	28	.000		35					
1	.0459	14*	.0134		72**	.034	28	.0342		209***					
2	.0787	17	.0336		707	.068	30	.0753		853					
3	.1115	20	.0538		888	.102	31	.1164		991					
4	.1443	21	.0740		985	.136	33	.1575		1064					
5	.1771	23	.0942		1042	.170	34	.1986		1112					
6	.2100	25	.1144		1086	.204	35	.2397		1145					
7			.1346		1116			.2808		1169					
8			.1548		1141			.3219		1189					
9			.1750		1162			.3630		1205					
10			.1950		1180			.4040		1217					
11															
12															
13															
14															
15															

Gauge No.	392	Depth	4496'	Clock No.	2820	hour	12

0	.000	23	.000		34	.000	45	.000		47					
1	.0473	25*	.0134		70**	.034	40	.0340		216***					
2	.0811	28	.0335		625	.068	41	.0748		860					
3	.1149	31	.0536		878	.102	42	.1156		1002					
4	.1487	32	.0737		985	.136	44	.1564		1076					
5	.1825	33	.0938		1049	.170	45	.1972		1122					
6	.2160	34	.1139		1090	.204	47	.2380		1155					
7			.1340		1122			.2788		1180					
8			.1541		1148			.3196		1199					
9			.1742		1170			.3604		1215					
10			.1940		1188			.4010		1227					
11															
12															
13															
14															
15															
Reading Interval	5		3			5		6							Minutes

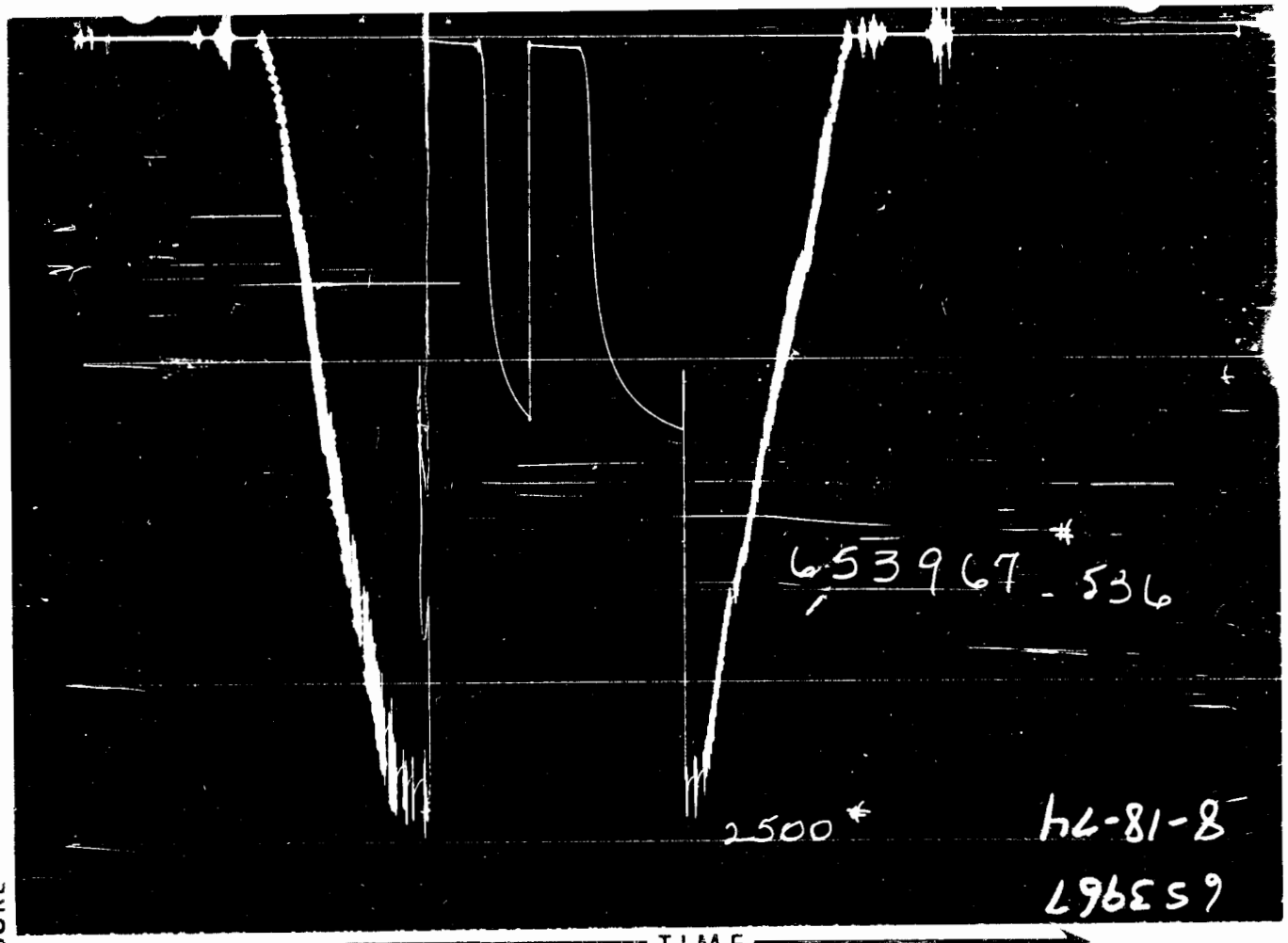
REMARKS: * INTERVAL = 7 MINUTES. ** INTERVAL = 2 MINUTES. *** INTERVAL = 5 MINUTES.

SPECIAL PRESSURE DATA

TICKET NO. 653967

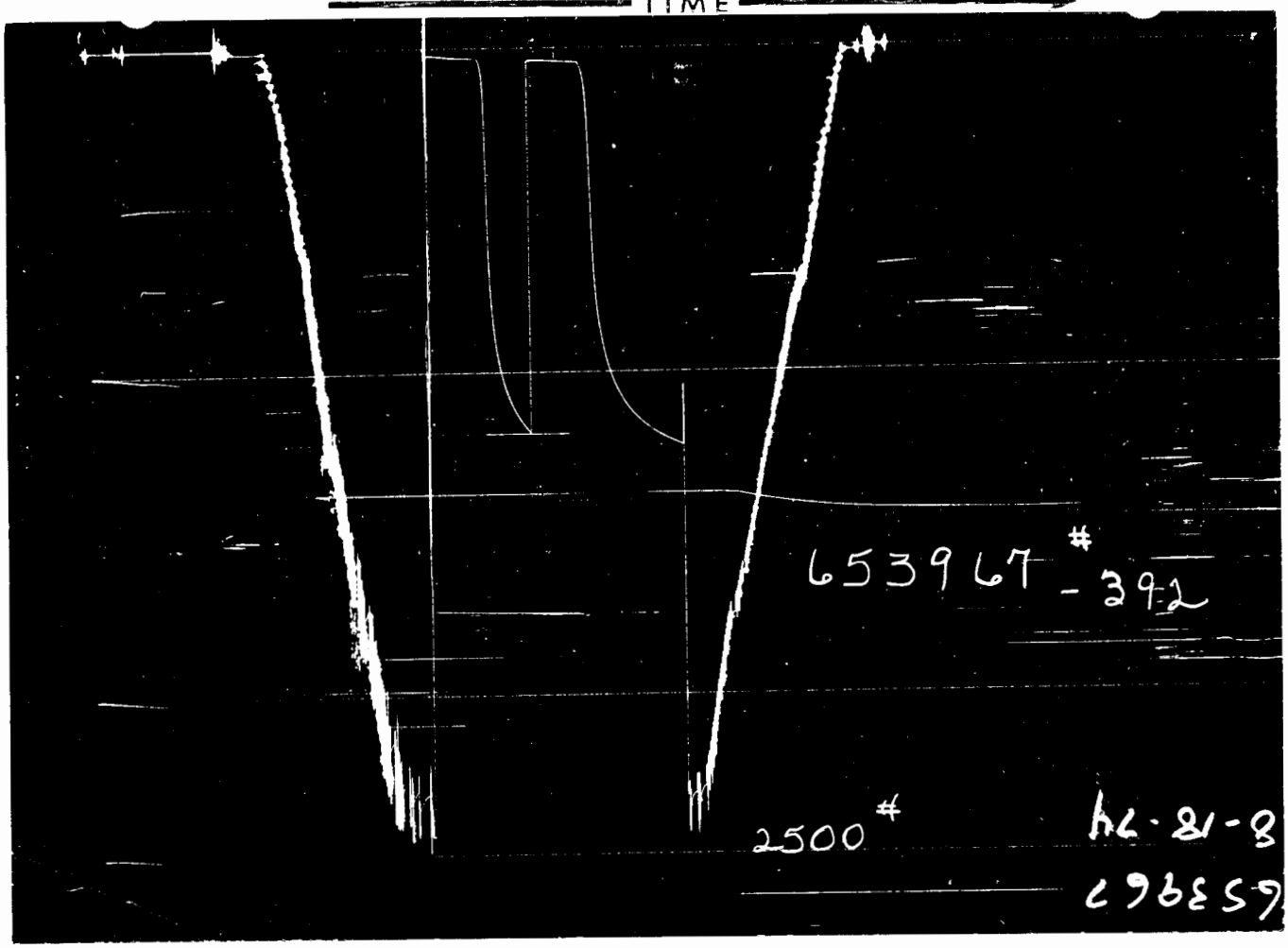
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.76"	12"	
Water Cushion Valve				
Drill Pipe	4.50"	3.826"	4163'	
~~Drill Collars~~ WEIGHT PIPE	4.50"	2.764"	401'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.00"	.87"		
Dual CIP Sampler				
Hydro-Spring Tester	5.00"	.75"		4470'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.00"	3.06"	50"	4475'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	60"	4479'
Distributor				
Packer Assembly	6.75"	1.53"	60"	4487'
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	5.00"	3.84"	6'	
Blanked-Off B.T. Running Case	5.00"	3.06"	48"	4496'
Total Depth				4500'

EQUIPMENT DATA



TIME

PRESSURE



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

TEMPERATURE
RECORDER
CHART

10° each circle

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 46 cp

Date 8-19-74 Ticket Number 653968
Kind of Job OPEN HOLE Halliburton District HAYS
Tester MR. PALMBERG Witness MR. DIRKS
Drilling Contractor AMBERCROMBIE DRILLING COMPANY DR S

EQUIPMENT & HOLE DATA

Formation Tested Mississippi
Elevation ?? Ft.
Net Productive Interval 7' Ft.
All Depths Measured From Kelly Bushing
Total Depth 4507' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 401' FW I.D. 2.764"
Drill Pipe Length 4083' I.D. 3.826"
Packer Depth(s) 4492'-4500' Ft.
Depth Tester Valve 4481' Ft.

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

Recovered 40 Feet of muddy water (salt)
Recovered 420 Feet of water (salt(
Recovered Feet of
Recovered Feet of
Recovered Feet of

Mea. From Tester Valve

Remarks Opened tool for 35 minute first flow with a weak to a fair blow. Closed tool for 25 minute first closed in pressure. Reopened tool for 30 minute second flow. Closed tool for 60 minute second closed in pressure.

CHARTS INDICATE PARTIAL PLUGGING OF ANCHOR PERFORATIONS DURING BOTH FLOW PERIODS.

TEMPERATURE	Gauge No. 536		Gauge No. 392		Gauge No.		TIME
	Depth: 4486 Ft.		Depth: 4503 Ft.		Depth: Ft.		
	12 Hour Clock		12 Hour Clock		Hour Clock		Tool A.M.
Est. °F.	Blanked Off no		Blanked Off Yes		Blanked Off		Opened 04:00 P.M.
4502' Actual 135 °F.	Pressures		Pressures		Pressures		Opened A.M. Bypass 05:30 P.M.
	Field	Office	Field	Office	Field	Office	Reported Minutes / Computed Minutes
Initial Hydrostatic		2305	2339	2312			
First Period Flow Initial		52	125	880			— / —
First Period Flow Final		133	157	148			30 / 35
First Period Closed in		1314	1315	1319			30 / 25
Second Period Flow Initial		137	188	1630			— / —
Second Period Flow Final		234	266	261			30 / 30
Second Period Closed in		1316	1315	1320			60 / 60
Third Period Flow Initial							— / —
Third Period Flow Final							
Third Period Closed in							
Final Hydrostatic		2305	2300	2312			— / —

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Legal Location Sec.-Twp.-Rng. SW-SW-8-20S-25W
Lease Name BECK
Well No. C-1
Test No. 3
Tested Interval 4500-4507'
Field Area WILDCAT
County NESS
State KANSAS
Lease Owner/Company Name PETROLEUM INCORPORATED

FORM 161—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 93974 5M 6/73

5

Gauge No. 536	Depth 4486'	Clock No. 3577	12 hour	Ticket No. 653968

	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	.000	52	.000		133	.000	137	.000		234					
1	.246	133	.0336		1270*	.0337	157	.0407		1245					
2			.0470		1281	.0674	180	.0814		1267					
3	Plugging		.0604		1285	.1011	196	.1221		1280					
4			.0738		1293	.1348	207	.1628		1289					
5			.0872		1299	.1685	220	.2035		1296					
6			.1006		1303	.2020	234	.2442		1302					
7			.1140		1306			.2849		1307					
8			.1274		1308			.3256		1311					
9			.1408		1311			.3663		1314					
10			.1542		1313			.4070		1316					
11			.1680		1314										
12															
13															
14															
15															

Gauge No. 392	Depth 4503'	Clock No. 2820	hour 12

0	.000	880	.000		148	.000	1630	.000		261					
1	.232	148	.0334		1274*	.200	261	.0406		1247					
2			.0468		1285			.0812		1270					
3	Plugging		.0602		1292	Plugging		.1218		1284					
4			.0736		1298			.1624		1293					
5			.0870		1302			.2030		1300					
6			.1004		1307			.2436		1307					
7			.1138		1310			.2842		1311					
8			.1272		1312			.3248		1315					
9			.1406		1315			.3654		1318					
10			.1540		1317			.4060		1320					
11			.1670		1319										
12															
13															
14															
15															
Reading Interval			2			5		6							Minutes

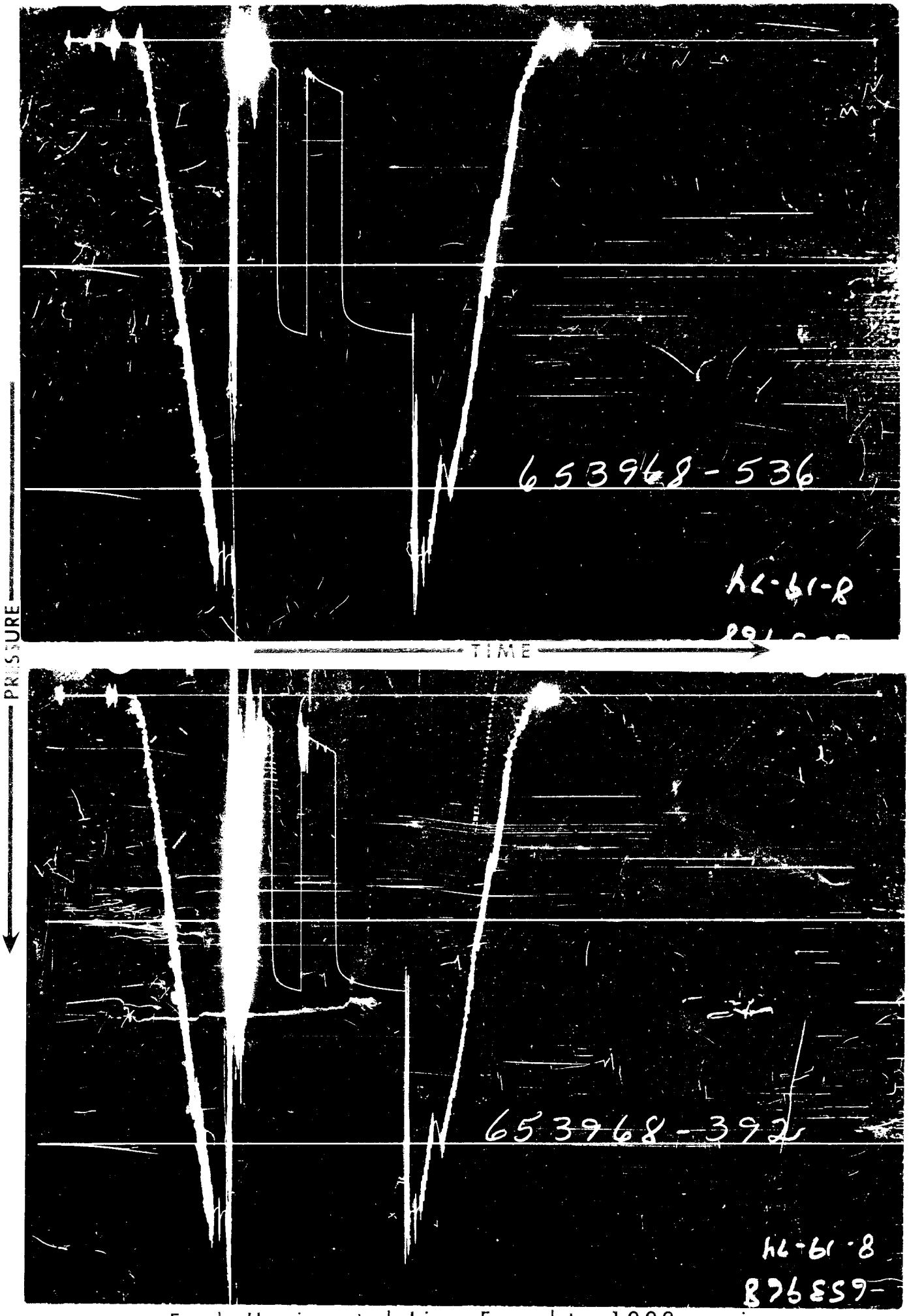
REMARKS: * First interval equal to 5 minutes Q-Questionable

SPECIAL PRESSURE DATA

TICKET NO. 653968

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.76"	12"	
Water Cushion Valve				
Drill Pipe	4.50"	3.826"	4083'	
Drill Collars	4.50"	2.75"	401' FW	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	49"	
Dual CIP Sampler				
Hydro-Spring Tester	5.0"	.75"	60"	4481'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.0"	3.06"	50"	4486'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly				
Distributor				
Packer Assembly				
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly	6.75"	1.53"	60"	4492'
Distributor				
Packer Assembly	6.75"	1.53"	60"	4500'
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case	5.0"	3.06"	48"	4503'
Total Depth				

EQUIPMENT DATA



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

TEMPERATURE
RECORDER
CHART

10° each circle