15-039-20206

24-4s-27w

WESTERN TESTERS

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

Company Messman-Rinehart Oil Co. Lease & Well No. Munson #2

Elevation 2549 Kelly Bushings Formation Tarkio Effective Pay Ft. Ticket No. 15407

Date 3-5-71 Sec. 24 Twp. 4S Range 27W County Decatur State Kansas

Test Approved by J. G. Klein Western Representative Kenneth Cheney

Formation Test No. 1 O.K. X Misrun Interval Tested From 3164' to 3202' Total Depth 3202'

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 3159 Ft. Size 6 3/4" Packer Depth 3164 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 38 Ft. Size 5 1/2" O.D.

RECORDERS Depth 3194 Ft. Clock No. 9725 Depth 3196 Ft. Clock No. 6859

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 12:43 AM

Tool Open I.F.P. From 12:45 M. to 12:55A M. Hr. 10 Min. From (B) 27 P.S.I. To (C) 29 P.S.I.

Tool Closed I.C.I.P. From 12:55 M. to 1:25A. M. Hr. 30 Min. (D) 1025 P.S.I.

Tool Open F.F.P. From 1:25 M. to 3:25A M. 2 Hr. Min. From (E) 35 P.S.I. To (F) 53 P.S.I.

Tool Closed F.C.I.P. From 3:25 M. to 4:10A M. Hr. 45 Min. (G) 887 P.S.I.

Initial Hydrostatic Pressure (A) 1689 P.S.I. Final Hydrostatic Pressure (H) 1651 P.S.I.

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

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

Did Well Flow Yes X No Recovery Total Ft. 120 feet gas in pipe

30 feet muddy oil

30 feet heavy oil cut mud

Reversed Out Yes X No Mud Type Chem. Viscosity 40 Weight 9.8 Water Loss 16.4 cc. Maximum Temp. 99 °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 1967 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1177 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ft.

I. D. Drill Collars in. Length D.S.T. Tool 58 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

Date 3-5-71 Test Ticket No. 15407

Recorder No. 2607 Capacity 4150 Location 3194 Ft.

Clock No. 9725 Elevation 2549 Kelly Bushings Well Temperature 99 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1689 P.S.I.	Open Tool	12:43 A. M.	
B First Initial Flow Pressure	27 P.S.I.	First Flow Pressure	10 Mins.	11 Mins.
C First Final Flow Pressure	29 P.S.I.	Initial Closed-in Pressure	30 Mins.	33 Mins.
D Initial Closed-in Pressure	1025 P.S.I.	Second Flow Pressure	120 Mins.	120 Mins.
E Second Initial Flow Pressure	35 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F Second Final Flow Pressure	53 P.S.I.			
G Final Closed-in Pressure	887 P.S.I.			
H Final Hydrostatic Mud	1651 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 2 Inc.
of 5 mins. and a
final inc. of 1 Min.

Point Mins.	Press.
P 1 0	27
P 2 5	27
P 3 10	29
P 4 11	29
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of Min.

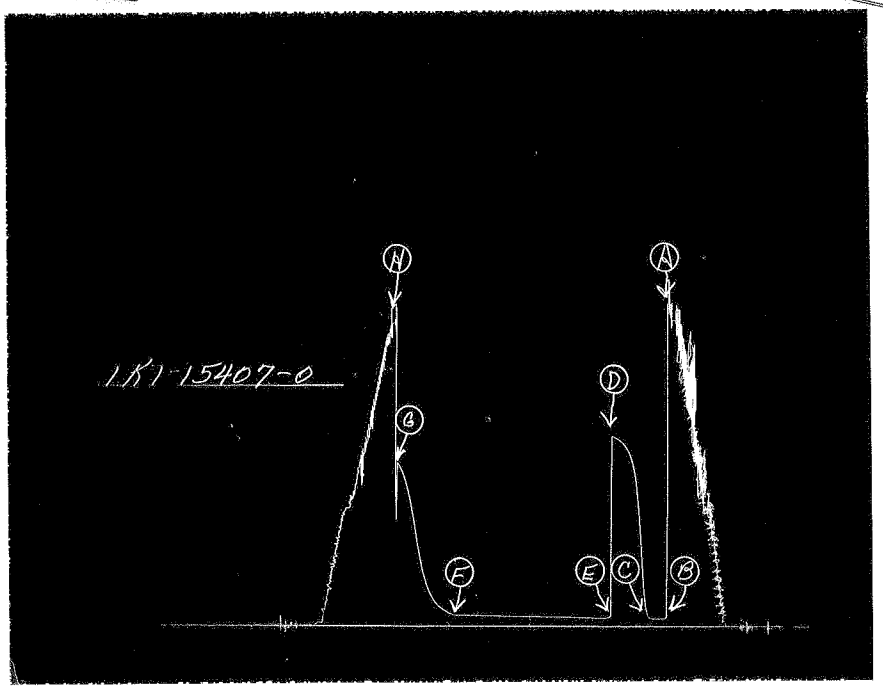
Point Minutes	Press.
0	29
3	78
6	268
9	524
12	760
15	878
18	935
21	968
24	993
27	1008
30	1020
33	1025

Second Flow Pressure
Breakdown: 24 Inc.
of 5 mins. and a
final inc. of Min.

Point Minutes	Press.
0	35
5	35
10	36
15	37
20	37
25	37
30	38
35	40
40	40
45	41
50	41
55	42
60	42
65	43
70	44
75	45
80	46
85	46
90	47
95	48
100	49
105	49
110	50
115	52
120	53

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of Min.

Point Minutes	Press.
0	53
3	54
6	63
9	71
12	90
15	112
18	139
21	173
24	224
27	312
30	419
33	574
36	697
39	789
46	847
45	887



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1783	1689	PSI
(B)	First Initial Flow Pressure	27	27	PSI
(C)	First Final Flow Pressure	31	29	PSI
(D)	Initial Closed-in Pressure	1029	1025	PSI
(E)	Second Initial Flow Pressure	31	35	PSI
(F)	Second Final Flow Pressure	48	53	PSI
(G)	Final Closed-in Pressure	882	887	PSI
(H)	Final Hydrostatic Mud	1773	1651	PSI

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

Company Messman-Rinehart Oil Co. Lease & Well No. Munson #2

Elevation 2549 Kelly Bushings Formation Tarkio Effective Pay Ft. Ticket No. 15408

Date 3-5-71 Sec. 24 Twp. 4S Range 27W County Decatur State Kansas

Test Approved by J. G. Klein Western Representative Kenneth Cheney

Formation Test No. 2 O.K. X Misrun Interval Tested From 3207' to 3217' Total Depth 3217'

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 3202 Ft. Size 6 3/4" Packer Depth 3207 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 10 Ft. Size 5 1/2" O.D.

RECORDERS Depth 3211 Ft. Clock No. 9725 Depth 3213 Ft. Clock No. 6859

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 11:53 A.M

Tool Open I.F.P. From 11:55 M. to 12:05P M. Hr. 10 Min. From (B) 65 P.S.I. To (C) 67 P.S.I.

Tool Closed I.C.I.P. From 12:05 M. to 12:35P M. Hr. 30 Min. (D) 1029 P.S.I.

Tool Open F.F.P. From 12:35 M. to 1:55P. M. 1 Hr. 30 Min. From (E) 84 P.S.I. To (F) 92 P.S.I.

Tool Closed F.C.I.P. From 1:55 M. to 2:40P. M. Hr. 45 Min. (G) 933 P.S.I.

Initial Hydrostatic Pressure (A) 1676 P.S.I. Final Hydrostatic Pressure (H) 1636 P.S.I.

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

BLOW Very weak Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 140 feet oil cut mud with trace of free oil (About 80 feet of mud when tool slid)

Reversed Out Yes X No Mud Type Chem. Viscosity 40 Weight 9.8 Water Loss 16.4 cc. Maximum Temp. 98 °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 2010 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1177 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ft.

I. D. Drill Collars in. Length D.S.T. Tool 30 ft.

Remarks Slid 30 feet to bottom

WESTERN TESTING CO., INC.
Pressure Data

Date 3-5-71 Test Ticket No. 15408

Recorder No. 2607 Capacity 4150 Location 3211 Ft.

Clock No. 9725 Elevation 2549 Kelly Bushings Well Temperature 98 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1676 P.S.I.	Open Tool	11:53 A. M	
B	First Initial Flow Pressure	65 P.S.I.	First Flow Pressure	10 Mins.	10 Mins.
C	First Final Flow Pressure	67 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	1029 P.S.I.	Second Flow Pressure	90 Mins.	85 Mins.
E	Second Initial Flow Pressure	84 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F	Second Final Flow Pressure	92 P.S.I.			
G	Final Closed-in Pressure	933 P.S.I.			
H	Final Hydrostatic Mud	1636 P.S.I.			

PRESSURE BREAKDOWN

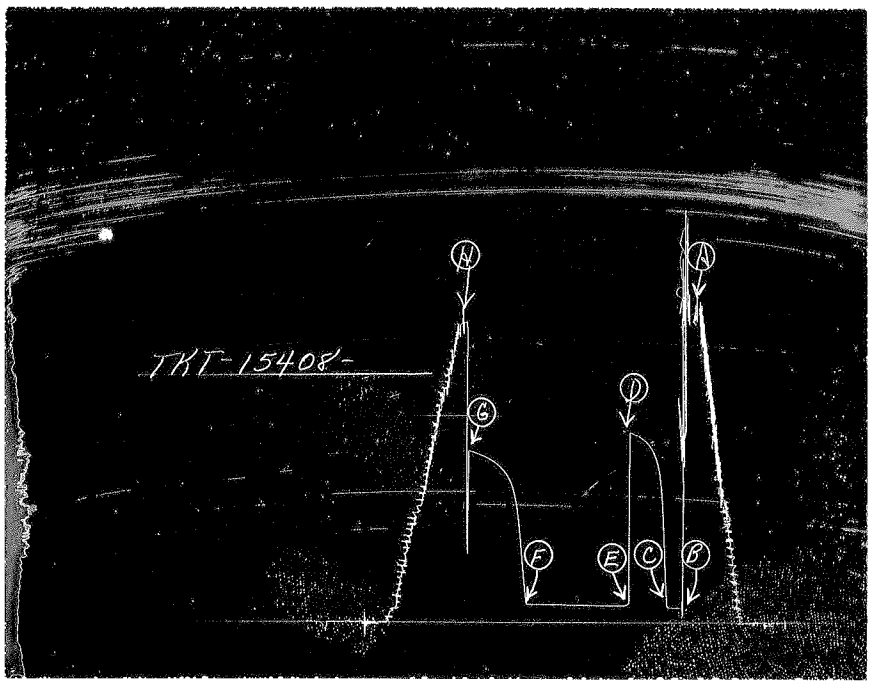
First Flow Pressure
Breakdown: 2 Inc. of 5 mins. and a final inc. of ____ Min.

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

Second Flow Pressure
Breakdown: 17 Inc. of 5 mins. and a final inc. of ____ Min.

Final Shut-In
Breakdown: 15 Inc. of 3 mins. and a final inc. of ____ Min.

Point	First Flow Pressure Mins.	Press.	Initial Shut-In Minutes	Press.	Second Flow Pressure Minutes	Press.	Final Shut-In Minutes	Press.
P 1	0	65	0	67	0	84	0	92
P 2	5	66	3	483	5	84	3	275
P 3	10	67	6	774	10	84	6	500
P 4			9	874	15	84	9	658
P 5			12	924	20	84	12	739
P 6			15	958	25	84	15	787
P 7			18	983	30	85	18	816
P 8			21	997	35	85	21	840
P 9			24	1008	40	85	24	857
P10			27	1020	45	86	27	874
P11			30	1029	50	87	30	887
P12					55	89	33	899
P13					60	90	36	910
P14					65	91	39	918
P15					70	91	42	925
P16					75	91	45	933
P17					80	92		
P18					85	92		
P19								
P20								



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1678	1676	PSI
(B)	First Initial Flow Pressure	63	65	PSI
(C)	First Final Flow Pressure	63	67	PSI
(D)	Initial Closed-in Pressure	1029	1029	PSI
(E)	Second Initial Flow Pressure	80	84	PSI
(F)	Second Final Flow Pressure	84	92	PSI
(G)	Final Closed-in Pressure	931	933	PSI
(H)	Final Hydrostatic Mud	1670	1636	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas

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

Company Messman-Rinehart Oil Company Lease & Well No. Munson #2

Elevation 2549 Kelly Bushings Formation Howard Effective Pay Ft. Ticket No. 15409

Date 3-6-71 Sec. 24 Twp. 4S Range 27W County Decatur State Kansas

Test Approved by J. G. Klein Western Representative Kenneth Cheney

Formation Test No. 3 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 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 15 Ft. Size 5 1/2" O.D.

RECORDERS Depth 3237 Ft. Clock No. 9725 Depth 3239 Ft. Clock No. 6859

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 12:28 A. M

Tool Open I.F.P. From 12:30 M. to 12:45A M. Hr. 15 Min. From (B) 18 P.S.I. To (C) 27 P.S.I.

Tool Closed I.C.I.P. From 12:45 M. to 1:30A. M. Hr. 45 Min. (D) 763 P.S.I.

Tool Open F.F.P. From 1:30 M. to 3:30A. M. 2 Hr. Min. From (E) 35 P.S.I. To (F) 74 P.S.I.

Tool Closed F.C.I.P. From 3:30 M. to 4:30A. M. 1 Hr. Min. (G) 726 P.S.I.

Initial Hydrostatic Pressure (A) 1716 P.S.I. Final Hydrostatic Pressure (H) 1693 P.S.I.

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

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

Did Well Flow Yes X No Recovery Total Ft. 5 feet free oil

120 feet muddy water

Reversed Out Yes X No Mud Type Chem. Viscosity 42 Weight 9.8 Water Loss 7.0 cc. Maximum Temp. 103 °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 2033 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1177 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ft.

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

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 3-6-71 Test Ticket No. 15409

Recorder No. 2607 Capacity 4150 Location 3237 Ft.

Clock No. 9725 Elevation 2549 Kelly Bushings Well Temperature 103 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1716 P.S.I.	Open Tool	12:28 A.M	
B	First Initial Flow Pressure	18 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C	First Final Flow Pressure	27 P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D	Initial Closed-in Pressure	763 P.S.I.	Second Flow Pressure	120 Mins.	118 Mins.
E	Second Initial Flow Pressure	35 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	74 P.S.I.			
G	Final Closed-in Pressure	726 P.S.I.			
H	Final Hydrostatic Mud	1693 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 3 Inc.
of 5 mins. and a
final inc. of ____ Min.

Point Mins.	Press.
P 1 0	18
P 2 5	23
P 3 10	24
P 4 15	27
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of ____ Min.

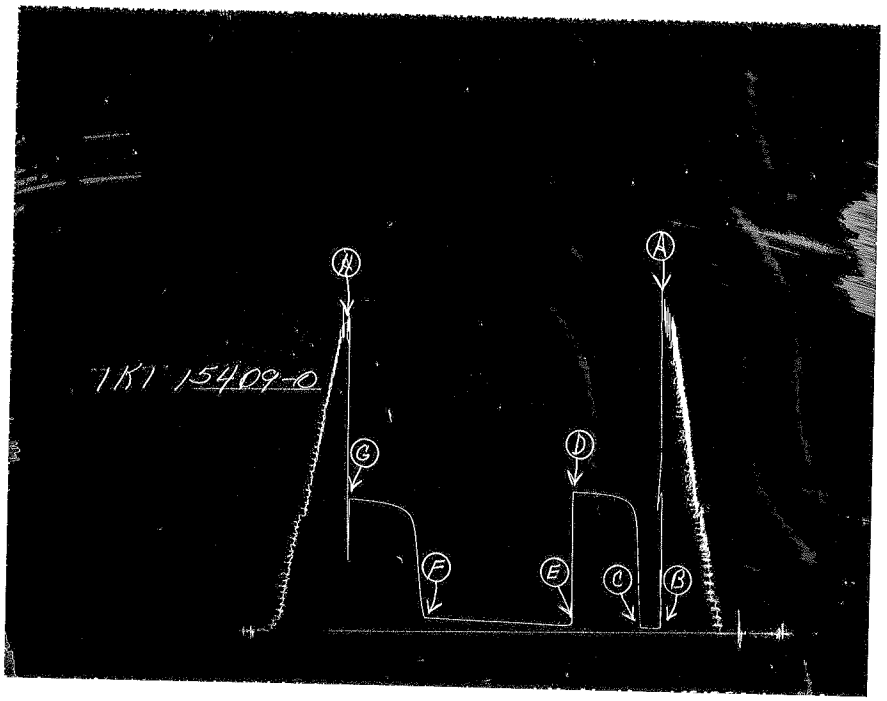
Point Minutes	Press.
0	27
3	572
6	676
9	705
12	720
15	729
18	738
21	743
24	747
27	749
30	753
33	755
36	757
39	760
42	762
45	763

Second Flow Pressure
Breakdown: 23 Inc.
of 5 mins. and a
final inc. of 3 Min.

Point Minutes	Press.
0	35
5	35
10	35
15	36
20	37
25	42
30	44
35	46
40	48
45	50
50	52
55	54
60	56
65	58
70	61
75	63
80	65
85	67
90	69
95	71
100	72
105	73
110	73
115	73
118	74

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

Point Minutes	Press.
0	74
3	133
6	353
9	539
12	620
15	649
18	666
21	678
24	685
27	691
30	698
33	703
36	708
39	710
42	712
45	714
48	718
51	720
54	722
57	724
60	726



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1716	1716	PSI
(B)	First Initial Flow Pressure	21	18	PSI
(C)	First Final Flow Pressure	27	27	PSI
(D)	Initial Closed-in Pressure	764	763	PSI
(E)	Second Initial Flow Pressure	31	35	PSI
(F)	Second Final Flow Pressure	69	74	PSI
(G)	Final Closed-in Pressure	722	726	PSI
(H)	Final Hydrostatic Mud	1693	1693	PSI