Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Catt Drilling Co. Inc. Lease & Well No. Austin #1

Elevation 1145 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 21940

Date 8-22-77 Sec. 33 Twp. 34S Range 1E County Sumner State Kansas

Test Approved by Mike Spain Western Representative Norman Allen

Formation Test No. 1 O.K. X Misrun - Interval Tested From 3710' to 3724' Total Depth 3724'

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 3705 Ft. Size 6 3/4 Bottom Packer Depth 3710 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 14 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 3716 Ft. Clock No. 8474 Depth 3719 Ft. Clock No. 9727

Top Make Kuster Cap. 3150 No. 1562 Inside Bottom Make Kuster Cap. 3200 No. 1561 ~~Inside~~ Outside

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

Time Set Packer 12:18P M

Tool Open I.F.P. From 12:20P M. to 12:50P M. - Hr. 30 Min. From (B) 41 P.S.I. To (C) 55 P.S.I.

Tool Closed I.C.I.P. From 12:50P M. to 1:50P M. - Hr. 60 Min (D) 1453 P.S.I.

Tool Open F.F.P. From 1:50P M. to 2:35P M. - Hr. 45 Min. From (E) 91 P.S.I. To (F) 108 P.S.I.

Tool Closed F.C.I.P. From 2:35P M. to 4:05P M. - Hr. 90 Min. (G) 1448 P.S.I.

Initial Hydrostatic Pressure (A) 1905 P.S.I. Final Hydrostatic Pressure (H) 1870 P.S.I. Maximum Temp. 126

INFORMATION

BLOW Weak blow throughout test.

Did Well Flow - Yes X No Recovery Total Ft. 182' total fluid recovery. 2' free oil, 60' very slightly oil cut muddy salt water, 120' salt water.

Reversed Out - Yes X No Mud Type Chem Viscosity 40 Weight 9.7 Water Loss 15.6 cc. Chlorides 4,800 p.p.m.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint Yes Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR White S. Ellis Drlg. (#2) Length Drill Pipe? 3452 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½FH In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 236 Ft. I.D. Drill Collars 2¼ In.

Tool Joint Size 4"H-90 Length D.S.T. Tool 36 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 8-22-77 Test Ticket No. 21940

Recorder No. 1562 Capacity 3150 Location 3716 Ft.

Clock No. 8474 Elevation 1145 Kelly Bushing Well Temperature 126 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1905	P.S.I.
B	First Initial Flow Pressure	41	P.S.I.
C	First Final Flow Pressure	55	P.S.I.
D	Initial Closed-in Pressure	1453	P.S.I.
E	Second Initial Flow Pressure	91	P.S.I.
F	Second Final Flow Pressure	108	P.S.I.
G	Final Closed-in Pressure	1448	P.S.I.
H	Final Hydrostatic Mud	1870	P.S.I.

	Time Given	Time Computed
Open Tool	12:18P M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	60 Mins.	60 Mins.
Second Flow Pressure	45 Mins.	45 Mins.
Final Closed-in Pressure	90 Mins.	90 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	41
P 2 5	33
P 3 10	34
P 4 15	38
P 5 20	44
P 6 25	50
P 7 30	55
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	55
3	329
6	331
9	1257
12	1306
15	1339
18	1361
21	1378
24	1391
27	1402
30	1412
33	1419
36	1426
39	1432
42	1435
45	1440
48	1445
51	1448
54	1451
57	1453
60	1453

Second Flow Pressure
Breakdown: 9 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	91
5	80
10	81
15	83
20	86
25	91
30	96
35	99
40	104
45	108

Final Shut-In
Breakdown: 30 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	108
3	364
6	939
9	1159
12	1242
15	1282
18	1310
21	1331
24	1347
27	1359
30	1372
33	1382
36	1388
39	1396
42	1402
45	1407
48	1412
51	1416
54	1419
57	1423

Cont. on next page

WESTERN TESTING CO., INC.

Pressure Data

Date 8-22-77 Test Ticket No. 21940

Recorder No. 1562 Capacity 3150 Location 3716 Ft.

Clock No. 8474 Elevation 1145 Kelly Bushing Well Temperature 126 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1905 P.S.I.	Open Tool	12:18P M	
B First Initial Flow Pressure	41 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	55 P.S.I.	Initial Closed-in Pressure	60 Mins.	60 Mins.
D Initial Closed-in Pressure	1453 P.S.I.	Second Flow Pressure	45 Mins.	45 Mins.
E Second Initial Flow Pressure	91 P.S.I.	Final Closed-in Pressure	90 Mins.	90 Mins.
F Second Final Flow Pressure	108 P.S.I.			
G Final Closed-in Pressure	1448 P.S.I.			
H Final Hydrostatic Mud	1870 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1	
P 2	
P 3	
P 4	
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: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

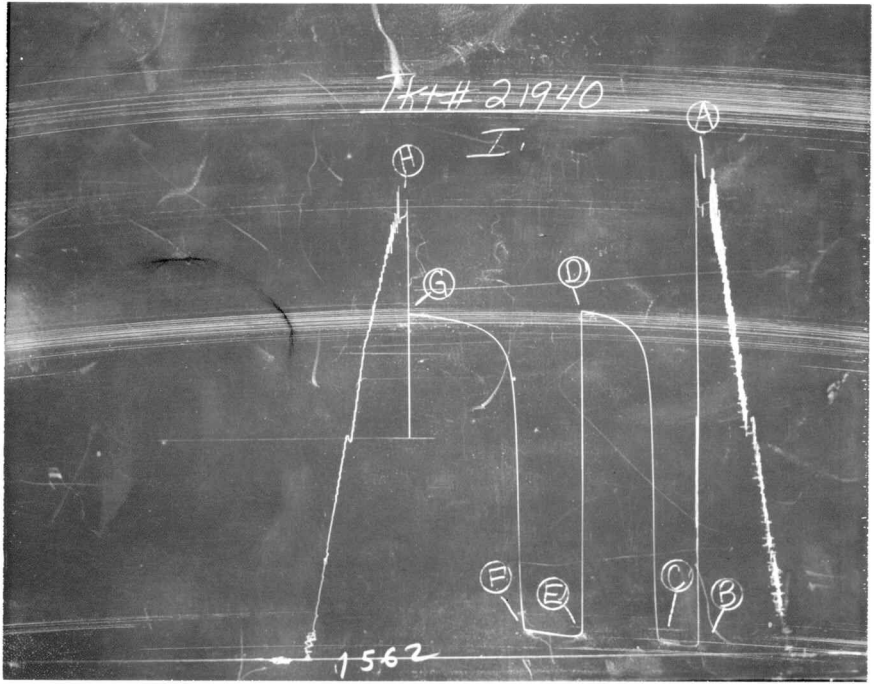
Point Minutes	Press.

Second Flow Pressure
Breakdown: 9 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.

Final Shut-In
Breakdown: 30 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
60	1426
63	1429
66	1432
69	1434
72	1435
75	1438
78	1440
81	1443
84	1445
87	1446
90	1448


Tkt# 21940
I.
H
A
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1562

Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Catt Drilling Co., Inc. Lease & Well No. Austin #1

Elevation 1145 Kelly Bush. Formation Simpson Effective Pay - Ft. Ticket No. 23235

Date 8-25-77 Sec. 33 Twp. 34S Range 1E County Sumner State Kansas

Test Approved by Mike Spain Western Representative Sam McClune

Formation Test No. 2 O.K. X Misrun - Interval Tested From 3977' to 4039' Total Depth 4039'

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

Top Packer Depth 3972 Ft. Size 6 3/4 Bottom Packer Depth 3977 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 62 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 3985 Ft. Clock No. 6896 Depth 4036 Ft. Clock No. 10167

Top Make Kuster Cap. 4200 No. 1558 ~~Inside~~ ~~Outside~~ Bottom Make Kuster Cap. 3150 No. 1564 = ~~Inside~~ Outside

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

Time Set Packer 10:23A M

Tool Open I.F.P. From 10:25A M. to 10:55A M. - Hr. 30 Min. From (B) 23 P.S.I. To (C) 25 P.S.I.

Tool Closed I.C.I.P. From 10:55A M. to 11:25A M. - Hr. 30 Min (D) 1314 P.S.I.

Tool Open F.F.P. From 11:25A M. to 12:25A M. - Hr. 60 Min. From (E) 42 P.S.I. To (F) 38 P.S.I.

Tool Closed F.C.I.P. From 12:25A M. to 1:10A M. - Hr. 45 Min. (G) 871 P.S.I.

Initial Hydrostatic Pressure (A) 1960 P.S.I. Final Hydrostatic Pressure (H) 1903 P.S.I. Maximum Temp. 135

INFORMATION

BLOW Very weak throughout initial flow period. Very weak for 25 minutes then died on final flow period.

Did Well Flow - Yes X No Recovery Total Ft. 20' drilling mud.

Reversed Out - Yes X No Mud Type Chem Viscosity 54 Weight 9.5 Water Loss 12.8 cc. Chlorides 8,600 p.p.m.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint Yes Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR White & Ellis (#2) Length Drill Pipe? 3804 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½FH In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 150 Ft. I.D. Drill Collars 2.25 In.

Tool Joint Size 4½H-90 In. Length D.S.T. Tool 85 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 8-25-77 Test Ticket No. 23235

Recorder No. 1558 Capacity 4200 Location 3985 Ft.

Clock No. 6896 Elevation 1145 Kelly Bushing Well Temperature 135 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1960	P.S.I.
B	First Initial Flow Pressure	23	P.S.I.
C	First Final Flow Pressure	25	P.S.I.
D	Initial Closed-in Pressure	1314	P.S.I.
E	Second Initial Flow Pressure	42	P.S.I.
F	Second Final Flow Pressure	38	P.S.I.
G	Final Closed-in Pressure	871	P.S.I.
H	Final Hydrostatic Mud	1903	P.S.I.

	Time Given	Time Computed
Open Tool	10:23A M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	30 Mins.	30 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	45 Mins.	45 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	23
P 2	5	21
P 3	10	22
P 4	15	23
P 5	20	24
P 6	25	25
P 7	30	25
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 0 Min.

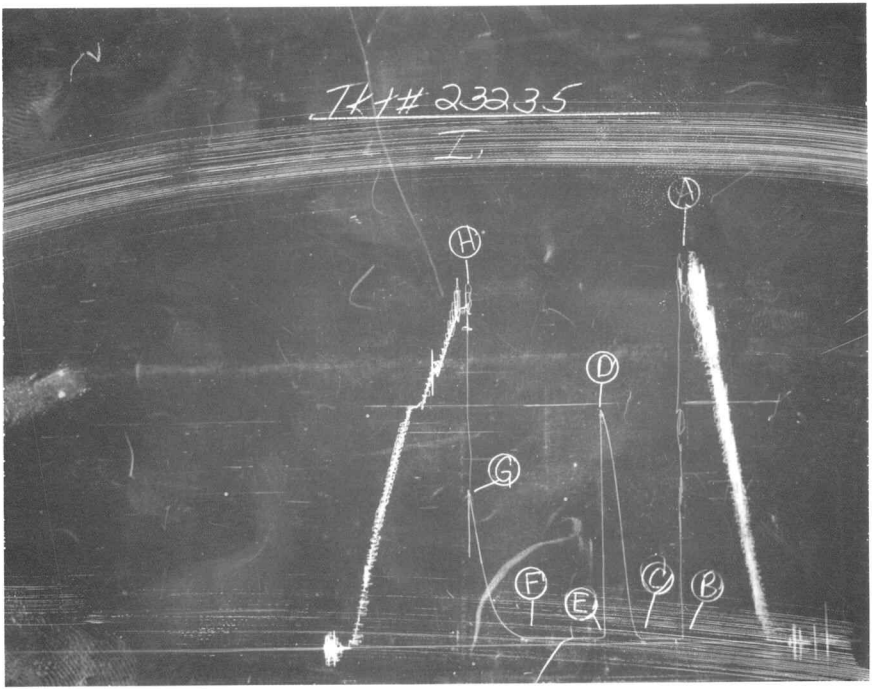
Point	Minutes	Press.
	0	25
	3	36
	6	86
	9	209
	12	437
	15	654
	18	864
	21	1040
	24	1169
	27	1259
	30	1314

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Minutes	Press.
	0	42
	5	32
	10	33
	15	33
	20	34
	25	34
	30	34
	35	34
	40	35
	45	36
	50	37
	55	38
	60	38

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point	Minutes	Press.
	0	38
	3	40
	6	45
	9	56
	12	70
	15	85
	18	105
	21	133
	24	171
	27	219
	30	289
	33	382
	36	496
	39	621
	42	748
	45	871


Tkt# 23235
I
A
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WESTERN TESTERS

Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Catt Drilling Co., Inc. Lease & Well No. Austin #1

Elevation 1145 Kelly Bush. Formation Simpson Effective Pay - Ft. Ticket No. 23236

Date 8-26-77 Sec. 33 Twp. 34S Range 1E County Sumner State Kansas

Test Approved by Mike Spain Western Representative Sam McClune

Formation Test No. 3 O.K. - Misrun X Interval Tested From 4033' to 4043' Total Depth 4043'

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

Top Packer Depth 3968 Ft. Size 6 3/4 Bottom Packer Depth 4033 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 10 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4037 Ft. Clock No. 6896 Depth 4040 Ft. Clock No. 10167

Top Make Kuster Cap. 4200 No. 1558 Inside ~~Outside~~ Bottom Make Kuster Cap. 3150 No. 1564 ~~Inside~~ Outside

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

Time Set Packer 3:28 A M

Tool Open I.F.P. From 3:30A M. to 4:00A M. - Hr. 30 Min. From (B) 89 P.S.I. To (C) 96 P.S.I.

Tool Closed I.C.I.P. From 4:00A M. to 5:00A M. - Hr. 60 Min (D) 1590 P.S.I.

Tool Open F.F.P. From 5:00A M. to 6:00A M. - Hr. 60 Min. From (E) - P.S.I. To (F) - P.S.I.

Tool Closed F.C.I.P. From 6:00A M. to 7:30A M. - Hr. 90 Min. (G) 1603 P.S.I.

Initial Hydrostatic Pressure (A) 2000 P.S.I. Final Hydrostatic Pressure (H) 1903 P.S.I. Maximum Temp. 132

INFORMATION

BLOW Very weak slightly increasing to weak on initial flow period. Very weak for 7 minutes then died on final flow period.

Did Well Flow - Yes X No Recovery Total Ft. 125' mud

Reversed Out - Yes X No Mud Type Chem Viscosity 54 Weight 9.5 Water Loss 12.8 cc. Chlorides 8,600 p.p.m.

EXTRA EQUIPMENT: Type Circ. Sub pin Safety Joint - Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR White & Ellis Drlg (#2) Length Drill Pipe? 3798 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½FH In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 150 Ft. I.D. Drill Collars 2.25 In.

Tool Joint Size 4½H-90 In. Length D.S.T. Tool 95 Ft.

Remarks: Malfunction due to drilling rig and driller. Unable to obtain initial flow period and final flow period.

WESTERN TESTING CO., INC.
Pressure Data

Date 8-26-77 Test Ticket No. 23236

Recorder No. 1558 Capacity 4200 Location 4037 Ft.

Clock No. 6896 Elevation 1145 Kelly Bushing Well Temperature 132 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2000 P.S.I.	Open Tool	3:28P M	
B First Initial Flow Pressure	89 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	96 P.S.I.	Initial Closed-in Pressure	60 Mins.	60 Mins.
D Initial Closed-in Pressure	1590 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	not readable P.S.I.	Final Closed-in Pressure	90 Mins.	90 Mins.
F Second Final Flow Pressure	not readable P.S.I.			
G Final Closed-in Pressure	1603 P.S.I.			
H Final Hydrostatic Mud	1903 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	89
P 2 5	91
P 3 10	92
P 4 15	94
P 5 20	94
P 6 25	95
P 7 30	96
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	96
3	not readable
6	not readable
9	not readable
12	not readable
15	not readable
18	not readable
21	not readable
24	not readable
27	not readable
30	not readable
33	not readable
36	1414
39	1485
42	1518
45	1540
48	1556
51	1567
54	1578
57	1585
60	1590

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	not readable
5	not readable
10	not readable
15	not readable
20	not readable
25	not readable
30	not readable
35	not readable
40	not readable
45	not readable
50	not readable
55	not readable
60	not readable

Final Shut-In
Breakdown: 30 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	not readable
3	not readable
6	not readable
9	not readable
12	not readable
15	not readable
18	not readable
21	not readable
24	1597
27	1599
30	1601
33	1603
36	1603
39	1603
42	1603
45	1603
48	1603
51	1603
54	1603
57	1603

WESTERN TESTING CO., INC.
Pressure Data

Date 8-26-77 Test Ticket No. 23236

Recorder No. 1558 Capacity 4200 Location 4037 Ft.

Clock No. 6896 Elevation 1145 Kelly Bushing Well Temperature 132 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2000 P.S.I.	Open Tool	3:28P M	
B First Initial Flow Pressure	89 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	96 P.S.I.	Initial Closed-in Pressure	60 Mins.	60 Mins.
D Initial Closed-in Pressure	1590 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	not readable P.S.I.	Final Closed-in Pressure	90 Mins.	90 Mins.
F Second Final Flow Pressure	not readable P.S.I.			
G Final Closed-in Pressure	1603 P.S.I.			
H Final Hydrostatic Mud	1903 P.S.I.			

PRESSURE BREAKDOWN

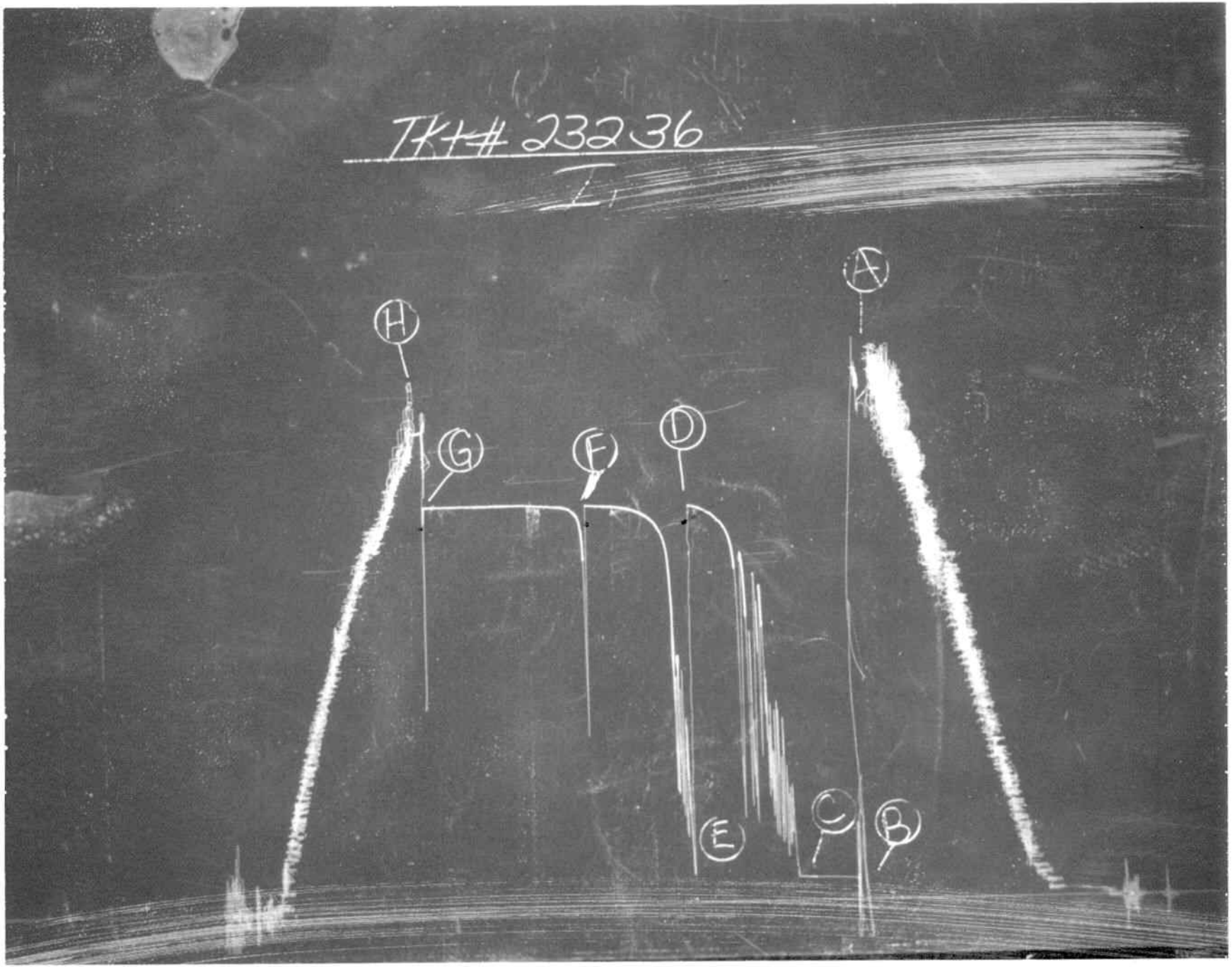
First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 30 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1						60	1603
P 2						63	1603
P 3						66	1603
P 4						69	1603
P 5						72	1603
P 6						75	1603
P 7						78	1603
P 8						81	1603
P 9						84	1603
P10						87	1603
P11						90	1603
P12							
P13							
P14							
P15							
P16							
P17							
P18							
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P20							


TK# 23236
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