WESTERN TEST SERVICES

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Messman-Rinehart Oil Co. Lease & Well No. Munson # 1

Elevation 2549 Kelly Bushing Formation Burlingame Effective Pay Ft. Ticket No. 11961

Date 3-24-69 Sec. 24 Twp. 4s Range 27w County Decatur State Kansas

Test Approved by Bill Iversen Western Representative Kenneth Cheney

Formation Test No. 1 O.K. x Misrun Interval Tested From 3177' to 3230' Total Depth 3230

Size Main Hole 7 7/8 Rat Hole Conv. B.T. x Damaged Yes x No Conv. x B.T. Damaged Yes x No

Top Packer Depth 3172 Ft. Size 6 3/4 Packer Depth 3177 Ft. Size 6 3/4

Straddle Yes No x Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5½"OD Tool Jt. Size 4½"FH Anchor Length 53 Ft. Size 5½"OD

RECORDERS Depth 3223 Ft. Clock No. 6892 Depth 3225 Ft. Clock No. 6894

Top Make Kuster Cap. 4150 No. 2607 Inside ~~Outside~~ Bottom Make Kuster Cap. 4150 No. 969 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 11:58P M

Tool Open I.F.P. From 12:00 M. to 1:30P M. Hr. 30 Min. From (B) 4 P.S.I. To (C) - P.S.I.

Tool Closed I.C.I.P. From 1:30 M. to 2:00P M. Hr. 30 Min. (D) 1112 P.S.I.

Tool Open F.F.P. From 2:00 M. to 3:00P M. 1 Hr. - Min. From (E) 56 P.S.I. To (F) 56 P.S.I.

Tool Closed F.C.I.P. From 3:00 M. to 4:00P M. 1 Hr. - Min. (G) 1117 P.S.I.

Initial Hydrostatic Pressure (A) 1838 P.S.I. Final Hydrostatic Pressure (H) 1800 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/8 In.		M.	
			M.	
			M.	

BLOW Strong intermitten thru out test Bottom Choke Size 3/4 In.

Did Well Flow Yes x No Recovery Total Ft. 180 feet gas in pipe--15feet free oil--110 feet muddy oil--

(55% oil and 62% oil)

Reversed Out Yes x No Mud Type chem Viscosity 37 Weight 10.1 Water Loss 11.0 cc. Maximum Temp. 102 °F

Type Circ. Sub plug Did Tool Plug? partly Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Did Packer Hold? yes Where?

Length Drill Pipe 2039 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 836 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 192 ft.

I. D. Drill Collars 2.7 in. Length D.S.T. Tool 73 ft.

Remarks

35° gravity

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 3-24-69 Test Ticket No. 11961

Recorder No. 2607 Capacity 4150 Location 3223 Ft.

Clock No. 6892 Elevation 2549 Kelly Bushing Well Temperature 102 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1838 P.S.I.	Open Tool	11:58P M	
B First Initial Flow Pressure	4 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	- P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	1112 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	56 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	56 P.S.I.			
G Final Closed-in Pressure	1117 P.S.I.			
H Final Hydrostatic Mud	1800 P.S.I.			

PRESSURE BREAKDOWN

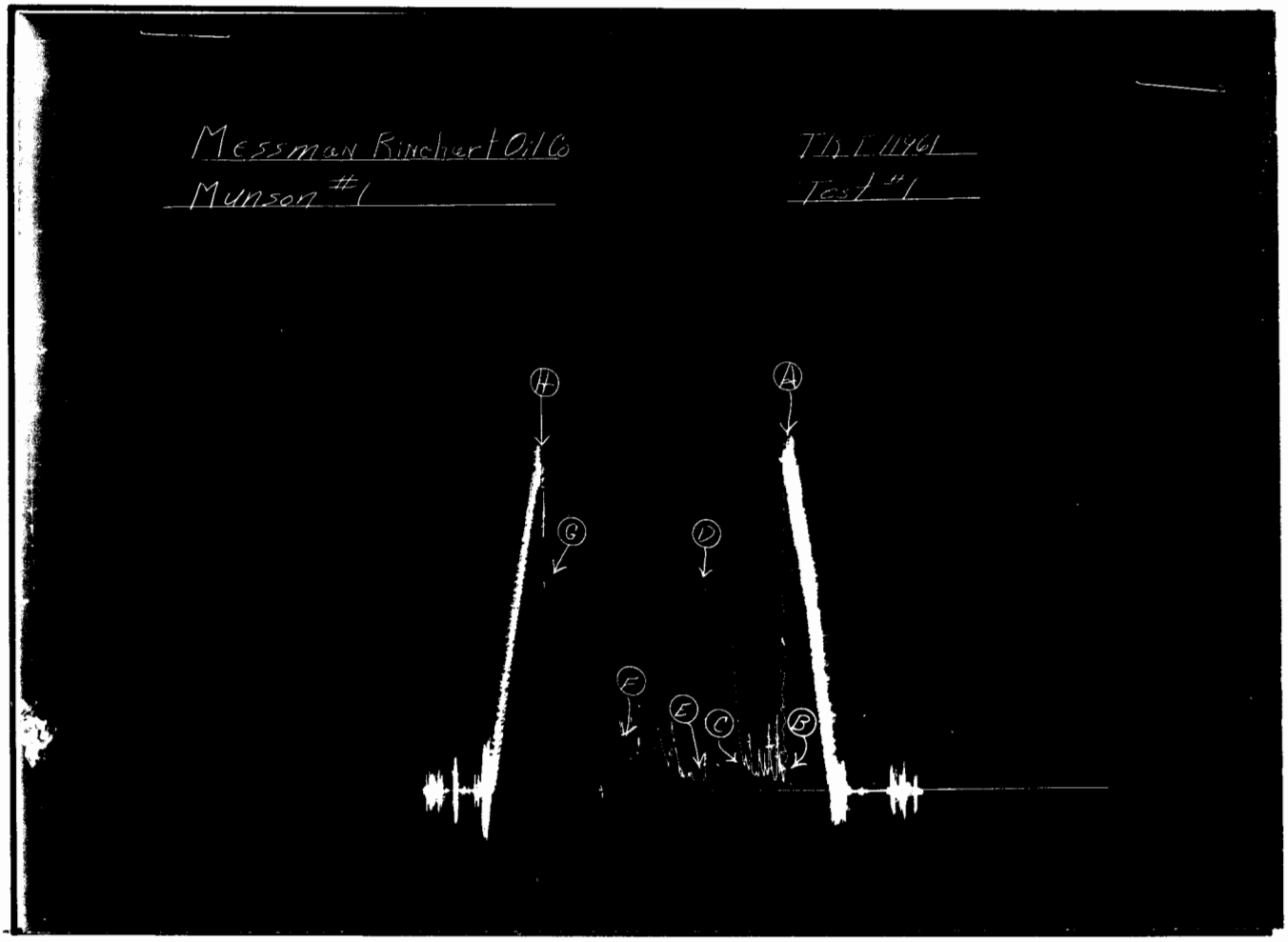
First Flow Pressure
Breakdown: 1 Inc.
of ____ mins. and a
final inc. of ____ Min.

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of ____ Min.

Second Flow Pressure
Breakdown: 2 Inc.
of 5 mins. and a
final inc. of ____ Min.

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of ____ Min.

Point	Mins.	Press.	Point	Minutes	Press.	Point	Minutes	Press.	Point	Minutes	Press.
P 1	0	48		0	0		0	56		0	0
P 2	5	to much plugging		3	239		5	56		3	385
P 3	10	action for P.S.I.		6	451		10	56		6	549
P 4	15	breakdown		9	716		15	to much plugging		9	731
P 5	20			12	935		20	action for P.S.I.		12	862
P 6	25			15	1018		25	breakdown		15	945
P 7				18	1055		30			18	990
P 8				21	1077		35			21	1016
P 9				24	1094		40			24	1033
P10				27	1104		45			27	1050
P11				30	1112		50			30	1060
P12							55			33	1071
P13										36	1079
P14										39	1085
P15										42	1091
P16										45	1096
P17										48	1102
P18										51	1106
P19										54	1111
P20										57	1114
										60	1117



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1878	1838	PSI
(B)	First Initial Flow Pressure	42	4	PSI
(C)	First Final Flow Pressure	126	-	PSI
(D)	Initial Closed-in Pressure	1108	1112	PSI
(E)	Second Initial Flow Pressure	52	56	PSI
(F)	Second Final Flow Pressure	170	56	PSI
(G)	Final Closed-in Pressure	1108	1117	PSI
(H)	Final Hydrostatic Mud	1850	1800	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Messman-Rinehart Oil Co. Lease & Well No. Munson # 1

Elevation 2549 Kelly Bushing Formation Topeka Effective Pay Ft. Ticket No. 11963

Date 3-25-69 Sec. 24 Twp. 4s Range 27w County Decatur State Kansas

Test Approved by Bill Iversen Western Representative W. C. Craig

Formation Test No. 3 O.K. x Misrun Interval Tested From 3298' to 3307' Total Depth 3307'

Size Main Hole 7 7/8 Rat Ho'e Conv. B.T. x Damaged Yes x No Conv. x B.T. Damaged Yes x No

Top Packer Depth 3293 Ft. Size 6 3/4 Packer Depth 3298 Ft. Size 6 3/4

Straddle Yes No x Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5½"OD Tool Jt. Size 4½"FH Anchor Length 9 Ft. Size 5½"OD

RECORDERS AP Depth 3289 Ft. Clock No. 6892 Depth 3304 Ft. Clock No. 6894

Top Make Kuster Cap. 4150 No. 2607 Inside Outside Bottom Make Kuster Cap. 4150 No. 969 Inside Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 1:28P M

Tool Open I.F.P. From 1:30 M. to 2:00P M. Hr. 30 Min. From (B) 44 P.S.I. To (C) 139 P.S.I.

Tool Closed I.C.I.P. From 2:00 M. to 2:30P M. Hr. 30 Min. (D) 1204 P.S.I.

Tool Open F.F.P. From 2:30 M. to 3:30P M. Hr. 60 Min. From (E) 145 P.S.I. To (F) 319 P.S.I.

Tool Closed F.C.I.P. From 3:30 M. to 4:30P M. Hr. 60 Min. (G) 1204 P.S.I.

Initial Hydrostatic Pressure (A) 1763 P.S.I. Final Hydrostatic Pressure (H) 1739 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/8 In.		M.	
			M.	
			M.	

BLOW Strong thru out test Bottom Choke Size 3/4 In.

Did Well Flow Yes x No Recovery Total 75 feet muda nd water---558 feet salt water

Reversed Out Yes No Mud Type chem Viscosity 46 Weight 10 Water Loss 9.8 cc. Maximum Temp. 102 °F

Type Circ. Sub. plug Did Tool Plug? no Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Did Packer Hold? yes Where?

Length Drill Pipe 2246 ft. I.D. Drill Pipe 3½ Length Weight Pipe 836 ft. I.D. Weight Pipe 1.7 in. Length Drill Collars 192 ft.

I. D. Drill Collars 2.5 in. Length D.S.T. Tool 33 ft.

Remarks

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 3-25-69 Test Ticket No. 11963

Recorder No. 2607 Capacity 4150 Location 3288 Ft.

Clock No. 6892 Elevation 2549 Kelly Bushing Well Temperature 102 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1763	P.S.I.
B	First Initial Flow Pressure	44	P.S.I.
C	First Final Flow Pressure	139	P.S.I.
D	Initial Closed-in Pressure	145	P.S.I.
E	Second Initial Flow Pressure	319	P.S.I.
F	Second Final Flow Pressure	1204	P.S.I.
G	Final Closed-in Pressure	1739	P.S.I.
H	Final Hydrostatic Mud		P.S.I.

	Time Given	Time Computed
Open Tool	1:28P M	
First Flow Pressure	30 Mins.	29 Mins.
Initial Closed-in Pressure	30 Mins.	29 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

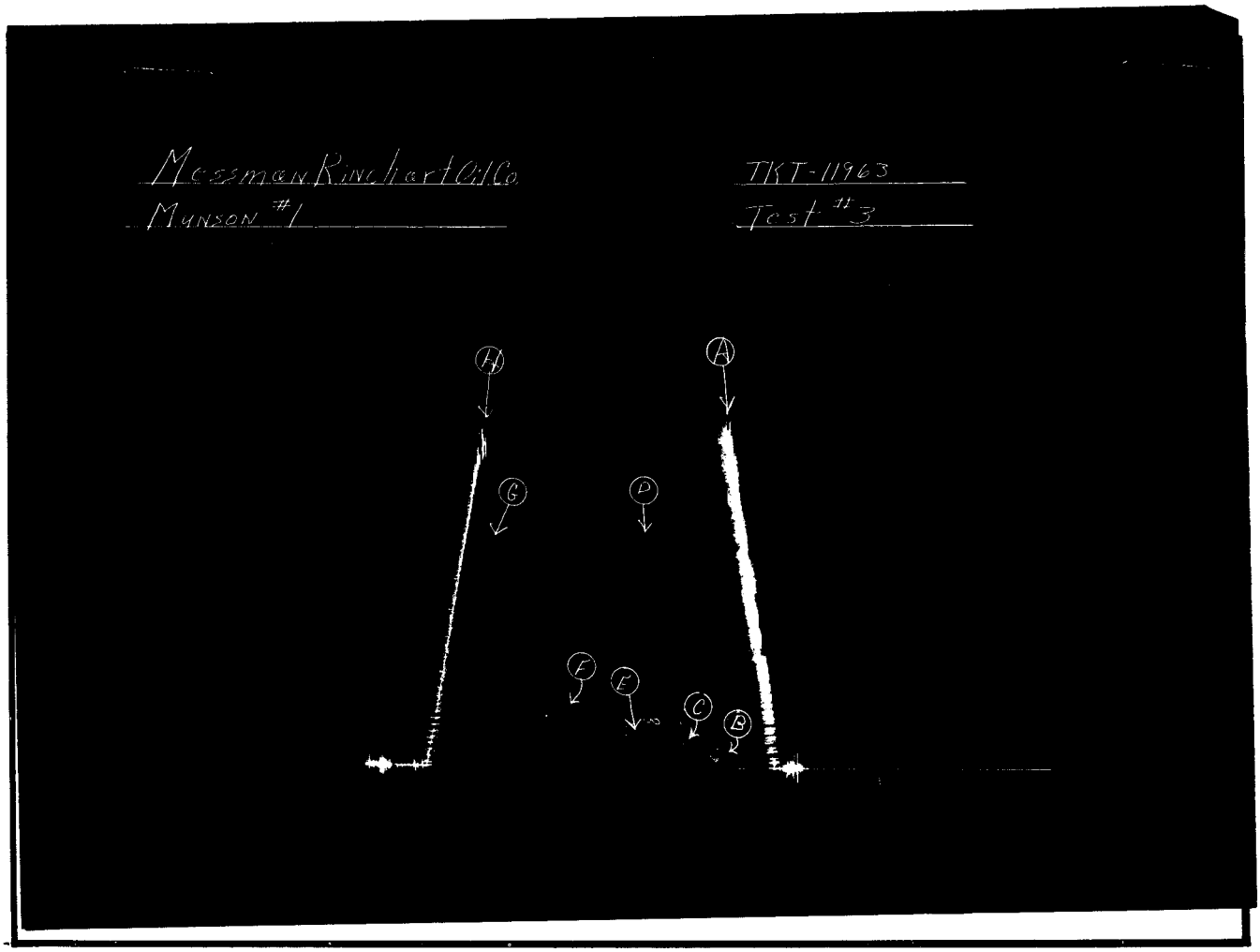
First Flow Pressure
Breakdown: 5 Inc.
of 5 mins. and a
final inc. of 4 Min.

Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 2 Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of Min.

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	44	0	139	0	145	0	319
P 2 5	56	3	1060	5	155	3	960
P 3 10	63	6	1131	10	169	6	1086
P 4 15	87	9	1154	15	188	9	1121
P 5 20	109	12	1172	20	201	12	1137
P 6 25	129	15	1181	25	218	15	1148
P 7 29	139	18	1190	30	232	18	1156
P 8		21	1196	35	247	21	1165
P 9		24	1202	40	264	24	1169
P10		27	1208	45	277	27	1175
P11		29	1204	50	290	30	1179
P12				55	307	33	1182
P13				60	319	36	1185
P14				62	1288	39	1188
P15						42	1191
P16						45 48	1194 1197
P17						51	1200
P18						54	1202
P19						57	1203
P20						60	1204



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1741	1763	PSI
(B)	First Initial Flow Pressure	52	44	PSI
(C)	First Final Flow Pressure	137	139	PSI
(D)	Initial Closed-in Pressure	1196	1204	PSI
(E)	Second Initial Flow Pressure	148	145	PSI
(F)	Second Final Flow Pressure	317	319	PSI
(G)	Final Closed-in Pressure	1206	1204	PSI
(H)	Final Hydrostatic Mud	1731	1739	PSI

COMPANY Mesman-Rinehart Oil Co. LEASE AND WELL NO. Munson #1 SEC. 24 TWP. 19 RGE. 27W TEST NO. 3 DATE 3-25-69

WESTERN TESTERS

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Massman-Rinehart Oil Co. Lease & Well No. Munson # 1

Elevation 2549 Kelly Bushing Formation Kansas City Effective Pay Ft. Ticket No. 11964

Date 3-26-69 Sec. 24 Twp. 4s Range 27w County Decatur State Kansas

Test Approved by Bill Iversen Western Representative W. C. Cragi

Formation Test No. 4 O.K. x Misrun Interval Tested From 3461' to 3540' Total Depth 3540'

Size Main Hole 7 7/8 Rat Ho'e Conv. B.T. x Damaged Yes x No Conv. x B.T. Damaged Yes x No

Top Packer Depth 3456 Ft. Siz 6 3/4 Packer Depth 3461 Ft. Size 6 3/4

Straddle Yes No x Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5½"OD Tool Jt. Size 4½"FH Anchor Length 79 Ft. Size 48FI 5½"OD 1 joint DP

RECORDERS Depth 3535 Ft. Clock No. 6892 Depth 3538 Ft. Clock No. 6894

Top Make Kuster Cap. 4150 No. 2607 Inside ~~Outside~~ Bottom Make Kuster Cap. 4150 No. 969 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 1:18P M

Tool Open I.F.P. From 1:20 M. to 1:50P M. Hr. 30 Min. From (B) 105 P.S.I. To (C) 196 P.S.I.

Tool Closed I.C.I.P. From 1:50 M. to 2:20P M. Hr. 30 Min. (D) 1165 P.S.I.

Tool Open F.F.P. From 2:20 M. to 3:20P M. Hr. 60 Min. From (E) 218 P.S.I. To (F) 296 P.S.I.

Tool Closed F.C.I.P. From 3:20 M. to 4:20P M. Hr. 60 Min. (G) 1145 P.S.I.

Initial Hydrostatic Pressure (A) 1865 P.S.I. Final Hydrostatic Pressure (H) 1857 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/8 In.		M.	
			M.	
			M.	

BLOW Fair increasing to strong Bottom Choke Size 3/4 In.

Did Well Flow Yes x No Recovery Total Ft. 496 feet gas in pipe--248 feet oil cut mud--434 Froggie oil

Reversed Out Yes No Mud Type chem Viscosity 43 Weight 10.1 Water Loss 9.8 cc. Maximum Temp. 108 °F

Type Circ. Sub plug Did Tool Plug? no Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Did Packer Hold? yes Where?

Length Drill Pipe 2413 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 836 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 192 ft.

I. D. Drill Collars 2.5 in. Length D.S.T. Tool 99 ft.

Remarks Skid 10 feet to bottom

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 3-26-69 Test Ticket No. 11964

Recorder No. 2607 Capacity 4150 Location 3535 Ft.

Clock No. 6892 Elevation 2549 Kelly Bushing Well Temperature 108 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1865 P.S.I.	Open Tool	1:18P M	
B First Initial Flow Pressure	105 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	196 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	1165 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	218 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	296 P.S.I.			
G Final Closed-in Pressure	1145 P.S.I.			
H Final Hydrostatic Mud	1857 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.

Point Mins.	Press.
P 1 0	105
P 2 5	135
P 3 10	152
P 4 15	167
P 5 20	177
P 6 25	188
P 7 30	196
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 10 Inc. of 3 mins. and a final inc. of ____ Min.

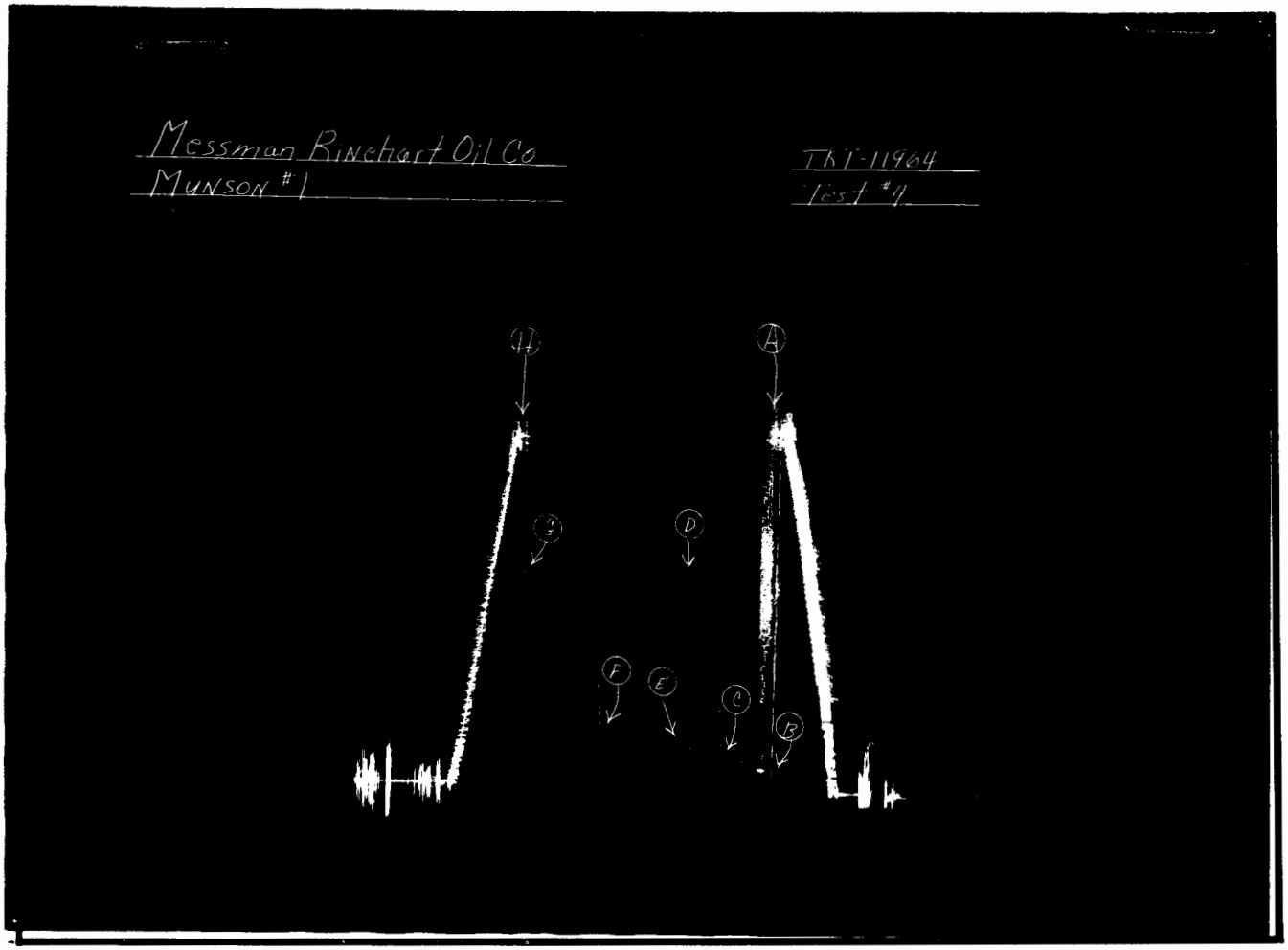
Point Minutes	Press.
0	196
3	402
6	422
9	983
12	1064
15	1102
18	1121
21	1136
24	1148
27	1156
30	1165

Second Flow Pressure
Breakdown: 12 Inc. of 5 mins. and a final inc. of ____ Min.

Point Minutes	Press.
0	218
5	222
10	230
15	835
20	239
25	216
30	251
35	262
40	268
45	277
50	283
55	292
60	296

Final Shut-In
Breakdown: 20 Inc. of 3 mins. and a final inc. of ____ Min.

Point Minutes	Press.
0	296
3	535
6	830
9	970
12	1016
15	1043
18	1062
21	1077
24	1087
27	1096
30	1106
33	1112
36	1118
39	1123
42	1127
45	1132
48	1135
51	1139
54	1143
57	1146
60	1145



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1846	1865	PSI
(B)	First Initial Flow Pressure	116	105	PSI
(C)	First Final Flow Pressure	190	196	PSI
(D)	Initial Closed-in Pressure	1154	1165	PSI
(E)	Second Initial Flow Pressure	222	218	PSI
(F)	Second Final Flow Pressure	285	296	PSI
(G)	Final Closed-in Pressure	1133	1145	PSI
(H)	Final Hydrostatic Mud	1857	1857	PSI

COMPANY Messman-Rinehart Oil Co. LEASE AND WELL NO. Munson # 1 SEC. 24 TWP. 4S RGE. 27W TEST NO. 4 DATE 2-26-69

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Messman-Rinehart Oil Co. Lease & Well No. Munson # 1

Elevation 2549 Kelly Bushing Formation Kansas City Effective Pay _____ Ft. Ticket No. 11965

Date 3-27-69 Sec. 24 Twp. 4s Range 27w County Decatur State Kansas

Test Approved by Bill Iversen Western Representative W.C. Craig

Formation Test No. 5 O.K. X Misrun _____ Interval Tested From 3540' to 3560' Total Depth 3560'

Size Main Hole 7 7/8 Rat Hole _____ Conv. _____ B.T. X Damaged _____ Yes X No Conv. X B.T. _____ Damaged _____ Yes X No

Top Packer Depth 3535 Ft. Size 6 3/4 Packer Depth 3540 Ft. Size 6 3/4

Straddle _____ Yes _____ No X Conv. _____ B.T. _____ Damaged _____ Yes _____ No

Packer Depth _____ Ft. Size _____

Tool Size 5½"OD Tool Jt. Size 4½"FH Anchor Length 20 Ft. Size 5½"OD

RECORDERS Depth 3555 Ft. Clock No. 6892 Depth 3558 Ft. Clock No. 6894

Top Make Kuster Cap. 4150 No. 2607 Inside ~~Outside~~ Bottom Make Kuster Cap. 4150 No. 969 ~~Inside~~ Outside

Below Straddle: Depth _____ Clock No. _____ Inside Outside Depth _____ Ft. Clock No. _____ Inside Outside

Top Make _____ Cap. _____ No. _____ Inside Outside Bottom Make _____ Cap. _____ No. _____ Inside Outside

Time Set Packer 4:28 AM

Tool Open I.F.P. From 4:30 M. to 5:00A M. Hr. 30 Min. From (B) 124 P.S.I. To (C) 302 P.S.I.

Tool Closed I.C.I.P. From 5:00 M. to 5:30A M. Hr. 30 Min. (D) 1150 P.S.I.

Tool Open F.F.P. From 5:30 M. to 6:30A M. 1 Hr. - Min. From (E) 338 P.S.I. To (F) 539 P.S.I.

Tool Closed F.C.I.P. From 6:30 M. to 7:30A M. 1 Hr. - Min. (G) 1141 P.S.I.

Initial Hydrostatic Pressure (A) 1750 P.S.I. Final Hydrostatic Pressure (H) 1736 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/8 In.		M.	
			M.	
			M.	

BLOW Strong thru out test Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 130 feet gas in pipe--496 feet muddy cut oil--434 feet oil & gas cut water--248 feet salt water

Reversed Out Yes X No Mud Type chem Viscosity 39 Weight 9.9 Water Loss 9.9 cc. Maximum Temp. 112 °F

Type Circ. Sub. plug Did Tool Plug? no Jars: Size _____ Make _____ Ser. No. _____

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Did Packer Hold? yes Where? _____

Length Drill Pipe 2492 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 836 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 192 ft.

I. D. Drill Collars 2.5 in. Length D.S.T. Tool 40 ft.

Remarks Slid tool 10 feet to bottom

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 3-27-69 Test Ticket No. 11965

Recorder No. 2607 Capacity Location 3555 Ft.

Clock No. 6892 Elevation 2544 Kelly Bushing Well Temperature 112 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1750 P.S.I.	Open Tool		4:28A M	
B	First Initial Flow Pressure	124 P.S.I.	First Flow Pressure		30 Mins.	30 Mins.
C	First Final Flow Pressure	302 P.S.I.	Initial Closed-in Pressure		30 Mins.	30 Mins.
D	Initial Closed-in Pressure	1150 P.S.I.	Second Flow Pressure		60 Mins.	60 Mins.
E	Second Initial Flow Pressure	338 P.S.I.	Final Closed-in Pressure		60 Mins.	60 Mins.
F	Second Final Flow Pressure	539 P.S.I.				
G	Final Closed-in Pressure	1141 P.S.I.				
H	Final Hydrostatic Mud	1736 P.S.I.				

PRESSURE BREAKDOWN

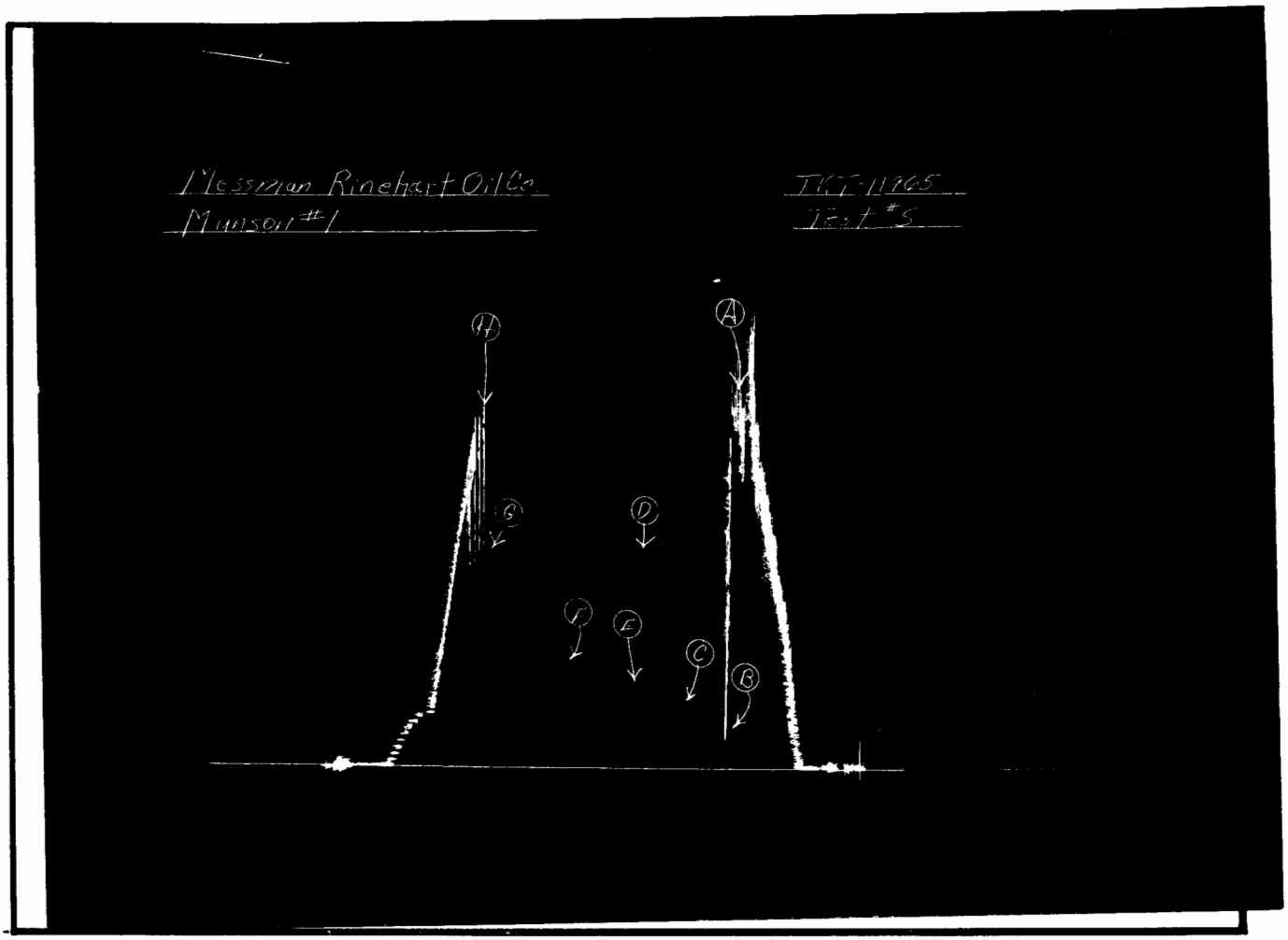
First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of ____ Min.

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of ____ Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of ____ Min.

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of ____ Min.

Point	Mins.	Press.	Point	Minutes	Press.	Point	Minutes	Press.	Point	Minutes	Press.
P 1	0	124		0	302		0	338		0	539
P 2	5	154		3	935		5	340		3	924
P 3	10	186		6	1016		10	368		6	985
P 4	15	220		9	1052		15	398		9	1014
P 5	20	249		12	1079		20	425		12	1033
P 6	25	279		15	1096		25	451		15	1052
P 7	30	302		18	1110		30	473		18	1064
P 8				21	1125		35	487		21	1075
P 9				24	1133		40	500		24	1085
P10				27	1144		45	512		27	1096
P11				30	1150		50	522		30	1100
P12							55	532		33	1106
P13							60	539		36	1112
P14										39	1118
P15										42	1126
P16										45	1129
P17										48	1131
P18										51	1133
P19										54	1135
P20										57	1138
										60	1141



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1563	1750	PSI
(B)	First Initial Flow Pressure	137	124	PSI
(C)	First Final Flow Pressure	296	302	PSI
(D)	Initial Closed-in Pressure	1154	1150	PSI
(E)	Second Initial Flow Pressure	338	338	PSI
(F)	Second Final Flow Pressure	539	539	PSI
(G)	Final Closed-in Pressure	1154	1141	PSI
(H)	Final Hydrostatic Mud	1573	1736	PSI

COMPANY Messman-Rinehart Oil Co. LEASE AND WELL NO. Munson #1 SEC. 24 TWP. 14S RGE. 27W TEST NO. 5 DATE 3-27-60

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Messman-Rinehart Oil Company Lease & Well No. Munson #1

Elevation 2549 Kelly Bushing Formation Kansas City Effective Pay Ft. Ticket No. 11906

Date 3-27-69 Sec. 24 Twp. 4s Range 27w County Decatur State Kansas

Test Approved by Bill Iversen Western Representative W. C. Craig

Formation Test No. 6 O.K. X Misrun Interval Tested From 3568' to 3607' Total Depth 3607'

Size Main Hole 7 7/8 Rat Hole Conv. B.T. X Damaged Yes X No Conv. X B.T. Damaged Yes X No

Top Packer Depth 3563 Ft. Size 6 3/4" Packer Depth 3568 Ft. Size 6 3/4"

Straddle Yes No X Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 99 Ft. Size 37'-5½"O.D.-2 joint D.P

RECORDERS Depth 3602 Ft. Clock No. 6892 Depth 3605 Ft. Clock No. 6894

Top Make Kuster Cap. 4150 No. 2607 Inside ~~Outside~~ Bottom Make Kuster Cap. 4150 No. 969 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 9:53 P. M

Tool Open I.F.P. From 9:55 M. to 10:25P M. Hr. 30 Min. From (B) 112 P.S.I. To (C) 118 P.S.I.

Tool Closed I.C.I.P. From 10:25 M. to 10:55P M. Hr. 30 Min. (D) 1206 P.S.I.

Tool Open F.F.P. From 10:55 M. to 11:25P. M. Hr. 30 Min. From (E) 126 P.S.I. To (F) 131 P.S.I.

Tool Closed F.C.I.P. From 11:25 M. to 12:25A. M. Hr. 60 Min. (G) 1258 P.S.I.

Initial Hydrostatic Pressure (A) 1829 P.S.I. Final Hydrostatic Pressure (H) 1821 P.S.I.

SURFACE INFORMATION	Size Choke 3/8 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Fair decreasing to weak for 35 minutes Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 140 feet drilling mud

Reversed Out Yes X No Mud Type Chem. Viscosity 46 Weight 9.9 Water Loss 10.1 cc. Maximum Temp. 106 °F

Type Circ. Sub. Plug Did Tool Plug? No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Safety Joint No Did Packer Hold? Yes Where?

Length Drill Pipe 2520 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 836 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 192 ft.

I. D. Drill Collars 2.5 in. Length D.S.T. Tool 11? ft.

Remarks Slid tool 10 feet to bottom - Flush tool after 5 minutes final flow

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 3-27-69 Test Ticket No. 11966

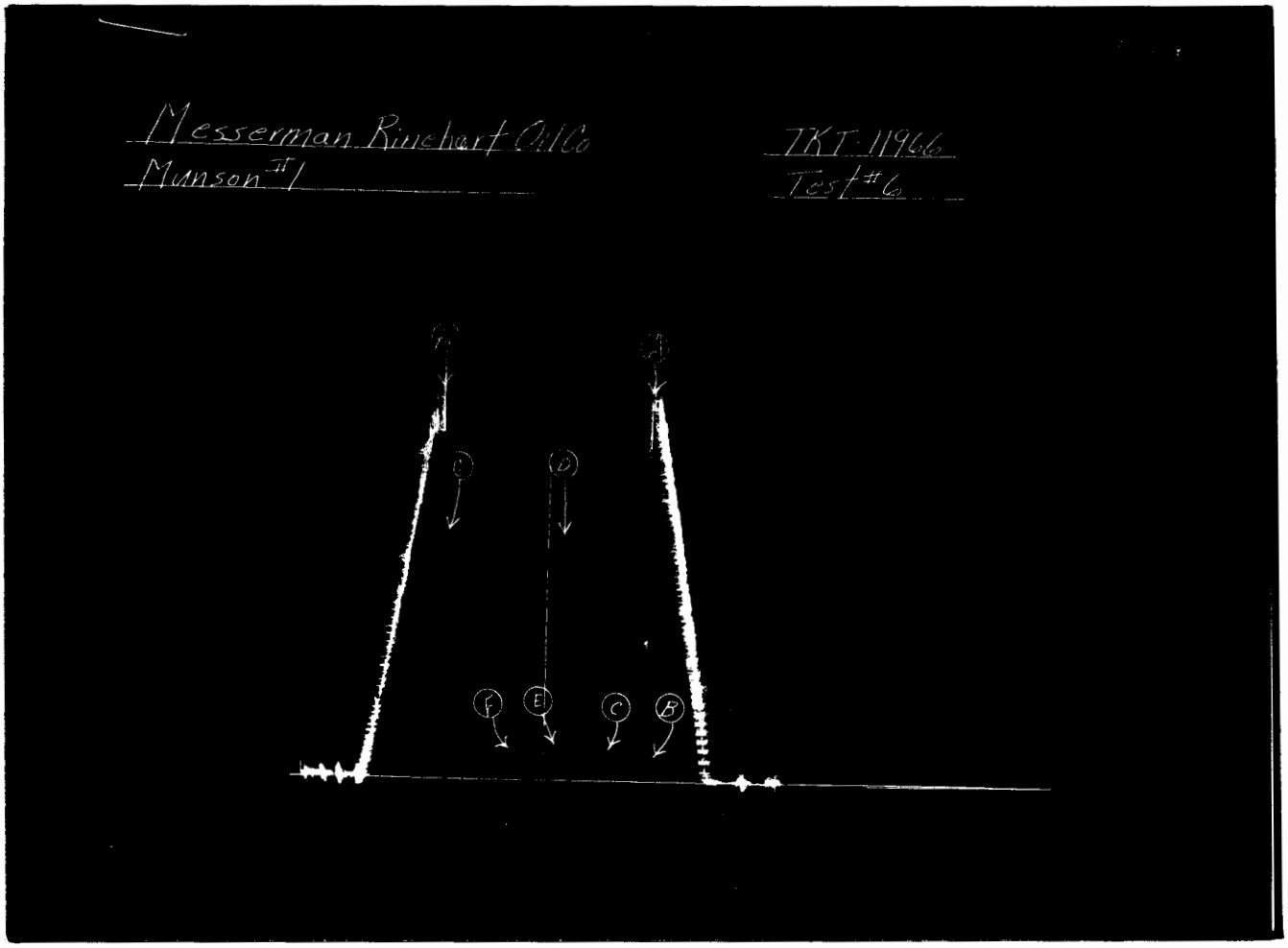
Recorder No. 2607 Capacity 4150 Location 3662 Ft.

Clock No. 6892 Elevation 2549 Kelly Bushing Well Temperature 106 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1829 P.S.I.	Open Tool	9:53 PM	
B First Initial Flow Pressure	112 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	118 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	1206 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	126 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	131 P.S.I.			
G Final Closed-in Pressure	1258 P.S.I.			
H Final Hydrostatic Mud	1821 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.		Breakdown: 10 Inc. of 3 mins. and a final inc. of ____ Min.		Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.		Breakdown: 20 Inc. of 3 mins. and a final inc. of ____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	112	0	118	0	126	0	131
P 2 5	113	3	249	5	127	3	349
P 3 10	114	6	483	10	128	6	574
P 4 15	116	9	672	15	129	9	766
P 5 20	117	12	814	20	130	12	912
P 6 25	118	15	954	25	130	15	1006
P 7 30	118	18	1048	30	131	18	1069
P 8		21	1102			21	1121
P 9		24	1154			24	1156
P10		27	1181			27	1186
P11		30	1206			30	1206
P12						33	1221
P13						36	1231
P14						39	1240
P15						42	1246
P16						45	1252
P17						48	1254
P18						51	1255
P19						54	1256
P20						57	1257
						60	1258



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1815	1829	PSI
(B)	First Initial Flow Pressure	105	112	PSI
(C)	First Final Flow Pressure	116	118	PSI
(D)	Initial Closed-in Pressure	1186	1206	PSI
(E)	Second Initial Flow Pressure	126	126	PSI
(F)	Second Final Flow Pressure	126	131	PSI
(G)	Final Closed-in Pressure	1248	1258	PSI
(H)	Final Hydrostatic Mud	1825	1821	PSI

COMPANY Messman-Rinehart Oil Co. LEASE AND WELL NO. Munson #1 SEC. 24 TWP. 4s RGE. 27w TEST NO. 6 DATE 3-27-69

WESTERN TEST SERVICE

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Messman-Rinehart Oil Company Lease & Well No. Munson #1

Elevation 2549 Kelly Bushing Formation Effective Pay Ft. Ticket No. 11967

Date 3-29-69 Sec. 24 Twp. 4s Range 27w County Decatur State Kansas

Test Approved by J. G. Klein Western Representative W. C. Craig

Formation Test No. 7 O.K. X Misrun Interval Tested From 3890' to 3904' Total Depth 3950'

Size Main Hole 7 7/8 Rat Hole Conv. B.T. X Damaged Yes X No Conv. X B.T. Damaged Yes X No

Top Packer Depth 3885 Ft. Size 6 3/4" Packer Depth 3890 Ft. Size 6 3/4"

Straddle Yes X No Conv. X B.T. Damaged Yes X No

Packer Depth 3904 Ft. Size 6 3/4"

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 14 Ft. Size 5 1/2" O.D.

RECORDERS Depth 3897 Ft. Clock No. 6892 Depth 3900 Ft. Clock No. 6894

Top Make Kuster Cap. 4150 No. 2607 Inside Outside Bottom Make Kuster Cap. 4150 No. 969 Inside Outside

Below Straddle: Depth 3907 Clock No. 147 Inside Outside Depth 3949 Ft. Clock No. 104 Inside Outside

Top Make WTC Cap. 4000 No. 26 Inside Outside Bottom Make WTC Cap. 4000 No. 52 Inside Outside

Time Set Packer 5:18 P.M

Tool Open I.F.P. From 5:20 M. to 5:50P. M. Hr. 30 Min. From (B) 48 P.S.I. To (C) 48 P.S.I.

Tool Closed I.C.I.P. From 5:50 M. to 6:20P. M. Hr. 30 Min. (D) 1108 P.S.I.

Tool Open F.F.P. From 6:20 M. to 7:00P. M. Hr. 40 Min. From (E) 54 P.S.I. To (F) 61 P.S.I.

Tool Closed F.C.I.P. From 7:00 M. to 7:45P. M. Hr. 45 Min. (G) 1083 P.S.I.

Initial Hydrostatic Pressure (A) 1833 P.S.I. Final Hydrostatic Pressure (H) 1827 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/8 In.		M.	
			M.	
			M.	

BLOW Weak for 35 minutes Bottom Choke Size 3/4 In.

Did Well Flow Yes x No Recovery Total Ft. 75 feet drilling mud

Reversed Out Yes x No Mud Type Chem Viscosity 47 Weight 10.0 Water Loss 10.5 cc. Maximum Temp. 105 °F

Type Circ. Sub. Plug Did Tool Plug? No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers 3 Safety Joint No Did Packer Hold? Yes Where?

Length Drill Pipe 2842 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 836 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 122 ft.

I. D. Drill Collars 2.5 in. Length D.S.T. Tool 80 ft.

Remarks Flush tool after 20 minutes final flow

WESTERN TESTING CO., INC.

Pressure Data

Date 3-29-09 Test Ticket No. 11967

Recorder No. 2607 Capacity 4150 Location 3897 Ft.

Clock No. [illegible] Elevation 2549 Kelly Bushing Well Temperature 105 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1833	P.S.I.
B	First Initial Flow Pressure	48	P.S.I.
C	First Final Flow Pressure	48	P.S.I.
D	Initial Closed-in Pressure	1108	P.S.I.
E	Second Initial Flow Pressure	54	P.S.I.
F	Second Final Flow Pressure	61	P.S.I.
G	Final Closed-in Pressure	1083	P.S.I.
H	Final Hydrostatic Mud	1827	P.S.I.

	Time Given		Time Computed	
Open Tool	5:18	P M		
First Flow Pressure	30	Mins.	30	Mins.
Initial Closed-in Pressure	30	Mins.	31	Mins.
Second Flow Pressure	40	Mins.	40	Mins.
Final Closed-in Pressure	45	Mins.	44	Mins.

PRESSURE BREAKDOWN

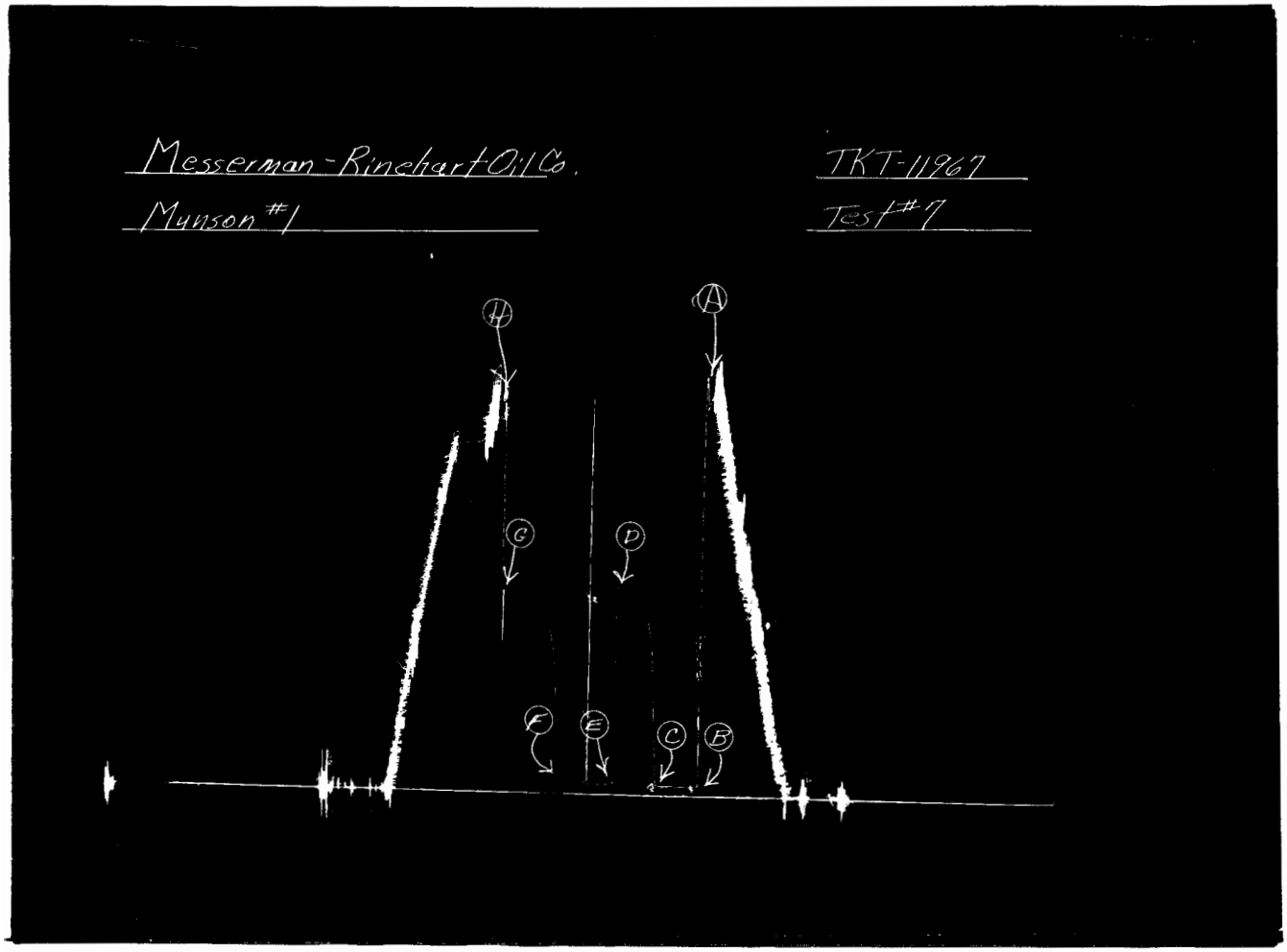
First Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.

Initial Shut-In
Breakdown: 10 Inc. of 3 mins. and a final inc. of 1 Min.

Second Flow Pressure
Breakdown: 8 Inc. of 5 mins. and a final inc. of ____ Min.

Final Shut-In
Breakdown: 14 Inc. of 3 mins. and a final inc. of 2 Min.

Point	First Flow Pressure Mins.	First Flow Pressure Press.	Initial Shut-In Point Minutes	Initial Shut-In Press.	Second Flow Pressure Point Minutes	Second Flow Pressure Press.	Final Shut-In Point Minutes	Final Shut-In Press.
P 1	0	48	0	48	0	54	0	61
P 2	5	48	3	396	5	54	3	290
P 3	10	48	6	766	10	54	6	653
P 4	15	48	9	922	15	54	9	851
P 5	20	48	12	1000	20	61	12	931
P 6	25	48	15	1039	25	61	15	974
P 7	30	48	18	1062	30	61	18	1004
P 8			21	1077	35	61	21	1022
P 9			24	1089	40	61	24	1035
P10			27	1097			27	1050
P11			30	1106			30	1058
P12			31	1108			33	1064
P13							36	1071
P14							39	1077
P15							42	1079
P16							44	1083
P17								
P18								
P19								
P20								



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1825	1833	PSI
(B)	First Initial Flow Pressure	52	48	PSI
(C)	First Final Flow Pressure	52	48	PSI
(D)	Initial Closed-in Pressure	1102	1108	PSI
(E)	Second Initial Flow Pressure	52	54	PSI
(F)	Second Final Flow Pressure	52	61	PSI
(G)	Final Closed-in Pressure	1081	1083	PSI
(H)	Final Hydrostatic Mud	1836	1827	PSI

COMPANY Messman-Rinehart Oil Co. LEASE AND WELL NO. Munson #1 SEC. 24 TWP. 4s RGE. 27w TEST NO. 7 DATE 3-29-69

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Messman-Rinehart Oil Co. Lease & Well No. Munson # 1

Elevation 2549 Kelly Bushing Formation Howard Effective Pay 8 Ft. Ticket No. 11962

Date 3-25-69 Sec. 24 Twp. 4s Range 27w County Decatur State Kansas

Test Approved by Bill Iversen Western Representative Kenneth Cheney

Formation Test No. 2 O.K. x Misrun Interval Tested From 3230' to 3245' Total Depth 3245'

Size Main Hole 7 7/8 Rat Hole Conv. B.T. x Damaged Yes x No Conv. x B.T. Damaged Yes x No

Top Packer Depth 3225 Ft. Size 6 3/4 Packer Depth 3230 Ft. Size 6 3/4

Straddle Yes No x Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5½"OD Tool Jt. Size 4½"FH Anchor Length 15 Ft. Size 5½"OD

RECORDERS Depth 3238 Ft. Clock No. 6892 Depth 3240 Ft. Clock No. 6894

Top Make Kuster Cap. 4150 No. 2607 Inside ~~Outside~~ Bottom Make Kuster Cap. 4150 No. 969 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 12:48A M

Tool Open I.F.P. From 12:50 M. to 1:20A M. Hr. 30 Min. From (B) 14 P.S.I. To (C) 88 P.S.I.

Tool Closed I.C.I.P. From 1:20 M. to 1:50A M. Hr. 30 Min. (D) 1137 P.S.I.

Tool Open F.F.P. From 1:50 M. to 2:50A M. 1 Hr. - Min. From (E) 103 P.S.I. To (F) 179 P.S.I.

Tool Closed F.C.I.P. From 2:50 M. to 3:50A M. 1 Hr. - Min. (G) 1149 P.S.I.

Initial Hydrostatic Pressure (A) 1823 P.S.I. Final Hydrostatic Pressure (H) 1800 P.S.I.

SURFACE INFORMATION	Size Choke 3/8 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Strong Bottom Choke Size 3/4 In.

Did Well Flow Yes x No Recovery Total Ft. 248 feet gas in pipe—310 feet froggie oil—120 feet water

Reversed Out Yes x No Mud Type chem Viscosity 40 Weight 10.1 Water Loss 11.0 cc. Maximum Temp. 101 °F

Type Circ. Sub. plug Did Tool Plug? no Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Did Packer Hold? yes Where?

Length Drill Pipe 2374 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 836 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 192 ft.

I. D. Drill Collars 2.7 in. Length D.S.T. Tool 35 ft.

Remarks

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 3-25-69 Test Ticket No. 11962

Recorder No. 2607 Capacity 4150 Location 3238 Ft.

Clock No. 6892 Elevation 2549 Kelly Bushing Well Temperature 101 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1823	P.S.I.	Open Tool	12:48 A M	
B	First Initial Flow Pressure	14	P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	88	P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	1137	P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	103	P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	179	P.S.I.			
G	Final Closed-in Pressure	1149	P.S.I.			
H	Final Hydrostatic Mud	1800	P.S.I.			

PRESSURE BREAKDOWN

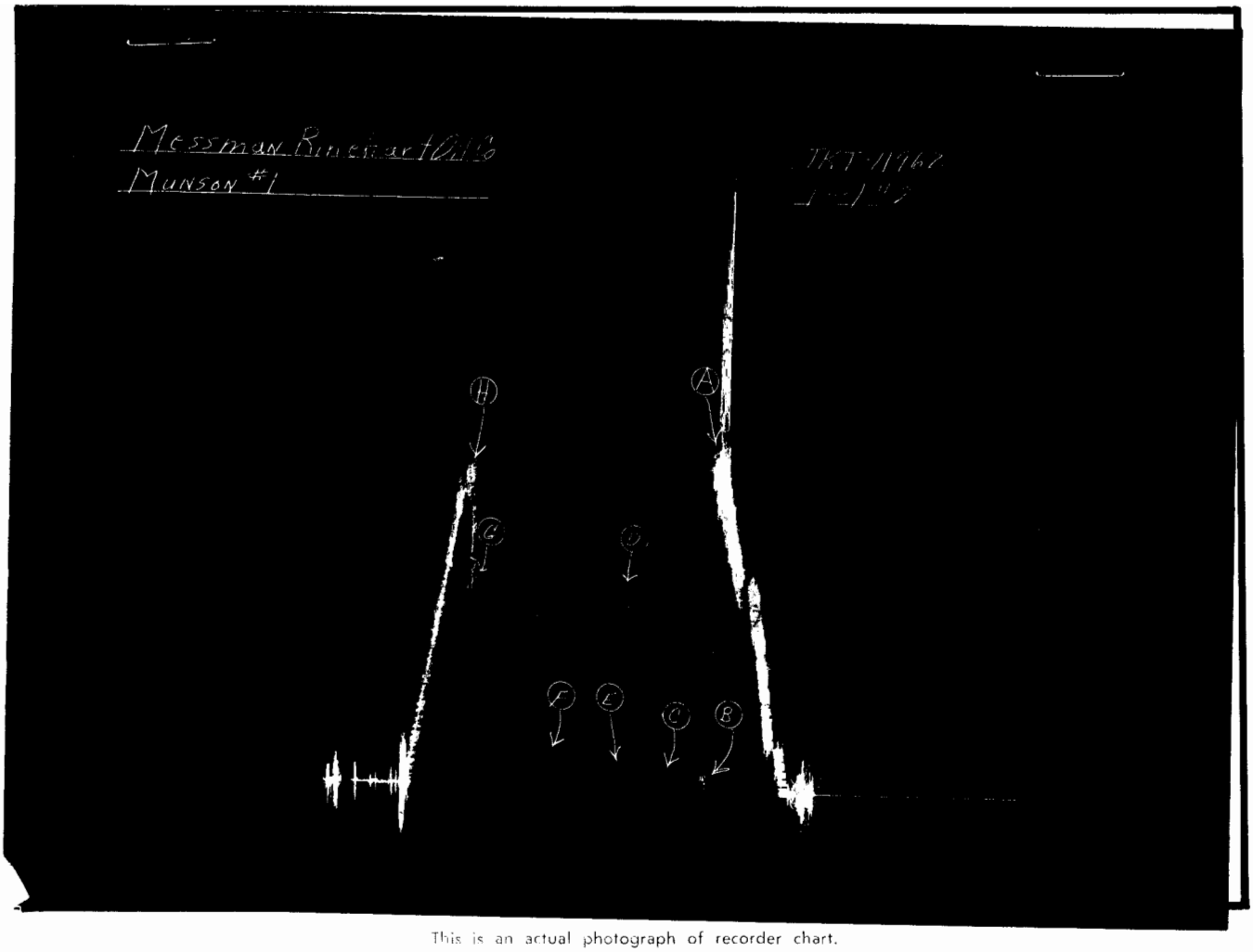
First Flow Pressure
Breakdown: ____ Inc.
of ____ mins. and a
final inc. of ____ Min.

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of ____ Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of ____ Min.

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of ____ Min.

Point	First Flow Pressure Mins.	First Flow Pressure Press.	Initial Shut-In Point Minutes	Initial Shut-In Press.	Second Flow Pressure Point Minutes	Second Flow Pressure Press.	Final Shut-In Point Minutes	Final Shut-In Press.
P 1	0	14	0	88	0	103	0	179
P 2	5	plugging action	3	410	5	104	3	381
P 3	10	4	6	830	10	112	6	695
P 4	15		9	912	15	116	9	887
P 5	20		12	1031	20	122	12	984
P 6	25	86	15	1066	25	131	15	1216
P 7	30	88	18	1082	30	139	18	1041
P 8			21	1104	35	145	21	1062
P 9			24	1117	40	154	24	1077
P10			27	1129	45	158	27	1089
P11			30	1137	50	165	30	1098
P12					55	173	33	1106
P13					60	179	36	1114
P14							39	1121
P15							42	1127
P16							45	1133
P17							48	1135
P18							51	1139
P19							54	1143
P20							57	1146
							60	1149



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1878	1823	PSI
(B)	First Initial Flow Pressure	16	14	PSI
(C)	First Final Flow Pressure	95	88	PSI
(D)	Initial Closed-in Pressure	1140	1137	PSI
(E)	Second Initial Flow Pressure	112	103	PSI
(F)	Second Final Flow Pressure	190	179	PSI
(G)	Final Closed-in Pressure	1154	1149	PSI
(H)	Final Hydrostatic Mud	1870	1800	PSI

COMPANY Messman-Rinehart Oil Co. LEASE AND WELL NO. Munson #1 SEC. 24 TWP. 4S RGE. 27W TEST NO. 2 DATE 2-25-