WESTERN TESTERS

Home Office: Great Bend, Kansas

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

Company Davies-Fitzgerald Lease & Well No. Barngrover #1

Elevation 2522 Kelly Bushings Formation Winfield Effective Pay Ft. Ticket No. 17789

Date 8-28-73 Sec. 35 Twp. 27S Range 24W County Ford State Kansas

Test Approved by Benny C. Singleton Jr. Western Representative Charles W. Wedgewood

Formation Test No. 1 O.K. X Misrun Interval Tested From 2666' to 2710' Total Depth 2710'

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

Packer Depth 2666 Ft. Size 6 3/4" Packer Depth 2661 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 44 Ft. Size 5 1/2" O.D.

RECORDERS Depth 2702 Ft. Clock No. 8378 Depth 2705 Ft. Clock No. 4964

Top Make Kuster Cap 6200 No. 1562 Inside Outside Bottom Make Kuster Cap 6000 No. 1560 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 2:07 P. M

Tool Open I.F.P. From 2:10 M. to 2:40P M. Hr. 30 Min. From (B) 138 P.S.I. To (C) 234 P.S.I.

Tool Closed I.C.I.P. From 2:40 M. to 3:10P M. Hr. 30 Min. (D) 683 P.S.I.

Tool Open F.F.P. From 3:10 M. to 4:10P M. 1 Hr. Min. From (E) 249 P.S.I. To (F) 278 P.S.I.

Tool Closed F.C.I.P. From 4:10 M. to 5:10P. M. 1 Hr. Min. (G) 678 P.S.I.

Initial Hydrostatic Pressure (A) 1486 P.S.I. Final Hydrostatic Pressure (H) 1451 P.S.I.

SURFACE INFORMATION	Size Choke 3/4 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
	See Gas Sheet		M.	

BLOW Strong gas to surface 1 min. Bottom Choke Size 3/4 In.

Did Well Flow X Yes No Recovery Total Ft. 240 feet gas cut mud

Reversed Out Yes X No Mud Type Starch Viscosity 39 Weight 10.1 Water Loss 12. cc. Maximum Temp. 95 °F

Type Circ. Sub. Pin Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 2210 ft. I.D. Drill Pipe 3.80 in. Length Weight Pipe 434 ft. I.D. Weight Pipe 2.70 in. Length Drill Collars - ft.

I.D. Drill Collars - in. Length D.S.T. Tool 66 ft.

Remarks

WESTERN TESTERS

P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Davies-Fitzgerald LEASE & WELL NO. Barngrover #1

TEST NO. 1 INTERVAL TESTED FROM 2666' TO 2710'

TIME PRE-FLOW	MAX PRESS. P.S.I.	DESCRIPTION OF FLOW
2:10 P.M.	Tool open	
2:11	Gas to surface	
2:15	1 1/4" Merla orifice	gauged 542,000 C.F.P.D.
2:30	" " "	" 980,000 "
2:38	" " "	" 1,064,000 "
2:40	Tool closed I.C.I.P.	
SECOND FLOW		
3:10	Tool open F.F.P.	
3:15P.M.	1 1/4" Merla Orifice	1,187, 000 C.F.P.D.
3:30	" " "	1,388, 000 "
3:45	" " "	1,462, 000 "
4:00	" " "	1,506, 000 "
4:08	" " "	1,539,000 "

SIZE CHOKE SURFACE 3/4 IN. BOTTOM 3/4 IN.

REMARKS Took gas sample 25 min. on F.F.P.

FORM NO. WTC-6

WESTERN TESTING CO., INC.
Pressure Data

Date 8-28-73 Test Ticket No. 17789

Recorder No. 1562 Capacity 6200 Location 2702 Ft.

Clock No. 8378 Elevation 2522 Kelly Bushings Well Temperature 95 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1486 P.S.I.	Open Tool	2:10 P. M	
B First Initial Flow Pressure	138 P.S.I.	First Flow Pressure	30 Mins.	32 Mins.
C First Final Flow Pressure	234 P.S.I.	Initial Closed-in Pressure	30 Mins.	31 Mins.
D Initial Closed-in Pressure	683 P.S.I.	Second Flow Pressure	60 Mins.	58 Mins.
E Second Initial Flow Pressure	249 P.S.I.	Final Closed-in Pressure	60 Mins.	61 Mins.
F Second Final Flow Pressure	278 P.S.I.			
G Final Closed-in Pressure	678 P.S.I.			
H Final Hydrostatic Mud	1451 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 2 Min.

Point Mins.	Press.
P 1 0	138
P 2 5	150
P 3 10	171
P 4 15	192
P 5 20	211
P 6 25	223
P 7 30	228
P 8 32	234
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 1 Min.

Point Minutes	Press.
0	234
3	665
6	671
9	677
12	679
15	681
18	683
21	683
24	683
27	683
30	683
31	683

Second Flow Pressure
Breakdown: 11 Inc.
of 5 mins. and a
final inc. of 3 Min.

Point Minutes	Press.
0	249
5	250
10	254
15	261
20	264
25	268
30	271
35	273
40	274
45	276
50	276
55	277
58	278

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 1 Min.

Point Minutes	Press.
0	278
3	653
6	662
9	665
12	668
15	671
18	672
21	674
24	675
27	676
30	677
33	678
36	678
39	678
42	678
45	678
48	678
51	678
54	678
57	678
60	678
61	678

Marsh Oil Associates
Barngrover Well No. 1
NE-NE-NW Sec. 35-27S-24W
Ford County, Kansas

Morning Report

8-25-73 Rotary Rig moved on location.
Set 10 jts. of new 8-5/8" (20#/ft.) @ 409' with
225 sx common 3% CaCl, 2% gel.
Plug down at 11:00 P.M.

8-26-73 Drilling at 460'.

8-27-73 Drilling at 2150'. Top Anhydrite 1500'.

8-28-73 Drilling at 2676'

Herrington	2625'	(-103)
Krider	2652'	(-130)
Winfield	2680'	(-158)

Circulated at 2705' to drill stem test Winfield.

8-29-73

Towanda	2712'	(-190)
Ft. Riley	2780'	(-258)
Florence	2837'	(-315)

Drilling at 2,920'.

Drill Stem Test yesterday - No. 1
From 2,666' to 2,710'
Gas to surface in one minute - flowed through 1¼ orifice.

Gauge	5 minutes	542,000
	15 minutes	980,000
	30 minutes	1,064,000
	35 minutes	1,187,000
	50 minutes	1,388,000
	65 minutes	1,462,000
	80 minutes	1,506,000
	90 minutes	1,539,000

Recovered 240' gas cut watery mud

Initial Flow Pressures	135	to	240
Final Flow Pressures	255	to	285
Shut-In Pressures	677	-	677

Open 30 minutes
Shut-in 30 minutes
Open 60 minutes
Shut-in 60 minutes.

Means Laboratories, Inc.

ANALYTICAL & CONSULTING CHEMISTS
419 N. HANDLEY • BOX 2012 • TELEPHONE 262-4407
Wichita, Kansas 67203

TO: Davies & Fitzgerald
1302 Filtower Bldg.
Tulsa, Oklahoma

DATE: August 31, 1973

LAB. NO.: 7260

Date Submitted: 8-30-73

Sample Submitted: 1 gas sample marked #1 Barngrover, Test #1, depth 2666-2710, Winfield Formation

GAS ANALYSIS

	% Molal
Nitrogen	38.4
Methane	60.3
Ethane	1.14
Propane	.16
Iso butane	0
N. butane	0
Iso pentane	0
N. pentane	0
Gross BTU (60° F, 30" mercury, saturated)	635

Respectfully submitted,

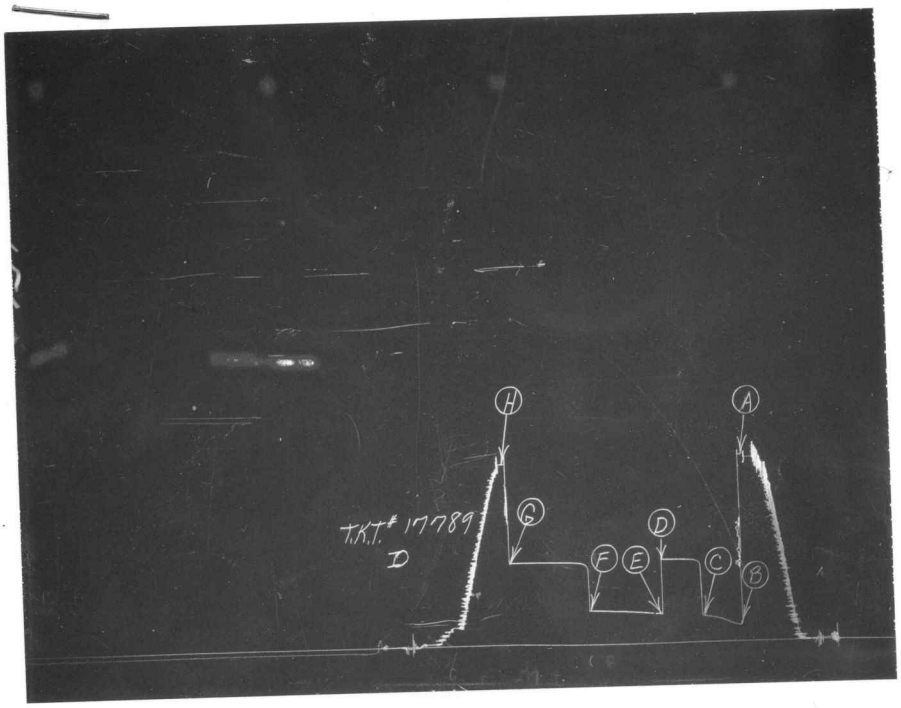
MEANS LABORATORIES, INC.

Eldon A. Means

Eldon A. Means jw

EAM:jw

COMPANY Davies-Fitzgerald LEASE AND WELL NO. Barngrover #1 SEC. 35 TWP. 27S RGE. 24W TEST NO. 1 DATE 8-28-



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1509	1486	PSI
(B)	First Initial Flow Pressure	135	138	PSI
(C)	First Final Flow Pressure	240	234	PSI
(D)	Initial Closed-in Pressure	677	683	PSI
(E)	Second Initial Flow Pressure	255	249	PSI
(F)	Second Final Flow Pressure	285	278	PSI
(G)	Final Closed-in Pressure	677	678	PSI
(H)	Final Hydrostatic Mud	1478	1451	PSI

WESTERN TESTERS

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

Company Davies-Fitzgerald Lease & Well No. #1 Barngrover

Elevation 2522 Kelly Bushings Formation Cottenwood Effective Pay - Ft. Ticket No. 17790

Date 8-30-73 Sec. 35 Twp. 27S Range 24W County Ford State Kansas

Test Approved by Benny C. Singleton, Jr. Western Representative Charles W. Wedgewood

Formation Test No. 2 O.K. X Misrun Interval Tested From 3183' to 3220' Total Depth 3220'

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

Packer Depth 3183 Ft. Size 6 3/4" Packer Depth 3178 Ft. Size 6 3/4"

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

Packer Depth Ft. Size

Tool Size 5½" O.D. Tool Jt. Size 4½" F.H. Anchor Length 37 Ft. Size 5½" O.D.

RECORDERS Depth 3212 Ft. Clock No. 8378 Depth 3215 Ft. Clock No. 4964

Top Make Kuster Cap 6200 No. 1562 ~~Inside~~ Outside Bottom Make Kuster Cap 6000 No. 1560 ~~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 1:51 P. M

Tool Open I.F.P. From 1:54 M. to 2:24 P. M. Hr. 30 Min. From (B) 75 P.S.I. To (C) 213 P.S.I.

Tool Closed I.C.I.P. From 2:24 M. to 2:54 P. M. Hr. 30 Min. (D) 930 P.S.I.

Tool Open F.F.P. From 2:54 M. to 3:24 P. M. Hr. 30 Min. From (E) 240 P.S.I. To (F) 313 P.S.I.

Tool Closed F.C.I.P. From 3:24 M. to 3:54 P. M. Hr. 30 Min. (G) 921 P.S.I.

Initial Hydrostatic Pressure (A) 1766 P.S.I. Final Hydrostatic Pressure (H) 1715 P.S.I.

SURFACE INFORMATION	Size Choke ¼ In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Good Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 500 feet Salt Water

Reversed Out Yes X No Mud Type Starch Viscosity 40 Weight 9.9 Water Loss 12 cc. Maximum Temp. 100 °F

Type Circ. Sub. Pin Safety Joint - Jars: Size Make Ser. No.

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

Length Drill Pipe 2674 ft. I.D. Drill Pipe 3.80 in. Length Weight Pipe 434 ft. I.D. Weight Pipe 2.70 in. Length Drill Collars - ft.

I.D. Drill Collars - in. Length D.S.T. Tool 56 ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 8-30-73 Test Ticket No. 17790

Recorder No. 1562 Capacity 6200 Location 3212 Ft.

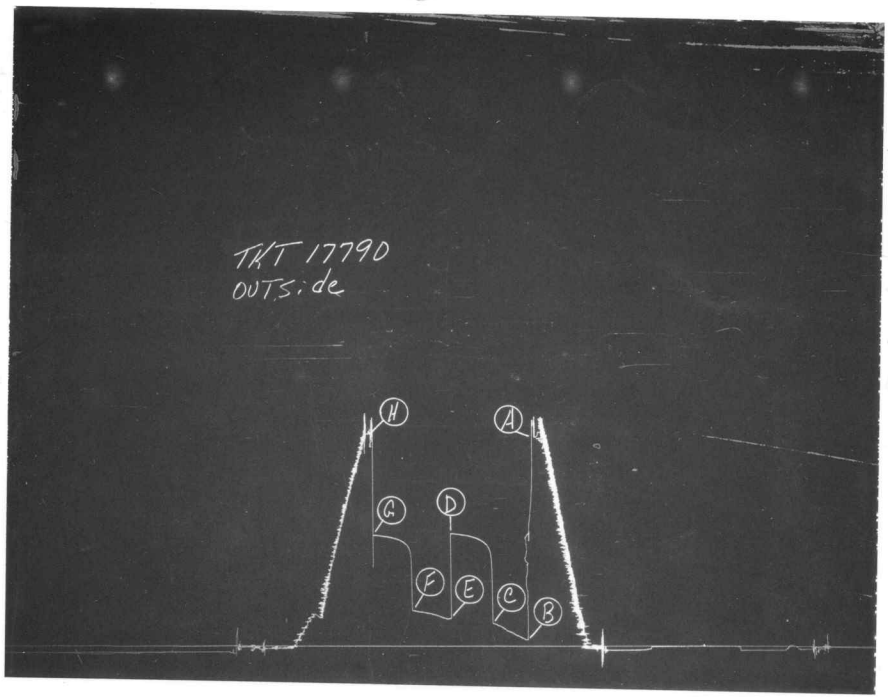
Clock No. 8378 Elevation 2522 Kelly Bushings Well Temperature 100 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1766 P.S.I.	Open Tool	1:51 P.M	
B First Initial Flow Pressure	75 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	213 P.S.I.	Initial Closed-in Pressure	30 Mins.	33 Mins.
D Initial Closed-in Pressure	930 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	240 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	313 P.S.I.			
G Final Closed-in Pressure	921 P.S.I.			
H Final Hydrostatic Mud	1715 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: 6 Inc.		Breakdown: 11 Inc.		Breakdown: 6 Inc.		Breakdown: 10 Inc.	
of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	75	0	213	0	240	0	313
P 2 5	81	3	764	5	249	3	779
P 3 10	114	6	842	10	264	6	849
P 4 15	144	9	870	15	279	9	873
P 5 20	171	12	888	20	291	12	885
P 6 25	195	15	900	25	301	15	896
P 7 30	213	18	906	30	313	18	903
P 8		21	915			21	909
P 9		24	917			24	912
P10		27	921			27	918
P11		30	927			30	921
P12		33	930				
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

COMPANY Davies-Fitzgerald LEASE AND WELL NO. #1 Barngrover SEC. 35 TWP. 27S RGE. 24W TEST NO. 2 DATE 8-30



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1751	1766	PSI
(B)	First Initial Flow Pressure	75	75	PSI
(C)	First Final Flow Pressure	210	213	PSI
(D)	Initial Closed-in Pressure	918	930	PSI
(E)	Second Initial Flow Pressure	240	240	PSI
(F)	Second Final Flow Pressure	301	313	PSI
(G)	Final Closed-in Pressure	888	921	PSI
(H)	Final Hydrostatic Mud	1721	1715	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas

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

Company Davies - Fitzgerald Lease & Well No. Barngrover #1

Elevation 2522 Kelly Bushings Formation ~~Marmaton~~ Effective Pay Ft. Ticket No. 17791

Date 9-4-73 Sec. 35 Twp. 27S Range 24W County Ford State Kansas

Test Approved by Benny C. Singleton Jr. Western Representative Charles W. Wedgewood

Formation Test No. 3 O.K. X Misrun Interval Tested From 4878' to 4900' Total Depth 4900'

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

Packer Depth 4873 Ft. Size 6 3/4" Packer Depth 4878 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 22 Ft. Size 5 1/2" O.D.

RECORDERS Depth 4892 Ft. Clock No. 8378 Depth 4895 Ft. Clock No. 4964

Top Make Kuster Cap 6200 No. 1562 Inside ~~Outside~~ Bottom Make Kuster Cap 6000 No. 1560 ~~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 9:43 AM

Tool Open I.F.P. From 9:46 M. to 10:16A M. Hr. 30 Min. From (B) 135 P.S.I. To (C) 364 P.S.I.

Tool Closed I.C.I.P. From 10:16 M. to 10:46A M. Hr. 30 Min. (D) 761 P.S.I.

Tool Open F.F.P. From 10:46 M. to 11:16A M. Hr. 30 Min. From (E) 415 P.S.I. To (F) 520 P.S.I.

Tool Closed F.C.I.P. From 11:16 M. to 11:46A M. Hr. 30 Min. (G) 767 P.S.I.

Initial Hydrostatic Pressure (A) 2528 P.S.I. Final Hydrostatic Pressure (H) 2513 P.S.I.

SURFACE INFORMATION	Size Choke 1/4 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. 2820 Gas in pipe - 120 feet gas cut muddy salt water scum of oil - 1080 feet salt water

Reversed Out X Yes No Mud Type Starch Viscosity 46 Weight 9.6 Water Loss 12 cc. Maximum Temp. 116 °F

Type Circ. Sub. Pin Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 4425 ft. I.D. Drill Pipe 3.80 in. Length Weight Pipe 434 ft. I.D. Weight Pipe 2.70 in. Length Drill Collars ft.

I.D. Drill Collars in. Length D.S.T. Tool 41 ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 9-4-73 Test Ticket No. 17791

Recorder No. 1562 Capacity 6200 Location 4892 Ft.

Clock No. 8378 Elevation 2522 Kelly Bushings Well Temperature 116 °F

Point	Pressure	
A Initial Hydrostatic Mud	2528	P.S.I.
B First Initial Flow Pressure	135	P.S.I.
C First Final Flow Pressure	364	P.S.I.
D Initial Closed-in Pressure	761	P.S.I.
E Second Initial Flow Pressure	415	P.S.I.
F Second Final Flow Pressure	520	P.S.I.
G Final Closed-in Pressure	767	P.S.I.
H Final Hydrostatic Mud	2513	P.S.I.

	Time Given	Time Computed
Open Tool	9:43 A. M	
First Flow Pressure	30 Mins.	32 Mins.
Initial Closed-in Pressure	30 Mins.	30 Mins.
Second Flow Pressure	30 Mins.	30 Mins.
Final Closed-in Pressure	30 Mins.	33 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 2 Min.

Point Mins.	Press.
P 1 0	135
P 2 5	162
P 3 10	219
P 4 15	255
P 5 20	294
P 6 25	325
P 7 30	349
P 8 32	364
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	364
3	517
6	602
9	650
12	683
15	701
18	716
21	734
24	743
27	752
30	761

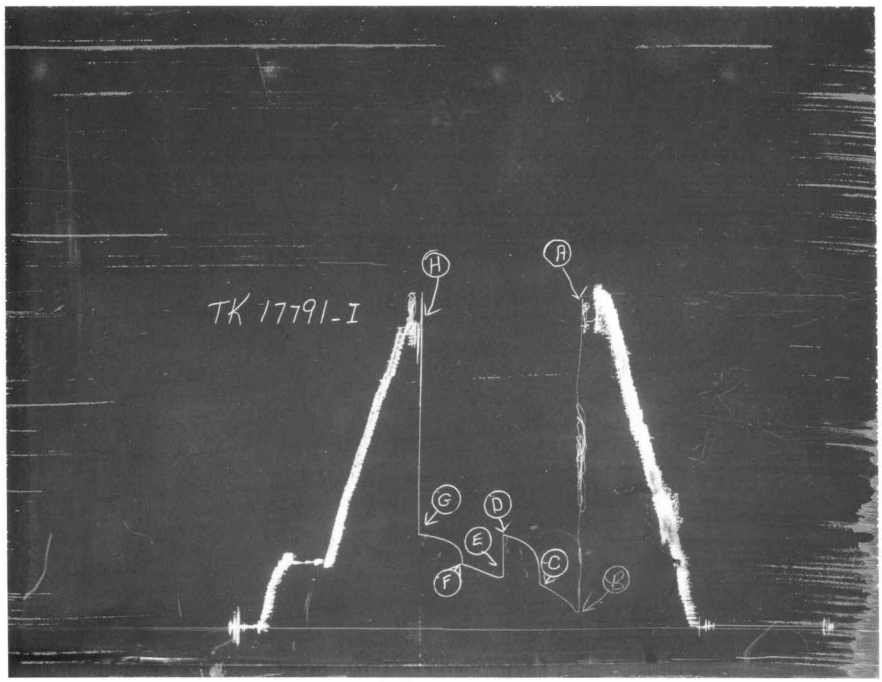
Second Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	415
5	421
10	439
15	457
20	481
25	499
30	520

Final Shut-In
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	520
3	632
6	668
9	692
12	707
15	719
18	728
21	740
24	746
27	752
30	758
33	767

COMPANY Davies-Fitzgerald LEASE AND WELL NO. Barngrover #1 SEC. 35 TWP. 27S RGE. 24W TEST NO. 3 DATE 9-4



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2547	2528	PSI
(B)	First Initial Flow Pressure	135	135	PSI
(C)	First Final Flow Pressure	376	364	PSI
(D)	Initial Closed-in Pressure	767	761	PSI
(E)	Second Initial Flow Pressure	436	415	PSI
(F)	Second Final Flow Pressure	511	520	PSI
(G)	Final Closed-in Pressure	767	767	PSI
(H)	Final Hydrostatic Mud	2454	2513	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas

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

Company Davies - Fitzgerald Lease & Well No. Barngrover #1

Elevation 2522 Kelly Bushings Formation Mississippian Effective Pay Ft. Ticket No. 17792

Date 9-6-73 Sec. 35 Twp. 27S Range 24W County Ford State Kansas

Test Approved by Benny C. Singleton Jr. Western Representative Charles W. Wedgewood

Formation Test No. 4 O.K. X Misrun Interval Tested From 5053' to 5091' Total Depth 5091'

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

Packer Depth 5048 Ft. Size 6 3/4" Packer Depth 5053 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 5083 Ft. Clock No. 8378 Depth 5086 Ft. Clock No. 4964

Top Make Kuster Cap 6200 No. 1562 Inside Outside Bottom Make Kuster Cap 6000 No. 1560 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 3:39 AM

Tool Open I.F.P. From 3:42 M. to 4:12A.M. Hr. 30 Min. From (B) 69 P.S.I. To (C) 81 P.S.I.

Tool Closed I.C.I.P. From 4:12 M. to 4:42A.M. Hr. 30 Min. (D) 1306 P.S.I.

Tool Open F.F.P. From 4:42 M. to 5:42A.M. 1 Hr. Min. From (E) 48 P.S.I. To (F) 54 P.S.I.

Tool Closed F.C.I.P. From 5:42 M. to 6:42A.M. 1 Hr. Min. (G) 1442 P.S.I.

Initial Hydrostatic Pressure (A) 2772 P.S.I. Final Hydrostatic Pressure (H) 2599 P.S.I.

SURFACE INFORMATION	Size Choke 3/4 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
	See attached sheet		M.	
			M.	

BLOW Strong Bottom Choke Size 3/4 In.

Did Well Flow X Yes No Recovery Total Ft. 55 feet mud

Reversed Out Yes X No Mud Type Starch Viscosity 49 Weight 9.9 Water Loss 11.2 cc. Maximum Temp. 121 °F

Type Circ. Sub. Pin Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 4600 ft. I.D. Drill Pipe 3.80 in. Length Weight Pipe 434 ft. I.D. Weight Pipe 2.70 in. Length Drill Collars ft.

I.D. Drill Collars in. Length D.S.T. Tool 57 ft.

Remarks

WESTERN TESTERS

P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Davies-Fitzgerald LEASE & WELL NO. Barngrover #1

TEST NO. 4 INTERVAL TESTED FROM 5053' TO 5091'

TIME PRE-FLOW	MAX PRESS. P.S.I.	DESCRIPTION OF FLOW
8:42 A.M.	Tool open	
4:12	Tool closed for initial shut-in pressure	

SECOND FLOW

4:42 A.M.	Tool open for 2nd flow pressure				
4:46	"	1 1/4" merla	orifice	gauged	87,000 C.F.P.D.
4:54	"	3/4"	"	"	37,400 "
5:04	"	"	"	"	31,600 "
5:14	"	"	"	"	31,600 "
5:24	"	"	"	"	31,600 "
5:34	"	"	"	"	31,600 "
5:40	"	"	"	"	31,600 "

SIZE CHOKE SURFACE 3/4 IN. BOTTOM IN. 3/4

REMARKS

FORM NO. WTC-6

WESTERN TESTING CO., INC.
Pressure Data

Date 9-6-73 Test Ticket No. 17792

Recorder No. 1562 Capacity 6200 Location 5083 Ft.

Clock No. 8378 Elevation 2522 Kelly Bushings Well Temperature 121 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2772	P.S.I.
B	First Initial Flow Pressure	69	P.S.I.
C	First Final Flow Pressure	81	P.S.I.
D	Initial Closed-in Pressure	1306	P.S.I.
E	Second Initial Flow Pressure	48	P.S.I.
F	Second Final Flow Pressure	54	P.S.I.
G	Final Closed-in Pressure	1442	P.S.I.
H	Final Hydrostatic Mud	2599	P.S.I.

	Time Given	Time Computed
Open Tool	3:39 A.M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	30 Mins.	33 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	60 Mins.	64 Mins.

PRESSURE BREAKDOWN

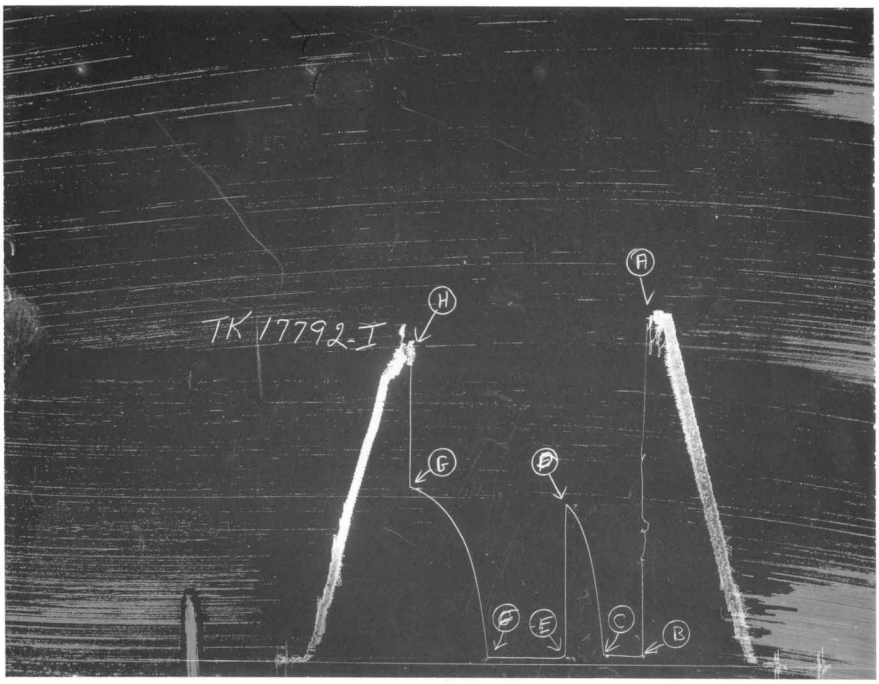
First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 11 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: 21 Inc.
of 3 mins. and a
final inc. of 1 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	69	0	81	0	48	0	54
P 2 5	69	3	276	5	48	3	198
P 3 10	70	6	490	10	49	6	373
P 4 15	72	9	692	15	49	9	538
P 5 20	75	12	839	20	50	12	671
P 6 25	78	15	960	25	50	15	788
P 7 30	81	18	1051	30	51	18	885
P 8		21	1136	35	51	21	954
P 9		24	1193	40	52	24	1024
P10 Field readings on flow		27	1245	45	52	27	1078
P11 pressures-false-due to		30	1281	50	53	30	1127
P12 error in reading slide		33	1306	55	53	33	1178
P13 rule				60	54	36	1221
P14						39	1257
P15						42	1290
P16						45	1321
P17						48	1348
P18						51	1369
P19						54	1387
P20						57	1406
						60	1269
						63	1433
						64	1442



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2809	2772	PSI
(B)	First Initial Flow Pressure	752	69	PSI
(C)	First Final Flow Pressure	752	81	PSI
(D)	Initial Closed-in Pressure	1312	1306	PSI
(E)	Second Initial Flow Pressure	602	48	PSI
(F)	Second Final Flow Pressure	602	54	PSI
(G)	Final Closed-in Pressure	1433	1442	PSI
(H)	Final Hydrostatic Mud	2578	2599	PSI

COMPANY Davies-Fitzgerald LEASE AND WELL NO. Barngrover #1 SEC. 35 TWP. 27S RGE. 24W TEST NO. 4 DATE 9-6